Agenda Item 2

TO: **Planning Commission**

FROM: **Warren Frace, Community Development Director**

SUBJECT: **Marriott Residence Inn – Planned Development (PD 15-005) including a Height Exception, Conditional Use Permit (CUP 15-020), Oak Tree Removal (OTR 16-002), and Draft Mitigated Negative Declaration (MND) – 2940 Union Road, Applicant: Paso Highway Hotel Partners, LP, APN 025-362-004**

DATE: **April 12, 2016**

Needs: For the Planning Commission to consider making a recommendation to the City Council to adopt a Mitigated Negative Declaration (MND), and approve Planned Development (PD 15-005) including a Height Exception, Conditional Use Permit (CUP 15-020), and an Oak Tree Removal (OTR 16-002) for a proposed Marriott Residence Inn located at 2940 Union Road.

Facts:

1. The applicant, Paso Highway Hotel Partners, LP, proposes to construct a 4-story, 119-room extended-stay hotel with ancillary services and site amenities. The project site is located at 2940 Union Road. The property is located at the intersection of State Route 46 East and Union Road. See Attachment 1, Vicinity Map.

2. The property is designated in the General Plan, Land Use Element as Commercial Service (CS), and it is zoned Commercial/Light Industrial - Planned Development (C3-PD). Hotels are a permitted land use in the C3-PD zoning district, and this use is consistent with the intent of the CS land use designation of the General Plan.

3. Per Section 21.13.030 (F)(2) of the City Zoning Code, the project site is located in an area where special conditions apply to site development of this property. All land uses in this specific area are subject to approval of a Conditional Use Permit, and unique site development criteria to ensure future uses do not result in negative impacts to neighboring residential properties. This issue is discussed in detail in the analysis section below.

4. The project site is located in the City's Airport Land Use Plan, Airport Safety Zone 4, which permits hotels subject to specific density limitations.

5. The maximum building height in the C3 zone is 50 feet. The proposed building would exceed the height limit, up to 63.5 feet in height, for certain roofline features. The applicant is requesting an exception to the strict application of the height standards, as provided in the Planned Development Overlay (Section 21.16A.010), based on specific findings discussed in the analysis section below. An

exception to the established height limit standard must be approved by the City Council.

6. In compliance with the California Environmental Quality Act (CEQA), an environmental analysis and MND was prepared for this project. The environmental analysis, which is supported with several special studies, indicates that the project may result in environmental impacts related to: (1) aesthetics; (2) biological resources; (3) traffic; (4) air quality; (5) greenhouse gas emissions; and (6) noise. Mitigation measures are proposed to reduce potential impacts, and a draft MND has been prepared for consideration. See Attachment 10, Initial Study/MND.

7. The Development Review Committee (DRC) reviewed the site plan, grading, and elevations for this project on February 8, 2016. The DRC recommended approval of the project to the Planning Commission, including the request to exceed the 50-foot height limit.

8. The City is currently working with CalTrans on a Project Study Report (PSR) to develop an interchange bridge crossing of Union Road over SR 46E. As shown on the Site Plan in Attachment 2, the eastbound alignment of Union Road is planned to extend through the southern portion of the project site to provide connection to the interchange. As part of the CUP, the project is conditioned to dedicate this right-of-way for this future improvement.

Analysis and Conclusion:

Project Design

The proposed Marriott Extended-Stay Residence Inn is intended to provide lodging services geared towards guests that wish to stay for an extended period of time. In accordance with the City's Municipal Code, under transient occupancy regulations, guests may stay up to 30 continuous days.

The proposed hotel includes 119 guest rooms, breakfast dining area, and other customary services and amenities. An outdoor pool, terraces and barbeque are proposed on the west side of the site. The entrance canopy is oriented toward the arrival plaza on Union Road. The entrance is accessible from northern and eastern entry driveways on Union Road. The first floor of the hotel includes common areas intended for hotel guests. In order to comply with airport land use restrictions, a condition of approval is included with the CUP to ensure use of the common areas do not exceed density limitations, and that the internal floor plans are not modified to enable future change of use for these areas.

The proposed hotel is designed with contemporary Mediterranean architecture. It incorporates building articulation through varying rooflines, recessed portions of the building façade, rustic wood shade trellises, ornamental wrought iron railing, exposed rafter beams, stone veneer, bronze details, and mission tile roofing materials. See Building Elevations, Attachment 3.

The surrounding area consists of rural development to the east (including Barney Schwartz Park), south and west, and a mini-storage development to the northwest. The project is proposed on a parcel with an existing residence and dog boarding facility, which would be removed prior to development of the proposed hotel.

In compliance with the City parking standards, the site plan includes 132 parking spaces, and a minimum of four (4) bike parking spaces. The number of parking spaces meets the requirement of providing one space per guest room and enough parking spaces for employees on the highest employee shift (8 spaces). See Site Plan, Attachment 2.

The City's adopted Gateway Design Standards, as well as policies in the General Plan, Conservation Element pertaining to Visual Resources (Policy C-5A and Figure C-3), recognize the importance of the project area as a key gateway entrance to the City. The intent of these policies is to ensure that, "…development is designed to make a positive visual impression and incorporate/preserve natural features". Union Road is designated as a Gateway and a Scenic View Corridor.

Gateway Design Standards

The Gateway Design Standards provide guidance on site design to help new development fit in the landscape and context of its surroundings to support a positive visual impression of gateways to the City. Toward this end, the site is designed so that the entrance is oriented toward the front of the site on Union Road, the building footprint is adjacent to the right-of-way, and the majority of parking is proposed along the side and rear area of the site with landscaping features, so that they are less visible. The development footprint is oriented north to south on the site, and it is proposed to be surrounded by landscaping and trees to help buffer the building massing. Therefore, the project design can be considered consistent with the criteria in the Gateway Design Standards.

The site is visually prominent from west bound traffic on SR 46E and along Union Road. As noted in the Initial Study, the positioning of the building along the site will not impact the long view of the rural landscape beyond from Union Road since it would not extend up the slope, but will remain at a lower elevation.

Future Interchange

The southern portion of the property is proposed to be used for storage of excess grading spoils moved during site grading. No other use is proposed for this area of the site. As shown on the grading plans, the applicant has proposed to provide undulating mounds of dirt stock piled in this area. It is understood that this area of the site may be needed for future interchange improvements and Union Road alignment, however, those improvements may not occur for decades. Therefore, staff recommends the Commission require the applicant to provide a more finished, unified design and require the site to be graded into a gently sloping hillside (with a maximum slope of 4:1) and hydro-seeded with native grasses and wildflower seeds for erosion control and to help this area blend in with the surroundings. See Attachment 4, Grading and Site Sections.

Landscaping

The site landscaping plan incorporates a drought resistant plant palate, including oak trees, olive trees, and ornamental trees such as Italian Cypress and Chinese Pistache. The landscape plan includes landscaping along the property frontage on Union Road and on the eastern property line. This area also includes a decorative retaining wall along the eastern property line which would be seven feet in height at the property corner at Union Road (adjacent to an existing 50-foot wide access driveway), and would taper down to two feet in height at the south end of the development area.

The site stormwater retention basin is proposed to be located in front of the entrance to the site within the existing right-of-way at the corner. This appears to be a beneficial use of this area since this is excess right-of-way from a historic realignment that will be landscaped and maintained by the hotel. This landscape drainage area will also highlight the beauty of the existing oak tree as a focal point in the front of the project, with native meadow grasses and lavender fields adjacent to Union Road. See Site & Landscape Plan, Attachment 2.

Height Exception

As noted above, this project includes a request to exceed the height limit. The C3 zoning district building height standard is 50 feet. The proposed building elevations include sections of rooflines at 55 feet, with the entrance element proposed to be 63.5 feet in height. Since the property is zoned C3 with a Planned Development Overlay, per Chapter 21.16 A of the City Zoning Ordinance, flexibility may be requested on applying certain development standards, such as building height if specific “findings” can be made. The applicant has provided a written request and justification to exceed the height limit (see Attachment 5). The justification request letter notes that the taller elements provide variation and architectural interest in the design. It also suggests that the proposed taller elements help balance the proportions of the building, and that the added height helps with visibility of the hotel since in some places the terrain blocks the view from surrounding roads. Exceeding the height limit in this area would not block views of other properties or impose on the privacy of adjacent properties. The proposed building height would also not conflict with Airport Safety Zone 4 height limitation. The Commission would need to make a recommendation to the City Council that by that allowing the project to exceed the height limitation that it would, "…result in a better design or greater public benefit". Specific Zoning Code criteria from the Planned Development Overlay Chapter to consider include the following:

> *Encourage establishment of specific building heights for an individual planned development project where it is determined that allowing the buildings to exceed the height limitations of the zoning ordinance would be appropriate based on due consideration of:*
>
> 1. *The proportion, scale, and nature of the project;*
> 2. *The visual quality and aesthetics of the project;*
> 3. *The design of the project;*
> 4. *The project's compatibility with the established character of surrounding development;*
> 5. *The project's ability to not create an adverse visual impact or otherwise have a negative effect on public views from nearby roads and other public vantage points; and*
> 6. *The project's risk to fire life-safety when considering building safety features and emergency response capability.*

The proposed height appears appropriate with the scale and nature of the project, as it helps the building design provide more unique architecture and articulated rooflines. This also assists with the visual quality and aesthetics of the project. Additionally, the architectural quality provides variation is facades, fenestration and rooflines. Since most properties in the near vicinity are vacant or under developed to the C3 development potential, there is little for the project to conflict with, and would likely set the standard for future quality of design and development. According the City Fire Chief, the City's emergency response personnel and equipment are capable of responding to a potential fire risk of a four-story building. Therefore, the proposed project could be considered consistent with the criteria outlined above.

Zoning Special Overlay Requirements

As noted in the "Facts" section above, the project site is located in an area where special conditions apply to site development. Specifically, Section 21.13.030 (F)(1)(a & b), requires that properties that abut residentially-zoned land are required to construct a solid, decorative masonry wall, six to eight feet in height, and to install thick landscaping 10 feet wide. The intension of this requirement is to screen new development from surrounding residential land uses. In this case, the project site directly abuts a 50-foot wide driveway access for properties located to the south of the site. Property located to the east of the access driveway is zoned residential and is included in the Chandler Ranch Specific Plan (CRASP) area. However, this property is also under the Airport Overlay district, which in accordance with the General Plan Land Use Element, specifically prohibits residential development. Therefore, the Land Use Element negates the potential for a future residential land use conflict, and the need install a masonry barrier in this location. Construction of a wall along the project boundary would appear visually obstructive on top of a seven-foot tall retaining wall. A landscape buffer is proposed along the eastern property line, with numerous trees and landscape materials. With the airport land use restriction noted above, future development of the CRASP could only include non-residential zoning and development of that property. Therefore, staff recommends the proposed landscape transition be allowed in-lieu of the wall requirement.

Oak Tree Removal

The application includes a request to remove an existing Valley Oak tree located on the project site. An arborist report was prepared for the project (provided in the Initial Study, Attachment 10), which indicates that the tree has a diameter of 11 inches, and is rated 4 on a scale of 1 through 10, with "10" being in the best condition. This tree is located within the development footprint of the proposed building. As noted in the arborist report, the tree is not in good health, and there are no options to maintain it with the proposed project building footprint. If the tree is permitted to be removed, the applicant would be required to comply with the City's Oak Tree Protection Ordinance, and install compensatory oak tree replacements or pay into the City oak tree replacement in-lieu fund.

Traffic and Circulation

The project site is accessed from Union Road. A Traffic Impact Study was prepared for this project, which is included in the Initial Study, Attachment 10. The traffic study evaluated existing traffic conditions and traffic impacts from traffic that would be generated from the project on the surrounding circulation network, including the intersections of: (1) SR 46E & Golden Hill Road; (2) SR 46E and Union Road; (3) Union Road & Union Road; and (4) Union Road & Golden Hill Road. The study also evaluated cumulative impacts to these facilities with other development approved and in progress, as well as site access, and alternative transportation. The report also evaluated the project in relation to City and County standards and policies.

The traffic study indicates that the existing traffic, in addition to project-generated traffic, would not exceed adopted standards and thresholds for existing service capacity on surrounding intersections or state highway operations. However, the project would exceed adopted thresholds for the northbound approach to SR 46E plus near term condition at the Union Road interchange. The MND (and PD conditions of approval) include a mitigation measure (TR-3), requiring the prohibition of northbound left turns at the intersection.

The City's Circulation Element identifies the realignment of Union Road in conjunction with an interchange bridge over SR 46E. This realignment would require a right-of-way dedication over the southern portion of the property. While not required as an environmental mitigation requirement, the project is conditioned under the request for a Conditional Use Permit entitlement to provide an offer of dedication for future right-of-way needs for the interchange improvements in order to facilitate orderly growth and development. The applicant will also be required to pay their fair share of traffic impacts with Traffic Impact Fees. (See Site Plan, Attachment 2 for the future road re-alignment superimposed onto the project site.)

<u>Water Resources</u>

As noted in the Initial Study, the proposed project would be connected to the City's municipal water supply system. The City's municipal water supply is composed of three separate sources:

- groundwater from the Paso Robles Groundwater Basin;
- an allocation of the Salinas River underflow; and
- a surface water allocation from the Nacimiento Lake pipeline project.

The site is designed to reduce impervious surfaces where possible and to direct surface drainage to onsite retention systems to facilitate groundwater recharge. The City established a groundwater stewardship policy to not expand dependency on the Paso Robles Groundwater Basin over historic use levels/pumping from the City's peak year of 2007. The City augmented water supply and treatment capacity by procuring surface water from Lake Nacimiento and construction of delivery facilities to the City. This project will not affect the amount of groundwater that the City withdraws from the Paso Robles Groundwater Basin.

Additionally, the City assigns "duty" factors that anticipate the amount of water supply necessary to serve various types of land uses. These factors are derived from determining the average water demands for each zoning district in the City. In this circumstance, the water supply necessary for development of commercial land uses permitted in the C3 Zone includes hotels, as well as other uses, is incorporated into the water demand assumptions of the adopted 2010 Urban Water Management Plan (UWMP).

Hotel water use is no greater than the assumed commercial/light industrial uses included in the C3 zoning district. As noted above, the City has augmented future reliance on groundwater resources to surface water resources, and commercial development has been accounted for in the overall water projections and demand for the City. Since the City's water supply, as documented in the UWMP, is not reliant on increased groundwater pumping for new development, it demonstrates adequate water supply to accommodate the projected growth in the City and it demonstrates that this project will have adequate water supply available, and will not further deplete or in any way affect, change or increase water demands on the basin.

<u>**Airport Land Use Plan**</u>

The project site is located within the Airport Land Use Planning Area, within Airport Safety Zone 4. Hotels are permitted within Zone 4, however, density restrictions apply. As discussed in the Initial Study prepared for this project, the project complies with the requirements and would not exceed 40 persons per gross acre, or a maximum of 120 persons per single acre, at any time. The maximum number of persons calculated per single would be up to 219 persons, which is below the maximum allowed of 308 persons. In order to ensure the project does not exceed these limitations, the project has been conditioned to not allow modifications to the floor plans for common areas and restrict use of those areas to hotel guests only.

<u>**Economic Strategy**</u>

Consistent with the City's Economic Strategy, the project advances tourism and employment goals of the Economic Strategy to, "*Improve quality of place to attract investment and knowledge workers stimulate investment by establishing distinctive, quality, stable, safe and sustainable physical improvements and attractions that welcome industry, commerce, tourism, employment, and wealth necessary to maintain and enhance quality of life.*"

Policy Reference: Paso Robles General Plan, Economic Strategy, Zoning Ordinance, Gateway Design Standards, CEQA Guidelines, Airport Land Use Plan, 2010 Urban Water Management Plan, City Economic Strategy.

Fiscal Impact: Expansion of hotel and lodging accommodations is identified in the City's Economic Strategy. Hotels have been determined to have a net positive fiscal impact on the City's revenues due to receipt of transient occupancy taxes.

Options: After opening the public hearing and taking public testimony, the Planning Commission is requested to take one of the actions listed below:

a. By separate motions:

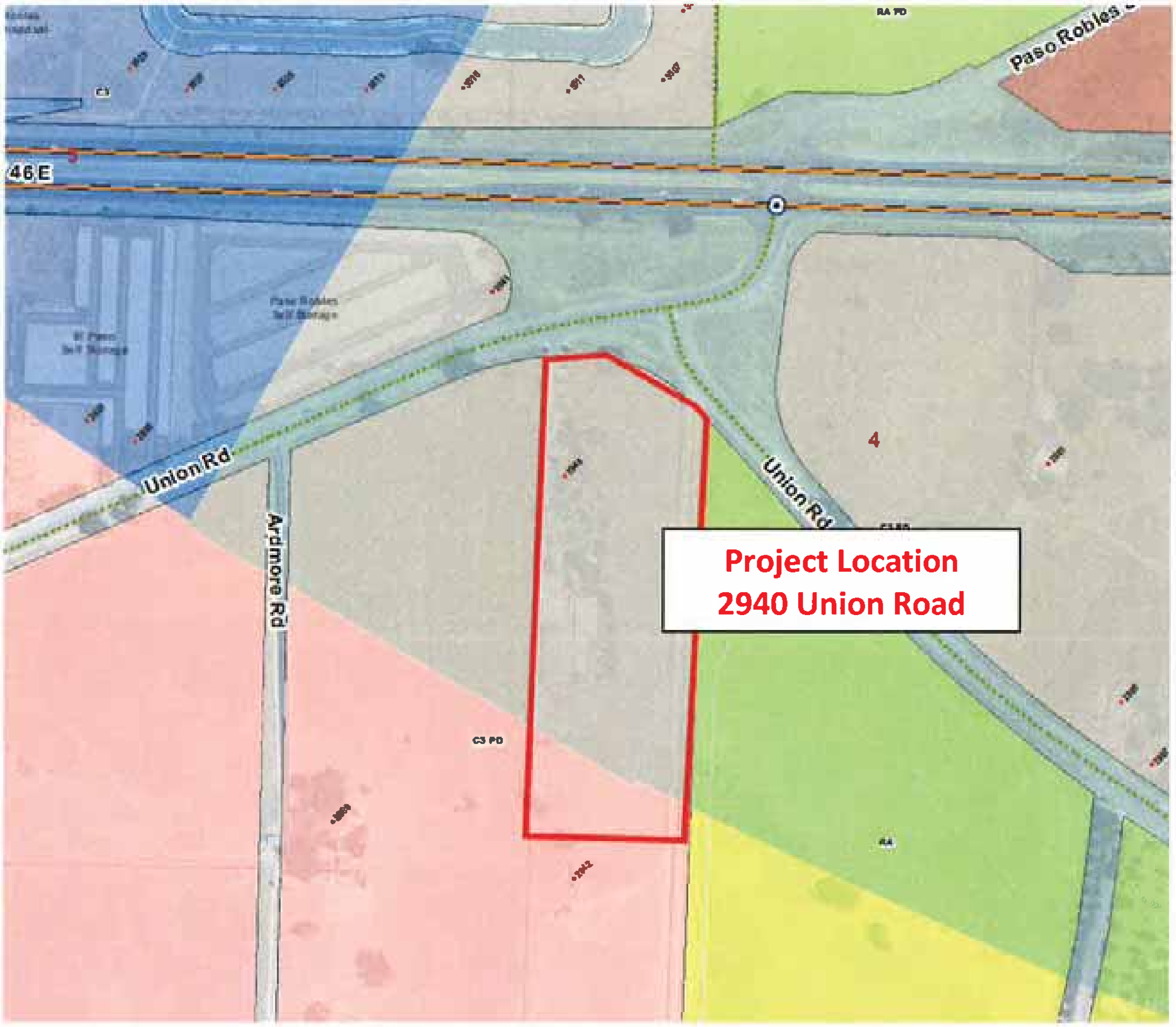
(1) Approve Draft Resolution A, recommending the City Council adopt a Mitigated Negative Declaration for PD 15-005, Conditional Use Permit 15-020, and Oak Tree Removal 16-002;

(2) Approve Draft Resolution B, recommending the City Council approve Planned Development 15-005 including a height exception, Conditional Use Permit 15-020, and Oak Tree Removal 16-002;

b. Amend the above-listed action.
c. Refer this item back to staff or the DRC for additional analysis.
d. Recommend denial of either Draft Resolution A or B based on specific findings.

Attachments:

1 – Vicinity Map
2 – Site Plan & Landscape Plan
3 – Building Elevations and Floor Plans
4 – Grading and Site Sections
5 – Height Justification Letter from the Applicant
6 - Memorandum from the City Engineer
7 – Draft Resolution A, Recommending Adoption of a Draft Mitigated Negative Declaration
8 – Draft Resolution B, Recommending Approval of Planned Development 15-005 with a height exception, Conditional Use Permit 15-020, and Oak Tree Removal 16-002
9 – Notice Affidavits
10 - Initial Study/Mitigated Negative Declaration



Attachment 1
Vicinity Map

1 Site Plan / Context 1"=50'-0"

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

September 08, 2015

2940 Union Road, Paso Robles, California 93446 Preliminary Concept Design: Review Submittal A100

jones | ballard architects

Attachment 2
Site Plan & Landscape Plan

Preliminary Total Landscape Area - Approximately 65,357 square feet

Estimated Total Water Use is 70% of Maximum Applied Water Allowed (Paso Robles Water Efficient Landscape Ordinance).
Estimated Total Water Use is 294,158 gallon/year less than Maximum Applied Water Allowed.

GENERAL WATER CONSERVATION NOTES

Planting and irrigation shall be designed to conserve water the following factors have been incorporated to aid in the success of the project landscape

1) Irrigation system to be a fully automatic sytem utilizing low precipitation spray heads and/or drip irrigation Irrigation hydrozones shall be separated with control valves and controller stations into appropriate and compatible zones All valves shall have pressure regulators and filters

2) Plant materials proposed are selected for their compatibility to climatic and site conditions and for drought tolerance

3) All planter beds shall be mulched with a 2" minimum layer of organic mulch throughout

4) Mowed lawn has not been used to reduce irrigation demands

Preliminary Plant Materials List

Large Trees
Platanus racemosa — California Sycamore
Quercus agrifolia — California Live Oak

Medium Trees
Canopy:
Pistache chinensis — Chinese Pistache
Olea europa (fruitless) — Fruitless Olive

Narrow:
Acer platanoides — Norway Maple Tree
Cupressus sempervirens — Italian Cypress
Pyrus calleryana/Bradford — Ornamental Pear
Fraxinus oxycarpa 'Raywood' — Raywood Ash Tree

Small Flowering Trees
Lagerstroemia indica — Crape Myrtle
Chitalpa tashkentensis — Chitalpa
Chilopsis linearis — Desert Willow

Small Patio Trees
Photinia fraseri — (no common name)
Raphiolepis Indica 'Majestic Beauty' — India Hawthorn
Cotinus coggyria — Smoke Tree

Screen/Buffer Shrubs 4'-5'
Abelia grandiflora — Glossy Abelia
Berberis thunbergia — Barberry
Ceanothus 'Blue Jean — California Lilac
Rosmarinus 'Tuscan Blue' Rosemary

Mediteranean Garden: Building Environments / Pool Area
Hermocallis spp — Daylily
Lavandula dentata — French Lavender
Perovskia atriplicifolia — Russian Sage
Muhlenbergia rigens — Deer Grass
Stipa tenuissima — Mexican Feather Grass

Parking & Frontage Road Shrubs & Groundcovers 2'-4'
Berberis 'Cherry Bomb' — Barberry
Buxus japonica — Boxwood
Hemerocallis hybrid — Day Lily
Muhlenbergia rigens — Deer Grass
Rosa spp — Carpet Rose
Rosmarinus officinalis — Creeping Rosemary

Lavender Fields
Lavendula dentate — French Lavender

Slopes & Natural Area Transition
Bachharis Pulliaris 'Twin Peaks'
Carpenter Californica
Rhamnus Californica
Stipa tennuisssma

Native Meadow / Stormwater Basin
Muhlenbergia rigens — Deer Grass
Stipa tenuissima — Mexican Feather Grass

Cobblestone

Mulch
Mulch all ground cover and planter areas with 2" minimum layer 'walk-on' bark
Areas adjacent to building entries may receive decorative gravel mulch for accent

firma landscape architects

Conceptual Landscape Plan
Residence Inn by Marriott
Paso Robles, CA

Scale: 1" = 20'-0"
10 5 0 20 30 40

North

L-1

September 8, 2015

1 Site Plan / Ground Floor Plan / Program 1"=30'-0"

Flr	Flr to Flr Height	[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	Parking Provided			
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99,500 (GFA including phantom floor on 2nd level)

* All Studio Suites are Gen9 Prototype modified to 2013 CBC

** 1 & 2 Bedroom Suites are Gen9 Prototypes modified to 2013 CBC

[illegible]	[illegible]		[illegible]		[illegible]	[illegible]				
	Area	%	Area	%	[illegible]	[illegible]	%	[illegible]	%	[illegible]
[illegible]	31,050	13.3%	39,250	16.8%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* [illegible]

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

September 08, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal** **A201**

Jones | Ballard Architects

1 Site Plan / Second Floor Guestroom Plan 1"=30'-0"

1 Site Plan / Typical Guestroom Floor Plan (3&4) 1"=30'-0"

1 Site Plan / Roof Plan

View from Northeast Arrival

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

jones | ballard

September 04, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal** **A001**

2 East Building Elevation 1/16" = 1'-0"

Northeast / Arrival

1 Northeast Building Elevation 1/16" = 1'-0"

KEY NOTES

1. ROOF SCUPPER
2. CONTROL JOINT
3. PREFINISHED ALUMINUM WINDOWS BRONZE
4. PREFINISHED METAL LOUVERS AT DRYER VENTS
5. EXTERIOR WALL SCONCE BRONZE
6. ALUMINUM DOOR/WINDOW STOREFRONT IN PAINTED STEEL FRAME BRONZE
7. INSULATED HOLLOW METAL DOOR AND FRAME
8. ENTRANCE CANOPY
9. METAL RAILING
10. INTERNALLY ILLUMINATED BUILDING SIGNAGE
11. REMOTELY-ILLUMINATED MONUMENT SIGNAGE
12. WOOD / METAL TRELLIS ON PRECAST CONCRETE COLUMNS
13. UP-LIT "LANTERN" FEATURE IN-DIRECTLY ILLUMINATED CEILING "GLOWS"

FINISH NOTES

P1	CEMENT PLASTER COLOR: FRAZEE MEXICAN TEA CL2883D
P2	CEMENT PLASTER COLOR: FRAZEE JACK-IN-THE-PULPIT CL2885A
P3	CEMENT PLASTER / PRECAST COLOR NATURAL
M1	ALUMINUM FRAMED WINDOWS COLOR "BRONZE"
M2	PREFINISHED METAL COLOR "MEDIUM BRONZE"
M3	PREFINISHED METAL COLOR "SAGE" OR SIMILAR
S1	MANUFACTURED STONE TILE MONTECITO CLIFFSTONE MANUFACTURED BY EL DORADO
S2	STONE TILE "NATURAL LIMESTONE" COLOR "INCA GOLD"/ "JURA GREY"
S3	STONE TILE COLOR "RUSTIC GOLD SLATE"
W1	WOOD COLOR DARK MAHOGANY CLEAR STAIN
W2	WOOD SITE FURNITURE COLOR IPE-NATURAL
W3	WOOD ACCENT COLOR-TBD
C1	CONCRETE COLOR "NATURAL WHITE"
C2	CONCRETE BLOCK COLOR "NATURAL GREY"
C3	CONCRETE BLOCK: COLOR "SPLIT-FACE DARK GREY"
R1	MISSION TILE ROOF 3-COLOR RANDOM BLEND - RUSTIC
R2	STANDING SEAM METAL ROOF COLOR-SEE MATERIAL BOARD (OPT PATINA COPPER)

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Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

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2 West Building Elevation, (Topography at the West Property Line shown in the foreground) 1/16" = 1'-0"

NOTE: SLOPE DEPICTED ON THESE DRAWINGS IS A GRAPHIC APPROXIMATION. REFERENCE CIVIL DRAWINGS FOR PRECISE TOPOGRAPHY

1 West Building Elevation 1/16" = 1'-0"

KEY NOTES

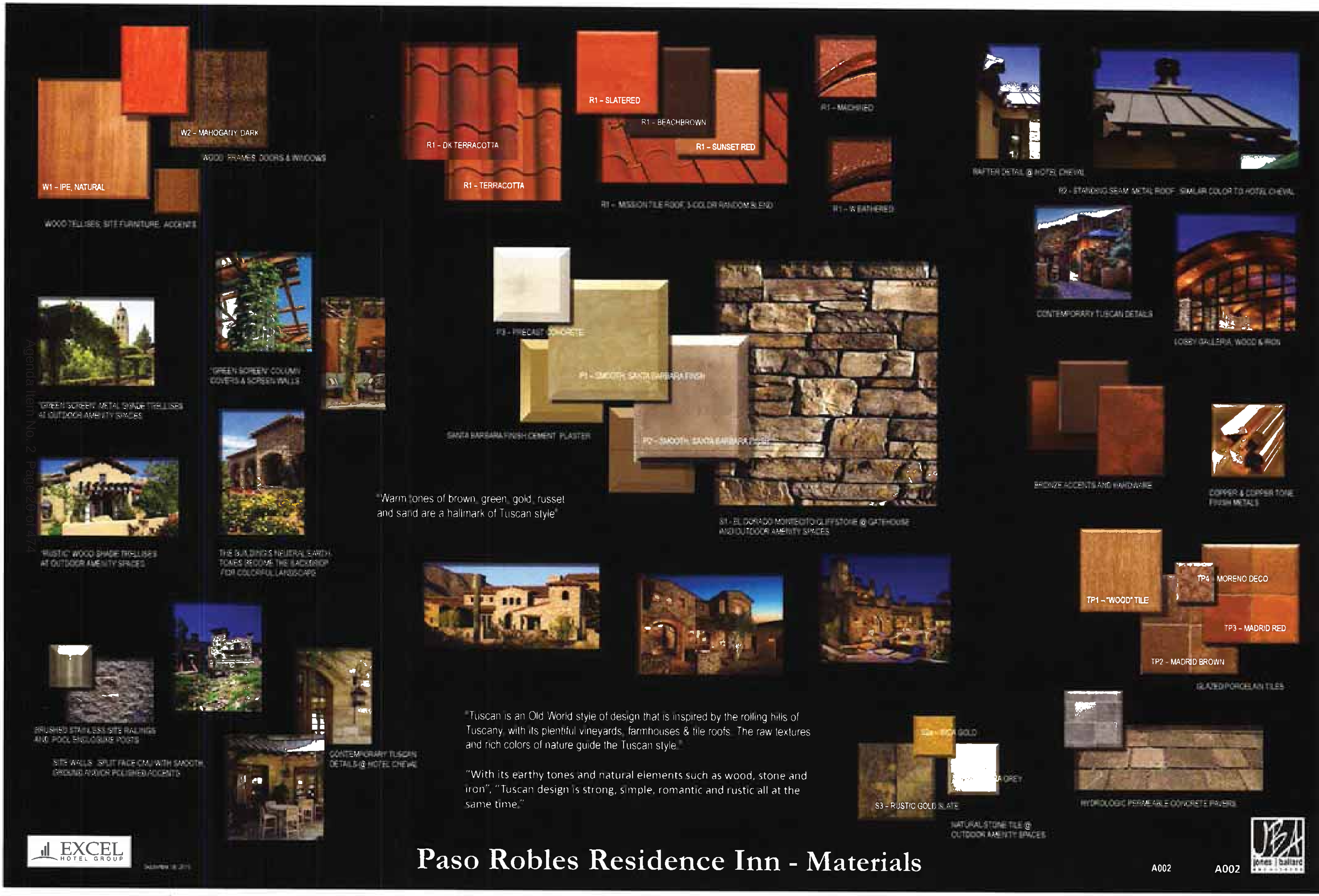
1 ROOF SCUPPER
2 CONTROL JOINT
3 PREFINISHED ALUMINUM WINDOWS BRONZE
4 PREFINISHED METAL LOUVERS AT DRYER VENTS
5 EXTERIOR WALL SCONCE BRONZE
6 ALUMINUM DOOR/WINDOW STOREFRONT IN PAINTED STEEL FRAME BRONZE
7 ~~INSULATED HOLLOW METAL DOOR~~ AND FRAME
8 ENTRANCE CANOPY
9 METAL RAILING
10 ~~INTERNALLY ILLUMINATED BUILDING~~ SIGNAGE
11 REMOTELY-ILLUMINATED MONUMENT SIGNAGE
12 ~~WOOD / METAL TRELLIS ON PRECAST~~ CONCRETE COLUMNS
13 UP LIT "LANTERN" FEATURE IN-DIRECTLY ILLUMINATED CEILING "GLOWS"

FINISH NOTES

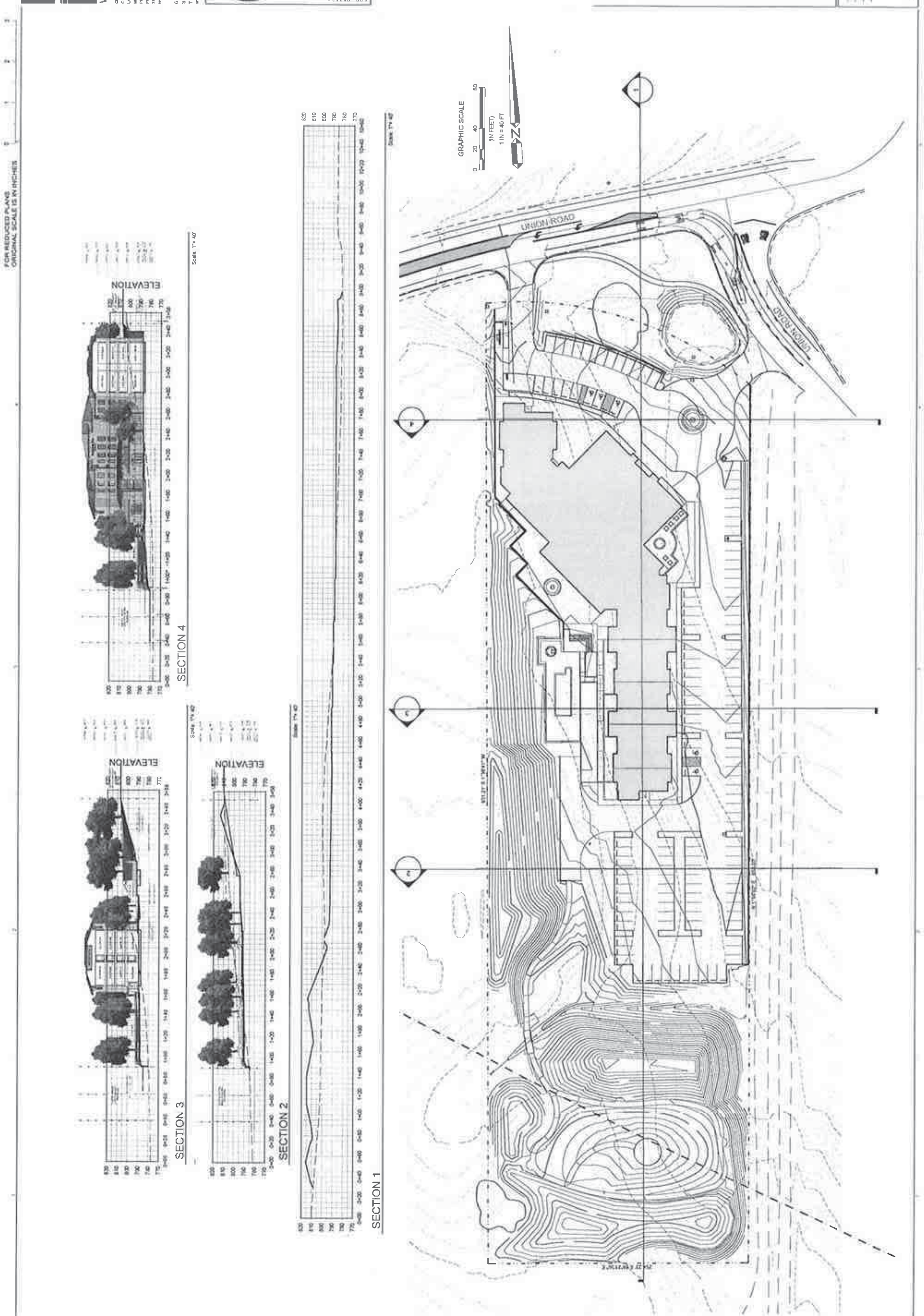
P1 CEMENT PLASTER COLOR - FRAZEE MEXICAN TEA CL2983D
P2 CEMENT PLASTER COLOR -FRAZEE JACK IN-THE PULPIT CL2885A
~~P3 CEMENT PLASTER PRECAST~~ COLOR NATURAL
M1 ALUMINUM FRAMED WINDOWS COLOR "BRONZE"
M2 PREFINISHED METAL COLOR "MEDIUM BRONZE"
M3 PREFINISHED METAL COLOR "SAGE" OR SIMILAR

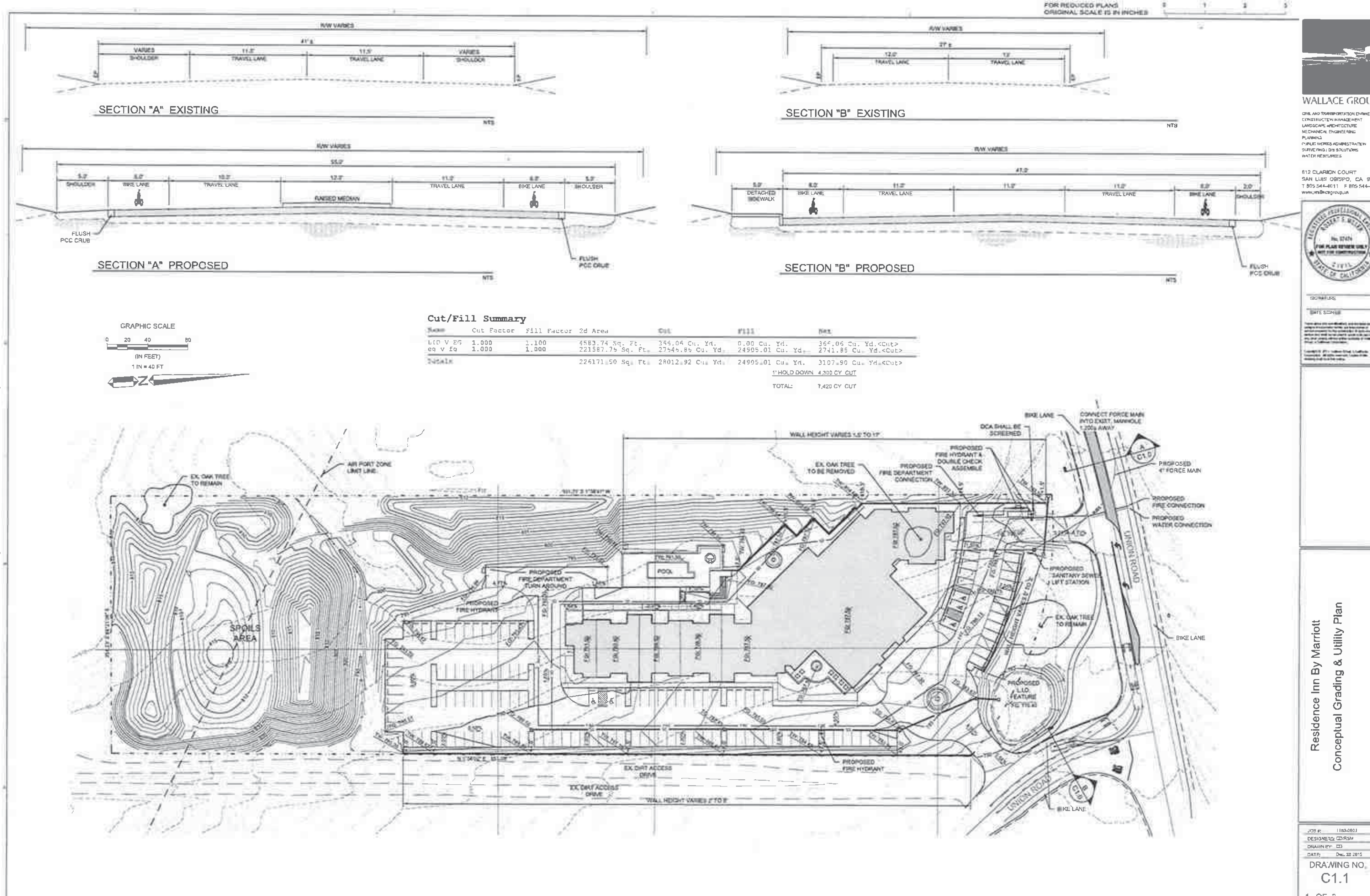
S1 MANUFACTURED STONE TILE MONTECITO CLIFFSTONE MANUFACTURED BY EL DORADO
S2 STONE TILE "NATURAL LIMESTONE" COLOR "INCA GOLD"/ "JURA GREY"
S3 STONE TILE COLOR "RUSTIC GOLD SLATE"
W1 WOOD COLOR-DARK MAHOGANY CLEAR STAIN
W2 WOOD SITE FURNITURE COLOR IPE NATURAL
~~W3 WOOD ACCENT COLOR TBD~~

C1 CONCRETE COLOR "NATURAL WHITE"
C2 CONCRETE BLOCK COLOR "NATURAL GREY"
C3 CONCRETE BLOCK COLOR "SPLIT-FACE DARK GREY"
R1 MISSION TILE ROOF 3-COLOR RANDOM BLEND - RUSTIC
~~R2 STANDING SEAM METAL ROOF~~ COLOR-SEE MATERIAL BOARD (OPT. PATINA COPPER)


W2 – MAHOGANY DARK
WOOD FRAMES, DOORS & WINDOWS
W1 – IPE, NATURAL
WOOD TELLISES, SITE FURNITURE, ACCENTS
R1 – DK TERRACOTTA
R1 – TERRACOTTA
R1 – SLATERED
R1 – BEACHBROWN
R1 – SUNSET RED
R1 – MISSION TILE ROOF, 3-COLOR RANDOM BLEND
R1 – MACHINED
R1 – WEATHERED
RAFTER DETAIL @ HOTEL CHEVAL
R2 – STANDING SEAM METAL ROOF, SIMILAR COLOR TO HOTEL CHEVAL
CONTEMPORARY TUSCAN DETAILS
LOBBY GALLERIA, WOOD & IRON
"GREEN SCREEN" COLUMN COVERS & SCREEN WALLS
"GREEN SCREEN" METAL SHADE TRELLISES AT OUTDOOR AMENITY SPACES
P3 – PRECAST CONCRETE
P1 – SMOOTH, SANTA BARBARA FINISH
SANTA BARBARA FINISH CEMENT PLASTER
P2 – SMOOTH, SANTA BARBARA FINISH
S1 – EL DORADO MONTECITO CLIFFSTONE @ GATEHOUSE AND OUTDOOR AMENITY SPACES
BRONZE ACCENTS AND HARDWARE
COPPER & COPPER TONE FINISH METALS
"Warm tones of brown, green, gold, russet and sand are a hallmark of Tuscan style"
"RUSTIC" WOOD SHADE TRELLISES AT OUTDOOR AMENITY SPACES
THE BUILDINGS NEUTRAL EARTH TONES BECOME THE BACKDROP FOR COLORFUL LANDSCAPE
TP1 – "WOOD" TILE
TP4 – MORENO DECO
TP3 – MADRID RED
TP2 – MADRID BROWN
GLAZED PORCELAIN TILES
BRUSHED STAINLESS SITE RAILINGS AND POOL ENCLOSURE POSTS
SITE WALLS: SPLIT FACE CMU WITH SMOOTH GROUND AND/OR POLISHED ACCENTS
CONTEMPORARY TUSCAN DETAILS @ HOTEL CHEVAL
"Tuscan is an Old World style of design that is inspired by the rolling hills of Tuscany, with its plentiful vineyards, farmhouses & tile roofs. The raw textures and rich colors of nature guide the Tuscan style."
"With its earthy tones and natural elements such as wood, stone and iron", "Tuscan design is strong, simple, romantic and rustic all at the same time."
S3 – RUSTIC GOLD SLATE
NATURAL STONE TILE @ OUTDOOR AMENITY SPACES
HYDROLOGIC PERMEABLE CONCRETE PAVERS
EXCEL HOTEL GROUP
Paso Robles Residence Inn - Materials
A002
A002
jones | ballard

Attachment 4
Grading and Site Sections





Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
LID V EG	1.000	1.100	4583.74 Sq. Ft.	366.06 Cu. Yd.	0.00 Cu. Yd.	366.06 Cu. Yd.<Cut>
eg v fg	1.000	1.000	221587.75 Sq. Ft.	27646.86 Cu. Yd.	24905.01 Cu. Yd.	2741.85 Cu. Yd.<Cut>
Totals			226171.50 Sq. Ft.	28012.92 Cu. Yd.	24905.01 Cu. Yd.	3107.90 Cu. Yd.<Cut>

1' HOLD DOWN 4,300 CY CUT

TOTAL: 7,420 CY CUT


WALLACE GROUP
612 CLARION COURT
SAN LUIS OBISPO, CA 93401
Conceptual Union Road Improvements
Residence Inn By Marriott
DRAWING NO.
C1.3
3 OF 3
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
STA "A" 128+00.00
END CONSTRUCTION (A)
END CONSTRUCTION
BIKE LANE
6" HIGH RAISED MEDIAN
BIKE LANE
BIKE LANE
6" HIGH RAISED MEDIAN
UNION ROAD
STA "A" 119+01.44
BEGIN WORK
GRAPHIC SCALE

Attachment 5
Height Justification Letter from the Applicant

jones | ballard
ARCHITECTS

Memorandum

April 01, 2016

To: Susan DeCarli, City Planner; City of Paso Robles

RE: Planned Development (PD 15-005 / CUP 15-020) - Residence Inn, Union Road, Paso Robles

Subject: Response providing justification for exceeding building height of 50'

In response to your question regarding the exceeding building height of 50', the following is our reasoning for exceeding the height limitation.

Due to the site's significant topography, the building's perceived height varies but averages approximately 45'. In order to break-down the massing and create a much more interesting and pleasing skyline we have incorporated specific design elements including: fourth floor setbacks, balconies, varied and separate roof elements as well as some iconic forms typical of the Tuscan style. These design elements will not only add architectural interest to the building, but we believe will compliment the regional character of Paso Robles. The highest point of the roof occurs over the central and most significant part of the building's focal identity. This higher portion of the building is also directly behind the lowest portion of the building which further breaks down the massing.

The Residence Inn design has three levels of hierarchy. The lowest level, or base, of the building mass relates to the pedestrian and is approximately 15' high. The next level rises to approximately 32' high, which includes the main body of the building. The uppermost level includes the fourth floor and all the varied roof forms which create the most significant opportunity to add regional interest and character, this level includes the highest roof peak at approximately 64'.

We believe this extra height allows enough variation in roof heights to create a pleasing skyline and provide a sense of depth and complexity to the building.

Thank you for your consideration and help!

Stephen Jones, Principal
Jones Ballard Architects

Attachment 6 Memorandum from the City Engineer

MEMORANDUM

TO: **Amanda Ross**

FROM: **John Falkenstien**

SUBJECT: **PD 15-005, Marriot, Union Road**

DATE: **February 9, 2016**

Traffic Study and Street Improvements

The Transportation Impact Analysis submitted by Central Coast Transportation Consulting is complete. The Circulation Element focuses on traffic calming in conjunction with safety for bikes and pedestrians. In order to mitigate the sight distance issue with the westerly driveway approach, the applicants propose to limit speed on east bound Union Road by reducing the lane width and posting advisory caution signs. They will also limit driveway conflicts by limiting the access to right turn egress only.

The report accurately states that the City controls access to arterial streets. There should be only one driveway point at the easterly Union Road access (not three consecutive adjacent driveways because there happens to be three adjacent narrow frontages). While it may make a better site plan to make use of the driveway on the adjacent property for a secondary access, there is no assurance of cooperation from the other property owners.

The report notes the need for a northbound bike lane at the Union Road – Union Road intersection. This has been added to the project materials (Section "B", Sheet C1.0) and is a recommended condition of approval.

The report also notes that operations of the intersection of Highway 46E and Union Road could benefit by the closure of the northbound to westbound left turning movement. We recommend that this be added as a condition of the project.

The City is in the environmental review process of an interchange at Highway 46E and Union Road. Right-of-way is needed to connect Union Road to the south end of the future bridge over the highway in accordance with the Project Study Report approved by Caltrans in 2015.

Drainage and Storm Water Quality

In accordance with Water Board mandates, the City has adopted a Storm Water Ordinance requiring all projects to implement low impact development best management practices to mitigate impacts to the quality of storm water run-off and to limit the increase in the rate and volume of storm water run-off to the maximum extent practical.

These new requirements will include on-site retention of stormwater. The applicant plans to meet these requirements with a combination of surface treatment areas and a bio-retention area. The bio-retention area is located in the public right-of-way fragment in southwest corner of the Union Road – Union Road intersection. This appears to be an attractive and productive use of this excess right-of-way as its maintenance will become the perpetual responsibility of the applicant.

The applicant has submitted a Stormwater Control Plan offering a site assessment of constraints and opportunities and corresponding storm water management strategies to meet stormwater quality treatment and retention requirements in compliance with the Ordinace.

Sewer and Water

There is no sanitary sewer directly available to the project. The nearest sewer line is in Union Road, roughly 1,100 feet west of the project property. The applicant will need to install a private sewer lift station and construct a pressurized sewer line to the point of connection to the public sewer.

The master plan of sewers for the area include the construction of a City sewer lift station along Union Road in the area of the Tennis Club. Gravity sewers would be extended from there. The force main would be constructed to the tie-in point in Union Road, 1,100 feet west of the project site. The Marriot Hotel project must ultimately participate in this area-wide sewer.

There is a 12-inch water main available to the project along the east side of the project and a 16-inch main available along the north side of the project.

The double check valve assembly on the fire line needs to be screened from public view. It is shown right up front along the westerly driveway.

Overhead Utilities

There are overhead power lines across the site. These lines will be required to be relocated underground with development of the site.

Conditions of Approval

Prior to occupancy, all overhead utilities adjacent to the property shall be relocated underground.

Prior to occupancy, the applicant shall enter into an agreement to participate and pay their fair share in an area-wide gravity sewer and lift-station project when available.

Prior to occupancy, the applicant shall improvement Union Road with curb, gutter, sidewalk and pavement widening, including a northbound bike lane, in accordance with plans approved by the City Engineer.

Prior to occupancy, the applicant shall provide plans and obtain an encroachment permit from Caltrans, and shall construct improvements to close the northbound to westbound left turning movement in the Highway 46E – Union Road intersection.

Prior to occupancy, the applicant shall enter into an agreement to perpetually maintain the stormwater control and retention area in the public right-of-way on Union Road adjacent to the site.

Prior to occupancy, the applicant shall dedicate right-of-way along the westerly and southerly boundaries of the property in accordance with the Caltrans approved Project Study Report for the Highway 46E – Union Road interchange and the Circulation Element of the General Plan.

Attachment 7

DRAFT RESOLUTION A

**A RESOLUTION OF THE PLANNING COMMISSION
OF THE CITY OF PASO ROBLES
RECOMMENDING THE CITY COUNCIL
ADOPT A MITIGATED NEGATIVE DECLARATION
AND MITIGATION MONITORING AND REPORTING PROGRAM FOR THE
MARRIOTT RESIDENCE INN (PD 15-005/CUP 15-020)
2930 UNION ROAD, APN: 025-362-004
APPLICANT – PASO HIGHWAY HOTEL PARTNERS, LP**

WHEREAS, an application for Planned Development 15-005 with a height exception, Conditional Use Permit 15-020, and an Oak Tree Removal OTR 16-002 has been filed by Paso Highway Hotel Partners, LP for a Marriott Residence Inn hotel with 119 rooms and ancillary site improvements; and

WHEREAS, Planned Development 15-005, Conditional Use Permit 15-020, and an Oak Tree Removal OTR 16-002 were filed for development of

WHEREAS, the project is consistent with the applicable policy and regulatory documents of the City, including the following:

- **General Plan Commercial Service (CS) land use designation –** the project would "*provide for highway-related, commercial services…*"; and

- **Zoning District of Commercial/Light Industrial – Planned Development (C3-PD) –** the project is a "*permitted*" use in the C3-PD District, and it can be shown to be consistent with the Planned Development provisions to allow a height limit exception, as determined through specific considerations and findings in Chapter 21.16A.070, and it is in compliance with applicable Zoning Code Standards for site development (e.g. setbacks, parking, etc.) and Special Overlay "F"; and

- **Airport Land Use Plan –** Table 6, Land Use Compatibility Matrix, Zone 4, Hotels and Motels, note 15; and

- **Gateway Design Standards –** the project is designed with the T2 design standards, including building orientation, setbacks, landscaping and fencing materials; and

- **Economic Strategy –** the project advances tourism and employment goals of the Economic Strategy to, "*Improve quality of place to attract investment and knowledge workers stimulate investment by establishing distinctive, quality, stable, safe and sustainable physical improvements and attractions that welcome industry, commerce, tourism, employment, and wealth necessary to maintain and enhance quality of life."*

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 March 11, 2016 and extended to May 3, 2016. No public comments were received on the MND prior to the Planning Commission meeting. A copy of the Draft MND/Initial Study is included in Exhibit A (Attachment 10 of the project staff report) of this Resolution, and it is on file at the Paso Robles Community Development Department; 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: aesthetics; air quality; traffic; biological resources, greenhouse gas emissions; and noise. With the implementation of this mitigation, all potential environmental effects will be reduced to a less than significant level. These mitigation measures are provided in Exhibit B, "Mitigation Monitoring and Reporting Program" attached to this Resolution; 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 listed in Exhibit B 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, a public hearing was conducted by the Planning Commission on April 12, 2016 to consider the Initial Study and the draft MND prepared for the proposed project, and to accept public testimony on the Planned Development, Conditional Use Permit, Oak Tree Removal, and environmental determination. At the close of this public hearing, the Planning Commission recommended adoption of the MND and approval of the proposed project to the City Council; and

WHEREAS, based on the information and analysis contained in the Initial Study prepared for this project and testimony received as a result of the public notice, the Planning Commission 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; and

WHEREAS, pursuant to CEQA the Planning Commission has independently reviewed the Initial Study, the Mitigated Negative Declaration, and all comments received regarding the Mitigated Negative Declaration, and based on the whole record before it 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, and the Mitigated Negative Declaration reflects the independent judgment and analysis of the Planning Commission.

NOW, THEREFORE, BE IT RESOLVED, the Planning Commission of the City of El Paso de Robles, based on its independent judgment and analysis, recommends the City Council adopt the Mitigated Negative Declaration for the Marriot Residence Inn Project, adopts a Mitigation Monitoring and Reporting Program, and imposes each mitigation measure as a condition of approval, in accordance with the Statutes and Guidelines of the California Environmental Quality Act (CEQA) and the City's Procedures for Implementing CEQA.

PASSED AND ADOPTED THIS 12th day of April, 2016, by the following roll call vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

BOB ROLLINS, CHAIRPERSON

ATTEST:

WARREN FRACE, SECRETARY OF THE PLANNING COMMISSION

Note: Exhibit A, Initial Study, is contained in Attachment 10 of the Planning Commission staff report.

Exhibit B

Mitigation Monitoring and Reporting Plan

Project File No./Name: PD 15-005, CUP 15-020, OTR 16-002 – The Residence Inn, Marriott (2940 Union Road)
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 PD 15-005/CUP 15-020 (Marriott Residence Inn)	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
AES – 1 The project shall be designed in accordance with the attached specific architectural features to ensure visual impacts are mitigated.	Project	CDD			Prior to issuance of building permits.
AQ-1 a. The following measures are recommended to minimize nuisance impacts associated with construction-generated fugitive dust emissions: 1. Reduce the amount of the disturbed area where possible; 2. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible; 3. All dirt stock pile areas should be sprayed daily as needed; 4. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;	Project, ongoing	CDD		Notes to be shown on grading plans and construction documents	Prior to site disturbance.

Mitigation Measure PD 15-005/CUP 15-020 (Marriott Residence Inn)	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
5. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established; 6. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD; 7. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used; 8. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site; 9. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114; 10. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site; 11. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible; 12. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition. b. The above mitigation measures shall be shown on grading and building plans.					
AQ-2 a. Implement Mitigation Measure AQ-1	Project	SLOAPCD CDD			Prior to issuance of permits for demolition of onsite structures.

Mitigation Measure PD 15-005/CUP 15-020 (Marriott Residence Inn)	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
b. Demolition of onsite structures shall comply with the National Emission Standards for Hazardous Air Emissions (NESHAP) requirements (NESHAP, 40 CFR, Part 61, Subpart M) for the demolition of existing structures. The SLOAPCD is delegated authority by the Environmental Protection Agency (EPA) to implement the Federal Asbestos NESHAP. Prior to demolition of onsite structures, the SLOAPCD shall be notified, per NESHAP requirements. SLOAPCD notification form and reporting requirements are included in Appendix A. Additional information may be obtained at website url: http://slocleanair.org/business/asbestos.php. c. Maintain all construction equipment in proper tune according to manufacturer's specifications; d. Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road); e. Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-road Regulation; f. Idling of all on and off-road diesel-fueled vehicles shall not be permitted when not in use. Signs shall be posted in the designated queuing areas and or job site to remind drivers and operators of the no idling limitation. g. Electrify equipment when possible; h. Substitute gasoline-powered in place of diesel-powered equipment, when available; and, i. Use alternatively fueled construction equipment on-site when available, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.					
BIO-1 To the maximum extent possible, site preparation, ground-disturbing, and construction activities should be conducted outside of the migratory bird breeding season. If such activities are required during this period, the applicant should retain a qualified biologist to conduct a nesting bird survey and verify that migratory	Project	Qualified Biologist CDD			Prior to issuance of grading permit

Mitigation Measure PD 15-005/CUP 15-020 (Marriott Residence Inn)	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
birds are not occupying the site. If nesting activity is detected the following measures should be implemented: a. The project should be modified or delayed as necessary to avoid direct take of identified nests, eggs, and/or young protected under the MBTA; b. The qualified biologist should determine an appropriate biological buffer zone around active nest sites. Construction activities within the established buffer zone will be prohibited until the young have fledged the nest and achieved independence; and, c. The qualified biologist should document all active nests and submit a letter report to the City documenting project compliance with the MBTA.					
BIO-2 Prior to construction, a qualified biologist should conduct a pre-activity survey to identify known or potential dens or sign of San Joaquin kit fox no less than 14 days and no more than 30 days prior to the beginning of the site preparation, ground-disturbing, or construction activities, or any other activity that has the potential to adversely affect the species. If a known or potential den or any other sign of the species is identified or detected within the project area, the biologist will contact USFWS and CDFW immediately. No work will commence or continue until such time that USFWS and CDFW determine that it is appropriate to proceed. Under no circumstances will a known or potential den be disturbed or destroyed without prior authorization from USFWS and CDFW. Within 7 days of survey completion, a report will be submitted to USFWS, CDFW, and the City. The report will include, at a minimum, survey dates, field personnel, field conditions, survey methodology, and survey results.	Project	Qualified Biologist CDD			Prior to issuance of grading permit
BIO-3 During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavation, steep-walled holes, or trenches in excess of 2 feet in depth should be covered at the close of each working day by plywood or similar materials, or provided	On-going	CDD			Prior to issuance of grading permit

Mitigation Measure PD 15-005/CUP 15-020 (Marriott Residence Inn)	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
with one or more escape ramps constructed of earth fill or wooden planks. Trenches should 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 or covered, they should be thoroughly inspected for entrapped kit fox. If any kit fox is found, work will stop and USFWS and CDFW will be contacted immediately to determine how to proceed.					
BIO-4 During the site disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of 4 inches or greater stored overnight at the project site should 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 any kit fox is found, work will stop and USFWS and CDFW will be contacted immediately to determine how to proceed.	On-going	CDD			Prior to issuance of grading permit
BIO-5 Prior to, during, and after the site disturbance and/or construction phase, use of pesticides or herbicides should be in compliance with all federal, state, and local 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.	On-going	CDD			Prior to issuance of grading permit
BIO-6 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 should 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 should immediately notify USFWS and CDFW by telephone. In addition, formal notification should be provided in writing within 3 working days of the finding of any such animal(s). Notification should include the date, time, location, and circumstances of the incident. Any threatened or endangered species found dead or injured should be turned over immediately to CDFW for care, analysis, or disposition.	On-going	CDD			Prior to issuance of grading permit

Mitigation Measure PD 15-005/CUP 15-020 (Marriott Residence Inn)	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
BIO-7 Prior to final inspection, should any long internal or perimeter fencing be proposed or installed, the City should do the following to provide for kit fox passage: a. If a wire strand/pole design is used, the lowest strand should be no closer to the ground than 12 inches. b. If a more solid wire mesh fence is used, 8 × 12-inch openings near the ground should be provided every 100 yards. Upon fence installation, the applicant should notify the City to verify proper installation. Any fencing constructed after issuance of a final permit should follow the above guidelines.	Project	CDD			Prior to issuing Certificate of Occupancy permit
BIO-8 Prior to site disturbance, the CRZ of all oak trees with a DBH of 6 inches or greater must be fenced to protect from construction activities. 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 (See Arborist Report for specific language required for signage). 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.	Project	Certified Arborist CDD			Prior to issuing grading permit
BIO-9 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. A Mandatory meeting between the	On-going	Certified Arborist CDD		Notes shown on construction documents.	Prior to issuing grading permit.

Mitigation Measure PD 15-005/CUP 15-020 (Marriott Residence Inn)	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
arborists and grading contractor(s) must take place prior to work start. During the site disturbance and/or construction phase, grading, cutting, or filling within 5 feet of a CRZ of all oak trees with a DBH of 6 inches or greater must be supervised by a certified arborist approved by the City. Such activities beyond 5 feet of a CRZ must be monitored to ensure that activities are in accordance with approved plans. Root pruning outside of the CRZ must be done by hand. 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.					
BIO-10 Oil, gasoline, chemicals, or other construction materials potentially harmful to oak trees may not be stored in the CRZ of any oak tree with a DBH of 6 inches or greater. 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.	On-going	CDD		Notes shown on construction documents.	Prior to issuing grading permit.
BIO-11 Drains shall be installed according to City specification so as to avoid harm by excessive watering to oak trees with a DBH of 6 inches or greater.	Project	CDD		Notes shown on construction documents.	Prior to issuing Certificate of Occupancy permit
BIO-12 Landscaping within the CRZ of any oak tree with a DBH of 6 inches or greater is limited to indigenous plant species or non-plant material, such as cobbles or wood chips. All landscape within the critical root zone shall consist of drought tolerant or native varieties. Lawns shall be avoided. All irrigation trenching shall be routed around critical root zones, otherwise above ground drip-irrigation shall be used.	Project	CDD		Notes shown on construction documents.	Prior to issuing Building Permit.
BIO-13 Wires, signs, or other similar items shall not be attached to oak trees with a DBH of 6 inches or greater.	On-going	CDD		Notes shown on construction documents.	Prior to issuing Building Permit.
BIO-14 For each oak tree removed (DBH of 6 inches or greater), a tree or trees of the same species must be planted with a combined DBH of 25% of the removed tree's DBH within the property's boundary.	Project	CDD			Prior to issuing Certificate of Occupancy permit
BIO-15 It is the responsibility of the owner or project manager to	Project	CDD			Prior to site disturbance, grading permit issued

Mitigation Measure PD 15-005/CUP 15-020 (Marriott Residence Inn)	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
provide a copy of the 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. Each contractor must sign and acknowledge this tree protection plan.					
BIO-16 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. 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.	On-going	Certified Arborist CDD		Shown on construction documents	Prior to issuance of grading permit
BIO-17 As the project moves toward completion, the arborist(s) may suggest either 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.	On-going	Certified Arborist CDD		Shown on construction documents	Prior to issuance of Certificate of Occupancy
BIO-18 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.	On-going	Certified Arborist CDD		Shown on construction documents	Prior to issuance of building permit
BIO-19 An arborist shall be present for selected activities (trees identified in Arborist Report and items bulleted below). The monitoring does not necessarily have to be continuous but observational at times during these activities. It is the responsibility of the owner(s) 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. ● pre-construction fence placement inspection	On-going	Certified Arborist CDD		Shown on construction documents	Prior to issuance of building permit

Mitigation Measure PD 15-005/CUP 15-020 (Marriott Residence Inn)	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
• all grading and trenching identified on the spreadsheet • any other encroachment the arborist feels necessary					
BIO-20 Pre-Construction Meeting: An on-site pre-construction meeting with the Arborist(s), Owner(s), Planning Staff, and the earth moving team 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.	Project	Certified Arborist CDD			Prior to issuance of Final Occupancy
GHG-1 Prior to occupancy permit being approved, the project shall complete a CAP consistency report and secure approval of the report from the City Planning Department and SLOAPCD. The consistency report shall provide record of compliance with the mandatory and any substituted measures in the City of Paso Robles CAP Consistency Worksheet (refer to Attachment 4).	Project	CDD			Prior to occupancy permit
HD-1 Prior to project construction the owner will provide (1) a commitment to execute any necessary agreements, and (2) a statement accepting responsibility for operation and maintenance of drainage facilities until that responsibility is formally transferred.	Project	CDD			Prior to issuance of grading permit.
HD-2 Maintenance items required for the bioretention basin: • Clean up. Remove any soil or debris blocking inlets or overflows. Remove any trash that collects in the facilities. • Vegetation maintenance. Prune or cut back plants for health and to ensure flow into inlets and across the surface of the facility. Remove and replant as necessary. • Weed control. Control weeds by manual methods and soil amendment where possible. In response to problem areas or threatening invasions, non-	On-going	CDD			Prior to issuance of certificate of occupancy

Mitigation Measure PD 15-005/CUP 15-020 (Marriott Residence Inn)	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
selective natural herbicides may be used. • Add mulch. Mulch may be added from time to time to maintain a mulch layer thickness of 1to 2 inches. Maintain the underlying soil surface layer beneath the overflow elevation. • Irrigation. Check irrigation, if any, to confirm it is adequate but not excessive. • Training for Landscape Maintenance. Landscape Maintenance Personnel will be informed of the following: o Do not add synthetic fertilizer to bioretention facilities. o Do not apply fertilizer when rain is forecast in the next 48 hours. o Do not use synthetic pesticides on bioretention facilities.					
HD-3 The following maintenance items are required for the Contech CDS®: • Inspect the unit at regular intervals: twice a year at a minimum. • Open both manhole access covers. One cover will allow for the inspection and cleanout of the separation chamber and isolated sump. The other cover allows for inspection and cleanout of sediment captured and retained outside the screen. • Sediment shall be cleaned when the level has reached 75% of the capacity. • Clean during dry weather conditions. • The use of a vacuum truck is generally the most effective ad convenient method of removing pollutants from the system. o Insert the vacuum hose into the sump. o The system should be completely drained down. o The sump should be fully evacuated of sediment. o The area outside the screen should also be cleaned out if pollutant build-up exists in this area. o Clean the system immediately in the event of an oil or gasoline spill. • Secure the lids when cleaning and maintenance	On-going	CDD			Prior to issuance of certificate of occupancy

Mitigation Measure PD 15-005/CUP 15-020 (Marriott Residence Inn)	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
are completed.					
NO-1 Unless otherwise provided for in a validly issued permit or approval, noise-generating construction activities should be limited to the hours of 7:00am and 7:00pm. Noise-generating construction activities should not occur on Sundays or City holidays	On-going	CDD			
NO-2 Construction equipment should be properly maintained and equipped with noise-reduction intake and exhausted mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds should be closed during equipment operation.	On-going	CDD			
TR-1 The project will be required to pay traffic mitigation fees to offset to offset its impacts to the citywide transportation network.	Project	CDD			Prior to certificate of occupancy
TR-2 The applicant will implement employee transportation demand measures to reduce traffic congestion, such as providing information on regional rideshare programs, bike racks, well as provide shuttle service to the multi-modal transportation center and downtown for residents and guests.	Project	CDD			Prior to certificate of occupancy
TR-3 The applicant will work with CalTrans to prohibit northbound left turns on the northbound approach to State Route 46E/Union Road to improve operations at this intersection by reducing turning conflicts.	Project	CDD			Prior to certificate of occupancy
TR-4 The project will be required to participate in the SLO Car Free program with SLO County APCD	Project	CDD			Prior to certificate of occupancy

(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.

12 of 12 - Page intentionally left blank

DRAFT RESOLUTION B

A RESOLUTION OF
THE PLANNING COMMISSION OF THE CITY OF EL PASO DE ROBLES
RECOMMENDING APPROVAL OF PLANNED DEVELOPMENT 15-005 (WITH HEIGHT EXCEPTION), CONDITIONAL USE PERMIT 15-020, AND OAK TREE REMOVAL 16-002
2940 UNION ROAD, APN 025-362-004
APPLICANT – PASO HIGHWAY HOTEL PARTNERS, LP
MARRIOTT RESIDENCE INN

WHEREAS, Planned Development 15-005, Conditional Use Permit 15-020, and Oak Tree Removal 16-002 applications have been filed by Paso Highway Hotel Partners, LP for development of a Marriott Residence Inn hotel with 119 rooms and ancillary site improvements; and

WHEREAS, the City's Zoning Code Section 21.16A.070 requires the Planning Commission in approving a project in the Planned Development Overlay Zone, make the following findings:

(a) the project will not adversely affect the policies, spirit and intent of the general plan, applicable specific plans, the zoning code and all other adopted codes, policies and plans of the city;

(b) the proposed project maintains and enhances significant natural resources on the site;

(c) the proposed project is designed to be sensitive to, and blend in with, the character of the site and surround area, and would not have an adverse effect on the public views from nearby roads and other public vantage points;

(d) the proposed project's design and density of the developed portion of the site is compatible with the established character and scale of surrounding development and would not be a disharmonious or disruptive element to the neighborhood;

(e) the development would be consistent with the purpose and intent of the City's Zoning Ordinance and would not be contrary to the public health, safety, and welfare; and

(f) for projects that are seeking an increase in allowable building heights, the proportion, scale, and nature of the project is such that the modifications would not create an adverse visual impact nor compromise the safety of occupants; and

WHEREAS, the City's Zoning Code Section 21.23 regarding Conditional Use Permits, establishes the purpose, findings, and ability to impose "conditions of approval" to grant approval of Conditional Use Permits, as provided below:

Purpose. *Each land use district has its principally permitted uses but other uses may or may not be compatible with their environs depending upon the circumstances of the individual case. The use permit allows such other uses to be reviewed and adequately controlled or prohibited to assure that any area will assume or retain the characteristics intended by zoning.*

Findings for granting any request. In order to grant any request the findings of the Planning Commission or the Zoning Administrator shall be that the establishment, maintenance or operation of the requested use of building applied for will not, under the circumstances of the particular case, be detrimental to the health, safety, morals, comfort, convenience, and general welfare of the persons residing or working in the *neighborhood of such proposed use, or be injurious or detrimental to property and improvements in the neighborhood or to the general welfare of the city.*

<u>Conditions</u>. The Planning Commission or Zoning Administrator may impose such conditions on any application as is necessary to secure the purpose of this title and may require guarantees and evidence that such conditions are being or will be complied with.

WHEREAS, the City's Oak Tree Preservation Ordinance (Ordinance No. 835 N.S.) establishes factors to consider for requests to remove healthy oak trees, and compensatory mitigation, should oak trees be approved for removal, which includes the following:

1. *The condition of the oak tree with respect to its general health, status as a public nuisance, danger of falling, proximity to existing or proposed structures, interference with utility services, and its status as host for a plant, pest or disease endangering other species of trees or plants with infection or infestation;*

   The 11-inch oak tree proposed for removal has a marginal condition of health (e.g. It is rated a "4" out of "10", as documented in the project Arborist Report)

2. *The necessity of the requested action to allow construction of improvements or otherwise allow reasonable use of the property for the purpose for which it has been zoned. In this context, it shall be the burden of the person seeking the permit to demonstrate to the satisfaction of the director that there are no reasonable alternatives to the proposed design and use of the property. Every reasonable effort shall be made to avoid impacting oak trees, including but not limited to use of custom building design and incurring extraordinary costs to save oak trees;*

   The location of the 11-inch oak tree is located in the central area of the site, which limits reasonable alternatives for site design.

3. *The topography of land, and the potential effect of the requested tree removal on soil retention, water retention, and diversion or increased flow of surface waters. The director shall consider how either the preservation or removal of the oak tree(s) would relate to grading and drainage. Except as specifically authorized by the planning commission and city council, ravines, stream beds and other natural watercourses that provide a habitat for oak trees shall not be disturbed:*

   There are no water features, soil conditions or drainage patterns on the site that would be disrupted by the removal of the 11-inch oak tree.

4. *The number, species, size and location of existing trees in the area and the effect of the requested action on shade areas, air pollution, historic values, scenic beauty and the general welfare of the city as a whole;*

   The quality of the oak tree proposed for removal is marginal, and does not provide significant scenic value to the general welfare of the City.

5. *Good forestry practices such as, but not limited to, the number of healthy trees the subject parcel of land will support.*

   The other existing oak trees located on the site will be preserved with development of the property. The landscape plan includes planting oak tree replacements on the site.

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 was prepared for the project; and

WHEREAS, based on the information and analysis contained in the Initial Study, staff determined that the proposed project as designed, and with appropriate mitigation measures added as conditions of approval, will not result in significant environmental impacts, and a Mitigated Negative Declaration was prepared and circulated for public review and comment in full compliance with CEQA; and

WHEREAS, a duly noticed public hearing was conducted by the Planning Commission on April 12, 2016 on this project to accept public testimony on the Mitigated Negative Declaration and the project; and

WHEREAS, at the conclusion of the April 12, 2016 Planning Commission meeting, the Commission recommended that the City Council adopt the Mitigated Negative Declaration, and approve Planned Development 15-005, Conditional Use Permit 15-020, and Oak Tree Removal 16-002; and

WHEREAS, any oak tree removals requested to accommodate the proposed development site plan shall be approved by the City Council at a future meeting, with oak tree replacements established in compliance with the City's Oak Tree Preservation Ordinance; and

WHEREAS, based upon the facts and analysis presented in the staff report and the attachments thereto, the public testimony received, and subject to the Conditions of Approval listed below, the Planning Commission makes the following findings:

1) Pursuant to Zoning Code Section 21.16A.070, in approving a project in the Planned Development Overlay Zone, the Planning Commission finds:

    a) The project will not adversely affect the policies, spirit and intent of the general plan, applicable specific plans, the zoning code and all other adopted codes, policies and plans of the city. In particular, because the project is:

        i) consistent with the General Plan land use designation of Commercial Service (CS) and Zoning of Commercial/Light Industrial-Planned Development (C3-PD).

        ii) consistent with Gateway Design Standards in that it includes landscaping and frontage improvements, and locates the majority of parking on the side and to the rear of the site. The project also incorporates articulated building facades and rooflines.

        iii) consistent with the following General Plan Land Use and Conservation Element goals, policies, and action items:

            (1) POLICY LU-2B: Visual Identity. Promote architectural and design excellence by imposing stringent design and construction standards for commercial, industrial, mixed-use, and multi-family projects. In particular, the project meets this policy because it includes a Mediterranean architectural building design that incorporates use of authentic materials that express excellence in the overall design theme, and is consistent with local architectural themes in Paso Robles and the region.

            (2) POLICY LU-2D: Neighborhoods. Strive to maintain and create livable, vibrant neighborhoods and districts with: Attractive streetscapes, a pedestrian friendly setting, coordinated site design, architecture, and amenities, adequate public and private spaces; and, recognizable and high quality design aesthetic. In particular, the project meets this policy because the project Site Plan and Landscape Plan both incorporate a well-designed streetscape along Union Road to provide an attractive City entrance, utilizing a range of drought-resistant plant materials with differing colors, textures, and blooming seasons. The project incorporates sidewalks, walkways, the bike lane, bike parking facilities to

ensure this project is pedestrian- and bike-friendly. The Site Plan incorporates attractive entry features with the front entrance plaza, rear patio area and site flatwork and landscaping. The project also incorporates high-quality architectural design and materials.

(3) Action Item 1. Provide bikeways, pedestrian paths, and transit turn-outs/stops as requirements of development applications. The project also meets this action item as it will be including bicycling and bikeway enhancements.

(4) Action Item 3. Strive to recruit new industry as part of on-going efforts to create a balanced community where the majority of residents can live, work, shop and play, thereby reducing the commute lengths for some City residents. The project would meet this action item by expanding the City's inventory of transient lodging, which supports local employment, and increased tourism.

(5) GOAL C-5: Visual Resources. Enhance/upgrade the City's appearance - Action Item 2. Coordinated/Complementary Design Standards: Establish and implement site design, landscaping, architecture, and sign design standards in order to ensure that gateways, corridors, major arterials, and natural areas are identifiable. The project will meet this goal as it incorporates authentic, quality building materials in the Mediterranean architectural design, and will present well-articulated elevations toward the adjacent public right-of-ways and views. The site is well designed with outdoor use areas that take advantage of the solar orientation of the site and natural landscape.

iv) consistent with the Zoning Code, since the hotel project is a permitted use in the C3-PD Zoning District. The project complies with all applicable development standards, including setbacks, parking, and landscaping. The application includes a request for an exception to exceed the 50-foot height limit and demonstrates that the project would result in a better design and greater public benefit, and that the criteria established in Section 21.16A.010 have been considered.

a. The project maintains and enhances significant natural resources on the site. The project does this by being compatible with existing scenic and environmental resources such as hillsides, oak trees, vistas, etc. Further, the project will be consistent with the City's Oak Tree Ordinance requiring oak tree replacements for the proposed removal. The project also incorporates the large, "heritage" oak tree on the site as a focal point in the project design.

b. The proposed project is designed to be sensitive to, and blend in with, the character of the site and surrounding area, and would not have an adverse effect on the public views from nearby roads and other public vantage points. The quality of architectural design and materials will help establish the threshold of design quality for surrounding vacant and/or under developed properties.

c. The proposed project's design and density of the developed portion of the site is compatible with the established character and scale of surrounding development in the vicinity and would not be a disharmonious or disruptive element to the neighborhood.

d. The development would be consistent with the purpose and intent of the City's Zoning Ordinance and would not be contrary to the public health, safety, and welfare. In particular, the project is fully consistent with the zoning designation for the site. Further, the project complies with all requirements of the Zoning Code, and it would not be contrary to the public health, safety and welfare. Further, all potentially significant environmental effects will be reduced to a less than significant level with the incorporation of mitigation into the project. Further, the project will add to public safety and welfare by incorporating traffic calming improvements, an improved site frontage, bicycling and bikeway enhancements, and eliminating the westbound turning movement from Union Road onto SR 46E.

e. With regard to the requested building height exception, the proportion, scale, and nature of the project is such that the modifications would not create an adverse visual impact nor compromise the safety of occupants. In particular, the proposed project will have varying building heights in some portions of the roofline (between 55 to 63.5 feet in height). This variation in building height would create interesting design and variation and overall appear to balance the building scale and massing. Finally, granting the exception would not create any adverse visual impacts as articulated in the Mitigated Negative Declaration prepared for the project.

v. The proposed Planned Development and Conditional Use Permit would contribute to the orderly development of the City as a whole since the project would use existing and improved infrastructure for water, sewer and other utilities

vi. The proposed Planned Development and Conditional Use Permit for the Marriott Residence Inn project is consistent with, and supports implementation of the Economic Strategy by providing local and regional tourism and employment opportunities within the City of Paso Robles.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission of the City of El Paso de Robles does hereby recommend approval of Planned Development 15-005 with height exception, Conditional Use Permit 15-020, and Oak Tree Removal 16-002 to the City Council, subject to the following conditions:

STANDARD CONDITIONS:

1. This project shall comply with the checked standard Conditions of Approval, attached hereto as Exhibit "A" and incorporated herein by reference.

SITE SPECIFIC CONDITIONS:

NOTE: In the event of conflict or duplication between standard and site-specific conditions, the site-specific condition shall supersede the standard condition.

Planning Division Conditions:

2. The project 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:

EXHIBITS	**DESCRIPTION**
A	Standard Conditions of Approval
B	Site Plan
C	Landscape Plan
D (1-3)	Elevations
E	Color and Materials
F (1-4)	Floor Plans

G (1-3) Preliminary Grading Plan

3. The project shall be designed and constructed to be in substantial conformance with the site plan, landscape plan, elevations, floor plans, colors and materials, and preliminary grading plan approved with this resolution.

4. Approval of this project is valid for a period of two (2) years from date of approval. Unless permits have been issued and site work has begun, the approval of Planned Development 15-005, Conditional Use Permit 15-020 and Oak Tree Removal 16-002 shall expire on May 3, 2018. The Planning Commission may extend this expiration date if a Time Extension application has been filed with the City along with the fees before the expiration date.

5. Prior to issuance of certificates of use and occupancy, the property owner or authorized agent is required to pay the City's Development Impact Fees.

6. No underground or aboveground storage of hazardous materials shall be allowed on-site without first obtaining City approval.

7. Temporary construction noise levels in excess of 60 decibels shall be restricted to the daylight hours of 7am to 6pm. Noise levels shall be measured or monitored from site boundaries or the nearest adjoining residential use to determine compliance.

8. Use and operation of the project and its appurtenances shall be conducted in compliance with the City's General Performance Standards for all uses (Section 21.21.040 of Chapter 21.21 Performance Standards of the City's Zoning Ordinance).

9. Prior to occupancy, all overhead utilities adjacent to the property shall be relocated underground.

10. All stockpiled dirt on the site shall be graded into a single unified land formation that incorporates contour grading techniques with a slope not to exceed 3:1. The stockpile shall be hydro-seeded with native grasses and wildflowers.

11. The use and occupancy of the hotel common rooms shall conform to the floor plans as shown in Exhibit E. Use of common rooms or outdoor areas shall only be used by hotel guests, and not for gatherings with outside guests. Occupancy of the hotel shall comply with density limitation of the Airport Land Use Plan, Zone 4 as follows: The use intensity of this activity shall not exceed an average of 40 persons per gross acre, maximum 120 persons per single acre, at any time. Usage calculations shall include all people (e.g., employees, customers/visitors, etc.) who may be on the property at any single point in time, whether indoors or outside. The building density will be calculated on an average of 1.8 persons per room or group of rooms to be occupied as a suite; plus one person per 60 sq. ft. floor area of any restaurants, coffee shops, bars, or night clubs; plus one person per 10 sq. ft. of floor area of meeting rooms shall be permitted.

Engineering Division Conditions:

12. Prior to occupancy, the applicant shall enter into an agreement to participate and pay their fair share in an area-wide gravity sewer and lift-station project when available.

13. Prior to occupancy, the applicant shall improvement Union Road with curb, gutter, sidewalk and pavement widening, including a northbound bike lane, in accordance with plans approved by the City Engineer.

14. Prior to occupancy, the applicant shall provide plans and obtain an encroachment permit from Caltrans, and shall construct improvements to close the northbound to westbound left turning movement in the Highway 46E – Union Road intersection.

15. Prior to occupancy, the applicant shall enter into an agreement to perpetually maintain the stormwater control and retention area in the public right-of-way on Union Road adjacent to the site.

16. Prior to occupancy, the applicant shall dedicate right-of-way along the westerly and southerly boundaries of the property in accordance with the Caltrans approved Project Study Report for the Highway 46E – Union Road interchange and the Circulation Element of the General Plan.

Mitigation Monitoring and Reporting:

Air Quality Conditions:

17. The following items shall be shown on grading and building plans. They are intended to minimize nuisance impacts associated with construction-generated fugitive dust emissions:
    a. Reduce the amount of the disturbed area where possible;
    b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;
    c. All dirt stock pile areas should be sprayed daily as needed;
    d. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
    e. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
    f. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
    g. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
    h. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
    i. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
    j. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;
    k. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible;
    l. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust

offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.

18. Demolition of onsite structures shall comply with the National Emission Standards for Hazardous Air Emissions (NESHAP) requirements (NESHAP, 40 CFR, Part 61, Subpart M) for the demolition of existing structures. The SLOAPCD is delegated authority by the Environmental Protection Agency (EPA) to implement the Federal Asbestos NESHAP. Prior to demolition of onsite structures, the SLOAPCD shall be notified, per NESHAP requirements. SLOAPCD notification form and reporting requirements are included in Appendix A. Additional information may be obtained at website url: http://slocleanair.org/business/asbestos.php.

19. Maintain all construction equipment in proper tune according to manufacturer's specifications;

20. Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);

21. Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-road Regulation;

22. Idling of all on and off-road diesel-fueled vehicles shall not be permitted when not in use. Signs shall be posted in the designated queuing areas and or job site to remind drivers and operators of the no idling limitation.

23. Electrify equipment when possible;

24. Substitute gasoline-powered in place of diesel-powered equipment, when available; and,

25. Use alternatively fueled construction equipment on-site when available, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

Biological Resource Conditions:

26. To the maximum extent possible, site preparation, ground-disturbing, and construction activities should be conducted outside of the migratory bird breeding season. If such activities are required during this period, the applicant should retain a qualified biologist to conduct a nesting bird survey and verify that migratory birds are not occupying the site. If nesting activity is detected the following measures should be implemented:
27.
    a. The project should be modified or delayed as necessary to avoid direct take of identified nests, eggs, and/or young protected under the MBTA;

    b. The qualified biologist should determine an appropriate biological buffer zone around active nest sites. Construction activities within the established buffer zone will be prohibited until the young have fledged the nest and achieved independence; and,

28. The qualified biologist should document all active nests and submit a letter report to the City documenting project compliance with the MBTA.

29. Prior to construction, a qualified biologist should conduct a pre-activity survey to identify known or potential dens or sign of San Joaquin kit fox no less than 14 days and no more than 30 days

prior to the beginning of the site preparation, ground-disturbing, or construction activities, or any other activity that has the potential to adversely affect the species. If a known or potential den or any other sign of the species is identified or detected within the project area, the biologist will contact USFWS and CDFW immediately. No work will commence or continue until such time that USFWS and CDFW determine that it is appropriate to proceed. Under no circumstances will a known or potential den be disturbed or destroyed without prior authorization from USFWS and CDFW. Within 7 days of survey completion, a report will be submitted to USFWS, CDFW, and the City. The report will include, at a minimum, survey dates, field personnel, field conditions, survey methodology, and survey results.

30. During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavation, steep-walled holes, or trenches in excess of 2 feet in depth should 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 should 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 or covered, they should be thoroughly inspected for entrapped kit fox. If any kit fox is found, work will stop and USFWS and CDFW will be contacted immediately to determine how to proceed.

31. During the site disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of 4 inches or greater stored overnight at the project site should 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 any kit fox is found, work will stop and USFWS and CDFW will be contacted immediately to determine how to proceed.

32. Prior to, during, and after the site disturbance and/or construction phase, use of pesticides or herbicides should be in compliance with all federal, state, and local 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.

33. 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 should 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 should immediately notify USFWS and CDFW by telephone. In addition, formal notification should be provided in writing within 3 working days of the finding of any such animal(s). Notification should include the date, time, location, and circumstances of the incident. Any threatened or endangered species found dead or injured should be turned over immediately to CDFW for care, analysis, or disposition.

34. Prior to final inspection, should any long internal or perimeter fencing be proposed or installed, the City should do the following to provide for kit fox passage:

35. If a wire strand/pole design is used, the lowest strand should be no closer to the ground than 12 inches.

36. If a more solid wire mesh fence is used, 8 × 12-inch openings near the ground should be provided every 100 yards.

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

38. Prior to site disturbance, the CRZ of all oak trees with a DBH of 6 inches or greater must be fenced to protect from construction activities. 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 (See Arborist Report for specific language required for signage). 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.

39. 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. A Mandatory meeting between the arborists and grading contractor(s) must take place prior to work start. During the site disturbance and/or construction phase, grading, cutting, or filling within 5 feet of a CRZ of all oak trees with a DBH of 6 inches or greater must be supervised by a certified arborist approved by the City. Such activities beyond 5 feet of a CRZ must be monitored to ensure that activities are in accordance with approved plans. Root pruning outside of the CRZ must be done by hand. 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.

40. Oil, gasoline, chemicals, or other construction materials potentially harmful to oak trees may not be stored in the CRZ of any oak tree with a DBH of 6 inches or greater. 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.

41. Drains shall be installed according to City specification so as to avoid harm by excessive watering to oak trees with a DBH of 6 inches or greater.

42. Landscaping within the CRZ of any oak tree with a DBH of 6 inches or greater is limited to indigenous plant species or non-plant material, such as cobbles or wood chips. All landscape within the critical root zone shall consist of drought tolerant or native varieties. Lawns shall be avoided. All irrigation trenching shall be routed around critical root zones, otherwise above ground drip-irrigation shall be used.

43. Wires, signs, or other similar items shall not be attached to oak trees with a DBH of 6 inches or greater.

44. For each oak tree removed (DBH of 6 inches or greater), a tree or trees of the same species must be planted with a combined DBH of 25% of the removed tree's DBH within the property's boundary.

45. It is the responsibility of the owner or project manager to provide a copy of the 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. Each contractor must sign and acknowledge this tree protection plan.

46. 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. 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.

47. As the project moves toward completion, the arborist(s) may suggest either 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.

48. 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.

49. An arborist shall be present for selected activities (trees identified in Arborist Report and items bulleted below). The monitoring does not necessarily have to be continuous but observational at times during these activities. It is the responsibility of the owner(s) 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: a. pre-construction fence placement inspection; b. all grading and trenching identified on the spreadsheet; c. any other encroachment the arborist feels necessary.

50. Pre-Construction Meeting: An on-site pre-construction meeting with the Arborist(s), Owner(s), Planning Staff, and the earth moving team 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.

Greenhouse Gas Emissions Condition:

51. Prior to occupancy permit being approved, the project shall complete a CAP consistency report and secure approval of the report from the City Planning Department and SLOAPCD. The consistency report shall provide record of compliance with the mandatory and any substituted measures in the City of Paso Robles CAP Consistency Worksheet.

Drainage & Irrigation Conditions:

52. Prior to project construction the owner will provide (1) a commitment to execute any necessary agreements, and (2) a statement accepting responsibility for operation and maintenance of

drainage facilities until that responsibility is formally transferred. Maintenance items required for the bioretention basin:

a. Clean up. Remove any soil or debris blocking inlets or overflows. Remove any trash that collects in the facilities.
b. Vegetation maintenance. Prune or cut back plants for health and to ensure flow into inlets and across the surface of the facility. Remove and replant as necessary.
c. Weed control. Control weeds by manual methods and soil amendment where possible. In response to problem areas or threatening invasions, non-selective natural herbicides may be used.
d. Add mulch. Mulch may be added from time to time to maintain a mulch layer thickness of 1to 2 inches. Maintain the underlying soil surface layer beneath the overflow elevation.

53. Irrigation. Check irrigation, if any, to confirm it is adequate but not excessive.

54. Training for Landscape Maintenance. Landscape Maintenance Personnel will be informed of the following:
    a. Do not add synthetic fertilizer to bioretention facilities.
    b. Do not apply fertilizer when rain is forecast in the next 48 hours.
    c. Do not use synthetic pesticides on bioretention facilities.

55. The following maintenance items are required for the Contech CDS®:
    a. Inspect the unit at regular intervals: twice a year at a minimum.
    b. Open both manhole access covers. One cover will allow for the inspection and cleanout of the separation chamber and isolated sump. The other cover allows for inspection and cleanout of sediment captured and retained outside the screen.
    c. Sediment shall be cleaned when the level has reached 75% of the capacity.
    d. Clean during dry weather conditions.
    e. The use of a vacuum truck is generally the most effective ad convenient method of removing pollutants from the system.
    f. Insert the vacuum hose into the sump.
    g. The system should be completely drained down.
    h. The sump should be fully evacuated of sediment.
    i. The area outside the screen should also be cleaned out if pollutant build-up exists in this area.
    j. Clean the system immediately in the event of an oil or gasoline spill.
    k. Secure the lids when cleaning and maintenance are completed.

Noise Conditions:

56. Unless otherwise provided for in a validly issued permit or approval, noise-generating construction activities should be limited to the hours of 7:00am and 7:00pm. Noise-generating construction activities should not occur on Sundays or City holidays

57. Construction equipment should be properly maintained and equipped with noise-reduction intake and exhausted mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds should be closed during equipment operation.

Traffic Conditions:

58. The project will be required to pay traffic mitigation fees to offset to offset its impacts to the citywide transportation network.

59. The applicant will implement employee transportation demand measures to reduce traffic congestion, such as providing information on regional rideshare programs, bike racks, well as provide shuttle service to the multi-modal transportation center and downtown for residents and guests.

60. The applicant will work with CalTrans to prohibit northbound left turns on the northbound approach to State Route 46E/Union Road to improve operations at this intersection by reducing turning conflicts.

61. The project will be required to participate in the SLO Car Free program with SLO County APCD

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

AYES:
NOES:
ABSENT:
ABSTAIN:

____
Bob Rollins, Chairperson

ATTEST:

____
Warren Frace, Secretary of the Planning Commission

EXHIBIT A OF RESOLUTION

CITY OF EL PASO DE ROBLES
STANDARD DEVELOPMENT CONDITIONS

☒ Planned Development

☒ Conditional Use Permit

☐ Tentative Parcel Map

☐ Tentative Tract Map

Approval Body: Planning Commission

Date of Approval: April 12, 2016

Applicant: Marriott Residence Inn

Location: 2940 Union Road

APN: 025-362-004

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 May 3, 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. 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.

☒ 16. 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.

☒ 17. No storage of trash cans or recycling bins shall be permitted within the public right-of-way.

☐ 18. 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.

☒ 19. 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.

☒ 20. 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

(Adopted by Planning Commission Resolution _________)

trash enclosures;

☒ b. A detailed landscape plan;

☒ c. Detailed building elevations of all structures indicating materials, colors, and architectural treatments;

☒ d. Other: grading plan review

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:

Union Road____

****

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 Strom 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 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:

Street Name	City Standard	Standard Drawing No.
Union Road		

☐ 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 Union Road 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.

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(Adopted by Planning Commission Resolution _________)

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.

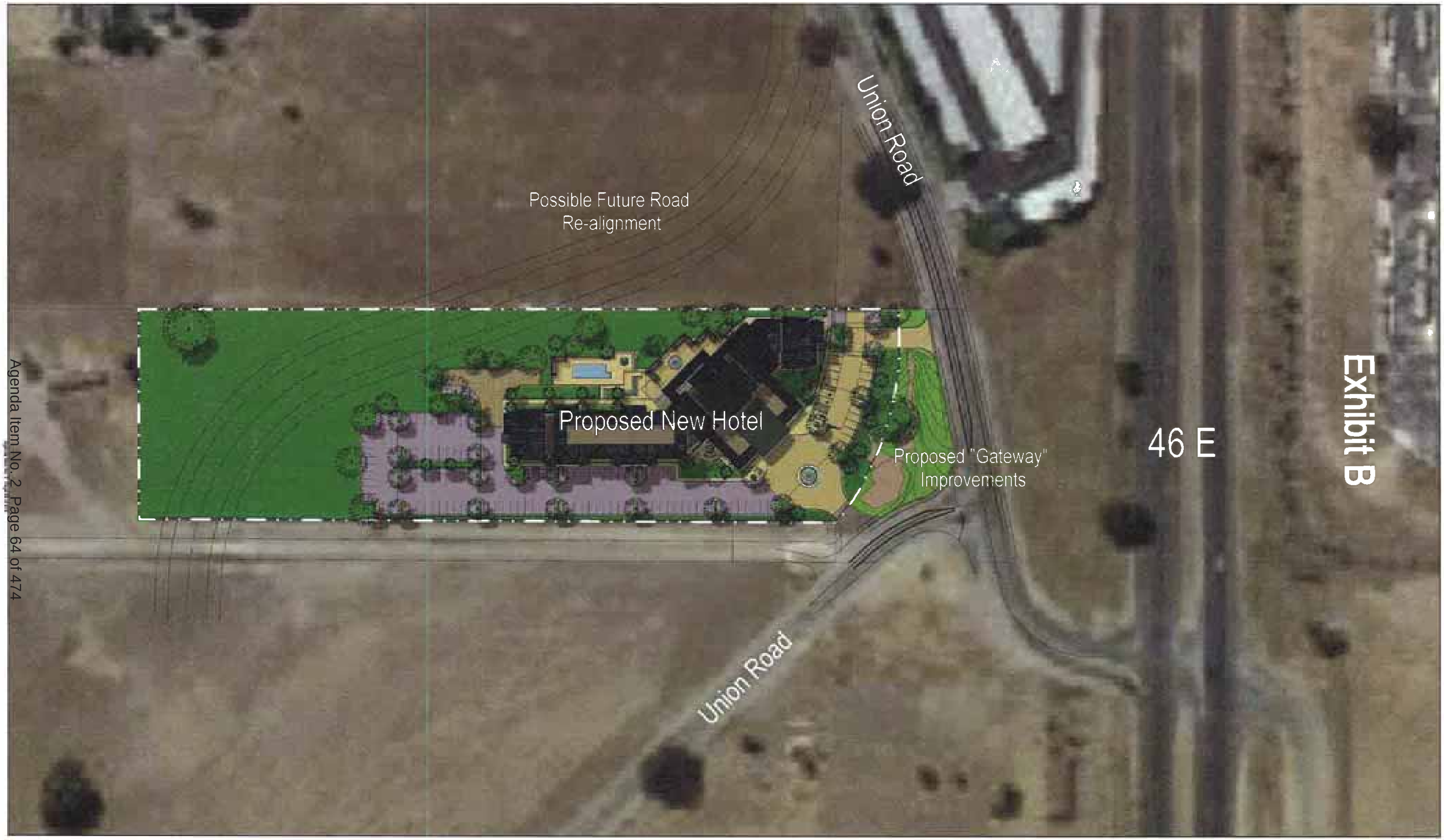
6. ☒ Project shall comply with all requirements in current, adopted edition of California Fire Code and Paso Robles Municipal Code.

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.

(Adopted by Planning Commission Resolution _________)



1 Site Plan / Context

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

December 28, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal** **A100**

jones | ballard

Exhibit C

Preliminary Total Landscape Area - Approximately 65,357 square feet.

Estimated Total Water Use is 70% of Maximum Applied Water Allowed (Paso Robles Water Efficient Landscape Ordinance).
Estimated Total Water Use is 284,159 gallon/year less than Maximum Applied Water Allowed.

GENERAL WATER CONSERVATION NOTES

Planting and irrigation shall be designed to conserve water. the following factors have been incorporated to aid in the success of the project landscape.

1) Irrigation system to be a fully automatic sytom utilizing low precipitation spray heads and/or drip irrigation. Irrigation hydrozones shall be separated with control valves and controller stations into appropriate and compatible zones. All valves shall have pressure regulators and filters.

2) Plant materials proposed are selected for their compatibility to climatic and site conditions and for drought tolerance.

3) All planter beds shall be mulched with a 2" minimum layer of organic mulch throughout.

4) Mowed lawn has not been used to reduce irrigation demands.

Preliminary Plant Materials List

Large Trees
Platanus racemosa — California Sycamore
Quercus agrifolia — California Live Oak

Medium Trees
Canopy:
Pistache chinensis — Chinese Pistache
Olea europa (fruitless) — Fruitless Olive

Narrow:
Acer platanoides — Norway Maple Tree
Cupressus sempervirens — Italian Cypress
Pyrus calleryana'Bradford' — Ornamental Pear
Fraxinus oxycarpa 'Raywood' — Raywood Ash Tree

Small Flowering Trees
Lagerstroemia indica — Crape Myrtle
Chitalpa tashkentensis — Chitalpa
Chilopsis linearis — Desert Willow

Small Patio Trees
Photinia fraseri — (no common name)
Raphiolepis indica 'Majestic Beauty' — India Hawthorn
Cotinus coggyria — Smoke Tree

Screen/Buffer Shrubs 4'-5'
Abelia grandiflora — Glossy Abelia
Berberis thunbergia — Barberry
Ceanothus 'Blue Jeas' — California Lilac
Rosmarinus 'Tuscan Blue' Rosemary

Mediteranean Garden: Building Environments / Pool Area
Hemrocallis spp. — Daylily
Lavendula dentata — French Lavender
Perovskia striplicifolia — Russian Sage
Muhlenbergia rigens — Deer Grass
Stipa tenuissima — Mexican Feather Grass

Parking & Frontage Road Shrubs & Groundcovers 2'-4'
Berberis 'Cherry Bomb' — Barberry
Buxus japonica — Boxwood
Hemerocallis hybrid — Day Lily
Muhlenbergia rigens — Deer Grass
Rosa spp. — Carpet Rose
Rosmarinus officinalis — Creeping Rosemary

Lavender Fields
Lavendula dentata — French Lavender

Slopes & Natural Area Transition
Baccharis Pullaris 'Twin Peaks'
Carpenter Californica
Rhamnus Californica
Stipa tennuissama

Native Meadow / Stormwater Basin
Muhlenbergia rigens — Deer Grass
Stipa tenuissima — Mexican Feather Grass

Cobblestone

Mulch
Mulch all ground cover and planter areas with 2" minimum layer 'walk-on' bark.
Areas adjacent to building entries may receive decorative gravel mulch for accent.

firma landscape architects

Conceptual Landscape Plan
Residence Inn by Marriott Paso Robles, CA

Scale: 1" = 20'-0"

North

L-1

September 8, 2015

Exhibit D-1

View from Northeast Arrival

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

December 28, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal** **A001**

2 East Building Elevation 1/16"= 1'-0"

1 Northeast Building Elevation 1/16"= 1'-0"

Exhibit D-2

KEY NOTES

1. ROOF SCUPPER
2. CONTROL JOINT
3. PREFINISHED ALUMINUM WINDOWS BRONZE
4. PREFINISHED METAL LOUVERS AT DRYER VENTS
5. EXTERIOR WALL SCONCE: BRONZE
6. ALUMINUM DOOR/WINDOW STOREFRONT IN PAINTED STEEL FRAME, BRONZE
7. INSULATED HOLLOW METAL DOOR AND FRAME
8. ENTRANCE CANOPY
9. METAL RAILING
10. INTERNALLY-ILLUMINATED BUILDING SIGNAGE
11. REMOTELY-ILLUMINATED MONUMENT SIGNAGE
12. WOOD/METAL TRELLIS ON PRECAST CONCRETE COLUMNS
13. UP-LIT "LANTERN" FEATURE, INDIRECTLY ILLUMINATED CEILING "GLOWS"

FINISH NOTES

P1	CEMENT PLASTER: COLOR - FRAZEE MEXICAN TEA, CL2883D
P2	CEMENT PLASTER: COLOR - FRAZEE JACK-IN-THE-PULPIT, CL2885A
P3	CEMENT PLASTER / PRECAST COLOR NATURAL
M1	ALUMINUM FRAMED WINDOWS: COLOR "BRONZE"
M2	PREFINISHED METAL: COLOR "MEDIUM BRONZE"
M3	PREFINISHED METAL: COLOR "SAGE" OR SIMILAR
S1	MANUFACTURED STONE TILE: MONTECITO CLIFFSTONE MANUFACTURED BY EL DORADO
S2	STONE TILE: "NATURAL LIMESTONE", COLOR "INCA GOLD"/ "JURA GREY"
S3	STONE TILE: COLOR "RUSTIC GOLD SLATE"
W1	WOOD: COLOR-DARK MAHOGANY CLEAR STAIN
W2	WOOD SITE FURNITURE: COLOR IPE-NATURAL
W3	WOOD ACCENT: COLOR-TBD
C1	CONCRETE: COLOR "NATURAL WHITE"
C2	CONCRETE BLOCK: COLOR "NATURAL GREY"
C3	CONCRETE BLOCK: COLOR "SPLIT-FACE DARK GREY"
R1	MISSION TILE ROOF: 3-COLOR RANDOM BLEND - RUSTIC
R2	STANDING SEAM METAL ROOF COLOR-SEE MATERIAL BOARD (OPT, PATINA COPPER)

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

December 28, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal** **A300**

Exhibit D-3

2 West Building Elevation, (Topography at the West Property Line shown in the foreground) 1/16" = 1'-0"

1 West Building Elevation

KEY NOTES

1. ROOF SCUPPER
2. CONTROL JOINT
3. PREFINISHED ALUMINUM WINDOWS, BRONZE
4. PREFINISHED METAL LOUVERS AT DRYER VENTS
5. EXTERIOR WALL SCONCE, BRONZE
6. ALUMINUM DOOR/WINDOW STOREFRONT IN PAINTED STEEL FRAME, BRONZE
7. INSULATED HOLLOW METAL DOOR AND FRAME
8. ENTRANCE CANOPY
9. METAL RAILING
10. INTERNALLY ILLUMINATED BUILDING SIGNAGE
11. REMOTELY ILLUMINATED MONUMENT SIGNAGE
12. WOOD / METAL TRELLIS ON PRECAST CONCRETE COLUMNS
13. UPLIT "LANTERN" FIXTURE, INDIRECTLY ILLUMINATED CEILING "GLOWS"

FINISH NOTES

P1	CEMENT PLASTER: COLOR - FRAZEE MEXICAN TEA, CL2883D
P2	CEMENT PLASTER COLOR -FRAZEE JACK-IN-THE-PULPIT CL2885A
P3	CEMENT PLASTER / PRECAST COLOR NATURAL
M1	ALUMINUM FRAMED WINDOWS COLOR "BRONZE"
M2	PREFINISHED METAL COLOR "MEDIUM BRONZE"
M3	PREFINISHED METAL COLOR "SAGE" OR SIMILAR
S1	MANUFACTURED STONE TILE MONTECITO CLIFFSTONE MANUFACTURED BY EL DORADO
S2	STONE TILE "NATURAL LIMESTONE", COLOR "INCA GOLD"/ "JURA GREY"
S3	STONE TILE: COLOR "RUSTIC GOLD SLATE"
W1	WOOD: COLOR-DARK MAHOGANY CLEAR STAIN
W2	WOOD SITE FURNITURE: COLOR IPE-NATURAL
W3	WOOD ACCENT COLOR TBD
C1	CONCRETE: COLOR "NATURAL WHITE"
C2	CONCRETE BLOCK: COLOR "NATURAL GREY"
C3	CONCRETE BLOCK: COLOR "SPLIT-FACE DARK GREY"
R1	MISSION TILE ROOF: 3-COLOR RANDOM BLEND - RUSTIC
R2	STANDING SEAM METAL ROOF COLOR-SEE MATERIAL BOARD (OPT, PATINA COPPER)

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

December 28, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal**

jones | ballard

A301

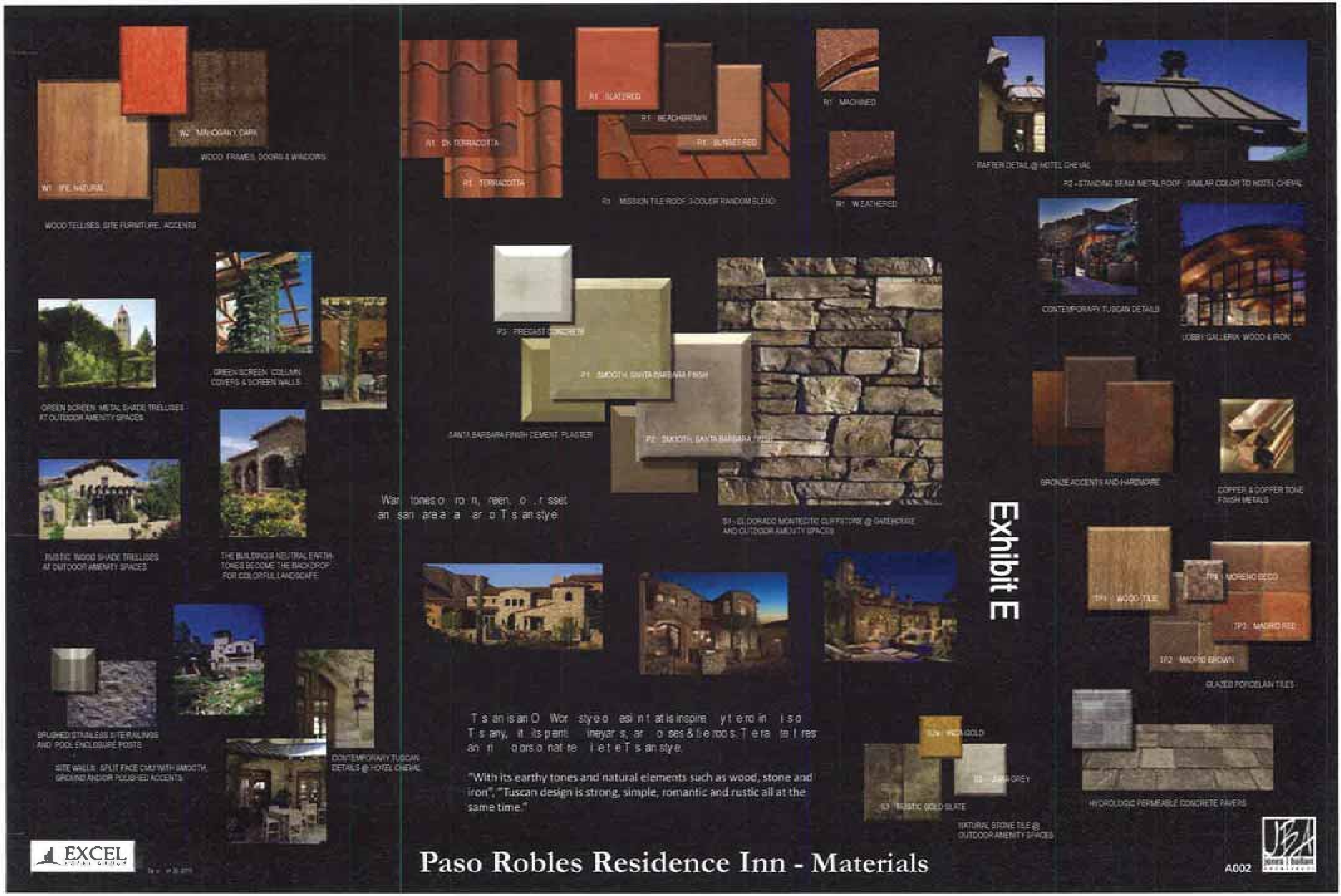


Exhibit E
Paso Robles Residence Inn - Materials
W1 IPE NATURAL
W2 MAHOGANY DARK
WOOD FRAMES, DOORS & WINDOWS
WOOD TELLISES, SITE FURNITURE, ACCENTS
R1 DK TERRACOTTA
R1 TERRACOTTA
R1 GLAZED
R1 BEACHBROWN
R1 SUNSET RED
R1 MISSION TILE ROOF 3-COLOR RANDOM BLEND
R1 MACHINED
R1 WEATHERED
RAFTER DETAIL @ HOTEL CHEVAL
R2 - STANDING SEAM METAL ROOF - SIMILAR COLOR TO HOTEL CHEVAL
GREEN SCREEN COLUMN COVERS & SCREEN WALLS
GREEN SCREEN METAL SHADE TRELLISES AT OUTDOOR AMENITY SPACES
P1 SMOOTH SANTA BARBARA FINISH
P2 SMOOTH SANTA BARBARA FINISH
SANTA BARBARA FINISH CEMENT PLASTER
CONTEMPORARY TUSCAN DETAILS
LOBBY GALLERIA WOOD & IRON
BRONZE ACCENTS AND HARDWARE
COPPER & COPPER TONE FINISH METALS
RUSTIC WOOD SHADE TRELLISES AT OUTDOOR AMENITY SPACES
THE BUILDINGS NEUTRAL EARTH-TONES BECOME THE BACKDROP FOR COLORFUL LANDSCAPE
TP1 WOOD TILE
TP2 MADRID RED
TP2 MADRID BROWN
GLAZED PORCELAIN TILES
BRUSHED STAINLESS SITE RAILINGS AND POOL ENCLOSURE POSTS
SITE WALLS: SPLIT FACE CMU WITH SMOOTH, GROUND AND/OR POLISHED ACCENTS
CONTEMPORARY TUSCAN DETAILS @ HOTEL CHEVAL
"With its earthy tones and natural elements such as wood, stone and iron", "Tuscan design is strong, simple, romantic and rustic all at the same time."
S3 RUSTIC GOLD SLATE
NATURAL STONE TILE @ OUTDOOR AMENITY SPACES
HYDROLOGIC PERMEABLE CONCRETE PAVERS
EXCEL
A002

Exhibit F-1

1 Site Plan / Ground Floor Plan / Program

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

jones | ballard

December 28, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal** **A201**

Exhibit F-2

1 Site Plan / Second Floor Guestroom Plan

Residence Inn by Marriott, Paso Robles, California

December 28, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal** **A202**

Exhibit F-3

1 Site Plan / Typical Guestroom Floor Plan (3&4) 1"=30'-0"

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

December 28, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal** **A203**

Exhibit F-4

1 Site Plan / Roof Plan

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

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December 28, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal** **A204**

Exhibit G-1

1 Site Plan / Building Pad

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

jones | ballard

December 28, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal** **A200**

Exhibit G-2


3 Building / Site Section, Looking South
1/16" = 1'-0"
2 Building / Site Section, Looking South
1/16" = 1'-0"
1 Building / Site Section, Looking South
1/16" = 1'-0"
Residence Inn by Marriott, Paso Robles, California
2940 Union Road, Paso Robles, California 93446
Preliminary Concept Design: Review Submittal
December 28, 2015
A400
EXCEL HOTEL GROUP
Residence Inn Marriott

1 Building / Site Section, Looking West 1"= 30'

Exhibit G-2

EXCEL HOTEL GROUP

Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

December 28, 2015

2940 Union Road, Paso Robles, California 93446 **Preliminary Concept Design: Review Submittal** **A401**

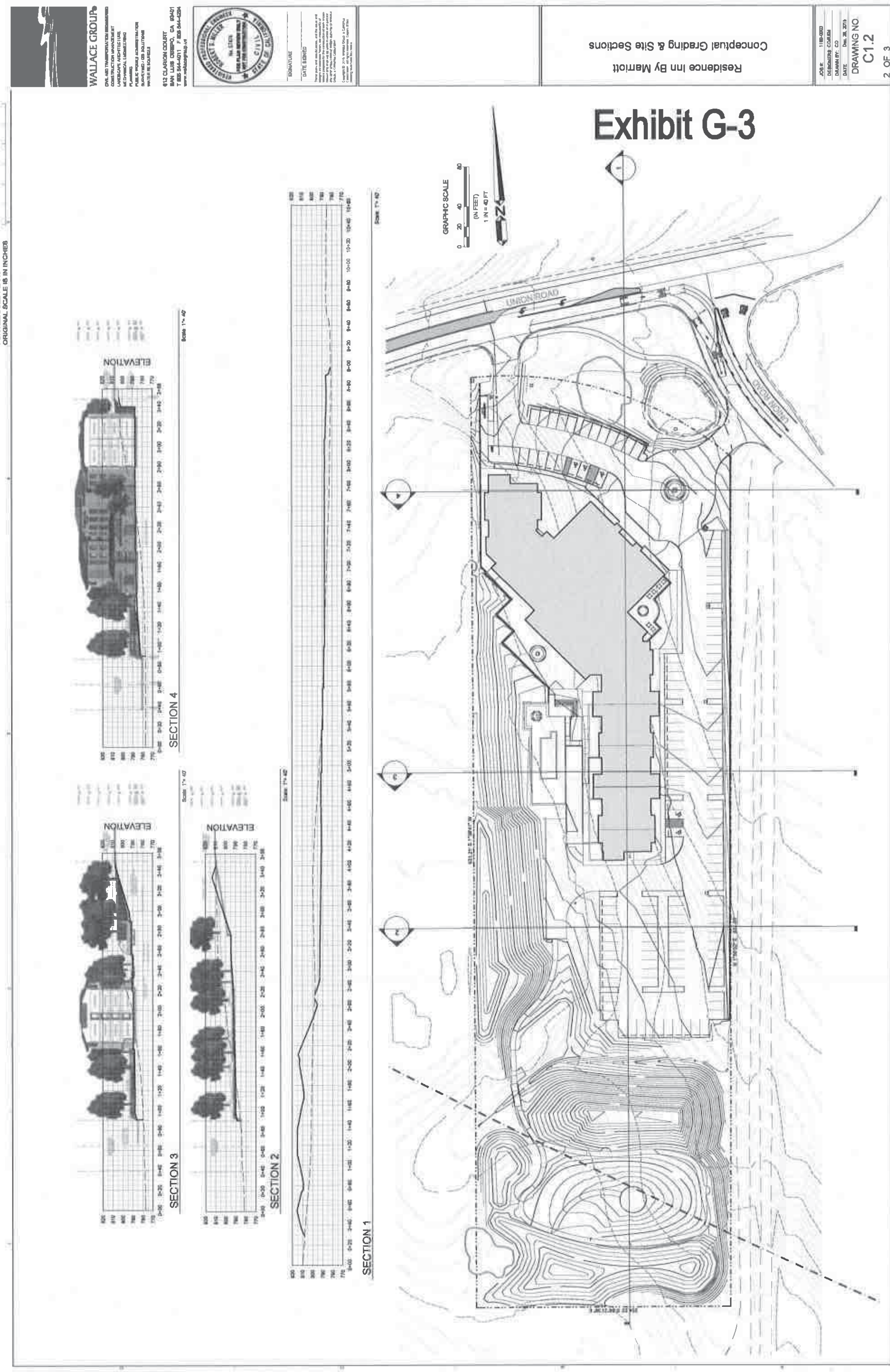
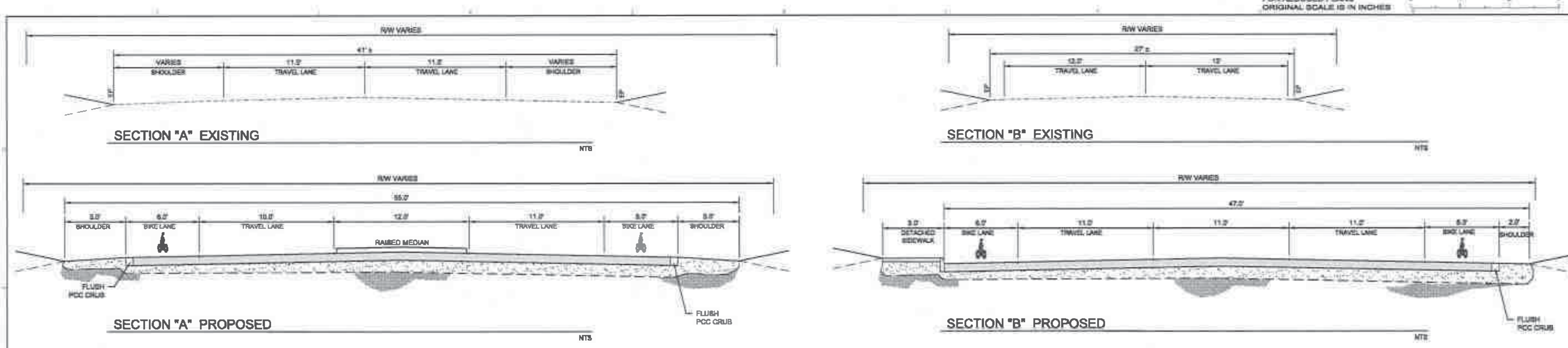


Exhibit G-3
Residence Inn By Marriott
Conceptual Grading & Site Sections
WALLACE GROUP
DRAWING NO
C1.2
2 OF 3
GRAPHIC SCALE
UNION ROAD
SECTION 1
SECTION 2
SECTION 3
SECTION 4
ELEVATION
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES



Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
LID V EG	1.000	1.100	4583.74 Sq. Ft.	366.06 Cu. Yd.	0.00 Cu. Yd.	366.06 Cu. Yd.<Cut>
eg v fg	1.000	1.000	221587.76 Sq. Ft.	27646.86 Cu. Yd.	24905.01 Cu. Yd.	2741.85 Cu. Yd.<Cut>
Totals			226171.50 Sq. Ft.	28012.92 Cu. Yd.	24905.01 Cu. Yd.	3107.90 Cu. Yd.<Cut>

1' HOLD DOWN 4,300 CY CUT

TOTAL: 7,420 CY CUT

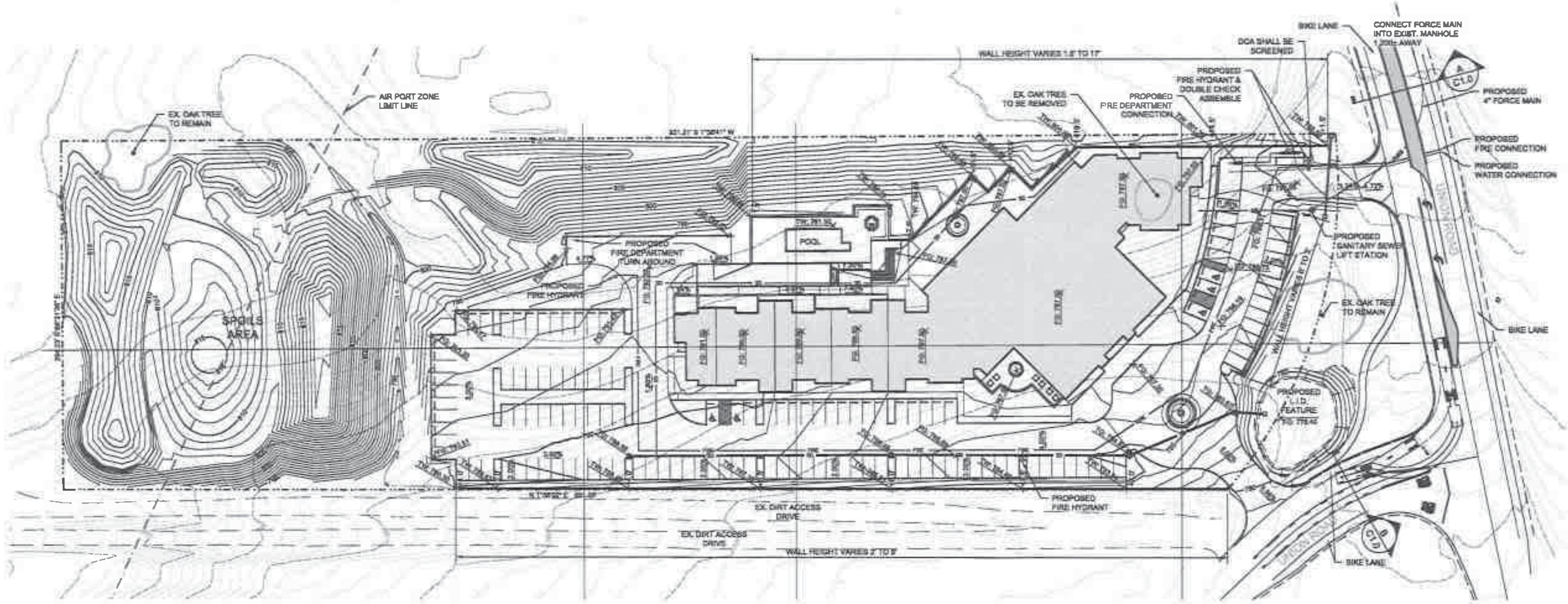


Exhibit G-3

WALLACE GROUP

Residence Inn By Marriott
Conceptual Grading & Utility Plan

DRAWING NO. C1.1

1 OF 3

Exhibit G-3


WALLACE GROUP
Residence Inn By Marriott
Conceptual Union Road Improvements
DRAWING NO.
C1.3
3 OF 3
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
STA "A" 128+00.00
END CONSTRUCTION (A)
END CONSTRUCTION
BIKE LANE
6" HIGH RAISED MEDIAN
BIKE LANE
BIKE LANE
6" HIGH RAISED MEDIAN
UNION ROAD
STA "A" 119+01.44
BEGIN WORK
GRAPHIC SCALE

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 Planning Development 15-005, Conditional Use Permit 15-020, Oak Tree Removal 16-002 and Draft Mitigated Negative Declaration, on this 30th day of March, 2016.

City of El Paso de Robles
Community Development Department
Planning Division

Signed: ______________________
Monica Hollenbeck

Attachment 9
Notice Affidavits

1000 SPRING STREET • PASO ROBLES, CALIFORNIA 93446 • www.prcity.com

PROOF OF PUBLICATION

LEGAL NEWSPAPER NOTICES

PLANNING COMMISSION/CITY COUNCIL PROJECT NOTICING

Newspaper: Tribune

Date of Publication: March 12, 2016

Meeting Date: April 12, 2016 (Planning Commission)

Project: Mitigated Negative Declaration (Paso Highway Hotel Partners, LP) For PD 15-005, CUP 15-020, & OTR 16-002

I, Amanda Ross, employee of the Community Development Department, Planning 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: [signature]

Amanda Ross

CITY OF EL PASO DE ROBLES

NOTICE OF PUBLIC HEARING AND NOTICE OF INTENT OF THE PLANNING COMMISSION TO CONSIDER A RECOMMENDATION TO THE CITY COUNCIL TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR PLANNED DEVELOPMENT (PD 15-005), CONDITIONAL USE PERMIT (CUP 15-020), AND AN OAK TREE REMOVAL PERMIT (OTR 16-002) 2940 UNION ROAD (APN: 025-362-004), PASO HIGHWAY HOTEL PARTNERS, LP

NOTICE IS HEREBY GIVEN that the Planning Commission of the City of El Paso de Robles will hold a Public Hearing on Tuesday, April 12, 2016 at 6:30 p.m. at the City of El Paso de Robles, 1000 Spring Street, Paso Robles, California, in the City Council Chambers, to consider approval of a Mitigated Negative Declaration in accordance with the provisions of the California Environmental Quality Act (CEQA) for the following project:

The project includes a Development Plan to establish a 119-room, 98,400 s.f., extended-stay hotel with guest breakfast dining room, business center and outdoor patio and pool facilities.

The proposal includes a Conditional Use Permit for a request to exceed the 50 foot building height limit in the C3-PD zone. The application also includes a request to remove an oak tree.

The public review period for the Mitigated Negative Declaration (MND) is March 12, 2016 through April 11, 2016. The proposed MND may be reviewed at the Community Development Department, 1000 Spring Street, Paso Robles, California. Copies may be purchased for the cost of reproduction. A copy of the MND is also available on the City website at: http://www.prcity.com/government/departments/commdev/index.asp.

The Planning Commission's action will be to make a recommendation to the City Council on the project including the draft MND, PD, CUP and OTR. A public notice hearing will be circulated prior to the City Council meeting, date yet to be determined.

Written comments on the proposed project and corresponding MND may be mailed to the Community Development Department, 1000 Spring Street, Paso Robles, CA 93446, or emailed to sdecarli@prcity.com, provided that the comments are received prior to the time of the public hearing. Oral comments may be made at the hearing. Should you have any questions regarding this application, please call Susan DeCarli at (805) 237-3970 or email at sdecarli@prcity.com.

If you challenge this application in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the Planning Commission at or prior to the public hearing.

Amanda Ross
Planning Intern
March 12, 2016 2325370

CALIFORNIA ENVIRONMENTAL QUALTIY ACT
INITIAL STUDY CHECKLIST FORM
CITY OF PASO ROBLES

1.	**PROJECT TITLE:**	**Marriott Residence Inn**
	Concurrent Entitlements:	**Planned Development (PD) 15-005, Conditional Use Permit (CUP) 15-020, Oak Tree Removal Permit (OTR) 16-002**
2.	**LEAD AGENCY:**	City of Paso Robles 1000 Spring Street Paso Robles, CA 93446
	Contact:	
	Phone:	(805) 237-3970
	Email:	
3.	**PROJECT LOCATION:**	2940 Union Road (APN: 025-362-004) (See Vicinity Map, Attachment 1)
4.	**PROJECT PROPONENT:**	Paso Highway Hotel Partners, LP
	Contact Person:	Robert Miller
	Phone:	805-544-4011
	Email:	robm@wallacegroup.us
5.	**GENERAL PLAN DESIGNATION:**	**CS (Commercial Service)**
6.	**ZONING:**	**C3 PD (Commercial Light/Industry with Planned Development Overlay), Airport Overlay (Zone 4)**

7. **PROJECT DESCRIPTION:** This is a proposal to establish a 4-story, extended-stay Residence Inn – by Marriott hotel with 119 guest rooms. The guest rooms include: 57 king bed studio rooms; 24 double queen bed studio rooms; 25 1-bedroom double queen units; 6 2-bedroom king & double queen rooms; and 7 king, double queen bed one or two bedroom rooms with a total building square footage of 98,400 square feet. In compliance with the applicable City Zoning Code Standards, the site includes 132 parking spaces allowing for one space per guest room and 8 spaces for employees. Parking spaces include standard, compact and handicapped accessible parking stalls. See Attachment 2 (Site Plan / Elevations).

   The project is located in the C3-PD zoning district. One zoning code modification is being proposed. The hotel's height at the main entrance tower element is proposed to exceed the 50-foot height limitation up to 4 feet. No other modifications are proposed.

   The hotel will include ancillary guest facilities including:

- breakfast lounge for hotel guests
- meeting rooms
- fitness center
- business center
- wine tasting bar
- outdoor pool, BBQ, and patio terraces

The project site's total existing lot area is 5.35 acres and occurs wholly on one legal parcel. No subdivisions or adjustments will be required to accommodate this facility. The site has an existing single-family home, an abandoned pet boarding facility, and several storage buildings, all of which would be removed upon approval and construction of the hotel.

8. **SURROUNDING LAND USES AND SETTING:** The site is partially developed with an existing residence and pet boarding facility on approximately 1.6 acres with the remaining 3.8 acres consisting of ruderal (disturbed) habitat. The ruderal areas are dominated by non-native grass and bare dirt. The existing landform of the property consists of a gentle slope to the northwest, towards Union Road. There are no significant biological resources on the property. However, the property is within the migration corridor for the San Joaquin Kit Fox.

   The site is largely surrounded by rural land uses including low-density single family residences to the southwest and east, and a mini-storage facility to the northwest (refer to Attachment 2, Site Plan).

9. **OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (e.g., PERMITS, FINANCING APPROVAL OR PARTICIPATION AGREEMENT):** 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.

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

DETERMINATION: (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.

Susan DeCarli | 3-10-16

Signature: | Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved. 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.

3. “Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “"Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a. Earlier Analysis Used. Identify and state where they are available for review.

   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. 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
I. AESTHETICS: Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

Discussion: The project site is located at the northwest corner of State Route 46 East and Union Road. Union Road is identified as a "gateway" to the City in the City's Gateway Design Standards. It is also designated in the General Plan, Conservation Element (Figure C-3), as being in a scenic view corridor. The property is visible from State Route 46 East and Union Road.

To reduce potential visual impacts that may result from development in scenic vistas, project site and architectural design needs to be planned so that it is compatible with the surrounding landscape by providing well-articulated, attractive architecture that transitions well into the site, presents elevation massing in scale with the surroundings, adds visual interest to the site, and contributes to an overall positive aesthetic quality of the area.

The project site slopes upward towards the southeast, with building placement proposed along the foreground at a lower elevation. Properties to the east, south, and west are largely rural, undeveloped landscape with rural home sites. A mini storage facility to the northwest along the north side of Union Road marks the beginning of commercial development and uses along the corridor. The primary "long view" of the site and surroundings can be viewed from State Route 46 East, while the front entrance and LID features are visible along the Union Road frontage. The positioning of the building on the site will not impact the long view of the rural landscape beyond since it would not extend up the slope, but will remain at a lower elevation. The placement of the building on the site and the proposed elevation will add visual interest to the site.

The high quality of the architectural design of the building, coupled with articulation of the roofline and LID features will have a positive impact on the aesthetic quality of the area. The project design will maintain the large oak tree at the entrance to the site off of Union Road with native grasses and features to compliment the surrounding area. In addition, the building will be setback from the Union Road entrance with roadway design features that add quality to this portion of Union Road. Therefore, the projects adverse effect on a scenic vista would be less than significant.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☒	☐	☐

Discussion: There are no scenic resources such as rock outcroppings or historic buildings located on the site. Among the oak trees located on the property, there are two oak trees that will be preserved, one is a 30-inch diameter-at-breast-height (dbh) oak tree that will be incorporated into the site plan as a "focal" point and scenic resource, the other is a 40-inch dbh oak tree that will not be impacted by the development. Of the three oak trees on site, one is proposed for removal. This tree is 11 inches dbh, and in fair health, however it is small and not visually prominent compared to the two, other, larger surrounding oak trees that are proposed to maintained on the site. The removal of the oak tree will be mitigated in compliance with the Oak Tree Ordinance to reduce the potential impacts to a less than significant level (see Mitigation Monitoring & Reporting Plan, Attachment 3).

c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐

Discussion: The visual quality of the site is moderate since it is dominated by ruderal area comprised of non-native grassland and bare dirt visible from nearby roads. There is an existing single-family home, an abandoned dog kennel facility, and several storage buildings along the site, fronting Union Road.

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

The proposed project would replace the existing home, pet boarding facility, and accessory buildings. While the project will alter the visual character of the existing site, the new development will maintain open space areas and landscaping that would improve and be compatible with the visual quality of the surrounding areas. As shown on the building elevations (Attachment 2), the architecture is proposed to incorporate façade and roofline articulation, and quality building materials including use of stone veneer and tile roofing reminiscent of Tuscany. The site will include rural landscaping and fencing materials surrounding the property to blend the project into the site and surroundings to the extent possible. Therefore, the proposed project would not likely significantly degrade the existing visual character of quality of the site and its surroundings.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)	☐	☐	☒	☐

Discussion: The Zoning Code requires all new lighting to be shielded and directed downward in such a manner as to not create off-site glare or adversely impact adjacent properties. The project will be conditioned accordingly. The style, location and height of the lighting fixtures will be submitted with the building plans and subject to approval by the Development Review Committee to ensure compliance of Zoning Code, prior to issuance of building or grading permits.

II. AGRICULTURE AND FORESTRY 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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the forest and Range Assessment Project and the forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

Discussion: The project site is designated in the General Plan and is zoned on the City's Zoning Map for commercial development. The property is not identified in the City General Plan, Conservation Element (Figure C-2, Habitat Map) as having either prime or unique farmland of statewide importance. Therefore, the project would not result in impacts on converting prime or other significant soils to urban land uses.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

Discussion: The site is not under Williamson Act contract, nor is it currently used for agricultural purposes.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 51104(g))?	☐	☐	☐	☒

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

Discussion: No farmland is located within the near vicinity of the project site. Properties to northeast, northwest, west, and south of the property are zoned commercial. The adjacent property (32.1 acres) to the southeast is vacant and zoned residential agriculture. However, as noted in the General Plan Land Use Element, this property is planned to be developed in the future with urban development under the Chandler Ranch Specific Plan. Development of this site for lodging would not have a significant impact to agricultural or forestry resources.

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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan? (Source: 11)	☐	☒	☐	☐

Discussion: The proposed project is consistent with existing zoning and general plan designations and would include land use and transportation features to be considered consistent and not conflict with the Clean Air Plan (CAP).

To ensure consistency, the project would include various measures to reduce emissions associated with energy and vehicle use (refer to Mitigation Monitoring & Reporting Plan, Attachment 3). These measures would include the installation of onsite bicycle parking and provisions for safe and convenient internal access to adjacent uses, including future bicycle lanes which are planned for the adjacent and nearby segments of Union Road. Compliance would also include measures to increase onsite energy efficiency and water efficiency and conservation. There are no existing or planned transit stops in the project area. However, because the project site is located within the Paso Robles City limits it is served by Paso Express Dial-A-Ride transit service. The project proponent will be conditioned to participate in the SLO Car Free program, which would provide incentives for guests that utilize alternative transportation options.

The project would also include various measures that would help to promote the use of alternative transportation options and reductions in vehicle miles traveled. For these reasons, the proposed project would not conflict with or obstruct continued implementation of the CAP. Therefore, this impact is considered less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Source: 11)	☐	☒	☐	☐

Discussion: As noted in III c., below, short-term construction activities may result in localized concentrations

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

of pollutants that could adversely affect nearby land uses. As a result, this impact is considered potentially significant. Refer to III c. and III d. of this report for more detailed discussions of air quality impacts attributable to the proposed project and recommended mitigation measures (Mitigation Monitoring & Reporting Plan, Attachment 3).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)	☐	☒	☐	☐

Discussion:

Short-term Construction Emissions

Construction-generated emissions last only as long as construction activities occur, but have the potential to represent a significant air quality impact. The construction of the proposed project would result in the temporary generation of emissions associated with site grading and excavation, paving, motor vehicle exhaust associated with construction equipment and worker trips, as well as the movement of construction equipment on unpaved surfaces. Short-term construction emissions would result in increased emissions of ozone-precursor pollutants (i.e., ROG and NOX) and emissions of PM. Emissions of ozone-precursors would result from the operation of on- and off-road motorized vehicles and equipment. Emissions of airborne PM are largely dependent on the amount of ground disturbance associated with site preparation activities and can result in increased concentrations of PM that can adversely affect nearby sensitive land uses.

Estimated daily and quarterly emissions are summarized in Table 8 and Table 9, respectively, of the Air Quality Assessment (Attachment 4), and provided below. A summary of construction-generated emissions, in comparison to the San Luis Obispo Air Pollution Control District's (SLOAPCD) significance thresholds, is provided in Table 10 below. As depicted, maximum daily emissions would total approximately 93.51 lbs/day of ROG+NOX and approximately 3.11 lbs/day of exhaust PM10. Quarterly construction-generated emissions would total approximately 1.49 tons of ROG+NOX, 0.07 tons of DPM, and 0.17 tons of Fugitive PM10. Construction generated emissions would not exceed SLOAPCD significance thresholds. However, fugitive dust generated during construction may result in localized pollutant concentrations that could result in increased nuisance concerns to nearby land uses. Therefore, construction-generated emissions of fugitive dust would be considered to have a potentially significant impact.

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

Table 8
Daily Construction Emissions Without Mitigation

Construction Period/Phase	Daily Emissions (lbs)	
	$ROG+NO_X$	Exhaust PM_{10}
Demolition-Year 2016	51.34	2.31
Site Preparation-Year 2016	59.93	2.94
Grading/Excavation-Year 2016	42.30	2.20
Building Construction-Year 2016	33.56	1.99
Building Construction-Year 2017	30.98	1.80
Paving-Year 2017	22.51	1.14
Architectural Coating-Year 2017	40.02	0.17
Maximum Daily Emissions-Year 2016	59.93	2.94
Maximum Daily Emissions-Year 2017	93.51	3.11
SLOAPCD Significance Thresholds	137	7
Exceed SLOAPCD Thesholds?	No	No

Maximum Daily Emissions: Assumes that facility construction, paving, and application of architectural coatings could potentially occur simultaneously on any given day. Totals may not sum due to rounding.
Refer to Appendix C for modeling assumptions and results.

Table 9
Quarterly Construction Emissions Without Mitigation

Quarter	Quarterly Emissions (tons)			
		PM_{10}		
	$ROG+NO_X$	Exhaust	Dust	Total
Year 2016 - Quarter 1	|1.49	0.07	0.17	0.25
Year 2016 - Quarter 2-4	1.09	0.06	0.01	0.08
Year 2017 - Quarter 1	0.92	0.03	0.01	0.04
SLOAPCD Significance Thresholds	2.50	0.13	2.50	None
Quarterly Emissions Exceed Thresholds?	No	No	No	No

Totals may not sum due to rounding.
Refer to Appendix C for modeling assumptions and results.

Table 10
Summary of Construction Emissions Without Mitigation

Criteria	Project Emissions	SLOAPCD Significance Threshold	Exceed Significance Threshold?
Maximum Daily Emissions ($ROG+NO_X$):	93.51 lbs/day	137 lbs/day	No
Maximum Daily Emissions (DPM):	3.11 lbs/day	7 lbs/day	No
Maximum Quarterly Emissions ($ROG+NO_X$):	1.49 tons/qtr	2.50 tons/qtr	No
Maximum Quarterly Emissions (DPM):	0.07 tons/qtr	0.13 tons/qtr	No
Maximum Quarterly Emissions (Fugitive PM):	0.17 tons/qtr	2.5 tons/qtr	No

Quarterly thresholds are based on the more conservative Tier 1 thresholds.
Refer to Appendix C for modeling assumptions and results.

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

Significance After Mitigation

With implementation of mitigation measures included in the Mitigation Monitoring & Reporting Plan, (Attachment 3), overall emissions of fugitive dust would be reduced by approximately 58 percent. These measures would also help to ensure compliance with SLOAPCD's 20-percent opacity limit (APCD Rule 401), nuisance rule (APCD Rule 402), and would minimize potential nuisance impacts to nearby receptors. With mitigation, this impact would be considered less than significant.

Long-term Operational Emissions

Long-term operational emissions associated with the proposed project would be predominantly associated with mobile sources. To a lesser extent, emissions associated with area sources, such as landscape maintenance activities, as well as, use of electricity and natural gas would also contribute to increased operational emissions.

Unmitigated operational emissions for summer, winter and annual conditions are summarized in Table 11. As depicted, operational emissions would be slightly higher during winter conditions. Maximum daily operational emissions would total approximately 11.40 lbs/day ROG+NOx, 25.68 lbs/day CO, 3.70 lbs/day of fugitive PM10, and 0.11 lbs/day of exhaust PM10. Maximum annual emissions would total approximately 2.05 tons/year of ROG+NOx and approximately 0.66 tons/year of fugitive PM10. Operational emissions would not exceed SLOAPCD significance thresholds. As a result, operational emissions are considered to have a less than significant impact.

Table 11
Operational Emissions Without Mitigation

Operational Period/Source	Emissions						
					PM_{10}		
	ROG	NO_X	ROG+NO_X	CO	Fugitive	Exhaust	Total
Daily Emissions (lbs/day)							
Summer Conditions	4.19	6.66	10.85	23.58	3.70	0.11	3.80
Winter Conditions	4.37	7.03	11.40	25.68	3.70	0.11	3.81
SLOAPCD Significance Thresholds	--	--	25	550	25	1.25	--
Exceeds SLOAPCD Thresholds?	--	--	No	No	No	No	--
Annual Emissions (tons/year)							
Total Project Emissions	0.77	1.28	2.05	4.49	0.66	0.02	0.68
SLOAPCD Significance Thresholds	--	--	25	--	25	--	--
Exceeds SLOAPCD Thresholds?	--	--	No	--	No	--	--

Totals may not sum due to rounding.
Refer to Appendix C for modeling output files and assumptions.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d.	Expose sensitive receptors to substantial pollutant concentrations? (Source: 11)	☐	☒	☐	☐

Discussion:

The project site is located along Union Road, south of Highway 46. Adjacent land uses consist largely of undeveloped/agricultural land. Commercial uses are located to the north, across Union Road. The nearest sensitive land uses consist of residential dwellings, the nearest of which are located approximately 0.07 miles to the southwest and east of the project site. Barney Schwartz Park is located approximately 0.2 miles to the southeast. Since the low-density residential dwellings are within one mile of the project site, mitigation measures will be necessary to control pollutant concentrations from the site during development. The potential pollutants and relation to sensitive receptors are described below.

Localized CO Concentrations

Localized concentrations of CO are of primary concern in areas located near congested roadway intersections. Of particular concern are intersections that are projected to operate at unacceptable levels of service (LOS) E or F.

Based on the traffic analysis prepared for this project, primarily affected intersections are projected to operate at LOS C, or better, with project implementation (CCTC 2015). The proposed hotel project would not result in or contribute to unacceptable levels of service (i.e., LOS E or F) at primarily affected nearby signalized intersections. In addition, the proposed project would not result in emissions of CO in excess of the SLOAPCD's significance threshold of 550 lbs/day. Localized concentrations of CO are considered to be less than significant.

Naturally Occurring Asbestos

Naturally Occurring Asbestos (NOA) has been identified as a toxic air contaminant by the ARB. In accordance with ARB Air Toxics Control Measure (ATCM), prior to any grading activities a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request form, along with a copy of the geologic report, must be filed with the SLOAPCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM.

Based on a review of the SLOAPCD's map depicting potential areas of NOA, the project site is not located in an area that has been identified as having a potential for NOA (SLOAPCD 2015a). As a result, the disturbance and potential exposure to NOA is considered to have a less than significant impact.

Asbestos Material in Demolition

Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of asbestos containing material (ACM). Asbestos containing materials could be encountered during demolition of existing buildings, particularly older structures constructed prior to 1970. Asbestos can also be found in various building products, including (but not limited to) utility pipes/pipelines (transit pipes or insulation on pipes). If a project will involve the disturbance or potential disturbance of ACM, various regulatory requirements may apply, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - Asbestos NESHAP). These requirements include but are not limited to: 1) notification, within at least 10 business days of activities commencing, to the APCD, 2) an asbestos survey conducted by a Certified Asbestos Consultant, and, 3) applicable removal and disposal requirements of identified ACM.

The project site will require demolition of onsite structures. As a result, demolition activities have the potential to result in the disturbance of ACM. The disturbance and potential exposure to ACM during demolition of onsite structures is considered to have a potentially significant impact.

Construction-Generated PM

Implementation of the proposed project would result in the generation of fugitive PM emitted during construction. Fugitive PM emissions would be primarily associated with earth-moving, demolition, and material handling activities, as well as, vehicle travel on unpaved and paved surfaces. Onsite off-road equipment and trucks would also result in short-term emissions of diesel-exhaust PM (DPM). Construction generated emissions of PM could result in localized concentrations of PM that could result in increased nuisance impacts to nearby land uses and receptors. As a result, localized uncontrolled concentrations of construction-generated PM would be considered to have a potentially-significant impact.

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

Significance After Mitigation

The Mitigation Monitoring & Reporting Plan, (Attachment 3), includes measures for the control of fugitive dust emitted during project construction, including emissions generated during the demolition of existing structures that may affect sensitive land uses within a mile. Mitigation measures also include additional provisions for reducing emissions of DPM from onsite mobile sources. With implementation of mitigation, this impact would be considered less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Create objectionable odors affecting a substantial number of people? (Source: 11)	☐	☐	☒	☐

Discussion: The occurrence and severity of odor impacts depends on numerous factors, including: the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact.

The proposed project would not result in the installation of any equipment or processes that would be considered major odor-emission sources. However, construction of the proposed project would involve the use of a variety of gasoline or diesel-powered equipment that would emit exhaust fumes. Exhaust fumes, particularly diesel-exhaust, may be considered objectionable by some people. In addition, pavement coatings and architectural coatings used during project construction would also emit temporary odors. However, construction-generated emissions would occur intermittently throughout the workday and would dissipate rapidly with increasing distance from the source. As a result, short-term construction activities would not expose a substantial number of people to frequent odorous emissions. For these reasons, potential exposure of sensitive receptors to odorous emissions would be considered less than significant.

IV. BIOLOGICAL RESOURCES: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Discussion: The Biological Survey Area (BSA) and property have been disturbed from existing development (i.e. structures) and agricultural practices, including disking and tilling. No special-status plant species were observed nor are special-status plant species expected to occur within the BSA (See Biological Resources Assessment, Attachment 5). However, three valley oak trees within the project impact area are protected under the Oak Tree Preservation Ordinance (refer to IV e. further information).

Birds protected under the Migratory Bird Treaty Act (MBTA) are expected to occur on the property and may utilize the oak trees and weedy areas within the BSA for nesting and foraging purposes. California horned larks may forage on the property. The likelihood of this species occurring within the BSA is low since California horned lark is not a common resident to the Paso Robles area. The nearest known occurrence of this species is a year-round population at Camp Roberts, approximately 15 miles north of the BSA (CNDDB 2015).

Mitigation measures recommended in the Mitigation Monitoring & Reporting Plan (Attachment 3) ensures that project activities avoid impacts to migratory nesting birds and that California horned larks are not present

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

prior to the start of construction. The BSA does not contain suitable denning habitat for San Joaquin kit fox. Huerhuero Creek serves as a wildlife corridor for the purposes of foraging for the species. Due to the property's distance from this creek (0.2 miles west), there is potential that San Joaquin kit fox may pass through the project area. Therefore, standard San Joaquin kit fox avoidance measures should be implemented during project construction (refer to San Joaquin Kit Fox Evaluation, Attachment 5).

In addition, the project site is located in a 3:1 mitigation area for the San Joaquin kit fox as preliminarily defined by the City, California Department of Fish & Wildlife (CDFW), and the County of San Luis Obispo. Based on analysis of the site and the completion of the CDFW habitat evaluation form (refer to Attachment 5), the total score on the evaluation was 53. According to CDFW, a score of less than 60 would require a 1:1 mitigation ratio. Therefore, the adverse effect of the project on special status species is reduced to less than significant with mitigation measures incorporated.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Wildlife or US Fish and Wildlife Service?	☐	☒	☐	☐

Discussion: There is no riparian habitat located on this property. However, there are several oak trees on the property that are within the area of disturbance of the project. The applicant has proposed to remove one oak tree and to trim other remaining trees for maintenance purposes. Oak trees that are 6 inches in diameter (dbh) are protected under the City's Oak Tree Protection Ordinance. 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. 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 6) was prepared for this project which identifies all oak tree mitigations to reduce potential impacts to a less than significant level.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Discussion: Per the Biological Resources Assessment (Attachment 5) there are no wetlands, waterways or other hydrological features located on the project site, or within the near vicinity that could be affected by the proposed project. Therefore, the project will not result in impacts to hydrological features and/or resources.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐

Discussion: The biological study prepared for this project indicates that the site is not suitable for denning of San Joaquin Kit Fox and that migration for this species is typically contained along the Huerhuero Creek, 0.2 miles west of the project site. However, mitigations have been included in the study in the event that they use the site for migration. No sensitive bird species were identified on the site, however in accordance with the

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

MBTA, specific mitigations are included to ensure that nesting birds are not significantly impacted by the construction of the proposed project.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐

Discussion: The BSA contains three large valley oak trees that meet the qualifications for protection under the City Oak Tree Preservation Ordinance (2002). This ordinance applies to all oak species native to Paso Robles with a DBH equal to or greater than 6 inches and their corresponding "critical-root-zone" (CRZ), which is calculated by a radius of 1 foot per inch (dbh). Development of the project should avoid impacts to the CRZ and every reasonable effort must be made to avoid impact to the oak trees, including preventing compaction, soil retention, and diversion or increased water flow to the root zone. Existing ground surface within the CRZ shall not be cut, filled, compacted, or pared, and nearby excavation shall not damage roots. A registered civil engineer or land surveyor must provide the City with an inventory and map of all qualifying oak trees in the BSA. A permit must be obtained from the City to prune or remove qualifying oak trees.

Damage to any qualifying oak tree must be reported immediately and corrected in a manner specified by an arborist hired by the City at the applicant's cost. Mitigation plantings are required for removal of qualifying oak trees, and all others remaining in the BSA must be protected. Oak trees that are 6 inches in diameter (dbh) are protected under the City's Oak Tree Protection Ordinance. 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 (refer to Mitigation Monitoring & Reporting Plan, Attachment 3).

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?	☐	☐	☐	☒

Discussion: There are no Habitat Conservation Plans or other related plans applicable in the City of Paso Robles.

V. CULTURAL RESOURCES: Would the project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒

Discussion: See item V. d.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐

Discussion: See item V. d.

c. Directly or indirectly destroy a unique paleontological resource or site or unique	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
geologic feature?				

Discussion: See item V. d.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Discussion: There are no historic resources (as defined), located on the site. There are also no archaeological or paleontological resources known to be present on the site or in the near vicinity. Since the property is not located within proximity to a creek or river or known cultural resource it is unlikely that there are resources located on the site (See Archeological Surface Survey, Attachment 7).

There are no known human remains on the project site, however per conditions of approval incorporated into the project, if human remains are found during site disturbance, all grading and/or construction activities shall stop, and the County Coroner shall be contacted to investigate. Therefore, 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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Rivers 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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
ii. Strong seismic ground shaking? (Sources: 1, 2, & 3)	☐	☐	☒	☐

Discussion: The proposed 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

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

not constructing over active or potentially active faults. Therefore, impacts that may result from seismic ground shaking are considered less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
iii. Seismic-related ground failure, including liquefaction? (Sources: 1, 2 & 3)	☐	☐	☒	☐

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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Landslides?	☐	☐	☒	☐

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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Result in substantial soil erosion or the loss of topsoil? (Sources: 1, 2, & 3)	☐	☐	☒	☐

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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Discussion: See response to item a.iii, above

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐

Discussion: See response to item a.iii, above

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

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

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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Discussion: Estimated Green House Gas (GHG) emissions attributable to future development would be primarily associated with increases of Carbon-dioxide (CO2) from vehicles. To a lesser extent, other GHG pollutants, such as CH4 and N2O, would also be generated. Short-term and long-term GHG emissions associated with the development of the proposed project are discussed in greater detail, as follows, and can be found in the Air Quality & GHG Assessment (Attachment 4):

<u>Short-term Construction GHG Emissions</u>

Estimated increases in GHG emissions associated with construction of the proposed project are summarized in Table 15 below. Based on the modeling conducted, annual emissions of greenhouse gases associated with construction of the proposed project would range from approximately 52.3 to 396.2 MTCO2e. Amortized GHG emissions, when averaged over the assumed 25-year life of the project, would total approximately 17.9 MTCO2e/year. There would also be a small amount of GHG emissions from waste generated during construction; however, this amount is speculative. Actual emissions may vary, depending on the final construction schedules, equipment required, and activities conducted.

Table 15
Construction-Generated GHG Emissions Without Mitigation

Construction Year	GHG Emissions ($MTCO_2e$/Year)
Year 2016	396.2
Year 2017	52.3
Construction Phase Total:	448.5
Amortized Net Change in Construction Emissions*:	17.9

*Amortized emissions are quantified based on an estimated 25-year project life.
Refer to Appendix C for modeling assumptions and results.

<u>Long-term Operational GHG Emissions</u>

Estimated long-term increases in GHG emissions associated with the proposed project are summarized in Table 16 below. Based on the modeling conducted, operational GHG emissions would be predominantly associated with mobile sources and energy use. To a lesser extent, GHG emissions would also be associated with solid waste generation, as well as, water use and conveyance. With amortized construction-generated emissions, annual emissions would total approximately 909 MTCO2e/year. As a result, this impact would be considered less than significant.

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

Table 16
Operational Greenhouse Gas Emissions Without Mitigation

Source	GHG Emissions ($MTCO_2e$/Year)
Area Source	0.01
Energy Use	151.9
Motor Vehicles	701.2
Waste Generation	29.9
Water Use and Conveyance	8.2
Total Project-Generated Emissions:	891.1
Construction (Amortized)	17.9
Net Increase in Emissions:	909.0
SLOAPCD Significance Threshold:	1,150
Exceeds Significance Threshold?:	No

Refer to Appendix C for modeling assumptions and results.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☒	☐	☐

Discussion: The City of Paso Robles Climate Action Plan (CAP) was adopted by the City Council in November, 2013. The CAP is a long-range plan to reduce greenhouse gas (GHG) emissions from City government operations and community activities within Paso Robles and prepare for the anticipated effects of climate change. The CAP will also help achieve multiple community goals such as lowering energy costs, reducing air pollution, supporting local economic development, and improving public health and quality of life (City of Paso Robles, 2013). To help achieve these goals, the CAP includes a “Consistency Worksheet”, which identifies various mandatory and voluntary actions designed to reduce GHG emissions. The CAP Consistency Worksheet can be used to demonstrate project-level compliance with the CAP. The City’s CAP consistency worksheet is included in the Air Quality & GHG Assessment (Attachment 4).

The proposed land use would be consistent with current zoning (i.e., commercial/light industry). In addition, the project sponsor has agreed to implement measures sufficient to ensure consistency with the CAP.

Significance After Mitigation

Implementation of mitigation measures included in the Mitigation Monitoring & Reporting Plan, (Attachment 3), would ensure consistency with the City of Paso Robles CAP. With mitigation, increased emissions of GHGs would be considered less than significant.

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒

Discussion: The project would use industry-standard landscape and building maintenance products which would be stored in compliance with all applicable safety requirements. 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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Discussion: See VIII a. above.

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

Discussion: The proposed project would not emit hazardous emissions or use hazardous materials. There are no schools located within a ¼ mile radius of the project site, therefore the project will result in no impact on an existing or proposed schools.

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?	☐	☐	☐	☒

Discussion: The project site is not identified as a hazardous site per state codes.

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?	☐	☐	☐	☒

Discussion: The project location is within the Airport Land Use Plan, Safety Zone 4, which permits land uses such as hotels, provided they comply with density restrictions.

Airport Land Use Plan

As provided in Table 6 of the Airport Land Use Plan (See Airport Land Use Summary, Attachment 7), the use intensity of Hotels and Motels within Zone 4 shall not exceed an average 40 persons per gross acres, maximum 120 persons per single acre, at any time. Usage calculations shall include all people (e.g., employees, customers/visitors, etc.) who may be on the property at any single point in time, whether indoors or outside.

In addition, Appendix E of the Airport Land Use Plan (See Airport Land Use Summary, Attachment 8) allows for 1.8 persons per room or group of rooms to be occupied as a suite; plus, one person per 60 sq. ft. floor area of any restaurants, coffee shops, bars, or night clubs; plus, one person per 10 sq. ft. of floor area of meeting rooms.

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

Project Site
Land Use Density Calculations

Density by Acreage	
Gross Site Area	5.36 acres
Average number of persons per gross acres	40
Allowable Maximum Density by Acreage	**214 persons**
Density by Type of Use	
Common Area	
Common Area	5,661 sq. ft.
Square Feet per person	60 sq. ft.
Allowable Maximum Density	94 persons
Per Room	
Number of Guest Rooms	119 rooms
Number of persons per room	1.8 persons
Allowable Maximum Density	214 persons
Allowable Maximum Density by Type of Use	**308 persons**

Due to the type of hotel proposed, an extended stay hotel promoted for "business/corporate," rather than "leisure," stays generally constitute a single-occupant-per-room guest. In addition, guest accommodations and amenities are designed to accommodate guest needs and not as a venue rentable to the general public for meetings, conferences, or other such functions.

The project proposes to accommodate 214 guests with an additional 5 staff members for a total maximum of 219 persons on the premises at any one time. The applicant has noted that the number of staff drops down to 1 person at night with the majority of the staff working during day-time hours.

Therefore, due to the gross site area and average number of persons permitted in Zone 4, the project will comply with the Airport Land Use Plan and will not result in a safety hazard for people residing in or working in the project area.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

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

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

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

Discussion: The City does not have an adopted emergency response plan or an emergency evacuation plan, therefore the project will result in no impact.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Discussion: The project is not in the vicinity of wildland fire hazard areas.

IX. HYDROLOGY AND WATER QUALITY: Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

Discussion: The proposed project is designed to retain stormwater on-site through installation of various low-impact development (LID) features. The project was designed to reduce impervious surfaces, preserve existing vegetation, and promote groundwater recharge by employing bioretention through implementation of these measures (refer to Mitigation Monitoring & Reporting Plan, Attachment 3). Thus, water quality standards will be maintained and discharge requirements will be in compliance with State and local regulations. Therefore, impacts to water quality and discharge will be less than significant.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)	☐	☐	☒	☐

Discussion: The proposed project would be connected to the City's municipal water supply system; therefore, it could not individually impact nearby ground water supplies. The City's municipal water supply is composed of groundwater from the Paso Robles Groundwater Basin, an allocation of the Salinas River underflow, and a surface water allocation from the Nacimiento Lake pipeline project. The site is designed to reduce impervious surfaces where possible and to direct surface drainage to onsite retention systems to facilitate groundwater recharge.

The City established a groundwater stewardship policy to not expand dependency on the Paso Robles Groundwater Basin ("the basin") over historic use levels/pumping from the City's peak year of 2007. The City augmented water supply and treatment capacity by procuring surface water from Lake Nacimiento and construction of delivery facilities to the City. This project will not affect the amount of groundwater that the City withdraws from the Paso Robles Groundwater Basin. Per the City's 2010 Urban Water Management Plan (UWMP), page 21:

"The City is progressing with its plans for a water treatment plant (WTP) to treat surface

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

water received from Lake Nacimiento. The WTP is being designed to treat 4 million gallons per day (mgd), with construction to begin in 2015. The WTP can be expanded to treat 6 mgd to meet future demands (Paso Robles website, October 13, 2010). Specific facilities include a water treatment plant, treated water reservoir and pump station, transmission pipeline, appurtenances and other site improvements (Padre, 2008). Half of the initial 4,000 AFY Nacimiento allocation and half of the 4 mgd Phase 1 treatment plant capacity are to replace lost well production capacity and improve water quality. The remaining capacity is to provide for new development. In order to limit reliance on the highly-stressed groundwater basin new development—per City policy—is required to be served with surface and recycled water. Therefore, the second 1,400 AFY Nacimiento allocation, the 2 mgd treatment plant expansion, and recycled water infrastructure will be funded by development."

Additionally, the City assigns "duty" factors that anticipate the amount of water supply necessary to serve various types of land uses. These factors are derived from determining the average water demands for each zoning district in the City. In this circumstance, the water supply necessary for development of commercial land uses permitted in the C3 Zone includes hotels, as well as other uses, is incorporated into the water demand assumptions of the UWMP. As noted above, the City has augmented future reliance on groundwater resources to surface water resources, and commercial development has been accounted for in the overall water projections and demand for the City. As noted in the Project Description, the proposed project would be served with the City's municipal water supply system. Since the City's water supply, as documented in the UWMP, is not reliant on increased groundwater pumping for new development, it demonstrates adequate water supply procured from Lake Nacimiento to accommodate the projected growth in the City and it demonstrates that this project will have adequate water supply available, and will not further deplete or in any way affect, change or increase water demands on the basin.

In addition, in compliance with recently adopted updates to the applicable code sections of the California Green Building Code (adopted by the City in 2013), the project will be required to install more restrictive water-conserving plumbing fixtures than what would have previously been required in 2010. The City also implements the State Landscape Water Conservation regulations, which requires further reductions in water demand for landscaping. Additionally, in compliance with the City's Climate Action Plan adopted in 2013, "Project Consistency Checklist", Appendix C, the applicant will be incorporating landscape water fixtures and drought-resistant landscaping that will achieve a 20 percent reduction in water demand above what is required by State law. Thus, the project will implement *all* best management practices available to reduce water demands over "business-as-usual" and what is anticipated in the UWMP. Therefore, this project would not substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the groundwater basin, and impacts to groundwater resources would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)	☐	☐	☒	☐

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 would be directed to historic drainage areas for percolation in bioswale drainage features at the northeast corner of the property (refer to Stormwater Control Plan, Attachment 9). There are no streams, creeks or rivers on or near the project site that could 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.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)	☐	☐	☒	☐

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.

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)	☐	☐	☒	☐

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.

f.	Otherwise substantially degrade water quality?	☐	☐	☒	☐

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?	☐	☐	☐	☒

Discussion: There is no housing associated with this project nor is there any housing in the near vicinity downstream from the site and the site is not within or near a flood hazard area. Therefore, this project could not result in flood related impacts to housing.

h.	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒

Discussion: See IX h. above

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?	☐	☐	☐	☒

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
j. Inundation by mudflow?	☐	☐	☐	☒

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.

k. Conflict with any Best Management Practices found within the City's Storm Water Management Plan?	☐	☐	☐	☒

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

l. Substantially decrease or degrade watershed storage of runoff, wetlands, riparian areas, aquatic habitat, or associated buffer zones?	☐	☐	☒	☐

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?	☐	☐	☐	☒

Discussion: The project is largely surrounded by low density residences located to the south and east of the site, vacant property, and commercial use to the north. 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?	☐	☒	☐	☐

Discussion: The proposed project is consistent with the City's General Plan and Zoning Ordinance, except for a request for a height exception. The Conditional Use Permit (CUP) process will require specific findings be determined to allow the height exception. Therefore, if findings to approve the proposed height exception can be made, there will be no conflict with applicable regulations.

With the removal of one of the oak trees on site, mitigation measures implemented to reduce impacts to the oak tree would therefore not conflict with the City of Paso Robles Oak Tree Ordinance.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (Source: 1)	☐	☐	☐	☒

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)	☐	☐	☐	☒

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

XII. NOISE: Would the project result in:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Source: 1)	☐	☐	☒	☐

Discussion: The proposed project would not include the installation of major stationary sources of exterior noise. As a result, potential long-term exposure to noise would be primarily associated with vehicle traffic noise emanating from area roadways.

For determination of land use compatibility for transportation noise sources, the City's General Plan establishes a "normally acceptable" exterior noise standard of 65 dBA/CNEL/Ldn. Exterior noise levels of up to 70 dBA CNEL/Ldn are considered "conditionally acceptable" provided necessary noise-reduction measures are incorporated. Exterior levels between 70 and 80 dBA CNEL/Ldn are considered "normally unacceptable" and levels in excess of 80 dBA CNEL/Ldn are considered "clearly unacceptable". In addition to the noise criteria for determination of land use compatibility, General Plan Policy N-1A also establishes exterior and interior noise standards for transportation sources. For hotel uses, the maximum allowable noise exposure within outdoor activity areas is 65 dBA CNEL/Ldn. The maximum allowable noise exposure for interior areas of the hotel is 45 dBA CNEL/Ldn.

For determination of consistency with the City of Paso Robles General Plan noise standards, traffic noise modeling was conducted to determine the predicted traffic noise levels at various onsite locations. Traffic noise modeling was conducted using the Federal Highway Administration (FHWA) Traffic Noise Model, version 2.5, for nearby segments of Highway 46 and Union Road. Traffic noise levels were evaluated for *Near-Term Plus Project* traffic volumes derived from the traffic analysis prepared for this project. The for *Near-Term Plus Project* traffic scenario includes existing traffic volumes along with approved and pending projects in the study area. A future cumulative traffic noise analysis was also conducted based on projected future cumulative year 2025 traffic data derived from the City of Paso Robles General Plan Circulation Element.

Projected near-term and future cumulative traffic noise levels at the proposed project site are depicted in Tables 7 and 8, in the Noise Study (Attachment 10) prepared for this project. In comparison to ground-level locations, predicted noise levels at upper-floor locations are projected to be slightly higher due to decreased ground attenuation and increased line-of-sight of area roadways. Predicted noise levels would be highest along the northern-most building façade. Under near-term conditions, projected exterior noise levels of the northern façade would range from approximately 59 dBA CNEL/Ldn at ground floor locations to

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

approximately 62 dBA CNEL/Ldn at upper floor locations. Under future cumulative conditions projected exterior noise levels of the northern façade would range from approximately 62 dBA CNEL/Ldn of ground-floor locations to approximately 65 dBA CNEL/Ldn of upper floor locations. No outdoor activity areas would be located along the northern building façade. Predicted exterior traffic noise levels would not exceed the City's exterior noise standard of 65 dBA CNEL/Ldn.

Newer building construction typically provides exterior-to-interior noise reductions of 25-30 dB. Based on the predicted exterior noise levels discussed above and assuming a minimum exterior-to-interior noise reduction of 25 dB, predicted interior noise levels for the proposed hotel would be approximately 40 dBA CNEL/Ldn, or less. Predicted interior traffic noise levels would not exceed the City's noise standard of 45 dBA CNEL/Ldn. Therefore, this impact is considered less than significant.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b.	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Discussion: Increases in groundborne vibration levels attributable to the proposed project would be primarily associated with short-term construction-related activities. Construction activities associated with the proposed project would likely require the use of various off-road equipment, such as tractors, concrete mixers, and haul trucks. The use of major groundborne vibration-generating construction equipment, such as pile drivers, is not anticipated to be required for this project.

Groundborne vibration levels associated with representative construction equipment are summarized in Table 7 below. Based on the vibration levels presented in Table 7, ground vibration generated by construction equipment would not be anticipated to exceed City standards. Predicted vibration levels at the nearest offsite structures, which are located in excess of 25 feet from the project site, would not exceed the minimum recommended criterion for structural damage and/or human annoyance (refer to the Noise Impact Assessment, Attachment 10). As a result, this impact would be considered less than significant.

Table 7
Representative Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity at 25 Feet (In/Sec)
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozers/Tractors	0.003
Source: FTA 2006, Caltrans 2004	

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

Discussion: Implementation of the proposed project would result in increased traffic volumes along the adjacent segments of Union Road. Traffic noise levels were quantified for existing conditions, with and without project-generated traffic, based on data derived from the traffic analysis prepared for this project. The project's contribution to traffic noise levels was determined by comparing the predicted noise levels with and without project-generated traffic. Predicted traffic noise levels are summarized in Table 8 below.

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

ln comparison to existing conditions, the proposed project would result in predicted increases in traffic noise levels of approximately 0.3 dBA, or less, along the adjacent segments of Union Road. Implementation of the proposed project would not contribute to a substantial increase in traffic noise levels along area roadways. As a result, this impact would be considered less than significant.

Table 8
Predicted Increases in Existing Traffic Noise Levels

Roadway Segment	CNEL/L_{dn} at 50 Feet from Near-Travel-Lane Centerline[1]		Predicted Noise Level Increase	Substantial Noise Level Increase?[2]
	Without Project	With Project		
Union Road, West of Project Site	64.9	65.1	0.2	No
Union Road, East of Project Site	64.3	64.6	0.3	No

1. *Traffic noise levels were calculated using the FHWA roadway noise prediction model based on data obtained from the traffic analysis prepared for this project (CCTC 2015).*
2. *For purposes of this analysis, a substantial increase in noise levels is defined as an increase of 5.0, or greater, where the noise levels, without project implementation, are less than the City's "normally acceptable" noise standard. Where the noise level, without project implementation, equals or exceeds applicable noise standards, an increase of 3.0 dBA, or greater, would be considered a substantial increase.*

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐

Discussion: Construction noise typically occurs intermittently and varies depending upon the nature or phase of construction (e.g., land clearing, grading, excavation, and paving). Noise generated by construction equipment including earth movers, material handlers, and portable generators, can reach high levels. Although noise ranges are generally similar for all construction phases, the initial site preparation phase tends to involve the most heavy-duty equipment, having a higher noise-generation potential.

Noise levels associated with individual construction equipment is summarized in Table 9 below. As depicted, noise levels generated by individual pieces of construction equipment typically range from approximately 74 dBA to 89 DBA Lmax at 50 feet (FTA 2006). Average-hourly noise levels associated with road improvement projects can vary depending on the activities performed, reaching levels of up to approximately 83 dBA Leq at 50 feet. Short-term increases in vehicle traffic, including worker commute trips and haul truck trips may also result in temporary increases in ambient noise levels at nearby receptors. Construction activities occurring during the more noise-sensitive nighttime hours would be of particular concern given the potential for increased levels of annoyance. The proposed project, however, does not identify hourly restrictions for construction activities. As a result, noise-generating construction activities occurring during nighttime hours, if required, would be considered to have a potentially significant short-term noise impact.

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

Table 9
Typical Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA Lmax) 50 feet from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Vibrator	76
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	85
Truck	88
Paver	89
Pneumatic Tool	85
Roller	74
Saw	76
Sources: FTA 2006	

With the mitigation measures identified in the Mitigation Monitoring & Reporting Plan, Attachment 3, construction activities would be limited to the daytime hours. The proper maintenance of construction equipment and use of mufflers would reduce equipment noise levels by approximately 10 dB. With mitigation, this impact is considered less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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? (Sources: 1, 4)	☐	☐	☐	☒

Discussion: The nearest public or private airport is the Paso Robles Municipal Airport, which is located approximately 1.4 miles north of the project site. The project site is not located within the projected 65 dBA CNEL contours of Paso Robles Municipal Airport (City of Paso Robles 2004). As a result, the project site is not subject to high levels of aircraft noise.

XIII. POPULATION AND HOUSING: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? (Source: 1)	☐	☐	☐	☒

Discussion: The proposed hotel project 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?	☐	☐	☐	☒

Discussion: See response XIII a.

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion: See response XIII a.

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)	☐	☐	☒	☐
b. Police protection? (Sources: 1,10)	☐	☐	☒	☐
c. Schools?	☐	☐	☒	☐
d. Parks?	☐	☐	☒	☐
e. Other public facilities? (Sources: 1,10)	☐	☐	☒	☐

Discussion: (XIV 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	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
substantial physical deterioration of the facility would occur or be accelerated?				
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?	☐	☐	☒	☐

Discussion: (a & b) As a commercial development project that will not encourage new housing demands and use of recreational facilities, it will not result in impacts to recreational facilities.

XVI. TRANSPORTATION/TRAFFIC: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐

Discussion: The proposed project provides frontage improvements that includes sidewalks and Class II bike lanes which is consistent with City standards and the 2009 Bike Master Plan. The project is consistent with the policies of the City's 2011 Circulation Element by providing facilities for multiple modes of transportation.

Potential transportation impacts for the development indicate the northbound approach to State Route 46 E/Union Road would worsen to vehicular level of service (LOS) F with the addition of project traffic while the intersection will remain at LOS A. Prohibiting the northbound left turns at this intersection would improve operations by reducing turning conflicts, while the westbound left turn lane should remain as it provides substantial relief to the State Route 46 East/Golden Hill Road intersection, located west of the project (refer to the Transportation Impact Analysis, Attachment 11). In order to enhance the effectiveness of the circulation system, the project will work with Caltrans to remove this turning option as part of the Mitigation Monitoring & Reporting Plan (Attachment 3). Therefore, with the turning conflict removed, the project result will be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Conflict with an applicable congestion management program, including but not limited to a level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐

Discussion: The traffic study prepared for this project by Central Coast Transportation Consulting evaluated project related traffic impacts for existing plus-project traffic conditions (Attachment 11). The study determined all intersections operate at LOS C or better with no queuing deficiencies. Mitigation measures identified in the Mitigation Monitoring & Reporting Plan, Attachment 3, addresses site distance conflicts and reduces congestion levels to less than significant.

The applicant is required to pay transportation impact fees established by City Council in affect at the time of occupancy to mitigate future impacts with planned improvements by the City and Caltrans.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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: The project site will not affect air traffic patterns at the Paso Robles airport or affect airport operations.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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's Transportation Impact Analysis (See Attachment 11) determined under existing, existing plus project, near term, and near term plus project conditions, all of the study intersections will operate at LOS C or better during the weekday peak hours. With the anticipated closure of northbound left turns at the State Route 46/Union Road intersection, potentially dangerous design features will be reduced to less than significant. In addition, the raised median with a left turn lane serving inbound traffic to the site, as well as outbound left turns prohibited from the northern project driveway, will reduce traffic conflicts and hazards. Narrowing Union Road eastbound travel lane to 10 feet will slow traffic approaching the project driveway, decreasing any hazards due to design features.

With the Mitigation Monitoring & Reporting Plan (See Attachment 3), the project will not substantially increase hazards due to design features, nor will the use be incompatible, reducing impacts to less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Result in inadequate emergency access?	☐	☐	☐	☒

Discussion: The project will not impede emergency access, and is designed in compliance with all emergency access safety features and to City emergency access standards.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Discussion: The project incorporates multi-modal transportation facilities such as bike lanes, sidewalks, walkways, and can be served with the Paso Express dial-a-ride service. The project will also be conditioned to participate in the SLO Car Free program, which would provide incentives for guests to use alternative transportation options. Therefore, the project does not conflict with policies and plans regarding these facilities.

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒

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

Discussion: The 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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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: Per the City's General Plan EIR, Urban Water Management Plan, and Sewer System Management Plan (SSMP), the City's water and wastewater treatment facilities are adequately sized, including planned facility upgrades, to provide needed water and to treat effluent resulting from this project. Therefore, this project will not result in the need to construct new facilities.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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: All new stormwater resulting from this project will be managed on the project site, and will not enter existing storm water drainage facilities or require expansion of new drainage facilities (refer to the Stormwater Control Plan, Attachment 9). Therefore, the project will not impact the City's storm water drainage facilities.

	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?	☐	☐	☒	☐

Discussion: As noted in section IX on Hydrology, the project can be served with existing water resource entitlements available and will not require expansion of new water resource entitlements.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒

Discussion: Per the City's SSMP The City's wastewater treatment facility has adequate capacity to serve this project as well as existing commitments.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒

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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

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

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐

Discussion: As noted within this environmental document, and with the mitigation measures outlined in the document, the project's impacts related to habitat for wildlife species (San Joaquin Kit Fox) will be less than significant with mitigation incorporated. There will be no impact to fish habitat as well as no impact to fish and wildlife populations. The site is comprised of disturbed habitat, so impact to fish, wildlife, of plant habitat would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	☐	☐	☒	☐

Discussion: The project is consistent with the City's General Plan and Planned Development, Land Use designation and Zoning, and the adopted General Plan EIR, which evaluated City growth and build out. Therefore, the project will not have impacts that are individually limited, but cumulatively considerable.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

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.

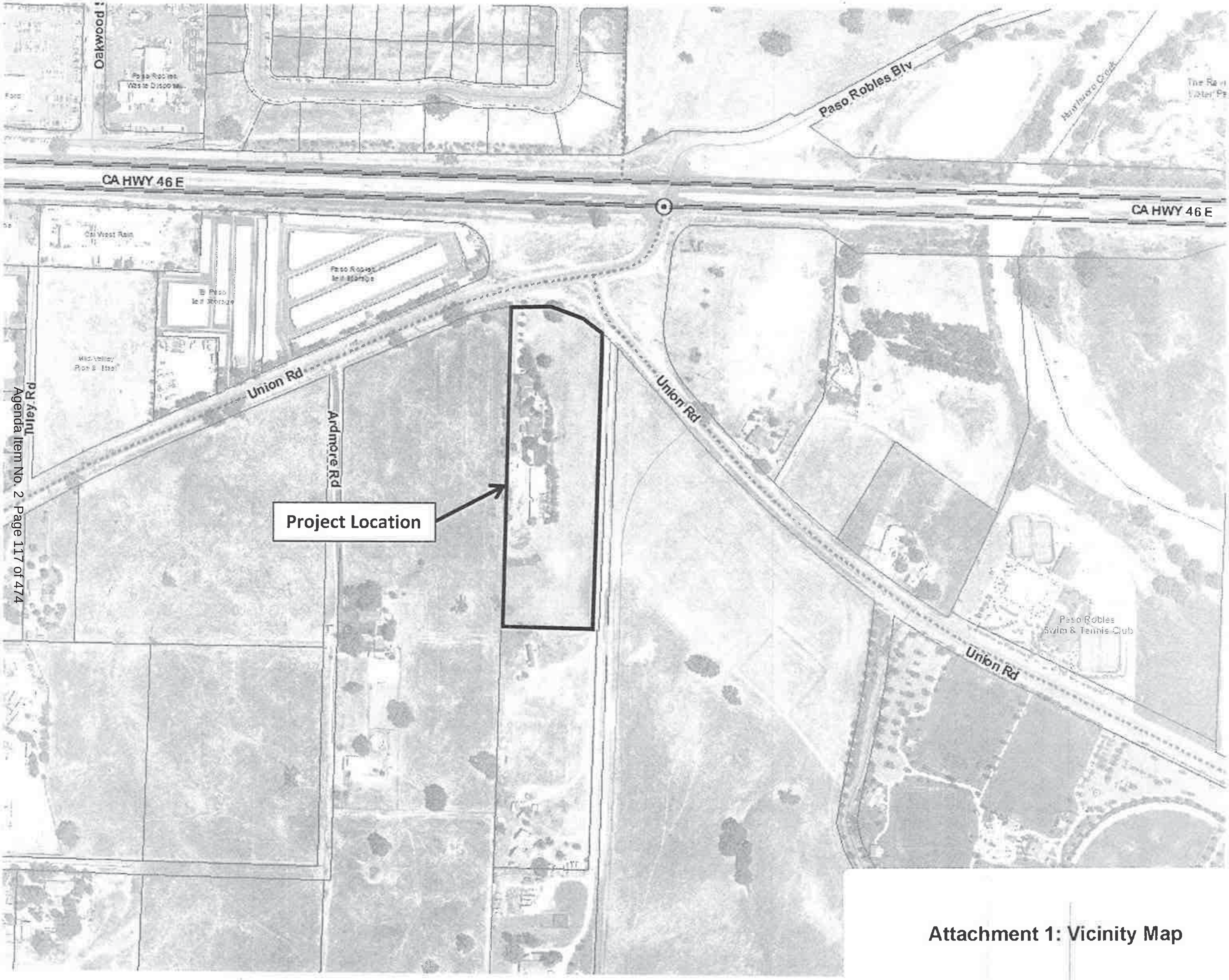
Earlier analyses may be used where, pursuant to tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D).

Earlier Documents that may have been used in this Analysis and Background / Explanatory Materials

Reference #	Document Title	Available for Review at:
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	2005 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
14	Bike Master Plan, 2009	City of Paso Robles Community Development Department 1000 Spring Street Paso Robles, CA 93446

Attachments:

1. **Vicinity Map**
2. **Site Plan & Elevations**
3. **Mitigation Monitoring & Reporting Plan**
4. **Air Quality & GHG Assessment**
5. **Biological Resources Assessment & San Joaquin Kit Fox Evaluation**
6. **Arborist Report**
7. **Archeological Surface Survey**
8. **Airport Land Use Table 6**
9. **Stormwater Control Plan**
10. **Noise Impact Assessment**
11. **Transportation Impact Analysis**



Attachment 1: Vicinity Map

View from Northeast Arrival

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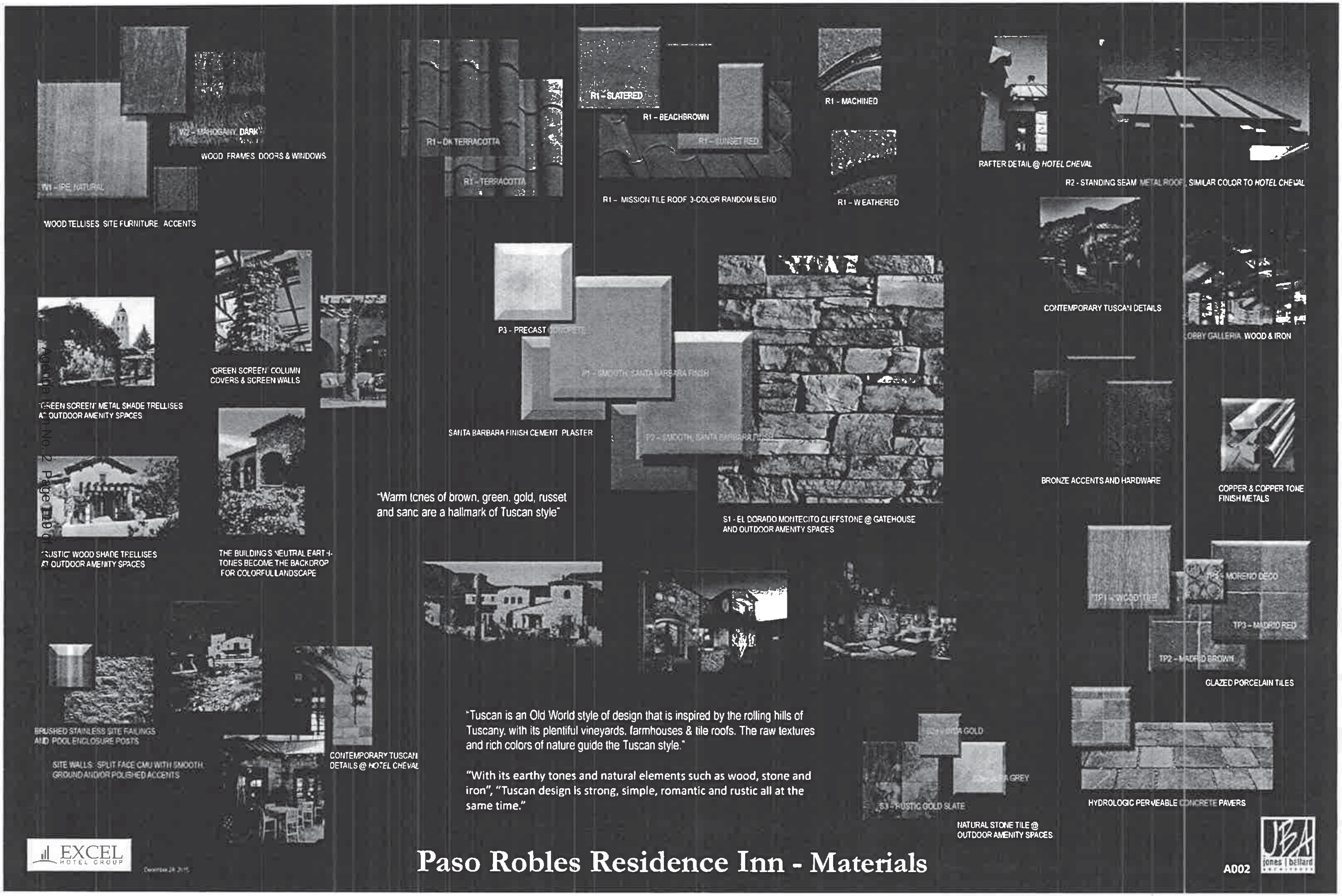
December 28, 2015

Residence Inn by Marriott, Paso Robles, Califori

2940 Union Road, Paso Robles, Californi

Attachment 2: Site Plan & Elevations


W1 - IPE NATURAL
W2 - MAHOGANY DARK
WOOD FRAMES DOORS & WINDOWS
WOOD TELLISES SITE FURNITURE ACCENTS
R1 - DK TERRACOTTA
R1 - TERRACOTTA
R1 - SLATERED
R1 - BEACHBROWN
R1 - SUNSET RED
R1 - MISSION TILE ROOF 3-COLOR RANDOM BLEND
R1 - MACHINED
R1 - WEATHERED
RAFTER DETAIL @ HOTEL CHEVAL
R2 - STANDING SEAM METAL ROOF SIMILAR COLOR TO HOTEL CHEVAL
GREEN SCREEN METAL SHADE TRELLISES AT OUTDOOR AMENITY SPACES
"GREEN SCREEN" COLUMN COVERS & SCREEN WALLS
P3 - PRECAST CONCRETE
P1 - SMOOTH SANTA BARBARA FINISH
P2 - SMOOTH SANTA BARBARA FINISH
SANTA BARBARA FINISH CEMENT PLASTER
S1 - EL DORADO MONTECITO CLIFFSTONE @ GATEHOUSE AND OUTDOOR AMENITY SPACES
CONTEMPORARY TUSCAN DETAILS
LOBBY GALLERIA WOOD & IRON
BRONZE ACCENTS AND HARDWARE
COPPER & COPPER TONE FINISH METALS
RUSTIC WOOD SHADE TRELLISES AT OUTDOOR AMENITY SPACES
THE BUILDINGS NEUTRAL EARTH-TONES BECOME THE BACKDROP FOR COLORFUL LANDSCAPE
"Warm tones of brown, green, gold, russet and sand are a hallmark of Tuscan style"
TP1 - WOOD TILE
TP3 - MORENO DECO
TP3 - MADRID RED
TP2 - MADRID BROWN
GLAZED PORCELAIN TILES
BRUSHED STAINLESS SITE RAILINGS AND POOL ENCLOSURE POSTS
SITE WALLS: SPLIT FACE CMU WITH SMOOTH GROUND AND/OR POLISHED ACCENTS
CONTEMPORARY TUSCAN DETAILS @ HOTEL CHEVAL
"Tuscan is an Old World style of design that is inspired by the rolling hills of Tuscany, with its plentiful vineyards, farmhouses & tile roofs. The raw textures and rich colors of nature guide the Tuscan style."
"With its earthy tones and natural elements such as wood, stone and iron", "Tuscan design is strong, simple, romantic and rustic all at the same time."
S3 - RUSTIC GOLD SLATE
GOLD
GREY
NATURAL STONE TILE @ OUTDOOR AMENITY SPACES
HYDROLOGIC PERMEABLE CONCRETE PAVERS
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Paso Robles Residence Inn - Materials
A002
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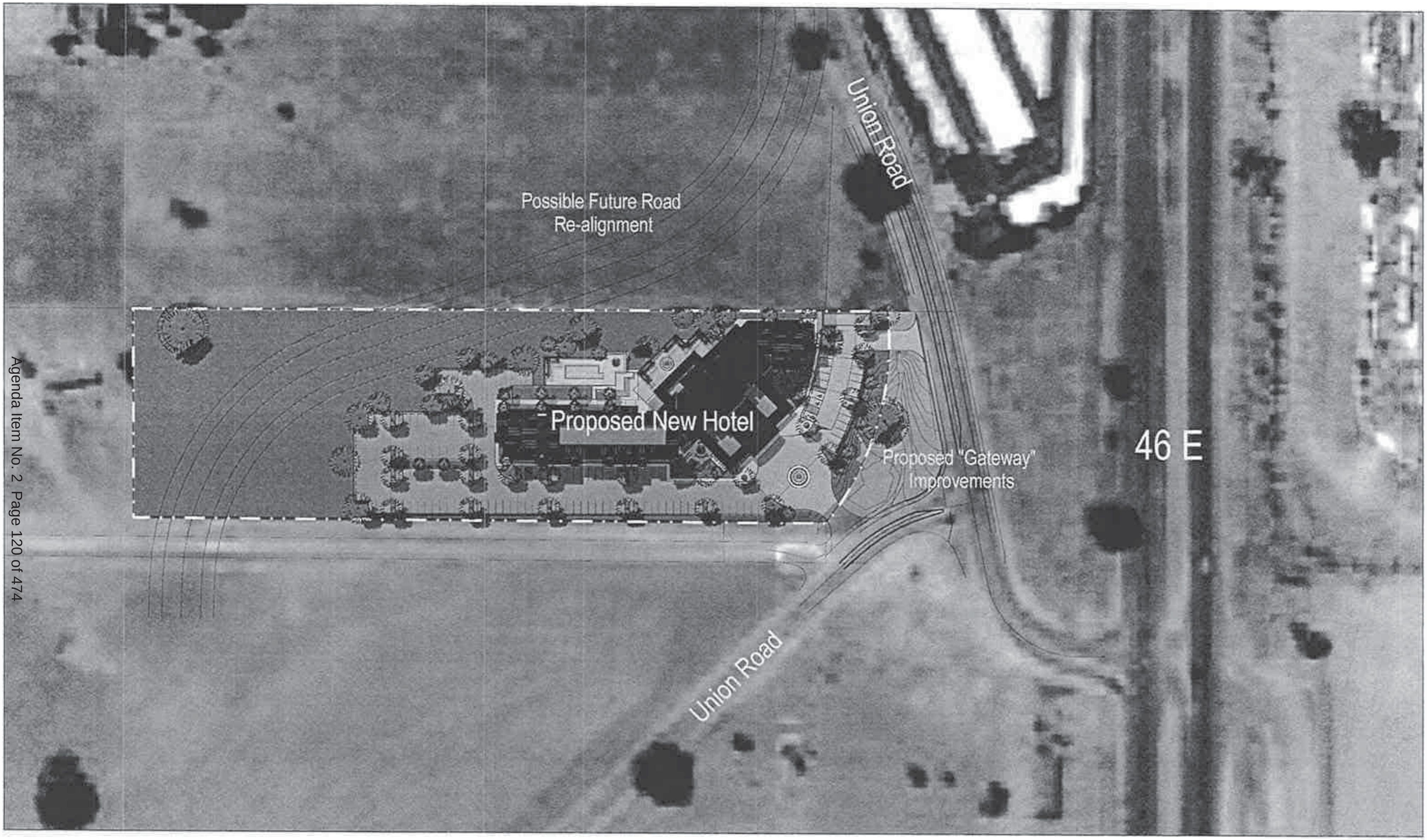

1 Site Plan / Context 1"=50'-0"

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Residence Inn Marriott

Residence Inn by Marriott, Paso Robles, California

December 28, 2015

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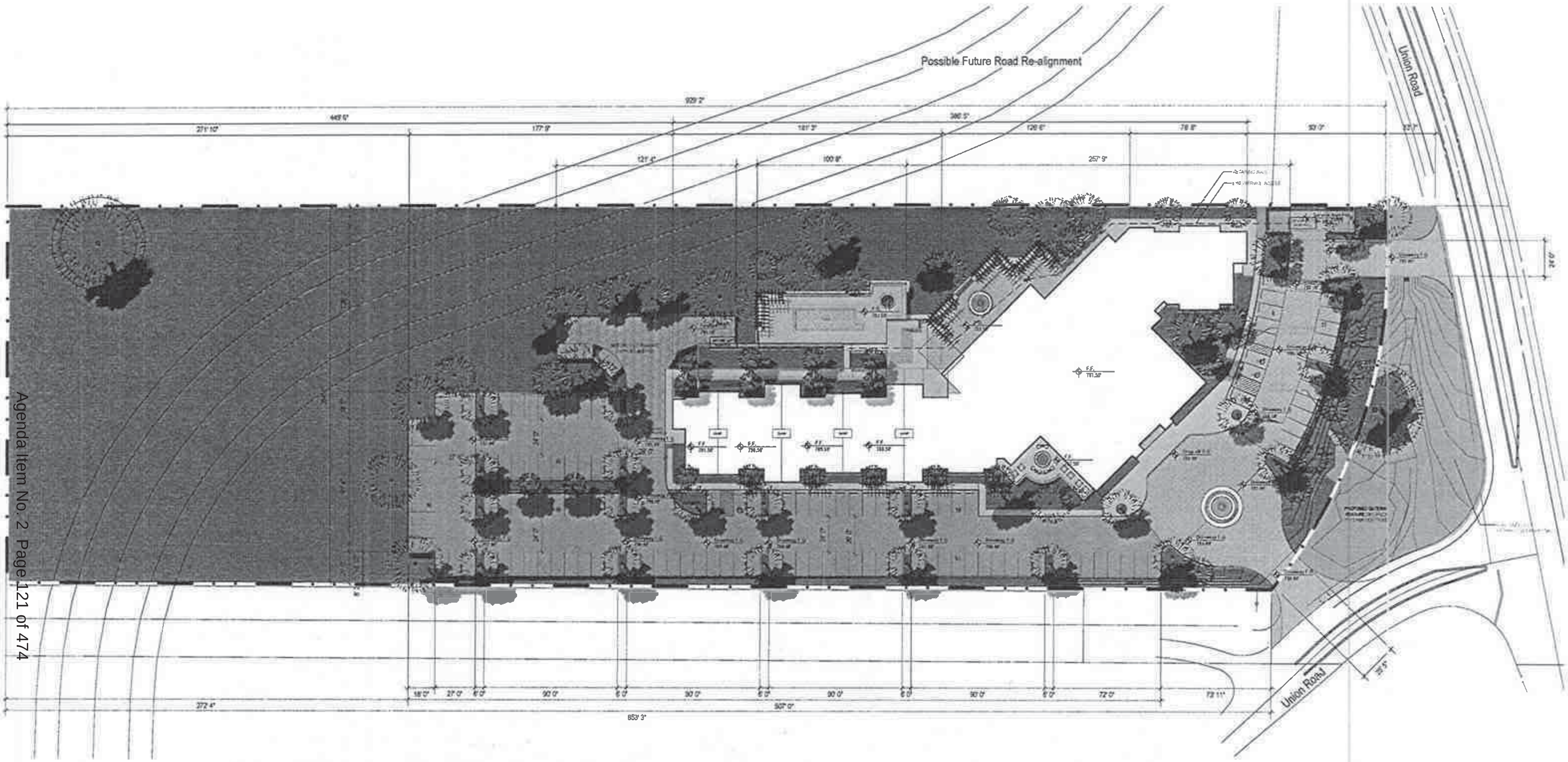

1 Site Plan / Building Pad 1"=30'-0"

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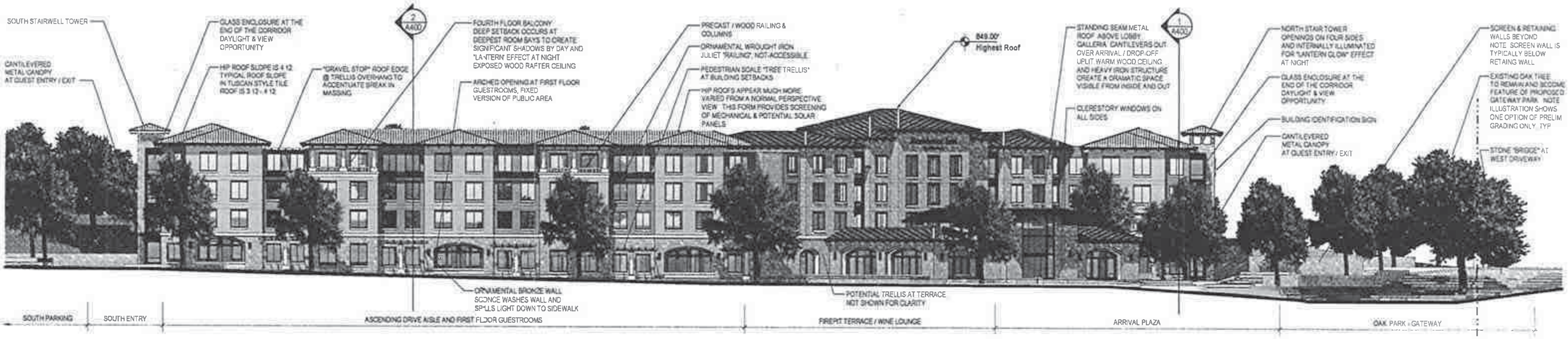
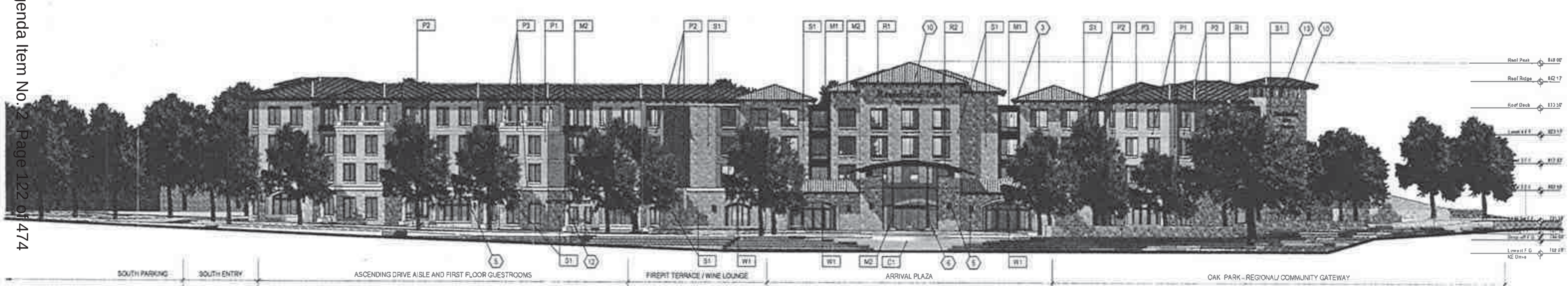


2 East Building Elevation

1/16" = 1'-0"



1 Northeast Building Elevation

1/16" = 1'-0"

KEY NOTES

1. ROOF SCUPPER
2. CONTROL JOINT
3. PREFINISHED ALUMINUM WINDOWS, BRONZE
4. PREFINISHED METAL LOUVERS AT DRYER VENTS
5. EXTERIOR WALL SCONCE, BRONZE
6. ALUMINUM DOOR/WINDOW STOREFRONT IN PAINTED STEEL FRAME, BRONZE
7. INSULATED HOLLOW METAL DOOR AND FRAME
8. ENTRANCE CANOPY
9. METAL RAILING
10. INTERNALLY-ILLUMINATED BUILDING SIGNAGE
11. REMOTELY-ILLUMINATED MONUMENT SIGNAGE
12. WOOD / METAL TRELLIS ON PRECAST CONCRETE COLUMNS
13. UP-LIT "LANTERN" FEATURE, INDIRECTLY ILLUMINATED CEILING "GLOWS"

FINISH NOTES

P1	CEMENT PLASTER COLOR - FRAZEE MEXICAN TEA, CL2883D
P2	CEMENT PLASTER COLOR - FRAZEE JACK-IN-THE-PULPIT, CL2885A
P3	CEMENT PLASTER / PRECAST COLOR NATURAL
M1	ALUMINUM FRAMED WINDOWS COLOR "BRONZE"
M2	PREFINISHED METAL COLOR "MEDIUM BRONZE"
M3	PREFINISHED METAL COLOR "SAGE" OR SIMILAR
S1	MANUFACTURED STONE TILE MONTECITO CLIFFSTONE MANUFACTURED BY EL DORADO
S2	STONE TILE, "NATURAL LIMESTONE", COLOR "INCA GOLD"/ "JURA GREY"
S3	STONE TILE COLOR "RUSTIC GOLD SLATE"
W1	WOOD COLOR DARK MAHOGANY CLEAR STAIN
W2	WOOD SITE FURNITURE COLOR IPE-NATURAL
W3	WOOD ACCENT: COLOR-TBD
C1	CONCRETE COLOR "NATURAL WHITE"
C2	CONCRETE BLOCK COLOR "NATURAL GREY"
C3	CONCRETE BLOCK COLOR "SPLIT-FACE DARK GREY"
R1	MISSION TILE ROOF 3-COLOR RANDOM BLEND - RUSTIC
R2	STANDING SEAM METAL ROOF COLOR SEE MATERIAL BOARD (OPT. PATINA COPPER)

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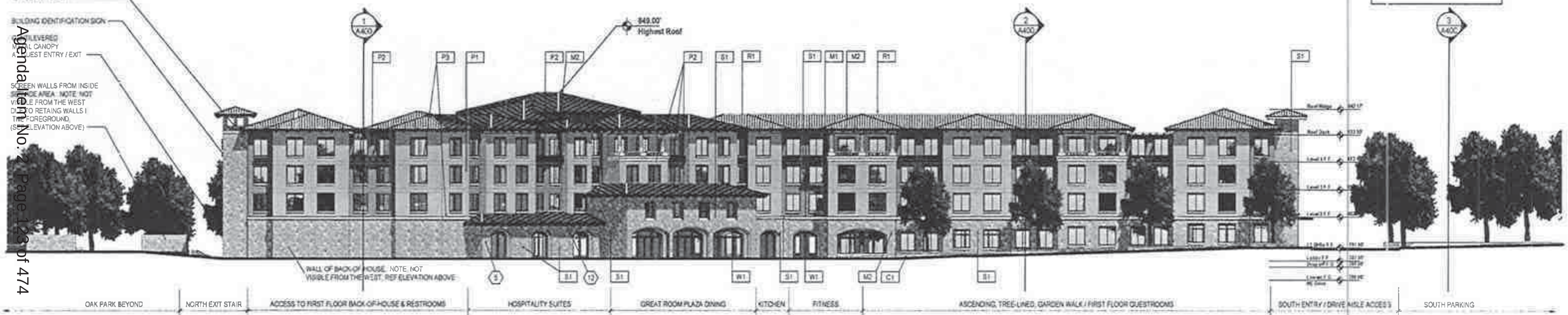
A300

2 West Building Elevation, (Topography at the West Property Line shown in the foreground) 1/16"= 1'-0"

NOTE: SLOPE DEPICTED ON THESE DRAWINGS IS A GRAPHIC APPROXIMATION. REFERENCE CIVIL DRAWINGS FOR PRECISE TOPOGRAPHY



1 West Building Elevation 1/16"= 1'-0"

KEY NOTES

1. ROOF SCUPPER
2. CONTROL JOINT
3. PREFINISHED ALUMINUM WINDOWS, BRONZE
4. PREFINISHED METAL LOUVERS AT DRYER VENTS
5. EXTERIOR WALL SCONCE, BRONZE
6. ALUMINUM DOOR/WINDOW STOREFRONT IN PAINTED STEEL FRAME, BRONZE
7. INSULATED HOLLOW METAL DOOR AND FRAME
8. ENTRANCE CANOPY
9. METAL RAILING
10. INTERNALLY-ILLUMINATED BUILDING SIGNAGE
11. REMOTELY-ILLUMINATED MONUMENT SIGNAGE
12. WOOD / METAL TRELLIS ON PRECAST CONCRETE COLUMNS
13. UP-LIT "LANTERN" FEATURE, INDIRECTLY ILLUMINATED CEILING "GLOWS"

FINISH NOTES

- P1 CEMENT PLASTER COLOR - FRAZEE MEXICAN TEA, CL2883D
- P2 CEMENT PLASTER COLOR - FRAZEE JACK-IN-THE-PULPIT, CL2886A
- P3 CEMENT PLASTER / PRECAST COLOR NATURAL
- M1 ALUMINUM FRAMED WINDOWS COLOR "BRONZE"
- M2 PREFINISHED METAL COLOR "MEDIUM BRONZE"
- M3 PREFINISHED METAL COLOR "SAGE" OR SIMILAR
- S1 MANUFACTURED STONE TILE MONTECITO CLIFFSTONE MANUFACTURED BY EL DORADO
- S2 STONE TILE "NATURAL LIMESTONE", COLOR "INCA GOLD"/ "JURA GREY"
- S3 STONE TILE COLOR "RUSTIC GOLD SLATE"
- W1 WOOD COLOR-DARK MAHOGANY CLEAR STAIN
- W2 WOOD SITE FURNITURE COLOR IPE-NATURAL
- W3 WOOD ACCENT COLOR-TBD
- C1 CONCRETE COLOR "NATURAL WHITE"
- C2 CONCRETE BLOCK COLOR "NATURAL GREY"
- C3 CONCRETE BLOCK COLOR "SPLIT-FACE DARK GREY"
- R1 MISSION TILE ROOF 3-COLOR RANDOM BLEND - RUSTIC
- R2 STANDING SEAM METAL ROOF COLOR SEE MATERIAL BOARD (OPT. PATINA COPPER)

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Residence Inn by Marriott, Paso Robles, California

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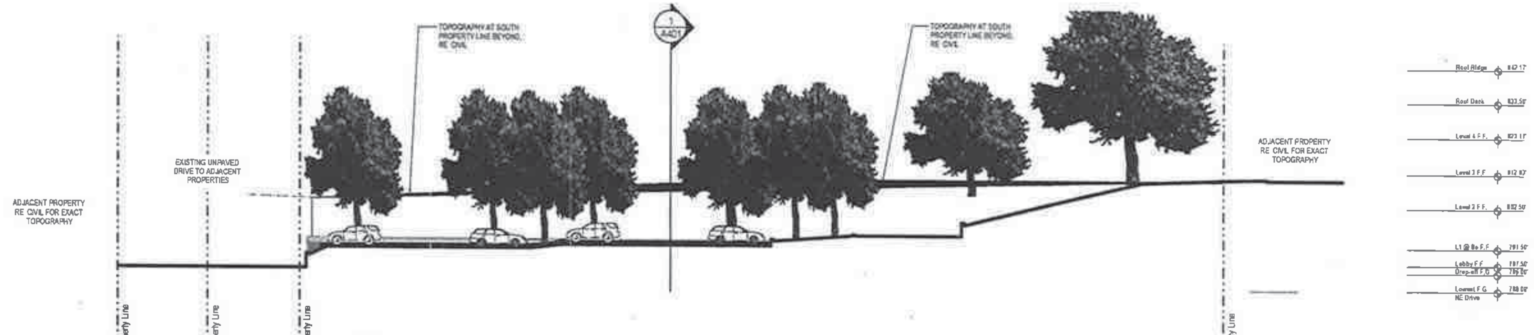
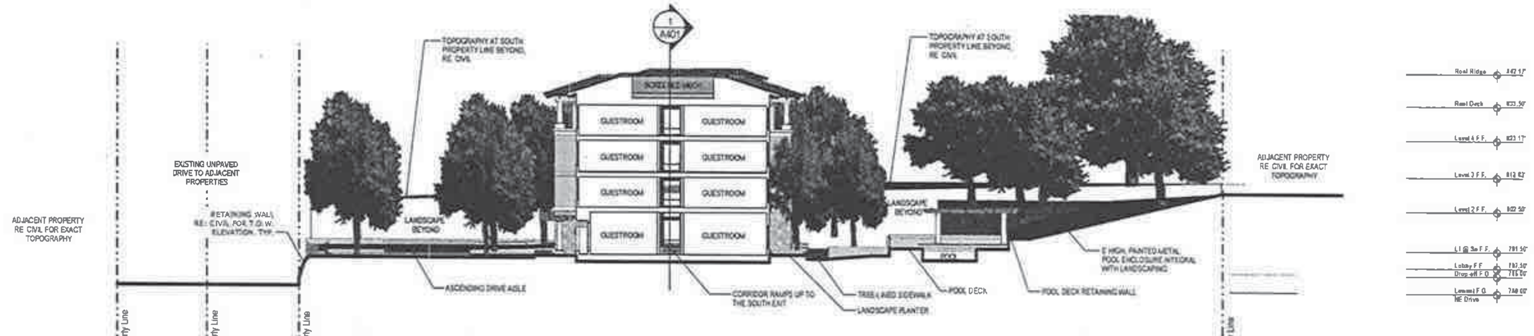
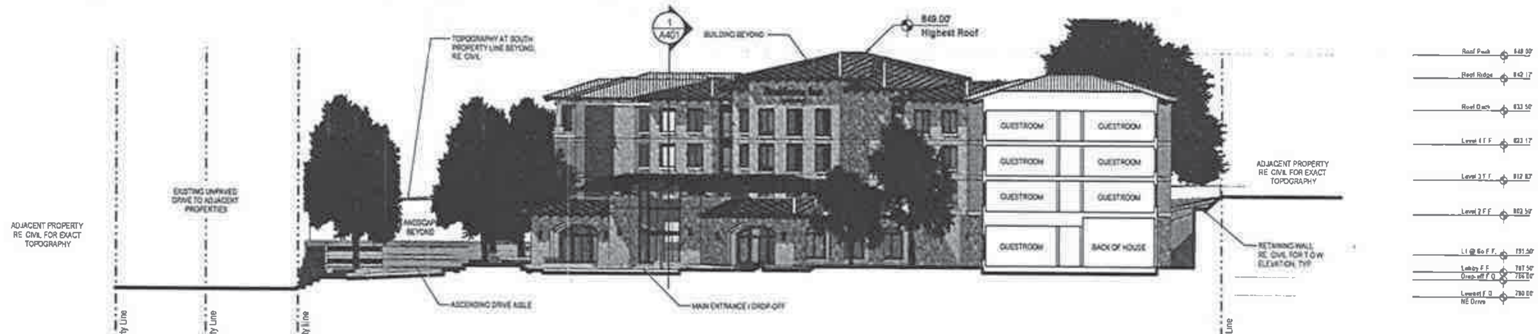
A301



3 Building / Site Section, Looking South 1/16"= 1'-0"



2 Building / Site Section, Looking South 1/16"= 1'-0"



1 Building / Site Section, Looking South 1/16"= 1'-0"

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Residence Inn by Marriott, Paso Robles, California

December 28, 2015

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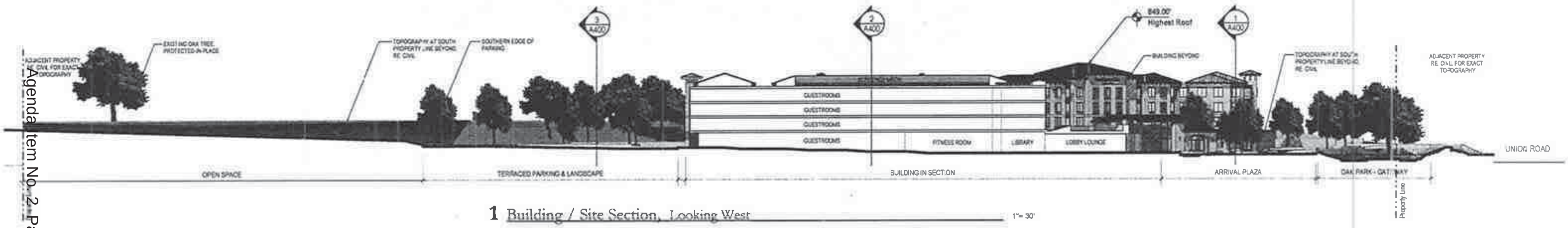
A400



1 Building / Site Section, Looking West 1"= 30'

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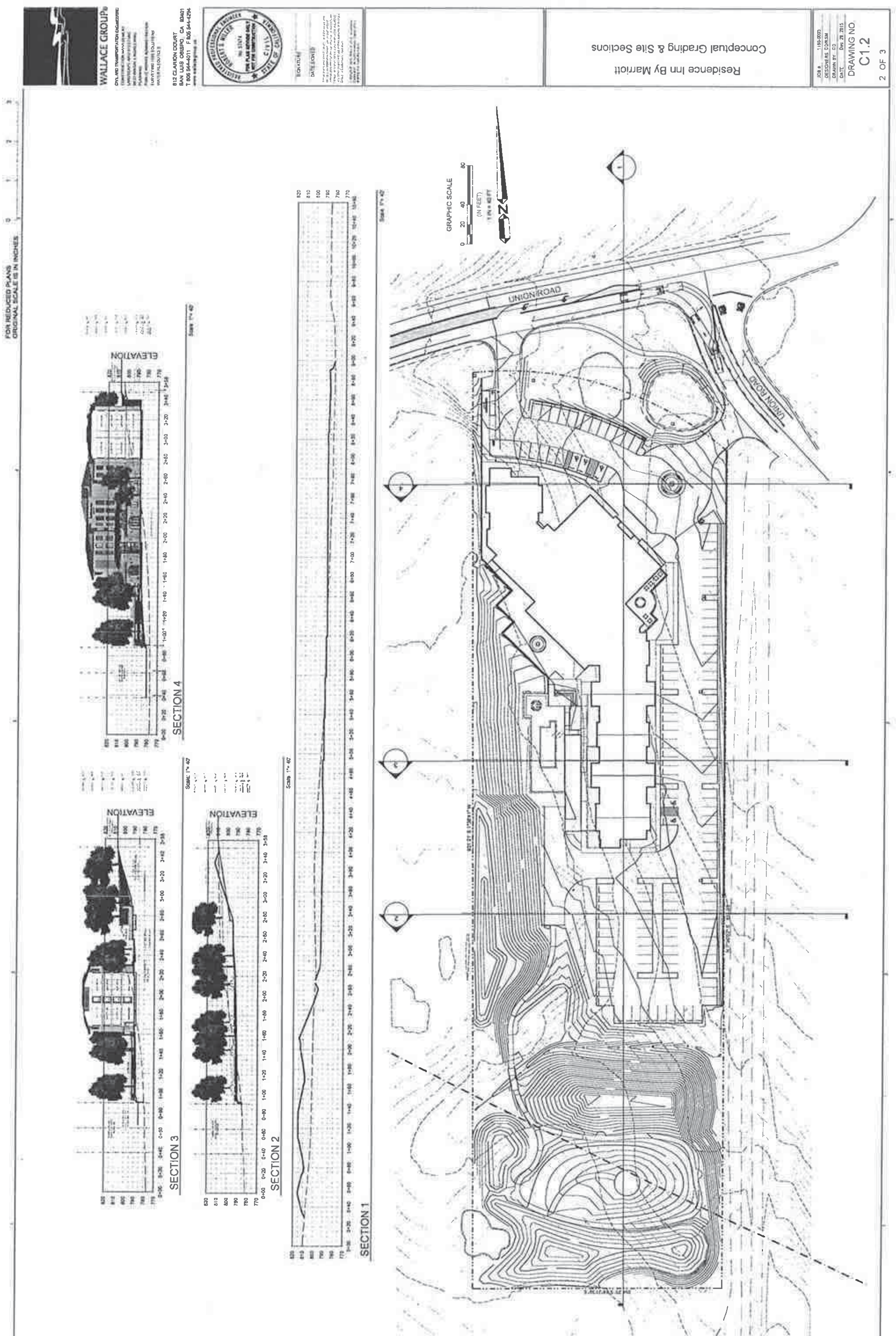
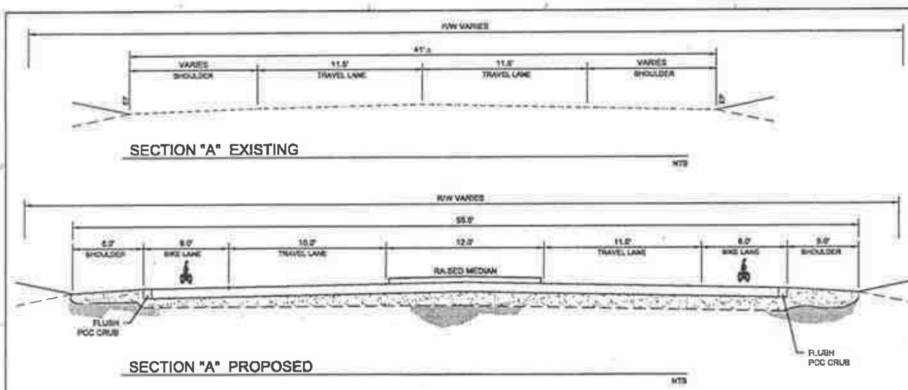
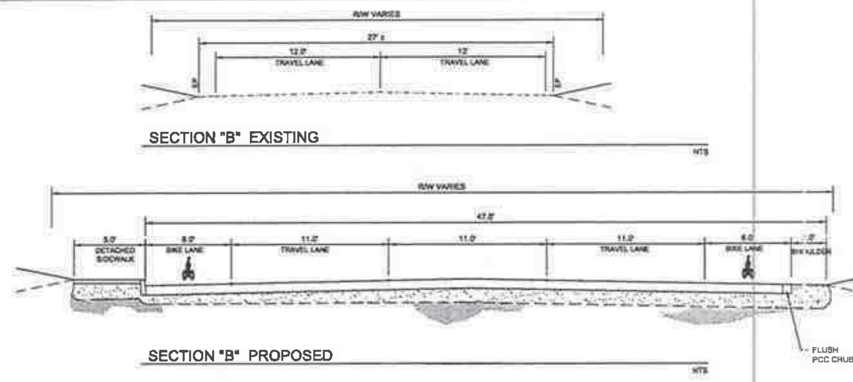

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
WALLACE GROUP
812 CLARION COURT
SAN LUIS OBISPO, CA 93401
Residence Inn By Marriott
Conceptual Grading & Site Sections
DRAWING NO.
C1.2
2 OF 3
SECTION 4
ELEVATION
SECTION 3
ELEVATION
SECTION 2
SECTION 1
GRAPHIC SCALE
(IN FEET)
UNION ROAD
UNION ROAD





FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

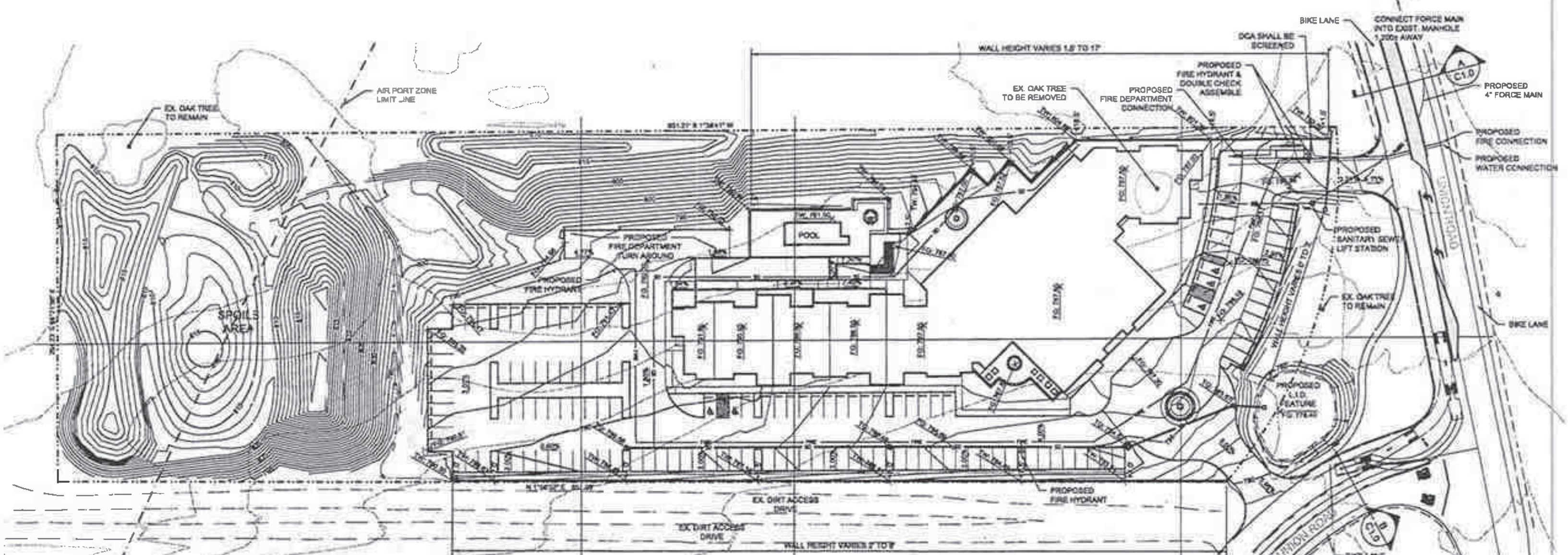
GRAPHIC SCALE

(IN FEET)
1 IN = 40 FT

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
LID V EG	1.000	1.100	4583.74 Sq. Ft.	366.06 Cu. Yd.	0.00 Cu. Yd.	366.06 Cu. Yd.<Cut>
eg v fg	1.000	1.000	221587.76 Sq. Ft.	27646.86 Cu. Yd.	24905.01 Cu. Yd.	2741.85 Cu. Yd.<Cut>
Totals			226171.50 Sq. Ft.	28012.92 Cu. Yd.	24905.01 Cu. Yd.	3107.90 Cu. Yd.<Cut>

1' HOLD DOWN 4,300 CY CUT
TOTAL: 7,420 CY CUT



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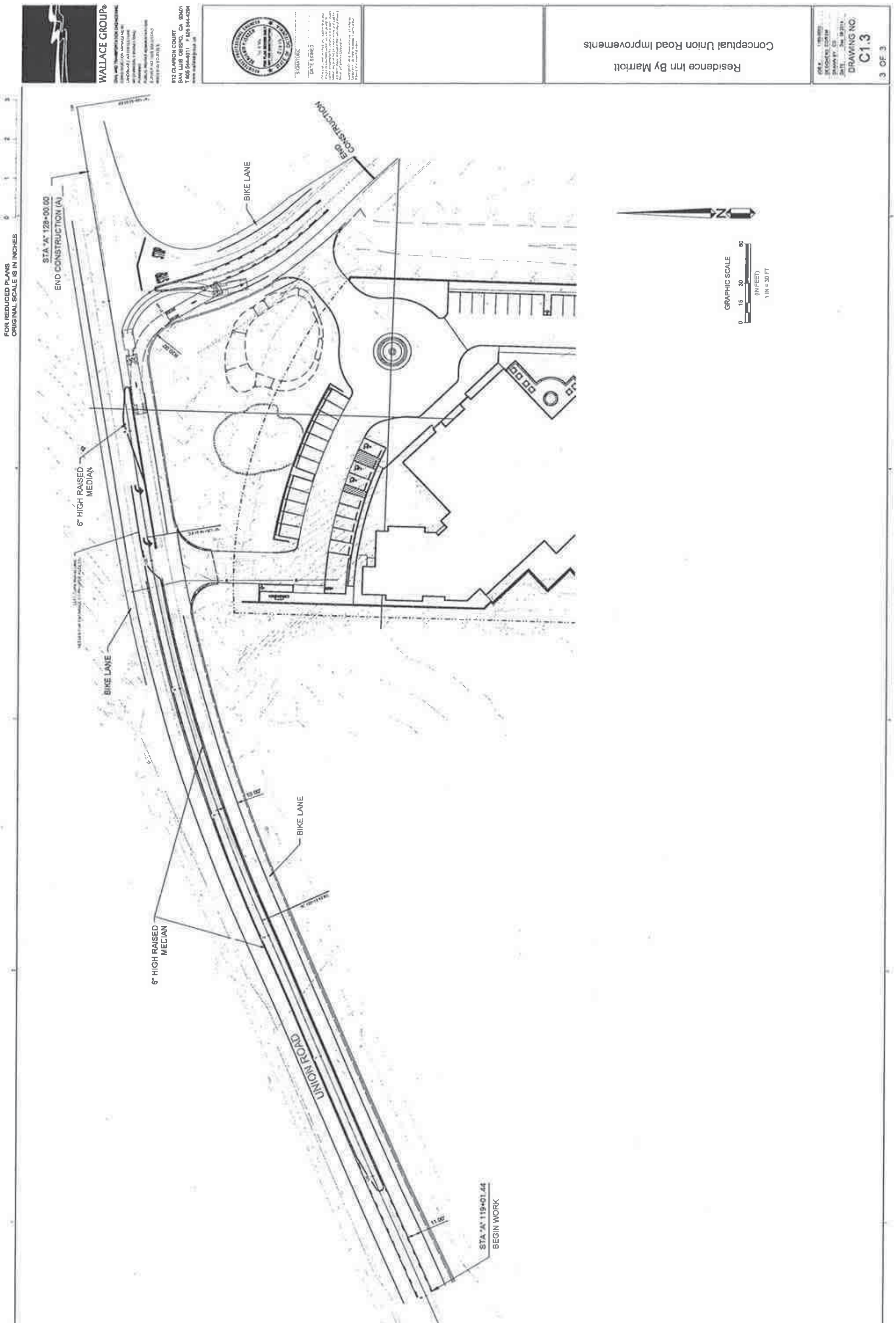
SIGNATURE
DATE SIGNED

Residence Inn By Marriott
Conceptual Grading & Utility Plan

DRAWING NO.
C1.1
1 OF 3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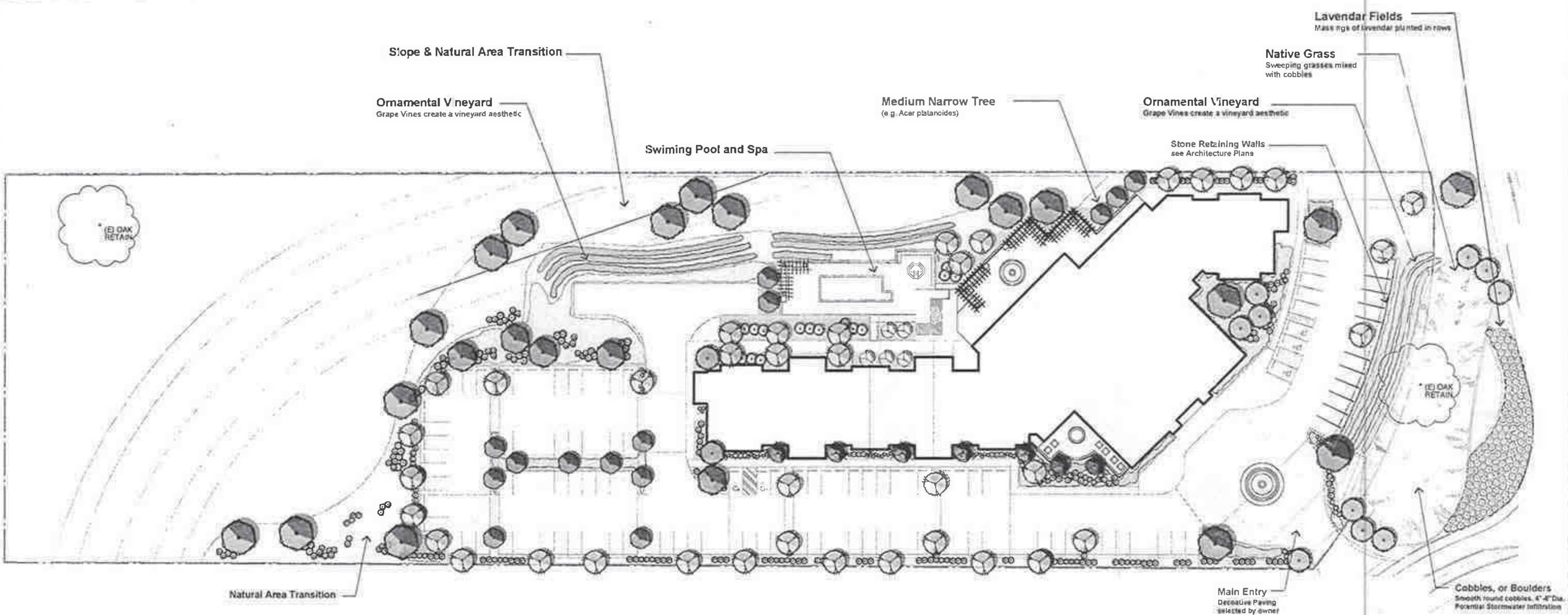
Residence Inn By Marriott
Conceptual Union Road Improvements
DRAWING NO.
C1.3
3 OF 3
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
STA "A" 128+00.00
END CONSTRUCTION (A)
END CONSTRUCTION
BIKE LANE
6" HIGH RAISED MEDIAN
BIKE LANE
BIKE LANE
6" HIGH RAISED MEDIAN
UNION ROAD
STA "A" 119+01.44
BEGIN WORK
GRAPHIC SCALE
(IN FEET)
1 IN = 30 FT



Preliminary Plant Materials List

Large Trees
- Platanus racemosa — California Sycamore
- Quercus agrifolia — California Live Oak

Medium Trees

Canopy:
- Pistache chinensis — Chinese Pistache
- Olea europa (fruitless) — Fruitless Olive

Narrow:
- Acer platanoides — Norway Maple Tree
- Cupressus sempervirens — Italian Cypress
- Pyrus calleryana 'Bradford' — Ornamental Pear
- Fraxinus oxycarpa 'Raywood' — Raywood Ash Tree

Small Flowering Trees
- Lagerstroemia indica — Crape Myrtle
- Chitalpa tashkentensis — Chitalpa
- Chilopsis linearis — Desert Willow

Small Patio Trees
- Photinia fraseri — (no common name)
- Raphiolepis indica 'Majestic Beauty' — India Hawthorn
- Cotinus coggyria — Smoke Tree

Screen/Buffer Shrubs 4'-5'
- Abelia grandiflora — Glossy Abelia
- Berberis thunbergia — Barberry
- Ceanothus 'Blue Jean' — California Lilac
- Rosmarinus 'Tuscan Blue' Rosemary

Mediteranean Garden: Building Environments / Pool Area
- Hermocallis spp. — Daylily
- Lavandula dentata — French Lavender
- Perovskia atriplicifolia — Russian Sage
- Muhlenbergia rigens — Deer Grass
- Stipa tenuissima — Mexican Feather Grass

Parking & Frontage Road Shrubs & Groundcovers 2'-4'
- Berberis 'Cherry Bomb' — Barberry
- Buxus japonica — Boxwood
- Hemerocallis hybrid — Day Lily
- Muhlenbergia rigens — Deer Grass
- Rosa spp. — Carpet Rose
- Rosmarinus officinalis — Creeping Rosemary

Lavender Fields
- Lavendula dentata — French Lavender

Slopes & Natural Area Transition
- Bachharis Pullaris 'Twin Peaks'
- Carpenter California
- Rhamnus California
- Stipa tennuissima

Native Meadow / Stormwater Basin
- Muhlenbergia rigens — Deer Grass
- Stipa tenuissima — Mexican Feather Grass

Cobblestone

Mulch
Mulch all ground cover and planter areas with 2" minimum layer 'walk-on' bark. Areas adjacent to building entries may receive decorative gravel mulch for accent.

Preliminary Total Landscape Area - Approximately 65,357 square feet.

Estimated Total Water Use is 70% of Maximum Applied Water Allowed (Paso Robles Water Efficient Landscape Ordinance).
Estimated Total Water Use is 294,159 gallon/year less than Maximum Applied Water Allowed.

GENERAL WATER CONSERVATION NOTES

Planting and irrigation shall be designed to conserve water. The following factors have been incorporated to aid in the success of the project landscape.

1) Irrigation system to be a fully automatic sytem utilizing low-precipitation spray heads and/or drip irrigation. Irrigation hydrozones shall be separated with control valves and controller stations into appropriate and compatible zones. All valves shall have pressure regulators and filters.
2) Plant materials proposed are selected for their compatibility to climatic and site conditions and for drought tolerance.
3) All planter beds shall be mulched with a 2" minimum layer of organic mulch throughout.
4) Mowed lawn has not been used to reduce irrigation demands.

firma landscape architects

Conceptual Landscape Plan
Residence Inn by Marriott Paso Robles, CA

Scale: 1" = 20'-0"

North

L-1

September 8, 2015

Mitigation Monitoring and Reporting Plan

Project File No./Name: PD 15-005, CUP 15-020, OTR 16-002 – The Residence Inn, Marriott
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.

<u>Explanation of Headings</u>:

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	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
AES – 1 The project shall be designed in accordance with the attached specific architectural features to ensure visual impacts are mitigated.	Project	CDD			Prior to issuance of building permits.
AQ-1 a. The following measures are recommended to minimize nuisance impacts associated with construction-generated fugitive dust emissions: 1. Reduce the amount of the disturbed area where possible; 2. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible; 3. All dirt stock pile areas should be sprayed daily as needed; 4. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;	Project, ongoing	CDD		Notes to be shown on grading plans and construction documents	Prior to site disturbance.

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
5. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established; 6. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD; 7. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used; 8. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site; 9. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114; 10. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site; 11. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible; 12. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition. b. The above mitigation measures shall be shown on grading and building plans.					
AQ-2 a. Implement Mitigation Measure AQ-1	Project	SLOAPCD CDD			Prior to issuance of permits for demolition of onsite structures.

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
b. Demolition of onsite structures shall comply with the National Emission Standards for Hazardous Air Emissions (NESHAP) requirements (NESHAP, 40 CFR, Part 61, Subpart M) for the demolition of existing structures. The SLOAPCD is delegated authority by the Environmental Protection Agency (EPA) to implement the Federal Asbestos NESHAP. Prior to demolition of onsite structures, the SLOAPCD shall be notified, per NESHAP requirements. SLOAPCD notification form and reporting requirements are included in Appendix A. Additional information may be obtained at website url: http://slocleanair.org/business/asbestos.php. c. Maintain all construction equipment in proper tune according to manufacturer's specifications; d. Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road); e. Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-road Regulation; f. Idling of all on and off-road diesel-fueled vehicles shall not be permitted when not in use. Signs shall be posted in the designated queuing areas and or job site to remind drivers and operators of the no idling limitation. g. Electrify equipment when possible; h. Substitute gasoline-powered in place of diesel-powered equipment, when available; and, i. Use alternatively fueled construction equipment on-site when available, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.					
BIO-1 To the maximum extent possible, site preparation, ground-disturbing, and construction activities should be conducted outside of the migratory bird breeding season. If such activities are required during this period, the applicant should retain a qualified biologist to conduct a nesting bird survey and verify that migratory	Project	Qualified Biologist CDD			Prior to issuance of grading permit

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
birds are not occupying the site. If nesting activity is detected the following measures should be implemented: a. The project should be modified or delayed as necessary to avoid direct take of identified nests, eggs, and/or young protected under the MBTA; b. The qualified biologist should determine an appropriate biological buffer zone around active nest sites. Construction activities within the established buffer zone will be prohibited until the young have fledged the nest and achieved independence; and, c. The qualified biologist should document all active nests and submit a letter report to the City documenting project compliance with the MBTA.					
BIO-2 Prior to construction, a qualified biologist should conduct a pre-activity survey to identify known or potential dens or sign of San Joaquin kit fox no less than 14 days and no more than 30 days prior to the beginning of the site preparation, ground-disturbing, or construction activities, or any other activity that has the potential to adversely affect the species. If a known or potential den or any other sign of the species is identified or detected within the project area, the biologist will contact USFWS and CDFW immediately. No work will commence or continue until such time that USFWS and CDFW determine that it is appropriate to proceed. Under no circumstances will a known or potential den be disturbed or destroyed without prior authorization from USFWS and CDFW. Within 7 days of survey completion, a report will be submitted to USFWS, CDFW, and the City. The report will include, at a minimum, survey dates, field personnel, field conditions, survey methodology, and survey results.	Project	Qualified Biologist CDD			Prior to issuance of grading permit
BIO-3 During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavation, steep-walled holes, or trenches in excess of 2 feet in depth should be covered at the close of each working day by plywood or similar materials, or provided	On-going	CDD			Prior to issuance of grading permit

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
with one or more escape ramps constructed of earth fill or wooden planks. Trenches should 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 or covered, they should be thoroughly inspected for entrapped kit fox. If any kit fox is found, work will stop and USFWS and CDFW will be contacted immediately to determine how to proceed.					
BIO-4 During the site disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of 4 inches or greater stored overnight at the project site should 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 any kit fox is found, work will stop and USFWS and CDFW will be contacted immediately to determine how to proceed.	On-going	CDD			Prior to issuance of grading permit
BIO-5 Prior to, during, and after the site disturbance and/or construction phase, use of pesticides or herbicides should be in compliance with all federal, state, and local 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.	On-going	CDD			Prior to issuance of grading permit
BIO-6 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 should 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 should immediately notify USFWS and CDFW by telephone. In addition, formal notification should be provided in writing within 3 working days of the finding of any such animal(s). Notification should include the date, time, location, and circumstances of the incident. Any threatened or endangered species found dead or injured should be turned over immediately to CDFW for care, analysis, or disposition.	On-going	CDD			Prior to issuance of grading permit

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
BIO-7 Prior to final inspection, should any long internal or perimeter fencing be proposed or installed, the City should do the following to provide for kit fox passage: a. If a wire strand/pole design is used, the lowest strand should be no closer to the ground than 12 inches. b. If a more solid wire mesh fence is used, 8 × 12-inch openings near the ground should be provided every 100 yards. Upon fence installation, the applicant should notify the City to verify proper installation. Any fencing constructed after issuance of a final permit should follow the above guidelines.	Project	CDD			Prior to issuing Certificate of Occupancy permit
BIO-8 Prior to site disturbance, the CRZ of all oak trees with a DBH of 6 inches or greater must be fenced to protect from construction activities. 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 (See Arborist Report for specific language required for signage). 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.	Project	Certified Arborist CDD			Prior to issuing grading permit
BIO-9 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. A Mandatory meeting between the	On-going	Certified Arborist CDD		Notes shown on construction documents.	Prior to issuing grading permit.

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
arborists and grading contractor(s) must take place prior to work start. During the site disturbance and/or construction phase, grading, cutting, or filling within 5 feet of a CRZ of all oak trees with a DBH of 6 inches or greater must be supervised by a certified arborist approved by the City. Such activities beyond 5 feet of a CRZ must be monitored to ensure that activities are in accordance with approved plans. Root pruning outside of the CRZ must be done by hand. 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.					
BIO-10 Oil, gasoline, chemicals, or other construction materials potentially harmful to oak trees may not be stored in the CRZ of any oak tree with a DBH of 6 inches or greater. 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.	On-going	CDD		Notes shown on construction documents.	Prior to issuing grading permit.
BIO-11 Drains shall be installed according to City specification so as to avoid harm by excessive watering to oak trees with a DBH of 6 inches or greater.	Project	CDD		Notes shown on construction documents.	Prior to issuing Certificate of Occupancy permit
BIO-12 Landscaping within the CRZ of any oak tree with a DBH of 6 inches or greater is limited to indigenous plant species or non-plant material, such as cobbles or wood chips. All landscape within the critical root zone shall consist of drought tolerant or native varieties. Lawns shall be avoided. All irrigation trenching shall be routed around critical root zones, otherwise above ground drip-irrigation shall be used.	Project	CDD		Notes shown on construction documents.	Prior to issuing Building Permit.
BIO-13 Wires, signs, or other similar items shall not be attached to oak trees with a DBH of 6 inches or greater.	On-going	CDD		Notes shown on construction documents.	Prior to issuing Building Permit.
BIO-14 For each oak tree removed (DBH of 6 inches or greater), a tree or trees of the same species must be planted with a combined DBH of 25% of the removed tree's DBH within the property's boundary.	Project	CDD			Prior to issuing Certificate of Occupancy permit
BIO-15 It is the responsibility of the owner or project manager to	Project	CDD			Prior to site disturbance, grading permit issued

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
provide a copy of the 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. Each contractor must sign and acknowledge this tree protection plan.					
BIO-16 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. 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.	On-going	Certified Arborist CDD		Shown on construction documents	Prior to issuance of grading permit
BIO-17 As the project moves toward completion, the arborist(s) may suggest either 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.	On-going	Certified Arborist CDD		Shown on construction documents	Prior to issuance of Certificate of Occupancy
BIO-18 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.	On-going	Certified Arborist CDD		Shown on construction documents	Prior to issuance of building permit
BIO-19 An arborist shall be present for selected activities (trees identified in Arborist Report and items bulleted below). The monitoring does not necessarily have to be continuous but observational at times during these activities. It is the responsibility of the owner(s) 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. • pre-construction fence placement inspection	On-going	Certified Arborist CDD		Shown on construction documents	Prior to issuance of building permit

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
● all grading and trenching identified on the spreadsheet ● any other encroachment the arborist feels necessary					
BIO-20 Pre-Construction Meeting: An on-site pre-construction meeting with the Arborist(s), Owner(s), Planning Staff, and the earth moving team 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.	Project	Certified Arborist CDD			Prior to issuance of Final Occupancy
GHG-1 Prior to occupancy permit being approved, the project shall complete a CAP consistency report and secure approval of the report from the City Planning Department and SLOAPCD. The consistency report shall provide record of compliance with the mandatory and any substituted measures in the City of Paso Robles CAP Consistency Worksheet (refer to Attachment 4).	Project	CDD			Prior to occupancy permit
HD-1 Prior to project construction the owner will provide (1) a commitment to execute any necessary agreements, and (2) a statement accepting responsibility for operation and maintenance of drainage facilities until that responsibility is formally transferred.	Project	CDD			Prior to issuance of grading permit.
HD-2 Maintenance items required for the bioretention basin: • Clean up. Remove any soil or debris blocking inlets or overflows. Remove any trash that collects in the facilities. • Vegetation maintenance. Prune or cut back plants for health and to ensure flow into inlets and across the surface of the facility. Remove and replant as necessary. • Weed control. Control weeds by manual methods and soil amendment where possible. In response to problem areas or threatening invasions, non-	On-going	CDD			Prior to issuance of certificate of occupancy

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
selective natural herbicides may be used. • Add mulch. Mulch may be added from time to time to maintain a mulch layer thickness of 1to 2 inches. Maintain the underlying soil surface layer beneath the overflow elevation. • Irrigation. Check irrigation, if any, to confirm it is adequate but not excessive. • Training for Landscape Maintenance. Landscape Maintenance Personnel will be informed of the following: o Do not add synthetic fertilizer to bioretention facilities. o Do not apply fertilizer when rain is forecast in the next 48 hours. o Do not use synthetic pesticides on bioretention facilities.					
HD-3 The following maintenance items are required for the Contech CDS®: • Inspect the unit at regular intervals: twice a year at a minimum. • Open both manhole access covers. One cover will allow for the inspection and cleanout of the separation chamber and isolated sump. The other cover allows for inspection and cleanout of sediment captured and retained outside the screen. • Sediment shall be cleaned when the level has reached 75% of the capacity. • Clean during dry weather conditions. • The use of a vacuum truck is generally the most effective ad convenient method of removing pollutants from the system. o Insert the vacuum hose into the sump. o The system should be completely drained down. o The sump should be fully evacuated of sediment. o The area outside the screen should also be cleaned out if pollutant build-up exists in this area. o Clean the system immediately in the event of an oil or gasoline spill. • Secure the lids when cleaning and maintenance	On-going	CDD			Prior to issuance of certificate of occupancy

Mitigation Measure	Type	Monitoring Department or Agency	Shown on Plans	Verified Implementation	Timing/Remarks
are completed.					
NO-1 Unless otherwise provided for in a validly issued permit or approval, noise-generating construction activities should be limited to the hours of 7:00am and 7:00pm. Noise-generating construction activities should not occur on Sundays or City holidays	On-going	CDD			
NO-2 Construction equipment should be properly maintained and equipped with noise-reduction intake and exhausted mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds should be closed during equipment operation.	On-going	CDD			
TR-1 The project will be required to pay traffic mitigation fees to offset to offset its impacts to the citywide transportation network.	Project	CDD			Prior to certificate of occupancy
TR-2 The applicant will implement employee transportation demand measures to reduce traffic congestion, such as providing information on regional rideshare programs, bike racks, well as provide shuttle service to the multi-modal transportation center and downtown for residents and guests.	Project	CDD			Prior to certificate of occupancy
TR-3 The applicant will work with CalTrans to prohibit northbound left turns on the northbound approach to State Route 46E/Union Road to improve operations at this intersection by reducing turning conflicts.	Project	CDD			Prior to certificate of occupancy
TR-4 The project will be required to participate in the SLO Car Free program with SLO County APCD	Project	CDD			Prior to certificate of occupancy

(add additional measures as necessary)

<u>Explanation of Headings</u>:

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AIR QUALITY & GREENHOUSE GAS IMPACT ASSESSMENT

FOR THE PROPOSED

RESIDENCE INN PROJECT
PASO ROBLES, CA

OCTOBER 2015

PREPARED FOR:

EXCEL PASO ROBLES, L.P.
10660 SCRIPPS RANCH BLVD.,
SUITE 100
SAN DIEGO, CA 92131

PREPARED BY:

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612 12TH STREET, SUITE 201
PASO ROBLES, CA 93446
TEL: 805.226.2727

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

LIST OF COMMON TERMS & ACRONYMS

AAM	Annual Arithmetic Mean
ADT	Average Daily Traffic
APCD	Air Pollution Control District
AQAP	Air Quality Attainment Plan
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCAR	California Climate Action Registry
CEQA	California Environmental Quality Act
CH_4	Methane
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DPM	Diesel-Exhaust Particulate Matter or Diesel-Exhaust PM
DRRP	Diesel Risk Reduction Plan
FCAA	Federal Clean Air Act
GHG	Greenhouse Gases
HAP	Hazardous Air Pollutant
LOS	Level of Service
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards or National AAQS
NESHAPs	National Emission Standards for HAPs
NO_x	Oxides of Nitrogen
OAP	Ozone Attainment Plan
O_3	Ozone
Pb	Lead
PM	Particulate Matter
PM_{10}	Particulate Matter (less than 10 μm)
$PM_{2.5}$	Particulate Matter (less than 2.5 μm)
ppb	Parts per Billion
ppm	Parts per Million
ROG	Reactive Organic Gases
SIP	State Implementation Plan
SLOAPCD	San Luis Obispo County Air Pollution Control District
SO_2	Sulfur Dioxide
SCCAB	South Central Coast Air Basin
SR	State Route
TAC	Toxic Air Contaminant
$\mu g/m^3$	Micrograms per cubic meter
U.S. EPA	United State Environmental Protection Agency
VMT	Vehicle Miles Traveled

INTRODUCTION

This report provides an analysis of air quality and greenhouse gas (GHG) impacts associated with the proposed Residence Inn project. This report also provides a summary of existing conditions in the project area and the applicable regulatory framework pertaining to air quality and climate change.

PROPOSED PROJECT

The proposed project includes the construction of a 120-room hotel on a total of approximately 5.4 acres located adjacent to Union Road, south of Highway 46. The proposed project location is illustrated in Figure 1. The proposed project site plan is illustrated in Figure 2.

The nearest sensitive land use consist of residential dwellings. The nearest residences are located approximately 0.07 miles to the southwest and east of the project site. Barney Schwartz Park is located approximately 0.2 miles to the southeast.

AIR QUALITY

SETTING

Paso Robles is located in San Luis Obispo County, which is part of the South Central Coast Air Basin (SCCAB) and within the jurisdiction of the County of San Luis Obispo Air Pollution Control District (SLOAPCD). Air quality in the SCCAB is influenced by a variety of factors, including topography, local and regional meteorology. Factors affecting regional and local air quality are discussed below.

TOPOGRAPHY, METEOROLOGY & CLIMATE

Topography

The City of Paso Robles is located in the upper Salinas River Valley. The Paso Robles area is bordered on the south and west by the rugged mountainous ridges of the Santa Lucia Coastal Range, to the east by the low hills of the La Panza and Temblor ranges, and to the north by the low hills and flat-topped mesas of the Diablo Range. The highest elevations in the vicinity are located in the Santa Lucia Coastal Range, where many peaks are 2,000 to 3,400 feet above mean sea level. Substantial ridgelines are distributed throughout the western, southern, and eastern portions of the City. The effects of the Pacific Ocean are diminished inland and by these major intervening terrain features.

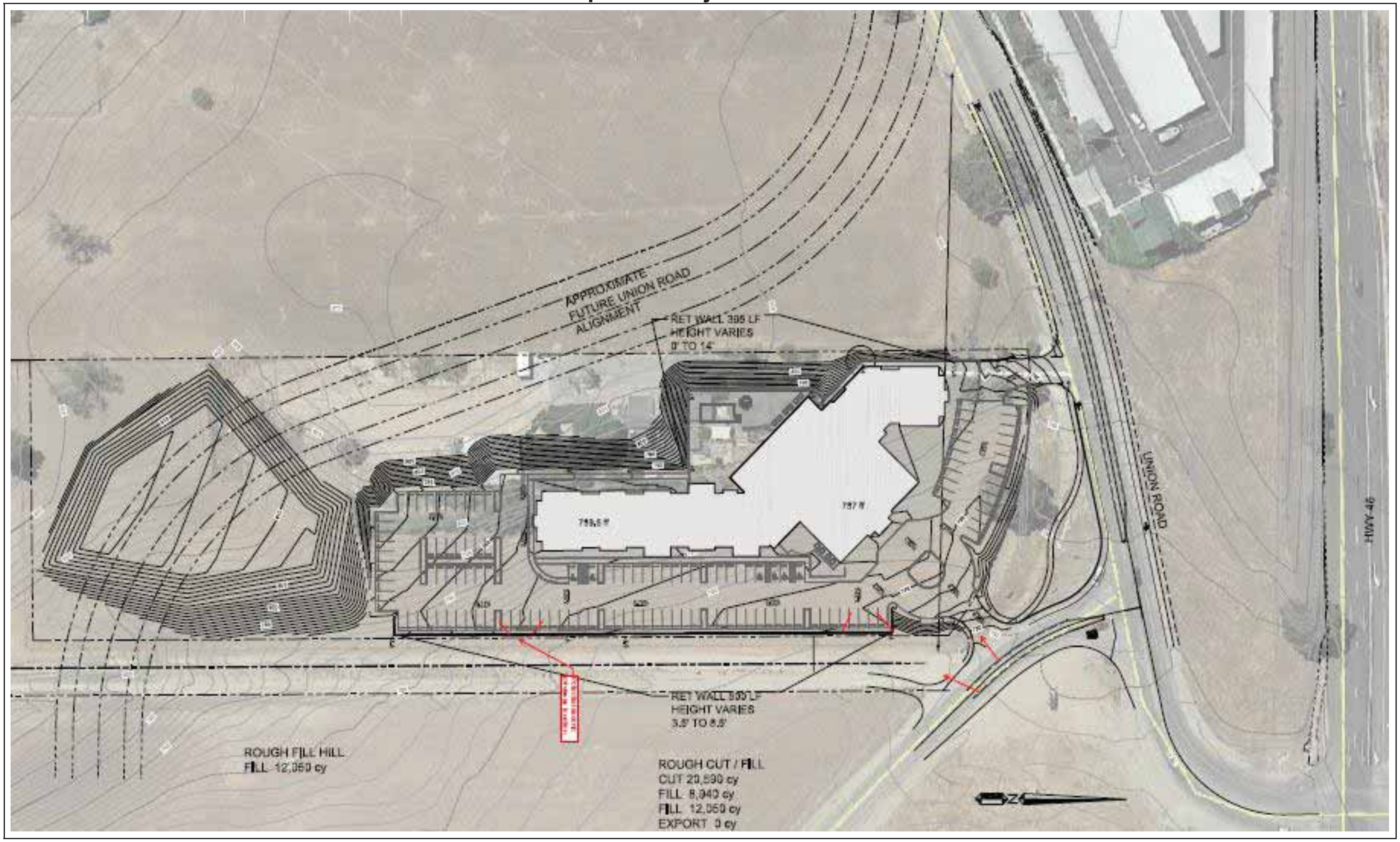
Local and Regional Meteorology

The climate of the county can be generally characterized as Mediterranean, with warm, dry summers and cooler, relatively damp winters. Along the coast, mild temperatures are the rule throughout the year due to the moderating influence of the Pacific Ocean. This effect is diminished inland in proportion to distance from the ocean or by major intervening terrain features, such as the coastal mountain ranges. As a result, inland areas are characterized by a considerably wider range of temperature conditions. Maximum summer temperatures average about 70 degrees Fahrenheit near the coast, while inland valleys are often in the high 90s. Minimum winter temperatures average from the low 30s along the coast to the low 20s inland (SLOAPCD 2001).

Figure 1
Proposed Project Location

Not to Scale.
Image Source: San Luis Obispo County, 2015a

Figure 2
Proposed Project Site Plan



Not to Scale.
Source: Wallace Group 2015

Regional meteorology is largely dominated by a persistent high pressure area which commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause seasonal changes in the weather patterns of the area. The Pacific High remains generally fixed several hundred miles offshore from May through September, enhancing onshore winds and opposing offshore winds. During spring and early summer, as the onshore breezes pass over the cool water of the ocean, fog and low clouds often form in the marine air layer along the coast. Surface heating in the interior valleys dissipates the marine layer as it moves inland (SLOAPCD 2001).

From November through April the Pacific High tends to migrate southward, allowing northern storms to move across the county. About 90 percent of the total annual rainfall is received during this period. Winter conditions are usually mild, with intermittent periods of precipitation followed by mostly clear days. Rainfall amounts can vary considerably among different regions in the county. In the Coastal Plain, annual rainfall averages 16 to 28 inches, while the Upper Salinas River Valley generally receives about 12 to 20 inches of rain. The Carrizo Plain is the driest area of the county with less than 12 inches of rain in a typical year (SLOAPCD 2001).

Airflow around the county plays an important role in the movement and dispersion of pollutants. The speed and direction of local winds are controlled by the location and strength of the Pacific High pressure system and other global patterns, by topographical factors, and by circulation patterns resulting from temperature differences between the land and sea. In spring and summer months, when the Pacific High attains its greatest strength, onshore winds from the northwest generally prevail during the day. At night, as the sea breeze dies, weak drainage winds flow down the coastal mountains and valleys to form a light, easterly land breeze (SLOAPCD 2001).

In the Fall, onshore surface winds decline and the marine layer grows shallow, allowing an occasional reversal to a weak offshore flow. This, along with the diurnal alternation of land-sea breeze circulation, can sometimes produce a "sloshing" effect. Under these conditions, pollutants may accumulate over the ocean for a period of one or more days and are subsequently carried back onshore with the return of the sea breeze. Strong inversions can form at this time, "trapping" pollutants near the surface (SLOAPCD 2001).

This effect is intensified when the Pacific High weakens or moves inland to the east. This may produce a "Santa Ana" condition in which air, often pollutant-laden, is transported into the county from the east and southeast. This can occur over a period of several days until the high pressure system returns to its normal location, breaking the pattern. The breakup of a Santa Ana condition may result in relatively stagnant conditions and a buildup of pollutants offshore. The onset of the typical daytime sea breeze can bring these pollutants back onshore, where they combine with local emissions to cause high pollutant concentrations. Not all occurrences of the "post Santa Ana" condition lead to high ambient pollutant levels, but it does play an important role in the air pollution meteorology of the county (SLOAPCD 2001).

Atmospheric Stability and Dispersion

Air pollutant concentrations are primarily determined by the amount of pollutant emissions in an area and the degree to which these pollutants are dispersed into the atmosphere. The stability of the atmosphere is one of the key factors affecting pollutant dispersion. Atmospheric stability regulates the amount of vertical and horizontal air exchange, or mixing, that can occur within a given air basin. Restricted mixing and low wind speeds are generally associated with a high degree of stability in the atmosphere. These conditions are characteristic of temperature inversions (SLOAPCD 2001).

In the atmosphere, air temperatures normally decrease as altitude increases. At varying distances above the earth's surface, however, a reversal of this gradient can occur. This condition, termed an inversion, is simply a warm layer of air above a layer of cooler air, and it has the effect of limiting the vertical dispersion of pollutants. The height of the inversion determines the size of the mixing volume trapped below. Inversion strength or intensity is measured by the thickness of the layer and the difference in temperature between the base and the top of the inversion. The strength of the inversion determines how easily it can be broken by winds or solar heating (SLOAPCD 2001).

Several types of inversions are common to this area. Weak, surface inversions are caused by radiational cooling of air in contact with the cold surface of the earth at night. In valleys and low lying areas this condition is intensified by the addition of cold air flowing downslope from the hills and pooling on the valley floor. Surface inversions are a common occurrence throughout the county during the winter, particularly on cold mornings when the inversion is strongest. As the morning sun warms the earth and the air near the ground, the inversion lifts, gradually dissipating as the day progresses. During the late spring and early summer months, cool air over the ocean can intrude under the relatively warmer air over land, causing a marine inversion. These inversions can restrict dispersion along the coast, but they are typically shallow and will dissipate with surface heating (SLOAPCD 2001).

In contrast, in the summertime the presence of the Pacific high pressure cell can cause the air mass aloft to sink. As the air descends, compressional heating warms it to a temperature higher than the air below. This highly stable atmospheric condition, termed a subsidence inversion, is common to all of coastal California and can act as a nearly impenetrable lid to the vertical mixing of pollutants. The base of the inversion typically ranges from 1000 to 2500 feet above sea level; however, levels as low as 250 feet, among the lowest anywhere in the state, have been recorded on the coastal plateau in San Luis Obispo county. The strength of these inversions makes them difficult to disrupt. Consequently, they can persist for one or more days, causing air stagnation and the buildup of pollutants. Highest or worst-case ozone levels are often associated with the presence of this type of inversion (SLOAPCD 2001).

CRITERIA AIR POLLUTANTS

For the protection of public health and welfare, the Clean Air Act (CAA) required that the United States Environmental Protection Agency (U.S. EPA) establish National Ambient Air Quality Standards (NAAQS) for various pollutants. These pollutants are referred to as "criteria" pollutants because the US EPA publishes criteria documents to justify the choice of standards. These standards define the maximum amount of an air pollutant that can be present in ambient air without harm to the public's health. An ambient air quality standard is generally specified as a concentration averaged over a specific time period, such as one hour, eight hours, 24 hours, or one year. The different averaging times and concentrations are meant to protect against different exposure effects. The CAA allows states to adopt additional or more health-protective standards. The air quality regulatory framework and ambient air quality standards are discussed in greater detail later in this report.

Human Health & Welfare Effects

Common air pollutants and associated adverse health and welfare effects are summarized in Table 1. Within the SCCAB, the air pollutants of primary concern, with regard to human health, include ozone, particulate matter (PM) and carbon monoxide (CO). As depicted in Table 1, exposure to increased pollutant concentrations of ozone, PM and CO can result in various heart and lung ailments, cardiovascular and nervous system impairment, and death.

ODORS

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

Neither the state nor the federal governments have adopted rules or regulations for the control of odor sources. The SLOAPCD does not have an individual rule or regulation that specifically addresses odors; however, odors would be applicable to SLOAPCD's *Rule 204, Nuisance*. Any actions related to odors would be based on citizen complaints to local governments and the SLOAPCD. The SLOAPCD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine if the Project results in excessive nuisance odors, as defined under the California Code of Regulations, Health & Safety Code Section 41700, air quality public nuisance.

Table 1
Common Pollutants & Adverse Effects

Pollutant	Human Health & Welfare Effects
Particulate Matter (PM_{10} & $PM_{2.5}$)	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Ozone (O_3)	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles and dyes.
Sulfur Dioxide (SO_2)	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel; damage crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to global warming, and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: ARB 2015b

TOXIC AIR CONTAMINANTS

Toxic air contaminants (TACs) are air pollutants that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air, but due to their high toxicity, they may pose a threat to public health even at very low concentrations. Because there is no threshold level below which adverse health impacts are not expected to occur, TACs differ from criteria pollutants for which acceptable levels of exposure can be determined and for which state and federal governments have set ambient air quality standards. TACs, therefore, are not considered "criteria pollutants" under either the Federal Clean Air Act (FCAA) or the California Clean Air Act (CCAA), and are thus not subject to National or State AAQS. TACs are not considered criteria pollutants in that the federal and California Clean Air Acts do not address them specifically through the setting of National or State AAQS. Instead, the U.S. EPA and ARB regulate Hazardous Air Pollutants (HAPs) and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology to limit emissions. In conjunction with District rules, these federal and state statutes and regulations establish the regulatory framework for TACs. At the national levels, the U.S. EPA has established National Emission Standards for HAPs (NESHAPs), in accordance with the requirements of the FCAA and subsequent amendments. These are technology-based source-specific regulations that limit allowable emissions of HAPs.

Within California, TACs are regulated primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB designates a substance as a TAC. Existing sources of TACs that are subject to the Air

Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

At the state level, the ARB has authority for the regulation of emissions from motor vehicles, fuels, and consumer products. Most recently, Diesel-exhaust particulate matter (DPM) was added to the ARB list of TACs. DPM is the primary TACs of concern for mobile sources. Of all controlled TACs, emissions of DPM are estimated to be responsible for about 70 percent of the total ambient TAC risk. The ARB has made the reduction of the public's exposure to DPM one of its highest priorities, with an aggressive plan to require cleaner diesel fuel and cleaner diesel engines and vehicles (ARB 2005).

At the local level, air districts have the authority over stationary or industrial sources. All projects that require air quality permits from the SLOAPCD are evaluated for TAC emissions. The SLOAPCD limits emissions and public exposure to TACs through a number of programs. The SLOAPCD prioritizes TAC-emitting stationary sources, based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. The SLOAPCD requires a comprehensive health risk assessment for facilities that are classified in the significant-risk category, pursuant to AB 2588. No major existing sources of TACs have been identified in the project area.

Land Use Compatibility with TAC Emission Sources

The ARB published an informational guide entitled: ***Air Quality and Land Use Handbook: A Community Health Perspective*** (Handbook) in 2005. The purpose of this guide is to provide information to aid local jurisdictions in addressing issues and concerns related to the placement of sensitive land uses near major sources of air pollution. The CARB's Handbook includes recommended separation distances for various land uses that are based on relatively conservative estimations of emissions based on source-specific information. However, these recommendations are not site specific and should not be interpreted as defined "buffer zones". It is also important to note that the recommendations of the Handbook are advisory and need to be balanced with other State and local policies (ARB 2005). Depending on site and project-specific conditions, an assessment of potential increases in exposure to TACs may be warranted for proposed development projects located within the distances identified. CARB-recommended separation distances for various sources of emissions are summarized in Table 2.

ASBESTOS

Asbestos is the common name for a group of naturally-occurring fibrous silicate minerals that can separate into thin but strong and durable fibers. Naturally-occurring asbestos, which was identified as a TAC in 1986 by CARB, is located in many parts of California and is commonly associated with ultramafic rock. The project site is not located near areas that are likely to contain ultramafic rock.

Asbestos-containing material (ACM) may be present in existing structures. The demolition or renovation of existing structures may be subject to regulatory requirements for the control of ACM. A summary of applicable regulatory requirements is included in Appendix A.

REGULATORY FRAMEWORK

Air quality within the SCCAB is regulated by several jurisdictions including the U.S. EPA, CARB, and the SLOAPCD. Each of these jurisdictions develops rules, regulations, and policies to attain the goals or directives imposed upon them through legislation.

FEDERAL

U.S. Environmental Protection Agency

At the federal level, the U.S. EPA has been charged with implementing national air quality programs. The U.S. EPA's air quality mandates are drawn primarily from the FCAA, which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990.

Federal Clean Air Act

The FCAA required the US EPA to establish National Ambient Air Quality Standards (NAAQS or National AAQS), and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. NAAQS are summarized in Table 3.

Table 2
Recommendations on Siting New Sensitive Land Uses Near Air Pollutant Sources

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	• Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	• Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). • Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	• Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. • Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	• Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	• Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	• Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	• Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. • Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.
Gasoline Dispensing Facilities	• Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.
Recommendations are advisory, are not site specific, and may not fully account for future reductions in emissions, including those resulting from compliance with existing/future regulatory requirements. *Source: ARB 2005*	

STATE

California Air Resources Board

The ARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act of 1988. Other ARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control districts and air quality management districts, establishing California Ambient Air Quality Standards (CAAQS), which in many cases are more stringent than the NAAQS, and setting emissions standards for new motor vehicles. The CAAQS are summarized in Table 3. The emission standards established for motor vehicles differ depending on various factors including the model year, and the type of vehicle, fuel and engine used.

Table 3
Summary of Ambient Air Quality Standards & Attainment Designations

Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration*	Attainment Status	Primary[(a)]	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm	Non-Attainment	–	Non-Attainment Eastern SLO County - Attainment Western SLO County
	8-hour	0.070 ppm		0.075 ppm	
Particulate Matter (PM_{10})	AAM	20 µg/m3	Non-Attainment	–	Unclassified/ Attainment
	24-hour	50 µg/m3		150 µg/m3	
Fine Particulate Matter ($PM_{2.5}$)	AAM	12 µg/m3	Attainment	12 µg/m3	Unclassified/ Attainment
	24-hour	No Standard		35 µg/m3	
Carbon Monoxide (CO)	1-hour	20 ppm	Attainment	35 ppm	Attainment/ Maintenance
	8-hour	9 ppm		9 ppm	
	8-hour (Lake Tahoe)	6 ppm		–	
Nitrogen Dioxide (NO_2)	AAM	0.030 ppm	Attainment	0.053 ppm	Unclassified
	1-hour	0.18 ppm		100 ppm	
Sulfur Dioxide (SO_2)	AAM	–	Attainment	0.03 ppm	Unclassified
	24-hour	0.04 ppm		0.14 ppm	
	3-hour	–		0.5 ppm (1300 µg/m3)**	
	1-hour	0.25 ppm		75 ppb	
Lead	30-day Average	1.5 µg/m3	Attainment	–	No Attainment Information
	Calendar Quarter	–		1.5 µg/m3	
	Rolling 3-Month Average	–		0.15 µg/m3	
Sulfates	24-hour	25 µg/m3	Attainment	No Federal Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m3)	Attainment		
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m3)	No Information Available		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient: 0.23/kilometer-visibility of 10 miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70%.	Attainment		

** For more information on standards visit :http//ww.arb.ca.gov.research/aaqs/aaqs2.pdf*
*** Secondary Standard*
Source: SLOAPCD 2015b; ARB 2015a

California Clean Air Act

The CCAA requires that all air districts in the state endeavor to achieve and maintain CAAQS for Ozone, CO, SO_2, and NO_2 by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a five percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each non-attainment pollutant or its precursors, or (2) to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

Assembly Bills 1807 & 2588 - Toxic Air Contaminants

Within California, TACs are regulated primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics Hot Spots Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB designates a substance as a TAC. Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, the Air Resources Board (ARB) adopted a regulation to reduce diesel particulate matter (PM) and oxides of nitrogen (NOx) emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. The regulation applies to self-propelled diesel-fueled vehicles that cannot be registered and licensed to drive on-road, as well as two-engine vehicles that drive on road, with the limited exception of two-engine sweepers. Examples include loaders, crawler tractors, skid steers, backhoes, forklifts, airport ground support equipment, water well drilling rigs, and two-engine cranes. Such vehicles are used in construction, mining, and industrial operations. The regulation does not apply to stationary equipment or portable equipment such as generators. The off-road vehicle regulation, establishes emissions performance requirements, establishes reporting, disclosure, and labeling requirements for off-road vehicles, and limits unnecessary idling.

LOCAL

County of San Luis Obispo Air Pollution Control District

The SLOAPCD is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions within the region are maintained. Responsibilities of the SLOAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the FCAA and the CCAA.

IMPACT ANALYSIS

Air quality impacts attributable to the proposed project are summarized in Table 4.

Table 4
Summary of Project-Related Air Quality Impacts

Air Quality Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Would the project conflict with or obstruct implementation of the applicable air quality plan?	☐	■	☐	☐
B) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	■	☐	☐
C) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	■	☐	☐
D) Would the project expose sensitive receptors to substantial pollutant concentrations?	☐	■	☐	☐
E) Would the project create objectionable odors affecting a substantial number of people?	☐	☐	■	☐

METHODOLOGY

Short-term Impacts

Short-term construction emissions associated with the proposed project were calculated using the CalEEMod, version 2013.2.2, computer program. Detailed construction information (e.g., equipment required, construction schedules, etc.) was not available at the time of the analysis. Construction activity schedules, equipment use, vehicle trips, equipment load factors and emission factors were, therefore, based on default parameters contained in the model. According to the project engineers, all material would be balanced on site and the import/export of soil would not be required. An estimated total of approximately 15,133 square feet of existing structures was included. Mitigated construction emissions were quantified assuming application of dust control practices, including the application of water a minimum of 3 times daily and a speed limit of 15 mph for onsite unpaved surfaces, based on the default reductions identified in the model. Modeling assumptions and output files are included in Appendix C of this report.

Long-term Impacts

Long-term operational emissions of criteria air pollutants associated with the proposed project were calculated using the CalEEMod, version 2013.2.2, computer program. The CalEEMod program includes quantification of emissions from various emission sources, including energy use, area sources, and motor vehicle trips. Non-transportation source emissions were quantified based largely on the default parameters contained in the model. The use of off-road equipment would not be required for project operations and was not included in the emissions modeling.

The vehicle trip-generation rates contained in the model were updated to reflect project-specific conditions, based on rates obtained from the *City of Paso Robles General Plan 2011 Circulation Element Update*,

Appendix B, Table 2, Land Use Categories (2011 for area hotels (i.e., 4.72 trips per room). Vehicle trip lengths for hotel guests were quantified based on hotel guest survey data obtained from a similar hotel located in Pismo Beach for the year 2012 (refer to Table 5). Vehicle trip distances for in-County destinations, including coastal communities and attractions, such as Hearst Castle, Cambria, and Morro Bay, were also included in the calculation. Based on this calculation the average vehicle travel length for hotel guests was 12.5 miles. An average vehicle trip length of 13 miles was assumed for employees trips, based on the default assumption contained in the model. Modeling assumptions and output files are included in Appendix C of this report.

Table 5
Hotel Guest Survey Information

Guest Originations & Destinations (Out of County Regions)	Percent on Annual Guests (Year 2012)
Sacramento Valley & Northern San Joaquin Valley	24.2%
Southern San Joaquin Valley (Kern County)	8.8%
Northern & Central California Regions	12.7%
Southern California	45.4%
San Luis Obispo County	9%

Based on guest survey data obtained from a similar hotel located in Pismo Beach for the year 2012.
Refer to Appendix C for additional information regarding estimated vehicle trip distances.

THRESHOLDS OF SIGNIFICANCE

To assist in the evaluation of air quality impacts, the SLOAPCD has developed recommended significance thresholds, which are contained in the SLOAPCD's *CEQA Air Quality Handbook* (2012). For the purposes of this analysis, project emissions are considered potentially significant impacts if any of the following SLOAPCD thresholds are exceeded:

Construction Impacts

The threshold criteria established by the SLOAPCD to determine the significance and appropriate mitigation level for a project's short-term construction emissions are presented in Table 6 and discussed, as follows (SLOAPCD 2012):

Table 6
SLOAPCD Thresholds of Significance for Construction Impacts

Pollutant	Threshold (1)		
	Daily (lbs/day)	Quarterly Tier 1 (tons)	Quarterly Tier 2 (tons)
Ozone Precursors (ROG + NO_X) (2)	137	2.5	6.3
Diesel Particulate Matter (DPM) (2)	7	0.13	0.32
Fugitive Particulate Matter (PM_{10}), Dust	None	2.5	None

1. *Daily and quarterly emissions thresholds are based on the California Health & Safety Code and the ARB Carl Moyer Guidelines.*
2. *Any project with a grading area greater than 4.0 acres of worked area can exceed the 2.5 tons PM_{10} quarterly threshold.*

ROG and NOx Emissions

- Daily: For construction projects expected to be completed in less than one quarter (90 days), exceedance of the 137 lb/day threshold requires Standard Mitigation Measures;
- Quarterly – Tier 1: For construction projects lasting more than one quarter, exceedance of the 2.5 ton/qtr threshold requires Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment. If implementation of the Standard Mitigation and BACT measures cannot bring the project below the threshold, off-site mitigation may be necessary; and,

- Quarterly – Tier 2: For construction projects lasting more than one quarter, exceedance of the 6.3 ton/qtr threshold requires Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP), and off-site mitigation.

Diesel Particulate Matter (DPM) Emissions

- Daily: For construction projects expected to be completed in less than one quarter, exceedance of the 7 lb/day threshold requires Standard Mitigation Measures;
- Quarterly - Tier 1: For construction projects lasting more than one quarter, exceedance of the 0.13 tons/quarter threshold requires Standard Mitigation Measures, BACT for construction equipment; and,
- Quarterly - Tier 2: For construction projects lasting more than one quarter, exceedance of the 0.32 ton/qtr threshold requires Standard Mitigation Measures, BACT, implementation of a CAMP, and off-site mitigation.

Fugitive Particulate Matter (PM_{10}), Dust Emissions

- Quarterly: Exceedance of the 2.5 ton/qtr threshold requires Fugitive PM_{10} Mitigation Measures and may require the implementation of a CAMP.

<u>Operational Impacts</u>

Criteria Air Pollutants

The threshold criteria established by the SLOAPCD to determine the significance and appropriate mitigation level for long-term operational emissions from a project are presented in Table 7.

Table 7
SLOAPCD Thresholds of Significance for Operational Impacts

Pollutant	Threshold (1)	
	Daily (lbs/day)	Annual (tons/year)
Ozone Precursors (ROG + NO_X) (2)	25	25
Diesel Particulate Matter (DPM) (2)	1.25	None
Fugitive Particulate Matter (PM_{10}), Dust	25	25
CO	550	None

1. Daily and annual emissions thresholds are based on the California Health & Safety Code Division 26, Part 3, Chapter 10, Section 40918 and the ARB Carl Moyer Guidelines for DPM.
2. CalEEMod – use winter operational emission data to compare to operational thresholds.

Toxic Air Contaminants

If a project has the potential to emit toxic or hazardous air pollutants, or is located in close proximity to sensitive receptors, impacts may be considered significant due to increased cancer risk for the affected population, even at a very low level of emissions. For the evaluation of such projects, the SLOAPCD recommends the use of the following thresholds:

- Type A Projects: new proposed land use projects that generate toxic air contaminants (such as gasoline stations, distribution facilities or asphalt batch plants) that impact sensitive receptors. Air districts across California are uniform in their recommendation to use the significance thresholds that have been established under each district's "Hot Spots" and permitting programs. The SLOAPCD has defined the excess cancer risk significance threshold at 10 in a million for Type A projects in SLO County; and,

- Type B Projects: new land use projects that will place sensitive receptors (e.g., residential units) in close proximity to existing toxics sources (e.g., freeway). The APCD has established a CEQA health risk threshold of 89 in-a-million for the analysis of projects proposed in close proximity to toxic sources. This value represents the population weighted average health risk caused by ambient background concentrations of toxic air contaminants in San Luis Obispo County. The SLOAPCD recommends Health Risk screening and, if necessary, Health Risk Assessment (HRA) for any residential or sensitive receptor development proposed in proximity to toxic sources.

Localized CO Concentrations

Localized CO concentrations associated with the proposed project would be considered less-than-significant impact if: (1) Traffic generated by the proposed project would not result in deterioration of intersection level of service (LOS) to LOS E or F; or (2) the project would not contribute additional traffic to an intersection that already operates at LOS of E or F (Caltrans 1996).

Odors

Screening of potential odor impacts is typically recommended for the following two situations:

- Projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate; and
- Residential or other sensitive receptor projects or other projects that may attract people locating near existing odor sources.

If the proposed project would locate receptors and known odor sources within one mile of each other, a full analysis of odor impacts is recommended. Known odor sources of primary concern, as identified by the SLOAPCD, include: landfills, transfer stations, asphalt batch plants, rendering plants, petroleum refineries, and painting/coating operations, as well as, composting, food processing, wastewater treatment, chemical manufacturing, and feedlot/dairy facilities.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact AQ-A. Would the project conflict with or obstruct implementation of the applicable air quality plan?

SLOAPCD Clean Air Plan

As part of the CCAA, the SLOAPCD is required to develop a plan to achieve and maintain the state ozone standard by the earliest practicable date. The SLOAPCD's 2001 Clean Air Plan (CAP) addresses the attainment and maintenance of state and federal ambient air quality standards. The CAP was adopted by SLOAPCD's on March 26, 2002.

The CAP outlines the District's strategies to reduce ozone-precursor pollutants (i.e., ROG and NO_X) from a wide variety of sources. The CAP includes a stationary-source control program, which includes control measures for permitted stationary sources; as well as, transportation and land use management strategies to reduce motor vehicle emissions and use. The stationary-source control program is administered by SLOAPCD. Transportation and land use control measures are implemented at the local or regional level, by promoting and facilitating the use of alternative transportation options, increased pedestrian access and accessibility to community services and local destinations, reductions in vehicle miles traveled, and promotion of congestion management efforts. In addition, local jurisdictions also prepare population forecasts, which are used by SLOAPCD to forecast population-related emissions and air quality attainment, including those contained in the CAP.

According to the SLOAPCD's *CEQA Air Quality Handbook* (2012), a consistency analysis with the Clean Air Plan is required for a program-level environmental review, and may be necessary for a larger project-level environmental review, depending on the project being considered. Project-Level environmental reviews which may require consistency analysis with the CAP include: large residential developments and large commercial/industrial developments. For such projects, evaluation of consistency is based on a comparison of the proposed project with the land use and transportation control measures and strategies outlined in the CAP. If the project is consistent with these measures, the project is considered consistent with the CAP.

The proposed project is not considered a large development project that would have the potential to result in a substantial increase in regional emissions, population, or employment. As noted in "Impact AQ-C", the proposed project would not result in operational emissions that would exceed SLOAPCD's significance thresholds for criteria air pollutants. In addition, the proposed project is also consistent with existing zoning designations and would not result in the installation of any major stationary sources of emissions. For this reason, the proposed project would not be anticipated to conflict with SLOAPCD's CAP.

Furthermore, to ensure consistency with the City's *Climate Action Plan*, as noted in "Impact GHG-B", the project would include various measures to reduce emissions associated with energy and motor vehicle use (refer to Mitigation Measure GHG-1). These measures would include the installation of onsite bicycle parking and provisions for safe and convenient internal access to adjacent uses, including future bicycle lanes which are planned for the adjacent and nearby segments of Union Road. Compliance with the City's Climate Action Plan would also include measures to increase onsite energy efficiency and water efficiency and conservation. There are no existing or planned transit stops in the project area. However, because the project site is located within the Paso Robles City limits it is served by *Paso Express Dial-A-Ride* transit service. The project proponent is also considering participation in the *SLO Car Free* program, which would provide incentives for guest that utilize alternative transportation options.

In summary, the proposed project would not result in a significant increase in regional emissions, population, or employment that would conflict with SLOAPCD's CAP, nor would the project involve the installation of any major permitted stationary sources of emissions. The project would also include various measures that would help to promote the use of alternative transportation options and reductions in vehicle miles traveled. For these reasons, the proposed project would not conflict with or obstruct continued implementation of the CAP. This impact is considered less than significant.

Particulate Matter Report – Implementation of SB 656 Requirements

In July 2005, SLOAPCD adopted the *Particulate Matter Report (PM Report)*. The *PM Report* identifies various measures and strategies to reduce public exposure to PM emitted from a wide variety of sources, including emissions from permitted stationary sources and fugitive sources, such as construction activities.

As discussed in Impact AQ-C, fugitive dust generated during construction may result in localized pollutant concentrations that could result in increased nuisance concerns to nearby land uses. Therefore, construction-generated emissions of fugitive dust would be considered to have a potentially significant impact. Implementation of Mitigation Measure AQ-1 would include incorporation of SLOAPCD-recommended control measures. With implementation of Mitigation Measure AQ-1,a., overall emissions of fugitive dust would be reduced by approximately 58 percent. These measures would also help to ensure compliance with SLOAPCD's 20-percent opacity limit (APCD Rule 401), nuisance rule (APCD Rule 402), and would minimize potential nuisance impacts to nearby receptors. With mitigation, this impact would be considered less than significant.

Impact AQ-B.	***Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?***

As noted in Impact AQ-C, below, short-term construction activities may result in localized concentrations of pollutants that could adversely affect nearby land uses. As a result, this impact is considered potentially significant. Refer to "Impact AQ-C" and "Impact AQ-D" of this report for more detailed discussions of air quality impacts attributable to the proposed project and recommended mitigation measures.

Mitigation Measures

Implementation of Mitigation Measure AQ-1 and AQ-2, as identified in "Impact AQ-C" and "Impact AQ-D" below, would reduce this impact to a less-than-significant level.

Impact AQ-C. ***Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?***

Short-term Construction Emissions

Construction-generated emissions are of temporary duration, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact. The construction of the proposed project would result in the temporary generation of emissions associated with site grading and excavation, paving, motor vehicle exhaust associated with construction equipment and worker trips, as well as the movement of construction equipment on unpaved surfaces. Short-term construction emissions would result in increased emissions of ozone-precursor pollutants (i.e., ROG and NO_X) and emissions of PM. Emissions of ozone-precursors would result from the operation of on- and off-road motorized vehicles and equipment. Emissions of airborne PM are largely dependent on the amount of ground disturbance associated with site preparation activities and can result in increased concentrations of PM that can adversely affect nearby sensitive land uses.

Estimated daily and quarterly emissions are summarized in Table 8 and Table 9, respectively. A summary of construction-generated emissions, in comparison to SLOAPCD's significance thresholds, is provided in Table 10. As depicted, maximum daily emissions would total approximately 93.51 lbs/day of ROG+NO_X and approximately 3.11 lbs/day of exhaust PM_{10}. Quarterly construction-generated emissions would total approximately 1.49 tons of ROG+NO_X, 0.07 tons of DPM, and 0.17 tons of Fugitive PM_{10}. Construction-generated emissions would not exceed SLOAPCD significance thresholds. However, fugitive dust generated during construction may result in localized pollutant concentrations that could result in increased nuisance concerns to nearby land uses. Therefore, construction-generated emissions of fugitive dust would be considered to have a potentially significant impact.

Table 8
Daily Construction Emissions Without Mitigation

Construction Period/Phase	Daily Emissions (lbs)	
	ROG+NO_X	Exhaust PM_{10}
Demolition-Year 2016	51.34	2.31
Site Preparation-Year 2016	59.93	2.94
Grading/Excavation-Year 2016	42.30	2.20
Building Construction-Year 2016	33.56	1.99
Building Construction-Year 2017	30.98	1.80
Paving-Year 2017	22.51	1.14
Architectural Coating-Year 2017	40.02	0.17
Maximum Daily Emissions-Year 2016	59.93	2.94
Maximum Daily Emissions-Year 2017	93.51	3.11
SLOAPCD Significance Thresholds	137	7
Exceed SLOAPCD Thesholds?	No	No

Maximum Daily Emissions: Assumes that facility construction, paving, and application of architectural coatings could potentially occur simultaneously on any given day. Totals may not sum due to rounding.
Refer to Appendix C *for modeling assumptions and results.*

Table 9
Quarterly Construction Emissions Without Mitigation

Quarter	Quarterly Emissions (tons)			
		PM_{10}		
	$ROG+NO_X$	Exhaust	Dust	Total
Year 2016 - Quarter 1	1.49	0.07	0.17	0.25
Year 2016 - Quarter 2-4	1.09	0.06	0.01	0.08
Year 2017 - Quarter 1	0.92	0.03	0.01	0.04
SLOAPCD Significance Thresholds	2.50	0.13	2.50	None
Quarterly Emissions Exceed Thresholds?	No	No	No	No

Totals may not sum due to rounding.
Refer to Appendix C *for modeling assumptions and results.*

Table 10
Summary of Construction Emissions Without Mitigation

Criteria	Project Emissions	SLOAPCD Significance Threshold	Exceed Significance Threshold?
Maximum Daily Emissions ($ROG+NO_X$):	93.51 lbs/day	137 lbs/day	No
Maximum Daily Emissions (DPM):	3.11 lbs/day	7 lbs/day	No
Maximum Quarterly Emissions ($ROG+NO_X$):	1.49 tons/qtr	2.50 tons/qtr	No
Maximum Quarterly Emissions (DPM):	0.07 tons/qtr	0.13 tons/qtr	No
Maximum Quarterly Emissions (Fugitive PM):	0.17 tons/qtr	2.5 tons/qtr	No

Quarterly thresholds are based on the more conservative Tier 1 thresholds.
Refer to Appendix C *for modeling assumptions and results.*

Mitigation Measure AQ-1:

a. The following measures are recommended to minimize nuisance impacts associated with construction-generated fugitive dust emissions:

1. Reduce the amount of the disturbed area where possible;
2. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;
3. All dirt stock pile areas should be sprayed daily as needed;
4. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
5. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
6. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
7. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;

8. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
9. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
10. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;
11. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible;
12. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.

b. The above mitigation measures shall be shown on grading and building plans.

Significance After Mitigation

With implementation of Mitigation Measure AQ-1,a., overall emissions of fugitive dust would be reduced by approximately 58 percent. These measures would also help to ensure compliance with SLOAPCD's 20-percent opacity limit (APCD Rule 401), nuisance rule (APCD Rule 402), and would minimize potential nuisance impacts to nearby receptors. With mitigation, this impact would be considered less than significant.

Long-term Operational Emissions

Long-term operational emissions associated with the proposed project would be predominantly associated with mobile sources. To a lesser extent, emissions associated with area sources, such as landscape maintenance activities, as well as, use of electricity and natural gas would also contribute to increased operational emissions.

Unmitigated operational emissions for summer, winter and annual conditions are summarized in Table 11. As depicted, operational emissions would be slightly higher during winter conditions. Maximum daily operational emissions would total approximately 11.40 lbs/day ROG+NOx, 25.68 lbs/day CO, 3.70 lbs/day of fugitive PM_{10}, and 0.11 lbs/day of exhaust PM_{10}. Maximum annual emissions would total approximately 2.05 tons/year of ROG+NOx and approximately 0.66 tons/year of fugitive PM_{10}. Operational emissions would not exceed SLOAPCD significance thresholds. As a result, operational emissions are considered to have a less than significant impact.

Table 11
Operational Emissions Without Mitigation

Operational Period/Source	Emissions						
					PM_{10}		
	ROG	NO_X	ROG+NO_X	CO	Fugitive	Exhaust	Total
Daily Emissions (lbs/day)							
Summer Conditions	4.19	6.66	10.85	23.58	3.70	0.11	3.80
Winter Conditions	4.37	7.03	11.40	25.68	3.70	0.11	3.81
SLOAPCD Significance Thresholds	--	--	25	550	25	1.25	--
Exceeds SLOAPCD Thresholds?	--	--	No	No	No	No	--
Annual Emissions (tons/year)							
Total Project Emissions	0.77	1.28	2.05	4.49	0.66	0.02	0.68
SLOAPCD Significance Thresholds	--	--	25	--	25	--	--
Exceeds SLOAPCD Thresholds?	--	--	No	--	No	--	--

Totals may not sum due to rounding.
Refer to Appendix C *for modeling output files and assumptions.*

Impact AQ-D. Would the project expose sensitive receptors to substantial pollutant concentrations?

The project site is located along Union Road, south of Highway 46. Adjacent land uses consist largely of undeveloped/agricultural land. Commercial uses are located to the north, across Union Road. The nearest sensitive land uses consist of residential dwellings, the nearest of which are located approximately 0.07 miles to the southwest and east of the project site. Barney Schwartz Park is located approximately 0.2 miles to the southeast.

Localized CO Concentrations

Localized concentrations of CO are of primary concern in areas located near congested roadway intersections. Of particular concern are intersections that are projected to operate at unacceptable levels of service (LOS) E or F.

Based on the traffic analysis prepared for this project, primarily affected intersections are projected to operate at LOS C, or better, with project implementation (CCTC 2015). The proposed hotel project would not result in or contribute to unacceptable levels of service (i.e., LOS E or F) at primarily affected nearby signalized intersections. In addition, the proposed project would not result in emissions of CO in excess of the SLOAPCD's significance threshold of 550 lbs/day. Localized concentrations of CO are considered to be less than significant.

Naturally Occurring Asbestos

Naturally Occurring Asbestos (NOA) has been identified as a toxic air contaminant by the ARB. In accordance with ARB Air Toxics Control Measure (ATCM), prior to any grading activities a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request form, along with a copy of the geologic report, must be filed with the SLOAPCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM.

Based on a review of the SLOAPCD's map depicting potential areas of NOA, the project site is not located in an area that has been identified as having a potential for NOA (SLOAPCD 2015a). As a result, the disturbance and potential exposure to NOA is considered to have a less than significant impact.

Asbestos Material in Demolition

Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of asbestos containing material (ACM). Asbestos containing materials could be encountered during demolition of existing buildings, particularly older structures constructed prior to 1970. Asbestos can also be found in various building products, including (but not limited to) utility pipes/pipelines (transite pipes or insulation on pipes). If a project will involve the disturbance or potential disturbance of ACM, various regulatory requirements may apply, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - Asbestos NESHAP). These requirements include but are not limited to: 1) notification, within at least 10 business days of activities commencing, to the APCD, 2) an asbestos survey conducted by a Certified Asbestos Consultant, and, 3) applicable removal and disposal requirements of identified ACM.

The project site will require demolition of onsite structures. As a result, demolition activities have the potential to result in the disturbance of ACM. The disturbance and potential exposure to ACM during demolition of onsite structures is considered to have a potentially significant impact.

Construction-Generated PM

Implementation of the proposed project would result in the generation of fugitive PM emitted during construction. Fugitive PM emissions would be primarily associated with earth-moving, demolition, and material handling activities, as well as, vehicle travel on unpaved and paved surfaces. Onsite off-road equipment and trucks would also result in short-term emissions of diesel-exhaust PM (DPM). Construction-generated emissions of PM could result in localized concentrations of PM that could result in increased nuisance impacts to nearby land uses and receptors. As a result, localized uncontrolled concentrations of construction-generated PM would be considered to have a potentially-significant impact.

Mitigation Measure AQ-2:

a. Implement Mitigation Measure AQ-1, as identified in "Impact AQ-C", above.
b. Demolition of onsite structures shall comply with the National Emission Standards for Hazardous Air Emissions (NESHAP) requirements (NESHAP, 40 CFR, Part 61, Subpart M) for the demolition of existing structures. The SLOAPCD is delegated authority by the Environmental Protection Agency (EPA) to implement the Federal Asbestos NESHAP. Prior to demolition of onsite structures, the SLOAPCD shall be notified, per NESHAP requirements. SLOAPCD notification form and reporting requirements are included in Appendix A. Additional information may be obtained at website url: http://slocleanair.org/business/asbestos.php.
c. Maintain all construction equipment in proper tune according to manufacturer's specifications;
d. Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
e. Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State off-Road Regulation;
f. Idling of all on and off-road diesel-fueled vehicles shall not be permitted when not in use. Signs shall be posted in the designated queuing areas and or job site to remind drivers and operators of the no idling limitation.
g. Electrify equipment when possible;
h. Substitute gasoline-powered in place of diesel-powered equipment, when available; and,
i. Use alternatively fueled construction equipment on-site when available, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

Significance After Mitigation

Mitigation Measures AQ-2,a and AQ-2,b includes measures for the control of fugitive dust emitted during project construction, including emissions generated during the demolition of existing structures. Mitigation Measures AQ-2,c through AQ-2,i include additional provisions for reducing emissions of DPM from onsite mobile sources. With implementation of Mitigation Measure AQ-2, this impact would be considered less than significant.

Impact AQ-E. Would the project create objectionable odors affecting a substantial number of people?

The occurrence and severity of odor impacts depends on numerous factors, including: the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact.

The proposed project would not result in the installation of any equipment or processes that would be considered major odor-emission sources. However, construction of the proposed project would involve the use of a variety of gasoline or diesel-powered equipment that would emit exhaust fumes. Exhaust fumes, particularly diesel-exhaust, may be considered objectionable by some people. In addition pavement coatings and architectural coatings used during project construction would also emit temporary odors. However, construction-generated emissions would occur intermittently throughout the workday and would dissipate rapidly with increasing distance from the source. As a result, short-term construction activities would not expose a substantial number of people to frequent odorous emissions. For these reasons, potential exposure of sensitive receptors to odorous emissions would be considered less than significant.

GREENHOUSE GASES AND CLIMATE CHANGE

SETTING

To fully understand global climate change, it is important to recognize the naturally occurring "greenhouse effect" and to define the GHGs that contribute to this phenomenon. Various gases in the earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Primary GHGs attributed to global climate change, are discussed, as follows:

- **Carbon Dioxide**. Carbon dioxide (CO_2) is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere (U.S. EPA 2008a).

- **Methane**. Methane (CH_4) is a colorless, odorless gas that is not flammable under most circumstances. CH_4 is the major component of natural gas, about 87% by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (enteric fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of methane to the atmosphere. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. Methane's atmospheric lifetime is about 12 years (U.S. EPA 2015).

- **Nitrous Oxide**. Nitrous oxide (N_2O) is a clear, colorless gas with a slightly sweet odor. N_2O is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years (U.S. EPA 2015).

- **Hydrofluorocarbons.** Hydrofluorocarbons (HFCs) are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. The only significant emissions of HFCs before 1990 were of the chemical HFC-23, which is generated as a byproduct of the production of HCFC-22 (or Freon 22, used in air conditioning applications). The atmospheric lifetime for HFCs varies from just over a year for HFC-152a to 260 years for HFC-23. Most of the commercially used HFCs have atmospheric lifetimes of less than 15 years (e.g., HFC-134a, which is used in automobile air conditioning and refrigeration, has an atmospheric life of 14 years) (U.S. EPA 2015).

- **Perfluorocarbons.** Perfluorocarbons (PFCs) are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoromethane (CF_4), perfluoroethane (C_2F_6), perfluoropropane (C_3F_8), perfluorobutane (C_4F_{10}), perfluorocyclobutane (C_4F_8), perfluoropentane (C_5F_{12}), and perfluorohexane (C_6F_{14}). Natural geological emissions have been responsible for the PFCs that have accumulated in the atmosphere in the past; however, the largest current source is aluminum production, which releases CF_4 and C_2F_6 as byproducts. The estimated atmospheric lifetimes for CF_4 and C_2F_6 are 50,000 and 10,000 years, respectively (U.S. EPA 2015).

- **Nitrogen Trifluoride**. Nitrogen trifluoride (NF_3) is an inorganic, colorless, odorless, toxic, nonflammable gas used as an etchant in microelectronics. Nitrogen trifluoride is predominantly employed in the cleaning of the plasma-enhanced chemical vapor deposition chambers in the production of liquid crystal displays and silicon-based thin film solar cells. In 2009, NF_3 was listed by California as a potential GHG to be listed and regulated under Assembly Bill (AB) 32 (Section 38505 Health and Safety Code).

- **Sulfur Hexafluoride**. Sulfur hexafluoride (SF_6) is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable. SF_6 is primarily used as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80% of all SF_6 produced worldwide. Leaks of SF_6 occur from aging equipment and during equipment maintenance and servicing. SF_6 has an atmospheric life of 3,200 years (U.S. EPA 2008b).

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Gases with high global warming potential (GWP), such as HFCs, PFCs, and SF_6, are the most heat-absorbent. Methane traps over 24 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its GWP. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. Table 12 shows the GWP for different GHGs for a 100-year time horizon.

Table 12
Global Warming Potential for Greenhouse Gases

Greenhouse Gas	Global Warming Potential
Carbon Dioxide (CO_2)	1
Methane (CH_4)	24
Nitrous Dioxide (N_2O)	298
Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs)	6,500
Sulfur Hexafluoride (SF_6)	23,900

SOURCES OF GHG EMISSIONS

On a global scale, GHG emissions are predominantly associated with activities related to energy production; changes in land use, such as deforestation and land clearing; industrial sources; agricultural activities; transportation; waste and wastewater generation; and commercial and residential land uses. World-wide, energy production including the burning of coal, natural gas, and oil for electricity and heat is the largest single source of global GHG emissions.

In 2009, GHG emissions within California totaled 457 million metric tons (MMT) of carbon dioxide equivalents (CO_2e). Within California, the transportation sector is the largest contributor, accounting for approximately 38 percent of the total state-wide GHG emissions. Emissions associated with electricity generation are the second largest contributor, totaling roughly 23 percent, with almost equal contributions from in-state and imported electricity. On a global scale, California had the 14th largest carbon dioxide emissions and the 19th largest per capita emissions.

Effects of Global Climate Change

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, increased air pollution episodes, and the consequence of these effects on the economy.

Within California, climate changes would likely alter the ecological characteristics of many ecosystems throughout the state. Such alterations would likely include increases in surface temperatures and changes in the form, timing, and intensity of precipitation. For instance, historical records are depicting an increasing trend toward earlier snowmelt in the Sierra Nevada. This snow pack is a principal supply of water for the state, providing roughly 50 percent of state's annual runoff. If this trend continues, some areas of the state may experience an increased danger of floods during the winter months and possible exhaustion of the snowpack during spring and summer months. An earlier snowmelt would also impact the State's energy resources. Currently, approximately 20 percent of California's electricity comes from hydropower. An early exhaustion of the Sierra snowpack, may force electricity producers to switch to more costly or non-renewable forms of electricity generation during spring and summer months. A changing climate may also impact agricultural crop yields, coastal structures, and biodiversity. As a result, resultant changes in climate will likely have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry.

Regulatory Framework

Federal

Executive Order 13514 (October 5, 2009): This order is focused on reducing GHGs internally in federal agency missions, programs and operations, but also directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

U.S. EPA's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in Massachusetts v. EPA (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and EPA's assessment of the scientific evidence that form the basis for EPA's regulatory actions. U.S. EPA in conjunction with NHTSA issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010.

The U.S. EPA and the National Highway Traffic Safety Administration are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations.

The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards implemented by this program are expected to reduce GHG emissions by an estimated 960 million metric tons (MMT) and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

On August 28, 2012, U.S. EPA and NHTSA issued a joint Final Rulemaking to extend the National Program for fuel economy standards to model year 2017 through 2025 passenger vehicles. Over the lifetime of the model year 2017-2025 standards this program is projected to save approximately four billion barrels of oil and two billion metric tons of GHG emissions.

The complementary U.S. EPA and NHTSA standards that make up the Heavy-Duty National Program apply to combination tractors (semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse or utility trucks). Together, these standards will cut GHG emissions and domestic oil use significantly. This program responds to President Barack Obama's 2010 request to jointly establish GHG emissions and fuel efficiency standards for the medium- and heavy-duty highway vehicle sector. The agencies estimate that the combined standards will reduce CO_2 emissions by about 270 MMT and save about 530 million barrels of oil over the life of model year 2014 to 2018 heavy duty vehicles (U.S. EPA 2011).

STATE

Assembly Bill 1493

AB 1493 (Pavley) of 2002 (Health and Safety Code Sections 42823 and 43018.5) requires the ARB to develop and adopt the nation's first GHG emission standards for automobiles. These standards are also known as Pavley I. The California Legislature declared in AB 1493 that global warming is a matter of increasing concern for public health and the environment. It cites several risks that California faces from climate change, including a reduction in the state's water supply, an increase in air pollution caused by higher temperatures, harm to agriculture, an increase in wildfires, damage to the coastline, and economic losses caused by higher food, water, energy, and insurance prices. The bill also states that technological solutions to reduce GHG emissions would stimulate California's economy and provide jobs. In 2004, the State of California submitted a request for a waiver from federal clean air regulations, as the State is authorized to do under the Clean Air Act, to allow the State to require reduced tailpipe emissions of CO_2. In late 2007, the U.S. EPA denied California's waiver request and declined to promulgate adequate federal regulations limiting GHG emissions. In early 2008, the State brought suit against the U.S. EPA related to this denial.

In January 2009, President Obama instructed the U.S. EPA to reconsider the Bush Administration's denial of California's and 13 other states' requests to implement global warming pollution standards for cars and trucks. In June 2009, the U.S. EPA granted California's waiver request, enabling the State to enforce its GHG emissions standards for new motor vehicles beginning with the current model year.

Also in 2009, President Obama announced a national policy aimed at both increasing fuel economy and reducing GHG pollution for all new cars and trucks sold in the US. The new standards would cover model years 2012 to 2016 and would raise passenger vehicle fuel economy to a fleet average of 35.5 miles per gallon by 2016. When the national program takes effect, California has committed to allowing automakers who show compliance with the national program to also be deemed in compliance with state requirements. California is committed to further strengthening these standards beginning in 2017 to obtain a 45 percent GHG reduction from the 2020 model year vehicles.

Executive Order No. S-3-05

Executive Order S-3-05 (State of California) proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The secretary will also submit biannual reports to the governor and state legislature describing (1) progress made toward reaching the emission targets, (2) impacts of global warming on California's resources, and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the secretary of CalEPA created a Climate Action Team made up of members from various state agencies and commissions. The Climate Action Team released its first report in March 2006 and continues to release periodic reports on progress. The report proposed to achieve the targets by building on voluntary actions of

California businesses, local government and community actions, as well as through state incentive and regulatory programs.

Assembly Bill 32 - California Global Warming Solutions Act of 2006

AB 32 (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599) requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. The gases that are regulated by AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride, and sulfur hexafluoride. The reduction to 1990 levels will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap, institute a schedule to meet the emissions cap, and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

Climate Change Scoping Plan

In October 2008, ARB published its Climate Change Proposed Scoping Plan, which is the State's plan to achieve GHG reductions in California required by AB 32. The Scoping Plan contains the main strategies California will implement to achieve reduction of 169 million metric tons of CO_2e, or approximately 30 percent from the state's projected 2020 emissions level of 596 $MMTCO_2e$ under a business-as-usual scenario (this is a reduction of 42 $MMTCO_2e$, or almost 10 percent, from 2002–2004 average emissions). The Scoping Plan also includes ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations are from improving emissions standards for light-duty vehicles (estimated reductions of 31.7 $MMTCO_2e$), implementation of the Low Carbon Fuel Standard (15.0 $MMTCO_2e$) program, energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 $MMTCO_2e$), and a renewable portfolio standard for electricity production (21.3 $MMTCO_2e$). The Scoping Plan identifies the local equivalent of AB 32 targets as a 15 percent reduction below baseline GHG emissions level, with baseline interpreted as GHG emissions levels between 2003 and 2008.

A key component of the Scoping Plan is the Renewable Portfolio Standard, which is intended to increase the percentage of renewables in California's electricity mix to 33 percent by year 2020, resulting in a reduction of 21.3 $MMTCO_2e$. Sources of renewable energy include, but are not limited to, biomass, wind, solar, geothermal, hydroelectric, and anaerobic digestion. Increasing the use of renewables will decrease California's reliance on fossil fuels, thus reducing GHG emissions.

The Scoping Plan states that land use planning and urban growth decisions will play important roles in the state's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. (Meanwhile, ARB is also developing an additional protocol for community emissions.) ARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors. The Scoping Plan states that the ultimate GHG reduction assignment to local government operations is to be determined. With regard to land use planning, the Scoping Plan expects approximately 5.0 $MMTCO_2e$ will be achieved associated with implementation of Senate Bill 375, which is discussed further below. The Climate Change Proposed Scoping Plan was approved by ARB on December 11, 2008.

The First Update of the Scoping Plan was approved by the ARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030-2035) on the road to reaching the 2050 goals.

Senate Bill 1368

Senate Bill (SB) 1368 (codified at Public Utilities Code Chapter 3) is the companion bill of AB 32. SB 1368 required the California Public Utilities Commission (CPUC) to establish a GHG emissions performance standard for baseload generation from investor-owned utilities by February 1, 2007. The bill also required the California Energy Commission (CEC) to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the GHG emission rate from a baseload combined-cycle natural-gas-fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the CPUC and the CEC.

Senate Bill 1078 and Governor's Order S-14-08 (California Renewables Portfolio Standards)

Senate Bill 1078 (Public Utilities Code Sections 387, 390.1, 399.25 and Article 16) addresses electricity supply and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide a minimum 20 percent of their supply from renewable sources by 2017. This Senate Bill will affect statewide GHG emissions associated with electricity generation. In 2008, Governor Schwarzenegger signed Executive Order S-14-08, which set the Renewables Portfolio Standard target to 33 percent by 2020. It directed state government agencies and retail sellers of electricity to take all appropriate actions to implement this target. Executive Order S-14-08 was later superseded by Executive Order S-21-09 on September 15, 2009. Executive Order S-21-09 directed the ARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. This Executive Order was superseded by statute SB X1-2 in 2011, which obligates all California electricity providers, including investor-owned utilities and publicly owned utilities, to obtain at least 33 percent of their energy from renewable electrical generation facilities by 2020, with interim targets of 20 percent by 2013 and 25 percent by 2016.

ARB is required by current law, AB 32 of 2006, to regulate sources of GHGs to meet a state goal of reducing greenhouse gas emissions to 1990 levels by 2020 and an 80 percent reduction of 1990 levels by 2050. The CEC and CPUC serve in advisory roles to help ARB develop the regulations to administer the 33 percent by 2020 requirement. ARB is also authorized to increase the target and accelerate and expand the time frame.

Mandatory Reporting of Greenhouse Gas Emissions

Reporting of greenhouse gases by major sources is required by the California Global Warming Solutions Act (AB 32, 2006). Revisions to the existing ARB mandatory GHG reporting regulation were considered at the board hearing on December 16, 2010. The revised regulation was approved by the California Office of Administrative Law and became effective on January 1, 2012. The revised regulation affects industrial facilities, suppliers of transportation fuels, natural gas, natural gas liquids, liquefied petroleum gas, and carbon dioxide, operators of petroleum and natural gas systems, and electricity retail providers and marketers.

Cap-and-Trade Regulation

The cap-and-trade regulation is a key element in California's climate plan. It sets a statewide limit on sources responsible for 85 percent of California's greenhouse gas emissions, and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The cap-and-trade rules came into effect on January 1, 2013 and apply to large electric power plants and large industrial plants. In 2015, they will extend to fuel distributors (including distributors of heating and transportation fuels). At that stage, the program will encompass around 360 businesses throughout California and nearly 85 percent of the state's total greenhouse gas emissions.

Under the cap-and-trade regulation, companies must hold enough emission allowances to cover their emissions, and are free to buy and sell allowances on the open market. California held its first auction of greenhouse gas allowances on November 14, 2012. California's GHG cap-and-trade system will reduce GHG emissions from regulated entities by approximately 16 percent, or more, by 2020.

CALIFORNIA BUILDING CODE

The California Building Code contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The California Building Code is adopted every three years by the Building Standards Commission (BSC). In the interim, the BSC also adopts annual updates to make necessary mid-term corrections. The CBC standards apply statewide; however, a local jurisdiction may amend a CBC standard if it makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

Green Building Standards

In essence, green buildings standards are indistinguishable from any other building standards. Both are contained in the California Building Code and regulate the construction of new buildings and improvements. The only practical distinction between the two is that whereas the focus of traditional building standards has been protecting public health and safety, the focus of green building standards is to improve environmental performance.

AB 32, which mandates the reduction in greenhouse gas emissions in California to 1990 levels by 2020, increased the urgency around the adoption of green building standards. In its scoping plan for the implementation of AB 32, the ARB identified energy use as the second largest contributor to California's GHG emissions, constituting roughly 25 percent of all such emissions. In recommending a green building strategy as one element of the scoping plan, the ARB estimated that green building standards would reduce GHG emissions by approximately 26 million metric tons of CO_2e ($MMTCO_2e$) by 2020 (ARB 2015c).

2013 Green Building Code

The 2013 California Green Building Standards Code is a code with mandatory and/or voluntary requirements for new residential and nonresidential buildings throughout California. The code is also known as the CALGreen Code. In short, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy and reduce environmental impact during and after construction. In addition to the new statewide mandates, the code encourages local governments to adopt more stringent voluntary provisions, know as Tier 1 and Tier 2 provisions, to further reduce greenhouse gas emissions, improve energy efficiency, and conserve natural resources. If a local government adopts one of the tiers, the provisions become mandates for all new construction within that jurisdiction.

SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT

The SLOAPCD is a local public agency with the primary mission of realizing and preserving clean air for all county residents and businesses. Responsibilities of the SLOAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by federal and state regulatory requirements.

GHG Significance Thresholds

The SLOAPCD recently adopted recommended GHG significance thresholds. These thresholds are based on AB 32 GHG emission reduction goals, which take into consideration the emission reduction strategies outlined in ARB's Scoping Plan. The GHG significance thresholds include one qualitative threshold and two quantitative thresholds options for evaluation of operational GHG emissions. The qualitative threshold option is based on a consistency analysis in comparison to a Qualified Greenhouse Gas Reduction Strategy, or equitably similar adopted policies, ordinances and programs. If a project complies with a

Qualified Greenhouse Gas Reduction Strategy that is specifically applicable to the project, then the project would be considered less than significant. The two quantitative threshold options include: 1) a bright-line threshold of 1,150 $MTCO_2e$/year; and 2) an efficiency threshold of 4.9 $MTCO_2e$/service population (residents+employees)/year. An additional GHG significance threshold of 10,000 $MTCO_2e$/year is proposed for industrial stationary sources. The applicable GHG significance threshold to be used would depend on the type of project being proposed. Projects with GHG emissions that do not exceed the selected threshold would be considered to have a less-than-significant impact. The APCD's GHG emission thresholds are summarized in Table 13.

Table 13
SLOAPCD Greenhouse Gas Thresholds of Significance

Project	Draft Threshold
Projects other than Stationary Sources	1. Compliance with Qualified GHG Reduction Strategy; or 2. 1,150 MT CO_2e/year; or 3. 4.9 MT CO_2e/SP/year (residents+employees)
Stationary Sources (Industrial)	10,000 MT CO_2e/year
Construction	Amortized over the project life and added to operation GHG emissions
Source: SLOAPCD 2012	

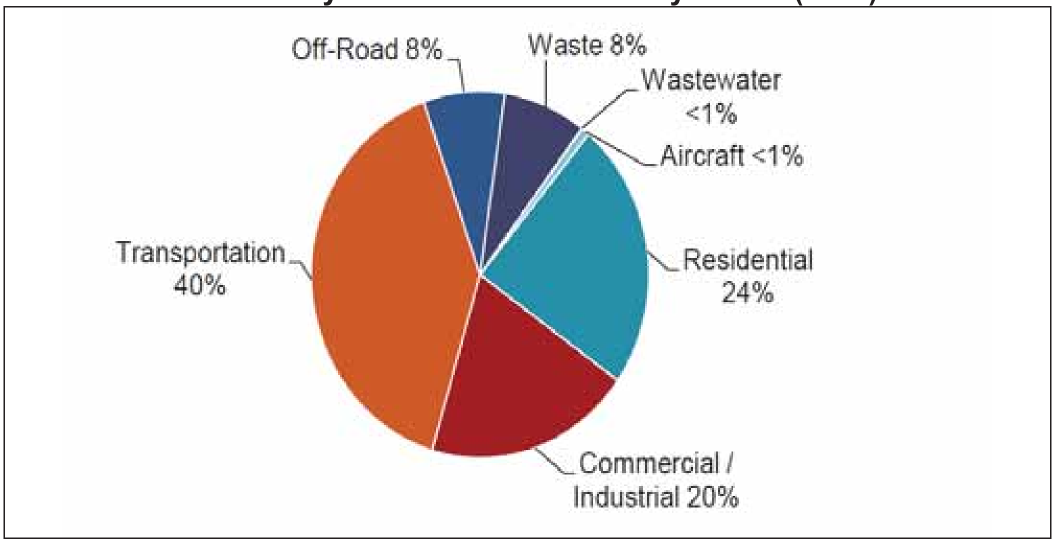
CITY OF PASO ROBLES CLIMATE ACTION PLAN

The City of Paso Robles Climate Action Plan (CAP) was adopted by the City Council on November 18th, 2013. The CAP is a long-range plan to reduce greenhouse gas (GHG) emissions from City government operations and community activities within Paso Robles and prepare for the anticipated effects of climate change. The CAP will also help achieve multiple community goals such as lowering energy costs, reducing air pollution, supporting local economic development, and improving public health and quality of life (City of Paso Robles, 2013).

According to the GHG emissions inventory identified in the CAP, in 2005, the Paso Robles community emitted approximately 169,557 metric tons of carbon dioxide equivalent GHG emissions ($MTCO_2e$), as a result of activities that took place within the transportation, residential energy use, commercial and industrial energy use, off-road vehicles and equipment, solid waste, aircraft and wastewater sectors. As shown in **Figure 3**, the largest contributors of GHG emissions were the transportation (40 percent), residential energy use (24 percent) and commercial/industrial energy use (20 percent) sectors. The remainder of emissions resulted from the solid waste (eight percent), off-road vehicles and equipment (8 percent), aircraft (less than one percent), and wastewater (less than one percent) sectors (City of Paso Robles, 2013).

In accordance with SLOAPCD-recommended significance thresholds, as discussed above, projects that are determined to be consistent with the GHG-reduction plan, or in this case the CAP, would be considered to have a less-than-significant impact. To assist with this determination, the CAP includes a worksheet that identifies various "mandatory", as well as, "voluntary" measures. All "mandatory" actions must be incorporated as binding and enforceable components of the project to be considered consistent with the CAP. If a project cannot meet one or more of the "mandatory" actions, substitutions may be allowed provided equivalent reductions can be achieved. In addition, to demonstrate consistency with the CAP, all required measures must be incorporated as binding and enforceable components of the project. A copy of the City's CAP consistency worksheet is included in Appendix B.

Figure 3
City of Paso Robles
Community-wide GHG Emissions by Sector (2005)



City of Paso Robles, 2013

IMPACT ANALYSIS

GHG impacts attributable to the proposed project are summarized in **Table 14**.

Table 14
Summary of Project-Related Greenhouse Gas Emissions Impacts

GHG Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
B) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	■	☐	☐

METHODOLOGY

The methodologies used for quantification of GHG emissions are consistent with those discussed earlier in this report for the quantification of criteria air pollutants. Modeling assumptions and output files are included in Appendix C of this report.

THRESHOLDS OF SIGNIFICANCE

In accordance with SLOAPCD recommended significance thresholds, the proposed project would be considered to have a potentially significant impact on the environment if project-generated emissions would exceed 1,150 $MTCO_2e$/year.

The City of Paso Robles CAP includes a "Consistency Worksheet", which identifies various mandatory and voluntary actions designed to reduce GHG emissions. The *CAP Consistency Worksheet* can be used to demonstrate project-level compliance with the CAP. Consistency with the City of Paso Robles CAP would be considered potentially significant if the proposed project does not incorporate, at a minimum, the mandatory project-level GHG-reduction measures, as identified in the *CAP Consistency Worksheet*. The *CAP Consistency Worksheet* is included in Appendix B of this report.

PROJECT IMPACTS AND MITIGATION MEASURES

Impact GHG-A. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? and

Estimated GHG emissions attributable to future development would be primarily associated with increases of CO_2 from mobile sources. To a lesser extent, other GHG pollutants, such as CH_4 and N_2O, would also be generated. Short-term and long-term GHG emissions associated with the development of the proposed project are discussed in greater detail, as follows:

Short-term Construction GHG Emissions

Estimated increases in GHG emissions associated with construction of the proposed project are summarized in Table 15. Based on the modeling conducted, annual emissions of greenhouse gases associated with construction of the proposed project would range from approximately 52.3 to 396.2 $MTCO_2e$. Amortized GHG emissions, when averaged over the assumed 25-year life of the project, would total approximately 17.9 $MTCO_2e$/year. There would also be a small amount of GHG emissions from waste generated during construction; however, this amount is speculative. Actual emissions may vary, depending on the final construction schedules, equipment required, and activities conducted.

Table 15
Construction-Generated GHG Emissions Without Mitigation

Construction Year	GHG Emissions ($MTCO_2e$/Year)
Year 2016	396.2
Year 2017	52.3
Construction Phase Total:	448.5
Amortized Net Change in Construction Emissions*:	17.9

**Amortized emissions are quantified based on an estimated 25-year project life.*
Refer to Appendix C *for modeling assumptions and results.*

Long-term Operational GHG Emissions

Estimated long-term increases in GHG emissions associated with the proposed project are summarized in Table 16. Based on the modeling conducted, operational GHG emissions would be predominantly associated with mobile sources and energy use. To a lesser extent, GHG emissions would also be associated with solid waste generation, as well as, water use and conveyance. With amortized construction-generated emissions, annual emissions would total approximately 909 $MTCO_2e$/year. As a result, this impact would be considered less than significant.

Table 16
Operational Greenhouse Gas Emissions Without Mitigation

Source	GHG Emissions ($MTCO_2e$/Year)
Area Source	0.01
Energy Use	151.9
Motor Vehicles	701.2
Waste Generation	29.9
Water Use and Conveyance	8.2
Total Project-Generated Emissions:	891.1
Construction (Amortized)	17.9
Net Increase in Emissions:	909.0
SLOAPCD Significance Threshold:	1,150
Exceeds Significance Threshold?:	No

Refer to Appendix C *for modeling assumptions and results.*

Impact GHG-B. Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

As discussed earlier in this report, the City of Paso Robles CAP was adopted by the City Council on November 18th, 2013. The CAP is a long-range plan to reduce greenhouse gas (GHG) emissions from City government operations and community activities within Paso Robles and prepare for the anticipated effects of climate change. The CAP will also help achieve multiple community goals such as lowering energy costs, reducing air pollution, supporting local economic development, and improving public health and quality of life (City of Paso Robles, 2013). To help achieve these goals, the CAP includes a "Consistency Worksheet", which identifies various mandatory and voluntary actions designed to reduce GHG emissions. The *CAP Consistency Worksheet* can be used to demonstrate project-level compliance with the CAP. The City's CAP consistency worksheet is included in Appendix B of this report.

The proposed land use would be consistent with current zoning (i.e., commercial/light industry). In addition, the project sponsor has agreed to implement measures sufficient to ensure consistency with the CAP.

Mitigation Measure GHG-1:

Prior to occupancy permit being approved, the project shall complete a CAP consistency report and secure approval of the report from the City Planning Department and SLOAPCD. The consistency report shall provide record of compliance with the mandatory and any substituted measures in the City of Paso Robles CAP Consistency Worksheet (refer to Appendix B).

Significance After Mitigation

Mitigation Measure GHG-1 would ensure consistency with the City of Paso Robles CAP. With mitigation, increased emissions of GHGs would be considered less than significant.

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APPENDIX A

SLOAPCD ASBESTOS DEMOLITION/RENOVATION NOTIFICATION FORM

SLO COUNTY apcd | Air Pollution Control District San Luis Obispo County

3433 Roberto Court, San Luis Obispo, CA 93401
805-781-5912 – FAX: 805-781-1002

Naturally Occurring Asbestos Construction and Grading Project Form

Applicant Information/Property Owner		**Project Name**	
Address		**Project Address**	
City, State, Zip		**City, State, Zip**	
Email for Contact Person		**Project Site Latitude, Longitude**	**Assessors Parcel Number**
Phone Number	**Date Submitted**	**Agent**	**Phone Number**

Check Applicable	DESCRIPTION (attach applicable required information)	APCD REQUIREMENT 1	APCD REQUIREMENT 2
	Project is subject to ATCM regulation but exempt (See Website Map) http://www.slocleanair.org/business/pdf/serpentine-	Geological Evaluation	Exemption Request Form
	Project is subject to ATCM regulation and project is disturbing more than one acre	Geological Evaluation	Dust Control Measure Plan
	Project is subject to ATCM regulation and project is disturbing less than one acre	Geological Evaluation	Mini Dust Control Measure Plan

Please note that the applicant will be invoiced for any associated fees.

REQUIRED APPLICANT SIGNATURE:

Legal Declaration/Authorized Signature　　　　Date

APCD OFFICE USE ONLY				
Geological Evaluation	Exemption Request Form	Dust Control Measure Plan		Monitoring, Health and Safety Plan
Approved Yes ☐ No ☐	Approved: Yes ☐ No ☐	Approved: Yes ☐ No ☐		Approved: Yes ☐ No ☐
Comments:	Comments:	Comments:		
APCD Staff:	Date Received:	Date Reviewed	OIS Site #	OIS Project #
Invoice No.	Basic Fee	Additional Fees	Billable Hrs	Total Fees

Air Pollution Control District
San Luis Obispo County

3433 Roberto Court, San Luis Obispo, CA 93401
805-781-5912 – FAX: 805-781-1002

Naturally Occurring Asbestos
Construction & Grading Project Exemption Request Form

Applicant Information/ Property Owner		**Project Name**	
Address		**Project Address**	
City, State, Zip		**City, State, Zip**	
Email Address		**Project Site Latitude, Longitude**	**Assessors Parcel Number**
Phone Number	**Date Submitted**	**Agent**	**Phone Number**

The District may provide an exemption from Section 93105 of the California Code of Regulations - Asbestos Airborne Toxic Control Measu For Construction, Grading, Quarrying, And Surface Mining Operations for any property that has any portion of the area to be disturbed located in a geographic ultramafic rock unit; if a registered geologist has conducted a geologic evaluation of the property and determined that no serpentine or ultramafic rock is likely to be found in the area to be disturbed. Before an exemption can be granted, the owner/operator must provide a copy of a report detailing the geologic evaluation to the District for consideration. The District will approve or deny the exemption within 90 days. An outline of the required geological evaluation is provided in the District handout **"ASBESTOS AIRBORNE TOXIC CONTROL MEASURES FOR CONSTRUCTION, GRADING, QUARRYING, AND SURFACE MINING OPERATIONS – Geological Evaluation Requirements." See the APCD Website map: http://www.slocleanair.org/business/asbestos.php**

NOTE: A basic exemption evaluation fee of $172.00 will be charged.

APPLICANT MUST SIGN BELOW:

I request the San Luis Obispo County Air Pollution Control District grant this project exemption from the requirements of the ATCM based on the attached geological evaluation.

Legal Declaration/Authorized Signature — Date:

OFFICE USE ONLY - APCD Required Element – Geological Evaluation			
Date Received:	Date Reviewed:	OIS Site #:	OIS Project #:
	APCD Staff:	Approved	Not Approved
Comments:			

ASBESTOS DEMOLITION/RENOVATION NOTIFICATION FORM
GENERAL INFORMATION

The asbestos NESHAP, 40 CFR, Part 61, Subpart M, requires written notification of demolition or renovation operations under Section 61.145. Only complete notification forms are acceptable. A complete accredited asbestos survey must accompany the notification in order to be complete. Incomplete notification may result in enforcement action.

The original notification should be typewritten and **postmarked or delivered** no later than **ten working days** prior to the beginning of the asbestos removal activity (dates specified in Section VIII) or demolition (dates specified in Section IX). Notification fees apply (See attached fee schedule). Please submit the notification form to:

AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN LUIS OBISPO

Mark Elliott, Air Quality Specialist Enforcement Division 3433 Roberto Court San Luis Obispo, CA 93401 (805) 781-5912 Phone (805) 781-1002 Fax	Tim Fuhs, Air Quality Specialist Enforcement Division 3433 Roberto Court San Luis Obispo, CA 93401 (805) 781-5912 Phone (805) 781-1002 Fax

Revisions are required if there are any changes to removal or demolition dates, amounts of asbestos present or removed, or to contractors, transporters, or disposal site. There is a $115.00 Revision Fee. Revisions may be faxed to the fax number above.

I. **Type of Notification:** Enter "O" if the notification is a first time or original notification, "R" if the notification is a revision of a prior notification, or "C" if the activity has been cancelled.

II. **Facility Information:** Enter the names, addresses, contact persons and telephone numbers of the following:

Owner: Legal owner of the site at which asbestos is being removed or demolition planned.

Removal Contractor: Contractor hired to remove asbestos.

Other Operator: Demolition contractor, general contractor, or any other person who leases, operates, controls, or supervises the site.

If known, the name of the site supervisor should be entered as the contact person for the notification. If additional parties share responsibility for the site, demolition activity, renovations or ACM removal, include complete information (including name, address, contact person and telephone number) on additional sheets submitted with the form.

III. **Type of Operation:** Enter "D" for facility demolition, "R" for facility renovation, "O" for ordered demolitions, or "E" for emergency renovations.

IV. **Is Asbestos Present?** Answer "Yes" or "No" regardless of the amount or type of asbestos. Pursuant to Section 61.145.a, submit a complete accredited asbestos survey with this notification.

V. **Facility Description:** Provide detailed information on the areas being renovated or demolished. If applicable, provide the floor numbers and room numbers where renovations are to be conducted.

Site Location: Provide information needed to locate site in the event that the address alone is inadequate.

Building Size: Provide in square meters or square feet.

No. of Floors: Enter the number of floors including basement or ground level floors.

Age in Years: Enter approximate age of the facility.

Present Use/Prior Use: Describe the primary use of the facility or enter the following codes:
H – Hospital; S – School; P – Public Building; O – Office; I – Industrial; U – University or College;
B – Ship; C – Commercial; or R – Residence.

VI. **Asbestos Detection Procedure:** Describe methods and procedures used to determine whether ACM is present at the site, including a description of the analytical methods employed. This must be performed by a licensed asbestos consultant or site surveillance technician.

VII. **Approximate Amount of Asbestos Including:** (1) Regulated ACM to be removed (including nonfriable ACM to be sanded, ground or abraded); (2) Category I ACM not removed; and (3) Category II ACM not removed.

For both removals and demolitions, enter the amount of RACM to be removed by entering a number in the appropriate box and an "X" for the unit. For demolitions only, enter the amount of Category I and II nonfriable asbestos not to be removed in the appropriate boxes.

Category I nonfriable material includes packing, gaskets, resilient floor covering and asphalt roofing materials containing more than one percent asbestos. Category II nonfriable material includes any material, excluding Category I products, containing more than one percent asbestos, that when dry, cannot be crumbled, pulverized or reduced to powder.

VIII. **Scheduled Dates of Asbestos Removal (MM/DD/YY):** Enter scheduled dates (month/day/year) for asbestos removal work. Asbestos removal work includes any activity, including site preparation, which may break up, dislodge or disturb asbestos material.

IX. **Scheduled Dates of Demo/Renovation (MM/DD/YY):** Enter scheduled dates (month/day/year) for beginning and ending the planned demolition or renovation.

X. **Description of Planned Demolition or Renovation Work and Method(s) to be Used:** Include in this description of the demolition and renovation techniques to be used and a description of the areas and types of facility components which will be affected by this work.

XI. **Description of Engineering Controls and Work Practices to be Used to Control Emissions of Asbestos at the Demolition and Renovation Site:** Describe the work practices and engineering controls selected to ensure compliance with the requirements of the regulations, including both asbestos removal and waste-handling emission control procedures.

XII. **Waste Transporter:** Name, address and telephone number of the asbestos waste transporter.

XIII. **Waste Disposal Site:** Identify the waste disposal site, including the complete name, location and telephone number of the facility. If ACM is to be disposed of at more than one site, provide complete information on an additional sheet submitted with the form

XIV. **If Demolition Ordered by a Government Agency, please identify the Agency below:** Provide the name of the responsible official, title and agency, authority under which the order was issued, the dates of the order and the dates of the ordered demolition.

XV. **Emergency Renovation Information:** Provide the date and time of the emergency, a description of the event and a description of unsafe conditions, equipment damage or financial burden resulting from the event. The information should be detailed enough to evaluate whether a renovation falls within the emergency exception.

XVI. **Description of Procedures to be Followed in the Event that Unexpected Asbestos is Found or Previously Nonfriable Asbestos Material Becomes Crumbled, Pulverized or Reduced to Powder:** Provide adequate information to demonstrate that appropriate actions have been considered and can be implemented to control asbestos emissions adequately, including at a minimum, conformance with applicable work practice standards.

XVII. **Certification of Presence of Trained Supervisor:** One year after promulgation of the applicable regulation, the notifier must certify that a person trained in asbestos-removal procedures will supervise the demolition or renovation. The supervisor is responsible for the activity on-site. Evidence that the training has been completed by the supervisor must be available for inspection during normal business hours.

XVIII. **Certification:** Please certify the accuracy and completeness of the information provided by signing and dating the notification form.

Asbestos NESHAP Fees

Demolition Projects Without Asbestos	
Notification Fee	$ 402.00
Demolition or Renovation Projects With Asbestos	
Less than 260 lineal feet of material; less than 160 square feet of material; or less than 35 cubic feet of material	$ 402.00
260 lineal feet or more of material but less than 1,000 lineal feet of material; 160 square feet or more of material but less than 1,000 square feet of material; or 35 cubic feet or more of material but less than 1,000 cubic feet of material	$ 632.00
1,000 lineal, square, or cubic feet or more of material but less than 10,000 lineal, square, or cubic feet of material	$ 920.00
10,000 lineal, square, or cubic feet or more of material	$1,495.00
Revisions	
Any notification revision	$ 115.00

DEMOLITION: Notification and ten-working-day wait required on all subject demolitions even if Regulated Asbestos Containing Material (RACM) is not present.

RENOVATION: Notification and ten-working-day wait required on all subject renovations when RACM is more than threshold amount (threshold amounts: 260 LF, 160 SF, 35 CF). When RACM is **below** threshold amount, notification is not required.

RESIDENTIAL DEMOLITION AND RENOVATION: NESHAP notification requirements may not apply to a single family residential structure demolition or renovation project **unl**ess the residential property is subject to NESHAP by other means. Call the San Luis Obispo County Air Pollution Control District (APCD)for applicability before you demolish any structure.

*Additional fees **MAY** apply to any project if significant APCD staff time is needed to determine compliance.

Annual notifications for small, unexpected jobs are assessed the appropriate fee and are due upon notification submittal.

For additional information, an Asbestos NESHAP Notification Form, or other Asbestos related issues, check our website at www.slocleanair.org/business/asbestos.asp or call the APCD at 805-781-5912.

NOTIFICATION OF DEMOLITION AND RENOVATION

OPERATOR PROJECT #	POSTMARK	NOTIFICATION #	DATE RECEIVED

I. TYPE OF NOTIFICATION (O - Original R - Revised C - Cancelled CO - Courtesy)

II. FACILITY INFORMATION (Identify Owner, Removal Contractor, and Other Operator)

OWNER NAME:

ADDRESS:

CITY:	STATE:	ZIP:

CONTACT:	EMAIL:	TELEPHONE:

REMOVAL CONTRACTOR:

ADDRESS:

CITY:	STATE:	ZIP:

CONTACT:	EMAIL:	TELEPHONE:

OTHER OPERATOR:

ADDRESS:

CITY:	STATE:	ZIP:

CONTACT:	EMAIL:	TELEPHONE:

III. TYPE OF OPERATION D - Demo O - Ordered Demo (*Must have written order from municipality*) R - Renovation
E - Emergency Renovation/Demolition (*Written approval/authorization issued by APCD*)

IV. IS ASBESTOS PRESENT? Yes / No (Circle one) **Attach an accredited asbestos survey in order to be accepted**

V. FACILITY DESCRIPTION (Include building name, number, and floor or room number)

BUILDING NAME:

ADDRESS:

CITY:	STATE:	COUNTY:

SITE LOCATION:

BUILDING SIZE:	NUMBER OF FLOORS:	AGE IN YEARS:

PRESENT USE:	PRIOR USE:

VI. PROCEDURE INCLUDING ANALYTICAL METHOD, IF APPROPRIATE, USED TO DETECT THE PRESENCE OF ASBESTOS MATERIAL

VII. APPROXIMATE AMOUNT OF 1. Regulated ACM to be removed 2. Category I ACM not removed 3. Category II ACM not removed	RACM TO BE REMOVED	NONFRIABLE ASBESTOS MATERIAL **NOT** TO BE REMOVED		NONFRIABLE ASBESTOS MATERIAL TO BE REMOVED		UNIT OF MEASURE
		CAT I	CAT II	CAT I	CAT II	
PIPES						Linear Feet
SURFACE AREA						Square Feet
VOL RACM OFF FACILITY COMPONENT						Cubic Feet

VIII. SCHEDULED DATES ASBESTOS REMOVAL NOTE: Date Changes Require Revisions Faxed to (805) 781-1002 and **a per revision fee of $115.00.**	START:	COMPLETE:
IX. SCHEDULED DATES DEMO/RENOVATION NOTE: Date Changes Require Revisions Faxed to (805) 781-1002 and a **per revision fee of $115.00.**	START:	COMPLETE:

NOTIFICATION OF DEMOLITION AND RENOVATION *(Continued)*

X.	DESCRIPTION OF PLANNED DEMOLITION OR RENOVATION WORK, AND METHOD(S) TO BE USED:		
XI.	DESCRIPTION OF WORK PRACTICES AND ENGINEERING CONTROLS AND TO BE USED TO PREVENT EMISSIONS OF ASBESTOS AT THE DEMOLITION AND RENOVATION SITE:		
XII.	ASBESTOS WASTE TRANSPORTER #1:		
	OWNER NAME:		
	ADDRESS:		
	CITY:	STATE:	ZIP:
	CONTACT:		TELEPHONE:
	ASBESTOS WASTE TRANSPORTER #2:		
	NAME:		
	ADDRESS:		
	CITY:	STATE:	ZIP:
	CONTACT:		TELEPHONE:
XIII.	ASBESTOS WASTE DISPOSAL SITE:		
	NAME:		
	ADDRESS:		
	CITY:	STATE:	ZIP:
	CONTACT:		TELEPHONE:
XIV.	IF DEMOLITION ORDERED BY A GOVERNMENT AGENCY, PLEASE IDENTIFY THE AGENCY BELOW AND ATTACH ORDER		
	NAME:	TITLE:	
	AUTHORITY:		
	DATE OF ORDER (MM/DD/YY):	DATE ORDERED TO BEGIN (MM/DD/YY):	
	ADDRESS:		
XV.	FOR EMERGENCY RENOVATIONS (*Written authorization from the APCD is required*):		
	DATE AND HOUR OR EMERGENCY (MM/DD/YY):		
	DESCRIPTION OF THE SUDDEN, UNEXPECTED EVENT:		
	EXPLANATION OF HOW THE EVENT CAUSED UNSAFE CONDITIONS OR WOULD CAUSE EQUIPMENT DAMAGE OR AN UNREASONABLE FINANCIAL BURDEN:		
XVI.	DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NONFRIABLE ASBESTOS MATERIAL BECOMES CRUMBLED, PULVERIZED, OR REDUCED TO POWDER:		
XVII.	I CERTIFY THAT AN INDIVIDUAL TRAINED IN THE PROVISIONS OF THIS REGULATION (40 CFR PART 61, SUBPART M) WILL BE ON-SITE DURING THE DEMOLITION OR RENOVATION AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE FOR INSPECTION DURING NORMAL BUSINESS HOURS (REQUIRED 1 YEAR AFTER PROMULGATION).		
	(Print Name)	(Signature of Owner/Operator)	(Date)
XVIII.	I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT.		
	(Print Name)	(Signature of Owner/Operator)	(Date)

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APPENDIX B

CITY OF PASO ROBLES CLIMATE ACTION PLAN
CAP CONSISTENCY WORKSHEET

CAP Consistency Worksheet

The City of Paso Robles CAP was developed to comprehensively analyze and mitigate the significant effects of GHG emissions consistent with CEQA Guidelines Section 15183.5(b) and to support the State's efforts to reduce GHG emissions under Executive Order S-3-05 and AB 32 (see CAP Chapter 1, Sections 1.1 and 1.4). Pursuant to CEQA Guidelines Sections 15064(h)(3) and 15130(d), if a project is consistent and complies with the requirements of an adopted plan, such as a CAP, that includes the attributes specified in CEQA Guidelines Section 15183.5(h), the lead agency may determine that the project's GHG impacts are less than significant with no further analysis required. This appendix sets forth a CAP consistency worksheet that an applicant may use to demonstrate project compliance with the CAP. This checklist should be filled out for each new project, subject to discretionary review of the City of Paso Robles.

To determine project consistency and compliance with the CAP, the applicant should complete Sections A and B below, providing project-level details in the space provided. Generally, only projects that are consistent with the General Plan land use designations, and SLOCOG population and employment projections, upon which the GHG emissions modeling and CAP is based, can apply for a determination of consistency with the CAP. In addition, all mandatory actions identified in Section B must be incorporated as binding and enforceable components of the project for it to be found consistent with the CAP. If an action is not applicable to the proposed project, please identify and explain.

At this time, the voluntary actions are not required for project consistency with the CAP; however, if a project does include voluntary actions identified in Section B, project-level details should be described to help the City track implementation of voluntary CAP actions that would contribute to Paso Robles's achievement of its GHG emissions reduction target.

If the project cannot meet one or more of the mandatory actions, substitutions (preferably starting with the voluntary actions) may be allowed if the applicant can demonstrate how substituted actions would achieve equivalent reductions to the City's satisfaction. The applicant would also be required to demonstrate that the project would not substantially interfere with implementation of the mandatory CAP actions.

If it is determined that a proposed project is not consistent with the CAP, further analysis would be required and the applicant would be required to demonstrate that the proposed project's GHG emissions fall below the APCD's adopted GHG significance thresholds (see CAP Chapter 1, Section 1.8.3, and **Table 1-2**). The project would also be required to demonstrate that it would not substantially interfere with implementation of the CAP.

A. PROJECT INFORMATION

Date:	
Project Name:	
Project Address:	
Project Type:	
Project Size:	
Land Use Designation(s):	
Zoning Designation(s):	
Project Service Population (Residents + Employees):	
Brief Project Description:	
Compliance Checklist Prepared By:	

B. CAP Compliance Worksheet

Measure	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Details of Compliance*
Energy				
Measure E-4: Incentives for Exceeding Title 24 Energy Efficiency Building Standards	Does the project exceed 2013 Title 24 Building Energy Efficiency Standards?	Voluntary		
Measure E-5: Energy Efficient Public Realm Lighting Requirements	Does the project utilize high efficiency lights in parking lots, streets, and other public areas?	Mandatory		
Measure E-6: Small-Scale On-Site Solar PV Incentive Program	Does the project include installation of small-scale on-site solar PV systems and/or solar hot water heaters? If so, what type and how much renewable energy would be generated?	Voluntary		
Measure E-7: Income-Qualified Solar PV Program	Does the project include installation of small-scale on-site solar PV systems and/or solar hot water heaters on income-qualified housing units? If so, what type and how much renewable energy would be generated?	Voluntary		
Transportation and Land Use				
Measure TL-1: Bicycle Network	For subdivisions and large developments, does the project incorporate bicycle lanes, routes, and/or shared-use paths into street systems to provide a continuous network of routes, facilitated with	Mandatory		

Measure	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Details of Compliance*
	markings, signage, and bicycle parking?			
	For non-residential development, does the project comply with mandatory California Green Building Standards Code bicycle parking standards?	Mandatory		
	Does the project incorporate bicycle facilities and/or amenities beyond those required?	Voluntary		
Measure TL-2: Pedestrian Network	Does the project provide a pedestrian access network that internally links all uses and connects all existing or planned external streets and pedestrian facilities contiguous with the project site?	Mandatory		
	Does project minimize barriers to pedestrian access and interconnectivity?	Mandatory		
	Does the project implement traffic calming improvements as appropriate (e.g., marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, median islands, mini-circles, tight corner radii, etc.)?	Mandatory		
	Does the project incorporate pedestrian facilities and/or amenities beyond those required?	Voluntary		

Measure	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Details of Compliance*
Measure TL-3: Expand Transit Network	Does the project provide safe and convenient access to public transit within and/or contiguous to the project area?	Mandatory		
Measure TL-6: Parking Supply Management	Does the project include a reduced number of parking spaces or utilize shared parking?	Voluntary		
Measure TL-7: Electric Vehicle Network and Alternative Fueling Stations	Does the project include the installation of electric or other alternative fueling stations?	Voluntary		
Measure TL-8: Infill Development	Is the project consistent with the City's land use and zoning code?	Mandatory		
	Does the project include any "smart growth" techniques, such as mixed-use, higher density, and/or infill development near existing or planned transit routes, in existing community centers/downtowns, and/or in other designated areas?	Voluntary		
Off-Road				
Measure O-1: Equipment Upgrades, Retrofits, and Replacements	If the project involves construction or demolition, does equipment utilize low- or zero-emissions vehicles or equipment?	Voluntary		
Water				
Measure W-1: Exceed SB X7-7 (Water Conservation Act of 2009), Water Conservation Target	Does the project meet CALGreen Tier 1 or Tier 2 standards for water efficiency and conservation?	Mandatory		
	Does the project incorporate grey	Voluntary		

Measure	Project Actions	Mandatory or Voluntary	Project Compliance (Yes/No/NA)	Details of Compliance*
	water or recycled water infrastructure?			
Solid Waste				
Measure S-1: Solid Waste Diversion Rate	If the project involves construction or demolition, will the contractor divert 65 percent of non-hazardous construction or demolition debris?	Mandatory		
	Does the project provide receptacles for the collection of organic waste?	Voluntary		
	Does the project include composting facilities?	Voluntary		
Tree Planting				
Measure T-1: Tree Planting Program	Does the project include the planting of native and drought-tolerant trees beyond those required as mitigation for tree removal? If so, how many?	Mandatory		

*Please attach additional pages as needed to complete the description and provide project details.

APPENDIX C

EMISSIONS MODELING

DAILY EMISSIONS - SUMMER		ROG	NOX	ROG+NOX	EXH PM10
Demolition					
	On-Site	4.29	45.66	49.95	2.29
	Off-Site	0.15	1.18	1.33	0.02
	Total	4.44	46.84	51.28	2.31
Site Preparation					
	On-Site	5.08	54.63	59.71	2.94
	Off-Site	0.08	0.12	0.2	0.001
	Total	5.16	54.75	59.91	2.941
Grading/Excavation					
	On-Site	3.67	38.45	42.12	2.2
	Off-Site	0.07	0.1	0.17	0.001
	Total	3.74	38.55	42.29	2.201
Building Construction-Yr2016					
	On-Site	3.4	28.51	31.91	1.97
	Off-Site	0.3	1.26	1.56	0.02
	Total	3.7	29.77	33.47	1.99
Building Construction-Yr2017					
	On-Site	3.1	26.41	29.51	1.78
	Off-Site	0.26	1.13	1.39	0.02
	Total	3.36	27.54	30.9	1.8
Paving					
	On-Site	2.05	20.3	22.35	1.14
	Off-Site	0.06	0.08	0.14	0.001
	Total	2.11	20.38	22.49	1.141
Architectural Coating					
	On-Site	37.76	2.19	39.95	0.17
	Off-Site	0.03	0.04	0.07	0.001
	Total	37.79	2.23	40.02	0.171
	MAX DAILY-YR 2016	5.16	54.75	59.91	2.941
	MAX DAILY- YR 2017	43.26	50.15	93.41	3.112

DAILY EMISSIONS - WINTER		ROG	NOX	ROG+NOX	EXH PM10
Demolition					
	On-Site	4.29	45.66	49.95	2.29
	Off-Site	0.17	1.22	1.39	0.02
	Total	4.46	46.88	51.34	2.31
Site Preparation					
	On-Site	5.08	54.63	59.71	2.94
	Off-Site	0.09	0.13	0.22	0.001
	Total	5.17	54.76	59.93	2.941
Grading/Excavation					
	On-Site	3.67	38.45	42.12	2.2
	Off-Site	0.07	0.11	0.18	0.001
	Total	3.74	38.56	42.3	2.201
Building Construction-Yr2016					
	On-Site	3.4	28.51	31.91	1.97
	Off-Site	0.35	1.3	1.65	0.02
	Total	3.75	29.81	33.56	1.99
Building Construction-Yr2017					
	On-Site	3.1	26.41	29.51	1.78
	Off-Site	0.3	1.17	1.47	0.02
	Total	3.4	27.58	30.98	1.8
Paving					
	On-Site	2.05	20.3	22.35	1.14
	Off-Site	0.06	0.1	0.16	0.001
	Total	2.11	20.4	22.51	1.141
Architectural Coating					
	On-Site	37.76	2.19	39.95	0.17
	Off-Site	0.03	0.04	0.07	0.001
	Total	37.79	2.23	40.02	0.171
	MAX DAILY-YR 2016	5.17	54.76	59.93	2.941
	MAX DAILY- YR 2017	43.3	50.21	93.51	3.112

CONSTRUCTION SCHEDULE

	BEGIN	END		DAYS/QTR 2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1
DEMOLITION	1/1/2016	1/28/2016	20	20				
SITE PREPARATION	1/29/2016	2/11/2016	10	10				
GRADING	2/12/2016	3/10/2016	20	20				
BUILDING CONST-2016	3/11/2016	12/31/2016	194	14	60	60	60	
BUILDING CONST-2017	1/1/2017	2/5/2017	36					36
PAVING	1/27/2017	2/23/2017	20					20
ARCHITECTURAL COATING	2/24/2017	3/23/2017	20					20

ANNUAL CONSTRUCTION-GENERATED EMISSIONS

	ROG	NOX	ROG+NOX	PM10 FUG	PM10 EXH	PM10 TOT
DEMOLITION	0.0429	0.4566	0.4995	0.00769	0.0229	0.03059
	0.00157	0.0123	0.01387	0.00203	0.00015	0.00218
	0.04447	0.4689	0.51337	0.00972	0.02305	0.03277
SITE PREPARATION	0.0254	0.2732	0.2986	0.0903	0.0147	0.105
	0.00041	0.00064	0.00105	0.00087	0.00001	0.00088
	0.02581	0.27384	0.29965	0.09117	0.01471	0.10588
GRADING	0.0367	0.3845	0.4212	0.0655	0.022	0.0875
	0.00068	0.00107	0.00175	0.00144	0.00001	0.00145
	0.03738	0.38557	0.42295	0.06694	0.02201	0.08895
BUILDING CONSTRUCTION-2016	0.3594	3.0074	3.3668	0	0.2076	0.2076
	0.0337	0.1378	0.1715	0.0396	0.00184	0.04144
	0.3931	3.1452	3.5383	0.0396	0.20944	0.24904
TOTAL YR 2016:	0.50076	4.27351	4.77427	0.20743	0.26921	0.47664
BUILDING CONSTRUCTION-2017	0.0295	0.2509	0.2804	0	0.0169	0.0169
	0.00267	0.0111	0.01377	0.00357	0.00014	0.00371
	0.03217	0.262	0.29417	0.00357	0.01704	0.02061
PAVING-2017	0.0205	0.203	0.2235	0	0.0114	0.0114
	0.00057	0.00093	0.0015	0.00144	0.00001	0.00145
	0.02107	0.20393	0.225	0.00144	0.01141	0.01285
ARCHITECTURAL COATING-2017	0.3776	0.0219	0.3995	0	0.00173	0.00173
	0.00027	0.00044	0.00071	0.00067	0.00001	0.00068
	0.37787	0.02234	0.40021	0.00067	0.00174	0.00241
TOTAL YR 2017:	0.43111	0.48827	0.91938	0.00568	0.03019	0.03587

QUARTERLY CONSTRUCTION-GENERATED EMISSIONS

	ROG	NOX	ROG+NOX	PM10 FUG	PM10 EXH	PM10 TOT
EMISSIONS - 2016 Q1						
DEMOLITION	0.04447	0.4689	0.51337	0.00972	0.02305	0.03277
SITE PREPARATION	0.02581	0.27384	0.29965	0.09117	0.01471	0.10588
GRADING	0.03738	0.38557	0.42295	0.06694	0.02201	0.08895
BUILDING CONSTRUCTION	0.02836804	0.2269732	0.2553412	0.0028577	0.0151142	0.017972
TOTAL	0.14	1.36	1.49	0.17	0.07	0.25
THRESHOLD			2.5	2.5	0.13	
EXCEEDS THRESHOLD?			NO	NO	NO	
EMISSIONS - 2016 Q2-Q4						
BUILDING CONSTRUCTION	0.12157732	0.97274227	1.0943196	0.0122474	0.0647753	0.0770227
TOTAL	0.12	0.97	1.09	0.01	0.06	0.08
THRESHOLD			2.5	2.5	0.13	
EXCEEDS THRESHOLD?			NO	NO	NO	
EMISSIONS - 2017 Q1						
BUILDING CONSTRUCTION	0.03217	0.262	0.29417	0.00357	0.01704	0.02061
PAVING	0.02107	0.20393	0.225	0.00144	0.01141	0.01285
ARCHITECTURAL COATING	0.37787	0.02234	0.40021	0.00067	0.00174	0.00241
TOTAL	0.43	0.49	0.92	0.01	0.03	0.04
THRESHOLD			2.5	2.5	0.13	
EXCEEDS THRESHOLD?			NO	NO	NO	

Proposed Residence Inn Project

San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	126.00	Space	1.10	47,916.00	0
Hotel	120.00	Room	4.30	30,860.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	544.61	**CH4 Intensity (lb/MWhr)**	0.025	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO_2 Intensity Factor adjusted to account for year 2016 RPS contribution of 25%.

Land Use - 120 rooms, 126 parking spaces, 5.4 total site acreage.

Construction Phase - Based on model defaults.

Off-road Equipment - Offroad construction equipment/requirements based on model defaults.

Demolition - 15,133 square feet to be demolished. Based on County Assessors' data.

Energy Mitigation - Includes minimum reduction of 16% with installation of high-efficiency lighting.

Water Mitigation - Use of water efficient appliances and irrigation systems

Grading - All material balanced on site.

Trips and VMT - Construction vehicle trips based on model defaults.

Vehicle Trips - Hotel vehicle trips based on City of Paso Robles Traffic Model trip generation rates, trip distance assumes 12.5 miles/trip.

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes 61% control efficiency for watering, 15 mph off-road vehicle speed limit, T3 off-road equipment.

Energy Use - .

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	50,400.00	47,916.00
tblLandUse	LandUseSquareFeet	174,240.00	30,860.00
tblLandUse	LotAcreage	1.13	1.10
tblLandUse	LotAcreage	4.00	4.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.025
tblProjectCharacteristics	CO2IntensityFactor	641.35	544.61
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleTrips	CC_TL	5.00	12.50
tblVehicleTrips	CNW_TL	5.00	12.50
tblVehicleTrips	CW_TL	13.00	12.50
tblVehicleTrips	ST_TR	8.19	4.72
tblVehicleTrips	SU_TR	5.95	4.72
tblVehicleTrips	WD_TR	8.17	4.72

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.5006	4.2734	3.2251	4.4000e-003	0.2075	0.2692	0.4767	0.0963	0.2520	0.3483	0.0000	394.3187	394.3187	0.0896	0.0000	396.1999
2017	0.4311	0.4882	0.3842	5.9000e-004	5.6900e-003	0.0302	0.0359	1.5200e-003	0.0283	0.0298	0.0000	52.0727	52.0727	0.0125	0.0000	52.3344
Total	**0.9317**	**4.7616**	**3.6093**	**4.9900e-003**	**0.2132**	**0.2994**	**0.5126**	**0.0978**	**0.2802**	**0.3781**	**0.0000**	**446.3914**	**446.3914**	**0.1020**	**0.0000**	**448.5343**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.5006	4.2734	3.2251	4.4000e-003	0.1078	0.2692	0.3769	0.0448	0.2520	0.2967	0.0000	394.3183	394.3183	0.0896	0.0000	396.1995
2017	0.4311	0.4882	0.3842	5.9000e-004	5.6900e-003	0.0302	0.0359	1.5200e-003	0.0283	0.0298	0.0000	52.0727	52.0727	0.0125	0.0000	52.3343
Total	**0.9317**	**4.7616**	**3.6092**	**4.9900e-003**	**0.1134**	**0.2994**	**0.4128**	**0.0463**	**0.2802**	**0.3265**	**0.0000**	**446.3910**	**446.3910**	**0.1020**	**0.0000**	**448.5338**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**46.79**	**0.00**	**19.46**	**52.68**	**0.00**	**13.63**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3455	4.0000e-005	4.2000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0600e-003	8.0600e-003	2.0000e-005	0.0000	8.5200e-003
Energy	7.7200e-003	0.0702	0.0589	4.2000e-004		5.3300e-003	5.3300e-003		5.3300e-003	5.3300e-003	0.0000	151.1365	151.1365	4.9000e-003	2.0900e-003	151.8862
Mobile	0.4168	1.2070	4.4252	9.2900e-003	0.6551	0.0146	0.6697	0.1756	0.0134	0.1890	0.0000	700.6017	700.6017	0.0288	0.0000	701.2074
Waste						0.0000	0.0000		0.0000	0.0000	13.3365	0.0000	13.3365	0.7882	0.0000	29.8880
Water						0.0000	0.0000		0.0000	0.0000	0.9657	4.3613	5.3270	0.0994	2.3800e-003	8.1527
Total	**0.7700**	**1.2772**	**4.4883**	**9.7100e-003**	**0.6551**	**0.0199**	**0.6751**	**0.1756**	**0.0188**	**0.1943**	**14.3022**	**856.1076**	**870.4099**	**0.9213**	**4.4700e-003**	**891.1428**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3455	4.0000e-005	4.2000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0600e-003	8.0600e-003	2.0000e-005	0.0000	8.5200e-003
Energy	7.7200e-003	0.0702	0.0589	4.2000e-004		5.3300e-003	5.3300e-003		5.3300e-003	5.3300e-003	0.0000	146.1522	146.1522	4.6700e-003	2.0400e-003	146.8829
Mobile	0.4168	1.2070	4.4252	9.2900e-003	0.6551	0.0146	0.6697	0.1756	0.0134	0.1890	0.0000	700.6017	700.6017	0.0288	0.0000	701.2074
Waste						0.0000	0.0000		0.0000	0.0000	13.3365	0.0000	13.3365	0.7882	0.0000	29.8880
Water						0.0000	0.0000		0.0000	0.0000	0.7726	3.5297	4.3023	0.0795	1.9000e-003	6.5619
Total	**0.7700**	**1.2772**	**4.4883**	**9.7100e-003**	**0.6551**	**0.0199**	**0.6751**	**0.1756**	**0.0188**	**0.1943**	**14.1091**	**850.2917**	**864.4008**	**0.9012**	**3.9400e-003**	**884.5487**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.35**	**0.68**	**0.69**	**2.18**	**11.86**	**0.74**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/11/2016	5	10	
3	Grading	Grading	2/12/2016	3/10/2016	5	20	
4	Building Construction	Building Construction	3/11/2016	1/26/2017	5	230	
5	Paving	Paving	1/27/2017	2/23/2017	5	20	
6	Architectural Coating	Architectural Coating	2/24/2017	3/23/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 48,446; Non-Residential Outdoor: 16,149 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	69.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	33.00	13.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.6900e-003	0.0000	7.6900e-003	1.1600e-003	0.0000	1.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0429	0.4566	0.3503	4.0000e-004		0.0229	0.0229		0.0214	0.0214	0.0000	37.0974	37.0974	0.0101	0.0000	37.3092
Total	**0.0429**	**0.4566**	**0.3503**	**4.0000e-004**	**7.6900e-003**	**0.0229**	**0.0306**	**1.1600e-003**	**0.0214**	**0.0225**	**0.0000**	**37.0974**	**37.0974**	**0.0101**	**0.0000**	**37.3092**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.9000e-004	0.0112	9.0600e-003	3.0000e-005	5.9000e-004	1.4000e-004	7.3000e-004	1.6000e-004	1.3000e-004	2.9000e-004	0.0000	2.3763	2.3763	2.0000e-005	0.0000	2.3766
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	1.0700e-003	9.5500e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2316	1.2316	7.0000e-005	0.0000	1.2331
Total	**1.5700e-003**	**0.0123**	**0.0186**	**5.0000e-005**	**2.0300e-003**	**1.5000e-004**	**2.1900e-003**	**5.4000e-004**	**1.4000e-004**	**6.8000e-004**	**0.0000**	**3.6078**	**3.6078**	**9.0000e-005**	**0.0000**	**3.6097**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.0000e-003	0.0000	3.0000e-003	4.5000e-004	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0429	0.4566	0.3503	4.0000e-004		0.0229	0.0229		0.0214	0.0214	0.0000	37.0973	37.0973	0.0101	0.0000	37.3092
Total	**0.0429**	**0.4566**	**0.3503**	**4.0000e-004**	**3.0000e-003**	**0.0229**	**0.0259**	**4.5000e-004**	**0.0214**	**0.0218**	**0.0000**	**37.0973**	**37.0973**	**0.0101**	**0.0000**	**37.3092**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.9000e-004	0.0112	9.0600e-003	3.0000e-005	5.9000e-004	1.4000e-004	7.3000e-004	1.6000e-004	1.3000e-004	2.9000e-004	0.0000	2.3763	2.3763	2.0000e-005	0.0000	2.3766
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	1.0700e-003	9.5500e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2316	1.2316	7.0000e-005	0.0000	1.2331
Total	**1.5700e-003**	**0.0123**	**0.0186**	**5.0000e-005**	**2.0300e-003**	**1.5000e-004**	**2.1900e-003**	**5.4000e-004**	**1.4000e-004**	**6.8000e-004**	**0.0000**	**3.6078**	**3.6078**	**9.0000e-005**	**0.0000**	**3.6097**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0254	0.2732	0.2055	2.0000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	18.4386	18.4386	5.5600e-003	0.0000	18.5554
Total	**0.0254**	**0.2732**	**0.2055**	**2.0000e-004**	**0.0903**	**0.0147**	**0.1050**	**0.0497**	**0.0135**	**0.0632**	**0.0000**	**18.4386**	**18.4386**	**5.5600e-003**	**0.0000**	**18.5554**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	6.4000e-004	5.7300e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7389	0.7389	4.0000e-005	0.0000	0.7399
Total	**4.1000e-004**	**6.4000e-004**	**5.7300e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7389**	**0.7389**	**4.0000e-005**	**0.0000**	**0.7399**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0254	0.2732	0.2055	2.0000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	18.4385	18.4385	5.5600e-003	0.0000	18.5553
Total	**0.0254**	**0.2732**	**0.2055**	**2.0000e-004**	**0.0352**	**0.0147**	**0.0499**	**0.0194**	**0.0135**	**0.0329**	**0.0000**	**18.4385**	**18.4385**	**5.5600e-003**	**0.0000**	**18.5553**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	6.4000e-004	5.7300e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7389	0.7389	4.0000e-005	0.0000	0.7399
Total	**4.1000e-004**	**6.4000e-004**	**5.7300e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7389**	**0.7389**	**4.0000e-005**	**0.0000**	**0.7399**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0367	0.3845	0.2608	3.0000e-004		0.0220	0.0220		0.0202	0.0202	0.0000	28.0664	28.0664	8.4700e-003	0.0000	28.2442
Total	**0.0367**	**0.3845**	**0.2608**	**3.0000e-004**	**0.0655**	**0.0220**	**0.0875**	**0.0337**	**0.0202**	**0.0539**	**0.0000**	**28.0664**	**28.0664**	**8.4700e-003**	**0.0000**	**28.2442**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	1.0700e-003	9.5500e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2316	1.2316	7.0000e-005	0.0000	1.2331
Total	**6.8000e-004**	**1.0700e-003**	**9.5500e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4600e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2316**	**1.2316**	**7.0000e-005**	**0.0000**	**1.2331**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0256	0.0000	0.0256	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0367	0.3845	0.2608	3.0000e-004		0.0220	0.0220		0.0202	0.0202	0.0000	28.0664	28.0664	8.4700e-003	0.0000	28.2441
Total	**0.0367**	**0.3845**	**0.2608**	**3.0000e-004**	**0.0256**	**0.0220**	**0.0475**	**0.0131**	**0.0202**	**0.0334**	**0.0000**	**28.0664**	**28.0664**	**8.4700e-003**	**0.0000**	**28.2441**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8000e-004	1.0700e-003	9.5500e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2316	1.2316	7.0000e-005	0.0000	1.2331
Total	**6.8000e-004**	**1.0700e-003**	**9.5500e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4600e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2316**	**1.2316**	**7.0000e-005**	**0.0000**	**1.2331**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3594	3.0074	1.9525	2.8300e-003		0.2076	0.2076		0.1950	0.1950	0.0000	255.4720	255.4720	0.0634	0.0000	256.8026
Total	**0.3594**	**3.0074**	**1.9525**	**2.8300e-003**		**0.2076**	**0.2076**		**0.1950**	**0.1950**	**0.0000**	**255.4720**	**255.4720**	**0.0634**	**0.0000**	**256.8026**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0179	0.1129	0.2006	2.3000e-004	6.1100e-003	1.5700e-003	7.6800e-003	1.7500e-003	1.4400e-003	3.1900e-003	0.0000	21.0814	21.0814	1.8000e-004	0.0000	21.0852
Worker	0.0158	0.0249	0.2216	3.8000e-004	0.0335	2.7000e-004	0.0338	8.9100e-003	2.4000e-004	9.1500e-003	0.0000	28.5846	28.5846	1.7200e-003	0.0000	28.6206
Total	**0.0337**	**0.1378**	**0.4221**	**6.1000e-004**	**0.0396**	**1.8400e-003**	**0.0415**	**0.0107**	**1.6800e-003**	**0.0123**	**0.0000**	**49.6660**	**49.6660**	**1.9000e-003**	**0.0000**	**49.7058**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3594	3.0074	1.9525	2.8300e-003		0.2076	0.2076		0.1950	0.1950	0.0000	255.4717	255.4717	0.0634	0.0000	256.8023
Total	**0.3594**	**3.0074**	**1.9525**	**2.8300e-003**		**0.2076**	**0.2076**		**0.1950**	**0.1950**	**0.0000**	**255.4717**	**255.4717**	**0.0634**	**0.0000**	**256.8023**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0179	0.1129	0.2006	2.3000e-004	6.1100e-003	1.5700e-003	7.6800e-003	1.7500e-003	1.4400e-003	3.1900e-003	0.0000	21.0814	21.0814	1.8000e-004	0.0000	21.0852
Worker	0.0158	0.0249	0.2216	3.8000e-004	0.0335	2.7000e-004	0.0338	8.9100e-003	2.4000e-004	9.1500e-003	0.0000	28.5846	28.5846	1.7200e-003	0.0000	28.6206
Total	**0.0337**	**0.1378**	**0.4221**	**6.1000e-004**	**0.0396**	**1.8400e-003**	**0.0415**	**0.0107**	**1.6800e-003**	**0.0123**	**0.0000**	**49.6660**	**49.6660**	**1.9000e-003**	**0.0000**	**49.7058**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0295	0.2509	0.1722	2.5000e-004		0.0169	0.0169		0.0159	0.0159	0.0000	22.7505	22.7505	5.6000e-003	0.0000	22.8681
Total	**0.0295**	**0.2509**	**0.1722**	**2.5000e-004**		**0.0169**	**0.0169**		**0.0159**	**0.0159**	**0.0000**	**22.7505**	**22.7505**	**5.6000e-003**	**0.0000**	**22.8681**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4700e-003	9.1800e-003	0.0170	2.0000e-005	5.5000e-004	1.2000e-004	6.7000e-004	1.6000e-004	1.1000e-004	2.7000e-004	0.0000	1.8666	1.8666	2.0000e-005	0.0000	1.8669
Worker	1.2000e-003	1.9500e-003	0.0171	3.0000e-005	3.0200e-003	2.0000e-005	3.0400e-003	8.0000e-004	2.0000e-005	8.2000e-004	0.0000	2.4733	2.4733	1.4000e-004	0.0000	2.4762
Total	**2.6700e-003**	**0.0111**	**0.0340**	**5.0000e-005**	**3.5700e-003**	**1.4000e-004**	**3.7100e-003**	**9.6000e-004**	**1.3000e-004**	**1.0900e-003**	**0.0000**	**4.3399**	**4.3399**	**1.6000e-004**	**0.0000**	**4.3431**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0295	0.2509	0.1722	2.5000e-004		0.0169	0.0169		0.0159	0.0159	0.0000	22.7505	22.7505	5.6000e-003	0.0000	22.8681
Total	**0.0295**	**0.2509**	**0.1722**	**2.5000e-004**		**0.0169**	**0.0169**		**0.0159**	**0.0159**	**0.0000**	**22.7505**	**22.7505**	**5.6000e-003**	**0.0000**	**22.8681**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4700e-003	9.1800e-003	0.0170	2.0000e-005	5.5000e-004	1.2000e-004	6.7000e-004	1.6000e-004	1.1000e-004	2.7000e-004	0.0000	1.8666	1.8666	2.0000e-005	0.0000	1.8669
Worker	1.2000e-003	1.9500e-003	0.0171	3.0000e-005	3.0200e-003	2.0000e-005	3.0400e-003	8.0000e-004	2.0000e-005	8.2000e-004	0.0000	2.4733	2.4733	1.4000e-004	0.0000	2.4762
Total	**2.6700e-003**	**0.0111**	**0.0340**	**5.0000e-005**	**3.5700e-003**	**1.4000e-004**	**3.7100e-003**	**9.6000e-004**	**1.3000e-004**	**1.0900e-003**	**0.0000**	**4.3399**	**4.3399**	**1.6000e-004**	**0.0000**	**4.3431**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0191	0.2030	0.1473	2.2000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	20.6934	20.6934	6.3400e-003	0.0000	20.8266
Paving	1.4400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0205**	**0.2030**	**0.1473**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0105**	**0.0105**	**0.0000**	**20.6934**	**20.6934**	**6.3400e-003**	**0.0000**	**20.8266**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	9.3000e-004	8.1700e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1834	1.1834	7.0000e-005	0.0000	1.1848
Total	**5.7000e-004**	**9.3000e-004**	**8.1700e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1834**	**1.1834**	**7.0000e-005**	**0.0000**	**1.1848**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0191	0.2030	0.1473	2.2000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	20.6934	20.6934	6.3400e-003	0.0000	20.8265
Paving	1.4400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0205**	**0.2030**	**0.1473**	**2.2000e-004**		**0.0114**	**0.0114**		**0.0105**	**0.0105**	**0.0000**	**20.6934**	**20.6934**	**6.3400e-003**	**0.0000**	**20.8265**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	9.3000e-004	8.1700e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1834	1.1834	7.0000e-005	0.0000	1.1848
Total	**5.7000e-004**	**9.3000e-004**	**8.1700e-003**	**2.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1834**	**1.1834**	**7.0000e-005**	**0.0000**	**1.1848**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3743					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3200e-003	0.0219	0.0187	3.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	2.5533	2.5533	2.7000e-004	0.0000	2.5589
Total	**0.3776**	**0.0219**	**0.0187**	**3.0000e-005**		**1.7300e-003**	**1.7300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**2.5533**	**2.5533**	**2.7000e-004**	**0.0000**	**2.5589**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	4.4000e-004	3.8100e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5523	0.5523	3.0000e-005	0.0000	0.5529
Total	**2.7000e-004**	**4.4000e-004**	**3.8100e-003**	**1.0000e-005**	**6.7000e-004**	**1.0000e-005**	**6.8000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5523**	**0.5523**	**3.0000e-005**	**0.0000**	**0.5529**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3743					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3200e-003	0.0219	0.0187	3.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	2.5533	2.5533	2.7000e-004	0.0000	2.5589
Total	**0.3776**	**0.0219**	**0.0187**	**3.0000e-005**		**1.7300e-003**	**1.7300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**2.5533**	**2.5533**	**2.7000e-004**	**0.0000**	**2.5589**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	4.4000e-004	3.8100e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5523	0.5523	3.0000e-005	0.0000	0.5529
Total	**2.7000e-004**	**4.4000e-004**	**3.8100e-003**	**1.0000e-005**	**6.7000e-004**	**1.0000e-005**	**6.8000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5523**	**0.5523**	**3.0000e-005**	**0.0000**	**0.5529**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4168	1.2070	4.4252	9.2900e-003	0.6551	0.0146	0.6697	0.1756	0.0134	0.1890	0.0000	700.6017	700.6017	0.0288	0.0000	701.2074
Unmitigated	0.4168	1.2070	4.4252	9.2900e-003	0.6551	0.0146	0.6697	0.1756	0.0134	0.1890	0.0000	700.6017	700.6017	0.0288	0.0000	701.2074

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	566.40	566.40	566.40	1,740,381	1,740,381
Parking Lot	0.00	0.00	0.00		
Total	566.40	566.40	566.40	1,740,381	1,740,381

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	12.50	12.50	12.50	19.40	61.60	19.00	58	38	4
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455853	0.042261	0.214795	0.150173	0.067787	0.009860	0.017887	0.023366	0.002328	0.001394	0.008768	0.000846	0.004683

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	69.7733	69.7733	3.2000e-003	6.4000e-004	70.0392
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	74.7576	74.7576	3.4300e-003	6.9000e-004	75.0424
NaturalGas Mitigated	7.7200e-003	0.0702	0.0589	4.2000e-004		5.3300e-003	5.3300e-003		5.3300e-003	5.3300e-003	0.0000	76.3789	76.3789	1.4600e-003	1.4000e-003	76.8437
NaturalGas Unmitigated	7.7200e-003	0.0702	0.0589	4.2000e-004		5.3300e-003	5.3300e-003		5.3300e-003	5.3300e-003	0.0000	76.3789	76.3789	1.4600e-003	1.4000e-003	76.8437

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	1.43129e+006	7.7200e-003	0.0702	0.0589	4.2000e-004		5.3300e-003	5.3300e-003		5.3300e-003	5.3300e-003	0.0000	76.3789	76.3789	1.4600e-003	1.4000e-003	76.8437
Total		**7.7200e-003**	**0.0702**	**0.0589**	**4.2000e-004**		**5.3300e-003**	**5.3300e-003**		**5.3300e-003**	**5.3300e-003**	**0.0000**	**76.3789**	**76.3789**	**1.4600e-003**	**1.4000e-003**	**76.8437**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	1.43129e+006	7.7200e-003	0.0702	0.0589	4.2000e-004		5.3300e-003	5.3300e-003		5.3300e-003	5.3300e-003	0.0000	76.3789	76.3789	1.4600e-003	1.4000e-003	76.8437
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**7.7200e-003**	**0.0702**	**0.0589**	**4.2000e-004**		**5.3300e-003**	**5.3300e-003**		**5.3300e-003**	**5.3300e-003**	**0.0000**	**76.3789**	**76.3789**	**1.4600e-003**	**1.4000e-003**	**76.8437**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	260458	64.3413	2.9500e-003	5.9000e-004	64.5864
Parking Lot	42166.1	10.4163	4.8000e-004	1.0000e-004	10.4560
Total		**74.7576**	**3.4300e-003**	**6.9000e-004**	**75.0424**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	247028	61.0236	2.8000e-003	5.6000e-004	61.2561
Parking Lot	35419.5	8.7497	4.0000e-004	8.0000e-005	8.7831
Total		**69.7733**	**3.2000e-003**	**6.4000e-004**	**70.0391**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3455	4.0000e-005	4.2000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0600e-003	8.0600e-003	2.0000e-005	0.0000	8.5200e-003
Unmitigated	0.3455	4.0000e-005	4.2000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0600e-003	8.0600e-003	2.0000e-005	0.0000	8.5200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3077					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.2000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0600e-003	8.0600e-003	2.0000e-005	0.0000	8.5200e-003
Total	**0.3455**	**4.0000e-005**	**4.2000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.0600e-003**	**8.0600e-003**	**2.0000e-005**	**0.0000**	**8.5200e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3077					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.2000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.0600e-003	8.0600e-003	2.0000e-005	0.0000	8.5200e-003
Total	**0.3455**	**4.0000e-005**	**4.2000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.0600e-003**	**8.0600e-003**	**2.0000e-005**	**0.0000**	**8.5200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3023	0.0795	1.9000e-003	6.5619
Unmitigated	5.3270	0.0994	2.3800e-003	8.1527

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.04401 / 0.338224	5.3270	0.0994	2.3800e-003	8.1527
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**5.3270**	**0.0994**	**2.3800e-003**	**8.1527**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	2.43521 / 0.317592	4.3023	0.0795	1.9000e-003	6.5619
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.3023**	**0.0795**	**1.9000e-003**	**6.5619**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.3365	0.7882	0.0000	29.8880
Unmitigated	13.3365	0.7882	0.0000	29.8880

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	65.7	13.3365	0.7882	0.0000	29.8880
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**13.3365**	**0.7882**	**0.0000**	**29.8880**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	65.7	13.3365	0.7882	0.0000	29.8880
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**13.3365**	**0.7882**	**0.0000**	**29.8880**

9.0 Operational Offroad

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

10.0 Vegetation

Proposed Residence Inn Project

San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	126.00	Space	1.10	47,916.00	0
Hotel	120.00	Room	4.30	30,860.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 3.2 **Precipitation Freq (Days)** 44

Climate Zone 4 **Operational Year** 2018

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 544.61 **CH4 Intensity (lb/MWhr)** 0.025 **N2O Intensity (lb/MWhr)** 0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO_2 Intensity Factor adjusted to account for year 2016 RPS contribution of 25%.

Land Use - 120 rooms, 126 parking spaces, 5.4 total site acreage.

Construction Phase - Based on model defaults.

Off-road Equipment - Offroad construction equipment/requirements based on model defaults.

Demolition - 15,133 square feet to be demolished. Based on County Assessors' data.

Energy Mitigation - Includes minimum reduction of 16% with installation of high-efficiency lighting.

Water Mitigation - Use of water efficient appliances and irrigation systems

Grading - All material balanced on site.

Trips and VMT - Construction vehicle trips based on model defaults.

Vehicle Trips - Hotel vehicle trips based on City of Paso Robles Traffic Model trip generation rates, trip distance assumes 12.5 miles/trip.

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes 61% control efficiency for watering, 15 mph off-road vehicle speed limit, T3 off-road equipment.

Energy Use - .

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	50,400.00	47,916.00
tblLandUse	LandUseSquareFeet	174,240.00	30,860.00
tblLandUse	LotAcreage	1.13	1.10
tblLandUse	LotAcreage	4.00	4.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.025
tblProjectCharacteristics	CO2IntensityFactor	641.35	544.61
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleTrips	CC_TL	5.00	12.50
tblVehicleTrips	CNW_TL	5.00	12.50
tblVehicleTrips	CW_TL	13.00	12.50
tblVehicleTrips	ST_TR	8.19	4.72
tblVehicleTrips	SU_TR	5.95	4.72
tblVehicleTrips	WD_TR	8.17	4.72

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1583	54.7478	42.2557	0.0442	18.2442	2.9401	21.1843	9.9779	2.7049	12.6827	0.0000	4,492.6938	4,492.6938	1.2359	0.0000	4,518.6483
2017	37.7838	27.5325	21.3212	0.0327	0.3855	1.7961	2.1816	0.1034	1.6867	1.7901	0.0000	3,155.9317	3,155.9317	0.7062	0.0000	3,170.7613
Total	**42.9420**	**82.2803**	**63.5769**	**0.0769**	**18.6297**	**4.7362**	**23.3658**	**10.0813**	**4.3915**	**14.4728**	**0.0000**	**7,648.6256**	**7,648.6256**	**1.9421**	**0.0000**	**7,689.4096**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1583	54.7478	42.2557	0.0442	7.2238	2.9401	10.1639	3.9202	2.7049	6.6250	0.0000	4,492.6938	4,492.6938	1.2359	0.0000	4,518.6483
2017	37.7838	27.5325	21.3212	0.0327	0.3855	1.7961	2.1816	0.1034	1.6867	1.7901	0.0000	3,155.9317	3,155.9317	0.7062	0.0000	3,170.7613
Total	**42.9420**	**82.2803**	**63.5769**	**0.0769**	**7.6093**	**4.7362**	**12.3454**	**4.0236**	**4.3915**	**8.4151**	**0.0000**	**7,648.6255**	**7,648.6255**	**1.9421**	**0.0000**	**7,689.4096**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.16**	**0.00**	**47.16**	**60.09**	**0.00**	**41.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.8933	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569
Energy	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410
Mobile	2.2499	6.2763	23.2315	0.0526	3.6949	0.0800	3.7749	0.9881	0.0737	1.0617		4,367.8520	4,367.8520	0.1749		4,371.5238
Total	**4.1855**	**6.6610**	**23.5799**	**0.0549**	**3.6949**	**0.1093**	**3.8042**	**0.9881**	**0.1030**	**1.0910**		**4,829.2392**	**4,829.2392**	**0.1838**	**8.4600e-003**	**4,835.7217**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.8933	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569
Energy	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410
Mobile	2.2499	6.2763	23.2315	0.0526	3.6949	0.0800	3.7749	0.9881	0.0737	1.0617		4,367.8520	4,367.8520	0.1749		4,371.5238
Total	**4.1855**	**6.6610**	**23.5799**	**0.0549**	**3.6949**	**0.1093**	**3.8042**	**0.9881**	**0.1030**	**1.0910**		**4,829.2392**	**4,829.2392**	**0.1838**	**8.4600e-003**	**4,835.7217**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/11/2016	5	10	
3	Grading	Grading	2/12/2016	3/10/2016	5	20	
4	Building Construction	Building Construction	3/11/2016	1/26/2017	5	230	
5	Paving	Paving	1/27/2017	2/23/2017	5	20	
6	Architectural Coating	Architectural Coating	2/24/2017	3/23/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 48,446; Non-Residential Outdoor: 16,149 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	69.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	33.00	13.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7688	0.0000	0.7688	0.1164	0.0000	0.1164			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**0.7688**	**2.2921**	**3.0610**	**0.1164**	**2.1365**	**2.2530**		**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0809	1.0881	0.7370	2.6000e-003	0.0600	0.0142	0.0743	0.0164	0.0131	0.0295		262.1942	262.1942	1.8400e-003		262.2330
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0677	0.0962	0.9587	1.6900e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		141.2155	141.2155	8.1500e-003		141.3866
Total	**0.1486**	**1.1843**	**1.6957**	**4.2900e-003**	**0.2083**	**0.0154**	**0.2237**	**0.0558**	**0.0141**	**0.0699**		**403.4097**	**403.4097**	**9.9900e-003**		**403.6196**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2998	0.0000	0.2998	0.0454	0.0000	0.0454			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**0.2998**	**2.2921**	**2.5920**	**0.0454**	**2.1365**	**2.1820**	**0.0000**	**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0809	1.0881	0.7370	2.6000e-003	0.0600	0.0142	0.0743	0.0164	0.0131	0.0295		262.1942	262.1942	1.8400e-003		262.2330
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0677	0.0962	0.9587	1.6900e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		141.2155	141.2155	8.1500e-003		141.3866
Total	**0.1486**	**1.1843**	**1.6957**	**4.2900e-003**	**0.2083**	**0.0154**	**0.2237**	**0.0558**	**0.0141**	**0.0699**		**403.4097**	**403.4097**	**9.9900e-003**		**403.6196**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0812	0.1154	1.1504	2.0300e-003	0.1780	1.4000e-003	0.1794	0.0472	1.2700e-003	0.0485		169.4586	169.4586	9.7800e-003		169.6640
Total	**0.0812**	**0.1154**	**1.1504**	**2.0300e-003**	**0.1780**	**1.4000e-003**	**0.1794**	**0.0472**	**1.2700e-003**	**0.0485**		**169.4586**	**169.4586**	**9.7800e-003**		**169.6640**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**7.0458**	**2.9387**	**9.9845**	**3.8730**	**2.7036**	**6.5766**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0812	0.1154	1.1504	2.0300e-003	0.1780	1.4000e-003	0.1794	0.0472	1.2700e-003	0.0485		169.4586	169.4586	9.7800e-003		169.6640
Total	**0.0812**	**0.1154**	**1.1504**	**2.0300e-003**	**0.1780**	**1.4000e-003**	**0.1794**	**0.0472**	**1.2700e-003**	**0.0485**		**169.4586**	**169.4586**	**9.7800e-003**		**169.6640**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225		3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.5523**	**2.1984**	**8.7507**	**3.3675**	**2.0225**	**5.3900**		**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0677	0.0962	0.9587	1.6900e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		141.2155	141.2155	8.1500e-003		141.3866
Total	**0.0677**	**0.0962**	**0.9587**	**1.6900e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**141.2155**	**141.2155**	**8.1500e-003**		**141.3866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**2.5554**	**2.1984**	**4.7538**	**1.3133**	**2.0225**	**3.3359**	**0.0000**	**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0677	0.0962	0.9587	1.6900e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		141.2155	141.2155	8.1500e-003		141.3866
Total	**0.0677**	**0.0962**	**0.9587**	**1.6900e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**141.2155**	**141.2155**	**8.1500e-003**		**141.3866**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1495	1.0429	1.4882	2.2100e-003	0.0592	0.0148	0.0740	0.0169	0.0136	0.0305		221.2636	221.2636	1.8500e-003		221.3025
Worker	0.1489	0.2116	2.1091	3.7300e-003	0.3262	2.5600e-003	0.3288	0.0865	2.3200e-003	0.0889		310.6741	310.6741	0.0179		311.0506
Total	**0.2984**	**1.2546**	**3.5974**	**5.9400e-003**	**0.3854**	**0.0173**	**0.4028**	**0.1034**	**0.0159**	**0.1193**		**531.9377**	**531.9377**	**0.0198**		**532.3531**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1495	1.0429	1.4882	2.2100e-003	0.0592	0.0148	0.0740	0.0169	0.0136	0.0305		221.2636	221.2636	1.8500e-003		221.3025
Worker	0.1489	0.2116	2.1091	3.7300e-003	0.3262	2.5600e-003	0.3288	0.0865	2.3200e-003	0.0889		310.6741	310.6741	0.0179		311.0506
Total	**0.2984**	**1.2546**	**3.5974**	**5.9400e-003**	**0.3854**	**0.0173**	**0.4028**	**0.1034**	**0.0159**	**0.1193**		**531.9377**	**531.9377**	**0.0198**		**532.3531**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1374	0.9423	1.3767	2.2100e-003	0.0592	0.0125	0.0717	0.0169	0.0115	0.0284		217.5708	217.5708	1.7300e-003		217.6072
Worker	0.1260	0.1845	1.8153	3.7200e-003	0.3262	2.3800e-003	0.3286	0.0865	2.1700e-003	0.0887		298.5556	298.5556	0.0160		298.8909
Total	**0.2634**	**1.1268**	**3.1921**	**5.9300e-003**	**0.3855**	**0.0149**	**0.4004**	**0.1034**	**0.0137**	**0.1171**		**516.1264**	**516.1264**	**0.0177**		**516.4981**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1374	0.9423	1.3767	2.2100e-003	0.0592	0.0125	0.0717	0.0169	0.0115	0.0284		217.5708	217.5708	1.7300e-003		217.6072
Worker	0.1260	0.1845	1.8153	3.7200e-003	0.3262	2.3800e-003	0.3286	0.0865	2.1700e-003	0.0887		298.5556	298.5556	0.0160		298.8909
Total	**0.2634**	**1.1268**	**3.1921**	**5.9300e-003**	**0.3855**	**0.0149**	**0.4004**	**0.1034**	**0.0137**	**0.1171**		**516.1264**	**516.1264**	**0.0177**		**516.4981**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.1441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0515**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0839	0.8251	1.6900e-003	0.1483	1.0800e-003	0.1494	0.0393	9.9000e-004	0.0403		135.7071	135.7071	7.2600e-003		135.8595
Total	**0.0573**	**0.0839**	**0.8251**	**1.6900e-003**	**0.1483**	**1.0800e-003**	**0.1494**	**0.0393**	**9.9000e-004**	**0.0403**		**135.7071**	**135.7071**	**7.2600e-003**		**135.8595**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.058 8	2,281.058 8	0.6989		2,295.736 0
Paving	0.1441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0515**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.058 8**	**2,281.058 8**	**0.6989**		**2,295.736 0**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0573	0.0839	0.8251	1.6900e-003	0.1483	1.0800e-003	0.1494	0.0393	9.9000e-004	0.0403		135.7071	135.7071	7.2600e-003		135.8595
Total	**0.0573**	**0.0839**	**0.8251**	**1.6900e-003**	**0.1483**	**1.0800e-003**	**0.1494**	**0.0393**	**9.9000e-004**	**0.0403**		**135.7071**	**135.7071**	**7.2600e-003**		**135.8595**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.4247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**37.7570**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0267	0.0391	0.3851	7.9000e-004	0.0692	5.0000e-004	0.0697	0.0184	4.6000e-004	0.0188		63.3300	63.3300	3.3900e-003		63.4011
Total	**0.0267**	**0.0391**	**0.3851**	**7.9000e-004**	**0.0692**	**5.0000e-004**	**0.0697**	**0.0184**	**4.6000e-004**	**0.0188**		**63.3300**	**63.3300**	**3.3900e-003**		**63.4011**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.4247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**37.7570**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0267	0.0391	0.3851	7.9000e-004	0.0692	5.0000e-004	0.0697	0.0184	4.6000e-004	0.0188		63.3300	63.3300	3.3900e-003		63.4011
Total	**0.0267**	**0.0391**	**0.3851**	**7.9000e-004**	**0.0692**	**5.0000e-004**	**0.0697**	**0.0184**	**4.6000e-004**	**0.0188**		**63.3300**	**63.3300**	**3.3900e-003**		**63.4011**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2499	6.2763	23.2315	0.0526	3.6949	0.0800	3.7749	0.9881	0.0737	1.0617		4,367.852 0	4,367.852 0	0.1749		4,371.523 8
Unmitigated	2.2499	6.2763	23.2315	0.0526	3.6949	0.0800	3.7749	0.9881	0.0737	1.0617		4,367.852 0	4,367.852 0	0.1749		4,371.523 8

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	566.40	566.40	566.40	1,740,381	1,740,381
Parking Lot	0.00	0.00	0.00		
Total	566.40	566.40	566.40	1,740,381	1,740,381

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	12.50	12.50	12.50	19.40	61.60	19.00	58	38	4
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455853	0.042261	0.214795	0.150173	0.067787	0.009860	0.017887	0.023366	0.002328	0.001394	0.008768	0.000846	0.004683

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410
NaturalGas Unmitigated	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	3921.33	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0423**	**0.3844**	**0.3229**	**2.3100e-003**		**0.0292**	**0.0292**		**0.0292**	**0.0292**		**461.3334**	**461.3334**	**8.8400e-003**	**8.4600e-003**	**464.1410**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	3.92133	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0423**	**0.3844**	**0.3229**	**2.3100e-003**		**0.0292**	**0.0292**		**0.0292**	**0.0292**		**461.3334**	**461.3334**	**8.8400e-003**	**8.4600e-003**	**464.1410**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8933	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569
Unmitigated	1.8933	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6858					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569
Total	**1.8933**	**2.4000e-004**	**0.0255**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0538**	**0.0538**	**1.5000e-004**		**0.0569**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6858					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569
Total	**1.8933**	**2.4000e-004**	**0.0255**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0538**	**0.0538**	**1.5000e-004**		**0.0569**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Proposed Residence Inn Project

San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	126.00	Space	1.10	47,916.00	0
Hotel	120.00	Room	4.30	30,860.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 3.2 **Precipitation Freq (Days)** 44

Climate Zone 4 **Operational Year** 2018

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 544.61 **CH4 Intensity (lb/MWhr)** 0.025 **N2O Intensity (lb/MWhr)** 0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO_2 Intensity Factor adjusted to account for year 2016 RPS contribution of 25%.

Land Use - 120 rooms, 126 parking spaces, 5.4 total site acreage.

Construction Phase - Based on model defaults.

Off-road Equipment - Offroad construction equipment/requirements based on model defaults.

Demolition - 15,133 square feet to be demolished. Based on County Assessors' data.

Energy Mitigation - Includes minimum reduction of 16% with installation of high-efficiency lighting.

Water Mitigation - Use of water efficient appliances and irrigation systems

Grading - All material balanced on site.

Trips and VMT - Construction vehicle trips based on model defaults.

Vehicle Trips - Hotel vehicle trips based on City of Paso Robles Traffic Model trip generation rates, trip distance assumes 12.5 miles/trip.

Vechicle Emission Factors -

Vechicle Emission Factors -

Vechicle Emission Factors -

Construction Off-road Equipment Mitigation - Assumes 61% control efficiency for watering, 15 mph off-road vehicle speed limit, T3 off-road equipment.

Energy Use - .

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	50,400.00	47,916.00
tblLandUse	LandUseSquareFeet	174,240.00	30,860.00
tblLandUse	LotAcreage	1.13	1.10
tblLandUse	LotAcreage	4.00	4.30
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.025
tblProjectCharacteristics	CO2IntensityFactor	641.35	544.61
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleTrips	CC_TL	5.00	12.50
tblVehicleTrips	CNW_TL	5.00	12.50
tblVehicleTrips	CW_TL	13.00	12.50
tblVehicleTrips	ST_TR	8.19	4.72
tblVehicleTrips	SU_TR	5.95	4.72
tblVehicleTrips	WD_TR	8.17	4.72

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1644	54.7631	42.2719	0.0441	18.2442	2.9401	21.1843	9.9779	2.7049	12.6827	0.0000	4,485.5392	4,485.5392	1.2359	0.0000	4,511.4937
2017	37.7856	27.5717	21.9881	0.0326	0.3855	1.7963	2.1818	0.1034	1.6868	1.7903	0.0000	3,139.7152	3,139.7152	0.7062	0.0000	3,154.5448
Total	**42.9501**	**82.3348**	**64.2600**	**0.0767**	**18.6297**	**4.7364**	**23.3661**	**10.0813**	**4.3917**	**14.4730**	**0.0000**	**7,625.2544**	**7,625.2544**	**1.9421**	**0.0000**	**7,666.0385**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1644	54.7631	42.2719	0.0441	7.2238	2.9401	10.1639	3.9202	2.7049	6.6250	0.0000	4,485.5392	4,485.5392	1.2359	0.0000	4,511.4937
2017	37.7856	27.5717	21.9881	0.0326	0.3855	1.7963	2.1818	0.1034	1.6868	1.7903	0.0000	3,139.7152	3,139.7152	0.7062	0.0000	3,154.5448
Total	**42.9501**	**82.3348**	**64.2600**	**0.0767**	**7.6093**	**4.7364**	**12.3456**	**4.0236**	**4.3917**	**8.4153**	**0.0000**	**7,625.2544**	**7,625.2544**	**1.9421**	**0.0000**	**7,666.0385**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.16**	**0.00**	**47.16**	**60.09**	**0.00**	**41.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.8933	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569
Energy	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410
Mobile	2.4325	6.6444	25.3320	0.0508	3.6949	0.0804	3.7752	0.9881	0.0740	1.0621		4,222.3624	4,222.3624	0.1750		4,226.0369
Total	**4.3681**	**7.0291**	**25.6804**	**0.0531**	**3.6949**	**0.1097**	**3.8045**	**0.9881**	**0.1033**	**1.0914**		**4,683.7496**	**4,683.7496**	**0.1840**	**8.4600e-003**	**4,690.2348**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.8933	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569
Energy	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410
Mobile	2.4325	6.6444	25.3320	0.0508	3.6949	0.0804	3.7752	0.9881	0.0740	1.0621		4,222.3624	4,222.3624	0.1750		4,226.0369
Total	**4.3681**	**7.0291**	**25.6804**	**0.0531**	**3.6949**	**0.1097**	**3.8045**	**0.9881**	**0.1033**	**1.0914**		**4,683.7496**	**4,683.7496**	**0.1840**	**8.4600e-003**	**4,690.2348**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/11/2016	5	10	
3	Grading	Grading	2/12/2016	3/10/2016	5	20	
4	Building Construction	Building Construction	3/11/2016	1/26/2017	5	230	
5	Paving	Paving	1/27/2017	2/23/2017	5	20	
6	Architectural Coating	Architectural Coating	2/24/2017	3/23/2017	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 48,446; Non-Residential Outdoor: 16,149 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	69.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	33.00	13.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7688	0.0000	0.7688	0.1164	0.0000	0.1164			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365		4,089.284 1	4,089.284 1	1.1121		4,112.637 4
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**0.7688**	**2.2921**	**3.0610**	**0.1164**	**2.1365**	**2.2530**		**4,089.284 1**	**4,089.284 1**	**1.1121**		**4,112.637 4**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0946	1.1135	1.0083	2.6000e-003	0.0600	0.0143	0.0743	0.0164	0.0131	0.0296		261.5853	261.5853	1.8700e-003		261.6245
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0728	0.1090	0.9722	1.6200e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		134.6699	134.6699	8.1500e-003		134.8410
Total	**0.1674**	**1.2225**	**1.9805**	**4.2200e-003**	**0.2083**	**0.0154**	**0.2238**	**0.0558**	**0.0142**	**0.0699**		**396.2551**	**396.2551**	**0.0100**		**396.4655**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2998	0.0000	0.2998	0.0454	0.0000	0.0454			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365	0.0000	4,089.2841	4,089.2841	1.1121		4,112.6374
Total	**4.2876**	**45.6559**	**35.0303**	**0.0399**	**0.2998**	**2.2921**	**2.5920**	**0.0454**	**2.1365**	**2.1820**	**0.0000**	**4,089.2841**	**4,089.2841**	**1.1121**		**4,112.6374**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0946	1.1135	1.0083	2.6000e-003	0.0600	0.0143	0.0743	0.0164	0.0131	0.0296		261.5853	261.5853	1.8700e-003		261.6245
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0728	0.1090	0.9722	1.6200e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		134.6699	134.6699	8.1500e-003		134.8410
Total	**0.1674**	**1.2225**	**1.9805**	**4.2200e-003**	**0.2083**	**0.0154**	**0.2238**	**0.0558**	**0.0142**	**0.0699**		**396.2551**	**396.2551**	**0.0100**		**396.4655**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0874	0.1308	1.1667	1.9400e-003	0.1780	1.4000e-003	0.1794	0.0472	1.2700e-003	0.0485		161.6038	161.6038	9.7800e-003		161.8092
Total	**0.0874**	**0.1308**	**1.1667**	**1.9400e-003**	**0.1780**	**1.4000e-003**	**0.1794**	**0.0472**	**1.2700e-003**	**0.0485**		**161.6038**	**161.6038**	**9.7800e-003**		**161.8092**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**7.0458**	**2.9387**	**9.9845**	**3.8730**	**2.7036**	**6.5766**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0874	0.1308	1.1667	1.9400e-003	0.1780	1.4000e-003	0.1794	0.0472	1.2700e-003	0.0485		161.6038	161.6038	9.7800e-003		161.8092
Total	**0.0874**	**0.1308**	**1.1667**	**1.9400e-003**	**0.1780**	**1.4000e-003**	**0.1794**	**0.0472**	**1.2700e-003**	**0.0485**		**161.6038**	**161.6038**	**9.7800e-003**		**161.8092**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225		3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**6.5523**	**2.1984**	**8.7507**	**3.3675**	**2.0225**	**5.3900**		**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0728	0.1090	0.9722	1.6200e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		134.6699	134.6699	8.1500e-003		134.8410
Total	**0.0728**	**0.1090**	**0.9722**	**1.6200e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**134.6699**	**134.6699**	**8.1500e-003**		**134.8410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860
Total	**3.6669**	**38.4466**	**26.0787**	**0.0298**	**2.5554**	**2.1984**	**4.7538**	**1.3133**	**2.0225**	**3.3359**	**0.0000**	**3,093.7889**	**3,093.7889**	**0.9332**		**3,113.3860**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0728	0.1090	0.9722	1.6200e-003	0.1483	1.1600e-003	0.1495	0.0393	1.0500e-003	0.0404		134.6699	134.6699	8.1500e-003		134.8410
Total	**0.0728**	**0.1090**	**0.9722**	**1.6200e-003**	**0.1483**	**1.1600e-003**	**0.1495**	**0.0393**	**1.0500e-003**	**0.0404**		**134.6699**	**134.6699**	**8.1500e-003**		**134.8410**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1849	1.0592	2.1558	2.2000e-003	0.0592	0.0150	0.0742	0.0169	0.0138	0.0307		218.8935	218.8935	1.9200e-003		218.9337
Worker	0.1602	0.2397	2.1389	3.5500e-003	0.3262	2.5600e-003	0.3288	0.0865	2.3200e-003	0.0889		296.2737	296.2737	0.0179		296.6502
Total	**0.3451**	**1.2990**	**4.2946**	**5.7500e-003**	**0.3854**	**0.0176**	**0.4030**	**0.1034**	**0.0161**	**0.1196**		**515.1672**	**515.1672**	**0.0199**		**515.5839**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1849	1.0592	2.1558	2.2000e-003	0.0592	0.0150	0.0742	0.0169	0.0138	0.0307		218.8935	218.8935	1.9200e-003		218.9337
Worker	0.1602	0.2397	2.1389	3.5500e-003	0.3262	2.5600e-003	0.3288	0.0865	2.3200e-003	0.0889		296.2737	296.2737	0.0179		296.6502
Total	**0.3451**	**1.2990**	**4.2946**	**5.7500e-003**	**0.3854**	**0.0176**	**0.4030**	**0.1034**	**0.0161**	**0.1196**		**515.1672**	**515.1672**	**0.0199**		**515.5839**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730		2,639.8053	2,639.8053	0.6497		2,653.4490
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**		**2,639.8053**	**2,639.8053**	**0.6497**		**2,653.4490**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1691	0.9569	2.0353	2.2000e-003	0.0592	0.0127	0.0719	0.0169	0.0117	0.0286		215.2317	215.2317	1.7900e-003		215.2694
Worker	0.1348	0.2092	1.8236	3.5500e-003	0.3262	2.3800e-003	0.3286	0.0865	2.1700e-003	0.0887		284.6783	284.6783	0.0160		285.0136
Total	**0.3039**	**1.1660**	**3.8590**	**5.7500e-003**	**0.3855**	**0.0151**	**0.4006**	**0.1034**	**0.0139**	**0.1173**		**499.9099**	**499.9099**	**0.0178**		**500.2829**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1024	26.4057	18.1291	0.0268		1.7812	1.7812		1.6730	1.6730	0.0000	2,639.805 3	2,639.805 3	0.6497		2,653.449 0
Total	**3.1024**	**26.4057**	**18.1291**	**0.0268**		**1.7812**	**1.7812**		**1.6730**	**1.6730**	**0.0000**	**2,639.805 3**	**2,639.805 3**	**0.6497**		**2,653.449 0**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1691	0.9569	2.0353	2.2000e-003	0.0592	0.0127	0.0719	0.0169	0.0117	0.0286		215.2317	215.2317	1.7900e-003		215.2694
Worker	0.1348	0.2092	1.8236	3.5500e-003	0.3262	2.3800e-003	0.3286	0.0865	2.1700e-003	0.0887		284.6783	284.6783	0.0160		285.0136
Total	**0.3039**	**1.1660**	**3.8590**	**5.7500e-003**	**0.3855**	**0.0151**	**0.4006**	**0.1034**	**0.0139**	**0.1173**		**499.9099**	**499.9099**	**0.0178**		**500.2829**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473		2,281.0588	2,281.0588	0.6989		2,295.7360
Paving	0.1441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0515**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**		**2,281.0588**	**2,281.0588**	**0.6989**		**2,295.7360**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0951	0.8289	1.6100e-003	0.1483	1.0800e-003	0.1494	0.0393	9.9000e-004	0.0403		129.3992	129.3992	7.2600e-003		129.5516
Total	**0.0613**	**0.0951**	**0.8289**	**1.6100e-003**	**0.1483**	**1.0800e-003**	**0.1494**	**0.0393**	**9.9000e-004**	**0.0403**		**129.3992**	**129.3992**	**7.2600e-003**		**129.5516**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9074	20.2964	14.7270	0.0223		1.1384	1.1384		1.0473	1.0473	0.0000	2,281.058 8	2,281.058 8	0.6989		2,295.736 0
Paving	0.1441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0515**	**20.2964**	**14.7270**	**0.0223**		**1.1384**	**1.1384**		**1.0473**	**1.0473**	**0.0000**	**2,281.058 8**	**2,281.058 8**	**0.6989**		**2,295.736 0**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0951	0.8289	1.6100e-003	0.1483	1.0800e-003	0.1494	0.0393	9.9000e-004	0.0403		129.3992	129.3992	7.2600e-003		129.5516
Total	**0.0613**	**0.0951**	**0.8289**	**1.6100e-003**	**0.1483**	**1.0800e-003**	**0.1494**	**0.0393**	**9.9000e-004**	**0.0403**		**129.3992**	**129.3992**	**7.2600e-003**		**129.5516**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.4247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**37.7570**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0286	0.0444	0.3868	7.5000e-004	0.0692	5.0000e-004	0.0697	0.0184	4.6000e-004	0.0188		60.3863	60.3863	3.3900e-003		60.4574
Total	**0.0286**	**0.0444**	**0.3868**	**7.5000e-004**	**0.0692**	**5.0000e-004**	**0.0697**	**0.0184**	**4.6000e-004**	**0.0188**		**60.3863**	**60.3863**	**3.3900e-003**		**60.4574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.4247					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**37.7570**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0286	0.0444	0.3868	7.5000e-004	0.0692	5.0000e-004	0.0697	0.0184	4.6000e-004	0.0188		60.3863	60.3863	3.3900e-003		60.4574
Total	**0.0286**	**0.0444**	**0.3868**	**7.5000e-004**	**0.0692**	**5.0000e-004**	**0.0697**	**0.0184**	**4.6000e-004**	**0.0188**		**60.3863**	**60.3863**	**3.3900e-003**		**60.4574**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4325	6.6444	25.3320	0.0508	3.6949	0.0804	3.7752	0.9881	0.0740	1.0621		4,222.3624	4,222.3624	0.1750		4,226.0369
Unmitigated	2.4325	6.6444	25.3320	0.0508	3.6949	0.0804	3.7752	0.9881	0.0740	1.0621		4,222.3624	4,222.3624	0.1750		4,226.0369

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	566.40	566.40	566.40	1,740,381	1,740,381
Parking Lot	0.00	0.00	0.00		
Total	566.40	566.40	566.40	1,740,381	1,740,381

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	12.50	12.50	12.50	19.40	61.60	19.00	58	38	4
Parking Lot	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455853	0.042261	0.214795	0.150173	0.067787	0.009860	0.017887	0.023366	0.002328	0.001394	0.008768	0.000846	0.004683

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410
NaturalGas Unmitigated	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	3921.33	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410
Total		**0.0423**	**0.3844**	**0.3229**	**2.3100e-003**		**0.0292**	**0.0292**		**0.0292**	**0.0292**		**461.3334**	**461.3334**	**8.8400e-003**	**8.4600e-003**	**464.1410**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	3.92133	0.0423	0.3844	0.3229	2.3100e-003		0.0292	0.0292		0.0292	0.0292		461.3334	461.3334	8.8400e-003	8.4600e-003	464.1410
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0423**	**0.3844**	**0.3229**	**2.3100e-003**		**0.0292**	**0.0292**		**0.0292**	**0.0292**		**461.3334**	**461.3334**	**8.8400e-003**	**8.4600e-003**	**464.1410**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8933	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569
Unmitigated	1.8933	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6858					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569
Total	**1.8933**	**2.4000e-004**	**0.0255**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0538**	**0.0538**	**1.5000e-004**		**0.0569**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2051					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6858					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.4300e-003	2.4000e-004	0.0255	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0538	0.0538	1.5000e-004		0.0569
Total	**1.8933**	**2.4000e-004**	**0.0255**	**0.0000**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**		**0.0538**	**0.0538**	**1.5000e-004**		**0.0569**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

RESIDENCE INN PROJECT BIOLOGICAL RESOURCES ASSESSMENT

August 2015
(Updated February 10, 2016)

PREPARED FOR

Excel Hotel Group
10660 Scripps Ranch Boulevard, Suite 100
San Diego, California 92131

PREPARED BY

SWCA Environmental Consultants
1422 Monterey Street, Suite C200
San Luis Obispo, CA 93401

Residence Inn Project
Biological Resources Assessment
Paso Robles, San Luis Obispo County, California

Prepared for

Excel Hotel Group
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San Diego, California 92131
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(858) 621-4908 x101

Prepared by

Jackie Hancock, Biologist

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SWCA Project No. 31747

August 13, 2015
(Updated February 10, 2016)

Reporting Biologist: Jackie Hancock, SWCA Environmental Consultants

“As a County-approved biologist, I hereby certify that this Biological Resources Assessment was prepared according to the Guidelines established by the County of San Luis Obispo Department of Planning and Building and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge and belief; and I further certify that I was present throughout the site visit(s) associated with this report.”

Signature *(Jon Claxton for Jackie Hancock)*	February 10, 2016 Date

EXECUTIVE SUMMARY/SYNOPSIS

SWCA Environmental Consultants (SWCA) has prepared this Biological Resources Assessment (BRA) at the request of Excel Hotel Group for the Residence Inn Project (project). The purpose of this BRA is to document the biological resources on the property and identify impacts that could occur from development of the proposed hotel facility. The property is located at 2940 Union Road in Paso Robles, San Luis Obispo County, and is currently being used as a dog boarding facility and residence. The proposed project would convert the 5.4-acre property into approximately 3 acres of commercial hotel and parking lot, and the remaining 2.4 acres would be undeveloped until the future Union Road alignment is constructed.

Currently, the undeveloped portion of the property is entirely ruderal with the exception of individual oak trees that are located on the parcel. The oak trees do not constitute oak woodland or oak savannah, but they are recognized as providing greater habitat value and have been mapped separately for this reason. The three mature valley oak trees (*Quercus lobata*) that are located on the property are also protected by the City of El Paso de Robles (City) Oak Tree Preservation Ordinance.

Overall, the property has been heavily impacted by decades of historic agricultural practices (i.e., disking and tilling) and provides very low habitat value for wildlife species. No special-status plant species were observed nor are expected to occur on the property based on the past agricultural practices observed during site visits and distance to any known occurrences.

Despite the ruderal condition of the property, there is still potential for sensitive wildlife species to occur on the site based on the presence of suitable foraging, roosting, or nesting habitat. California horned larks (*Eremophila alpestris actia*) may forage within the bare, tilled soil year round. Migratory nesting birds may use trees or weedy areas for nesting and foraging purposes during the typical nesting period (February 15 through September 15). Although there is no denning habitat for San Joaquin kit fox (*Vulpes macrotis mutica*) present, the species may use the property as forage habitat. Recommended Avoidance and Minimization Measures are provided in Section 5.3 of this BRA to ensure that project activities avoid impacts to California horned lark, migratory nesting birds, San Joaquin kit fox, and oak trees prior to and during construction.

In addition, a San Joaquin kit fox evaluation form has been provided in Appendix C for the purposes of review by the City and California Department of Fish and Wildlife (CDFW) for the facilitation of development-related impact mitigation fees that would be incurred for the permanent loss of potential habitat for San Joaquin kit fox. The project site is currently located in a 3:1 mitigation area as preliminarily defined by the City, CDFW, and the County of San Luis Obispo. Based on SWCA's analysis of the site and the completion of the CDFW habitat evaluation form, the total score on the evaluation was 53. A score of less than 60 would require a 1:1 mitigation ratio. The results of this evaluation should be reviewed by City staff and CDFW to approve the final mitigation ratio.

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CONTENTS

FIGURES

TABLES

APPENDICES

1 INTRODUCTION

1.1 Purpose of Biological Resources Assessment

SWCA Environmental Consultants (SWCA) has prepared this Biological Resources Assessment (BRA) at the request of Excel Hotel Group for the Residence Inn Project (project). The purpose of this BRA is to document the biological resources on the property and identify impacts that could occur from development of the proposed hotel facility. This analysis is based on the preliminary site plans and has taken into consideration biological resources, such as sensitive habitats, plant, and animal species, which are known to occur within an approximate 10-mile radius of the Biological Study Area (BSA). For those instances where potential impacts to sensitive biological resources may occur, SWCA has proposed recommendations with the objective of avoiding or minimizing the impacts.

SWCA understands that this BRA would be used by Excel Hotel Group, the City of Paso Robles (City), and affected state or federal regulatory agencies during the environmental review process for the proposed project. This BRA has been prepared in accordance with the County of San Luis Obispo's *Standard Guidelines for Biological Resources Assessments,* last updated in December 2009. It is assumed this format will also meet the needs of the City. SWCA recommendations within this report may be utilized by the City as mitigation measures within the future California Environmental Quality Act (CEQA) document.

1.2 Project Location and Setting

The proposed project includes a 3-acre hotel and parking area located at 2940 Union Road in Paso Robles, San Luis Obispo County, California (refer to Figures 1 and 2). The entrance to the facility would be located on Union Road. The site plan for the proposed facility is included as Appendix A. The property is currently fallow and includes a residence and dog boarding facility (refer to Appendix B, Photos 1, 2, 3, and 4). The property is bordered by grazing land to the east, Union Road and State Route 46 to the north, and private rural properties to the west and south.

1.3 Project Description

The development area is located at the northeast corner of the 5.4-acre parcel (Assessor's Parcel Number 025-362-004). As proposed, the project would permanently convert 3 acres of the 5.4-acre parcel into a hotel and parking lot. Because a portion of the 3-acre development area is already developed (dog boarding facility), the resulting permanent impact (loss of habitat) from the proposed project would be 2.5 acres. The 2.5 acres of permanent impacts would include the loss of ruderal habitat and two individual mature valley oaks.

1.4 Soils, Topography, and Elevation

According to the Soil Survey for San Luis Obispo County and the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2015), soils in the study area are Arbuckle-Positas complex with 30–50 percent slopes (34.3%) in the northeast portion of the property and Arbuckle-San Ysidro complex with 2–9 percent slopes (65.7%) in the southwestern portion of the property. Both soil series consist of well-drained fine to course sandy clay loams. The property is located on a fluvial terrace that declines in grade 30 feet from the south end of the property to the north towards State Route 46. The elevation is approximately 780–810 feet. Water drains from southwest to northeast and towards the low point in the parcel's topography (refer to Appendix B, Photo 2). Habitats within the BSA are limited to ruderal/developed areas. Three mature valley oak (*Quercus lobata*) trees occur in the BSA, two of which are likely to be impacted by the development (refer to Figure 3 and Appendix A).

Figure 1. Project Vicinity Map

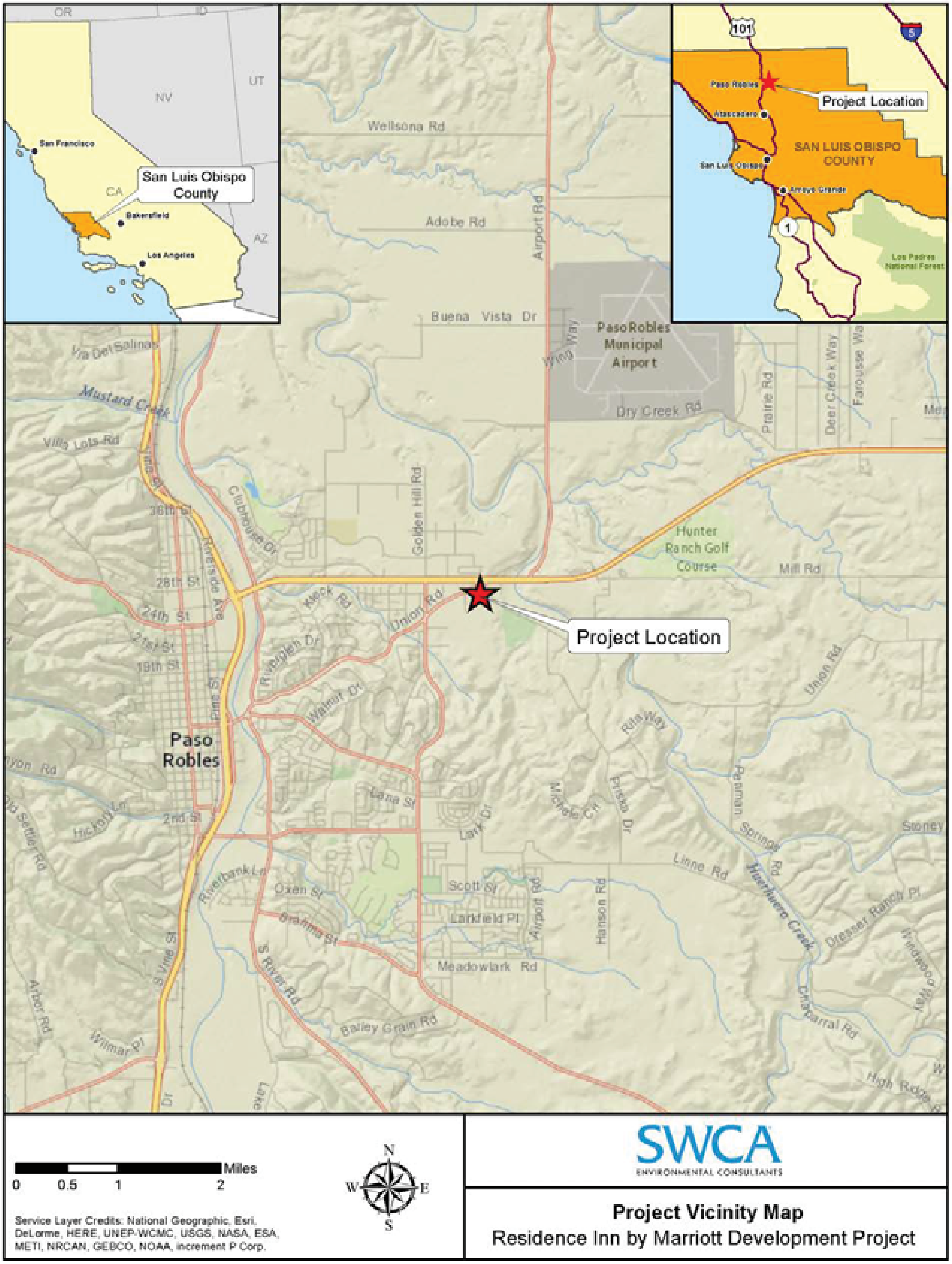
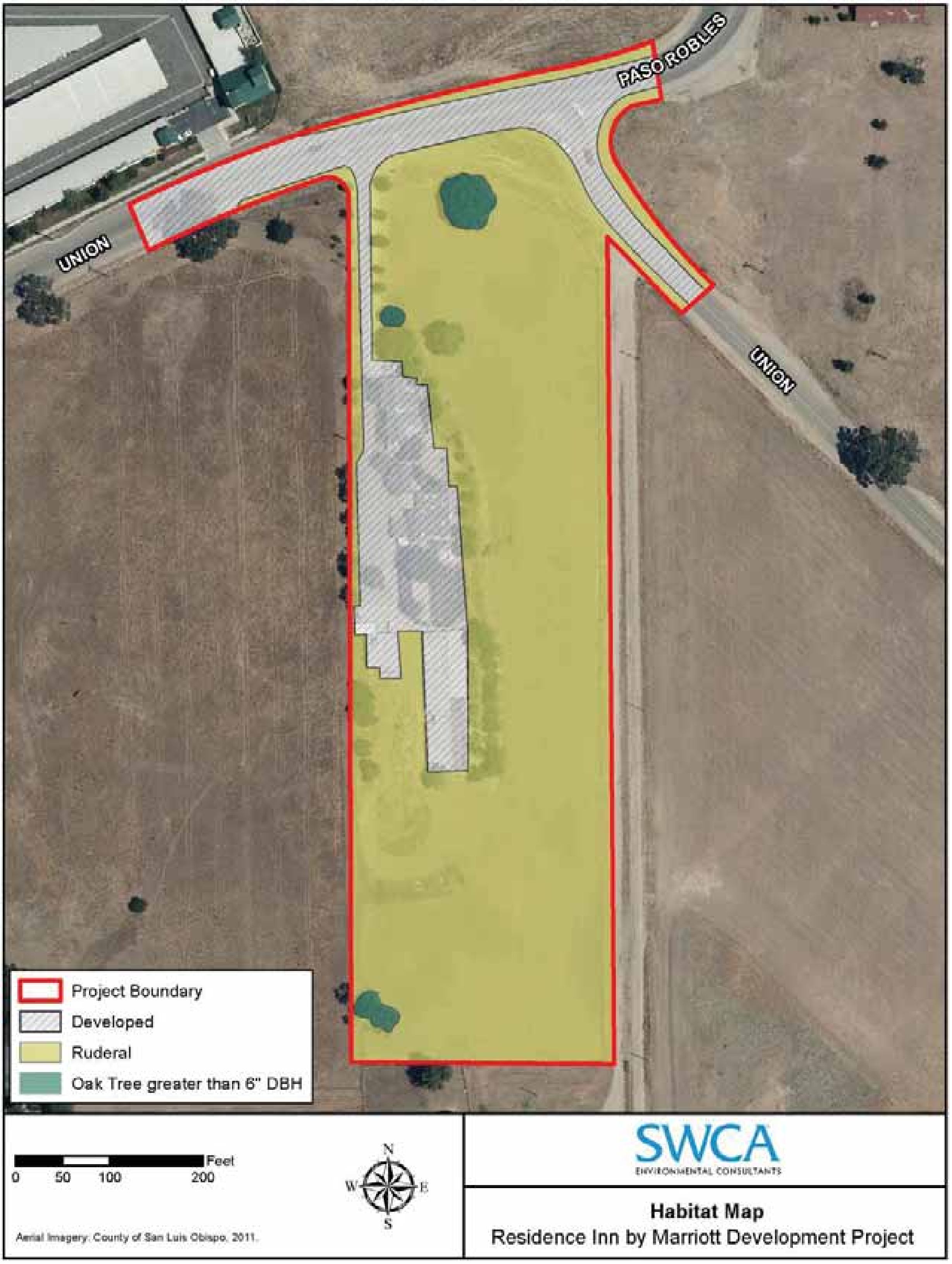


Figure 2. Project Location Map

Figure 3. Habitat Map



2 METHODOLOGY

2.1 Literature Review

SWCA conducted a literature review to gain insight on what species have known occurrences in the project vicinity. The review was initiated with a query of the most recent version of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) to identify reported occurrences of sensitive resources within the Paso Robles U.S. Geological Survey 7.5-minute quadrangle and the surrounding eight quadrangles: Bradley, San Miguel, Ranchito Canyon, Estrella, Creston, Templeton, York Mountain, and Adelaida.

In addition to the CNDDB query, the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Plants of California (2015) was reviewed to provide additional information on rare plants that are known to occur in the area. Existing environmental documents and various reports prepared by SWCA were also reviewed for background information and recent findings information.

2.2 Site Visit

A biological field survey was conducted by SWCA Biologist Jackie Hancock on May 6, 2015. The purpose of the survey was to: (1) evaluate the existing conditions of the BSA and determine the suitability for presence or absence of special-status species; (2) document and record species observed; and (3) map all habitats and sensitive resources present within the BSA. Land conditions were photographed and tree species were inventoried. No protocol-level surveys for special-status wildlife species were conducted as part of this study.

Because the property is within the San Joaquin kit fox (*Vulpes macrotis mutica*) range, a habitat evaluation form was completed (refer to Appendix C). This form will be utilized by the City and the applicant to facilitate the mitigation fees associated with the permanent loss of the 2.5 acres of available habitat for San Joaquin kit fox.

3 HABITAT TYPES

3.1 Ruderal and Developed

Ruderal (disturbed) habitat is used to describe areas within the BSA that have been permanently altered by past land use practices, development, and/or ground disturbance, including disking and mowing, that support an assemblage of weedy, non-native plants (Holland and Keil 1995). There are approximately 3.8 acres of ruderal habitat within the 5.4-acre parcel. There is also approximately 1.6 acres of developed (dog facility) area within the parcel (refer to Figure 3). Ruderal areas are dominated by non-native grass and bare dirt. Developed areas include structures and landscaping. Overall, the ruderal and developed areas within the BSA provide low habitat value for wildlife species. However, birds may use cleared areas for dusting and for obtaining gravel needed in their digestion. The buildings and trees in the developed area may be used for roosting and nesting sites.

3.2 Special-status Species

The following describes those sensitive biotic resources that have been documented within an approximate 10-mile radius of the BSA. Sensitive biotic resources include sensitive plant and/or animal species as described below.

3.2.1 Special-Status Plant Species

For the purposes of this section, special-status plant species are defined as the following:

- Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (FESA; 50 Code of Federal Regulations [CFR] 17.12 for listed plants and various notices in the Federal Register for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the FESA.
- Plants that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines §15380).
- Plants considered by the CNPS to be “rare, threatened, or endangered” in California (Lists 1B and 2 in CNPS 2013).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Lists 3 and 4 in CNPS 2013).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA; 14 California Code of Regulations [CCR] 670.5).
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code §1900 et seq.).
- Plants considered sensitive by other federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), state and local agencies, or jurisdictions.

Based on the literature review for this project, a total of 29 special-status plant species have been documented within an approximate 10-mile radius of the BSA (refer to Table 1). Because the plant list presented in Table 1 is considered regional, SWCA evaluated the listed species to identify which special-status plant species have the potential to occur within the BSA. This analysis compared the known habitat requirements of those 29 species to the BSA’s existing conditions, elevation, and soils. Due to the disturbed nature of the BSA and property from past agricultural activities (e.g., disking and tilling), special-status plant species are not expected to occur on the property.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status: Federal	Legal Status: State	Legal Status: CNPS	Rationale for Expecting Presence or Absence
bristlecone fir *Abies bracteata*	Evergreen tree; California endemic; steep, rocky slopes. 210–1,600 meters.	May	--	--	1B.3	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities (e.g., disking and tilling), special-status plant species are not expected to occur within the BSA. Suitable soil conditions were not observed within the BSA for this species.
oval-leaved snapdragon *Antirrhinum ovatum*	Annual herb; California endemic; gentle, open slopes and disturbed areas; heavy, adobe-clay soils. 200–1,400 meters.	May–November	--	--	4.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Heavy adobe-clay soils were not present at the sight.
Indian Valley spineflower *Aristocapsa insignis*	Annual herb; California endemic; foothill woodland; sand. 300–600 meters.	May–September	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species.
round-leaved filaree *California macrophylla*	Annual herb; cismontane woodland, valley and foothill grassland; clay soil. 15–1,200 meters.	March–May	--	--	1B.1	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status: Federal	Legal Status: State	Legal Status: CNPS	Rationale for Expecting Presence or Absence
dwarf calycadenia *Calycadenia villosa*	Annual herb; California endemic; chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland; rocky, fine soils. 240–1,350 meters.	May–October	--	--	1B.1	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species.
Santa Cruz mountains pussypaws *Calyptridium parryi* var. *hesseae*	Annual herb; California endemic; chaparral, cismontane woodland; sandy or gravelly openings. 305–1,530 meters.	May–August	--	--	1B.1	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species.
Hardham's evening primrose *Camissonia hardhamiae*	Annual herb; California endemic; chaparral, cismontane woodland; sandy, decomposed carbonate, disturbed or burned areas. 140–945 meters.	March–May	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species.
San Luis Obispo owl's-clover *Castilleja densiflora* ssp. *obispoensis*	Annual herb; California endemic; valley and foothill grassland; sometimes serpentine. 10–400 meters.	March–May	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status			Rationale for Expecting Presence or Absence
			Federal	State	CNPS	
Lemmon's jewel-flower *Caulanthus lemmonii*	Annual herb; California endemic; valley and foothill grassland; sometimes serpentine. 80–1,220 meters.	March–May	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species.
Santa Lucia purple amole *Chlorogalum purpureum* var. *purpureum*	Perennial herb; California endemic; open woodland. ±300 meters.	May–June	FT	--	1B.1	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat was not observed within the BSA for this species.
straight-awned spineflower *Chorizanthe rectispina*	Annual herb; California endemic; chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats. 85–1,035 meters.	May–July	--	--	1B.3	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA.
Eastwood's larkspur *Delphinium parryi* ssp. *eastwoodiae*	Perennial herb; chaparral and valley and foothill grassland (serpentinite, coastal). 75–500 meters.	February–March	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Suitable soil conditions were not observed within the BSA for this species.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status: Federal	Legal Status: State	Legal Status: CNPS	Rationale for Expecting Presence or Absence
umbrella larkspur *Delphinium umbraculorum*	Perennial herb; California endemic; cismontane woodland. 400–1,600 meters.	April–June	--	--	1B.3	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat conditions were not observed within the BSA for this species. Species occurs at higher elevations than the BSA.
Koch's cord moss *Entosthodon kochii*	Moss; riverbanks and open deciduous woodlands; rocky, newly exposed soil. 180–1,000 meters.	--	--	--	1B.3	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA.
yellow-flowered eriastrum *Eriastrum luteum*	Annual herb; California endemic; broad-leafed upland forest, chaparral, and cismontane woodland habitats; sandy or gravelly soil. 290–1,000 meters.	May–June	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species.
mesa horkelia *Horkelia cuneata* ssp. *puberula*	Perennial herb; California endemic; chaparral, cismontane woodland, and coastal scrub habitats; sandy or gravelly soil. 70–810 meters.	February–September	--	--	1B.1	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status: Federal	Legal Status: State	Legal Status: CNPS	Rationale for Expecting Presence or Absence
Kellogg's horkelia *Horkelia cuneata* ssp. *sericea*	Perennial herb; California endemic; closed-cone coniferous forest; chaparral (maritime); coastal dunes, coastal scrub; sandy or gravelly, openings. 10–200 meters.	April–September	--	--	1B.1	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species. Species occurs at lower elevations than the BSA.
Santa Lucia dwarf rush *Juncus luciensis*	Annual herb; California endemic; chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, vernal pool. 300–2,040 meters.	April–July	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species. Species occurs at higher elevations than the BSA.
pale-yellow layia *Layia heterotricha*	Annual herb; California endemic; cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland; alkaline or clay soil. 300–1,705 meters.	March–June	--	--	1B.1	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Suitable soil conditions were not observed within the BSA for this species. Species occurs at higher elevation than the BSA.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status			Rationale for Expecting Presence or Absence
			Federal	State	CNPS	
Jared's pepper-grass *Lepidium jaredii* ssp. *jaredii*	Annual herb; California endemic; valley and foothill grassland; alkaline, adobe soils. 335–1,005 meters.	March–May	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Suitable soil conditions were not observed within the BSA for this species. Species occurs at higher elevations than the BSA.
Davidson's bush-mallow *Malacothamnus davidsonii*	Deciduous shrub; California endemic; slopes and washes; chaparral. 500–700 meters.	June–January	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA.
Carmel Valley bush-mallow *Malacothamnus palmeri* var. *involucratus*	Deciduous shrub; California endemic; chaparral, cismontane woodland, coastal scrub. 30–1,100 meters.	May–October	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat was not observed within the BSA for this species.
woodland woollythreads *Monolopia gracilens*	Annual herb; broadleafed upland forest, chaparral, cismontane woodland, North Coast coniferous forest, and valley and foothill grassland (serpentine).100–1,200 meters.	February–July	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Suitable soil conditions were not observed within the BSA for this species.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status: Federal	Legal Status: State	Legal Status: CNPS	Rationale for Expecting Presence or Absence
spreading navarretia *Navarretia fossalis*	Annual herb; chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools. 30–1,300 meters.	April–June	FT	--	1B.1	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat was not observed within the BSA for this species.
shining navarretia *Navarretia nigelliformis* ssp. *radians*	Annual herb; California endemic; cismontane woodland, valley and foothill grassland, vernal pools. 76–1,000 meters.	April–July	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA.
prostrate vernal pool navarretia *Navarretia prostrata*	Annual herb;California endemic; alkaline floodplains, vernal pools. <700 meters.	April–July	--	--	1B.1	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA.
hooked popcorn-flower *Plagiobothrys uncinatus*	Annual herb; California endemic; chaparral (sandy); cismontane woodland, valley and foothill grassland. 300–760 meters.	April–May	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Species occurs at higher elevation than the BSA.
Santa Cruz microseris *Stebbinsoseris decipiens*	Annual herb; California endemic; open, shaly, or serpentine sites. 10–500 meters.	April–May	--	--	1B.2	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA.

Table 1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status: Federal	Legal Status: State	Legal Status: CNPS	Rationale for Expecting Presence or Absence
Cook's triteleia *Triteleia ixioides* ssp. *cookii*	Bulbiferous herb; California endemic; closed-cone coniferous forest, cismontane woodland; serpentinite seeps. 150–700 meters.	May–June	--	--	1B.3	**Suitable Conditions Absent:** Due to the disturbed nature of the site from past agricultural activities, special-status plant species are not expected to occur within the BSA. Habitat and soil conditions were not observed within the BSA for this species.
Natural Communities of Concern						
Valley Oak Woodland	Highly variable climax woodland dominated by valley oak (*Quercus lobata*) usually below 6,000 meters. Occurs in the Sacramento and San Joaquin valleys, and valleys of the Coast Ranges					**Absent:** This natural community was not observed within the BSA.

General references: CDFW 2008, Baldwin et al 2012, CNDDB 2015

Status Codes
--= No status

Federal:
FE = Federal Endangered
FT=Federal Threatened

State:
SE=State Endangered
ST= State Threatened
SR= State Rare

California Native Plant Society (CNPS):
List 1B = rare, threatened, or endangered in California and elsewhere.
List 2 = rare, threatened, or endangered in California, but more common elsewhere.
List 3 = plants that about which more information is needed.
List 4 = a watch list plants of limited distribution.

Threat Code:
.1 = Seriously endangered I California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Fairly endangered in California (20-80% occurrences threatened)
.3 = Not very endangered I California (<20% of occurrences threatened or no current threats known)

3.2.2 *Special-Status Animal Species*

For the purposes of this section, special-status animal species are defined as the following:

- Animals listed or proposed for listing as threatened or endangered under the FESA (50 CFR 17.11 for listed animals and various notices in the Federal Register for proposed species).
- Animals that are candidates for possible future listing as threatened or endangered under the FESA.
- Animals that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines §15380).
- Animals listed or proposed for listing by the State of California as threatened and endangered under the CESA (14 CCR 670.5).
- Animal species of special concern to the CDFW (Remsen 1978 for birds; Williams 1986 for mammals).
- Animal species that are fully protected in California (California Fish and Game Code, §3511 [birds], §4700 [mammals], and §5050 [reptiles and amphibians]).

Based on a CNDDB query and a review of existing literature, a total of 27 sensitive wildlife species have been documented within an approximate 10-mile radius of the BSA (refer to Table 2). Because this list of species is considered regional, an analysis of the range and habitat preferences of those animal species was conducted to identify which sensitive wildlife species have the potential to occur within the BSA. SWCA determined that the following special-status animal species have the greatest potential to occur within, or directly adjacent to the BSA:

- California horned lark (*Eremophila alpestris actia*)
- San Joaquin kit fox (*Vulpes macrotis mutica*)

Although the species listed above may have the potential to occur within or adjacent to the BSA based on presence of suitable foraging habitat, <u>none</u> of these species were identified during the site visits conducted by SWCA. However, the potential for these species to occur cannot be ruled out due to the transitory nature of these wildlife species.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status: Federal	Legal Status: State	Legal Status: Other	Rationale for Expecting Presence or Absence
Invertebrates					
vernal pool fairy shrimp *Branchinecta lynchi*	Vernal pools, usually less than 0.05 acres in size; swales or basalt flow depression pools in unplowed grasslands.	FT	--	--	**Suitable Conditions Absent:** Vernal pool habitat necessary to support this species does not occur within the BSA or on the property.
Atascadero June beetle *Polyphylla nubila*	Known only from sand dunes in San Luis Obispo County	--	--	SA	**Suitable Conditions Absent:** Coastal sand dune habitat necessary to support this species does not occur within the BSA.
Lompoc grasshopper *Trimerotropis occulens*	Known only from Santa Barbara and San Luis Obispo Counties.	--	--	SA	**Suitable Conditions Absent:** This species was last seen in 1909 (CNDDB 2013) and is not expected to occur within the BSA.
Amphibians					
California red-legged frog *Rana draytonii*	Aquatic habitats with little or no flow and surface water depths to at least 2.3 feet. Presence of fairly sturdy underwater supports such as cattails.	FT	--	SSC	**Suitable Conditions Absent:** Aquatic habitat does not occur within the BSA.
western spadefoot *Spea hammondii*	Inhabits vernal pools in primarily grassland, but also in valley and foothill hardwood woodlands.	--	--	SSC	**Suitable Conditions Absent:** Vernal pool habitat necessary to support this species does not occur within the BSA.
Coast range newt *Taricha torosa torosa*	Breed in ponds, reservoirs, and slow-moving streams. Frequents terrestrial habitats such as oak woodlands.	--	--	SSC	**Suitable Conditions Absent:** Aquatic habitat necessary to support this species does not occur within the BSA.
Reptiles					
silvery legless lizard *Anniella pulchra pulchra*	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. Prefer soils with high moisture content.	--	--	SSC	**Suitable Conditions Absent:** The appropriate soil moisture necessary to support this species was not observed within the BSA.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status: Federal	Legal Status: State	Legal Status: Other	Rationale for Expecting Presence or Absence
western pond turtle *Emys marmorata*	Quiet waters of ponds, lakes, streams, and marshes. Typically in the deepest parts with an abundance of basking sites.	--	--	SSC	**Suitable Conditions Absent:** Aquatic habitat does not occur within the BSA.
San Joaquin whipsnake *Masticophis flagellum ruddocki*	Dry, open, treeless areas, including grasslands and saltbush scrub.	--	--	SSC	**Suitable Conditions Absent:** The appropriate vegetation necessary to support this species was not observed within the BSA.
coast horned lizard *Phrynosoma blainvillii*	Frequents a wide variety of habitats; most commonly in lowlands along sandy washes with scattered low bushes.	--	--	SSC	**Suitable Conditions Absent:** Sandy wash habitat necessary to support this species does not occur within the BSA.
Birds					
tricolored blackbird *Agelaius tricolor*	Cattail or tule marshes; forages in fields, farms.	MBTA	SE	SSC	**Suitable Conditions Absent:** The wetland vegetation necessary to support this species was not observed within the BSA.
golden eagle *Aquila chrysaetos*	(Nesting and nonbreeding/wintering) rolling foothills, mountain areas, sage-juniper flats, and desert areas. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	MBTA	FP	--	**Suitable Conditions Absent:** BSA consists primarily of ruderal land unsuitable for this species. Species not observed during surveys.
burrowing owl *Athene cunicularia*	Open, dry grasslands, deserts, and scrublands. Subterranean nester, dependent upon burrowing mammals.	MBTA	--	CSC	**Suitable Conditions Absent:** BSA does not contain nesting or foraging habitat. No small mammal burrows were observed within the BSA. Species not observed during surveys.
ferruginous hawk *Buteo regalis*	(Nonbreeding/wintering) open grasslands, sagebrush flats, desert scrub, low foothills, and pinyon-juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice	MBTA	--	SSC	**Suitable Conditions Absent:** BSA does not contain nesting or foraging habitat. Species not observed during surveys.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status: Federal	Legal Status: State	Legal Status: Other	Rationale for Expecting Presence or Absence
great blue heron *Ardea herodias*	Freshwater and saltwater habitats; forage in grasslands and agricultural fields.	MBTA	--	SA	**Suitable Conditions Absent:** BSA does not contain nesting or foraging habitat. Species not observed during surveys.
California horned lark *Eremophila alpestris actia*	Bare, dry ground, sparsely vegetated areas; forage in heavily grazed pastures and roads.	MBTA	--	SA	**Suitable Conditions Present:** Suitable forage habitat is present within the BSA. Species not observed during surveys.
prairie falcon *Falco mexicanus*	Occurs in dry, open terrain that is level or hilly and breeds on cliffs.	MBTA	--	--	**Suitable Conditions Absent:** BSA does not contain nesting or foraging habitat. Species not observed during surveys.
least Bell's vireo *Vireo bellii pusillus* (nesting)	(Nesting) summer resident of southern California in low riparian areas near water or river bottoms. Nests placed along margins of bushes or on twigs usually *Salix*, *Baccharis*, and mesquite.	FE, MBTA	SE	--	**Suitable Conditions Absent:** BSA does not contain nesting or foraging habitat. Species not observed during site visits.
bald eagle *Haliaeetus leucocephalus*	Forested areas near large bodies of water. Typically avoid heavily developed areas.	MBTA	SE	SSC	**Suitable Conditions Absent:** BSA does not contain nesting or foraging habitat. Species not observed during site visits.
yellow warbler *Setophaga petechia*	Streams and wetlands.	--	--	SSC	**Suitable Conditions Absent:** BSA does not contain nesting or foraging habitat. Species not observed during site visits.
other nesting birds Class Aves	Various habitats (nesting).	MBTA	--	CDFW Code §3503	**Suitable Conditions Present:** Foraging and nesting habitats for migratory birds are present within the BSA. No nesting birds or activity was observed during the site visits.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status: Federal	Legal Status: State	Legal Status: Other	Rationale for Expecting Presence or Absence
Mammals					
pallid bat *Antrozous pallidus*	Inhabits deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting	--	--	SSC	**Suitable Conditions Absent:** Desert habitat and rocky areas for roosting are not present within the BSA. Species not observed during site visit.
Townsend's big-eared bat *Corynorhinus townsendii*	Occurs throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	--	--	SSC	**Suitable Conditions Absent:** Roosting habitat was not observed within the BSA. Species not observed during site visits.
hoary bat *Lasiurus cinereus*	Woodland and forest habitats. Roosts are in dense foliage of medium to large trees. Forages in open habitats. Requires a water source.	--	--	SSC	**Suitable Conditions Absent:** BSA does not contain nesting or foraging habitat. Species not observed during site visits.
Monterey dusky-footed woodrat *Neotoma lepida intermedia*	Forest habitats of moderate canopy and moderate to dense understory; also in chaparral habitats. Nests constructed of grass, feathers, etc. Population may be limited by availability of nest materials.	--	--	SSC	**Suitable Conditions Absent:** No woodrat middens or habitat was observed within the BSA. Species not observed during site visits.
Salinas pocket mouse *Perognathus inornatus psammophilus*	Annual grassland and desert shrub communities in the Salinas Valley in fine-textured, sandy, friable soils. Burrows for cover and nesting.	--	--	SSC	**Suitable Conditions Absent:** The BSA is highly disturbed and does not contain shrub communities necessary to support this species. Species not observed during site visits.
American badger *Taxidea taxus*	Drier open stages of shrub, forest, and herbaceous habitats, with friable soils; needs sufficient food and open, uncultivated ground; digs burrows.	--	--	SSC	**Suitable Conditions Absent:** The BSA is highly disturbed, cultivated, and does not contain a suitable prey base for this species. This species was not observed during site visits.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status: Federal	Legal Status: State	Legal Status: Other	Rationale for Expecting Presence or Absence
San Joaquin kit fox *Vulpes macrotis mutica*	Inhabits annual grasslands or grassy open stages with scattered shrubs; needs friable sandy soils for burrowing, and suitable prey base.	FE	SE	--	**Suitable Conditions Present:** Huerhuero Creek is a known wildlife corridor for the San Joaquin kit fox. However, the BSA is highly disturbed and likely does not support a prey base for the species. The likelihood of occurrence of this species in the BSA is very low due to limited forage opportunity and the distance from other known populations.

General references: Unless otherwise noted all habitat and distribution data provided by California Natural Diversity Database

Status Codes

--= No status

Federal:

FE = Federal Endangered
FT= Federal Threatened
FC= Federal Candidate
CH= Federal Critical Habitat
PCH= Proposed Federal Critical Habitat
MBTA= Protected by Federal Migratory Bird Treaty Act

State:

SE= State Endangered
ST= State Threatened

California Department of Fish and Wildlife:

SSC= California Special Concern Species
FP= Fully Protected Species
SA= Not formally listed but included in CDFW “Special Animal” List.

4 REGULATORY OVERVIEW

4.1 Federal Policies and Regulations

4.1.1 Federal Endangered Species Act of 1973

The FESA provides legislation to protect federally listed plant and animal species. Impacts to listed species resulting from the implementation of a project would require the responsible agency or individual to formally consult with the U.S. Fish and Wildlife Service (USFWS) or National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) to determine the extent of impact to a particular species. If USFWS or NOAA Fisheries determine that impacts to a federally listed species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. USFWS and NOAA Fisheries also regulate activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species.

4.1.2 Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by USFWS, and potential impacts to species protected under the MBTA are evaluated by USFWS in consultation with other federal agencies.

4.2 State Policies and Regulations

4.2.1 California Endangered Species Act

The CESA ensures legal protection for plants listed as rare or endangered and wildlife species formally listed as endangered or threatened. The state also maintains a list of California Species of Special Concern (SSC). SSC status is assigned to species that have limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, CDFW is empowered to review projects for their potential to impact to special-status species and their habitats. Under CESA, CDFW reserves the right to request the replacement of lost habitat that is considered important to the continued existence of CESA protected species.

4.2.2 California Fish and Game Code

California Fish and Game Code §3511 includes provisions to protect Fully Protected (FP) species, such as: (1) prohibiting take or possession “at any time” of the species listed in the statute, with few exceptions; (2) stating that “no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to “take” the species; and (3) stating that no previously issued permits or licenses for take of the species “shall have any force or effect” for authorizing take or possession. CDFW is unable to authorize incidental take of “fully protected” species when activities are proposed in areas inhabited by those species. Sections 3503 and 3503.5 of the Fish and Game Code state that it is unlawful to take, possess, or destroy the nest or eggs of any bird, with occasional exceptions. In addition, §3513 states that it is unlawful to take or possess any migratory bird as designated in the MBTA or any part of such migratory birds except as provided by rules and regulations under provisions of the MBTA.

4.2.3 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, §§1600-1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFW defines a “stream” (including creeks and rivers) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife.

4.3 Local Policies and Regulations

4.3.1 City of El Paso de Robles Oak Tree Preservation Ordinance

Pursuant to City Oak Tree Preservation Ordinance No. 835 N.S., a permit is required to prune and/or remove any native oak species (of the genus *Quercus*) within the city of El Paso de Robles. The preservation of oak trees within the city is considered necessary to maintain the heritage and character of the city of El Paso de Robles ("the Pass of the Oaks"). This ordinance applies to oak trees with a diameter at breast height (DBH) equal to or greater than 6 inches and their corresponding critical root zone (CRZ), which is calculated by a radius of 1 foot per inch DBH.

5 IMPACT ASSESSMENT AND RECOMMENDATIONS

This impact assessment focuses on identifying potential impacts associated with implementation of the proposed project. The impact analysis is based on the existing conditions, regulatory setting, and preliminary site map provided to SWCA by Excel Hotel Group (refer to Appendix A). The section focuses on identifying potential biological constraints associated with any reasonably foreseeable future developments within the BSA. The emphasis is on determining the potential effects of the project on special-status species, habitats, and jurisdictional areas within the BSA. Adverse impacts could occur if future uses of the property would result in temporary or permanent modification to sensitive habitats, or to habitats occupied by special-status species. Where potential impacts to sensitive resources have been identified, recommended measures for avoiding, minimizing, or mitigating adverse effects to these resources are provided. The following section has been formatted to meet the general guidelines set forth by the County of San Luis Obispo (December 2009). It is assumed this format will also meet the needs of the City.

5.1 Sufficiency of Biological Data

SWCA considers the information provided within this report to be sufficient in order to definitively determine impacts to biological resources as it relates to the proposed project. Based on the current project plans, no additional field surveys or specialized investigation is needed to determine the potential impacts.

5.2 Impacts

5.2.1 Project Effect on Unique or Special-Status Species or their Habitats

5.2.1.1 PLANTS

The BSA and property have been disturbed from agricultural practices including disking and tilling. No special-status plant species were observed nor are special-status plant species expected to occur within the BSA. However, three valley oak trees within the project impact area are considered vital to the heritage and character of the city and are protected under the Oak Tree Preservation Ordinance (refer to Section 5.2.2 for further information).

5.2.1.2 WILDLIFE

Birds protected under the MBTA are expected to occur on the property and may utilize the oak trees and weedy areas within the BSA for nesting and foraging purposes. California horned larks may forage on the property. The likelihood of this species occurring within the BSA is low since California horned lark is not a common resident to the Paso Robles area. The nearest known occurrence of this species is a year-round population at Camp Roberts, approximately 15 miles north of the BSA (CNDDB 2015). Recommendation BIO-1 has been provided to ensure that project activities avoid impacts to migratory nesting birds and to ensure that California horned larks are not present prior to the start of construction.

The BSA does not contain suitable denning habitat for San Joaquin kit fox. Huerhuero Creek serves as a wildlife corridor for the purposes of foraging for the species. Due to the property's distance from this creek (0.2 miles west), there is potential that San Joaquin kit fox may pass through the project area. Therefore, standard San Joaquin kit fox avoidance measures should be implemented during project construction (refer to Recommendations BIO-2 through BIO-7).

In addition, the project site is located in a 3:1 mitigation area as preliminarily defined by the City, CDFW, and the County of San Luis Obispo. Based on SWCA's analysis of the site and the completion of the CDFW habitat evaluation form (refer to Appendix C), the total score on the evaluation was 53. According to CDFW, a score of less than 60 would require a 1:1 mitigation ratio. The results of this evaluation should be reviewed by City staff and CDFW to approve the final mitigation ratio.

5.2.2 Project Effect on Extent, Diversity, or Quality of Native or Other Important Vegetation

The BSA contains three large valley oak trees that meet the qualifications for protection under the City Oak Tree Preservation Ordinance (2002). This ordinance applies to all oak species native to Paso Robles with a DBH equal to or greater than 6 inches and their corresponding CRZ, which is calculated by a radius of 1 foot per inch DBH. Development of the project must not encroach into the CRZ and every reasonable effort must be made to avoid impact to the oak trees, including preventing compaction, soil retention, and diversion or increased water flow to the root zone. Existing ground surface within the CRZ shall not be cut, filled, compacted, or pared, and nearby excavation shall not damage roots. A registered civil engineer or land surveyor must provide the City with an inventory and map of all qualifying oak trees in the BSA. A permit must be obtained from the City to prune or remove qualifying oak trees. Damage to any qualifying oak tree must be reported immediately and corrected in a manner specified by an arborist hired by the City at the applicant's cost. Mitigation plantings are required for removal of qualifying oak trees, and all others remaining in the BSA must be protected (refer to Avoidance and Mitigation Measures BIO-8 through BIO-14).

5.2.3 Project Effect on Wetland or Riparian Habitat

Riparian habitat is not present within the BSA or on the property. As proposed, the project would have no direct or indirect effect on wetland or riparian habitat.

5.2.4 Project Effect on Movement of Resident or Migratory Fish and Wildlife Species

The proposed project will have no direct or indirect effect on the movement of resident or migratory fish and wildlife species.

5.3 Recommendations

BIO-1 To the maximum extent possible, site preparation, ground-disturbing, and construction activities should be conducted outside of the migratory bird breeding season. If such activities are required during this period, the applicant should retain a qualified biologist to conduct a nesting bird survey and verify that migratory birds are not occupying the site. If nesting activity is detected the following measures should be implemented:

a. The project should be modified or delayed as necessary to avoid direct take of identified nests, eggs, and/or young protected under the MBTA;

b. The qualified biologist should determine an appropriate biological buffer zone around active nest sites. Construction activities within the established buffer zone will be prohibited until the young have fledged the nest and achieved independence; and,

c. The qualified biologist should document all active nests and submit a letter report to the City documenting project compliance with the MBTA.

BIO-2 Prior to construction, a qualified biologist should conduct a pre-activity survey to identify known or potential dens or sign of San Joaquin kit fox no less than 14 days and no more than 30 days prior to the beginning of the site preparation, ground-disturbing, or construction activities, or any other activity that has the potential to adversely affect the species. If a known or potential den or any other sign of the species is identified or detected within the project area, the biologist will contact USFWS and CDFW immediately. No work will commence or continue until such time that USFWS and CDFW determine that it is appropriate to proceed. Under no circumstances will a known or potential den be disturbed or destroyed without prior authorization from USFWS and CDFW. Within 7 days of survey completion, a report will be submitted to USFWS, CDFW, and the City. The report will include, at a minimum, survey dates, field personnel, field conditions, survey methodology, and survey results.

BIO-3 During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavation, steep-walled holes, or trenches in excess of 2 feet in depth should 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 should 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 or covered, they should be thoroughly inspected for entrapped kit fox. If any kit fox is found, work will stop and USFWS and CDFW will be contacted immediately to determine how to proceed.

BIO-4 During the site disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of 4 inches or greater stored overnight at the project site should 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 any kit fox are found, work will stop and USFWS and CDFW will be contacted immediately to determine how to proceed.

BIO-5 Prior to, during, and after the site disturbance and/or construction phase, use of pesticides or herbicides should be in compliance with all federal, state, and local 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.

BIO-6 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 should 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 should immediately notify USFWS and CDFW by telephone. In addition, formal notification should be provided in writing within 3 working days of the finding of any such animal(s). Notification should include the date, time, location, and circumstances of the incident. Any threatened or endangered species found dead or injured should be turned over immediately to CDFW for care, analysis, or disposition.

BIO-7 Prior to final inspection, should any long internal or perimeter fencing be proposed or installed, the City should do the following to provide for kit fox passage:

a. If a wire strand/pole design is used, the lowest strand should be no closer to the ground than 12 inches.

b. If a more solid wire mesh fence is used, 8 × 12-inch openings near the ground should be provided every 100 yards.

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

BIO-8 Prior to site disturbance, the CRZ of all oak trees with a DBH of 6 inches or greater must be fenced to protect from construction activities.

BIO-9 During the site disturbance and/or construction phase, grading, cutting, or filling within 5 feet of a CRZ of all oak trees with a DBH of 6 inches or greater must be supervised by a certified arborist approved by the City. Such activities beyond 5 feet of a CRZ must be monitored to ensure that activities are in accordance with approved plans. Root pruning outside of the CRZ must be done by hand.

BIO-10 Oil, gasoline, chemicals, or other construction materials potentially harmful to oak trees may not be stored in the CRZ of any oak tree with a DBH of 6 inches or greater.

BIO-11 Drains shall be installed according to City specification so as to avoid harm by excessive watering to oak trees with a DBH of 6 inches or greater.

BIO-12 Landscaping within the CRZ of any oak tree with a DBH of 6 inches or greater is limited to indigenous plant species or non-plant material, such as cobbles or wood chips.

BIO-13 Wires, signs, or other similar items shall not be attached to oak trees with a DBH of 6 inches or greater.

BIO-14 For each oak tree removed (DBH of 6 inches or greater), a tree or trees of the same species must be planted with a combined DBH of 25% of the removed tree's DBH within the property's boundary.

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Appendix A.
Project Plans

ALL DATA SHOWN IS APPROXIMATE AND CONCEPTUAL USE

WALLACE GROUP®
March 19, 2015

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Appendix B.
Photo Documentation

PHOTO 1:

View of the topography of the property looking southeast. The existing residence is at right and a mature valley oak tree is at left.

Note the tilled land with sparse vegetation.

Photo taken on May 6, 2015.

PHOTO 2:

View of the topography of the property looking south. The existing dog kennels are at right.

Photo taken on May 6, 2015.

PHOTO 3:

View from the middle of the property facing south. A mature valley oak tree at right is within the BSA but outside of the proposed construction area.

Photo taken on May 6, 2015.

PHOTO 4:

View of the dog kennels located within the BSA.

Note the sparse vegetation within the ruderal and developed areas of the BSA.

Photo taken on May 6, 2015.

Appendix C.
San Joaquin Kit Fox Habitat Evaluation Form

Kit Fox Habitat Evaluation Form

[(guidelines)]

Cover Sheet

Project Name Residence Inn - Union Road

Date 02.03.16

Project Location* 2940 Union Road, Paso Robles, CA 93446

*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)

35.643193, -120.650175

Project Description:

Project Size 5.4 **Acres** **Amount of Kit Fox Habitat Affected** 2.5 **Acres**

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

WHR type Ruderal 2.5 Acres

WHR type ____________ ______ Acres

WHR type ____________ ______ Acres

WHR type ____________ ______ Acres

Comments: Parcel is 5.4 acres. 1.6 acres is already developed. Of the total impact area (3 acres), only 2.5 acres of undeveloped land would be permanently impacted by development-related activities.

Form Completed By: Jackie Hancock, SWCA Biologist &
Jon Claxton, SWCA Natural Resources Team Leader

Rev 3/02
G:envdiv/forms/kit fox habitat

San Joaquin Kit Fox Habitat Evaluation form

Is the project area within 10 miles of 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 core population (15)
   C. Project area is identified within satellite populations (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 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 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. Increased mortality likely (10)
~~B.~~ Unknown mortality effects (5)
C. No long term effect on mortality (0)

Revised 03-02

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 10
2. Habitat condition 7

3.	Isolation	10
4.	Mortality	5
5.	Quantity of habitat impacted	1
6.	Project results	10
7.	Project shape	10
8.	Recent observations	0

TOTAL 53

Revised 03/02-lpd

A & T ARBORISTS
P.O. BOX 1311 TEMPLETON, CA 93465 (805) 434-0131

CERTIFIED ISA ARBORIST

Tree Preservation Plan For

Residence Inn By Marriot

RECEIVED
FEB 25 2016
City of Paso Robles
Community Development Dept.

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 #____________

Project Description: This project involves constructing a new Marriot hotel at the site of the current dog kennel close to where Highway 46 and Union Road intersect. There are three valley oaks on the property with one towards the front of the property, one smaller tree interspersed with non-natives, and the other towards the rear. The tree near the front of the property is in very good condition and is should really be saved. The one at the rear is in decline. The rear tree has very significant decay in the main trunk and will most likely fail in the next few years. Not much can really be done as far as trimming because the canopy is very stressed as it is. The tree is completely out of the construction zone and can probably be left as it is. The one smaller tree proposed for removal will have to be mitigated by planting two 1.5 inch caliper 24" box trees.

Specific Mitigations Pertaining to the Project: Tree protection fencing needs to be up and erect prior to any construction or demolition. Tree #895 (front tree) should be pruned professionally by a trained arborist as it will be a focal tree of the development.

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.

All trees potentially impacted by this project are numbered and identified on both the grading plan and the spreadsheet. Trees are numbered on the grading plans and in the field with an aluminum tag. Tree protection fencing is shown on the grading plan. Both critical root zones and drip lines are outlined on the plans.

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.

Tree Rating System

A rating system of 1-10 was used for visually establishing the general health and condition of each tree on the spreadsheet. The rating system is defined as follows:

Rating	Condition
0	Deceased
1	Evidence of massive past failures, extreme disease and is in severe decline.
2	May be saved with attention to class 4 pruning, insect/pest eradication and future monitoring.
3	Some past failures, some pests or structural defects that may be mitigated by class IV pruning.
4	May have had minor past failures, excessive deadwood or minor structural defects that can be mitigated with pruning.
5	Relatively healthy tree with little visual, structural and/or pest defects and problems.

6	Healthy tree that probably can be left in its natural state.
7-9	Has had proper arboricultural pruning and attention or have no apparent structural defects.
10	Specimen tree with perfect shape, structure and foliage in a protected setting (i.e. park, arboretum).

Aesthetic quality on the spreadsheet is defined as follows:

- **poor** - tree has little visual quality either due to severe suppression from other trees, past pruning practices, location or sparse foliage
- **fair** - visual quality has been jeopardized by utility pruning/obstructions or partial suppression and overall symmetry is average
- **good -** tree has good structure and symmetry either naturally or from prior pruning events and is located in an area that benefits from the trees position
- **excellent** - tree has great structure, symmetry and foliage and is located in a premier location. Tree is not over mature.

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.

1. It is the responsibility of the **owner or project manager** to provide a copy of this 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.

2. 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.

3. **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:

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

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. A **Mandatory** meeting between the arborists and grading 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.
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.

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.

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 times during these activities. It is the responsibility of the **owner(s) 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.

- pre-construction fence placement inspection
- 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 earth moving team 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 landscape within the critical root zone shall consist of drought tolerant or native varieties. Lawns shall be avoided. All irrigation trenching shall be routed around critical root zones, otherwise above ground drip-irrigation shall be used. It is the owner's responsibility to notify the landscape contractor regarding this mitigation.

Utility Placement: All utilities, sewer and storm drains shall be placed down the roads and driveways 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.

Fertilization and Cultural Practices: As the project moves toward completion, the arborist(s) may suggest either 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.

The included spreadsheet includes 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 be no 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

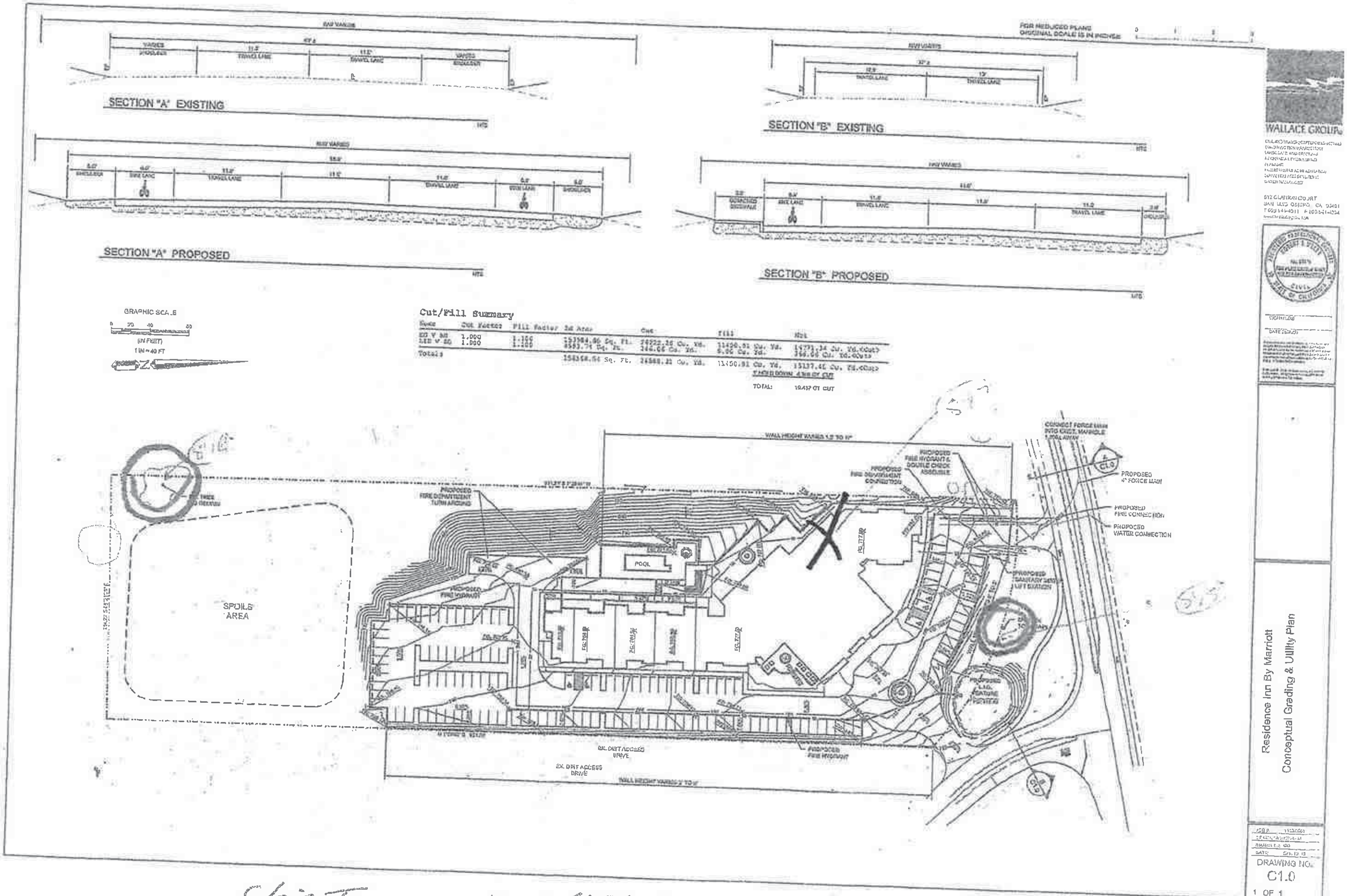
Chip Tamagni
Certified Arborist #WE 6436-A

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
895	VO	*Q. lobata*	30	5	I	10%	FILL	F	NO	II	good	healthy tree	50/50	none
896	VO	*Q. lobata*	40	1	A	0%	NONE	F	NO		fair	sever decay	40/30	none
897	VO	*Q. lobata*	11	4	R	100%	GR	NONE	NO		fair		15/15	

1 = TREE #: MOSTLY CLOCKWISE FROM DUE NORTH
2 = TREE TYPE: COMMON NAME IE.W.O.= WHITE OAK
3= SCIENTIFIC NAME
4 = TRUNK DIAMETER @ 4'6"
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:**G**RADING, **C**OMPACTION, **TR**ENCHING
9 = MITIGATION REQUIREMENTS: **F**ENCING, **M**ONITORING,**R**OOT**P**RUNING,
10 = ARBORIST MONITORING REQUIRED: YES/NO
11 = PERSCRIBED PRUNING: CLASS 1-4
12= AESTHETIC VALUE
12 = FIELD NOTES
13= NORTH SOUTH/ EAST WEST CANOPY SPREAD

14= NORTH, SOUTH, EAST,WEST
15= LONG TERM SIGNIFIANT IMPACT



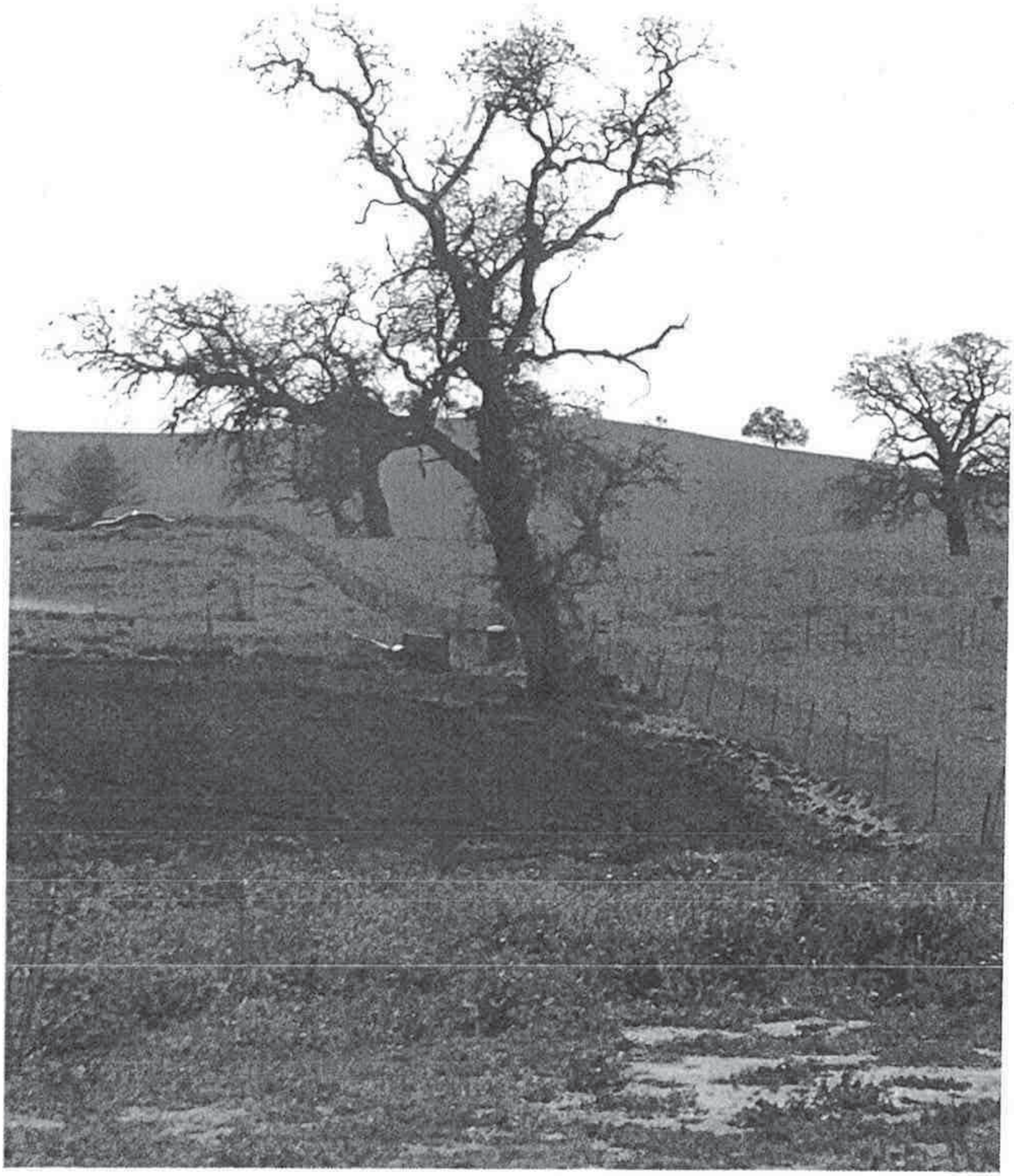
Chip Tamagni #WE 6436-A

O = critical root zone

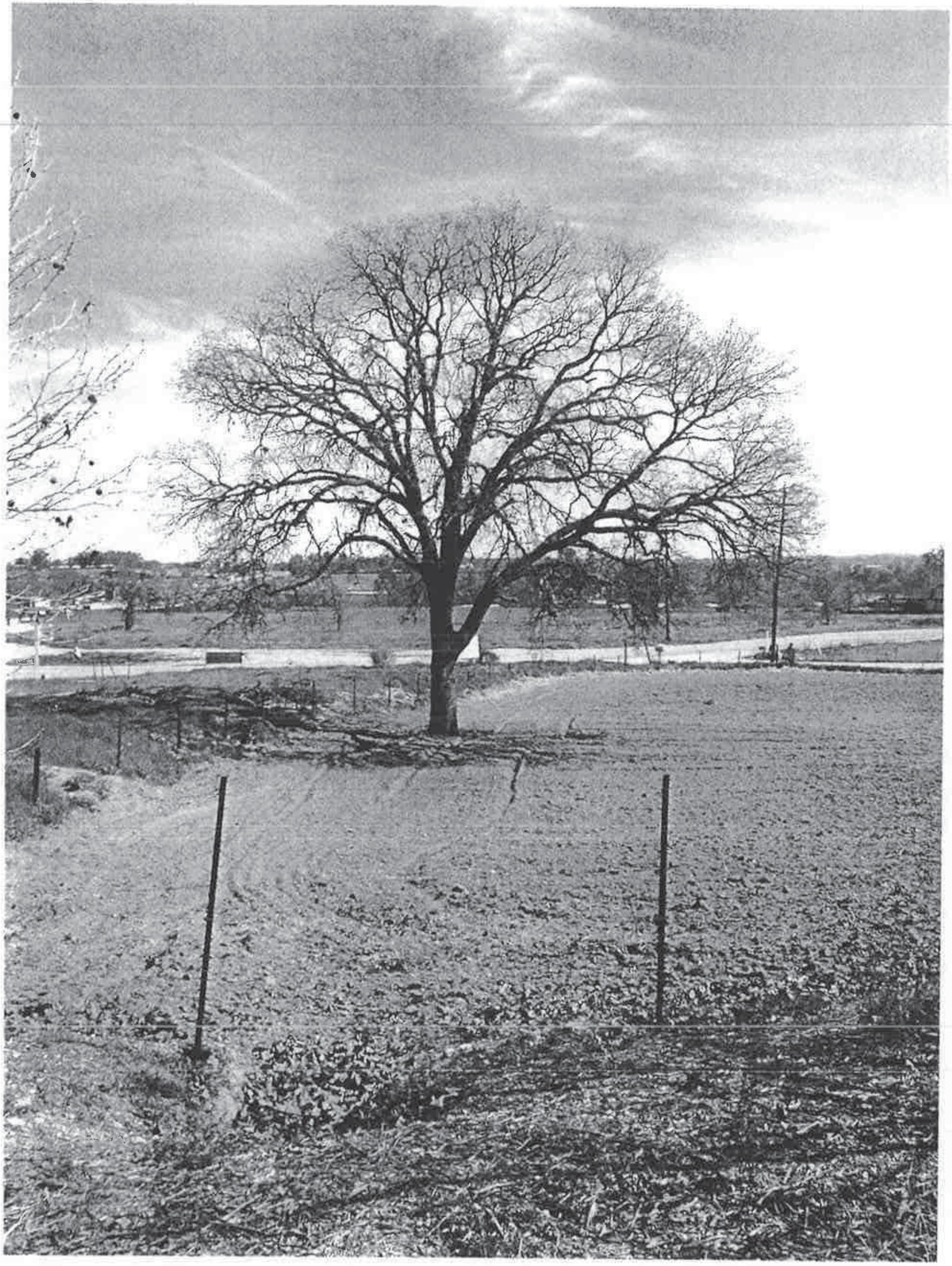
O = protective fencing

#897

#896



#895



An Archaeological Surface Survey for the Residence Inn Project, 2940 Union Road, Paso Robles, San Luis Obispo County, California

Prepared for:

Wallace Group
612 Clarion Court
San Luis Obispo, CA

Prepared by:

Thor Conway
Heritage Discoveries Inc.
836 Mission Street
San Luis Obispo, CA 93405

June 20, 2015

Summary of Findings

An archaeological surface survey was completed for the Residence Inn project at 2940 Union Road in Paso Robles in northern San Luis Obispo County. This project included an intensive archaeological surface survey of the parcel. The surface survey produced negative results for the presence of cultural resources. A records search determined that nearby areas had been surveyed previously also with negative results. Recommendations are given that no further cultural resource studies should be required for this project.

Table of Contents

List of Figures

Introduction

This report describes an archaeological surface survey completed on May 13, 2015 in response to plans for a commercial development at a property at 2940 Union Road near Highway 46 in Paso Robles in northern San Luis Obispo County (Figure 1). The study was done to determine whether prehistoric or historic cultural resources were present in the project area.

Alison Devereaux of Heritage Discoveries Inc., San Luis Obispo completed the field survey. The archaeological survey report was prepared by Thor Conway for the Wallace Group of San Luis Obispo. Project plans and background information were provided by Glenn Rider of the Wallace Group in San Luis Obispo.

Sources Consulted

A search was made for pertinent background information relating to prehistoric and historic land use in the project area. Archaeological records from the Central Coast Information Center of the California Historical Resources Information System at the University of California at Santa Barbara included recorded archaeological sites and surveys within a one-quarter mile radius of the study area. The results showed that the specific study area had not been subject to previous archaeological surveys. Numerous other archaeological surveys, subsurface testing projects and mitigation excavations have taken place nearby in the Paso Robles area (Gibson 1975 & 1980; Conway 2001).

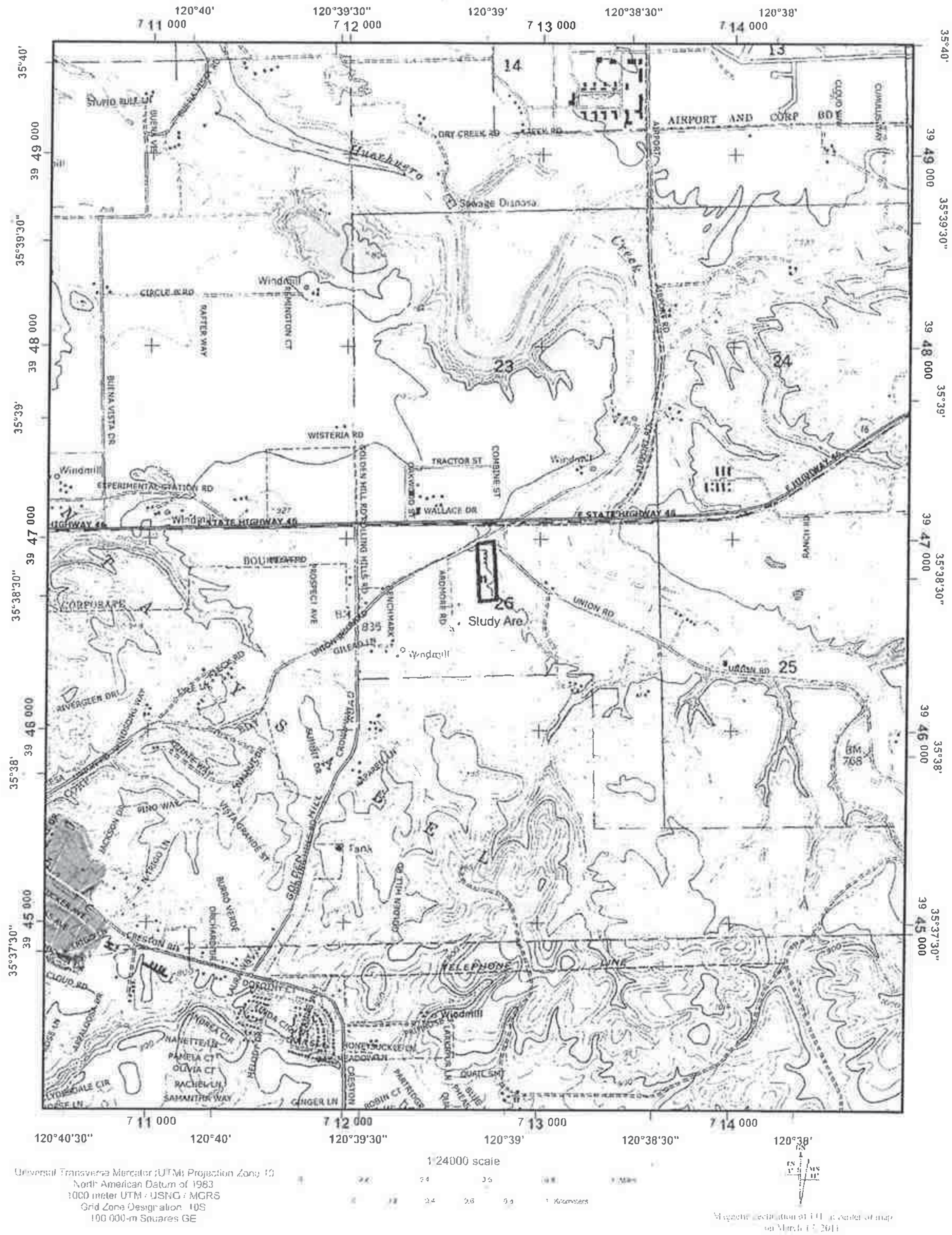


Figure 1—Location of the Union Road project [red rectangle] archaeological survey area in Paso Robles.

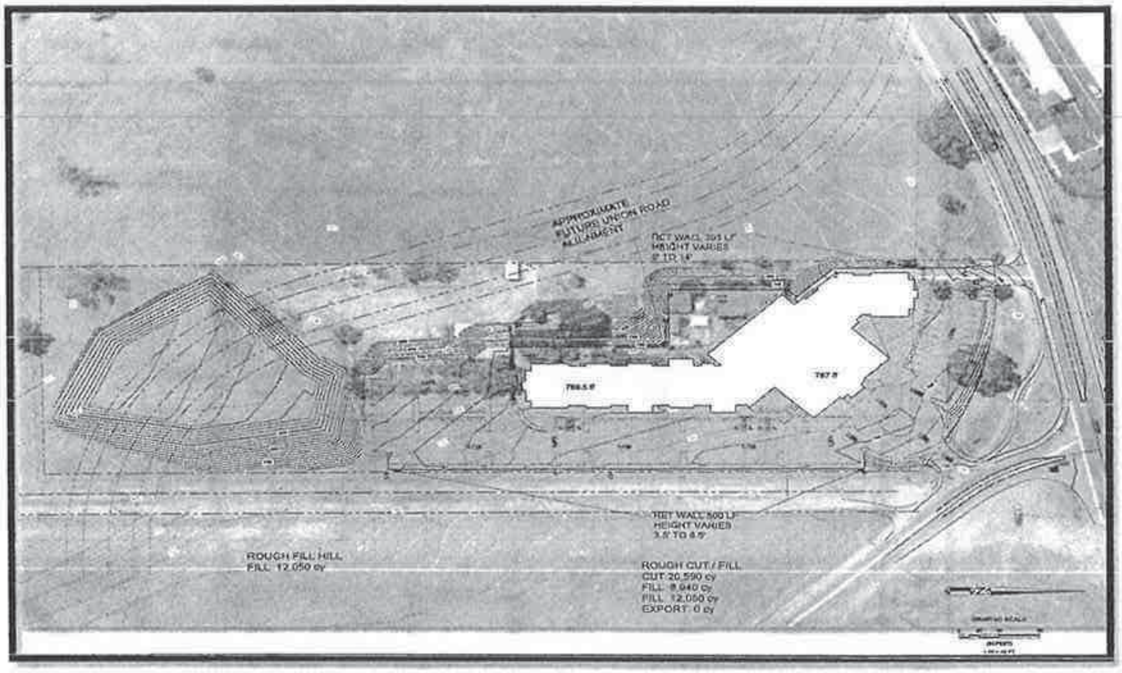


Figure 2—Site plan and development proposal for the Union Road project in Paso Robles.

Ethnography

Most of San Luis Obispo County, including all of the project area, was home to the Northern Chumash, or *Obispeno*, for over 9,000 years (Grant 1978). The earliest recorded visit to an *Obispeno* village took place in 1595 when the Spanish sailed into San Luis Obispo Bay under the command of Cermeno. He anchored in front of the premiere village named *Sepjato* which was located at the mouth of San Luis Obispo Creek on the hill now occupied by the San Luis Bay Inn. The Spanish account noted that these Indians "... are fishermen and there is fish and some shell–fish with which they sustain themselves"—a statement which applied to the descendants of this village who resided at the San Luis Obispo mission two hundred years later (Wagner 1929: 161).

By the time of the Spanish expansion into California at the end of the 1700's, Chief Buchon lived at *Sepjato* and held the status of a grand–chief leader of several villages in the greater San Luis Obispo area from Avila to Pismo Beach to Morro Bay.

The area re–entered the historic era on September 1st, 1772 when the first mission was founded beside San Luis Obispo Creek. This first mission within Chumash territory gradually expanded in size and importance. In its first decade, some *Obispeno* Chumash were dissatisfied with the mission and attempted to burn it down (Kocher 1972). The influence of the mission increased in the 1780's when Pedro Fages reported that the Indians at the San Luis Obispo mission "...have readily adapted themselves to what it was sought to teach them" (Englehardt 1933: 39).

Judging from the mission records listing the number of Indians recruited by this mission, in 1803 most of the numerous *Obispeno* Chumash groups had moved away from their traditional villages to the vicinity of the mission (King 1984: 14).

Archaeological Background

San Luis Obispo County was home to the Northern Chumash, or *Obispeno*, for over 9,000 years. Archaeologists have established a detailed cultural chronology based upon excavations and site surveys across the county. Archaeologists have recorded over 2,400 archaeological sites in San Luis Obispo County, although many of these heritage resources have been destroyed or damaged by development.

The prehistory of the Northern Chumash follows the same chronological outline of three basic periods sub-divided into numerous phases established for the Santa Barbara region (King 1981). The main periods—Early, Middle, and Late—cover over 9,000 years of social, economic, and technological adaptations to central and southern California's climate and resources.

The Early Period generally dates between 7,500 B.C. for the Northern Chumash, a site at Diablo Canyon, CA-SLO-2, was dated to the era between 8,900 and 9,300 years ago (Greenwood 1972). The important Lodge Hill site in Cambria also has a substantial Early Period component which has been radiocarbon dated to 8,000 years ago. It shows extensive use of local raw materials and coastal marine food resources (Pierce 1979; Gibson 1979b; Conway 1995). At least 37 Early Period sites have been recorded in San Luis Obispo County (Gibson 1994).

Early Period sites often contain milling stones and manos indicating extensive use of seed plants. A basic array of rectangular shell bead ornaments also occurs throughout the Early Period. Village life was organized with formal cemeteries and specialized resource sites being used.

The Middle Period of Chumash prehistory spans the centuries between 500 B.C. and 1150 A.D. At this point in time, Chumash society shifted into a very organized state with hereditary rights to political and religious power. Artifact types change in the Middle Period and shell ornaments become more diverse. An important economic adaptation, the use of acorns, is indicated by the decline in milling stones and the increased use of mortars and pestles. Populations in size and trade networks become very well established.

The Late Period covers the years between 1150 A.D. and 1805 A.D. Economic changes continued within the Chumash world. Bead jewelry indicates that there were divisions in wealth between family lines. Money was invented and extensively used as an indication of political as well as economic power. The long process of localized adaptation evident throughout Chumash prehistory became even more established. With the arrival of the Spanish, especially after 1769 A.D., rapid changes altered Chumash political and economic achievements as well as reducing the size of the population. By the end of the Mission era, the Chumash continued to live on their ancestral lands; but their former cultural achievements ere largely changed forever. Many contemporary Chumash maintain spiritual and cultural links to their rich heritage.

Paso Robles Area Archaeology

Many archaeological surveys and test excavations have been done in northern San Luis Obispo County showing that archaeological sites are widespread throughout the area; but larger prehistoric settlements are clustered along the Salinas River Valley. In the vicinity of modern Paso Robles, several hot springs were once located at the Salinas River; and prior to damming, the river offered an important seasonal fishery to aboriginal groups as well as later settlers.

The greater Paso Robles, Templeton and Atascadero areas have strong cultural importance, since the border between traditional Northern Chumash lands and the Salinan tribal territory is located nearby. Originally, California researchers placed the division between these groups at the Santa Lucia Mountain Range just north of San Luis Obispo. As mission records were examined for more details, it became apparent that the Northern Chumash once lived along the upper Salinas River. A series of villages and hamlets were located near the river or along tributary streams.

Several archaeological studies completed near the study area help to define regional settlement and chronologies. The Woodland Plaza site (CA-SLO-992) was discovered during an archaeological survey in 1980 (Gibson 1980). Ten years later, archeological testing and mitigation were done in advance of commercial developments of the property (Singer, Gibson, & Atwood 1990). The excavations and controlled surface collections at CA-SLO-992 revealed a prehistoric Chumash site with two areas of archaeological deposits. The main habitation area occurred on the western part of the site nearer to the Salinas River and the creek mouth. Further east, indications of a stone tool workshop area were documented.

History

The greater Paso Robles area grew during the late 19th century into a center of agricultural and other commerce (Angel 1883). When the railroad reached the community, agricultural products were shipped to distant markets.

Archaeological Records Search

An archaeological records search was made at the Central Coast Information Center at UCSB in Santa Barbara (Appendix A). The search showed four previous archaeological surveys situated within a one-quarter mile radius of the Union Road study area.

A surface survey located immediately northwest of the study area produced negative results (Dills 1975). Another Phase I survey at a property east and southeast of the study area had negative results (Singer & Atwood 1988). A Phase I survey yielder negative results less than one-quarter mile northeast of the study area (Singer 2000).

Another archaeological survey located north and northeast of the study area including the northern end of the current study area had negative results (Glover et al. 1999).

Phase I Survey Results

A detailed archaeological surface survey was made for the property at 2940 Union Road in Paso Robles on May 13, 2015 by walking the project area at two to three meter intervals (Figure 2). The study area covers approximately five acres and starts at Union Road just west of Highway 46 and extends east through fields (APN 025-362-004). Alison Devereaux completed the fieldwork. The project area was clearly defined by fences as well as survey markers. Visibility for the surface survey was very good with over 80% visibility.

The parcel is a moderately sloped open lot with a developed knoll on the west/northwest section of the lot. The survey was conducted from 8am to 10:30am on May 13th, 2015 with clear weather conditions. A standard surface survey using two to three meter spacing was conducted in a south to north transect pattern on the eastern portion of the lot, and a west to east transect pattern on the western portion of the lot. Ground visibility was good to excellent, with approximately 80 to 90% visibility. Some moderate vegetation was noted on the southwestern portion of the lot as well as household and irrigation debris near the residence on the knoll.

Heavy machinery ground disturbances and horse activity disturbances were noted throughout the entirety of the lot. It appears that the lot is frequently tilled and used as a horse exercise area. Currently, a residence and dog-boarding kennel are located on the western knoll, and the area is heavily developed with an asphalt parking lot and concrete dog kennels. The private residence and dog kennels were not surveyed.

Although naturally occurring Franciscan and Monterey cherts of varying sizes were identified throughout the parcel, none of it appeared to be culturally altered. No signs of shell, bone, other lithic materials or midden were noted during the survey. No prehistoric resources were identified.

Some possible historic trash debris was noted, including multiple pull-tab beer cans (circa 1960s-1970s), a single porcelain fragment, a piece of milk glass, as well as a few bottle glass fragments with iridescence and opaque weathering. None of the items were diagnostic, so specific dating was not possible. No other signs of historic debris or deposits were noted.

The Union Road realignment was surveyed within this parcel, as well as on the southern and western sections. No additional resources were identified.

Cultural materials were not present anywhere at the Union Road study area. Prehistoric materials were not found. A very small, insignificant number of historic era artifacts more than fifty years old were found during the Phase I archaeological surface survey.

Figure 3—The archaeological survey area facing northwest showing tilled fields.

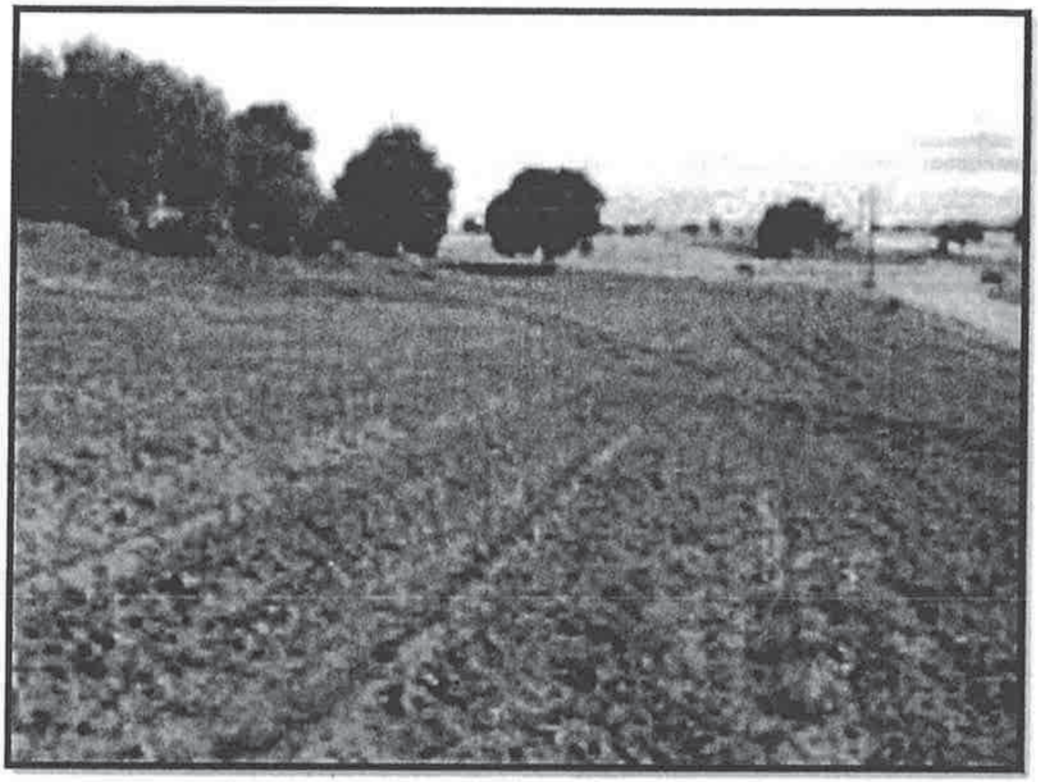


Figure 4—The archaeological survey area facing east showing survey coverage.

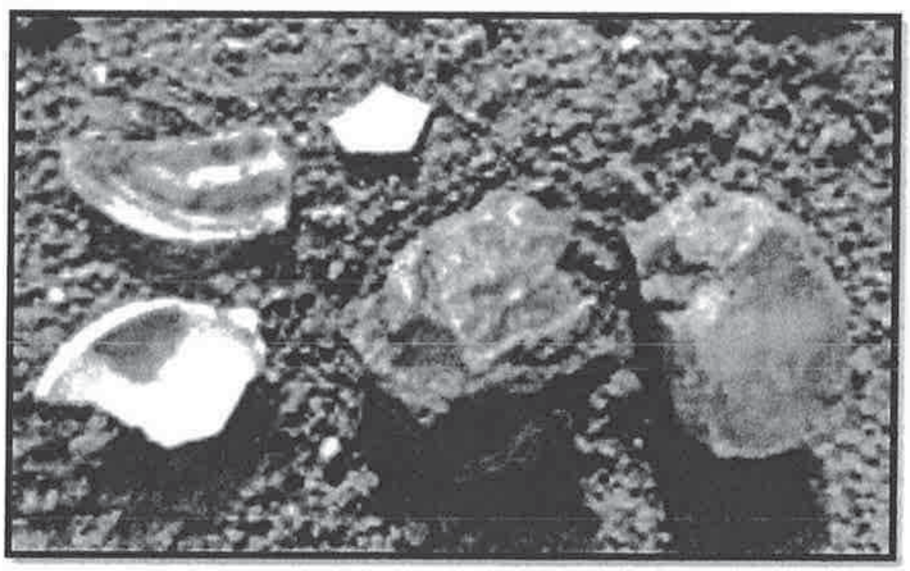


Figure 5—Naturally occurring chert fragments and historic debris examples.

Findings & Conclusions

The archaeological surface survey of the study area at 2940 Union Road in Paso Robles did not find archaeological remains. The literature search and the results of previous nearby projects also suggest that the general area did not have geographical features to attract prehistoric settlement.

Recommendation—Based on the negative results of the intensive surface survey and the negative results of the records search, it is recommended that no further cultural resource studies be required for this project.

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Appendix A—Archaeological Records Search

California
Archaeological
Inventory

SAN LUIS OBISPO AND
SANTA BARBARA COUNTIES

Central Coast Information Center
Department of Anthropology
University of California, Santa Barbara
Santa Barbara, CA 93106-3210
(805) 893-2474
FAX (805) 893-8707
centralcoastinfo@gmail.com

6/8/2015

Thor Conway
Heritage Discoveries Inc.
836 Mission Street
San Luis Obispo, CA 93405

Re: Union Road

The Central Coast Information Center received your record search request for the project area referenced above, located on the Paso Robles USGS 7.5' quad(s). The following reflects the results of the records search for the project area and a one-quarter mile radius:

As indicated on the data request form, the locations of reports and resources are provided in the following format: ■ custom GIS maps ☐ shapefiles ☐ hand-drawn maps ☐ none

Resources within project area:	None
Resources within 1/4-mile radius:	None
Reports within project area:	E-4020
Reports within 1/4-mile radius:	E-8, -486, -1601, -4246, -5571

Resource Database Printout (list):	☐ enclosed	☐ not requested	■ nothing listed
Resource Database Printout (details):	☐ enclosed	■ not requested	☐ nothing listed
Resource Digital Database Records:	☐ enclosed	■ not requested	☐ nothing listed
Report Database Printout (list):	■ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	■ not requested	☐ nothing listed
Report Digital Database Records:	☐ enclosed	■ not requested	☐ nothing listed
Resource Record Copies:	☐ enclosed	■ not requested	☐ nothing listed
Report Copies:	☐ enclosed	■ not requested	☐ nothing listed
OHP Historic Properties Directory:	☐ enclosed	■ not requested	☐ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	■ not requested	☐ nothing listed

CA Inventory of Historic Resources (1976):	☐ enclosed	■ not requested	☐ nothing listed
Caltrans Bridge Survey:	☐ enclosed	■ not requested	☐ nothing listed
Ethnographic Information:	☐ enclosed	■ not requested	☐ nothing listed
Historical Literature:	☐ enclosed	■ not requested	☐ nothing listed
Historical Maps:	☐ enclosed	■ not requested	☐ nothing listed
Local Inventories:	☐ enclosed	■ not requested	☐ nothing listed
GLO and/or Rancho Plat Maps:	☐ enclosed	■ not requested	☐ nothing listed
Shipwreck Inventory:	☐ enclosed	■ not requested	☐ nothing listed
Soil Survey Maps:	☐ enclosed	■ not requested	☐ nothing listed

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of California Historical Resources Information System (CHRIS) data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the CHRIS.

Sincerely,

Brian Barbier
Assistant Coordinator

TABLE 6
PASO ROBLES MUNICIPAL AIRPORT LAND USE COMPATIBILITY MATRIX [1,2,3]

	Zone 1	Zone 2[4]	Zone 3[4]	Zone 4[4]	Zone 5	Zone 6
Agriculture & Animal Keeping						
Crop production including dry and irrigated farming	O[5]	O	O	O	O	O
Truck Farming, Specialty Crops, Orchards, Vineyards, Landscape Nurseries, Greenhouses	X	O	O	O	O	O
Crop Processing & Packaging, Wineries	X	O	O	O	O	O
Pasture and Rangeland Grazing	O[5]	O	O	O	O	O
Hogs, Dairies, Bee Keeping	X	O	O	O	O	O
Commercial Poultry	X	X	X	X	X	O
Fish Farms, Game Preserves	X	O[6,7,8]	O[8,16]	O[8,15]	O	O
Feed Lots, Stockyards, Sales Yards	X	O[6,7,8]	O[8,16]	O[8,15]	O	O
Animal Hospital, Veterinary Clinic, Kennels, Pet Boarding, Equestrian Facilities, Exotic Animals	X	O[6,7,8]	O[8,16]	O[8,15]	O	O
Roadside Stands, Farmers Markets	X	O[6,7]	O[16]	O[15]	O	O
Residential[9]						
Single Family Residential	X	X	X	X	X	X
Multi-Family Residential, Mobile Home Parks	X	X	X	X	X	X
Group Homes, Convalescent Facilities, Nursing Homes	X	X	X	X	X	X
Secondary Residence (1,200 square feet or less)	X	X	X	X	X	X
Caretaker Unit (1,200 square feet or less)	X	O	O	O	O	O
Institutional, Public & Quasi-Public						
All Schools, Hospitals, Correctional Facilities	X	X	X	X	X	O
Libraries, Day Care Centers, Social Clubs/Lodges, Churches	X	X	X	X	X	O
Parks, Playgrounds, Picnic Areas	X	O[6,7]	O[16]	O[15]	O	O
Athletic Fields	X	O[6,7]	O[16]	O[15]	O	O
Cemeteries – People or Pets	X	O	O	O	O	O
Public Utility Facilities (except Electric Plants)	O[10]	O[7]	O[7]	O[7]	O	O
Electric Power Plants and overhead transmission lines	X	X	X	X	X	X
Communications						
Broadcast Studios	X	O	O	O	O	O
Transmission Stations, Towers, Antennas	X	X	X	X	X	X
Resource Extraction						
Mining – Sand, Gravel, Fill Dirt	X	X	X	X	O	O

TABLE 6 (continued)
PASO ROBLES MUNICIPAL AIRPORT LAND USE COMPATIBILITY MATRIX [1,2,3]

	Zone 1	Zone 2 [4]	Zone 3 [4]	Zone 4 [4]	Zone 5	Zone 6
Commercial Recreational						
Arcades, Bowling Alleys, Skating Rinks, Dance and Pool Halls, Card Rooms, Gyms, Health Spas, Indoor Theaters and Auditoriums	X	X	O [16]	O [15]	O	O
Outdoor Theaters, Amusement Parks, Carnivals, Fairs	X	X	O [16]	O [15]	O	O
Golf Courses, Tennis Courts	X	O [6,7]	O [16]	O [15]	O	O
Swimming Pools, Water Slides	X	X	O [16]	O [15]	O	O
Retail Commercial						
Aircraft Fuel, Aircraft Sales and Aircraft Repairs, Flying Schools	X	X	X	X	X	X
Vehicles and Parts Sales, Building Materials, Food and Beverage Sales	X	O [6,7]	O [16]	O [15]	O	O
Shopping Centers	X	X	X	X	O	O
Banks	X	X	O [16]	O [15]	O	O
Gasoline Service Stations	X	X	O [16]	O [15]	O	O
Restaurant and Food Take-Out, General Retail Stores, Tasting Rooms	X	X	O [16]	O [15]	O	O
Convention Centers	X	X	O [16]	O [15]	O	O
Fuel Dealers, Fuel Storage	X	O [12]	O [12]	O [12]	O	O
Service Commercial						
Office Buildings, Public Buildings, Research Laboratories	X	X	O [16]	O [15]	O	O
Appliance and Equipment Repair, Car Wash	X	O [6,7]	O [16]	O [15]	O	O
Personal Services, Health Clinics	X	X	O [16]	O [15]	O	O
Recycling	X	O [6,7,13]	O [13,16]	O [13,15]	O	O
Transient Lodgings						
Hotels and Motels,	X	X	O [16]	O [15]	O	O
RV Parks	X	X	X	X	O	O
Wholesale & Storage						
Mini-Storage	X	O [6,7]	O [16]	O [15]	O	O
Warehouse, Wholesale and Distributing	X	O [6,7]	O [16]	O [15]	O	O
Petroleum and Chemical Products – Bulk Storage	X	O [12]	O [12]	O [12]	O	O
Manufacturing & Processing						
Indoor Processes	X	X	O [16]	O [15]	O	O
Outdoor Fabrication Yards	X	X	O [16]	O [15]	O	O
Transportation						
Vehicle Storage and Parking	X	O [6,7]	O [16]	O [15]	O	O
Taxi Stands, Bus Stations/Terminals	X	O	O	O	O	O
Truck Terminals	X	O	O	O	O	O

Notes to Table 6:

1. Land use groups are identified as being "compatible" or "prohibited" using the following interpretations:

   Compatible – Compatible land uses are designated in the Land Use Matrix by the symbol "O". The associated land use groups are at a level of intensity or density, or location, which is not considered to present a significant risk to the safety of persons on the ground or to persons in aircraft overflying the proposed use, nor are the land use groups sensitive to anticipated aircraft noise or frequent aircraft overflights.

   Prohibited – Prohibited land uses are designated in the Land Use Matrix by the symbol "X". The associated land use groups are at a level of intensity or density, or location, which presents a significant risk to the safety of persons on the ground or to persons in aircraft overflying the proposed use, or the land use groups are sensitive to anticipated aircraft noise or frequent aircraft overflights.

2. Review of a proposed local action by the ALUC is not required if the proposed local action is consistent with the Land Use Matrix and does not entail adoption of or an amendment to a general plan, specific plan, zoning ordinance, or building regulations unless such review is desired by the referring agency. If a prohibited land use is the proposed local action, it is considered to be inconsistent with this plan and is subject to review by the ALUC whether or not approval of the proposed land use entails adoption of or an amendment to a general plan, specific plan, zoning ordinance, or building regulations. See Section 6, Procedural Policies.

3. All uses that constitute a hazard to flight, including tall physical objects, glare or other visual interference to a pilot and electronic interference with aircraft operations are specifically excluded from these zones regardless of whether they meet other qualifying criteria, unless such prohibition is precluded by applicable state statutes. Land use development that may cause the attraction of birds is also prohibited. Dedication of an avigation easement to the Airport is required of all new development within the Airport Planning Area.

4. In locations along portions of existing or proposed instrument approach procedure routes, restrictions of object heights to less than indicated by FAR Part 77 may be necessary so as not to impair the utilization of these procedures. The applicable criteria are set forth in the United States Standard for Terminal Instrument Procedures (TERPS). Review of objects relative to these criteria normally is conducted by the FAA as part of aeronautical studies.

5. Allowed as a temporary use of Airport lands provided the activity does not interfere with Airport operations.

6. The use intensity of this activity shall not exceed an average of 20 persons per gross acre, maximum 40 persons per single acre, at any time. Usage calculations shall include all people (e.g., employees, customers/visitors, etc.) who may be on the property at any single point in time, whether indoors or outside.

7. No structures, congregations of equipment or vehicles, or public venues shall be located within 250 feet of the extended runway centerlines in Zone 2.

   The ALUC generally supports clustering of both residential and non-residential development as a means for both enhancing safety compatibility in the vicinity of airports and accomplishing other development objectives. Clustering occurs when development on a site or within an overall compatibility zone is concentrated in only a portion of the area and the remaining area is held to a low-intensity usage such as agriculture, landscaping, or undeveloped open space.

8. Land uses that incorporate the use of any weapons or implements that would launch a projectile into the air other than animal tranquilizers are expressly prohibited.

9. As a general policy, new residential development is an undesirable land use within the Airport Planning Area (See Policy G-1, Section 4.3). (As such it is the intent of the ALUP to prohibit subdivision of land within the Planning Area, or changes to land use or zoning, in a manner that would accommodate additional dwelling units.) Existing parcels would, however, be entitled to be occupied by existing or new residential dwellings in accordance with General Plan and Zoning in effect as of January 1, 2005.

10. Allowed when the use is secondary to other acceptable land uses.

11. Allowed only to the extent that such uses support the flow of passengers and workers to and from the Airport.

12. For otherwise acceptable land uses, the limit for above-ground storage of hazardous materials is 2,000 gallons.

13. Allowed if dust, fumes, and other aspects of the process are carried out in a controlled environment

14. A compatible use only when the activity is an integral part of an acceptable on-Airport land use.

15. The use intensity of this activity shall not exceed an average of 40 persons per gross acre, maximum 120 persons per single acre, at any time. Usage calculations shall include all people (e.g., employees, customers/visitors, etc.) who may be on the property at any single point in time, whether indoors or outside.

16. The use intensity of this activity shall not exceed an average of 60 persons per gross acre, maximum 120 persons per single acre, at any time. Usage calculations shall include all people (e.g., employees, customers/visitors, etc.) who may be on the property at any single point in time, whether indoors or outside.

Stormwater Control Plan

for

The Residence Inn, Paso Robles, CA

December 7, 2015

Prepared For:

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Table of Contents

Tables

Figures

Attachments

This Stormwater Control Plan was prepared using the City of Paso Robles template dated 16 December 2013.

I. Project Data

This Stormwater Control Plan has been prepared as a part of the construction documents for the proposed Paso Robles Hotel: The Residence Inn. At this time, construction documents have been prepared. This Stormwater Control Plan has been prepared to demonstrate that drainage facilities proposed can provide post-construction treatment and retention meeting the requirements of Performance Requirement #4, and to demonstrate design of drainage facilities for the site.

Table 1. Project Data

Project Name/Number	Residence Inn Wallace Group Project Number 1180-0003
Application Submittal Date	[to be verified by municipal staff]
Project Location	2490 Union Road, Paso Robles, CA 93446 APN: 025-362-004
Project Phase No.	Project is not phased
Project Type and Description	Commercial Use: Four story hotel complex with pool area, landscaping and associated parking.
Total Project Site Area	5.51 Acres
Total New Impervious Surface Area	3.36 Acres
Total Replaced Impervious Surface Area	0.22 Acres
Total Pre-Project Impervious Surface Area	0.22 Acres
Total Post-Project Impervious Surface Area	3.36 Acres
Net Impervious Area	3.14 Acres
Watershed Management Zone(s)	WMZ 1
Design Storm Frequency and Depth	95^{th} Percentile Storm Depth = 1.43 inches.
Urban Sustainability Area	N/A

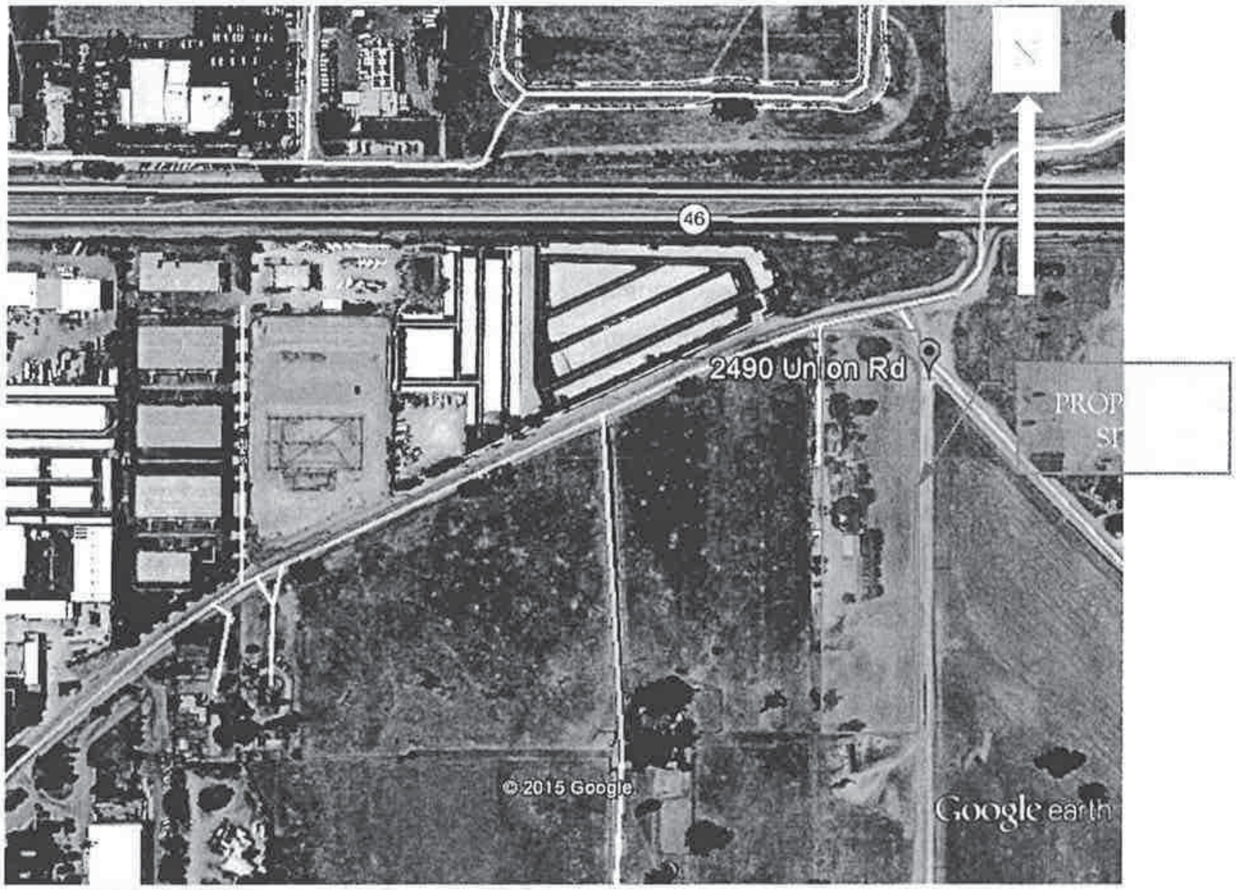
II. Setting

II.A. Project Location and Description

The project site is located at 2490 Union Road near its intersection with State Highway 46 in Paso Robles, California. The project located on APN: 025-362-004. There is an existing residence and pet boarding facility on site. Both of which will be removed in lieu of the new hotel complex.

The proposed project is a four story hotel to be constructed in one phase. The developer is the Excel Group, and the Hotel is set to be a Residence Inn. Refer to the vicinity map below for the project location. Additional details regarding the site layout, proposed building areas, and site parking are shown on the preliminary architectural and engineering drawings.

Figure 1: Vicinity Map



II.B. Existing Site Features and Conditions

The project site is characterized by gently sloping land draining to the north east, towards Union Road. The site is undeveloped with sparse vegetation. The project frontage is undeveloped with an unpaved shoulder and no curb, or gutter.

There are no existing water features on the project site (i.e. defined channels or springs). There are no existing City owned storm drain inlets in the vicinity of the project. The existing site does have buildings and paved surfaces that will be demolished to prepare for the new construction project.

Soil borings and infiltration testing was performed on the project site by Earth Systems Pacific on May 07, 2015. Earth Systems Pacific classified the site soils for hydrologic purposes as clayey sand, underlain with well graded sand. Both soil types have high rates of infiltration. NRCS soil classification for the site is HSG Rating C.

II.C. Opportunities and Constraints for Stormwater Control

The planned commercial land use will result in a large percentage of the site covered by new impervious surface, however, a planter strip in the southern parking lot and the northeast corner have been identified for low impact development (LID) features. The existing site drains in a sheet flow manner which is conducive to the decentralized LID approach. Based on the infiltration testing performed by Earth Systems Pacific the site soils will function for onsite retention.

II.D. Optimization of Site Layout

The site grading emulates the sheet flow characteristic of the site and the proposed site will mimic the existing drainage patterns.

II.D.1. Limitation of development envelope

The development envelope was limited to the area necessary for hotel operations and associated parking.

II.D.2. Preservation of natural drainage features

There are no existing drainage features on the project site.

II.D.3. Setbacks from creeks, wetlands, and riparian habitats

There are no creeks, wetlands, or riparian habitats within or near the project site.

II.D.4. Minimization of imperviousness

The proposed impervious surfaces are limited to the area necessary for hotel operations and associated parking.

II.D.5. Use of drainage as a design element

The project grading was designed to mimic the drainage patterns of the existing site. Some of the project parking areas will sheet flow to a low impact development feature and some of the areas will gravity flow in pipelines that outlet to the bioretention basin.

II.E. Use of Permeable Pavements

Some parking stalls in the southern area of the site are proposed to be constructed with pervious pavers, or pervious concrete.

II.F. Dispersal of Runoff to Pervious Areas

The project parking areas will sheet flow to low impact development features, and the roof drains will be routed to low impact development features.

II.G. Stormwater Control Measures

Proposed low impact development features include a drainage swale, a Contech CDS® hydrodynamic separator and a bioretention basin.

III. Documentation of Drainage Design

III.A. Descriptions of each Drainage Management Area

III.A.1. Table of Drainage Management Areas

Table 2. Summary of DMAs

DMA Name	Surface Type	Area (Acres)
DMA 1	Asphalt Driveways & Parking, Pervious Parking, & Landscaping	0.50
DMA 2	Pool, Spa, Landscaping, Back Courtyard, Roof, Asphalt Parking, Entrances & Landscaping	2.86
DMA 3	Remainder of the Site: Undeveloped/Self-Treating	2.15

III.A.2. Drainage Management Area Descriptions

DMA 1, totaling 0.50 acres, includes the south portion of the parking lot of the proposed site and building improvements. DMA 1 drains to SCM 1, then to SCM2.

DMA 2, totaling 2.86 acres, includes the remainder of the developed site: the pool, spa landscape and courtyard areas behind the proposed hotel, the roof of the hotel, the asphalt parking, the entrances and landscaping in the front of the hotel. DMA 2 drains to SCM 2.

DMA 3, totaling 2.15 acres, includes the undeveloped portion around the western portion of the site, and site soil spoils area to the south of the developed site. DMA 3 will be self-treating and drains to SCM 2.

III.B. Tabulation and Sizing Calculations

III.B.1. Information Summary for LID Facility Design

Total Project Area	5.51 Acres
Design Storm Depth	1.43 inches 95th Percentile 2.14 inches 2 yr. 24 hour 3.74 inches 10 yr. 24 hour
Applicable Requirements	Performance Requirements 2, 3, and 4

III.B.2. Self-Treating Areas

DMA 3 will be self-treating and left in a natural state post-construction.

III.B.3. Self-Retaining Areas

Table 3. Self-Retaining Areas

DMA Name	Area (Acres)
DMA 3	2.15

III.B.4. Areas Draining to Self-Retaining Areas

Not Applicable

III.B.5. Areas Draining to Bioretention Facilities

The following tables are based on the impervious area proposed in DMA.

Table 4. LID Facility Sizing Calculations (Retention Pond)

DMA Name	DMA Area (Acres)	Post-project surface type	DMA Runoff factor	DMA Area × runoff factor	SCM Name		
					LID Basin 1 (with sufficient freeboard)		
1 & 2	3.36	Impervious	1	3.36	SCM Sizing factor	Minimum SCM Size (Acre-Ft)	Proposed SCM Size (Acre-Ft)
Total>					1.0	0.126	0.126

The proposed retention stormwater control measures was designed to retain the 95th percentile storm event, in accordance with the Central Coast RWQCB Post-Construction Requirements and the City of Paso Robles' Stormwater Technical Guide. The facility is designed to fully drain within 48 hours. Refer to the attached Stormwater Control Measure Sizing Calculator for results.

The basin is proposed to be constructed in the natural low point of the site. Site storm water from the impervious areas will be routed to the basin through a Contech CDS® prior to entering the bioretention basin. The basin is designed without an outlet. Required storage volume to retain the 95th percentile storm will be achieved by surface storage and infiltration in the basin.

The basin provides 0.6' over a surface area of about 3,400 ft^2, or about 2,000 ft^3 for freeboard. Infiltration testing performed by Earth Systems Pacific indicates onsite infiltration rates of 29 to 194 inches per hour. Note, per the Geotechnical Engineer, since the pond will be six feet deep, and will pattern the data from infiltration tests B & D. (Tests A & C are shallower and can be discounted for the basin calculations.) The values for infiltration in tests B & D were then averaged. This averaged rate was used to calculate a conservative design infiltration rate of 2.41 inches per hour, using the Porchet Method. Refer to the attached calculations by Wallace Group, and report prepared by Earth Systems Pacific for documentation of infiltration testing.

III.B.6. Peak Flow Control

The proposed bioretention facilities will also serve to provide peak flow control, resulting in post-project peak flow rates equal to pre-project peak flow rates for the 2-year through 10-year storm. The attached calculations prepared using the computer program HydroCAD document the flow control performance of the basin. Peak flow rates are summarized in the table below.

Table 5. Peak Flow Summary

Storm Frequency	Pre-Development Peak Flow (cfs)	Post-Development Peak Flow (cfs)
2-year	0.97	0.72
10-year	3.58	3.78

The minor variance in post development peak flow will be mitigated during the final report. Once a decision is made on pond size, final calculations will be performed to balance the post construction peak flow to at or below peak flow pre construction.

IV. Source Control Measures

IV.A. Site activities and potential sources of pollutants

Refer to the summary table below.

IV.B. Source Control Table

Table 6. Sources and Source Control Measures

Potential source of runoff pollutants	Permanent source control BMPs	Operational source control BMPs
On-site storm/site drain inlets	Mark all inlets with the words "No Dumping! Flows to Bay" of similar.	Maintain and periodically repaint or replace inlet markings. Provide stormwater pollution prevention information to winery staff

Potential source of runoff pollutants	Permanent source control BMPs	Operational source control BMPs
Landscape, Outdoor Pesticide Use, Building and Grounds Maintenance	Landscaping was designed to minimize irrigation and runoff, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution	Maintain landscaping using minimum or no pesticides. Provide IPM information to landscape contractor.
Refuse Areas	The refuse area will be covered.	Inspect receptacles regularly. Prohibit/prevent dumping of hazardous wastes. Inspect and pick up litter and clean up spills immediately. Keep spill control materials available on-site.
Plazas, sidewalks, and parking lots.		Sweep regularly to prevent accumulation of litter and debris.

IV.C. Features, Materials, and Methods of Construction of Source Control BMPs

Landscape Design: The LID basin will be landscaped with a mixture of sedges and grasses. The remainder of the site will be landscaped with trees, shrubs, and ground cover appropriate for the Paso Robles climate. Landscaped areas are proposed to be amended with slow release fertilizers and a composted bark mixture free from herbicide residue. Proposed irrigation is based on a low water use drip system with an automatic controller and weather sensor.

Refuse Area: A single trash enclosure is proposed, fully covered with a roof.

V. Stormwater Facility Maintenance

V.A. Ownership and Responsibility for Maintenance in Perpetuity

Prior to project construction the owner will provide (1) a commitment to execute any necessary agreements, and (2) a statement accepting responsibility for operation and maintenance of facilities until that responsibility is formally transferred.

V.B. Summary of Maintenance Requirements for Each Stormwater Facility

The stormwater facilities to be maintained are the proposed bioretention basin and the Contech CDS®.

The following maintenance items are required for the bioretention basin:

- Clean up. Remove any soil or debris blocking inlets or overflows. Remove any trash that collects in the facilities.
- Vegetation maintenance. Prune or cut back plants for health and to ensure flow into inlets and across the surface of the facility. Remove and replant as necessary.
- Weed control. Control weeds by manual methods and soil amendment where possible. In response to problem areas or threatening invasions, non-selective natural herbicides may be used.
- Add mulch. Mulch may be added from time to time to maintain a mulch layer thickness of 1 to 2 inches. Maintain the underlying soil surface layer beneath the overflow elevation.
- Irrigation. Check irrigation, if any, to confirm it is adequate but not excessive.
- Training for Landscape Maintenance. Landscape Maintenance Personnel will be informed of the following:
    - Do not add synthetic fertilizer to bioretention facilities.
    - Do not apply fertilizer when rain is forecast in the next 48 hours.
    - Do not use synthetic pesticides on bioretention facilities.

The following maintenance items are required for the Contech CDS®:

- Inspect the unit at regular intervals: twice a year at a minimum.
- Open both manhole access covers. One cover will allow for the inspection and cleanout of the separation chamber and isolated sump. The other cover allows for inspection and cleanout of sediment captured and retained outside the screen.
- Sediment shall be cleaned when the level has reached 75% of the capacity.
- Clean during dry weather conditions.
- The use of a vacuum truck is generally the most effective ad convenient method of removing pollutants from the system.
    - Insert the vacuum hose into the sump.
    - The system should be completely drained down.
    - The sump should be fully evacuated of sediment.
    - The area outside the screen should also be cleaned out if pollutant build-up exists in this area.
    - Clean the system immediately in the event of an oil or gasoline spill.
- Secure the lids when cleaning and maintenance are completed.

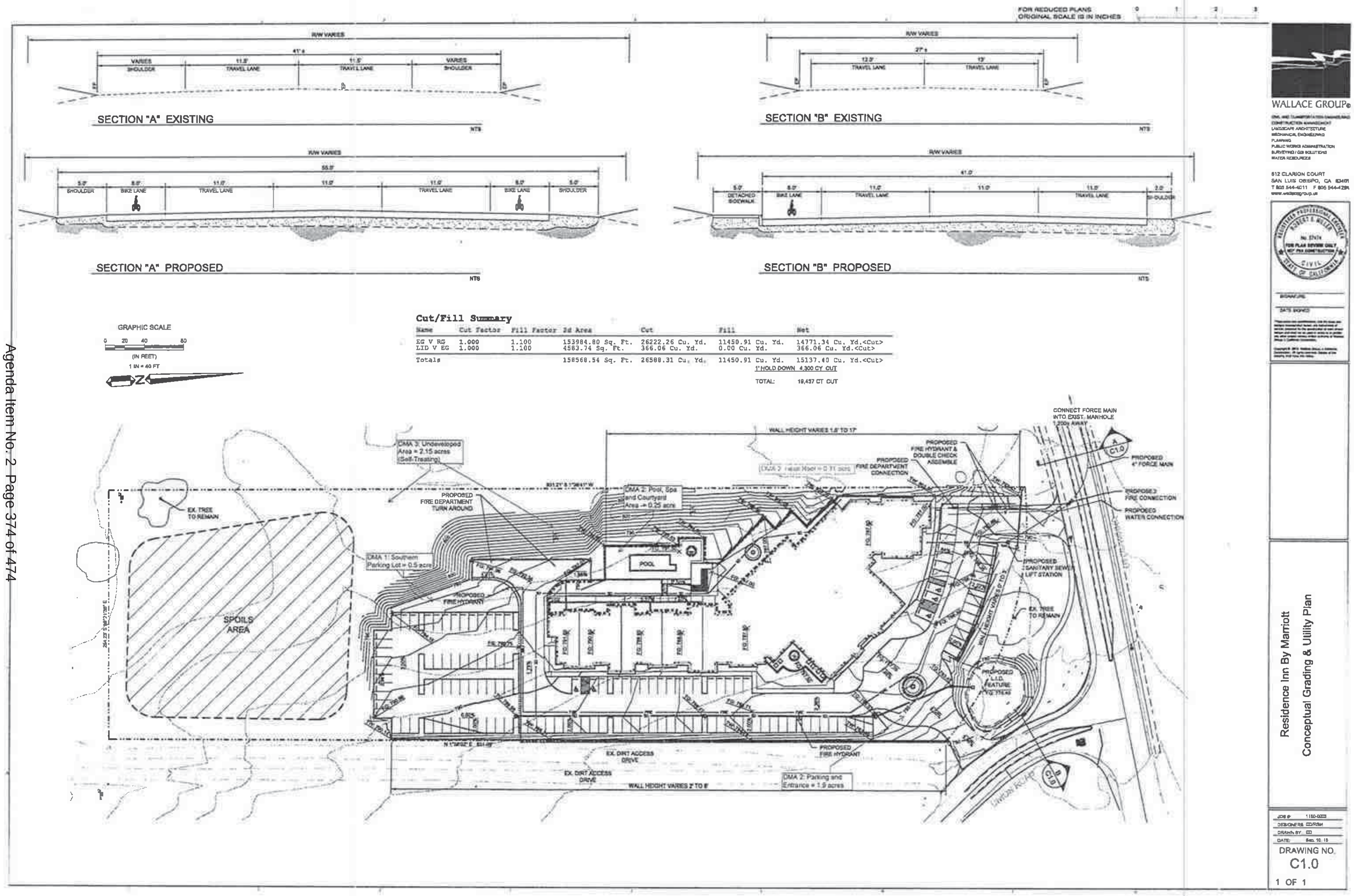
VI. Construction Checklist

Stormwater Control Plan Page #	BMP Description	See Plan Sheet #s
TBD	LID Basin 1	C3.3
5	LID Vegetated Filter Strip	C3.3
6	Contech CDS®	C3.3
6	Pervious Pavement Storage	C3.3

VII. Certifications

The stormwater treatment facilities and other stormwater pollution control measures in this plan are in accordance with the current edition of the City of Paso Robles' Stormwater Technical Guide.

VIII. Attachments


FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
SECTION "A" EXISTING
SECTION "A" PROPOSED
SECTION "B" EXISTING
SECTION "B" PROPOSED
NTS
R/W VARIES
SHOULDER
BIKE LANE
TRAVEL LANE
DETACHED SIDEWALK
GRAPHIC SCALE
(IN FEET)
1 IN = 40 FT
Cut/Fill Summary
Name Cut Factor Fill Factor 2d Area Cut Fill Net
EG V RG 1.000 1.100 153984.80 Sq. Ft. 26222.26 Cu. Yd. 11450.91 Cu. Yd. 14771.34 Cu. Yd.<Cut>
LID V EG 1.000 1.100 4583.74 Sq. Ft. 366.06 Cu. Yd. 0.00 Cu. Yd. 366.06 Cu. Yd.<Cut>
Totals 158568.54 Sq. Ft. 26588.31 Cu. Yd. 11450.91 Cu. Yd. 15137.40 Cu. Yd.<Cut>
1' HOLD DOWN 4,300 CY CUT
TOTAL: 19,437 CT CUT
SPOILS AREA
EX. TREE TO REMAIN
DMA 3: Undeveloped Area = 2.15 acres (Self-Treating)
PROPOSED FIRE DEPARTMENT TURN AROUND
DMA 1: Southern Parking Lot = 0.5 acre
DMA 2: Pool, Spa and Courtyard Area = 0.25 acre
POOL
PROPOSED FIRE HYDRANT
WALL HEIGHT VARIES 1.8' TO 17'
WALL HEIGHT VARIES 2' TO 8'
EX. DIRT ACCESS DRIVE
DMA 2: Parking and Entrance = 1.9 acres
PROPOSED FIRE DEPARTMENT CONNECTION
PROPOSED FIRE HYDRANT & DOUBLE CHECK ASSEMBLE
CONNECT FORCE MAIN INTO EXIST. MANHOLE 1,200± AWAY
PROPOSED 4" FORCE MAIN
PROPOSED FIRE CONNECTION
PROPOSED WATER CONNECTION
PROPOSED SANITARY SEWER LIFT STATION
PROPOSED L.I.D. FEATURE
WALLACE GROUP
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T 805 544-4011 F 805 544-4294
www.wallacegroup.us
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Residence Inn By Marriott
Conceptual Grading & Utility Plan
DRAWING NO.
C1.0
1 OF 1

HYDROCAD RESULTS

Summary for Subcatchment 1A: Pre-Con Site

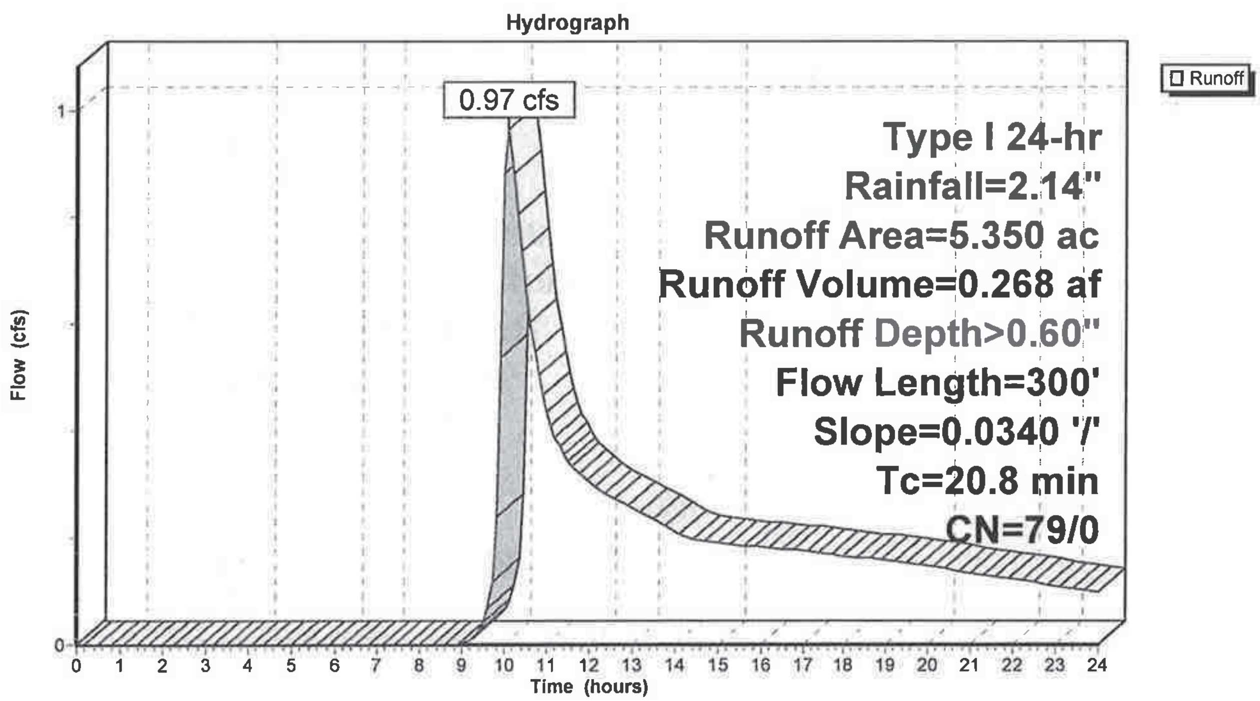
Runoff = 0.97 cfs @ 10.10 hrs, Volume= 0.268 af, Depth> 0.60"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type I 24-hr Rainfall=2.14"

Area (ac)	CN	Description
5.350	79	Pasture/grassland/range, Fair, HSG C
5.350	79	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.8	300	0.0340	0.24		**Sheet Flow, Pre COnstruction sheet flow** Range n= 0.130 P2= 2.14"

Subcatchment 1A: Pre-Con Site



Summary for Subcatchment 1A: Pre-Con Site

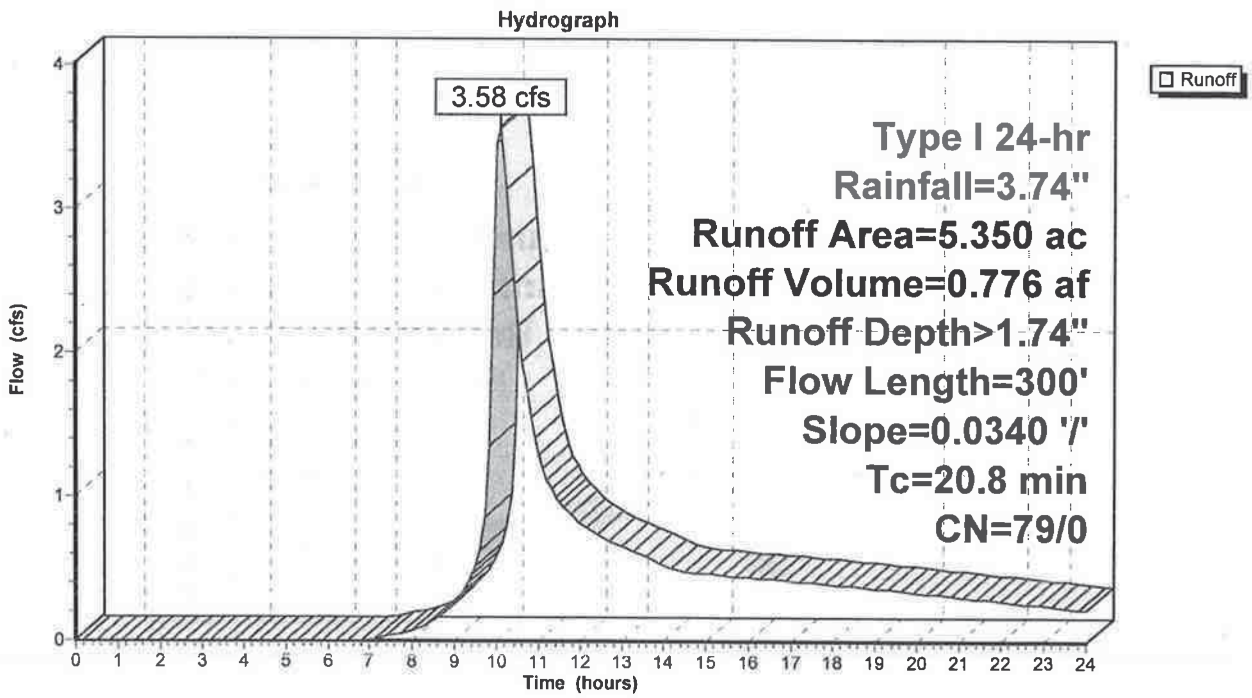
Runoff = 3.58 cfs @ 10.07 hrs, Volume= 0.776 af, Depth> 1.74"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type I 24-hr Rainfall=3.74"

Area (ac)	CN	Description
5.350	79	Pasture/grassland/range, Fair, HSG C
5.350	79	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.8	300	0.0340	0.24		**Sheet Flow, Pre COnstruction sheet flow** Range n= 0.130 P2= 2.14"

Subcatchment 1A: Pre-Con Site



Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.500	98	Unconnected pavement, HSG C (1A)
2.860	98	Unconnected roofs, HSG C (1A)
3.360	**98**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
3.360	HSG C	1A
0.000	HSG D	
0.000	Other	
3.360		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.500	0.000	0.000	0.500	Unconnected pavement	1A
0.000	0.000	2.860	0.000	0.000	2.860	Unconnected roofs	1A
0.000	**0.000**	**3.360**	**0.000**	**0.000**	**3.360**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1A	0.00	0.00	500.0	0.0010	0.010	6.0	0.0	5.0

Time span=0.00-24.00 hrs, dt=0.10 hrs, 241 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1A: Impervious Area Runoff Area=3.360 ac 100.00% Impervious Runoff Depth>1.20"
Flow Length=750' Tc=22.6 min CN=0/98 Runoff=1.64 cfs 0.337 af

Pond 1P: Retention basin Peak Elev=5.06' Storage=0.127 af Inflow=1.64 cfs 0.337 af
Outflow=0.19 cfs 0.264 af

Total Runoff Area = 3.360 ac Runoff Volume = 0.337 af Average Runoff Depth = 1.20"
0.00% Pervious = 0.000 ac 100.00% Impervious = 3.360 ac

Summary for Subcatchment 1A: Impervious Area

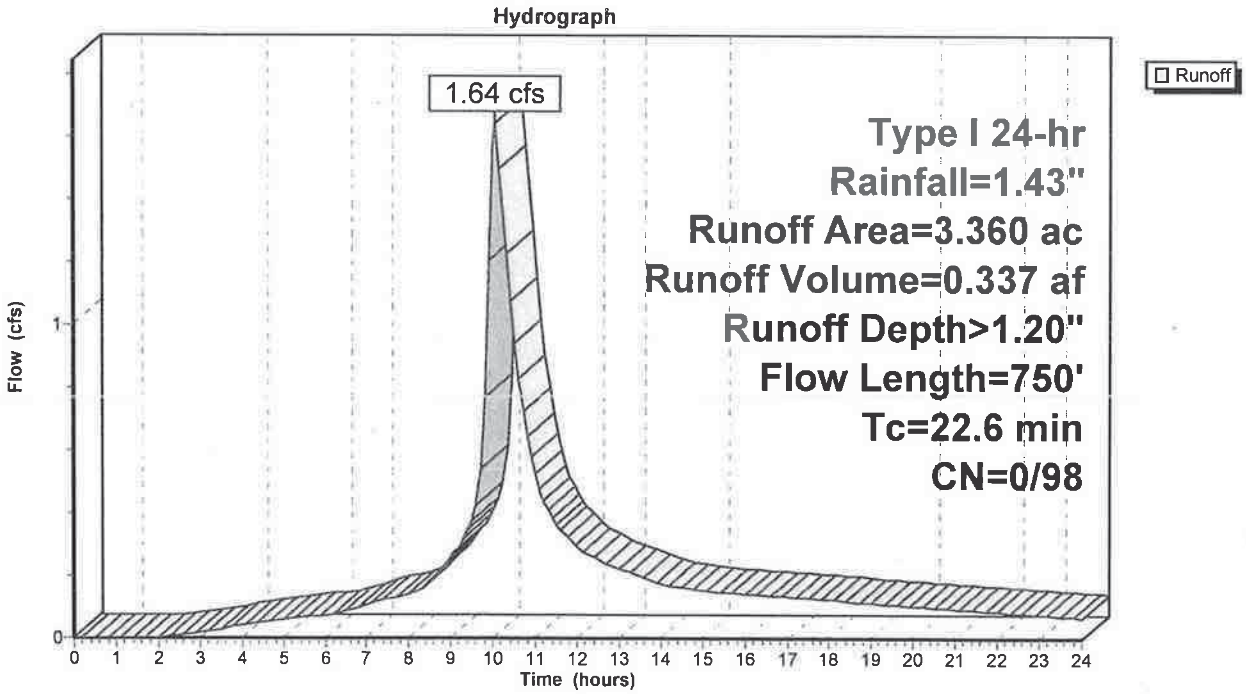
Runoff = 1.64 cfs @ 10.05 hrs, Volume= 0.337 af, Depth> 1.20"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.10 hrs
Type I 24-hr Rainfall=1.43"

Area (ac)	CN	Description
0.500	98	Unconnected pavement, HSG C
2.860	98	Unconnected roofs, HSG C
3.360	98	Weighted Average
3.360	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.6	500	0.0010	0.42	0.01	**Pipe Channel,** 6.0" Round w/ 5.0" inside fill Area= 0.0 sf Perim= 0.8' r= 0.03' n= 0.010 PVC, smooth interior
1.3	100	0.0300	1.32		**Sheet Flow, South Parking Lot** Smooth surfaces n= 0.011 P2= 2.14"
1.7	150	0.0050	1.44		**Shallow Concentrated Flow, South Parking Lot #2** Paved Kv= 20.3 fps
22.6	750	Total			

Subcatchment 1A: Impervious Area



Summary for Pond 1P: Retention basin

Inflow Area =	3.360 ac,100.00% Impervious,	Inflow Depth > 1.20"	
Inflow =	1.64 cfs @ 10.05 hrs,	Volume=	0.337 af
Outflow =	0.19 cfs @ 13.65 hrs,	Volume=	0.264 af, Atten= 88%, Lag= 216.0 min
Discarded =	0.19 cfs @ 13.65 hrs,	Volume=	0.264 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs / 2
Peak Elev= 5.06' @ 13.65 hrs Surf.Area= 0.076 ac Storage= 0.127 af

Plug-Flow detention time= 264.6 min calculated for 0.264 af (78% of inflow)
Center-of-Mass det. time= 149.4 min (894.1 - 744.7)

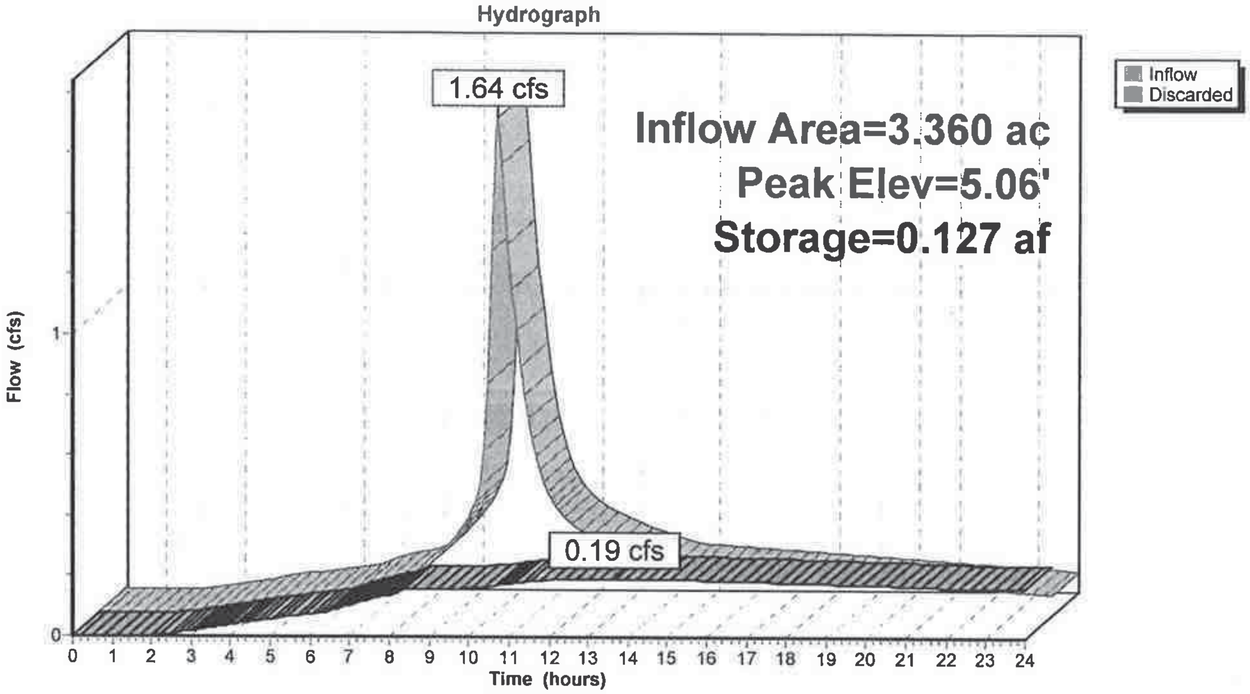
Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.163 af	**Custom Stage Data (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Perim. (feet)	Voids (%)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
0.00	0.065	192.1	0.0	0.000	0.000	0.065
4.50	0.065	192.1	30.0	0.088	0.088	0.085
5.50	0.085	220.9	100.0	0.075	0.163	0.107

Device	Routing	Invert	Outlet Devices
#1	Discarded	0.00'	**2.410 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = -100.00'

Discarded OutFlow Max=0.19 cfs @ 13.65 hrs HW=5.06' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.19 cfs)

Pond 1P: Retention basin



Summary for Pond 1P: Retention basin

Inflow Area = 3.360 ac,100.00% Impervious, Inflow Depth > 1.90"
Inflow = 2.56 cfs @ 10.05 hrs, Volume= 0.533 af
Outflow = 0.91 cfs @ 10.89 hrs, Volume= 0.395 af, Atten= 64%, Lag= 50.7 min
Discarded = 0.20 cfs @ 10.89 hrs, Volume= 0.298 af
Primary = 0.72 cfs @ 10.89 hrs, Volume= 0.097 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs / 2
Peak Elev= 5.66' @ 10.89 hrs Surf.Area= 0.080 ac Storage= 0.172 af

Plug-Flow detention time= 226.9 min calculated for 0.395 af (74% of inflow)
Center-of-Mass det. time= 95.6 min (826.3 - 730.7)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.200 af	**Custom Stage Data (Irregular)** Listed below (Recalc)

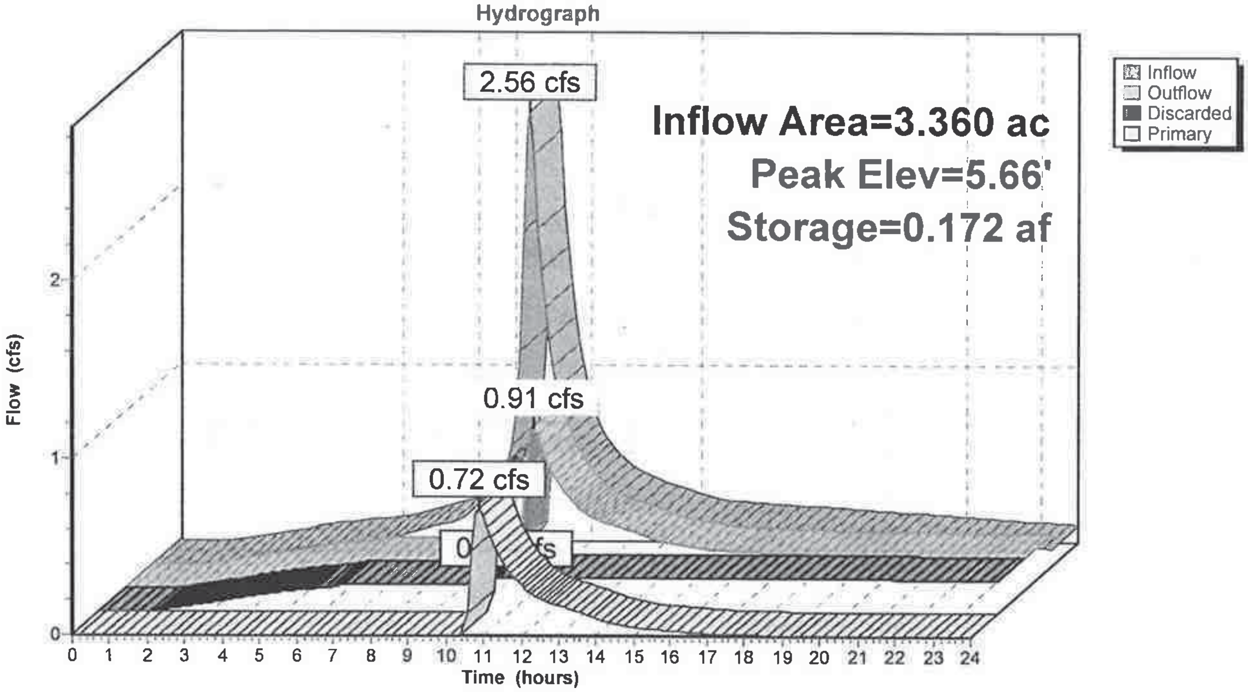
Elevation (feet)	Surf.Area (acres)	Perim. (feet)	Voids (%)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
0.00	0.065	192.0	0.0	0.000	0.000	0.065
4.50	0.065	192.0	30.0	0.088	0.088	0.085
6.00	0.085	221.0	100.0	0.112	0.200	0.108

Device	Routing	Invert	Outlet Devices
#1	Discarded	0.00'	**2.410 in/hr Exfiltration over Horizontal area**
#2	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#4	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#5	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#6	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#7	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#8	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#9	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#10	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600

Discarded OutFlow Max=0.20 cfs @ 10.89 hrs HW=5.66' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 0.20 cfs)

Primary OutFlow Max=0.70 cfs @ 10.89 hrs HW=5.66' (Free Discharge)
├─**2=Orifice/Grate** (Orifice Controls 0.08 cfs @ 1.38 fps)
├─**3=Orifice/Grate** (Orifice Controls 0.08 cfs @ 1.38 fps)
├─**4=Orifice/Grate** (Orifice Controls 0.08 cfs @ 1.38 fps)
├─**5=Orifice/Grate** (Orifice Controls 0.08 cfs @ 1.38 fps)
├─**6=Orifice/Grate** (Orifice Controls 0.08 cfs @ 1.38 fps)
├─**7=Orifice/Grate** (Orifice Controls 0.08 cfs @ 1.38 fps)
├─**8=Orifice/Grate** (Orifice Controls 0.08 cfs @ 1.38 fps)
├─**9=Orifice/Grate** (Orifice Controls 0.08 cfs @ 1.38 fps)
└─**10=Orifice/Grate** (Orifice Controls 0.08 cfs @ 1.38 fps)

Pond 1P: Retention basin



Summary for Pond 1P: Retention basin

Inflow Area = 3.360 ac,100.00% Impervious, Inflow Depth > 3.49"
Inflow = 4.59 cfs @ 10.05 hrs, Volume= 0.976 af
Outflow = 3.98 cfs @ 10.20 hrs, Volume= 0.816 af, Atten= 13%, Lag= 9.0 min
Discarded = 0.21 cfs @ 10.20 hrs, Volume= 0.330 af
Primary = 3.78 cfs @ 10.20 hrs, Volume= 0.486 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.10 hrs / 2
Peak Elev= 6.00' @ 10.20 hrs Surf.Area= 0.085 ac Storage= 0.200 af

Plug-Flow detention time= 144.8 min calculated for 0.813 af (83% of inflow)
Center-of-Mass det. time= 51.3 min (767.1 - 715.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	0.200 af	**Custom Stage Data (Irregular)**Listed below (Recalc)

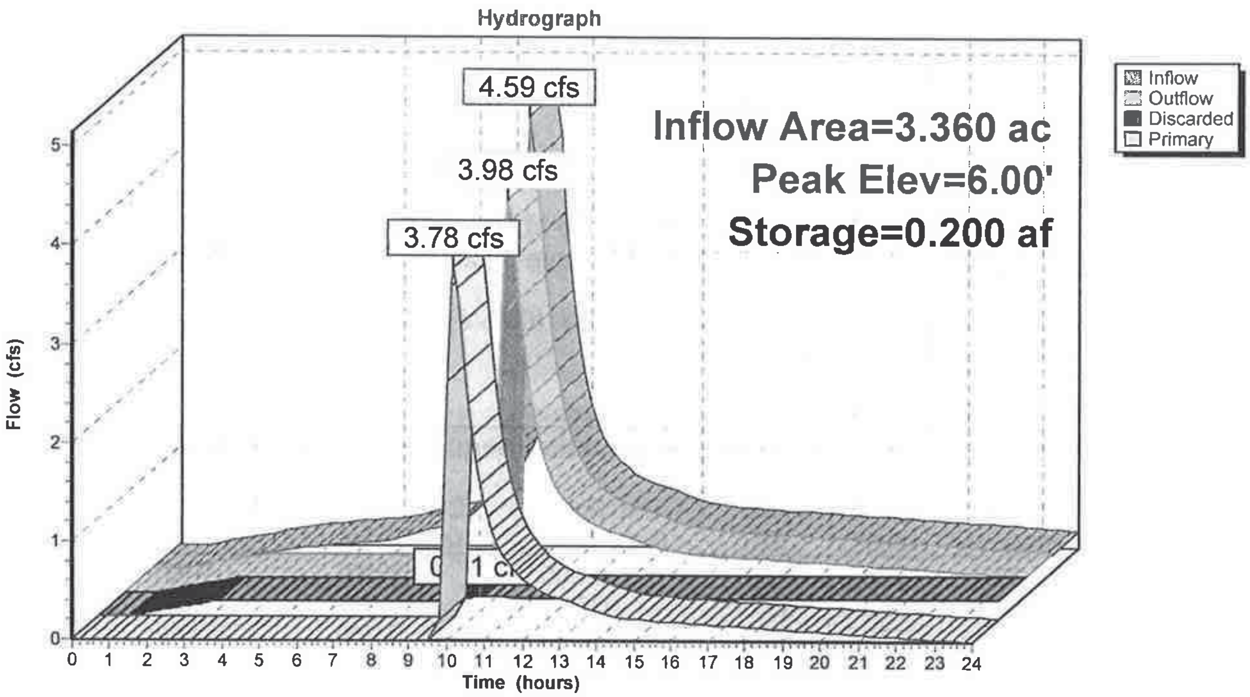
Elevation (feet)	Surf.Area (acres)	Perim. (feet)	Voids (%)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
0.00	0.065	192.0	0.0	0.000	0.000	0.065
4.50	0.065	192.0	30.0	0.088	0.088	0.085
6.00	0.085	221.0	100.0	0.112	0.200	0.108

Device	Routing	Invert	Outlet Devices
#1	Discarded	0.00'	**2.410 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#2	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#4	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#5	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#6	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#7	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#8	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#9	Primary	5.50'	**6.0" Vert. Orifice/Grate** C= 0.600

Discarded OutFlow Max=0.21 cfs @ 10.20 hrs HW=6.00' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 0.21 cfs)

Primary OutFlow Max=3.78 cfs @ 10.20 hrs HW=6.00' (Free Discharge)
├─**2=Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.40 fps)
├─**3=Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.40 fps)
├─**4=Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.40 fps)
├─**5=Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.40 fps)
├─**6=Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.40 fps)
├─**7=Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.40 fps)
├─**8=Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.40 fps)
└─**9=Orifice/Grate** (Orifice Controls 0.47 cfs @ 2.40 fps)

Pond 1P: Retention basin



Source: Riverside County Low Impact Development BMP Design Handbook, 2011

Using only 1 portion of time during the test:

Infiltration Test A

delta H	28.68	inches
delta T	120	minutes
effective radius	3	inches
H start	48	inches
H end	19.32	inches
H ave	33.66	inches
I_t	0.61	inches/hour

Infiltration Test B1

delta H	47	inches
delta T	20	minutes
effective radius	3	inches
H start	72	inches
H end	25	inches
H ave	48.5	inches
I_t	4.23	inches/hour

Infiltration Test B2

delta H	52.5	inches
delta T	30	minutes
effective radius	3	inches
H start	72	inches
H end	19.5	inches
H ave	45.75	inches
I_t	3.33	inches/hour

Infiltration Test B3

delta H	50	inches
delta T	40	minutes
effective radius	3	inches
H start	72	inches
H end	22	inches
H ave	47	inches
I_t	2.32	inches/hour

Infiltration Test B4

delta H	40	inches
delta T	20	minutes
effective radius	3	inches
H start	72	inches
H end	32	inches
H ave	52	inches
I_t	3.36	inches/hour

Test B Average I_t = 3.31 inches/hour

Infiltration Test C

delta H	10.8	inches
delta T	160	minutes
effective radius	3	inches
H start	48	inches
H end	37.2	inches
H ave	42.6	inches
I_t	0.14	inches/hour

Infiltration Test D1

delta H	47.7	inches
delta T	60	minutes
effective radius	3	inches
H start	72	inches
H end	24.3	inches
H ave	47.2	inches
I_t	1.53	inches/hour

Infiltration Test D2

delta H	30	inches
delta T	30	minutes
effective radius	3	inches
H start	72	inches
H end	42	inches
H ave	48.15	inches
I_t	1.44	inches/hour

Infiltration Test D3

delta H	49.6	inches
delta T	60	minutes
effective radius	3	inches
H start	72	inches
H end	22.4	inches
H ave	57	inches
I_t	1.54	inches/hour

User Input
Calculated Values

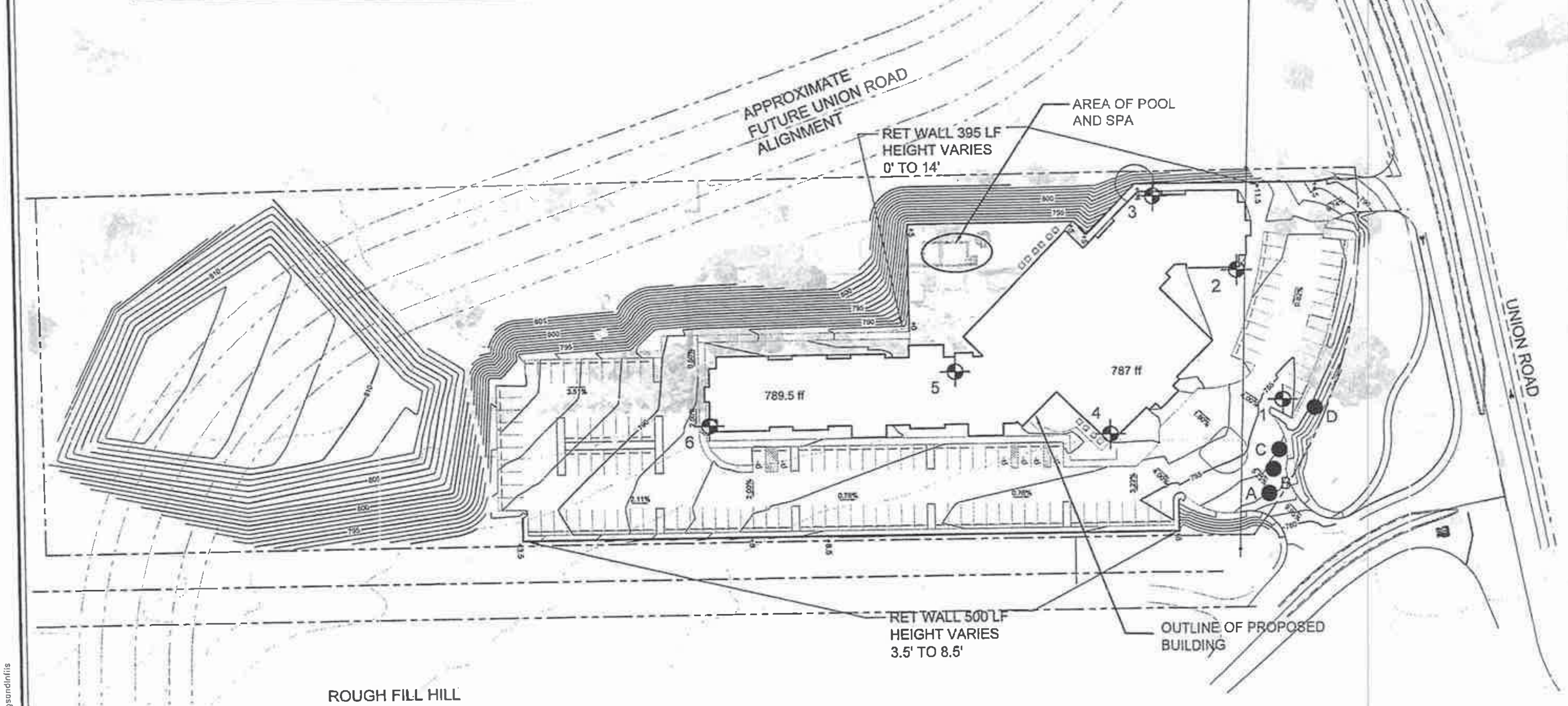
Test D Average I_t = 1.50 inches/hour

$$I_t = \frac{\Delta H \, \pi r^2 \, 60}{\Delta t(\pi r^2 + 2\pi r H_{avg})} = \frac{\Delta H \, 60 \, r}{\Delta t(r + 2H_{avg})}$$

Where:

I_t = tested infiltration rate, inches/hour
ΔH = change in head over the time interval, inches
Δt = time interval, minutes
r = effective radius of test hole
H_{avg} = average head over the time interval, inches

INFILTRATION DATA FROM THE GEOTECHNICAL ENGINEER.



LEGEND

6 Boring Location (Approx.)

D Percolation Test Location (Approx.)

Base Map by Wallace Group, dated March 19, 2015

NOT TO SCALE

BORING AND INFILTRATION TEST LOCATION MAP

RESIDENCE INN BY MARRIOTT

2490 Union Road
Paso Robles, California

Earth Systems Pacific

4378 Old Santa Fe Road
San Luis Obispo, CA 93401-8116
(805) 544-3276 • FAX (805) 544-1786
E-mail: esp@earthsystems.com

May 15, 2015 QF SL-17586-SA

RESIDENCE INN BY MARRIOTT-051515BoringsandInfils

APPENDIX C

LID Infiltration Test Results

6.0 LID INFILTRATION TEST RESULTS

Constant head infiltration testing in the LID improvement area resulted in introducing approximately 0.2 to 1.9 cubic feet of water (1.5 to 14 gallons) over a period of 30 minutes at approximately 3.5 to 5.5 feet of head. Initial and final falling head tests resulted in infiltration rates from about 6 to almost 170 inches per hour and 4 to 47 inches per hour, respectively. However, in Test B, the second-to-last rate before the conclusion of the test was measured at nearly 195 inches per hour. This is considered to be an anomaly as the prior and subsequent rates were 21 and 47 inches per hour, respectively.

The test results indicate slow to moderate to very rapid rates of infiltration within a very limited area. The faster rates, however, were in the two deeper (i.e. 6 foot) test borings. When comparing the test depths to the log of Boring 1, drilled in the test area, no distinction between the soils at 4 feet and the soils at 6 feet could be discerned. The Paso Robles Formation is, however, known for significant changes in very small horizontal and vertical distances. The rates also indicate that the potential for infiltration is significantly influenced by the head the water is under and possibly other factors.

The infiltration data are presented in Appendix C. These test results only indicate the infiltration rate at the specific location and under specific conditions. Sound engineering judgment should be exercised in extrapolating the test results for other conditions or locations. Technical design references vary in methods they present for using these types of test results. However, many references include reduction and/or correction factors for several parameters including, but not limited to, size of the LID system relative to the test volume, number of tests conducted, variability in the soil profile, anticipated silt loading, anticipated biological buildup, anticipated long-term maintenance, and other factors. Typically, in aggregate these factors range from about 2.5 to 50 depending upon the method used; the final determination of the means by which these data are used is left to the design engineer.

7.0 CONCLUSIONS

In our opinion, the site is suitable, from a geotechnical engineering standpoint, for the proposed project. The primary concerns, from a geotechnical engineering standpoint are the potential for differential settlement, the low moisture contents of some of the soils, and the erodible nature of the site soils.

Considering the proposed cut and fill depths, some of the structure's foundation could bear in areas of the Paso Robles Formation that have been cut about 20 feet from original grade and some of the foundations could bear in up to 5 feet of fill. The formational materials that have buried under 20 feet of soil for millennia will behave differently than fill soils. This creates a potential for

PROJECT: Residence Inn by Marriott

SL-17568-SA

INFILTRATION TEST RESULTS

INFILTRATION TEST: A

DATE DRILLED: May 7, 2015

TEST HOLE DIAMETER: 6 inches

DATE TESTED: May 7, 2015

TEST HOLE DEPTH: 4.0 feet

TECHNICIAN: PF/RW

TEST DURATION: 2.0 hours

CONSTANT HEAD DATA

Time of Constant Head: 30 minutes

Volume Added During Constant Head: 1.44 cu. ft.

FALLING HEAD DATA

INTERVAL (Minutes)	READING (Feet)	INCREMENTAL FALL (Feet)	INFILTRATION RATE (Minutes / Inch)	INFILTRATION RATE (Inches / Hour)
---	0.67	---	---	---
10	0.71	0.04	20.83	3
10	0.83	0.12	6.94	9
10	0.90	0.07	11.90	5
10	0.94	0.04	20.83	3
10	1.35	0.41	2.03	30
10	1.88	0.53	1.57	38
10	2.13	0.25	3.33	18
10	2.33	0.20	4.17	14
10	2.56	0.23	3.62	17
10	2.69	0.13	6.41	9
10	2.92	0.23	3.62	17
10	3.06	0.14	5.95	10

INFILTRATION TEST RESULTS

INFILTRATION TEST: B

DATE DRILLED: May 7, 2015

TEST HOLE DIAMETER: 6 inches

DATE TESTED: May 7, 2015

TEST HOLE DEPTH: 6.0 feet

TECHNICIAN: PF/RW

TEST DURATION: 2.0 hours

CONSTANT HEAD DATA

Time of Constant Head: 30 minutes

Volume Added During Constant Head: 1.92 cu. ft.

FALLING HEAD DATA

INTERVAL (Minutes)	READING (Feet)	INCREMENTAL FALL (Feet)	INFILTRATION RATE (Minutes / Inch)	INFILTRATION RATE (Inches / Hour)
---	0.83	---	---	---
10	3.19	2.36	0.35	171
10	4.75	1.56	0.53	113
Refill				
---	0.75	---	---	---
10	3.00	2.25	0.37	162
10	4.38	1.38	0.60	100
10	5.13	0.75	1.11	54
Refill				
---	1.38	---	---	---
10	3.25	1.87	0.45	133
10	4.48	1.23	0.68	88
10	5.27	0.79	1.05	57
10	5.56	0.29	2.87	21
Refill				
---	1.04	---	---	---
10	3.75	2.71	0.31	194
10	4.40	0.65	1.28	47

PROJECT: Residence Inn by Marriott SL-17568-SA

INFILTRATION TEST RESULTS

INFILTRATION TEST: C

DATE DRILLED: May 7, 2015

TEST HOLE DIAMETER: 6 inches

DATE TESTED: May 7, 2015

TEST HOLE DEPTH: 4.0 feet

TECHNICIAN: PF/RW

TEST DURATION: 2.67 hours

CONSTANT HEAD DATA

Time of Constant Head: 30 minutes

Volume Added During Constant Head: 0.20 cu. ft.

FALLING HEAD DATA

INTERVAL (Minutes)	READING (Feet)	INCREMENTAL FALL (Feet)	INFILTRATION RATE (Minutes / Inch)	INFILTRATION RATE (Inches / Hour)
---	0.33	---	---	---
15	0.46	0.13	9.62	6
15	0.58	0.12	10.42	6
15	0.67	0.09	13.89	4
15	0.75	0.08	15.63	4
10	0.77	0.02	41.67	1
10	0.79	0.02	41.67	1
10	0.81	0.02	41.67	1
10	0.90	0.09	9.26	6
10	0.94	0.04	20.83	3
10	1.00	0.06	13.89	4
10	1.06	0.06	13.89	4
10	1.10	0.04	20.83	3
10	1.17	0.07	11.90	5
10	1.23	0.06	13.89	4

INFILTRATION TEST RESULTS

INFILTRATION TEST: D

DATE DRILLED: May 7, 2015

TEST HOLE DIAMETER: 6 inches

DATE TESTED: May 7, 2015

TEST HOLE DEPTH: 6.0 feet

TECHNICIAN: PF/RW

TEST DURATION: 2.67 hours

CONSTANT HEAD DATA

Time of Constant Head: 30 minutes

Volume Added During Constant Head: 0.94 cu. ft.

FALLING HEAD DATA

INTERVAL (Minutes)	READING (Feet)	INCREMENTAL FALL (Feet)	INFILTRATION RATE (Minutes / Inch)	INFILTRATION RATE (Inches / Hour)
---	0.42	---	---	---
15	1.13	0.71	1.76	34
15	3.02	1.89	0.66	91
15	3.71	0.69	1.81	33
15	4.40	0.69	1.81	33
Refill				
---	0.96	---	---	---
10	2.10	1.14	0.73	82
10	2.79	0.69	1.21	50
10	3.46	0.67	1.24	48
Refill				
---	1.00	---	---	---
10	2.44	1.44	0.58	103
10	3.06	0.62	1.34	45
10	3.79	0.73	1.14	53
10	4.25	0.46	1.81	33
10	4.73	0.48	1.74	34
10	5.13	0.40	2.08	29

Noise Impact Assessment

For The Proposed

Residence Inn Project
Paso Robles, CA

RECEIVED
SEP 23 2015
City of Paso Robles
Community Development Dept.

August 2015

Prepared For:

Excel Hotel Group
10660 Scripps Ranch Blvd.
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Paso Robles, CA 93446

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

This report describes the existing noise environment in the project vicinity and identifies potential noise impacts associated with development of the proposed Residence Inn. The project site is located on Union Road, south of Highway 46, within the City of Paso Robles. The proposed project site location is depicted in Figure 1. The proposed project site plan is depicted in Figure 2. Project impacts were evaluated relative to the City of Paso Robles' applicable noise standards. Noise-reduction measures have been identified, where necessary, to reduce noise-related impacts.

SETTING

ACOUSTIC FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, or unexpected. Sound, as described in more detail below, is mechanical energy transmitted in the form of a wave because of a disturbance or vibration.

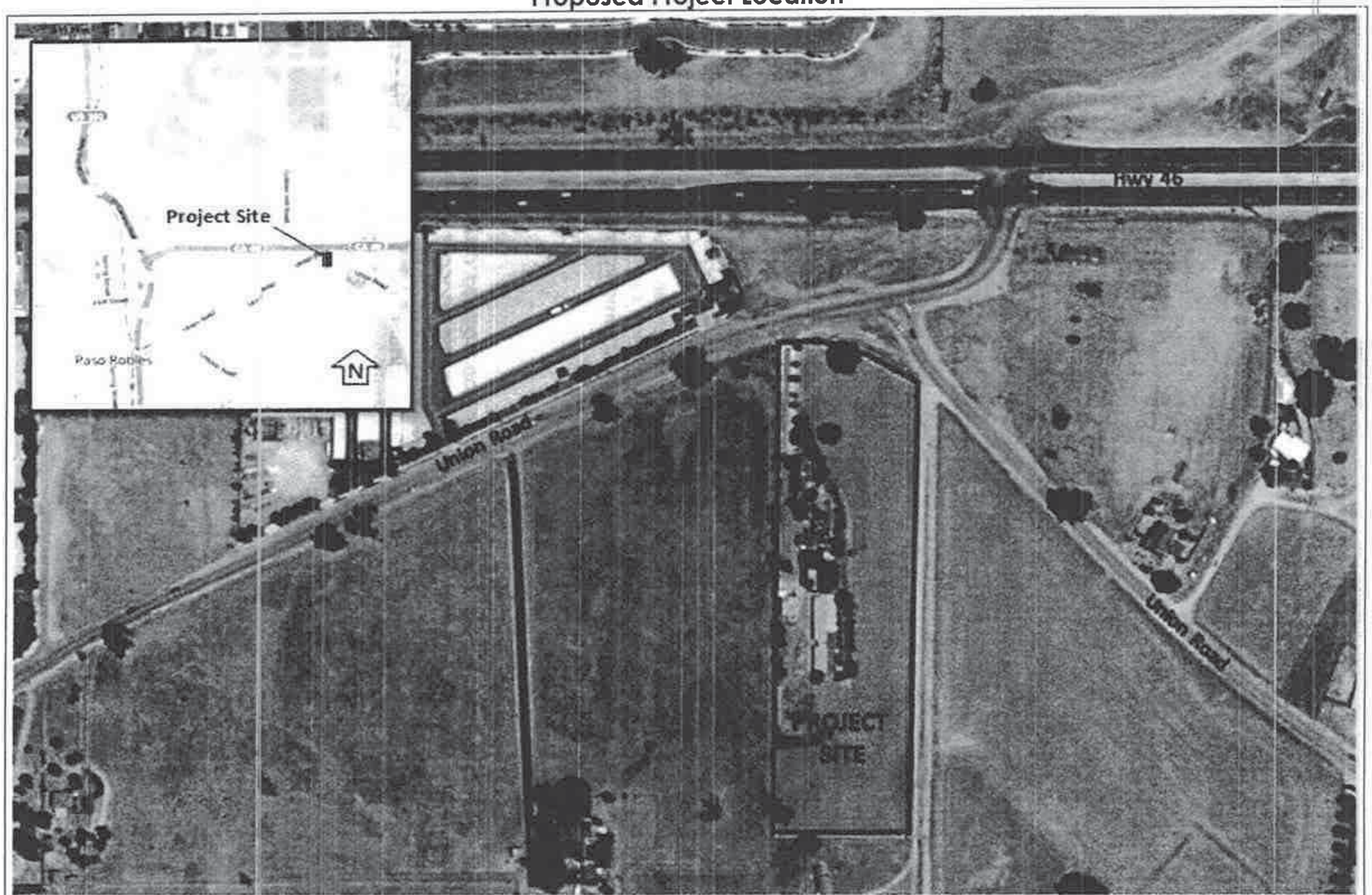
Amplitude is the difference between ambient air pressure and the peak pressure of the sound wave. Amplitude is measured in decibels (dB) on a logarithmic scale. For example, a 65 dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). Amplitude is interpreted by the ear as corresponding to different degrees of loudness. Laboratory measurements correlate a 10 dB increase in amplitude with a perceived doubling of loudness and establish a 3 dB change in amplitude as the minimum audible difference perceptible to the average person.

Frequency is the number of fluctuations of the pressure wave per second. The unit of frequency is the Hertz (Hz). One Hz equals one cycle per second. The human ear is not equally sensitive to sound of different frequencies. Sound waves below 16 Hz or above 20,000 Hz cannot be heard at all, and the ear is more sensitive to sound in the higher portion of this range than in the lower. To approximate this sensitivity, environmental sound is usually measured in A-weighted decibels (dBA). On this scale, the normal range of human hearing extends from about 10 dBA to about 140 dBA. Common community noise sources and associated noise levels, in dBA, are depicted in Figure 3.

ADDITION OF DECIBELS

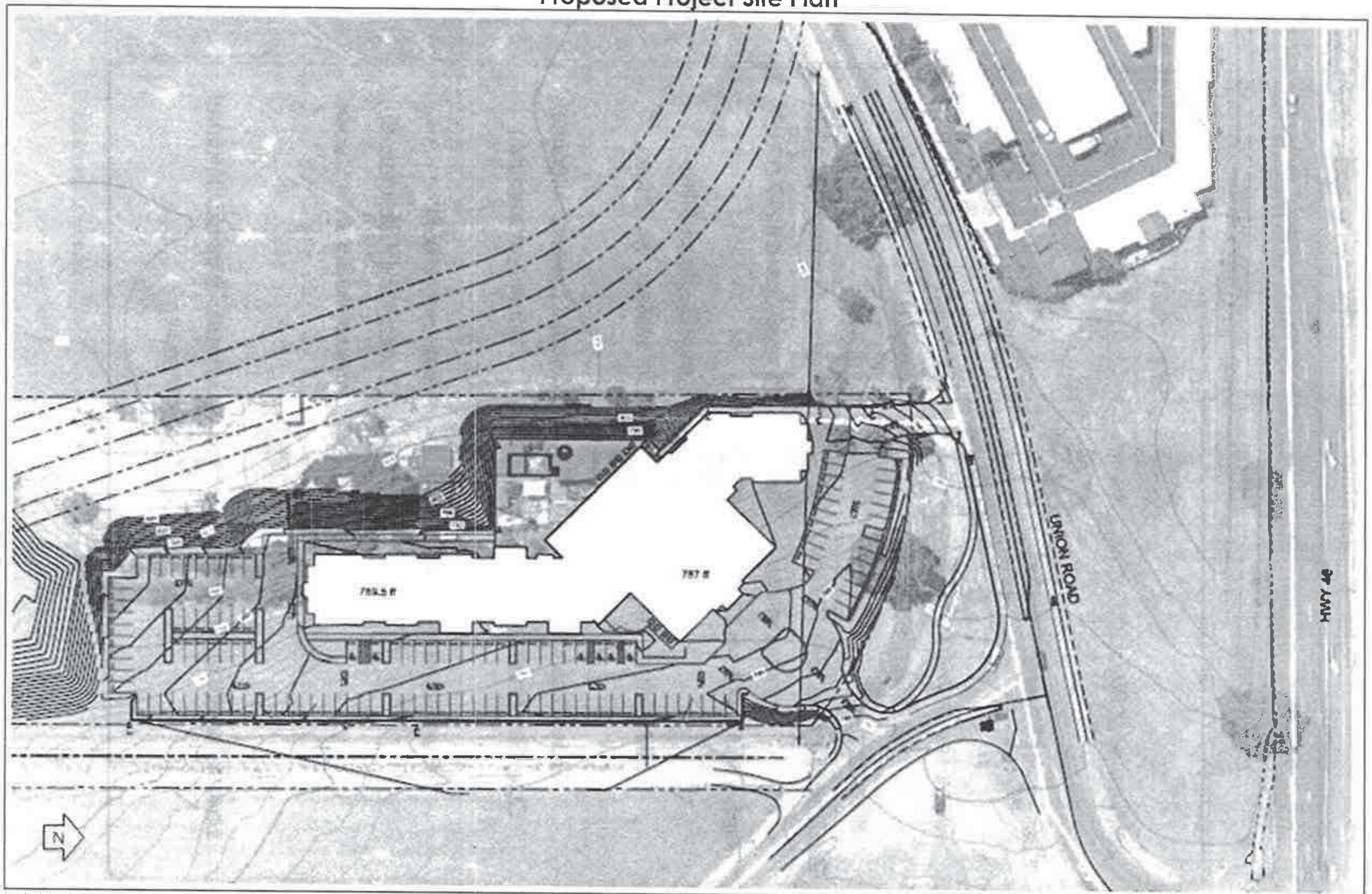
Because decibels are logarithmic units, sound levels cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one automobile produces a sound level of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dB.

Figure 1
Proposed Project Location



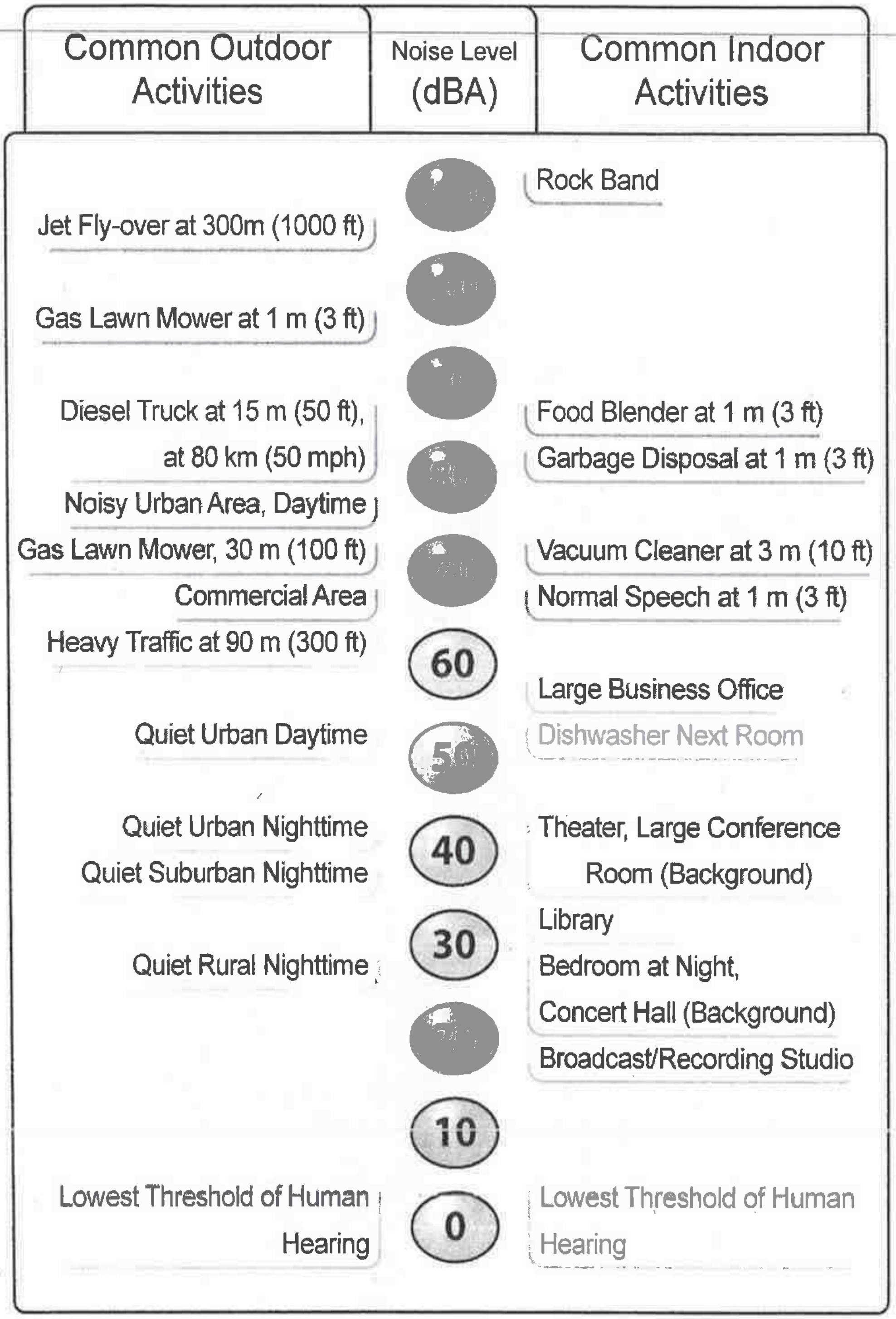
Not to Scale. Project site boundaries are approximate.
Image Source: San Luis Obispo County, 2015a

Figure 2
Proposed Project Site Plan



Not to Scale.
Source: Wallace Group 2015

Figure 3
Typical Community Noise Levels



Source: Caltrans 2012

Sound Propagation & Attenuation

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level decreases (attenuates) at a rate of approximately 6 decibels for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path, and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 decibels for each doubling of distance from a line source, depending on ground surface characteristics. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water,), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between a line source and the receiver, such as soft dirt, grass, or scattered bushes and trees), an excess ground-attenuation value of 1.5 decibels per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation for soft surfaces results in an overall attenuation rate of 4.5 decibels per doubling of distance from a line source.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver specifically to reduce noise. A barrier that breaks the line of sight between a source and a receiver will typically result in an approximate 5 dB of noise reduction. Taller barriers provide increased noise reduction.

Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the sound-pressure level in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz, and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies, which is referred to as the "A-weighted" sound level (expressed in units of dBA). The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgments correlate well with the A-weighted noise scale. Other weighting networks have been devised to address high noise levels or other special problems (e.g., B-, C-, and D-scales), but these scales are rarely used in conjunction with environmental noise.

The intensity of environmental noise fluctuates over time, and several descriptors of time-averaged noise levels are typically used. For the evaluation of environmental noise, the most commonly used descriptors are L_{eq}, L_{dn}, and CNEL. The energy-equivalent noise level, L_{eq}, is a measure of the average energy content (intensity) of noise over any given period. Many communities use 24-hour descriptors of noise levels to regulate noise. The day-night average noise level, L_{dn}, is the 24-hour average of the noise intensity, with a 10-dBA "penalty" added for nighttime noise (10 p.m. to 7 a.m.) to account for the greater sensitivity to noise during this period. CNEL, the community equivalent noise level, is similar to L_{dn} but adds an additional 5-dBA penalty for evening noise (7 p.m. to 10 p.m.) Common noise descriptors are summarized in Table 1.

Table 1
Common Acoustical Terms and Descriptors

Descriptor	Definition
Decibel (dB)	A unit-less measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to referenced sound pressure amplitude. The reference pressure is 20 micro-pascals.
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
Energy Equivalent Noise Level (L_{eq})	The energy mean (average) noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value (in dBA) is calculated.
Minimum Noise Level (L_{min})	The minimum instantaneous noise level during a specific period of time.
Maximum Noise Level (L_{max})	The maximum instantaneous noise level during a specific period of time.
Day-Night Average Noise Level (DNL or L_{dn})	The 24-hour L_{eq} with a 10 dBA "penalty" for noise events that occur during the noise-sensitive hours between 10:00 p.m. and 7:00 a.m. In other words, 10 dBA is "added" to noise events that occur in the nighttime hours to account for increases sensitivity to noise during these hours.
Community Noise Equivalent Level (CNEL)	The CNEL is similar to the L_{dn} described above, but with an additional 5 dBA "penalty" added to noise events that occur between the hours of 7:00 p.m. to 10:00 p.m. The calculated CNEL is typically approximately 0.5 dBA higher than the calculated Ldn.

HUMAN RESPONSE TO NOISE

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases. The acceptability of noise and the threat to public well-being are the basis for land use planning policies preventing exposure to excessive community noise levels.

Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and habituation to noise over differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted: the so-called "ambient" environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged. Regarding increases in A-weighted noise levels, knowledge of the following relationships will be helpful in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived by humans;
- Outside of the laboratory, a 3-dB change is considered a just-perceivable difference;

- A change in level of at least 5 dB is required before any noticeable change in community response would be expected. An increase of 5 dB is typically considered substantial;
- A 10-dB change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

A limitation of using a single noise-level increase value to evaluate noise impacts, as discussed above, is that it fails to account for pre-project noise conditions. With this in mind, the Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of project-generated increases in noise levels that take into account the ambient noise level. The FICON recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments. FICON-recommended noise evaluation criteria are summarized in Table 2.

Table 2
Federal Interagency Committee on Noise
Recommended Criteria for Evaluation of Increases in Ambient Noise Levels

Ambient Noise Level Without Project	Increase Required for Significant Impact
< 60 dB	5.0 dB, or greater
60-65 dB	3.0 dB, or greater
> 65 dB	1.5 dB, or greater
Source: FAA 2000, FICON 1992	

As depicted in Table 2, a noise level increase of 5.0, or greater, would typically be considered to result in increased levels of annoyance where existing ambient noise levels are less than 60 dB. Within areas where the ambient noise level ranges from 60 to 65 dB, increased levels of annoyance would be anticipated at increases of 3 dB, or greater. Increases of 1.5 dB, or greater, could result in increased levels of annoyance in areas where the ambient noise level exceeds 65 dB. The rationale for the FICON-recommended criteria is that as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause significant increases in annoyance (FICON 1992, FAA 2000).

AFFECTED ENVIRONMENT

NOISE-SENSITIVE RECEPTORS

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are also considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The project site is located along Union Road, south of Highway 46. The nearest noise-sensitive land use consists of residential dwellings, the nearest of which are located approximately 0.07 miles to the southwest and east of the project site.

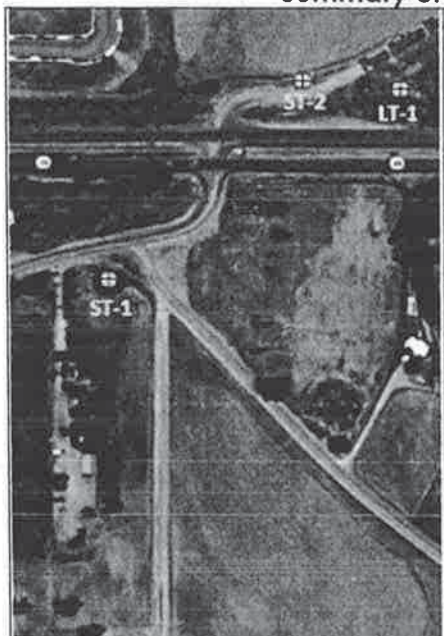
AMBIENT NOISE ENVIRONMENT

The noise environment in the proposed project area is defined primarily by vehicular traffic on Highway 46. To a lesser extent, vehicle traffic on nearby segments of Union Road, also contributes to ambient noise levels at the project site.

To document existing ambient noise levels at the project site, a long-term (24-hour) and measurement was conducted on May 11-12, 2015. The long-term noise measurement survey was conducted for purposes of documenting hourly distribution of traffic volumes and corresponding traffic noise levels. Short-term ambient noise measurements were also conducted on May 11, 2015. Noise measurements were conducted using a Larson Davis Laboratories, Type I, Model 820 integrating sound-level meter positioned at a height of approximately 4.5 feet above ground level. Noise measurement locations and measured noise levels are summarized in Figure 4. Long-term noise measurement data is depicted in Figure 5.

Based on the measurements conducted, ambient daytime average-hourly noise levels (in dBA L_{eq}) at the northern boundary of the project site range from the upper 50's to the lower 60's. Noise levels at the project site are primarily influenced by vehicle traffic on Highway 46 and Union Road. The highest average-hourly noise levels occur during the a.m. peak commute hour. Measured average-hourly noise levels during the a.m. peak commute hour (in dBA L_{eq}) were roughly equivalent to measured average-daily noise levels (in dBA CNEL).

Figure 4
Summary of Measured Ambient Noise Levels



Monitoring locations are approximate.(Not to Scale)

Short-Term Monitoring Locations	Monitoring Period	Noise Level (dBA)[1]	
		L_{eq}	L_{max}
ST-1	07:20-07:30	61.3	73.2
	10:00-10:10	57.5	70.1
	17:15-17:25	59.7	72.8
ST-2	08:00-08:10	64.1	70.8
	10:30-10:40	61.4	73.4
Long-Term Monitoring Location	**Monitoring Period**	**Noise Level (dBA) [2]**	
		L_{eq}	**CNEL**
LT-1	24-hours [1]	61.6	63

1. *Noise measurement surveys were conducted on May 11, 2015. Measurements were conducted using a Larson Davis Model 820 sound-level meter placed at a height of 4.5 feet above ground level.*
2. *Noise measurement surveys were conducted on May 11-12, 2015. Measurements were conducted using a Larson Davis Model 820 sound-level meter placed at a height of 4.5 feet above ground level. Refer to Figure 3 for measured hourly noise survey data.*

REGULATORY FRAMEWORK

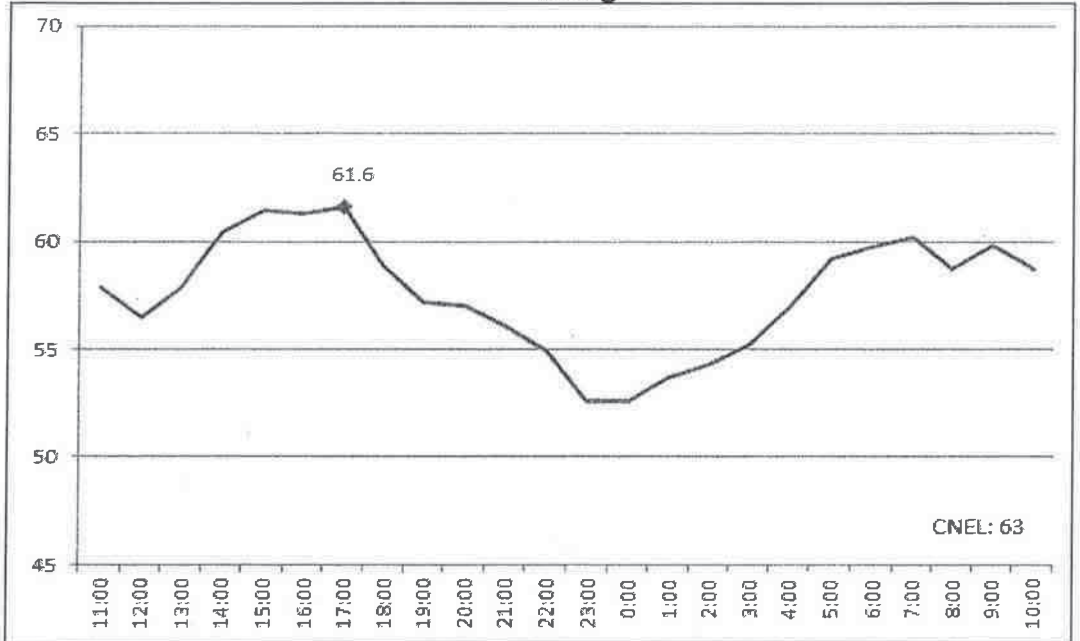
NOISE

City of Paso Robles General Plan

Transportation Sources

The City's noise criteria for determination of land use compatibility are presented in Figure 6. These guidelines are used to assess whether or not transportation noise can potentially pose a conflict with proposed land uses. For hotel land uses, an exterior noise level of 65 dBA CNEL/L_{dn} is considered "normally acceptable." Exterior noise levels between 60 and 70 dBA CNEL/L_{dn} are considered "conditionally acceptable" and exterior levels between 70 and 80 dBA CNEL/L_{dn} are considered "normally unacceptable." Exterior noise levels in excess of 80 dBA CNEL/L_{dn} are considered "clearly unacceptable."

Figure 5
Measured Long-term (24-Hour) Ambient Noise Levels
at Noise Monitoring Site LT-1



Noise measurements were conducted on May 11-12, 2015.

In addition to the noise criteria for determination of land use compatibility, General Plan Policy N-1A also establishes exterior and interior noise standards for transportation sources. Accordingly, the maximum allowable noise exposure for outdoor activity areas is 65 dBA CNEL/L_{dn}. The maximum allowable noise exposure for interior areas of various land uses, including hotels, is 45 dBA CNEL/L_{dn}.

Stationary Sources

The City of Paso Robles has also adopted noise standards for stationary sources. The noise standards are applied at the property line of the receiving land use. The City's noise standards for stationary sources are summarized in Table 3.

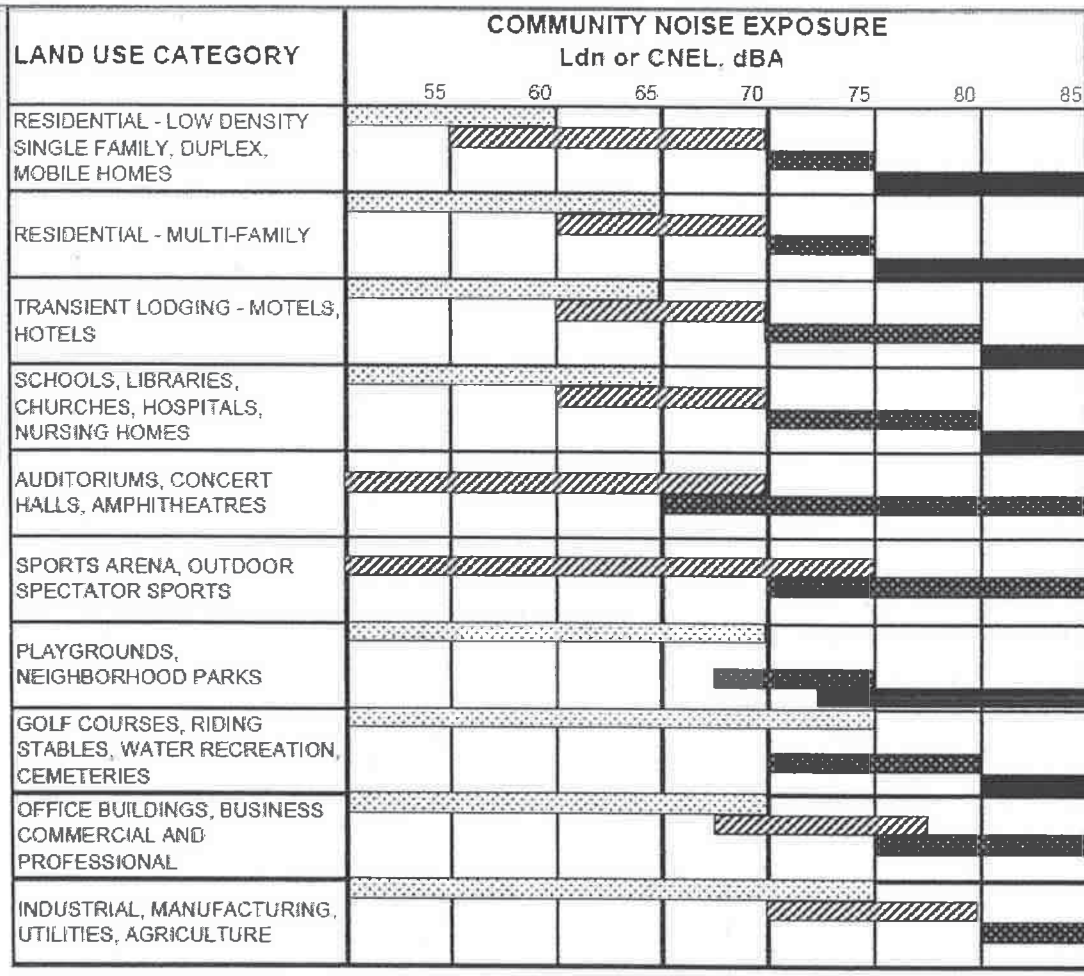
Table 3
Maximum Allowable Noise Exposure-Stationary Noise Sources[1]

	Daytime (7a.m. to 10 p.m.)	Nighttime (10 p.m. to 7a.m.)
Hourly L, dB (2)	50	45
Maximum level, dB (2)	70	65
Maximum level, dB-Impulsive Noise (3)	65	60

1. *As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of the noise barriers or other property line noise mitigation measures.*
2. *Sound level measurements shall be made with the slow meter response.*
3. *Sound level measurements shall be made with the fast meter response.*

Source: City of Paso Robles 2003

Figure 6
City of Paso Robles Land Use Compatibility Noise Criteria for Transportation Noise Sources



NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

Source: City of Paso Robles 2003

GROUNDBORNE VIBRATION

There are no federal, state, or local regulatory standards for groundborne vibration. However, various criteria have been established to assist in the evaluation of vibration impacts. For instance, the California Department of Transportation (Caltrans) has developed vibration criteria based on potential structural damage risks and human annoyance. Caltrans-recommended criteria for the evaluation of groundborne vibration levels, with regard to structural damage and human annoyance, are summarized in Table 4 and Table 5, respectively. The criteria differentiate between transient and continuous/frequent sources. Transient sources of ground-borne vibration include intermittent events, such as blasting; whereas, continuous and frequent events would include the operations of equipment, including construction equipment, and vehicle traffic on roadways (Caltrans 2002, 2004).

The Caltrans-recommended groundborne vibration criteria for evaluation of potential structural damage are based on building classifications, which take into account the age and condition of the building. For residential structures and newer buildings, Caltrans considers a minimum peak-particle velocity (ppv) threshold of 0.5 inches per second (in/sec) for transient sources and 0.3 in/sec for continuous/frequent sources to be sufficient to protect against building damage. With the exception of fragile buildings, ruins, and ancient monuments, continuous groundborne vibration levels below approximately 0.2 in/sec ppv are unlikely to cause structural damage. In terms of human annoyance, continuous vibrations in excess of 0.04 in/sec ppv and transient sources in excess of 0.25 in/sec ppv are identified by Caltrans as being "distinctly perceptible". Within buildings, short periods of ground vibration in excess of 0.2 in/sec ppv are generally considered to result in increased levels of annoyance (Caltrans 2002, 2004).

Table 4
Damage Potential to Buildings at Various Groundborne Vibration Levels

Structure and Condition	Vibration Level (in/sec ppv)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely Fragile Historic Buildings, Ruins, Ancient Monuments	0.12	0.08
Fragile Buildings	0.2	0.1
Historic and Some Old Buildings	0.5	0.25
Older Residential Structures	0.5	0.3
New Residential Structures	1.0	0.5
Modern Industrial/Commercial Buildings	2.0	0.5

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, compactors, crack-and-seat equipment, and vibratory pile drivers and compaction equipment.
Source: Caltrans 2002, 2004

Table 5
Annoyance Potential to People at Various Groundborne Vibration Levels

Human Response	Vibration Level (in/sec ppv)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.10
Severe	2.0	0.4

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, compactors, crack-and-seat equipment, and vibratory pile drivers and compaction equipment.
Source: Caltrans 2002, 2004

Impacts Assessment

Significance Criteria

Criteria for determining the significance of noise impacts were developed based on information contained in the California Environmental Quality Act Guidelines (CEQA Guidelines, Appendix G). According to the guidelines, a project may have a significant effect on the environment if it would result in the following conditions:

a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or of applicable standards of other agencies;

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels;

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

For purposes of this analysis, a substantial increase in noise levels is defined as an increase of 5.0, or greater, where the noise levels, without project implementation, are less than 60 dBA CNEL/L_{dn}; 3 dBA, or greater, where the noise level, without project implementation, ranges from 60 to 65 dBA CNEL/L_{dn}; and 1.5 dB, or greater, where the noise level, without project implementation, exceeds 65 dBA CNEL/L_{dn}, based on the previously discussed FICON noise criteria (Table 2). The rationale for these noise criteria is that as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause a substantial increase in annoyance.

Methodology

A combination of existing literature, noise level measurements, and application of accepted noise prediction and sound propagation algorithms were used for the prediction of short-term construction and long-term transportation source noise levels. Traffic noise levels were calculated using the Federal Highway Administration (FHWA) roadway noise prediction model (FHWA-RD-77-108) and the FHWA Traffic Noise Model, version 2.5, based, in part, on traffic data obtained from the traffic analysis prepared for this project. Additional input data included vehicle speeds, ground attenuation factors, and roadway widths. Modeling assumptions and calculations are included in Appendix A.

Impact Summary

Project-related noise and groundborne vibration impacts are summarized in Table 6.

Table 6
Summary of Project-Related Noise & Vibration Impacts

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
A. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	■	☐
B. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	■	☐
C. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	■	☐
D. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	■	☐	☐
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?	☐	☐	☐	■
F. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■

Impact Discussion and Mitigation Measures

IMPACT A: Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or of applicable standards of other agencies.

The proposed project would not include the installation of major stationary sources of exterior noise. As a result, potential long-term exposure to noise would be primarily associated with vehicle traffic noise emanating from area roadways.

For determination of land use compatibility for transportation noise sources, the City's General Plan establishes a "normally acceptable" exterior noise standard of 65 dBA CNEL/L_{dn}. Exterior noise levels of up to 70 dBA CNEL/L_{dn} are considered "conditionally acceptable" provided necessary noise-reduction measures are incorporated. Exterior levels between 70 and 80 dBA CNEL/L_{dn} are considered "normally unacceptable" and levels in excess of 80 dBA CNEL/L_{dn} are considered "clearly unacceptable" (Paso Robles 2003). In addition to the noise criteria for determination of land use compatibility, General Plan Policy N-1A also establishes exterior and interior noise standards for transportation sources. For hotel uses, the maximum allowable noise exposure within outdoor activity areas is 65 dBA CNEL/L_{dn}. The maximum allowable noise exposure for interior areas of the hotel is 45 dBA CNEL/L_{dn}.

For determination of consistency with the City of Paso Robles General Plan noise standards, traffic noise modeling was conducted to determine the predicted traffic noise levels at various onsite locations. Traffic noise modeling was conducted using the FHWA Traffic Noise Model, version 2.5, for nearby segments of Highway 46 and Union Road. Traffic noise levels were evaluated for *Near-Term Plus Project* traffic volumes derived from the traffic analysis prepared for this project. The *Near-Term Plus Project* traffic scenario includes existing traffic volumes along with approved and pending projects in the study area. A future cumulative traffic noise analysis was also conducted based on projected future cumulative year 2025 traffic data derived from the *City of Paso Robles General Plan Circulation Element*.

Projected near-term and future cumulative traffic noise levels at the proposed project site are depicted in Figure 7 and Figure 8, respectively. In comparison to ground-level locations, predicted noise levels at upper-floor locations are projected to be slightly higher due to decreased ground attenuation and increased line-of-sight of area roadways. Predicted noise levels would be highest along the northern-most building façade. Under near-term conditions, projected exterior noise levels at the northern façade would range from approximately 59 dBA CNEL/L_{dn} at ground-floor locations to approximately 62 dBA CNEL/L_{dn} at upper floor locations. Under future cumulative conditions projected exterior noise levels at the northern façade would range from approximately 62 dBA CNEL/L_{dn} at ground-floor locations to approximately 65 dBA CNEL/L_{dn} at upper floor locations. No outdoor activity areas would be located along the northern building façade, Predicted exterior traffic noise levels would not exceed the City's exterior noise standard of 65 dBA CNEL/L_{dn}.

Newer building construction typically provides exterior-to-interior noise reductions of 25-30 dB. Based on the predicted exterior noise levels discussed above and assuming a minimum exterior-to-interior noise reduction of 25 dB, predicted interior noise levels for the proposed hotel would be approximately 40 dBA CNEL/L_{dn}, or less. Predicted interior traffic noise levels would not exceed the City's noise standard of 45 dBA CNEL/L_{dn}. This impact is considered less than significant.

IMPACT B: Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Increases in groundborne vibration levels attributable to the proposed project would be primarily associated with short-term construction-related activities. Construction activities associated with the proposed project would likely require the use of various off-road equipment, such as tractors, concrete mixers, and haul trucks. The use of major groundborne vibration-generating construction equipment, such as pile drivers, is not anticipated to be required for this project.

Groundborne vibration levels associated with representative construction equipment are summarized in Table 7. Based on the vibration levels presented in Table 7, ground vibration generated by construction equipment would not be anticipated to exceed approximately 0.08 inches per second ppv at 25 feet. Predicted vibration levels at the nearest offsite structures, which are located in excess of 25 feet from the project site, would not exceed the minimum recommended criteria for structural damage and human annoyance (0.2 and 0.1 in/sec ppv, respectively). As a result, this impact would be considered less than significant.

Table 7
Representative Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity at 25 Feet (In/Sec)
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozers/Tractors	0.003
Source: FTA 2006, Caltrans 2004	

Figure 7
Predicted Near-Term with Project Traffic Noise Levels

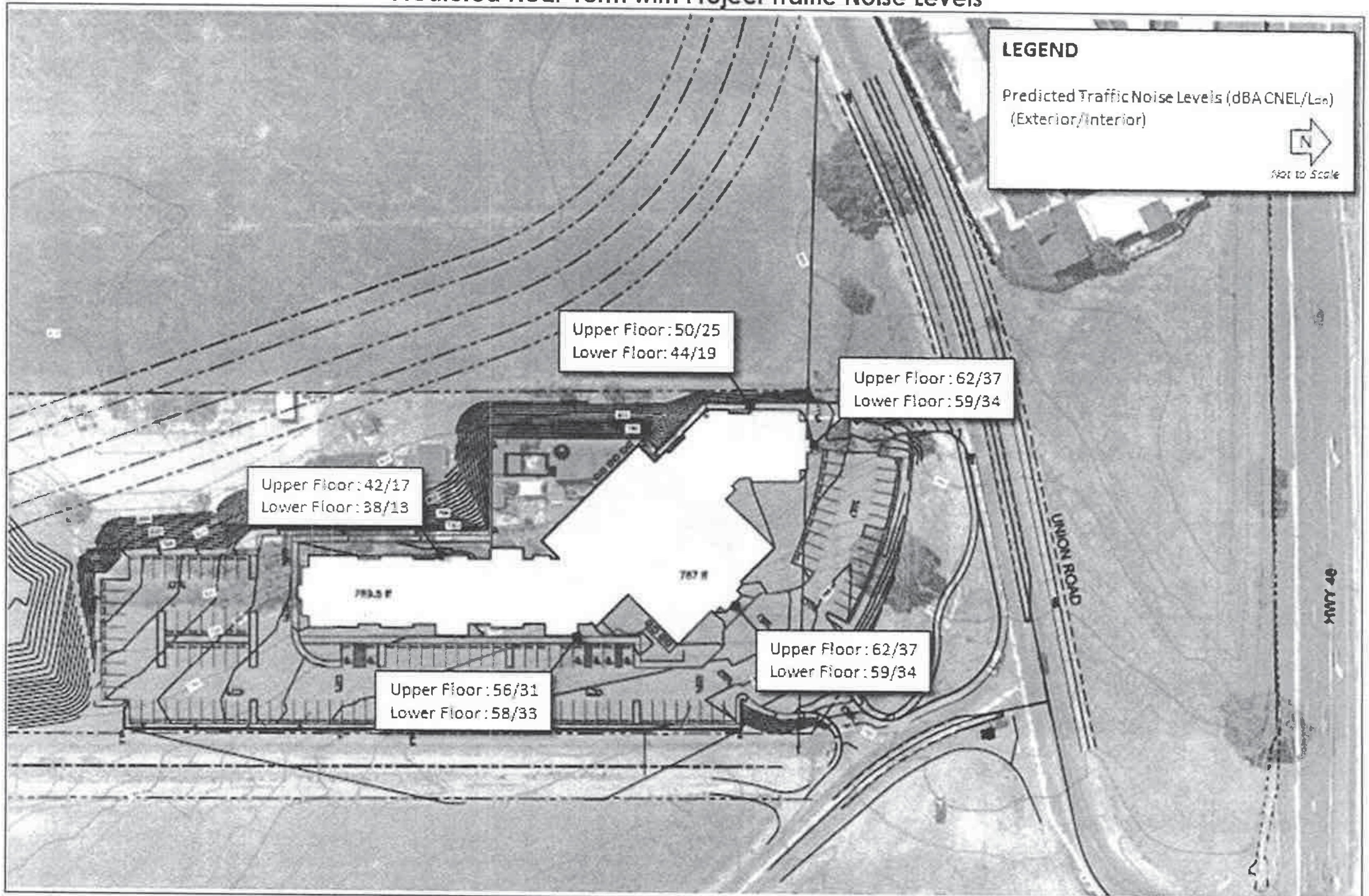


Image Source: Wallace Group 2015

Figure 8
Predicted Future Traffic Noise Levels

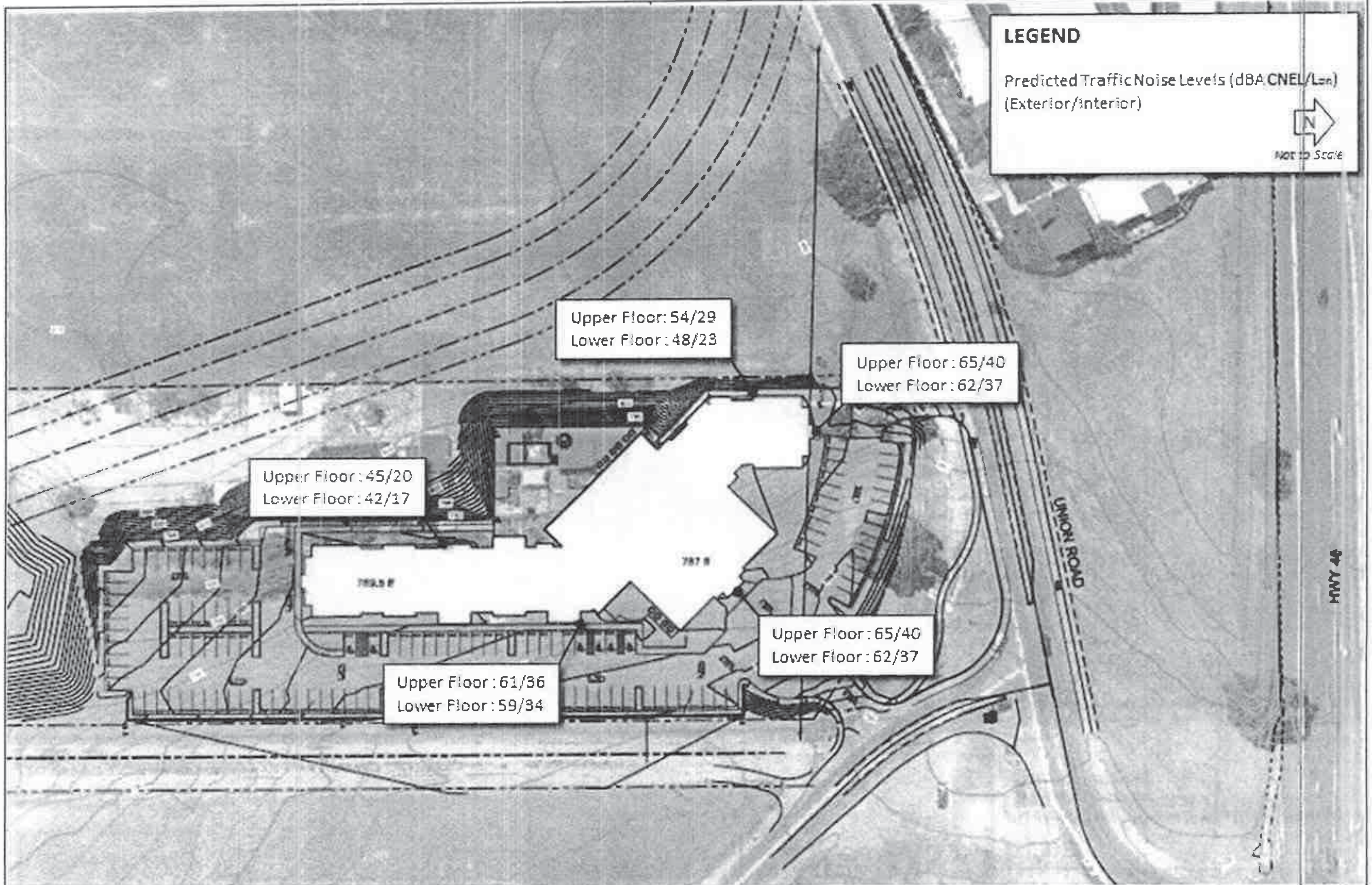


Image Source: Wallace Group 2015

IMPACT C: A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Implementation of the proposed project would result in increased traffic volumes along the adjacent segments of Union Road. Traffic noise levels were quantified for existing conditions, with and without project-generated traffic, based on data derived from the traffic analysis prepared for this project. The project's contribution to traffic noise levels was determined by comparing the predicted noise levels with and without project-generated traffic. Predicted traffic noise levels, are summarized in Table 8.

In comparison to existing conditions, the proposed project would result in predicted increases in traffic noise levels of approximately 0.3 dBA, or less, along the adjacent segments of Union Road. Implementation of the proposed project would not contribute to a substantial increase in traffic noise levels along area roadways. As a result, this impact would be considered less than significant.

Table 8
Predicted Increases in Existing Traffic Noise Levels

Roadway Segment	CNEL/L_{dn} at 50 Feet from Near-Travel-Lane Centerline[1]		Predicted Noise Level Increase	Substantial Noise Level Increase?[2]
	Without Project	With Project		
Union Road, West of Project Site	64.9	65.1	0.2	No
Union Road, East of Project Site	64.3	64.6	0.3	No

1. *Traffic noise levels were calculated using the FHWA roadway noise prediction model based on data obtained from the traffic analysis prepared for this project (CCTC 2015).*
2. *For purposes of this analysis, a substantial increase in noise levels is defined as an increase of 5.0, or greater, where the noise levels, without project implementation, are less than the City's "normally acceptable" noise standard. Where the noise level, without project implementation, equals or exceeds applicable noise standards, an increase of 3.0 dBA, or greater, would be considered a substantial increase.*

IMPACT D: A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Construction noise typically occurs intermittently and varies depending upon the nature or phase of construction (e.g., land clearing, grading, excavation, and paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Although noise ranges are generally similar for all construction phases, the initial site preparation phase tends to involve the most heavy-duty equipment having a higher noise-generation potential.

Noise levels associated with individual construction equipment is summarized in Table 9. As depicted, noise levels generated by individual pieces of construction equipment typically range from approximately 74 dBA to 89 dBA L_{max} at 50 feet (FTA 2006). Average-hourly noise levels associated with road improvement projects can vary, depending on the activities performed, reaching levels of up to approximately 83 dBA L_{eq} at 50 feet. Short-term increases in vehicle traffic, including worker commute trips and haul truck trips may also result in temporary increases in ambient noise levels at nearby receptors. Construction activities occurring during the more noise-sensitive nighttime hours would be of particular concern given the potential for increased levels of annoyance. The proposed project, however, does not identify hourly restrictions for construction activities. As a result, noise-generating construction activities occurring during the nighttime hours, if required, would be considered to have a potentially significant short-term noise impact.

Table 9
Typical Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA Lmax) 50 feet from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Vibrator	76
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	85
Truck	88
Paver	89
Pneumatic Tool	85
Roller	74
Saw	76
Sources: FTA 2006	

Mitigation Measure Noise-1:

a. Unless otherwise provided for in a validly issued permit or approval, noise-generating construction activities should be limited to the hours of 7:00 a.m. and 7:00 p.m. Noise-generating construction activities should not occur on Sundays or City holidays.

b. Construction equipment should be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds should be closed during equipment operation.

With mitigation, construction activities would be limited to the daytime hours. The proper maintenance of construction equipment and use of mufflers would reduce equipment noise levels by approximately 10 dB. With mitigation, this impact is considered less than significant.

IMPACT E & F: ***For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels; AND For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?***

The nearest public or private airport is the Paso Robles Municipal Airport, which is located approximately 1.4 miles north of the project site. The project site is not located within the projected 65 dBA CNEL contours of Paso Robles Municipal Airport (City of Paso Robles 2004). As a result, the project site is not subject to high levels of aircraft noise. No impact.

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TRAFFIC NOISE MODELING

UNION ROAD, WEST OF THE PROJECT SITE – EXISTING
ADT: 6320 SPEED: 45 ACTIVE HALF WIDTH (FT): 6
SITE CHARACTERISTICS: SOFT GRADE (PERCENT): .5
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 64.9

UNION ROAD, WEST OF THE PROJECT SITE – EXISTING PLUS PROJECT
ADT: 6640 SPEED: 45 ACTIVE HALF WIDTH (FT): 6
SITE CHARACTERISTICS: SOFT GRADE (PERCENT): .5
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 65.1

UNION ROAD, EAST OF THE PROJECT SITE – EXISTING
ADT: 5560 SPEED: 45 ACTIVE HALF WIDTH (FT): 6
SITE CHARACTERISTICS: SOFT GRADE (PERCENT): .5
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 64.3

UNION ROAD, EAST OF THE PROJECT SITE – EXISTING PLUS PROJECT
ADT: 5970 SPEED: 45 ACTIVE HALF WIDTH (FT): 6
SITE CHARACTERISTICS: SOFT GRADE (PERCENT): .5
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 64.6

Based on traffic volumes derived from the traffic analysis prepared for this project. Assumes peak-hour volumes are roughly 10 percent of average-daily volumes; AM peak-hour noise levels (in dBA L_{eq}) are roughly equivalent to average-daily noise levels (dBA CNEL/L_{dn}).

Paso Robles Union Road Residence Inn

Transportation Impact Analysis

Central Coast Transportation Consulting

895 Napa Avenue, Suite A-6

Morro Bay, CA 93442

(805) 316-0101

January 2016

Executive Summary

This study evaluates the potential transportation impacts of the development of a Marriott-Residence Inn located on Union Road near State Route 46E 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 and Near-Term conditions with and without the project:

1. State Route 46 E / Golden Hill Road
2. State Route 46 E / Union Road
3. Union Road / Golden Hill Road
4. Union Road / Union Road

The project is expected to generate 980 daily trips, 64 AM peak hour trips, and 72 PM peak hour trips on a typical weekday. The City's recently updated Transportation Impact Analysis Guidelines and Caltrans criteria are applied to identify transportation deficiencies, summarized below.

Traffic Operations: The following conditions are noted:

- Under Existing, Existing Plus Project, Near Term and Near Term Plus Project conditions all of the study intersections operate at LOS C or better during the weekday peak hours.
- The north and southbound left turn 95th percentile queues at the State Route 46 / Golden Hill Road intersection would near storage capacity under Near Term conditions both with and without the project. The addition of project traffic would increase these queues by less than one vehicle length.
- The northbound approach to State Route 46E / Union Road would operate at LOS E under Near Term conditions, worsening to LOS F with the addition of project traffic. The overall intersection LOS would remain LOS A. Prohibiting northbound left turns would improve operations at this intersection by reducing turning conflicts. The westbound left turn lane should remain, as it provides substantial relief to the State Route 46E / Golden Hill Road intersection.

Bicycle, Pedestrian, and Transit Facilities: The project site plan shows frontage improvements to both legs of Union Road adjacent to the project. These include Class II bike lanes serving all directions of travel. This is consistent with City plans for these facilities, so no deficiencies are noted. The project site plan includes bicycle pavement markings on the Class II bike lanes. It is recommended that the bicycle rider stencil be installed only once the Class II bike lanes are continuous.

No pedestrian or transit deficiencies are noted.

Site Access: The project proposes roadway narrowing to slow approaching traffic and left turn prohibition for vehicles exiting the northwest driveway. These improvements will reduce the severity of the inadequate sight distance at this driveway by reducing conflict points and slowing vehicles. There is an existing dirt driveway east of the project that connects to Union Road less than 50 feet from the project's proposed driveway. The project should coordinate with the neighboring property owner to investigate consolidated access to a single driveway on Union Road. If consolidated access is not feasible at this time, consideration should be given if the parcels using the existing dirt driveway intensify.

Contents

Introduction

This study evaluates the potential transportation impacts of the development of a Marriott-Residence Inn in the City of Paso Robles. The project site is located at the southwest corner of the Union Road / Union Road intersection, south 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 study locations and analysis scenarios were developed in consultation with City staff.

The following intersections are evaluated during the weekday morning (7-9 AM) and evening (4-6 PM) time periods:

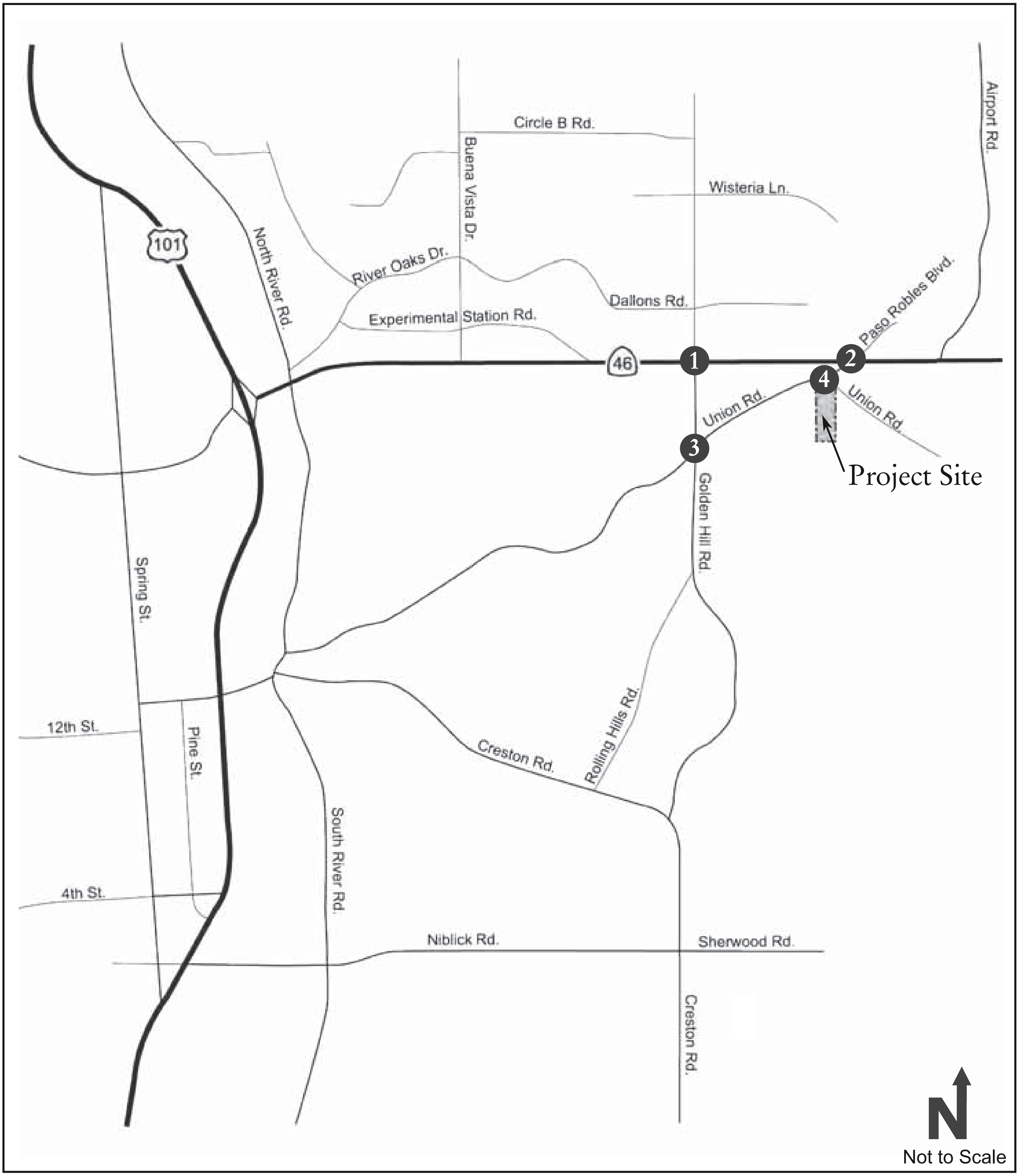
1. State Route 46 E / Golden Hill Road
2. State Route 46 E / Union Road
3. Union Road / Golden Hill Road
4. Union Road / Union Road

The study intersections are evaluated under these scenarios:

1. **Existing Conditions** reflect traffic counts collected in May 2014 and June 2015 and the existing transportation network.
2. **Existing + 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 + Project Conditions** add project traffic to Near Term Conditions volumes.

A description of the analysis approach follows Figures 1 and 2.

Figure 1: Project and Study Locations



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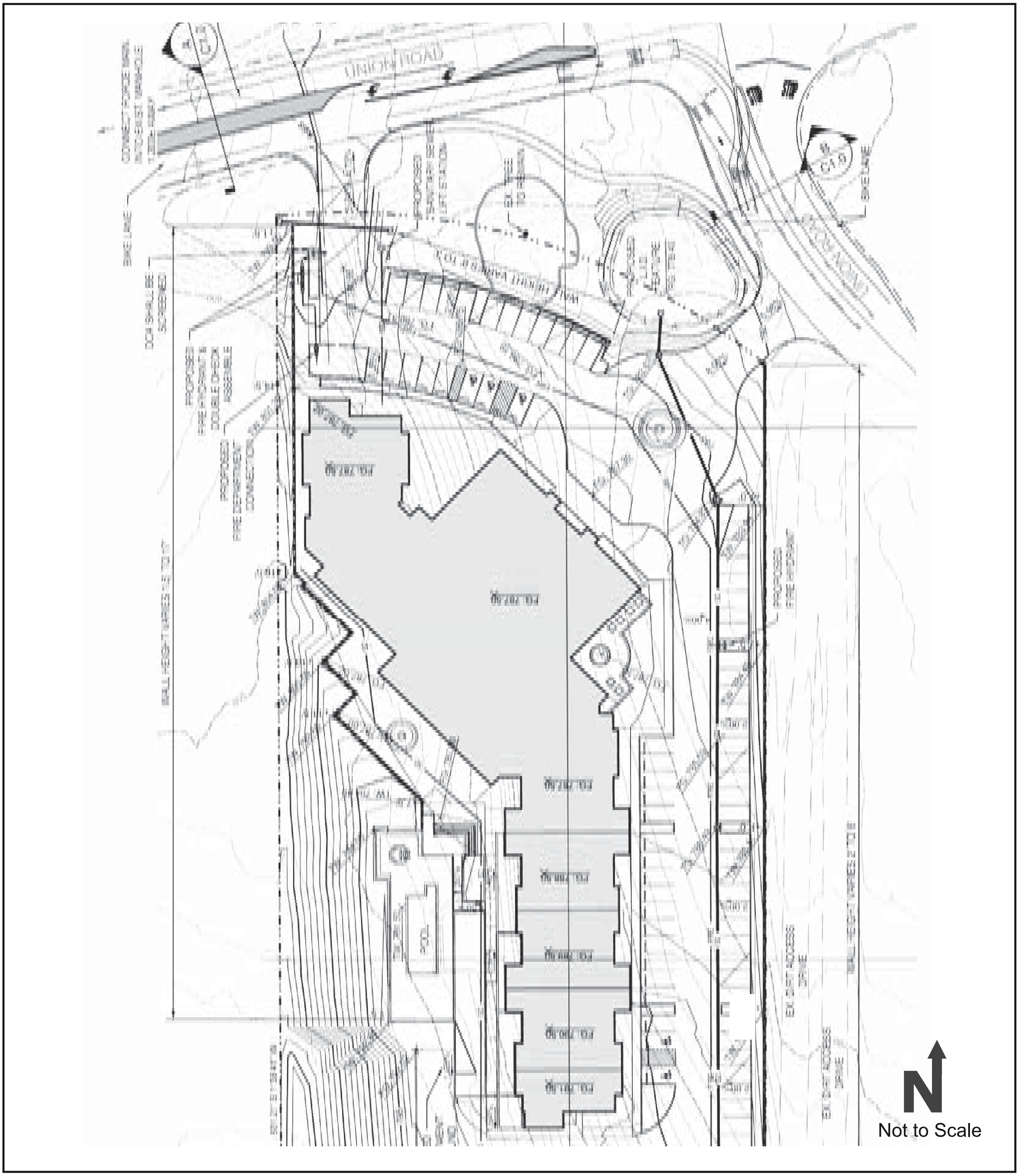
Legend:

7 - Study Intersection

July 2015

Paso Robles Marriot Hotel

Figure 2: Site Plan



Source: Wallace Group

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January 2016

Paso Robles Marriot Hotel

ANALYSIS METHODS

The analysis approach was developed based on the City of Paso Robles' *Transportation Impact Analysis Guidelines* and Caltrans standards for intersections on State Route 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 provide mobility deficiency criteria for a variety of study elements. Table 1 summarizes these criteria, which are used to identify deficiencies.

Table 1: City of Paso Robles Mobility Deficiency Criteria[1]

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 State Route 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 LOS should be maintained.

Table 2: Intersection Level of Service Thresholds			
Signalized Intersections[1]		Stop Sign Controlled Intersections[2]	
Delay[3]	Level of Service	Delay[3]	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. Source: Exhibit 18-4 of the 2010 *Highway Capacity Manual*.
2. Source: Exhibits 19-1 and 20-2 of the 2010 Highway Capacity Manual.
3. HCM 2010 average control delay in seconds per vehicle.

Note that side-street-stop controlled intersection operations are described both in terms of the overall intersection average delay per vehicle in addition to the delay experienced by the worst approach. While not required by the 2010 HCM, reporting both the average and worst approach delays per vehicle gives a more complete picture of intersection operations. This is particularly relevant to intersections with very low side street volumes where worst approach delay can be very high but affects a very small portion of the total entering vehicles.

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 State Route 46 E.

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 at side streets.

Golden Hill Road is a north-south arterial with two travel lanes north of Union Road that expand into four travel lanes between Mesa Road and Dallons Drive.

Union Road is a northeast-southwest arterial with two travel lanes between State Route 46 E and Creston Road. Union Road also splits into a second arterial in the northwest-southeast direction adjacent to the project site just before connecting to State Route 46 E.

EXISTING PEDESTRIAN AND BICYCLE FACILITIES

Pedestrian facilities include sidewalks, crosswalks, multi-use paths, and pedestrian signals at signalized intersections. Sidewalks are provided along Golden Hill Road and along discontinuous portions of Union Road. Marked crosswalks are provided across three legs of the State Route 46/Golden Hill Road intersection and one leg of Golden Hill Road/Union 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). There are currently no bicycle facilities along Golden Hill Road nor Union Road.

EXISTING TRANSIT SERVICE

The Paso Express provides fixed route and dial-a-ride transit service throughout the City of Paso Robles. The nearest stop is served by Route C at Cuesta College Campus on Buena Vista Drive, with hourly service from 7:15 AM to 7:15 PM on weekdays. Route C was created in 2011 and connects Cuesta College with Templeton via the North County Transit Center. 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 serves the North County, with a stop in Paso Robles at Pine Street/8th Street. 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 and June 2015. 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**	**Delay[1] (sec/veh)**	**LOS[2]**	**Queues Exceed Storage[3]**
1. State Route 46/Golden Hill Road	AM	20.6	C	**Yes[4]**
	PM	22.1	C	**Yes[4]**
2. State Route 46 E/ Union Road	AM	3.8 (21.6)	A (C)	No
	PM	4.9 (36.2)	A (E)	No
3. Union Road/Golden Hill Road	AM	16.1	C	No
	PM	17.3	C	No
4. Union Road/Union Road	AM	3.1 (13.2)	A (B)	No
	PM	2.8 (16.8)	A (C)	No

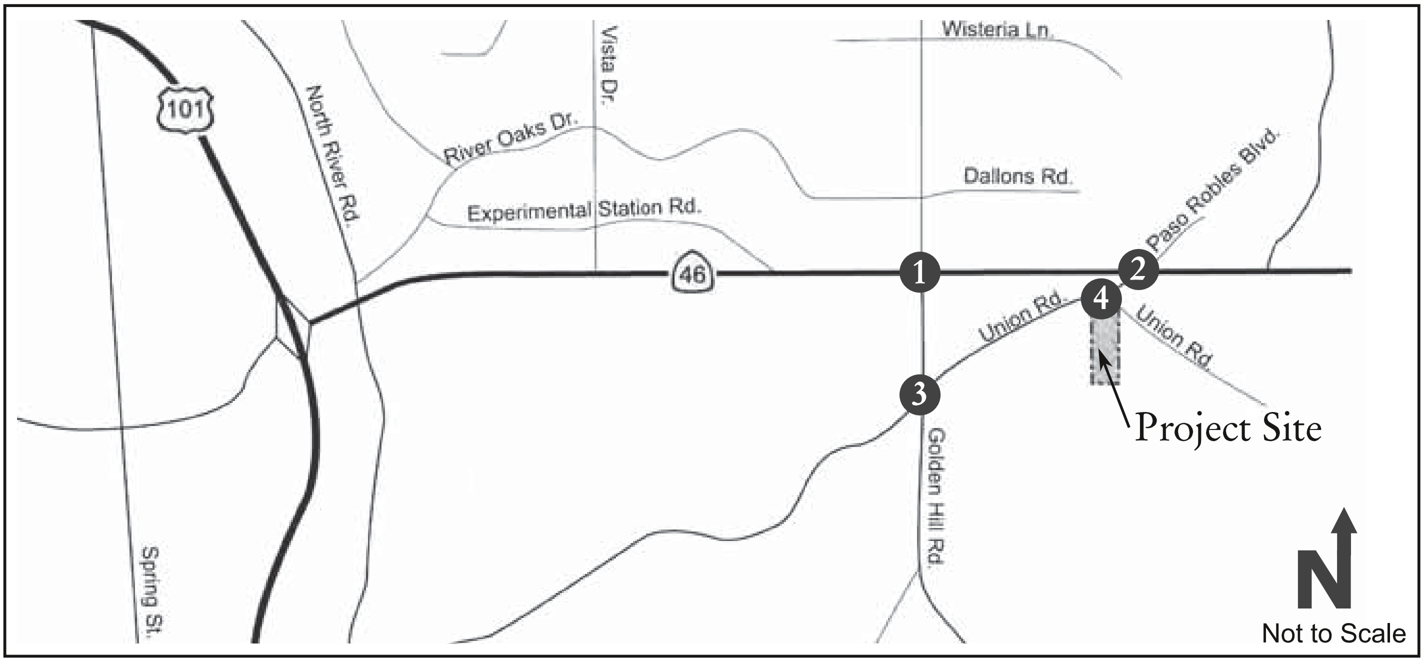
1. HCM 2010 average control delay in seconds per vehicle.
2. For side-street-stop controlled intersections the worst approach's delay is reported in parenthesis.
3. See Table 7 for detailed queues.
4. Field observation which cleared in single cycle.

All of the study intersections operate at LOS C or better during the weekday peak hours.

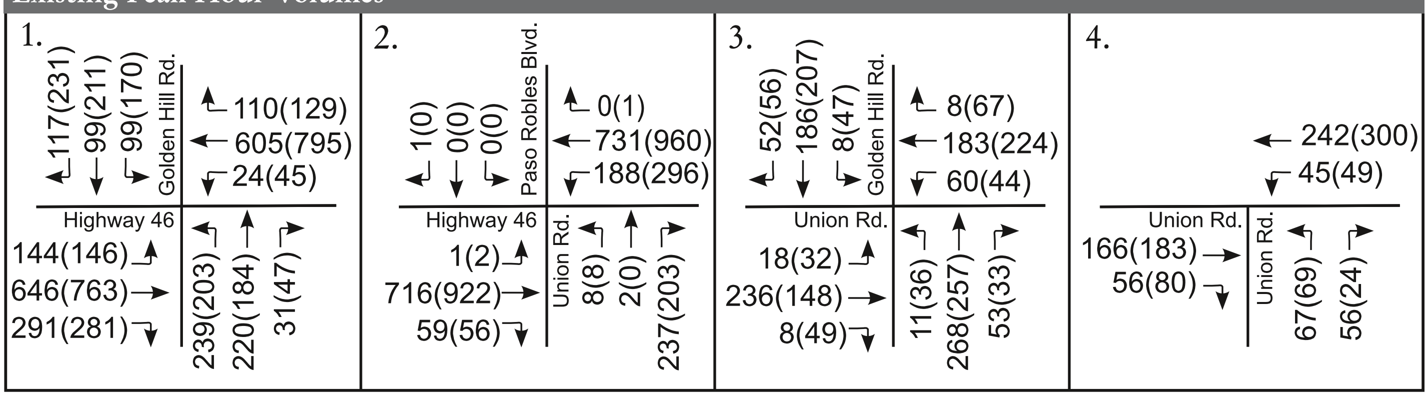
Field observations at the State Route 46/Golden Hill Road intersection showed occasional queue spillback for the north- and southbound left turn lanes. These queues cleared within a single cycle.

At the State Route 46E/Union Road intersection left turns from the side street (Union Road) approaches experience high levels of delay due to the high volumes of State Route 46E. This results in occasional aggressive maneuvers as drivers are unable to find an acceptable gap in traffic. Many drivers familiar with the intersection would detour to avoid these turning movements.

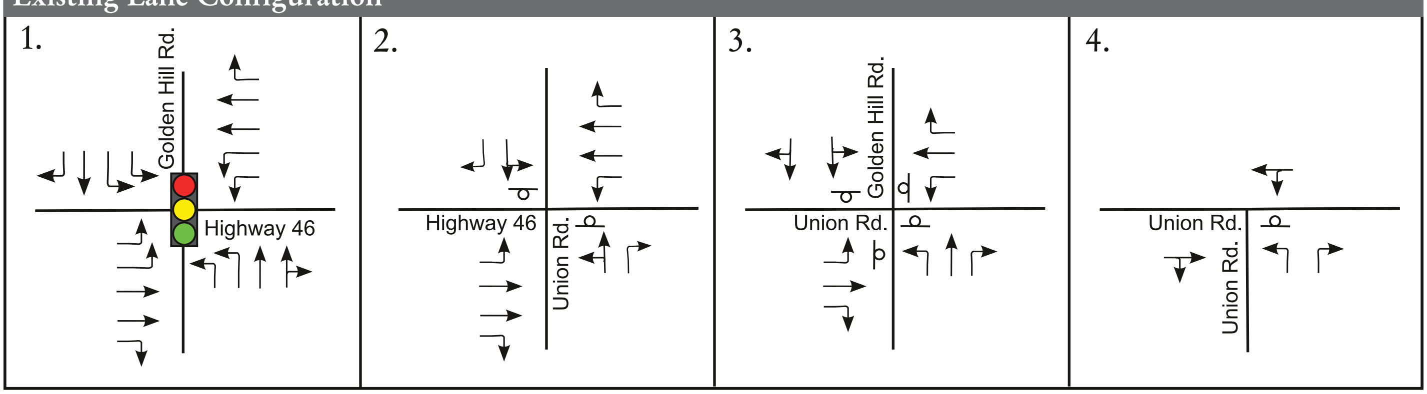
Figure 3: Existing Peak Hour Volumes and Lane Configurations



Existing Peak Hour Volumes



Existing Lane Configuration



Legend:

- 7 - Study Area Intersection
- xx(yy) - AM(PM) Peak Hour Traffic Volumes
- Traffic Signal
- Stop Sign

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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 destinations of these trips, and trip assignment identifies the specific routes taken to reach these origins and destinations.

Trip Generation

The project's trip generation estimate, shown in Table 4, was developed using data provided in the Institute of Transportation Engineers' (ITE) Trip Generation Manual.

Table 4: Project Trip Generation

		Daily	AM Peak Hour Trips			PM Peak Hour Trips		
Land Use	**Size**	**Trips**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Hotel[1]	120 rooms	980	38	26	64	37	35	72

1. ITE Trip Generation Manual, Land Use Code 310. Average rate used.
Source: ITE *Trip Generation Manual*, 9th Edition, 2012; CCTC, 2015.

The project is expected to generate 980 daily trips, 64 AM peak hour trips, and 72 PM peak hour trips on a typical weekday.

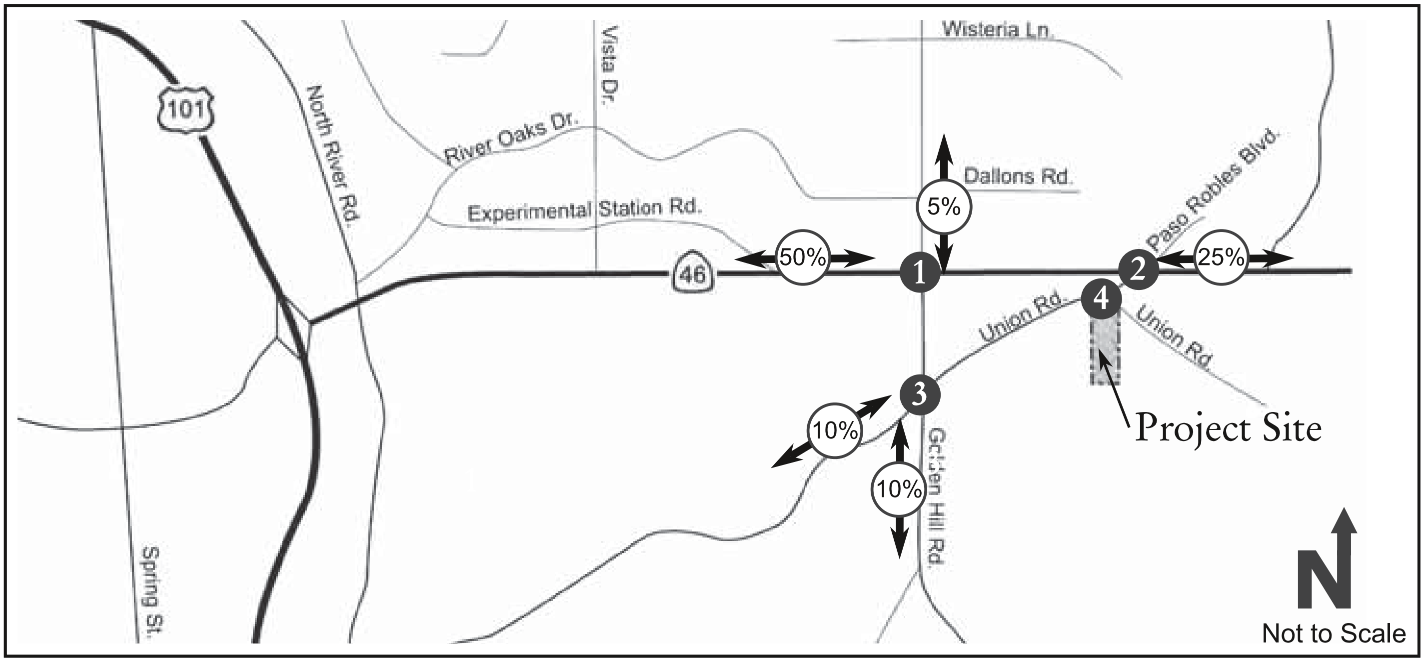
Trip Distribution and Assignment

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.

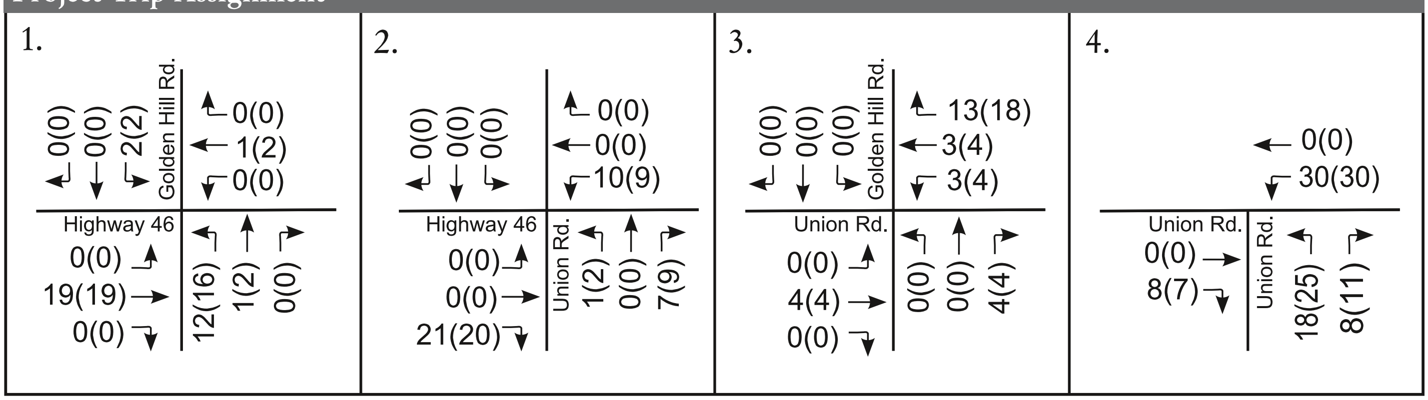
Project Proposed Improvements

The project proposes to reconstruct Union Road along its north and east frontages. On the north frontage a raised median is proposed with a left turn lane serving inbound traffic. Outbound left turns would be prohibited from the northern project driveway. In addition, the eastbound travel lane on Union Road would be narrowed to 10 feet to slow traffic approaching the project driveway. These improvements are discussed in more detail in the Site Access and On-Site Circulation section of this report.

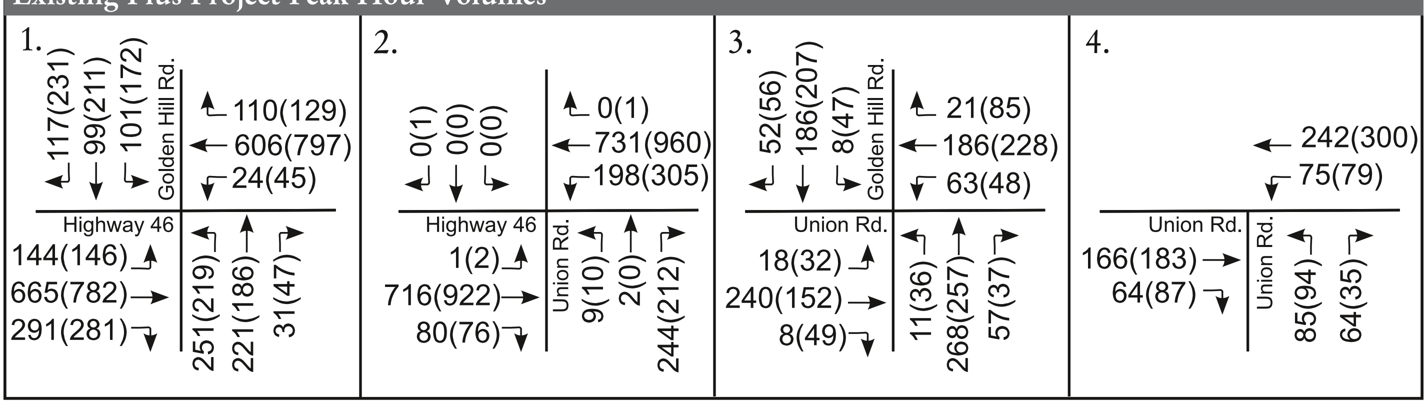
Figure 4: Project Trip Distribution, Assignment, and Existing Plus Project Volumes



Project Trip Assignment



Existing Plus Project Peak Hour Volumes



Legend:

7	- Study Area Intersection
3%	- Project Trip Distribution Percentage
xx(yy)	- AM(PM) Peak Hour Traffic Volumes

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Paso Robles Marriot Hotel

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						
		Existing		Existing Plus Project		
Intersection	Peak Hour	Delay[1] (sec/veh)	LOS[2]	Delay[1] (sec/veh)	LOS[2]	Queues Exceed Storage[3]
1. State Route 46/Golden Hill Road	AM	20.6	C	20.9	C	**Yes[4]**
	PM	22.1	C	22.5	C	**Yes[4]**
2. State Route 46 E/ Union Road	AM	3.8 (21.6)	A (C)	4.1 (22.8)	A (C)	No
	PM	4.9 (36.2)	A (E)	5.9 (45.9)	A (E)	No
3. Union Road/Golden Hill Road	AM	16.1	C	16.4	C	No
	PM	17.3	C	17.7	C	No
4. Union Road/Union Road	AM	3.1 (13.2)	A (B)	4.1 (15.1)	A (C)	No
	PM	2.8 (16.8)	A (C)	4.3 (20.9)	A (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.
3. See Table 7 for detailed queues.
4. Field observation which cleared in single cycle.

All of the study intersections operate at LOS C or better. The northbound approach to the State Route 46E/Union Road intersection operates at LOS E both with and without the project due to high volumes on State Route 46E.

Queuing is reported in Table 7. No queue deficiencies are reported.

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:

- Class II bike lanes are proposed along the extent of Union Road, including along the project's frontages.
- Class II bike lanes are proposed along Golden Hill Road from State Route 46E to south of Niblick Drive.

The project site plan shows frontage improvements to both legs of Union Road adjacent to the project. These include Class II bike lanes serving all directions of travel. The project proposes new roadway striping at this intersection.

The project site plan includes bicycle pavement markings on the Class II bike lanes. It is recommended that the bicycle rider stencil be installed only once the Class II bike lanes are continuous.

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 project site plan shows a sidewalk along the project frontage. Pedestrians walking from the project site would use the roadway shoulder and short sections of sidewalks to reach any nearby destinations. No pedestrian deficiencies are noted.

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 project is not expected to alter or disrupt any of the transit facilities or services, so no transit deficiencies are noted.

Site Access and 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 two driveways on Union Road, one on each project frontage.

Driveway Locations

Union Road is classified as an arterial in the City's Circulation Element. 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.

There is an existing dirt driveway east of the project that connects to Union Road less than 50 feet from the project's proposed driveway. Active driveways less than 50 feet from each other, and within 200 feet of the Union Road/Union Road intersection, could potentially cause driver confusion and conflicts.

If adjacent property owners are amenable, the project should pursue consolidated access to a single driveway on Union Road. If a consolidated access is not feasible at this time, it should be considered if the parcels using the existing dirt driveway intensify. The project proposed frontage improvements, discussed below, would improve operating conditions when compared to the existing condition.

Sight Distance Evaluation

Union Road has a vertical curve with a crest about 300 feet west of the project. This crest blocks sight lines for eastbound drivers on Union Road. Caltrans' *Highway Design Manual* notes that the minimum stopping sight distance for a road with a 45 MPH design speed is 360 feet. The project's proposed northeastern driveway has less than 300 feet of clear sight lines to the west due to the crest in the hill. This is a potential safety hazard.

The project proposes narrowing the eastbound travel lane on Union Road to ten feet in the vicinity of the crest vertical curve to address the sight distance deficiency. Narrower lanes result in lower speeds than wider lanes, with some research suggesting a drop of more than 5 MPH when lane widths drop from 13 to 10 feet. If the changes reduced speeds from 45 MPH to 40 MPH, the minimum stopping sight distance drops from 360 feet to 300 feet. The driveway in question has just under 300 feet of sight distance, so it is possible that the narrowing could result in adequate sight distance due to reduced speeds.

A raised median is also proposed as a part of the lane narrowing. The median, as designed, would prevent vehicles exiting the site via the north driveway from making a left turn. This outbound left turn restriction would reduce the number of conflict points at this intersection when compared to the existing full access driveway.

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.
- 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
- Hilton Garden Inn Hotel- 166 hotel rooms and related amenities on the southeast corner of State Route 46E/Golden Hill Road.
- 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, Hilton Garden Inn, and River Oaks projects were obtained from the traffic studies prepared for those projects. Traffic volumes for Tract 2887, the RV park, wine storage building, 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.

Table 6: Near Term & Near Term Plus Project Intersection Levels of Service

Intersection	Peak Hour	Near Term Delay[1] (sec/veh)	Near Term LOS[2]	Near Term Queues Exceed Storage[3]	Near Term Plus Project Delay[1] (sec/veh)	Near Term Plus Project LOS[2]	Near Term Plus Project Queues Exceed Storage[3]
1. State Route 46/Golden Hill Road	AM	22.8	C	**Yes**[4]	22.9	C	**Yes**[4]
	PM	25.2	C	**Yes**[4]	25.6	C	**Yes**[4]
2. State Route 46 E/Union Road	AM	4.2 (25.4)	A (D)	No	4.4 (26.9)	A (D)	No
	PM	5.6 (44.9)	A (E)	No	6.6 (54.5)	A (F)	No
3. Union Road/Golden Hill Road	AM	21.3	C	No	21.9	C	No
	PM	24.5	C	No	25.5	C	No
4. Union Road/Union Road	AM	3.1 (13.2)	A (B)	No	4.1 (15.2)	A (C)	No
	PM	2.8 (17)	A (C)	No	4.3 (21.1)	A (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.
3. See Table 7 for detailed queues.
4. Field observation which cleared in single cycle. Synchro reports 95th percentile queue length close to pocket length.

Under Near Term and Near Term Plus Project conditions all of the study intersections operate at LOS C or better during the weekday peak hours.

The north and southbound left turn 95th percentile queues at the State Route 46/Golden Hill Road intersection would near storage capacity under Near Term conditions both with and without the project. The addition of project traffic would increase these queues by less than one vehicle length.

The northbound approach to State Route 46E/Union Road would operate at LOS E under Near Term conditions, worsening to LOS F with the addition of project traffic. The overall intersection LOS would remain LOS A. Prohibiting northbound left turns would improve operations at this intersection by reducing turning conflicts. The westbound left turn lane should remain, as it provides substantial relief to the State Route 46E/Golden Hill Road intersection.

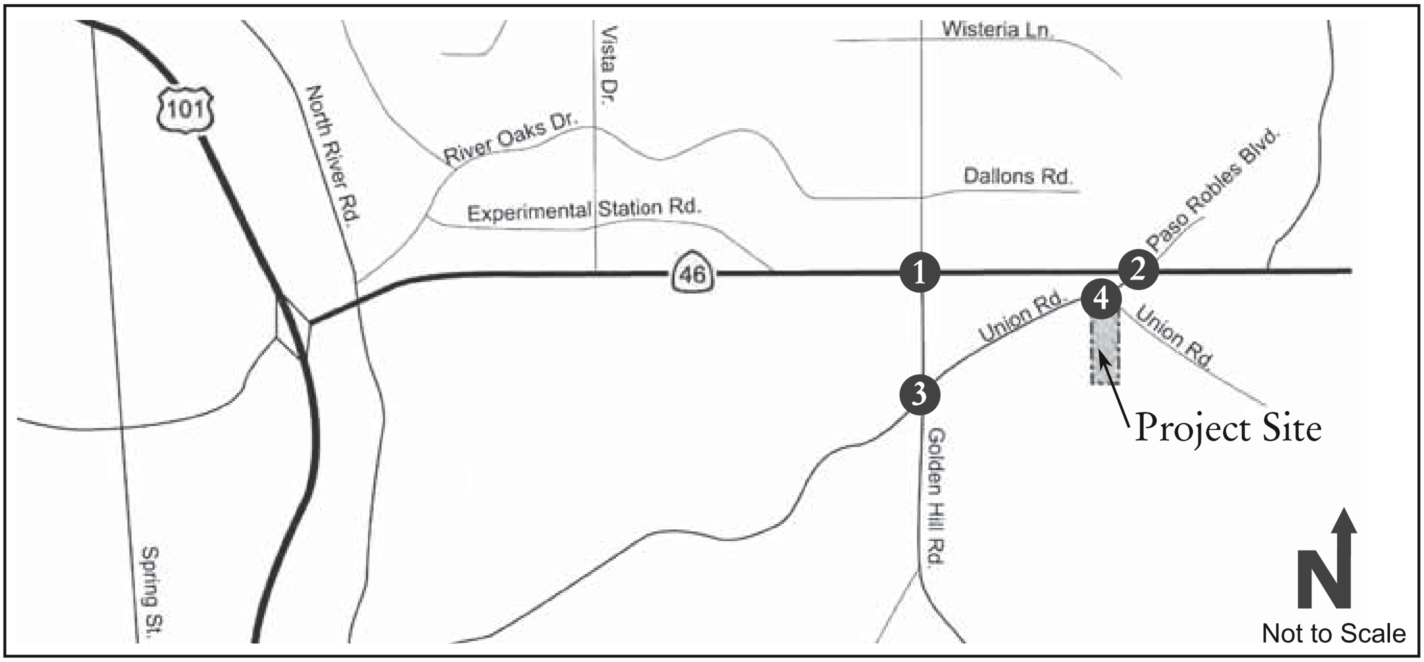
Queues are detailed in Table 7.

Table 7: 95th Percentile Queues

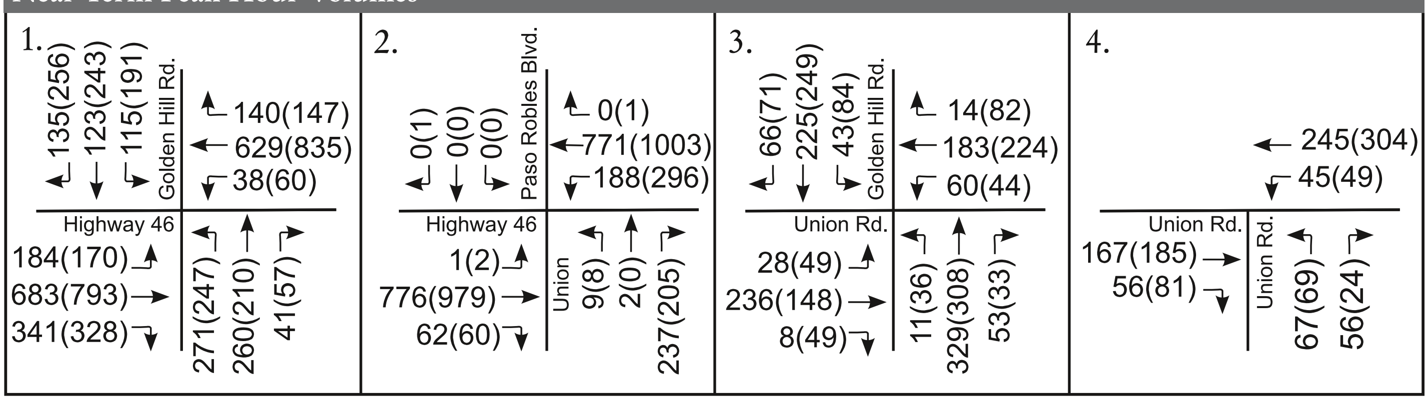
Intersection	Direction	Storage Length	Peak Hour	95th Percentile Queues (feet) Existing	Existing+ Project	Near Term	Near Term+ Project
1. State Route 46/Golden Hill Road	EBL	550 ft.	AM PM	73 83	74 83	107 108	107 108
	WBL	460 ft.	AM PM	19 33	19 33	31 46	31 47
	NBL	160 ft.	AM PM	109 111	116 120	145 147	151 157
	SBL	130 ft.	AM PM	55 98	57 98	75 121	76 122
2. State Route 46 E/Union Road	EBL	500 ft.	AM PM	0 0	0 0	0 0	0 0
	WBL	670 ft.	AM PM	28 63	30 65	30 68	33 73
	NBL	N/A	AM PM	25 40	30 48	33 43	38 53
	SBL	N/A	AM PM	0 0	0 0	0 0	0 0
3. Union Road/Golden Hill Road	EBL	140 ft.	AM PM	3 8	3 8	5 13	5 13
	WBL	300 ft.	AM PM	13 10	13 10	15 10	15 13
	NBL	210 ft.	AM PM	3 8	3 8	3 8	3 8
	SBL	N/A	AM PM	23 43	23 43	43 83	43 85
4. Union Road/Union Road	WBL	N/A	AM PM	3 3	5 5	3 3	5 5
	NBL	N/A	AM PM	18 23	28 43	18 43	28 43

1. Queue length that would not be exceeded 95 percent of the time. Queues are reported only for turning movements where

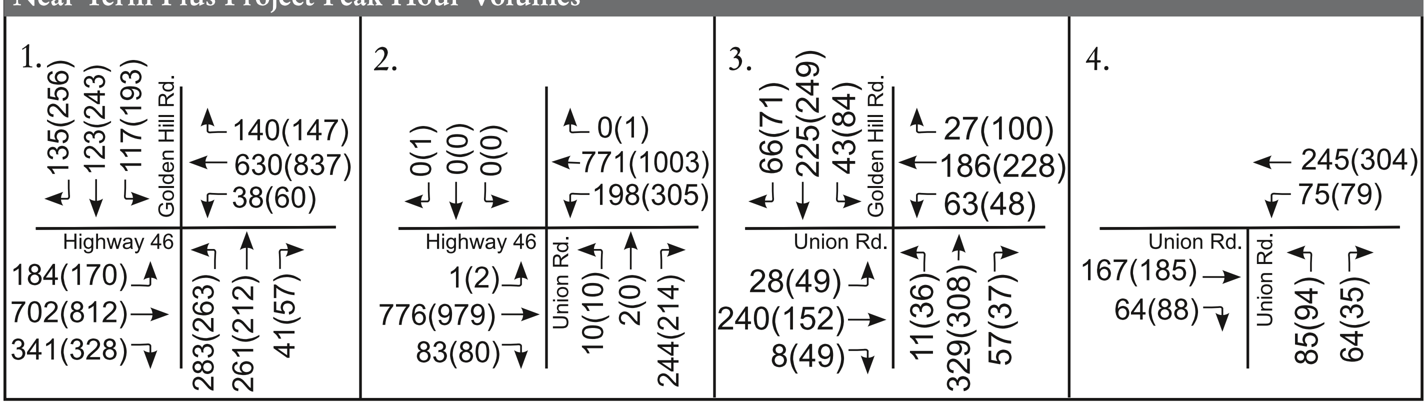
Figure 5: Near Term and Near Term Plus Project Peak Hour Volumes



Near Term Peak Hour Volumes



Near Term Plus Project Peak Hour Volumes



Legend:

7 - Study Area Intersection

xx(yy) - AM(PM) Peak Hour Traffic Volumes

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Appendix A: Traffic Count Sheets

Intersection Turning Movement
Prepared by:

Field Data Services of Arizona, Inc.
520.316.6745

Project #: 14-1160-001

TMC SUMMARY OF Golden Hill Rd. & State Route 46

Golden Hill Rd.

State Route 46

Southbound approach (Golden Hill Rd., north leg)

APPROACH LANES		1	1	2
TOTAL		348	310	252
PM		231	211	154
MD				
AM		117	99	98

N

Eastbound approach (State Route 46, west leg)

APPROACH LANES	TOTAL	AM	MD	PM
2	290	144		146
2	1329	636		693
1	572	291		281

CONTROL

Signalized

Westbound approach (State Route 46, east leg)

AM	MD	PM	TOTAL	APPROACH LANES
109		125	234	1
597		770	1367	2
24		44	68	2

Northbound approach (Golden Hill Rd., south leg)

PM	203	184	43	
MD				
AM	239	220	31	
TOTAL	442	404	74	
APPROACH LANES	2	2	1	

Golden Hill Rd.

LOCATION #: 14-1160-001

TURNING MOVEMENT COUNT

Golden Hill Rd. & State Route 46
(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	430 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 15-1175-001

TMC SUMMARY OF Union Rd. & Hwy. 46E

Union Rd. (north leg)

APPROACH LANES	0	1	0
TOTAL	1	0	0
PM	1	0	0
MD			
AM	0	0	0

Hwy. 46E (west leg)

APPROACH LANES	TOTAL	AM	MD	PM
1	3	1		2
2	1638	716		922
0	115	59		56

CONTROL

2 Way Stop

NB & SB

Hwy. 46E (east leg)

AM	MD	PM	TOTAL	APPROACH LANES
0		1	1	0
731		960	1691	2
188		296	484	1

N

Union Rd. (south leg)

PM	8	0	203	
MD				
AM	8	2	237	
TOTAL	16	2	440	
APPROACH LANES	0	1	0	

LOCATION #: 15-1175-001

TURNING MOVEMENT COUNT

Union Rd. & Hwy. 46E
(Intersection Name)

THURSDAY — Day
06/04/15 — Date

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR: 730 AM

NOON PEAK HOUR:

PM PEAK HOUR: 445 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 15-1175-002

TMC SUMMARY OF Golden Hill Rd. & Union Rd.

N

Golden Hill Rd. (north leg) — APPROACH LANES

APPROACH LANES	0	1	0
TOTAL	108	393	55
PM	56	207	47
MD			
AM	52	186	8

Union Rd. (west leg) — APPROACH LANES

APPROACH LANES	TOTAL	AM	MD	PM
1	50	18		32
1	384	236		148
1	57	8		49

CONTROL

4-Way Stop

Union Rd. (east leg) — APPROACH LANES

AM	MD	PM	TOTAL	APPROACH LANES
8		67	75	1
183		224	407	1
60		44	104	1

Golden Hill Rd. (south leg) — APPROACH LANES

PM	36	257	33	
MD				
AM	11	268	53	
TOTAL	47	525	86	
APPROACH LANES	1	1	1	

LOCATION #: 15-1175-002

TURNING MOVEMENT COUNT

Golden Hill Rd. & Union Rd.
(Intersection Name)

THURSDAY
Day

06/04/15
Date

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 745 AM

NOON PEAK HOUR

PM PEAK HOUR 430 PM

Intersection Turning Movement
Prepared by:

Field Data Services of Arizona, Inc.
520.316.6745

Project #: 15-1175-003

TMC SUMMARY OF Union Rd. & Union Rd.

N

Union Rd.

Union Rd.

Union Rd.

Union Rd.

Southbound approach

APPROACH LANES

APPROACH LANES	0	0	0
TOTAL	0	0	0
PM	0	0	0
MD			
AM	0	0	0

Eastbound approach

APPROACH LANES	TOTAL	AM	MD	PM
0	0	0		0
1	349	166		183
0	136	56		80

CONTROL

1-Way Stop

NB

Westbound approach

AM	MD	PM	TOTAL	APPROACH LANES
0		0	0	0
242		300	542	1
45		49	94	0

Northbound approach

PM	69	0	24
MD			
AM	67	0	56
TOTAL	136	0	80
APPROACH LANES	0	1	0

APPROACH LANES

LOCATION #: 15-1175-003

TURNING MOVEMENT COUNT

Union Rd. & Union Rd.
(Intersection Name)

THURSDAY
Day

06/04/15
Date

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 715 AM

NOON PEAK HOUR

PM PEAK HOUR 445 PM

Appendix B: LOS Calculations Sheets

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	178	798	359	30	747	136	295	310	122	122	144
v/c Ratio	0.46	0.55	0.41	0.10	0.69	0.23	0.55	0.40	0.42	0.44	0.39
Control Delay	36.7	17.8	3.6	34.6	24.7	4.4	34.8	25.7	39.0	34.7	7.2
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	36.7	17.8	3.6	34.6	24.7	4.4	34.8	25.7	39.0	34.7	7.2
Queue Length 50th (ft)	38	114	0	6	147	0	61	57	26	49	0
Queue Length 95th (ft)	73	204	32	19	192	25	109	97	55	99	25
Internal Link Dist (ft)		3280			2376			566		648	
Turn Bay Length (ft)	550		490	460		390	160		130		
Base Capacity (vph)	387	2546	1276	580	2731	1306	532	2253	290	1077	966
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	0.46	0.31	0.28	0.05	0.27	0.10	0.55	0.14	0.42	0.11	0.15

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	646	291	24	605	110	239	220	31	99	99	117
Future Volume (veh/h)	144	646	291	24	605	110	239	220	31	99	99	117
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		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	798	359	30	747	136	295	272	38	122	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	273	1172	561	132	1138	544	405	756	104	202	342	286
Arrive On Green	0.08	0.36	0.36	0.04	0.35	0.35	0.12	0.24	0.24	0.06	0.18	0.18
Sat Flow, veh/h	3442	3282	1570	3442	3282	1570	3442	3119	431	3442	1863	1557
Grp Volume(v), veh/h	178	798	359	30	747	136	295	153	157	122	122	144
Grp Sat Flow(s),veh/h/ln	1721	1641	1570	1721	1641	1570	1721	1770	1780	1721	1863	1557
Q Serve(g_s), s	3.3	13.6	7.3	0.6	12.7	4.1	5.5	4.7	4.8	2.3	3.8	5.5
Cycle Q Clear(g_c), s	3.3	13.6	7.3	0.6	12.7	4.1	5.5	4.7	4.8	2.3	3.8	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	273	1172	561	132	1138	544	405	429	432	202	342	286
V/C Ratio(X)	0.65	0.68	0.64	0.23	0.66	0.25	0.73	0.36	0.36	0.60	0.36	0.50
Avail Cap(c_a), veh/h	417	2737	1309	626	2936	1404	574	1234	1242	313	1158	968
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	29.5	18.0	6.0	30.8	18.2	15.4	28.1	20.7	20.8	30.3	23.5	24.2
Incr Delay (d2), s/veh	2.6	0.7	1.2	0.9	0.7	0.2	2.8	0.5	0.5	2.9	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	1.7	6.2	3.3	0.3	5.8	1.8	2.7	2.4	2.4	1.2	2.0	2.5
LnGrp Delay(d),s/veh	32.1	18.7	7.2	31.6	18.9	15.6	30.8	21.2	21.3	33.2	24.2	25.6
LnGrp LOS	C	B	A	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1335			913			605			388	
Approach Delay, s/veh		17.4			18.8			25.9			27.5	
Approach LOS		B			B			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	7.9	20.0	8.5	29.6	11.8	16.1	9.2	28.9
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	46.0	12.0	* 55	11.0	41.0	8.0	59.0
Max Q Clear Time (g_c+I1), s	4.3	6.8	2.6	15.6	7.5	7.5	5.3	14.7
Green Ext Time (p_c), s	0.1	3.0	3.4	7.0	0.3	3.0	0.1	5.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	716	59	188	731	0	8	2	237	0	0	0
Future Vol, veh/h	1	716	59	188	731	0	8	2	237	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	50	670	-	50	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	1	-	-	2	-	-	-8	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	823	68	216	840	0	9	2	272	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	840	0	0	823	0	0	1677	2097	411	1687	2097	420
Stage 1	-	-	-	-	-	-	825	825	-	1272	1272	-
Stage 2	-	-	-	-	-	-	852	1272	-	415	825	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.94	6.94	7.14	5.94	4.94	6.14
Critical Hdwy Stg 1	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	791	-	-	803	-	-	52	41	577	129	131	639
Stage 1	-	-	-	-	-	-	304	351	-	312	417	-
Stage 2	-	-	-	-	-	-	292	206	-	704	556	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	791	-	-	803	-	-	41	30	577	51	96	639
Mov Cap-2 Maneuver	-	-	-	-	-	-	41	30	-	51	96	-
Stage 1	-	-	-	-	-	-	304	351	-	312	305	-
Stage 2	-	-	-	-	-	-	213	151	-	369	555	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.3	21.6	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	38	577	791	-	-	803	-	-	-	-
HCM Lane V/C Ratio	0.302	0.472	0.001	-	-	0.269	-	-	-	-
HCM Control Delay (s)	136.5	16.7	9.6	-	-	11.1	-	-	0	0
HCM Lane LOS	F	C	A	-	-	B	-	-	A	A
HCM 95th %tile Q(veh)	1	2.5	0	-	-	1.1	-	-	-	-

Intersection	
Intersection Delay, s/veh	16.1
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	18	236	8	0	60	183	8	0	11	268	53
Future Vol, veh/h	0	18	236	8	0	60	183	8	0	11	268	53
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	19	251	9	0	64	195	9	0	12	285	56
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	3
HCM Control Delay	17.8	14.7	18.1
HCM LOS	C	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	8%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	92%	64%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	268	53	18	236	8	60	183	8	101	145
LT Vol	11	0	0	18	0	0	60	0	0	8	0
Through Vol	0	268	0	0	236	0	0	183	0	93	93
RT Vol	0	0	53	0	0	8	0	0	8	0	52
Lane Flow Rate	12	285	56	19	251	9	64	195	9	107	154
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.026	0.583	0.104	0.043	0.529	0.016	0.144	0.413	0.016	0.225	0.31
Departure Headway (Hd)	7.864	7.36	6.655	8.096	7.587	6.875	8.148	7.639	6.927	7.53	7.24
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	490	537	442	475	519	439	471	515	476	495
Service Time	5.617	5.113	4.408	5.853	5.344	4.632	5.91	5.401	4.688	5.285	4.994
HCM Lane V/C Ratio	0.026	0.582	0.104	0.043	0.528	0.017	0.146	0.414	0.017	0.225	0.311
HCM Control Delay	10.8	20	10.2	11.2	18.6	9.7	12.3	15.7	9.8	12.5	13.2
HCM Lane LOS	B	C	B	B	C	A	B	C	A	B	B
HCM 95th-tile Q	0.1	3.7	0.3	0.1	3	0	0.5	2	0	0.9	1.3

Intersection				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	8	186	52
Future Vol, veh/h	0	8	186	52
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	9	198	55
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	12.9
HCM LOS	B

Lane

Two Way Analysis cannot be performed on an All Way Stop Intersection.

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	166	56	45	242	67	56
Future Vol, veh/h	166	56	45	242	67	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	4	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	182	62	49	266	74	62

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	244	0	578	213
Stage 1	-	-	-	-	213	-
Stage 2	-	-	-	-	365	-
Critical Hdwy	-	-	4.12	-	7.22	6.62
Critical Hdwy Stg 1	-	-	-	-	6.22	-
Critical Hdwy Stg 2	-	-	-	-	6.22	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1322	-	420	808
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	648	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1322	-	402	808
Mov Cap-2 Maneuver	-	-	-	-	402	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	620	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	402	808	-	-	1322	-
HCM Lane V/C Ratio	0.183	0.076	-	-	0.037	-
HCM Control Delay (s)	16	9.8	-	-	7.8	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	152	795	293	47	828	134	211	241	177	220	241
v/c Ratio	0.39	0.58	0.36	0.14	0.73	0.22	0.49	0.32	0.48	0.60	0.50
Control Delay	41.3	23.4	4.0	39.9	29.1	4.9	42.2	27.6	44.3	40.0	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	41.3	23.4	4.0	39.9	29.1	4.9	42.2	27.6	44.3	40.0	9.6
Queue Length 50th (ft)	38	185	0	11	197	0	53	51	45	106	7
Queue Length 95th (ft)	83	295	53	33	312	38	111	98	98	208	74
Internal Link Dist (ft)		3280			2376			566		648	
Turn Bay Length (ft)	550		490	460		390	160		130		
Base Capacity (vph)	500	2668	1306	383	2550	1225	458	1961	375	1018	948
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	0.30	0.30	0.22	0.12	0.32	0.11	0.46	0.12	0.47	0.22	0.25

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	763	281	45	795	129	203	184	47	170	211	231
Future Volume (veh/h)	146	763	281	45	795	129	203	184	47	170	211	231
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		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	795	293	47	828	134	211	192	49	177	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	245	1144	547	162	1160	555	313	658	164	271	415	348
Arrive On Green	0.07	0.35	0.35	0.05	0.35	0.35	0.09	0.23	0.23	0.08	0.22	0.22
Sat Flow, veh/h	3442	3282	1570	3442	3282	1570	3442	2802	697	3442	1863	1562
Grp Volume(v), veh/h	152	795	293	47	828	134	211	119	122	177	220	241
Grp Sat Flow(s),veh/h/ln	1721	1641	1570	1721	1641	1570	1721	1770	1729	1721	1863	1562
Q Serve(g_s), s	2.9	14.3	6.5	0.9	15.0	4.1	4.1	3.8	4.0	3.4	7.2	9.7
Cycle Q Clear(g_c), s	2.9	14.3	6.5	0.9	15.0	4.1	4.1	3.8	4.0	3.4	7.2	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	245	1144	547	162	1160	555	313	415	406	271	415	348
V/C Ratio(X)	0.62	0.70	0.54	0.29	0.71	0.24	0.67	0.29	0.30	0.65	0.53	0.69
Avail Cap(c_a), veh/h	601	3248	1553	401	3057	1462	551	1210	1183	451	1220	1023
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	31.0	19.2	7.3	31.6	19.2	15.7	30.2	21.6	21.6	30.7	23.5	24.6
Incr Delay (d2), s/veh	2.6	0.8	0.8	1.0	0.8	0.2	2.5	0.4	0.4	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	1.5	6.5	3.7	0.5	6.9	1.8	2.0	1.9	1.9	1.7	3.8	4.4
LnGrp Delay(d),s/veh	33.6	20.0	8.1	32.6	20.0	15.9	32.8	22.0	22.0	33.4	24.6	27.0
LnGrp LOS	C	C	A	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h		1240			1009			452			638	
Approach Delay, s/veh		18.9			20.1			27.0			28.0	
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	9.4	20.1	9.2	29.9	10.2	19.3	8.9	30.3
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	9.0	47.0	8.0	* 68	11.0	45.0	12.0	64.0
Max Q Clear Time (g_c+I1), s	5.4	6.0	2.9	16.3	6.1	11.7	4.9	17.0
Green Ext Time (p_c), s	0.2	3.6	2.5	6.8	0.3	3.5	0.2	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	922	56	296	960	1	8	0	203	0	0	1
Future Vol, veh/h	2	922	56	296	960	1	8	0	203	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	50	670	-	50	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	1	-	-	2	-	-	-8	-
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	2	1002	61	322	1043	1	9	0	221	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1043	0	0	1002	0	0	2172	2694	501	2192	2694	522
Stage 1	-	-	-	-	-	-	1007	1007	-	1687	1687	-
Stage 2	-	-	-	-	-	-	1165	1687	-	505	1007	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.94	6.94	7.14	5.94	4.94	6.14
Critical Hdwy Stg 1	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	663	-	-	687	-	-	20	16	501	67	70	561
Stage 1	-	-	-	-	-	-	231	283	-	206	314	-
Stage 2	-	-	-	-	-	-	181	123	-	648	495	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	663	-	-	687	-	-	13	8	501	24	37	561
Mov Cap-2 Maneuver	-	-	-	-	-	-	13	8	-	24	37	-
Stage 1	-	-	-	-	-	-	230	282	-	205	167	-
Stage 2	-	-	-	-	-	-	96	65	-	362	494	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.5	36.2	11.4
HCM LOS			E	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	13	501	663	-	-	687	-	-	-	561
HCM Lane V/C Ratio	0.669	0.44	0.003	-	-	0.468	-	-	-	0.002
HCM Control Delay (s)	$ 505.6	17.7	10.4	-	-	14.8	-	-	0	11.4
HCM Lane LOS	F	C	B	-	-	B	-	-	A	B
HCM 95th %tile Q(veh)	1.6	2.2	0	-	-	2.5	-	-	-	0

Intersection	
Intersection Delay, s/veh	17.3
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	32	148	49	0	44	224	67	0	36	257	33
Future Vol, veh/h	0	32	148	49	0	44	224	67	0	36	257	33
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	164	54	0	49	249	74	0	40	286	37
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	3
HCM Control Delay	14.7	17.5	20.8
HCM LOS	B	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	31%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	69%	65%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	257	33	32	148	49	44	224	67	151	160
LT Vol	36	0	0	32	0	0	44	0	0	47	0
Through Vol	0	257	0	0	148	0	0	224	0	104	104
RT Vol	0	0	33	0	0	49	0	0	67	0	56
Lane Flow Rate	40	286	37	36	164	54	49	249	74	167	177
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.094	0.628	0.073	0.087	0.381	0.115	0.116	0.553	0.151	0.372	0.374
Departure Headway (Hd)	8.429	7.923	7.215	8.849	8.338	7.622	8.515	8.005	7.291	8.007	7.605
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	424	454	494	403	429	468	419	448	489	448	471
Service Time	6.209	5.703	4.995	6.64	6.129	5.412	6.297	5.787	5.072	5.784	5.382
HCM Lane V/C Ratio	0.094	0.63	0.075	0.089	0.382	0.115	0.117	0.556	0.151	0.373	0.376
HCM Control Delay	12.1	23.3	10.6	12.5	16.2	11.4	12.4	20.3	11.4	15.5	14.9
HCM Lane LOS	B	C	B	B	C	B	B	C	B	C	B
HCM 95th-tile Q	0.3	4.2	0.2	0.3	1.8	0.4	0.4	3.3	0.5	1.7	1.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	47	207	56
Future Vol, veh/h	0	47	207	56
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	52	230	62
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	15.2
HCM LOS	C

Lane

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	183	80	49	300	69	24
Future Vol, veh/h	183	80	49	300	69	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	4	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	206	90	55	337	78	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	296	0	698	251
Stage 1	-	-	-	-	251	-
Stage 2	-	-	-	-	447	-
Critical Hdwy	-	-	4.12	-	7.22	6.62
Critical Hdwy Stg 1	-	-	-	-	6.22	-
Critical Hdwy Stg 2	-	-	-	-	6.22	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1265	-	348	766
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1265	-	330	766
Mov Cap-2 Maneuver	-	-	-	-	330	-
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	552	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	330	766	-	-	1265	-
HCM Lane V/C Ratio	0.235	0.035	-	-	0.044	-
HCM Control Delay (s)	19.2	9.9	-	-	8	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	178	821	359	30	748	136	310	311	125	122	144
v/c Ratio	0.46	0.56	0.40	0.10	0.68	0.23	0.59	0.40	0.43	0.44	0.39
Control Delay	37.2	17.9	3.5	35.2	24.4	4.3	36.2	26.1	39.8	35.1	7.2
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	37.2	17.9	3.5	35.2	24.4	4.3	36.2	26.1	39.8	35.1	7.2
Queue Length 50th (ft)	38	119	0	6	147	0	65	58	27	49	0
Queue Length 95th (ft)	74	212	32	19	192	25	116	99	57	100	25
Internal Link Dist (ft)		3280			2376			566		648	
Turn Bay Length (ft)	550		490	460		390	160		130		
Base Capacity (vph)	384	2527	1270	576	2711	1297	528	2237	288	1069	960
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	0.46	0.32	0.28	0.05	0.28	0.10	0.59	0.14	0.43	0.11	0.15

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	665	291	24	606	110	251	221	31	101	99	117
Future Volume (veh/h)	144	665	291	24	606	110	251	221	31	101	99	117
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		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	821	359	30	748	136	310	273	38	125	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	272	1189	569	132	1154	552	418	753	104	205	334	279
Arrive On Green	0.08	0.36	0.36	0.04	0.35	0.35	0.12	0.24	0.24	0.06	0.18	0.18
Sat Flow, veh/h	3442	3282	1570	3442	3282	1570	3442	3121	429	3442	1863	1557
Grp Volume(v), veh/h	178	821	359	30	748	136	310	153	158	125	122	144
Grp Sat Flow(s),veh/h/ln	1721	1641	1570	1721	1641	1570	1721	1770	1781	1721	1863	1557
Q Serve(g_s), s	3.4	14.3	7.3	0.6	12.8	4.1	5.8	4.8	4.9	2.4	3.9	5.6
Cycle Q Clear(g_c), s	3.4	14.3	7.3	0.6	12.8	4.1	5.8	4.8	4.9	2.4	3.9	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	272	1189	569	132	1154	552	418	427	430	205	334	279
V/C Ratio(X)	0.65	0.69	0.63	0.23	0.65	0.25	0.74	0.36	0.37	0.61	0.36	0.52
Avail Cap(c_a), veh/h	411	2694	1289	616	2890	1382	565	1215	1222	308	1140	953
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	30.0	18.2	5.9	31.3	18.2	15.4	28.4	21.1	21.2	30.7	24.1	24.9
Incr Delay (d2), s/veh	2.7	0.7	1.2	0.9	0.6	0.2	3.5	0.5	0.5	2.9	0.7	1.5
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	1.7	6.5	3.2	0.3	5.9	1.8	3.0	2.4	2.5	1.2	2.0	2.5
LnGrp Delay(d),s/veh	32.6	18.9	7.0	32.1	18.9	15.7	31.9	21.6	21.7	33.7	24.8	26.3
LnGrp LOS	C	B	A	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1358			914			621			391	
Approach Delay, s/veh		17.6			18.8			26.8			28.2	
Approach LOS		B			B			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	8.0	20.2	8.6	30.3	12.1	16.0	9.3	29.6
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	6.0	46.0	12.0	* 55	11.0	41.0	8.0	59.0
Max Q Clear Time (g_c+I1), s	4.4	6.9	2.6	16.3	7.8	7.6	5.4	14.8
Green Ext Time (p_c), s	0.0	3.0	3.4	7.2	0.3	3.0	0.1	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Notes

Paso Robles Marriott
1: Golden Hill Rd & SR 46 E
Existing Plus Project AM
7/17/2015

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Central Coast Transportation Consulting
Synchro 9 Report
HCM 2010 Signalized Intersection Summary

Two Way Analysis cannot be performed on Signalized Intersection.

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	716	80	198	731	0	9	2	244	0	0	0
Future Vol, veh/h	1	716	80	198	731	0	9	2	244	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	50	670	-	50	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	1	-	-	2	-	-	-8	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	823	92	228	840	0	10	2	280	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	840	0	0	823	0	0	1700	2120	411	1710	2120	420
Stage 1	-	-	-	-	-	-	825	825	-	1295	1295	-
Stage 2	-	-	-	-	-	-	875	1295	-	415	825	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.94	6.94	7.14	5.94	4.94	6.14
Critical Hdwy Stg 1	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	791	-	-	803	-	-	49	39	577	125	128	639
Stage 1	-	-	-	-	-	-	304	351	-	305	411	-
Stage 2	-	-	-	-	-	-	282	200	-	704	556	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	791	-	-	803	-	-	38	28	577	47	92	639
Mov Cap-2 Maneuver	-	-	-	-	-	-	38	28	-	47	92	-
Stage 1	-	-	-	-	-	-	304	351	-	305	294	-
Stage 2	-	-	-	-	-	-	202	143	-	359	555	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	22.8	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	36	577	791	-	-	803	-	-	-	-
HCM Lane V/C Ratio	0.351	0.486	0.001	-	-	0.283	-	-	-	-
HCM Control Delay (s)	151.7	17	9.6	-	-	11.2	-	-	0	0
HCM Lane LOS	F	C	A	-	-	B	-	-	A	A
HCM 95th %tile Q(veh)	1.2	2.6	0	-	-	1.2	-	-	-	-

Intersection	
Intersection Delay, s/veh	16.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	18	240	8	0	63	186	21	0	11	268	57
Future Vol, veh/h	0	18	240	8	0	63	186	21	0	11	268	57
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	19	255	9	0	67	198	22	0	12	285	61
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	3
HCM Control Delay	18.5	14.7	18.5
HCM LOS	C	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	8%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	92%	64%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	268	57	18	240	8	63	186	21	101	145
LT Vol	11	0	0	18	0	0	63	0	0	8	0
Through Vol	0	268	0	0	240	0	0	186	0	93	93
RT Vol	0	0	57	0	0	8	0	0	21	0	52
Lane Flow Rate	12	285	61	19	255	9	67	198	22	107	154
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.026	0.591	0.114	0.044	0.544	0.016	0.153	0.423	0.043	0.228	0.315
Departure Headway (Hd)	7.963	7.459	6.753	8.186	7.677	6.965	8.208	7.699	6.987	7.632	7.342
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	449	482	529	437	470	512	436	467	511	470	489
Service Time	5.721	5.217	4.511	5.951	5.442	4.73	5.975	5.465	4.752	5.392	5.102
HCM Lane V/C Ratio	0.027	0.591	0.115	0.043	0.543	0.018	0.154	0.424	0.043	0.228	0.315
HCM Control Delay	10.9	20.5	10.4	11.3	19.3	9.8	12.5	16	10.1	12.6	13.5
HCM Lane LOS	B	C	B	B	C	A	B	C	B	B	B
HCM 95th-tile Q	0.1	3.8	0.4	0.1	3.2	0	0.5	2.1	0.1	0.9	1.3

Paso Robles Marriott
3: Golden Hill Rd & Union Road
Existing Plus Project AM
7/17/2015

Intersection
Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	8	186	52
Future Vol, veh/h	0	8	186	52
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	9	198	55
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	13.1
HCM LOS	B

Lane

Central Coast Transportation Consulting
Synchro 9 Report
HCM 2010 AWSC

Two Way Analysis cannot be performed on an All Way Stop Intersection.

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	166	64	75	242	85	64
Future Vol, veh/h	166	64	75	242	85	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	4	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	182	70	82	266	93	70

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	253	0	649	218
Stage 1	-	-	-	-	218	-
Stage 2	-	-	-	-	431	-
Critical Hdwy	-	-	4.12	-	7.22	6.62
Critical Hdwy Stg 1	-	-	-	-	6.22	-
Critical Hdwy Stg 2	-	-	-	-	6.22	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1312	-	376	802
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	595	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1312	-	349	802
Mov Cap-2 Maneuver	-	-	-	-	349	-
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	552	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	349	802	-	-	1312	-
HCM Lane V/C Ratio	0.268	0.088	-	-	0.063	-
HCM Control Delay (s)	19	9.9	-	-	7.9	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	1.1	0.3	-	-	0.2	-

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	159	99	1295	152	533
v/c Ratio	0.49	0.28	0.59	0.76	0.24
Control Delay	25.6	9.2	8.9	40.7	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	9.2	8.9	40.7	6.3
Queue Length 50th (ft)	49	6	99	29	32
Queue Length 95th (ft)	91	35	283	#172	96
Internal Link Dist (ft)	1164		234		1054
Turn Bay Length (ft)		170		200	
Base Capacity (vph)	701	663	2180	201	2240
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.23	0.15	0.59	0.76	0.24

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	146	91	915	276	140	490
Future Volume (vph)	146	91	915	276	140	490
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frpb, ped/bikes	1.00	0.98	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1557	3399		1769	3539
Flt Permitted	0.95	1.00	1.00		0.17	1.00
Satd. Flow (perm)	1770	1557	3399		319	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	159	99	995	300	152	533
RTOR Reduction (vph)	0	63	30	0	0	0
Lane Group Flow (vph)	159	36	1265	0	152	533
Confl. Peds. (#/hr)		6		1	1	
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	11.3	11.3	38.7		38.7	38.7
Effective Green, g (s)	11.3	11.3	38.7		38.7	38.7
Actuated g/C Ratio	0.19	0.19	0.63		0.63	0.63
Clearance Time (s)	5.0	5.0	6.0		6.0	6.0
Vehicle Extension (s)	2.0	2.0	5.5		5.5	5.5
Lane Grp Cap (vph)	327	288	2156		202	2245
v/s Ratio Prot	c0.09		0.37			0.15
v/s Ratio Perm		0.02			c0.48	
v/c Ratio	0.49	0.13	0.59		0.75	0.24
Uniform Delay, d1	22.3	20.7	6.5		7.8	4.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.4	0.1	0.7		18.0	0.1
Delay (s)	22.7	20.8	7.2		25.8	4.9
Level of Service	C	C	A		C	A
Approach Delay (s)	22.0		7.2			9.6
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	61.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	146	91	915	276	140	490
Future Volume (veh/h)	146	91	915	276	140	490
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	159	99	995	300	152	533
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	233	208	1772	531	331	2336
Arrive On Green	0.13	0.13	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1774	1583	2778	805	424	3632
Grp Volume(v), veh/h	159	99	654	641	152	533
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1720	424	1770
Q Serve(g_s), s	4.5	3.1	10.5	10.6	16.0	3.2
Cycle Q Clear(g_c), s	4.5	3.1	10.5	10.6	26.6	3.2
Prop In Lane	1.00	1.00		0.47	1.00	
Lane Grp Cap(c), veh/h	233	208	1168	1135	331	2336
V/C Ratio(X)	0.68	0.48	0.56	0.56	0.46	0.23
Avail Cap(c_a), veh/h	808	721	1175	1143	333	2351
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	21.8	21.2	4.8	4.9	12.1	3.6
Incr Delay (d2), s/veh	1.3	0.6	1.3	1.3	2.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.4	5.3	5.4	2.1	1.6
LnGrp Delay(d),s/veh	23.2	21.8	6.1	6.2	14.8	3.7
LnGrp LOS	C	C	A	A	B	A
Approach Vol, veh/h	258		1295			685
Approach Delay, s/veh	22.7		6.1			6.2
Approach LOS	C		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		40.8				40.8		11.9
Change Period (Y+Rc), s		6.0				6.0		5.0
Max Green Setting (Gmax), s		35.0				35.0		24.0
Max Q Clear Time (g_c+I1), s		12.6				28.6		6.5
Green Ext Time (p_c), s		20.5				6.2		0.6

Intersection Summary		
HCM 2010 Ctrl Delay		8.0
HCM 2010 LOS		A

Approach	WB	NB	SB
Crosswalk Length (ft)	45.4	60.0	60.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	9.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	2	2	2
Ped. Right-Left Flow Rate (p/h)	2	2	2
Ped. R. Sidewalk Flow Rate (p/h)	2	2	2
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	10	40	0
85th percentile speed (mph)	25	45	45
Right Corner Area per Ped (sq.ft)	7276.3	7276.5	7276.5
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	3849.3	4575.8	4068.5
Crosswalk Circulation Code	A	A	A
Pedestrian Delay (s/p)	27.5	26.6	27.5
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.14	2.90	2.81
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	258	1295	685
Effct. Green for Bike (s)	11.3	38.7	38.7
Cross Street Width (ft)	60.1	45.4	60.0
Through Lanes Number	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	5.0	5.0
Paved Shoulder Width (ft)	6.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	323	1106	1106
Bicycle Delay (s/bike)	24.6	7.0	7.0
Bicycle Compliance	Fair	Good	Good
Bicycle LOS Score	1.94	2.25	1.97
Bicycle LOS	A	B	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	152	815	293	47	830	134	228	243	179	220	241
v/c Ratio	0.39	0.60	0.36	0.14	0.73	0.22	0.51	0.32	0.49	0.60	0.50
Control Delay	41.4	23.6	4.0	40.4	29.3	4.9	42.5	27.6	44.5	40.2	9.7
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	41.4	23.6	4.0	40.4	29.3	4.9	42.5	27.6	44.5	40.2	9.7
Queue Length 50th (ft)	38	191	0	11	198	0	58	51	46	107	7
Queue Length 95th (ft)	83	301	52	33	313	38	120	99	98	209	74
Internal Link Dist (ft)		3280			2376			566		648	
Turn Bay Length (ft)	550		490	460		390	160		130		
Base Capacity (vph)	497	2664	1304	373	2535	1219	455	1948	372	1011	943
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	0.31	0.31	0.22	0.13	0.33	0.11	0.50	0.12	0.48	0.22	0.26

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	782	281	45	797	129	219	186	47	172	211	231
Future Volume (veh/h)	146	782	281	45	797	129	219	186	47	172	211	231
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		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	815	293	47	830	134	228	194	49	179	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	243	1155	553	159	1168	559	329	669	165	272	412	346
Arrive On Green	0.07	0.35	0.35	0.05	0.36	0.36	0.10	0.24	0.24	0.08	0.22	0.22
Sat Flow, veh/h	3442	3282	1570	3442	3282	1570	3442	2808	691	3442	1863	1562
Grp Volume(v), veh/h	152	815	293	47	830	134	228	120	123	179	220	241
Grp Sat Flow(s),veh/h/ln	1721	1641	1570	1721	1641	1570	1721	1770	1730	1721	1863	1562
Q Serve(g_s), s	3.0	15.0	6.6	0.9	15.3	4.2	4.5	3.9	4.1	3.5	7.3	10.0
Cycle Q Clear(g_c), s	3.0	15.0	6.6	0.9	15.3	4.2	4.5	3.9	4.1	3.5	7.3	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	243	1155	553	159	1168	559	329	421	412	272	412	346
V/C Ratio(X)	0.62	0.71	0.53	0.30	0.71	0.24	0.69	0.29	0.30	0.66	0.53	0.70
Avail Cap(c_a), veh/h	588	3179	1521	392	2992	1431	539	1185	1159	441	1194	1001
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	31.7	19.6	7.2	32.4	19.5	15.9	30.7	21.9	21.9	31.4	24.1	25.2
Incr Delay (d2), s/veh	2.6	0.8	0.8	1.0	0.8	0.2	2.6	0.4	0.4	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	1.5	6.9	3.7	0.5	7.0	1.9	2.2	1.9	2.0	1.8	3.9	4.5
LnGrp Delay(d),s/veh	34.3	20.4	8.0	33.4	20.3	16.1	33.3	22.2	22.3	34.1	25.2	27.7
LnGrp LOS	C	C	A	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h		1260			1011			471			640	
Approach Delay, s/veh		19.2			20.4			27.6			28.6	
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	9.5	20.7	9.2	30.7	10.7	19.5	9.0	31.0
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	9.0	47.0	8.0	* 68	11.0	45.0	12.0	64.0
Max Q Clear Time (g_c+I1), s	5.5	6.1	2.9	17.0	6.5	12.0	5.0	17.3
Green Ext Time (p_c), s	0.2	3.6	2.5	7.0	0.3	3.6	0.2	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.5
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	922	76	305	960	1	10	0	212	0	0	1
Future Vol, veh/h	2	922	76	305	960	1	10	0	212	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	50	670	-	50	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	1	-	-	2	-	-	-8	-
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	2	1002	83	332	1043	1	11	0	230	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1043	0	0	1002	0	0	2192	2714	501	2212	2714	522
Stage 1	-	-	-	-	-	-	1007	1007	-	1707	1707	-
Stage 2	-	-	-	-	-	-	1185	1707	-	505	1007	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.94	6.94	7.14	5.94	4.94	6.14
Critical Hdwy Stg 1	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	663	-	-	687	-	-	20	15	501	65	69	561
Stage 1	-	-	-	-	-	-	231	283	-	202	310	-
Stage 2	-	-	-	-	-	-	176	120	-	648	495	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	663	-	-	687	-	-	12	8	501	22	36	561
Mov Cap-2 Maneuver	-	-	-	-	-	-	12	8	-	22	36	-
Stage 1	-	-	-	-	-	-	230	282	-	201	160	-
Stage 2	-	-	-	-	-	-	91	62	-	349	494	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.6	45.9	11.4
HCM LOS			E	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	12	501	663	-	-	687	-	-	-	561
HCM Lane V/C Ratio	0.906	0.46	0.003	-	-	0.483	-	-	-	0.002
HCM Control Delay (s)	$ 634.1	18.2	10.4	-	-	15	-	-	0	11.4
HCM Lane LOS	F	C	B	-	-	C	-	-	A	B
HCM 95th %tile Q(veh)	1.9	2.4	0	-	-	2.6	-	-	-	0

Intersection	
Intersection Delay, s/veh	17.7
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	32	152	49	0	48	228	85	0	36	257	37
Future Vol, veh/h	0	32	152	49	0	48	228	85	0	36	257	37
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	169	54	0	53	253	94	0	40	286	41
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	3
HCM Control Delay	15.1	17.8	21.4
HCM LOS	C	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	31%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	69%	65%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	257	37	32	152	49	48	228	85	151	160
LT Vol	36	0	0	32	0	0	48	0	0	47	0
Through Vol	0	257	0	0	152	0	0	228	0	104	104
RT Vol	0	0	37	0	0	49	0	0	85	0	56
Lane Flow Rate	40	286	41	36	169	54	53	253	94	167	177
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.095	0.639	0.084	0.089	0.397	0.117	0.127	0.569	0.193	0.378	0.381
Departure Headway (Hd)	8.559	8.053	7.345	8.979	8.468	7.751	8.59	8.079	7.365	8.14	7.738
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	417	445	485	397	422	460	415	443	485	440	463
Service Time	6.349	5.842	5.134	6.779	6.267	5.55	6.379	5.868	5.153	5.925	5.523
HCM Lane V/C Ratio	0.096	0.643	0.085	0.091	0.4	0.117	0.128	0.571	0.194	0.38	0.382
HCM Control Delay	12.3	24.2	10.8	12.7	16.8	11.6	12.6	21.1	11.9	15.8	15.3
HCM Lane LOS	B	C	B	B	C	B	B	C	B	C	C
HCM 95th-tile Q	0.3	4.4	0.3	0.3	1.9	0.4	0.4	3.5	0.7	1.7	1.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	47	207	56
Future Vol, veh/h	0	47	207	56
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	52	230	62
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	15.5
HCM LOS	C

Lane

Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	183	87	79	300	94	35
Future Vol, veh/h	183	87	79	300	94	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	4	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	206	98	89	337	106	39

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	303	0	769	254
Stage 1	-	-	-	-	254	-
Stage 2	-	-	-	-	515	-
Critical Hdwy	-	-	4.12	-	7.22	6.62
Critical Hdwy Stg 1	-	-	-	-	6.22	-
Critical Hdwy Stg 2	-	-	-	-	6.22	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1258	-	311	763
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	535	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1258	-	284	763
Mov Cap-2 Maneuver	-	-	-	-	284	-
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	488	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	20.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	284	763	-	-	1258	-
HCM Lane V/C Ratio	0.372	0.052	-	-	0.071	-
HCM Control Delay (s)	25	10	-	-	8.1	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	1.7	0.2	-	-	0.2	-

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	748	1001	180	1068
v/c Ratio	0.79	0.78	0.64	0.52
Control Delay	31.7	26.2	44.0	10.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	31.7	26.2	44.0	10.9
Queue Length 50th (ft)	166	226	88	157
Queue Length 95th (ft)	251	317	165	216
Internal Link Dist (ft)	1245	306		1054
Turn Bay Length (ft)			160	
Base Capacity (vph)	1150	1622	355	2556
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.65	0.62	0.51	0.42

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	509	201	765	186	171	1015
Future Volume (veh/h)	509	201	765	186	171	1015
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1863	1863
Adj Flow Rate, veh/h	374	386	805	196	180	1068
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	492	448	1137	277	222	2053
Arrive On Green	0.28	0.28	0.40	0.40	0.13	0.58
Sat Flow, veh/h	1774	1615	2916	687	1774	3632
Grp Volume(v), veh/h	374	386	505	496	180	1068
Grp Sat Flow(s),veh/h/ln	1774	1615	1770	1740	1774	1770
Q Serve(g_s), s	14.9	17.5	18.4	18.4	7.6	14.0
Cycle Q Clear(g_c), s	14.9	17.5	18.4	18.4	7.6	14.0
Prop In Lane	1.00	1.00		0.39	1.00	
Lane Grp Cap(c), veh/h	492	448	713	701	222	2053
V/C Ratio(X)	0.76	0.86	0.71	0.71	0.81	0.52
Avail Cap(c_a), veh/h	576	524	804	791	346	2482
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	25.5	26.4	19.2	19.2	32.8	9.7
Incr Delay (d2), s/veh	5.0	12.3	2.5	2.5	7.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	9.3	9.3	9.2	4.2	6.7
LnGrp Delay(d),s/veh	30.5	38.8	21.7	21.8	40.6	9.9
LnGrp LOS	C	D	C	C	D	A
Approach Vol, veh/h	760		1001			1248
Approach Delay, s/veh	34.7		21.7			14.4
Approach LOS	C		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.7	37.0				50.7		26.3
Change Period (Y+Rc), s	4.0	6.0				6.0		5.0
Max Green Setting (Gmax), s	15.0	35.0				54.0		25.0
Max Q Clear Time (g_c+I1), s	9.6	20.4				16.0		19.5
Green Ext Time (p_c), s	0.3	10.7				19.9		1.9

Intersection Summary		
HCM 2010 Ctrl Delay		21.9
HCM 2010 LOS		C

Notes

Approach	WB	NB	SB
Crosswalk Length (ft)	44.9	59.9	60.6
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	0.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	2	2	2
Ped. Right-Left Flow Rate (p/h)	2	2	2
Ped. R. Sidewalk Flow Rate (p/h)	2	2	2
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	30	30	0
85th percentile speed (mph)	25	45	45
Right Corner Area per Ped (sq.ft)	7271.3	7269.4	7269.4
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	2986.0	0.1	3168.6
Crosswalk Circulation Code	A	F	A
Pedestrian Delay (s/p)	37.4	45.0	37.4
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.29	3.14	2.96
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	748	1001	1248
Effct. Green for Bike (s)	21.0	28.6	45.0
Cross Street Width (ft)	60.6	44.9	59.9
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	5.0	5.0
Paved Shoulder Width (ft)	6.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	467	636	1000
Bicycle Delay (s/bike)	26.5	20.9	11.2
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	2.14	2.00	2.43
Bicycle LOS	B	B	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	227	843	421	47	777	173	335	372	142	152	167
v/c Ratio	0.49	0.60	0.47	0.16	0.72	0.28	0.58	0.48	0.40	0.53	0.44
Control Delay	42.0	24.0	4.1	43.0	31.1	5.1	40.0	31.9	44.7	44.2	10.3
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	42.0	24.0	4.1	43.0	31.1	5.1	40.0	31.9	44.7	44.2	10.3
Queue Length 50th (ft)	59	199	0	12	193	0	87	90	37	77	0
Queue Length 95th (ft)	107	286	34	31	274	32	145	140	75	148	41
Internal Link Dist (ft)		3280			2376			566		648	
Turn Bay Length (ft)	550		490	460		390	160		130		
Base Capacity (vph)	613	2151	1155	299	1759	906	818	2022	409	865	808
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	0.37	0.39	0.36	0.16	0.44	0.19	0.41	0.18	0.35	0.18	0.21

Intersection Summary

1: Golden Hill Rd & SR 46 E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	683	341	38	629	140	271	260	41	115	123	135
Future Volume (veh/h)	184	683	341	38	629	140	271	260	41	115	123	135
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		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	227	843	421	47	777	173	335	321	51	142	152	167
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	333	1192	570	125	1085	519	459	781	123	228	350	293
Arrive On Green	0.10	0.36	0.36	0.04	0.33	0.33	0.13	0.26	0.26	0.07	0.19	0.19
Sat Flow, veh/h	3442	3282	1570	3442	3282	1569	3442	3060	481	3442	1863	1558
Grp Volume(v), veh/h	227	843	421	47	777	173	335	184	188	142	152	167
Grp Sat Flow(s),veh/h/ln	1721	1641	1570	1721	1641	1569	1721	1770	1771	1721	1863	1558
Q Serve(g_s), s	4.6	15.8	9.5	1.0	14.9	5.9	6.7	6.2	6.3	2.9	5.2	7.0
Cycle Q Clear(g_c), s	4.6	15.8	9.5	1.0	14.9	5.9	6.7	6.2	6.3	2.9	5.2	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	333	1192	570	125	1085	519	459	452	452	228	350	293
V/C Ratio(X)	0.68	0.71	0.74	0.38	0.72	0.33	0.73	0.41	0.42	0.62	0.43	0.57
Avail Cap(c_a), veh/h	721	2521	1206	240	2062	986	961	1211	1212	481	1014	849
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	31.3	19.5	6.5	33.7	21.0	18.0	29.8	22.2	22.2	32.6	25.7	26.4
Incr Delay (d2), s/veh	2.5	0.8	1.9	1.9	0.9	0.4	2.2	0.6	0.6	2.8	0.8	1.7
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	2.3	7.3	5.4	0.5	6.8	2.6	3.3	3.1	3.2	1.4	2.7	3.1
LnGrp Delay(d),s/veh	33.7	20.3	8.4	35.6	21.9	18.4	32.0	22.8	22.8	35.3	26.6	28.2
LnGrp LOS	C	C	A	D	C	B	C	C	C	D	C	C
Approach Vol, veh/h		1491			997			707			461	
Approach Delay, s/veh		19.0			22.0			27.2			29.9	
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	8.7	22.3	8.6	32.0	13.6	17.5	10.9	29.7
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	49.0	5.0	* 55	20.0	39.0	15.0	45.0
Max Q Clear Time (g_c+I1), s	4.9	8.3	3.0	17.8	8.7	9.0	6.6	16.9
Green Ext Time (p_c), s	0.2	3.7	1.1	7.8	0.9	3.6	0.4	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

Notes

2: Union Road & SR 46 E

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	776	62	188	771	0	9	2	237	0	0	0
Future Vol, veh/h	1	776	62	188	771	0	9	2	237	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	50	670	-	50	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	1	-	-	2	-	-	-8	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	892	71	216	886	0	10	2	272	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	886	0	0	892	0	0	1769	2212	446	1767	2212	443
Stage 1	-	-	-	-	-	-	894	894	-	1318	1318	-
Stage 2	-	-	-	-	-	-	875	1318	-	449	894	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.94	6.94	7.14	5.94	4.94	6.14
Critical Hdwy Stg 1	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	760	-	-	756	-	-	43	34	546	116	116	620
Stage 1	-	-	-	-	-	-	274	324	-	298	404	-
Stage 2	-	-	-	-	-	-	282	194	-	682	532	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	760	-	-	756	-	-	33	24	546	42	83	620
Mov Cap-2 Maneuver	-	-	-	-	-	-	33	24	-	42	83	-
Stage 1	-	-	-	-	-	-	274	324	-	298	289	-
Stage 2	-	-	-	-	-	-	201	139	-	339	531	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.3	25.4	0
HCM LOS			D	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	31	546	760	-	-	756	-	-	-	-
HCM Lane V/C Ratio	0.408	0.499	0.002	-	-	0.286	-	-	-	-
HCM Control Delay (s)	185.5	18	9.7	-	-	11.7	-	-	0	0
HCM Lane LOS	F	C	A	-	-	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	2.8	0	-	-	1.2	-	-	-	-

Intersection	
Intersection Delay, s/veh	21.3
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	28	236	8	0	60	183	14	0	11	329	53
Future Vol, veh/h	0	28	236	8	0	60	183	14	0	11	329	53
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	30	251	9	0	64	195	15	0	12	350	56
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	3
HCM Control Delay	21.2	16.8	29.2
HCM LOS	C	C	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	28%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	72%	63%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	329	53	28	236	8	60	183	14	156	179
LT Vol	11	0	0	28	0	0	60	0	0	43	0
Through Vol	0	329	0	0	236	0	0	183	0	113	113
RT Vol	0	0	53	0	0	8	0	0	14	0	66
Lane Flow Rate	12	350	56	30	251	9	64	195	15	165	190
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.027	0.768	0.113	0.074	0.59	0.018	0.16	0.462	0.032	0.372	0.406
Departure Headway (Hd)	8.529	8.023	7.314	8.965	8.453	7.747	9.049	8.536	7.818	8.201	7.804
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	422	455	493	402	429	465	398	424	460	442	463
Service Time	6.229	5.723	5.014	6.676	6.164	5.447	6.763	6.251	5.533	5.901	5.504
HCM Lane V/C Ratio	0.028	0.769	0.114	0.075	0.585	0.019	0.161	0.46	0.033	0.373	0.41
HCM Control Delay	11.5	32.7	10.9	12.4	22.6	10.6	13.5	18.4	10.8	15.7	15.7
HCM Lane LOS	B	D	B	B	C	B	B	C	B	C	C
HCM 95th-tile Q	0.1	6.6	0.4	0.2	3.7	0.1	0.6	2.4	0.1	1.7	1.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	43	225	66
Future Vol, veh/h	0	43	225	66
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	46	239	70
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	15.7
HCM LOS	C

Lane

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	167	56	45	245	67	56
Future Vol, veh/h	167	56	45	245	67	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	4	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	184	62	49	269	74	62

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	245	0	582	214
Stage 1	-	-	-	-	214	-
Stage 2	-	-	-	-	368	-
Critical Hdwy	-	-	4.12	-	7.22	6.62
Critical Hdwy Stg 1	-	-	-	-	6.22	-
Critical Hdwy Stg 2	-	-	-	-	6.22	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1321	-	418	807
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	645	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1321	-	400	807
Mov Cap-2 Maneuver	-	-	-	-	400	-
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	617	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	400	807	-	-	1321	-
HCM Lane V/C Ratio	0.184	0.076	-	-	0.037	-
HCM Control Delay (s)	16	9.8	-	-	7.8	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	177	826	342	63	870	153	257	278	199	253	267
v/c Ratio	0.47	0.65	0.42	0.18	0.75	0.24	0.56	0.35	0.52	0.65	0.54
Control Delay	48.0	28.6	4.4	45.5	32.5	4.9	47.0	30.2	49.2	44.9	13.5
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	48.0	28.6	4.4	45.5	32.5	4.9	47.0	30.2	49.2	44.9	13.5
Queue Length 50th (ft)	52	223	0	18	241	0	74	67	59	142	27
Queue Length 95th (ft)	108	347	59	46	371	42	147	123	121	263	114
Internal Link Dist (ft)		3280			2376			566		648	
Turn Bay Length (ft)	550		490	460		390	160		130		
Base Capacity (vph)	450	2403	1218	372	2260	1107	525	1726	412	875	840
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	0.39	0.34	0.28	0.17	0.38	0.14	0.49	0.16	0.48	0.29	0.32

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	793	328	60	835	147	247	210	57	191	243	256
Future Volume (veh/h)	170	793	328	60	835	147	247	210	57	191	243	256
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		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	177	826	342	62	870	153	257	219	59	199	253	267
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	266	1130	541	203	1155	553	356	706	186	289	439	368
Arrive On Green	0.08	0.34	0.34	0.06	0.35	0.35	0.10	0.26	0.26	0.08	0.24	0.24
Sat Flow, veh/h	3442	3282	1570	3442	3282	1570	3442	2767	727	3442	1863	1563
Grp Volume(v), veh/h	177	826	342	62	870	153	257	138	140	199	253	267
Grp Sat Flow(s),veh/h/ln	1721	1641	1570	1721	1641	1570	1721	1770	1724	1721	1863	1563
Q Serve(g_s), s	3.9	17.1	9.2	1.3	18.2	5.4	5.6	4.9	5.1	4.4	9.3	12.2
Cycle Q Clear(g_c), s	3.9	17.1	9.2	1.3	18.2	5.4	5.6	4.9	5.1	4.4	9.3	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	266	1130	541	203	1155	553	356	451	440	289	439	368
V/C Ratio(X)	0.67	0.73	0.63	0.31	0.75	0.28	0.72	0.31	0.32	0.69	0.58	0.72
Avail Cap(c_a), veh/h	532	2830	1354	354	2661	1273	620	1048	1021	487	1031	865
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	34.9	22.3	8.9	35.0	22.2	18.1	33.7	23.4	23.5	34.6	26.3	27.4
Incr Delay (d2), s/veh	2.9	0.9	1.2	0.8	1.0	0.3	2.8	0.4	0.4	2.9	1.2	2.7
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	1.9	7.8	4.9	0.7	8.4	2.4	2.8	2.4	2.5	2.2	4.9	5.6
LnGrp Delay(d),s/veh	37.7	23.2	10.1	35.9	23.2	18.3	36.5	23.8	23.9	37.5	27.5	30.1
LnGrp LOS	D	C	B	D	C	B	D	C	C	D	C	C
Approach Vol, veh/h		1345			1085			535			719	
Approach Delay, s/veh		21.8			23.3			29.9			31.2	
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	10.5	23.8	10.6	32.8	12.0	22.3	10.0	33.3
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	11.0	46.0	8.0	* 67	14.0	43.0	12.0	63.0
Max Q Clear Time (g_c+I1), s	6.4	7.1	3.3	19.1	7.6	14.2	5.9	20.2
Green Ext Time (p_c), s	0.2	4.2	2.4	7.3	0.4	4.1	0.2	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary Near Term PM
1: Golden Hill Rd & SR 46 E 7/17/2015

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Central Coast Transportation Consulting Synchro 9 Report
HCM 2010 Signalized Intersection Summary

Two Way Analysis cannot be performed on Signalized Intersection.

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	979	60	296	1003	1	8	0	205	0	0	1
Future Vol, veh/h	2	979	60	296	1003	1	8	0	205	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	50	670	-	50	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	1	-	-	2	-	-	-8	-
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	2	1064	65	322	1090	1	9	0	223	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1090	0	0	1064	0	0	2257	2802	532	2270	2802	545
Stage 1	-	-	-	-	-	-	1068	1068	-	1734	1734	-
Stage 2	-	-	-	-	-	-	1189	1734	-	536	1068	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.94	6.94	7.14	5.94	4.94	6.14
Critical Hdwy Stg 1	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	636	-	-	651	-	-	17	13	478	60	63	545
Stage 1	-	-	-	-	-	-	210	263	-	197	304	-
Stage 2	-	-	-	-	-	-	175	116	-	630	476	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	636	-	-	651	-	-	10	7	478	20	32	545
Mov Cap-2 Maneuver	-	-	-	-	-	-	10	7	-	20	32	-
Stage 1	-	-	-	-	-	-	209	262	-	196	154	-
Stage 2	-	-	-	-	-	-	88	59	-	335	475	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.6	44.9	11.6
HCM LOS			E	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	10	478	636	-	-	651	-	-	-	545
HCM Lane V/C Ratio	0.87	0.466	0.003	-	-	0.494	-	-	-	0.002
HCM Control Delay (s)	$ 712.1	18.9	10.7	-	-	15.8	-	-	0	11.6
HCM Lane LOS	F	C	B	-	-	C	-	-	A	B
HCM 95th %tile Q(veh)	1.7	2.4	0	-	-	2.7	-	-	-	0

Intersection	
Intersection Delay, s/veh	24.5
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	49	148	49	0	44	224	82	0	36	308	33
Future Vol, veh/h	0	49	148	49	0	44	224	82	0	36	308	33
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	54	164	54	0	49	249	91	0	40	342	37
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	3
HCM Control Delay	16.8	21.2	36.8
HCM LOS	C	C	E

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	40%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	60%	64%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	308	33	49	148	49	44	224	82	209	196
LT Vol	36	0	0	49	0	0	44	0	0	84	0
Through Vol	0	308	0	0	148	0	0	224	0	125	125
RT Vol	0	0	33	0	0	49	0	0	82	0	71
Lane Flow Rate	40	342	37	54	164	54	49	249	91	232	217
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.103	0.831	0.082	0.15	0.428	0.131	0.129	0.622	0.21	0.561	0.499
Departure Headway (Hd)	9.247	8.739	8.027	9.894	9.378	8.656	9.513	8.999	8.279	8.72	8.264
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	387	414	446	362	383	413	376	401	433	415	437
Service Time	7.008	6.499	5.787	7.664	7.148	6.426	7.278	6.764	6.044	6.478	6.022
HCM Lane V/C Ratio	0.103	0.826	0.083	0.149	0.428	0.131	0.13	0.621	0.21	0.559	0.497
HCM Control Delay	13.1	42.3	11.5	14.4	19	12.7	13.7	25.6	13.2	22.1	19
HCM Lane LOS	B	E	B	B	C	B	B	D	B	C	C
HCM 95th-tile Q	0.3	7.8	0.3	0.5	2.1	0.4	0.4	4.1	0.8	3.3	2.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	84	249	71
Future Vol, veh/h	0	84	249	71
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	93	277	79
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	20.6
HCM LOS	C

Lane

Two Way Analysis cannot be performed on an All Way Stop Intersection.

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	185	81	49	304	69	24
Future Vol, veh/h	185	81	49	304	69	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	4	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	208	91	55	342	78	27

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	299	0	705	253
Stage 1	-	-	-	-	253	-
Stage 2	-	-	-	-	452	-
Critical Hdwy	-	-	4.12	-	7.22	6.62
Critical Hdwy Stg 1	-	-	-	-	6.22	-
Critical Hdwy Stg 2	-	-	-	-	6.22	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1262	-	344	764
Stage 1	-	-	-	-	746	-
Stage 2	-	-	-	-	580	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1262	-	325	764
Mov Cap-2 Maneuver	-	-	-	-	325	-
Stage 1	-	-	-	-	746	-
Stage 2	-	-	-	-	549	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	17
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	325	764	-	-	1262	-
HCM Lane V/C Ratio	0.239	0.035	-	-	0.044	-
HCM Control Delay (s)	19.5	9.9	-	-	8	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	227	867	421	47	778	173	349	373	144	152	167
v/c Ratio	0.49	0.61	0.47	0.17	0.73	0.28	0.59	0.48	0.41	0.53	0.44
Control Delay	42.2	23.8	4.0	44.2	31.3	5.1	40.3	31.8	44.9	44.5	10.4
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	42.2	23.8	4.0	44.2	31.3	5.1	40.3	31.8	44.9	44.5	10.4
Queue Length 50th (ft)	60	205	0	12	196	0	91	91	38	78	0
Queue Length 95th (ft)	107	292	34	31	275	32	151	140	76	148	41
Internal Link Dist (ft)		3280			2376			566		648	
Turn Bay Length (ft)	550		490	460		390	160		130		
Base Capacity (vph)	610	2138	1151	276	1749	903	813	2011	406	860	805
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	0.37	0.41	0.37	0.17	0.44	0.19	0.43	0.19	0.35	0.18	0.21

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	702	341	38	630	140	283	261	41	117	123	135
Future Volume (veh/h)	184	702	341	38	630	140	283	261	41	117	123	135
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		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	227	867	421	47	778	173	349	322	51	144	152	167
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	332	1210	579	118	1097	525	473	778	122	230	342	286
Arrive On Green	0.10	0.37	0.37	0.03	0.33	0.33	0.14	0.25	0.25	0.07	0.18	0.18
Sat Flow, veh/h	3442	3282	1570	3442	3282	1569	3442	3061	480	3442	1863	1557
Grp Volume(v), veh/h	227	867	421	47	778	173	349	185	188	144	152	167
Grp Sat Flow(s),veh/h/ln	1721	1641	1570	1721	1641	1569	1721	1770	1771	1721	1863	1557
Q Serve(g_s), s	4.6	16.4	9.5	1.0	15.0	6.0	7.1	6.3	6.4	3.0	5.3	7.1
Cycle Q Clear(g_c), s	4.6	16.4	9.5	1.0	15.0	6.0	7.1	6.3	6.4	3.0	5.3	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	332	1210	579	118	1097	525	473	450	450	230	342	286
V/C Ratio(X)	0.68	0.72	0.73	0.40	0.71	0.33	0.74	0.41	0.42	0.63	0.44	0.58
Avail Cap(c_a), veh/h	712	2490	1192	237	2037	974	950	1196	1197	475	1002	838
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	31.7	19.6	6.3	34.3	21.1	18.1	30.0	22.5	22.6	32.9	26.3	27.1
Incr Delay (d2), s/veh	2.5	0.8	1.8	2.2	0.9	0.4	2.3	0.6	0.6	2.8	0.9	1.9
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	2.3	7.5	5.5	0.5	6.8	2.6	3.5	3.2	3.2	1.5	2.8	3.2
LnGrp Delay(d),s/veh	34.2	20.4	8.0	36.4	21.9	18.4	32.3	23.1	23.2	35.7	27.2	28.9
LnGrp LOS	C	C	A	D	C	B	C	C	C	D	C	C
Approach Vol, veh/h		1515			998			722			463	
Approach Delay, s/veh		19.0			22.0			27.6			30.5	
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	8.8	22.4	8.5	32.7	14.0	17.3	11.0	30.2
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	49.0	5.0	* 55	20.0	39.0	15.0	45.0
Max Q Clear Time (g_c+I1), s	5.0	8.4	3.0	18.4	9.1	9.1	6.6	17.0
Green Ext Time (p_c), s	0.2	3.7	1.1	8.0	0.9	3.6	0.4	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	776	83	198	771	0	10	2	244	0	0	0
Future Vol, veh/h	1	776	83	198	771	0	10	2	244	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	50	670	-	50	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	1	-	-	1	-	-	2	-	-	-8	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	892	95	228	886	0	11	2	280	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	886	0	0	892	0	0	1792	2235	446	1790	2235	443
Stage 1	-	-	-	-	-	-	894	894	-	1341	1341	-
Stage 2	-	-	-	-	-	-	898	1341	-	449	894	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.94	6.94	7.14	5.94	4.94	6.14
Critical Hdwy Stg 1	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.94	5.94	-	4.94	3.94	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	760	-	-	756	-	-	42	33	546	113	113	620
Stage 1	-	-	-	-	-	-	274	324	-	292	398	-
Stage 2	-	-	-	-	-	-	272	189	-	682	532	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	760	-	-	756	-	-	32	23	546	39	79	620
Mov Cap-2 Maneuver	-	-	-	-	-	-	32	23	-	39	79	-
Stage 1	-	-	-	-	-	-	274	324	-	292	278	-
Stage 2	-	-	-	-	-	-	190	132	-	329	531	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	26.9	0
HCM LOS			D	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	30	546	760	-	-	756	-	-	-	-
HCM Lane V/C Ratio	0.46	0.514	0.002	-	-	0.301	-	-	-	-
HCM Control Delay (s)	202.5	18.3	9.7	-	-	11.8	-	-	0	0
HCM Lane LOS	F	C	A	-	-	B	-	-	A	A
HCM 95th %tile Q(veh)	1.5	2.9	0	-	-	1.3	-	-	-	-

Intersection	
Intersection Delay, s/veh	21.9
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	28	240	8	0	63	186	27	0	11	329	57
Future Vol, veh/h	0	28	240	8	0	63	186	27	0	11	329	57
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	30	255	9	0	67	198	29	0	12	350	61
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	3
HCM Control Delay	22.2	16.9	30.2
HCM LOS	C	C	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	28%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	72%	63%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	329	57	28	240	8	63	186	27	156	179
LT Vol	11	0	0	28	0	0	63	0	0	43	0
Through Vol	0	329	0	0	240	0	0	186	0	113	113
RT Vol	0	0	57	0	0	8	0	0	27	0	66
Lane Flow Rate	12	350	61	30	255	9	67	198	29	165	190
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.028	0.779	0.123	0.075	0.607	0.019	0.17	0.473	0.063	0.377	0.411
Departure Headway (Hd)	8.648	8.141	7.432	9.077	8.565	7.847	9.126	8.613	7.895	8.323	7.926
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	416	448	485	396	424	458	395	419	456	435	458
Service Time	6.348	5.841	5.132	6.79	6.278	5.56	6.84	6.327	5.609	6.023	5.626
HCM Lane V/C Ratio	0.029	0.781	0.126	0.076	0.601	0.02	0.17	0.473	0.064	0.379	0.415
HCM Control Delay	11.6	34.1	11.2	12.5	23.7	10.7	13.7	18.8	11.1	16	16
HCM Lane LOS	B	D	B	B	C	B	B	C	B	C	C
HCM 95th-tile Q	0.1	6.8	0.4	0.2	3.9	0.1	0.6	2.5	0.2	1.7	2

Intersection				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	43	225	66
Future Vol, veh/h	0	43	225	66
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	46	239	70
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	16
HCM LOS	C

Lane

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	167	64	75	245	85	64
Future Vol, veh/h	167	64	75	245	85	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	5	4	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	184	70	82	269	93	70

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	254	0	653	219
Stage 1	-	-	-	-	219	-
Stage 2	-	-	-	-	434	-
Critical Hdwy	-	-	4.12	-	7.22	6.62
Critical Hdwy Stg 1	-	-	-	-	6.22	-
Critical Hdwy Stg 2	-	-	-	-	6.22	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1311	-	374	801
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	593	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1311	-	346	801
Mov Cap-2 Maneuver	-	-	-	-	346	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	549	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	15.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	346	801	-	-	1311	-
HCM Lane V/C Ratio	0.27	0.088	-	-	0.063	-
HCM Control Delay (s)	19.2	9.9	-	-	7.9	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	1.1	0.3	-	-	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	177	846	342	63	872	153	274	280	201	253	267
v/c Ratio	0.47	0.66	0.42	0.19	0.76	0.24	0.58	0.34	0.53	0.66	0.55
Control Delay	48.2	28.7	4.3	46.2	32.8	4.9	47.4	30.2	49.6	45.2	13.7
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	48.2	28.7	4.3	46.2	32.8	4.9	47.4	30.2	49.6	45.2	13.7
Queue Length 50th (ft)	52	231	0	18	243	0	80	68	59	143	28
Queue Length 95th (ft)	108	354	58	47	372	42	157	123	122	263	114
Internal Link Dist (ft)		3280			2376			566		648	
Turn Bay Length (ft)	550		490	460		390	160		130		
Base Capacity (vph)	446	2383	1211	357	2241	1099	520	1711	409	868	834
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	0.40	0.36	0.28	0.18	0.39	0.14	0.53	0.16	0.49	0.29	0.32

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	812	328	60	837	147	263	212	57	193	243	256
Future Volume (veh/h)	170	812	328	60	837	147	263	212	57	193	243	256
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		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	177	846	342	62	872	153	274	221	59	201	253	267
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	265	1144	547	188	1154	552	372	717	187	290	437	367
Arrive On Green	0.08	0.35	0.35	0.05	0.35	0.35	0.11	0.26	0.26	0.08	0.23	0.23
Sat Flow, veh/h	3442	3282	1570	3442	3282	1570	3442	2772	722	3442	1863	1563
Grp Volume(v), veh/h	177	846	342	62	872	153	274	139	141	201	253	267
Grp Sat Flow(s),veh/h/ln	1721	1641	1570	1721	1641	1570	1721	1770	1725	1721	1863	1563
Q Serve(g_s), s	3.9	17.8	9.1	1.4	18.5	5.5	6.1	5.0	5.2	4.5	9.5	12.4
Cycle Q Clear(g_c), s	3.9	17.8	9.1	1.4	18.5	5.5	6.1	5.0	5.2	4.5	9.5	12.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	265	1144	547	188	1154	552	372	458	446	290	437	367
V/C Ratio(X)	0.67	0.74	0.62	0.33	0.76	0.28	0.74	0.30	0.32	0.69	0.58	0.73
Avail Cap(c_a), veh/h	524	2790	1334	349	2623	1255	611	1033	1007	480	1016	853
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	35.4	22.5	8.7	35.9	22.6	18.3	34.1	23.5	23.6	35.1	26.7	27.8
Incr Delay (d2), s/veh	2.9	1.0	1.2	1.0	1.0	0.3	2.9	0.4	0.4	3.0	1.2	2.8
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	2.0	8.1	4.9	0.7	8.5	2.4	3.0	2.5	2.5	2.2	5.0	5.6
LnGrp Delay(d),s/veh	38.3	23.5	9.9	36.9	23.6	18.6	36.9	23.9	24.0	38.1	27.9	30.6
LnGrp LOS	D	C	A	D	C	B	D	C	C	D	C	C
Approach Vol, veh/h		1365			1087			554			721	
Approach Delay, s/veh		22.0			23.6			30.4			31.7	
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	10.6	24.4	10.3	33.5	12.5	22.5	10.1	33.7
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	11.0	46.0	8.0	* 67	14.0	43.0	12.0	63.0
Max Q Clear Time (g_c+I1), s	6.5	7.2	3.4	19.8	8.1	14.4	5.9	20.5
Green Ext Time (p_c), s	0.2	4.2	2.4	7.5	0.5	4.1	0.2	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

Notes