## 1. PROJECT TITLE:

## Entitlements:

## 2. LEAD AGENCY:

Contact:
Phone:
Email:
3. PROJECT LOCATION:
4. PROJECT PROPONENT:

Contact:
Phone:
Email:
5. GENERAL PLAN DESIGNATION:
6. ZONING:

GTC Development Plan
Planned Development (PD20-09)
Conditional Use Permit (CUP21-19)
Tentative Parcel Map (PR 20-0018)
Septic Exception
City of Paso Robles
1000 Spring Street
Paso Robles, CA 93446
Katie Banister
(805) 237-3970
kbanister@prcity.com
3051 Union Road
APN: 025-371-029
Garrett Thiessen Construction
Garrett Thiessen
805-440-7305
garrett@gtconstruction.net
CS (Commercial Service)
C3 (Commercial/Light Industry)
PD (Planned Development) Overlay
Special Conditions Overlay F
7. PROJECT DESCRIPTION: The project is a tentative parcel map to subdivide a single 6.54acre parcel into two smaller parcels, a development plan for the construction of two 12,462sf buildings and associated parking and yard areas, a conditional use permit for a contracted services use on Parcel 2, and a waiver for two onsite wastewater treatment systems (septic systems).
8. ENVIRONMENTAL SETTING: The 6.54-acre site is located northeast of Barney Schwartz Park at the eastern city boundary. To the north is the Huer Huero Creek. A seasonal creek drainage bisects the property from a culvert pipe under Union Road at the south to the Huer Huero Creek. The project largely avoids impacts to the creek, with the exception of road improvements to Union Road that will require the extension of the drainage culvert.

The site is flat, with an average grade of approximately $2 \%$ where it will be developed.

## 9. OTHER AGENCIES WHOSE APPROVAL IS REQUIRED (AND PERMITS

 NEEDED):California Department of Fish and Wildlife - Region 4 Central Coast Regional Water Quality Control Board US Fish and Wildlife Service
US Army Corps of Engineers
10. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?
The applicant has provided a Cultural Resources Survey of the Site prepared by a qualified archeologist. In accordance with AB 52, the City provided formal notification to the designated contact or tribal representative of traditionally and culturally affiliated California Native American tribes that have requested notice postmarked on October 14, 2020. Responses were received from the yak tityu tityu yak tilhini - Northern Chumash Tribe and the Salinan Tribe of Monterey and San Luis Obispo Counties requesting consultation. The Salinan Tribe of Monterey and San Luis Obispo "requested all ground disturbing activities for this project be monitored by a cultural resource specialist" from their tribe. The yak tityu tityu yak tilhini -Northern Chumash Tribe did not make any specific requests for mitigation measures.

## 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.

| $\boxtimes$ | Aesthetics | $\square$ | Agriculture / Forestry <br> Resources | $\boxtimes$ | Air Quality |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\boxtimes$ | Biological Resources | $\boxed{y}$ | Cultural Resources | $\square$ | Energy |
| $\square$ | Geology/Soils | $\square$ | Greenhouse Gas <br> Emissions | $\boxtimes$ | Hazards \& Hazardous <br> Materials |
| $\boxtimes$ | Hydrology/Water Quality | $\square$ | Land Use / Planning | $\square$ | Mineral Resources |
| $\square$ | Noise | $\square$ | Population / Housing | $\square$ | Public Services |
| $\square$ | Recreation | $\square$ | Transportation | $\boxtimes$ | Tribal Cultural <br> Resources |
| $\square$ | Utilities / Service Systems | $\square$ | Wildfire | $\square$ | Mandatory Findings of <br> Significance |

DETERMINATION: (To be completed by the Lead Agency)
On the basis of this initial evaluation:
$\square$ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
$\boxtimes \quad$ 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.
$\square \quad$ 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.
$\square$ 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.

## 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.

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

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

The explanation of each issue should identify:
a. the significance criteria or threshold, if any, used to evaluate each question; and
b. the mitigation measure identified, if any, to reduce the impact to less than significance

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I. AESTHETICS: Would the project:
a. Have a substantial adverse effect on a scenic vista?


Discussion: The General Plan Conservation Element identifies Union Road and Highway 46 East between Jardine and Airport Road as City Gateways and Visual Corridors ${ }^{1}$. Huer Huero Creek is identified as a Natural Landmark and Open Space Viewshed. The City Gateway Design Plan identifies Highway 46 East and Union Road at Airport Road as Town and Country Gateways. Town and Country Gateways are " entry points from the surrounding countryside" that "announce entry into the City" ${ }^{8}$.

The project is not anticipated to have a significant impact on the Highway 46 East Gateway due to physical separation. The site is located almost due south of Airport Road about 1,400 feet from Highway 46 East. The Huer Huero Creek and approximately 30 feet of elevational change further separate the project from the highway.

In contrast, the project has frontage on Union Road at the eastern boundary of the city. The City Gateway Design Plan states development at the Union Road Gateway "should be carefully tailored to maintain the rural character of the roadway as a gateway to the city" through minimal grading, large setbacks, and rural fence types. The proposed southern structure would be approximately 75 feet from Union Road with a parking lot between. The proposed northern structure would be approximately 160 feet from the road. Landscaping is proposed between each building and the street. Minimal grading is proposed and would not impact the appearance of the creek drainage located on the site. Mitigation Measure AES-1 would require any chain link fencing to be located behind the front face of each building.

The project will partially obscure the view of the Huer Huero Creek from Union Road. The typically dry creek bed is located about 500 feet north of and 15 feet below Union Road. From the road, the most visible feature of the creek is the oak trees and other vegetation lining the banks, which will continue to be partially visible with the project. The visual impact of the proposed buildings 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: Highway 46 between Highway 101 and Highway 41 is eligible for the State Scenic Highway System, but has not been officially designated. The project is visible from Highway 46, but is separated horizontally by approximately 1,400 feet and 30 feet of elevation change. The project would not impact any trees, rock outcroppings or historic buildings. The project would not impact the view of the Huer Huero Creek from Highway 46.
c. Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
Discussion: This site is in an urbanized area, but also part of two City Gateways and Visual Corridors ${ }^{8}$. Huer Huero Creek is identified as a Natural Landmark and Open Space Viewshed. The project includes two wellarticulated and attractively designed buildings in keeping with the visual character of the surrounding area, which includes Barney Schwartz Park and the Paso Robles Sports Club. As described in a. above, as mitigated, the project would not have a significant impact on local public views.

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d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Discussion: Standard conditions of approval will require any exterior lights to be shielded to prevent offsite glare. The project will have a less than significant impact ${ }^{7}$.
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
(Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and
Monitoring Program of the California
Resources Agency, to non-agricultural use?
Discussion: The Farmland Mapping and Monitoring Program of the California Resources Agency identifies the site as Farmland of Local Potential ${ }^{12}$. The Natural Resources Conservation Service (NRCS) has mapped two soil map units on the site ${ }^{10}$. Outside the Huer Huero Creek, the site is largely Hanford and Greenfield gravely sandy loams, which are considered prime farmland, if irrigated. The Open Space Element of the Paso Robles General Plan (Figure OS-1, Important Farmland) identifies the site as Farmland of Local Importance ${ }^{1}$. The site does not show evidence of intensive agriculture practices; a seasonal drainage remains in a relatively natural state and no irrigation infrastructure is present. Review of historical aerial photography indicates the site may have been used to produce hay in some years, but the images may also indicate annual mowing of grass and weeds for fire suppression. The project would not convert an existing agricultural use to a nonagricultural use. The California Agricultural Land Evaluation and Site Assessment (LESA) completed for the project (Attachment 4) indicates conversion of the site is not considered significant largely due to the relatively small size of the site, lack of irrigation water availability, and the proportion of agricultural uses in the vicinity.
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.
c. Conflict with existing zoning for, or cause
rezoning of, forest, land (as defined in Public
Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by
Government Code section 5114(g))?
Discussion: There are no forest land or timberland resources within the City of Paso Robles.
d. Result in the loss of forest land or conversion of forest land to non-forest use?

Discussion: The City of Paso Robles does not contain forest land resources. No trees are proposed for

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removal with the project.
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: The site is located within the city limits of Paso Robles, but is adjacent to an eastern boundary adjacent to county lands zoned for agriculture. Several commercial winery operations including Vina Robles are located east of the site, which provide a transition between agricultural and rural residential uses in the county and more commercial uses within city limits. City water and sewer services are not available outside the city boundary, which will discourage further conversion of ag land to commercial uses on Union Road. The impact of the project is less than significant.
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:
a. Conflict with or obstruct implementation of the applicable air quality plan?
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
c. Expose sensitive receptors to substantial pollutant concentrations?

Discussion (a-c): The San Luis Obispo County area is a non-attainment area for the state standards for ozone and suspended particulate matter ${ }^{9}$. The potential for future project development to create adverse air quality impacts falls generally into two categories: short-term (construction-related) and long-term (operational) impacts. The SLO County Air Pollution Control District (APCD) provides guidance for calculating air quality impacts.

For single-land-use projects, Table 1-1 of the SLO County APCD CEQA Air Quality Handbook can be used to estimate whether the project will exceed operational significance thresholds for ozone precursors (ROG and $\mathrm{NO}_{\mathrm{x}}$ ). Projects that do not exceed operational thresholds are unlikely to exceed construction thresholds as well.

The project is two 12,462 square foot light industrial buildings (with 41,000 sf of driveways and parking lots, and 46,578 sf of base storage yards), which falls below the APCD significance threshold for General Light Industry projects expected to exceed operational threshold values $(172,000 \mathrm{sf})$; the project is also unlikely to exceed construction thresholds.

Since the site is over 4 acres in size and near Barney Schwartz Park (children using the park are sensitive receptors), the APCD expanded list of fugitive dust mitigation measures are included to mitigate dust that might occur during construction of the site, which will result in a less than significant air quality impact.
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

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Discussion: According to the SLOAPCD, land uses commonly considered to be potential sources of obnoxious odorous emissions include wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, and fiberglass molding. The proposed project does not include any uses identified by the SLOAPCD as being associated with odors, therefore there is no impact related to other emissions.
IV. BIOLOGICAL RESOURCES: Would the project:
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Discussion: A biological resources assessment was prepared for the project by Terra Verde Environmental Consulting in August 2020 (Attachment 5). The assessment states, the "terrestrial habitat observed within and adjacent to the project site is generally homogeneous, highly disturbed, and subjected to regular ground disturbance (i.e., tilling/discing)." There are two jurisdictional water courses on the site. Huero Huero Creek is located at the northern property line, and an unnamed seasonal drainage travels in an arc from Union Road to the Huero Huero bisecting the existing parcel from southwest to northeast. A portion of the seasonal drainage is a seasonal wetland.
The project is designed to locate the buildings and associated infrastructure to avoid impacts to the habitats associated with the water courses; however, Union Road will be widened with the project, which will require modification to extend a culvert conveying the unnamed seasonal drainage.
Special-status plants species. There is suitable habitat on the site to support four special-status plant species: San Luis Obispo owl's clover, Lemmon's jewelflower, yellow-flowered eriastrum, and elegant wild buckwheat. None of the species was observed during an appropriately timed survey, so none are expected to occur on site. Locally, oak trees are a protected species. There are two valley oak trees on the property at the southern edge of Huer Huero creek. Neither tree would be impacted or removed as a part of the project.
Special-status wildlife species. There is suitable habitat to support 11 special status animal species, none of which were observed during biological surveys. Due to the disturbed condition of the site, it is more likely to used transiently by these species. Suitable habitat for the pallid bat and western mastiff bat is available in the cavities of the mature valley oaks on the site. The "open fields surrounding the project site may provide marginally suitable habitat for American badger", San Joaquin kit fox, and Crotch bumblebee, and suitable habitat for San Joaquin coachwhip snake, western burrowing owl, and California horned lark. Marginally suitable habitat for the Northern California legless lizard, California glossy snake, and Blainsville's horned lizard are present within Huer Huero creek.

Mitigation measures are provided to minimize disturbance of suitable habitats, and to seek permits from agencies with jurisdiction and to require mitigation where avoidance is not possible.
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

Discussion: The project is designed to avoid substantial adverse effects to onsite riparian habitat. Some minor

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impacts are anticipated. An existing culvert under Union Road must be elongated to accommodate widening of the road. The project biologist reports the drainage conveyed by this culvert is under the jurisdiction of the Army Corp of Engineers, the California Department of Fish and Wildlife, and the Regional Water Quality Control Board. No impacts are anticipated to the seasonal wetland on the site, nor to Huer Huero creek.

Mitigation measures include requiring the applicant to obtain permits from agencies with jurisdiction over the seasonal drainage. These agencies may require additional mitigation measures. With the incorporation of mitigation measures, the impact on riparian habitat and other sensitive natural communities will be less than significant.
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: The project does not include any direct impacts to the seasonal wetland on the site although there is potential for erosion and/or siltation during construction. The applicant will be required to prepare a Stormwater Pollution Prevention Plan prior to grading the site, which will reduce these potential impacts to a level of insignificance.
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 site and the adjacent Huer Huero Creek have the potential to act as a corridor for wildlife including the American badger and the San Joaquin kit fox. The Huer Huero does not run often enough or for long enough to support fish migration. While no direct impact is proposed to Huer Huero creek, the project will have an impact on the terrestrial portions of the site. Mitigation measures are proposed to require surveys of the site before construction activities occur to look for signs of American badger, San Joaquin kit fox, burrowing owl, special-status reptiles and nesting birds. Standard mitigation is required for impacts to habitat of the the San Joaquin kit fox. With mitigation incorporated, the impact on migratory fish and wildlife species will be less than significant.
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Discussion: The project has been designed to avoid impacts to oak trees and is not in conflict with the local Oak Tree Preservation Ordinance.
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?

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Discussion: There are no conservation plans adopted for the City of Paso Robles, therefore no impact is expected.
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 (a): The site is currently undeveloped. A Phase I Cultural Resource Inventory was prepared for the project in January 2021 by Albion Environmental, Inc. (Attachment 6). There were no historical resources identified or observed.
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to $\S 15064.5$ ?

Discussion (b): A Phase I Cultural Resource Inventory was prepared for the project in January 2021 by Albion Environmental, Inc. (Attachment 6). The report states, "two previous cultural resource studies have been conducted within the Project Area and that five previous cultural resource studies have been conducted within a 0.25 -mile radius of the Project Area. According to the record search, there are no previously identified cultural resources within the Project Area, and the record search identified no cultural resources within a 0.25 -mile radius of the Project Area. " The project archeologist did not recommend any additional archaeological work.
Consultation with the Salinan Tribe of Monterey and San Luis Obispo Counties resulted in a request for ground disturbing activities to be monitored by a cultural resource specialist from the Salinan Tribe. Consultation with the yak $\operatorname{tit}^{y} u \operatorname{tit}^{y} u$ yak tiłhini - Northern Chumash Tribe did not result in any mitigation measure recommendations or requests. Mitigation is included in the Tribal Cultural Resources section of this report.
c. Disturb any human remains, including those interred outside of formal cemeteries?

Discussion (c): The project archaeologist did not find evidence of any cultural materials and reports a low likelihood of encountering historic cultural resources. No disturbance of human remains is expected.

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VI. ENERGY: Would the project:
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Discussion (a): The proposed project is two commercial buildings subject to air quality and energy efficiency requirements. Standard construction practices are expected; the proposed development will not use or promote the use of energy resources in a wasteful or inefficient manner.
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Discussion (b): The proposed project will not conflict with any adopted plan for renewable energy or energy efficiency.

## VII. GEOLOGY AND SOILS: Would the project:

a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
i. Rupture of a known earthquake fault, as delineated on the most recent AlquistPriolo 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.

Discussion: The potential for and mitigation of impacts that may result from fault rupture in the project area are identified and addressed in the EIR for the 2003 update of the General Plan ${ }^{1}$. There are two known fault zones on either side of the Salinas River Valley. The Rinconada Fault system runs on the west side of the valley, and grazes the City on its western boundary. The San Andreas Fault is on the east side of the valley and is situated about 30 miles east of Paso Robles. The City of Paso Robles recognizes these geologic influences in the application of the Uniform Building Code to all new development within the City. There are no Alquist-Priolo Earthquake Fault Zones within City limits.

A Soils Engineering Report was completed for the project by GeoSolutions, Inc. in May 2020 (Attachment 7). Site-specific seismic parameters were identified resulting in a Seismic Design Category of D. During building permit review, the City Building Official will ensure proper seismic design requirements are incorporated into the structural design of the buildings resulting in a less than significant impact.
ii. Strong seismic ground shaking?

Discussion: The proposed project will be constructed in compliance with current California Building 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

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adequate structural design and avoidance of constructing over active or potentially active faults. Therefore, impacts that may result from seismic ground shaking are considered less than significant.
iii. Seismic-related ground failure, including liquefaction?

Discussion: A Soils Engineering Report was completed for the project by GeoSolutions, Inc. in May 2020 (Attachment 7). The report indicates the potential for liquefaction is low on the site.
iv. Landslides?

Discussion: Landslides are generally associated with steep slopes and certain geologic formations. The site is flat underlain with sandy alluvium, qualities not associated with high landslide risk. The General Plan Safety Element ${ }^{1}$ identifies the project site as located in an area with low potential for landslides. The impact of the project is less than significant.
b. Result in substantial soil erosion or the loss of topsoil?

Discussion: The Soil Survey Map prepared by the NRCS for the region indicates the site's soil is moderately erodible ${ }^{10}$. For projects of this size, a Storm Water Pollution Prevention Plan (SWPPP) and an erosion control plan are required to be approved by the City Engineer prior to commencement of site grading, which will result in a less than significant impact.
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Discussion: See response to items a.iii. and a.iv. above.
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Discussion: A Soils Engineering Report was completed for the project by GeoSolutions, Inc. in May 2020 (Attachment 7). The report indicates the expansion potential of the soil is very low to low on the site. During building permit review, the City Building Official will ensure proper foundation design is utilized resulting in a less than significant impact.
e. Have soils incapable of adequately
supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?
Discussion: The City sewer is not available to site. A Shallow Percolation Testing Report was completed for the project by GeoSolutions, Inc. in May 2020 (Attachment 9). Based on these results, a septic system has been design that adheres to the Regional Water Quality Control Board's State Onsite Wastewater Treatment System (OWTS) Order for a tier 2 system ${ }^{13}$. The applicant is required to seek a septic waiver from the City

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Council to allow the construction of the proposed OWTS. When sewer becomes available, the project will be required to attach.
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Discussion: No known paleontological resources or geological features are known to existing on the site. No impacts are expected.

## VIII. GREENHOUSE GAS EMISSIONS: Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
b. Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gasses?

Discussion: San Luis Obispo Air Pollution Control District Screening Criteria for Project Air Quality Analysis ${ }^{9}$, updated in 2017 indicates General Light Industry uses with 92,000sf of floor area or less are not expected to exceed the Greenhouse Gas Numerical Threshold of $1150 \mathrm{MT} /$ year of $\mathrm{CO}_{2}$, which was used to meet statewide emission standards required by 2020. Assembly Bill 398, adopted in 2017, requires a further $40 \%$ reduction in Greenhouse Gas Emissions by 2030. A $40 \%$ reduction in the threshold for $\mathrm{CO}_{2}$ emissions would imply a 55,200 square-foot or larger General Light Industry use would generate greenhouse gases in conflict with local and state clean air policies. The project includes a total of 24,924 square feet of building area, which does not exceed the greenhouse gas threshold.
IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
Discussion (a): The proposed project does not include the use, transport, or storage of hazardous materials and will not result in a risk of accidental explosion or release of hazardous substances.
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 (b): The proposed project does not include the use, transport, or storage of hazardous materials and will not result in a risk of accidental explosion or release of hazardous substances.
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials,

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substances, or waste within one-quarter mile
of an existing or proposed school?
Discussion (a-c): No schools or proposed schools are within $1 / 4$ mile of site.
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 (d) The proposed project is not listed on the Cortese List compiled by the California Department of Toxic Substances Control ${ }^{17}$ nor the Water Board's list of underground storage tanks ${ }^{14}$. The project will not create a significant hazard to the public or the environment.
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?
Discussion (e): The project site is within Airport Safety Zone 4, the Outer Approach/Departure Zone ${ }^{3}$. Office buildings and warehousing uses are compatible in Zone 4, when use intensity does not exceed 40 persons per gross acre, maximum of 120 persons per single acre. Mitigation Measure HAZ-1 would limit the intensity to the maximum allowed by the Airport Land Use Plan.

Noise contours included in the 2007 Paso Robles Airport Land Use Plan indicate the site is near the outer edge of the $55-\mathrm{dB}$ CNEL contour. Policies $\mathrm{N}-2$ and $\mathrm{N}-3$ of the Airport Land Use Plan state extremely and moderately noise-sensitive land uses are not compatible within the 55-dB CNEL contour. The exterior of commercial uses are not considered noise-sensitive. No significant noise impact is expected.
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
Discussion: The City of Paso Robles does not have an adopted emergency response plan or evacuation plan. As proposed, the development would not interfere with emergency response.
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Discussion: The city does not contain any very-high fire severity zones. The site is at the urban - rural fringe, but is not heavily wooded. It is unlikely to be impacted by wildland fires.
X. HYDROLOGY AND WATER QUALITY: Would the project:
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground

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water quality?
Discussion: The project will disturb more than 1 acre of land, so will be required to submit a Storm Water Pollution Prevention Plan (SWPPP). In addition, the development will be subject to the Regional Water Quality Control Boards Post Construction Stormwater Management Requirements. Erosion control measures and best management practices (BMPs) are required to be incorporated into grading and construction plans for the short and long-term management and protection of water quality. The preliminary storm water control plan prepared by Roberts Engineering, Inc. for the project (Attachment 9) includes plans to avoid impacts to the natural drainage features on the site and to install bioretention swales at the perimeters of the two proposed parcels. The applicant proposes to use onsite wastewater treatment systems (OWTS)/septic systems for disposing waste. The proposed grading plan prepared by Roberts Engineering, Inc. (Attachment 3) and based on percolation tests conducted by GeoSolutions, Inc. (Attachment 8) demonstrates a Low Risk (Tier 1 as defined by the Regional Water Quality Control Board OWTS Policy ${ }^{13}$ ) system is feasible for the site. These features of the project will result in a less than significant impact to water quality.
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Discussion: The project site is within city limits and is zoned to allow for commercial uses. 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 project is consistent with the 2016 Urban Water Management Plan (UWMP) ${ }^{5}$, which anticipates and plans for buildout of the City. Since the UWMP has accounted for land uses at the project site, the project will have adequate water supply available, and will not further deplete or significantly affect, change or increase water demands planned for use in the basin.
The sandy nature of the Huer Huero Creek bed has potential for supporting groundwater recharge, but is not current used for intensive recharge. The project avoids direct impacts to the creek bed that could impede recharge in the future. The project will maintain predevelopment peak flows and the course of the onsite seasonal drainage to the creek.

The impact of the project would be less than significant.
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
i) result in a substantial erosion or siltation on- or off-site;
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
iii) 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; or

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iv) impede or redirect flood flows?

Discussion: A Biological Resources Assessment was prepared by Terra Verde Environmental Consulting, Inc. for the project (Attachment 5), which determined there are two jurisdictional drainage features on the site: an unnamed seasonal drainage running south to north from Union Road to Huerhero Creek and bisecting the property, and Huer Huero Creek running east to west on the northern property line. The project includes culvert improvements at the edge of Union Road for the onsite seasonal drainage, but would not substantially alter the drainage of the site which would continue to flow north to Huer Huero Creek.
Some erosion and siltation may occur during construction of the project, which will be minimized through erosion control measures required by the Stormwater Pollution Prevention Plan, which must be prepared before a grading permit will be issued. Ongoing, the soil will be covered by buildings, parking lots, landscaping areas, and crushed aggregate. Vegetative cover on unused portions of the site will be undisturbed. The project is required to maintain historical peak flows from storm events, which would be achieved through the use of bioretention basins near the perimeter of the new parcels. Neither significant runoff nor erosion are expected to occur.
The project is designed to stay outside of the 100-year flood plain identified for the seasonal drainage and for Huer Huero Creek. No significant impact is expected to flood flows.
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Discussion: The project site is not within a flood zone, tsunami or seiche zone.
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan

Discussion: The 2011 Central Coast Basin Water Quality Control Plan adopted by the Central Coast Regional Water Quality Control Board ${ }^{15}$ controls water quality regulations in the region through controls including waste discharge restrictions and stormwater management. The project will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP) and an erosion control plan to address potential non-point source pollution impacts. A preliminary stormwater control plan was prepared in 2021 by Roberts Engineering, Inc. (Attachment 9). The project includes 74,720 square feet of new impervious surface, which makes the project subject to Tier 3 Post Construction Requirements (PCRs)as required by the Regional Water Quality Control Board Post-Construction Stormwater Requirements ${ }^{16}$. The City's Urban Water Master Plan ${ }^{5}$ is designed to serve all uses anticipated at full buildout, which includes commercial uses for which the site is zoned. The City is a Groundwater Sustainability Agency for a portion of the Paso Robles Sub-Basin of the Salinas Basin. The commercial uses proposed by the project are consistent with the Paso Robles Subbasin Groundwater Sustainability Plan ${ }^{18}$. The project does not conflict with the applicable water quality control plan not the sustainable groundwater management plan; impacts would be less than significant.
XI. LAND USE AND PLANNING: Would the project:
a. Physically divide an established community?
Discussion: The project is a commercial development in the Commercial/Light Industry (C3) zoning district. The proposed development is consistent with the General Plan and Zoning designations. No established community will be divided.

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b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Discussion: The property is not in conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

As discussed in I. Aesthetics, above, the project conforms with the Paso Robles Gateway Plan ${ }^{8}$. This site is not in the Hillside Development District ${ }^{4}$, which is intended to "conserve the natural character of hillside areas".

The site is included in Special Conditions Overlay $\mathrm{F}^{4}$, which is intended to support compatibility of commercial service uses abutting residentially zoned properties in the city through the use of solid walls and landscape screening. Adjacent properties to the north and west of the site are zoned C3 PD. The property to the east of the site is in the county and is zoned Agriculture, which does allow for limited residential uses. County properties are not strictly protected by the special conditions overlay, however the adjacent property includes a large eucalyptus plantation that effectively screens existing residential uses from the site.
The city adopted a "Purple Belt Action Plan" in $2009{ }^{19}$ in an effort to conserve agricultural resources and open space near the boundary of the city. The plan includes support for active agricultural uses. But acknowledges the need for further commercial development of the city. Landowner participation is strictly voluntary. The site is not currently used for agriculture and does not show signs of ever being used for irrigated agriculture. Review of historical aerial photography indicates the site may have been used to produce hay, but the images may also indicate annual mowing of grass and weeds for fire suppression. The Purple Belt Action Plan does not require the property to be used for an agricultural purpose.
The project is consistent with applicable land use plans, policies and regulations.
XII. MINERAL RESOURCES: Would the project:
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
b. Result in the loss of availability of a locallyimportant mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Discussion (a-b): Portions of Huer Huero Creek near the town Creston have been intermittently used as a source of sand and gravel. The State Geologist classifies land into mineral resource zones (MRZ). In the San Luis Obispo-Santa Barbara Production-Consumption Region, there are $3 \mathrm{MRZs}^{20}$. Paso Robles General Plan Conservation Element Policy C-4 is to "protect and conserve those Portland cement concrete aggregate mineral resources classified by the State Geologist as being important mineral deposits (i.e., designated "MRZ-2') ${ }^{1}$. The site is not within the MRZ-2 area.
XIII. NOISE: Would the project result in:
a. Exposure of persons to or generation of noise levels in excess of standards

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established in the local general plan or noise ordinance, or applicable standards of other agencies?

Discussion: The project will be subject to the City's Noise Element and Noise Ordinance ${ }^{1,4}$. Construction of the project will result in short term, temporary increases in ambient noise during the daytime. Since standard conditions limit the hours of construction from 7 am to 7 pm and excludes construction on Sundays and Federal Holidays, the project is not expected to result in a significant noise impact.

Parcel 2 is intended for the use of Garrett Thiessen Constriction, a concrete construction company. Onsite activities will include office and storage. Expected noise will be from moving construction equipment off of and onto the site at the beginning and end of the work day. The nearest residence is located to the east of the site in the County. It is over 500 feet from the property line and separated by a plantation of eucalyptus trees. Residences to the northeast are further away and separated by about 30 feet of elevation change (residences are higher than the project). Barney Schwartz Park is located across Union Road from the site. The closest ball field is about 250 from the southwest corner of the site.

The project is not expected to create noise beyond what is permitted by the City Noise Element and Noise Ordinance.
b. Generation of excessive groundborne vibration or groundborne noise levels?

Discussion: Groundborne noise and vibration is only expected during construction of the project and would only occur during daytime hours; ceasing upon completion of the project. Therefore, impacts from groundborne vibrations are considered to be less than significant.
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Discussion: The project site is within Airport Land Use Plan Safety Zone 4, the Outer Approach/Departure Zone. Noise contours included in the 2007 Paso Robles Airport Land Use Plan ${ }^{3}$ indicate the site is near the outer edge of the $55-\mathrm{dB}$ CNEL contour. Policies N-2 and N-3 of the Airport Land Use Plan state extremely and moderately noise-sensitive land uses are not compatible within the $55-\mathrm{dB}$ CNEL contour. The exterior of commercial uses are not considered noise-sensitive. No significant noise impact is expected.
XIV. POPULATION AND HOUSING: Would the project:
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Discussion (a-b): The project is at the boundary of the city. Union Road is an existing road. No new streets
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will be constructed due to the project. City sewer is not currently available to the site, but there are existing long-range plans to bring sewer to serve this portion of Union Road including Barney Schwartz Park. City sewer service is not available to properties outside city limits, so its installation here will not mean it can be further extended to the east. An existing city water main is located in Union Road and is available to the project. Properties outside the city are not eligible for city water service. The site is currently undeveloped and will not displace any existing housing.
XV. PUBLIC SERVICES: Would the project:
a. 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?

Fire protection?
Police protection?
Schools?
Parks?
Other public facilities?
Discussion: The proposed project will result in an incremental but not significant demand for additional government services, which will be mitigated through payment of development impact fees. Therefore, impacts that may result from this project on government services are considered less than significant.

## XVI. RECREATION

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
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): The project is for commercial business and is not expected to have a significant impact on local recreation facilities. The project will be required to install curb, gutter and sidewalk in Union Road, which will incrementally improve offsite parking and pedestrian access in the vicinity of the park.

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XVII. TRANSPORTATION: Would the project:
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Discussion: The project will be required to make improvements to the Union Road frontage in compliance with the planned section for that street. The project is about $1 / 2$ mile east of the area where a realignment of Union Road and a future overpass of Highway 46 at new Airport Road are planned. The project is not in conflict with these plans.
b. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

Discussion: According to the Institute of Transportation Engineers Trip General Handbook, General Light Industry uses with 25,000 sf of floor area are expected to generate an average of 174 daily trips including 23 morning peak hour trips and 24 afternoon peak hour trips.

GTC is a local concrete construction company currently in operation in Paso Robles. The new building will relocate an existing business within the city, which will cause a redirection of local trips, but not necessarily generation of new miles traveled. Whatever expansion of the business the project allows will result in the creation of local jobs, which would be filled by residents of local communities. San Luis Obispo County has a jobs/housing imbalance with $44 \%$ of jobs occurring in City of San Luis Obispo, which has only $21 \%$ of housing units. North County has $29 \%$ of jobs but only $33 \%$ of housing units ${ }^{11}$. The City recently approved the Olsen-South Chandler Ranch Specific Plan and the Beechwood Specific Plan, which are allocated a total of 2,204 residential units. Providing jobs in the North County will result in a net reduction in vehicle miles traveled by working people due to the need for jobs outside the City of San Luis Obispo.
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Discussion: The project is on a straight section of Union Road. Two driveways with good sight distance proposed. The proposed user for Parcel 2 is a contract construction business, which will include the transport of construction equipment. The driveways are designed to accommodate this traffic. No significant impacts are expected.
d. Result in inadequate emergency access?

Discussion: The project has been reviewed by the City's Department of Emergency Services. The project will not impede emergency access, and is designed in compliance with all emergency access safety features and to City emergency access standards.

## XVIII. TRIBAL CULTURAL RESOURCES

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site,

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feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Discussion: A Phase I Cultural Resource Inventory was prepared for the project in January 2021 by Albion Environmental, Inc. (Attachment 6). The report states, "two previous cultural resource studies have been conducted within the Project Area and that five previous cultural resource studies have been conducted within a 0.25 -mile radius of the Project Area. There are no previously identified cultural resources within the Project Area, and the record search identified no cultural resources within a 0.25 -mile radius of the Project Area. " The project archeologist surveyed the site and did not recommend any additional archaeological work.

Consultation with the Salinan Tribe of Monterey and San Luis Obispo Counties resulted in a request for ground disturbing activities to be monitored by a cultural resource specialist from the Salinan Tribe. Consultation with the yak $\operatorname{tit}^{y} u \operatorname{tit}^{y} u$ yak tiłhini - Northern Chumash Tribe did not result in any mitigation measure recommendations or requests. Mitigation is included in the Tribal Cultural Resources section of this report.

Mitigation Measure TCR-1 requires the creation of a monitoring plan for certain ground disturbing activities. With mitigation, the impact to tribal cultural resources will be less than significant.

## XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Discussion: The project will have an incremental but individually insignificant impact on listed utilities. Local planning for sewer and water utilities has anticipated a buildout for Paso Robles that includes commercial development on this site. Utility systems have been sized accordingly. The project will include the construction of onsite wastewater treatment that will be used until the sewer becomes available to the site.

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Onsite stormwater management measures will control peak flows to mimic pre-construction conditions. Electrical services are available in Niblick Road. The utility and service demands of the project will not create a significant environmental impact.
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Discussion: The project site is within the city limits and it is zoned to allow for commercial service development. 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 2015 Urban Water Management Plan (UWMP) ${ }^{5}$ indicates there is adequate capacity to serve all households and commercial users at build out. Water use for this project has been accounted for and therefore impacts to groundwater supplies are less than significant.

Standard conditions applied to all new development require the payment of development impact fees for water service expansion to mitigate its proportionate share of related impacts.
c. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
Discussion: The project includes the development of two onsite wastewater treatment systems, which will treat the project's waste until the sewer becomes available to the site.

The City's Sewer System Management Plan (SSMP) ${ }^{6}$ identifies system upgrades needed to accommodate buildout of the city. Development impact fees and sewer rates are adopted to address the proportionate share of impact of each development project on the sewer system. The project is on an infill site and at the time when sewer becomes available, no major upgrades are needed to directly serve this project.
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
Discussion: The City's Landfill Master Plan ${ }^{21}$ indicates the City's landfill has adequate capacity for all projected waste generated within the city until at least 2051. Both construction and residential wastes are subject to diversion requirements for recyclable and compostable materials. The project will not impair the city's ability to attain solid waste reduction goals.
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Discussion: The proposed project will comply with federal, state, and local management and reduction statutes and regulations.

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XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Discussion: The project is not near a state responsibility area or lands classified as very high fire hazard severity zone.

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## XXI. MANDATORY FINDINGS OF SIGNIFICANCE

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 mitigation monitoring reporting plan, the project's impact on habitat is not substantial and will not cause a fish or wildlife population to drop below self-sustaining levels or eliminate natural communities. Impacts are less than significant with mitigation incorporated.
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 located within the City's limits, is consistent with the City's General Plan and Zoning Ordinance, and will be subject to mitigation measures including contribution of fees to existing programs or monitoring activities, the project would not result in any impacts that are cumulatively considerable.
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?
Discussion: No substantial adverse effects are anticipated as a result of the project.

## 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).

Documents utilized in this analysis and background / explanatory materials:

## Reference \#

Document Title
City of Paso Robles General Plan

City of Paso Robles Environmental Impact Report for General Plan Update

2007 Airport Land Use Plan

City of Paso Robles Municipal Code

City of Paso Robles Urban Water Management Plan 2016

City of Paso Robles Sewer System Management Plan

City of Paso Robles Standard Conditions of Approval for New Development

City of Paso Robles Gateway Plan: Design Standards, 2008

San Luis Obispo County Air Pollution Control District Guidelines for Impact Thresholds USDA, Natural Resources Conservation Service,

## Available for Review at:

City of Paso Robles Community Development Department 1000 Spring Street Paso Robles, CA 93446
https://www.prcity.com/313/Gen eral-Plan

City of Paso Robles
https://www.prcity.com/354/Air port-Land-Use-Plan
https://library.municode.com/ca/ el_paso_de_robles/codes/code_o f_ordinances

City of Paso Robles
https://www.prcity.com/Docume ntCenter/View/14827/Urban-Water-Management-Plan-PDF

City of Paso Robles
https://www.prcity.com/Docume ntCenter/View/15356/Sewer-
System-Management-PlanPDF?bidId=

City of Paso Robles
https://www.prcity.com/Docume ntCenter/View/14730/Gateway-

Plan-Design-Standards-
PDF?bidId=
https://www.slocleanair.org/rule
s-regulations/land-use-ceqa.php
NRCS Offices

## Soil Survey of San Luis Obispo County, Paso Robles Area, 1983

Regional Transportation Plan, San Luis Obispo Council of Governments, 2019

Farmland Mapping and Monitoring Program California Resources Agency

Siting, Design, Operation and Maintenance of Onsite Wastewater Treatments Systems (OWTS) Policy California Water Boards

Underground Storage Tank Program California Water Boards

Water Quality Control Plan for the Central Coast Basin Central Coast Regional Water Quality Control Board

Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Central Coast Regional Water Quality Control Board

Cortese List
California Department of Toxic Substance Control
Paso Robles Groundwater Basin Management Plan City of Paso Robles

Purple Belt Plan City of Paso Robles

Busch, Lawrence L. and Miller, Russel V. 2011. Updated Mineral Land Classification Map for the Concrete-Grade Aggregates in the San Luis Obispo-Santa Barbara ProductionConsumption Region, California - North Half.

Master Plan of Sustainable Opportunities at the Paso Robles Landfill
City of Paso Robles

Templeton, Ca 93446
https://websoilsurvey.nrcs.usda.g ov/app/WebSoilSurvey.aspx
https://slocog.org/2019RTP
https://www.conservation.ca.gov /dlrp/fmmp
https://www.waterboards.ca.gov/ water_issues/programs/owts/
https://www.waterboards.ca.gov/ water_issues/programs/ust/
https://www.waterboards.ca.gov/ centralcoast/publications_forms/ publications/basin_plan/\#:~:text =The\%20Water\%20Quality\%20 Control\%20Plan,including\%20s urface\%20waters\%20and\%20gr oundwater.
https://www.waterboards.ca.gov/ centralcoast/water_issues/progra $\mathrm{ms} /$ stormwater/docs/lid/lid_hydr omod_charette_index.html
https://www.envirostor.dtsc.ca.g ov/public/map/
https://www.prcity.com/Docume ntCenter/View/15348/Groundwa ter-Basin-Management-PlanPDF?bidId=
https://www.prcity.com/Docume ntCenter/View/31945/Purple-Belt-Plan-PDF
https://www.prcity.com/Docume ntCenter/View/15350/Landfill-Master-Plan-PDF?bidId=

## Attachments:

1. Vicinity Map
2. Architectural Plans
3. Civil Plans
4. Agricultural Land Evaluation and Site Assessment
5. Biological Resources Assessment
6. Phase I Cultural Resource Inventory
7. Soil Engineering Report
8. Shallow Percolation Testing Report and Preliminary Septic Design
9. Preliminary Stormwater Control Plan
10. Mitigation Monitoring Report Plan

## Attachment 1



Attachment 2








Attachment 2



Attachment 2

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Attachment 2



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Attachment 2



Attachment 2







（3）Gate Section

## 


$\frac{\text { METAL SIDING }}{\text { FLAT WEATHERED CORTEN PANELS }}$

$\frac{\text { DARK CONCRETE }}{\substack{\text { CoLOR: BENNAMNN } \\ \text { GUNMETAL }}}$





$\square$

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$\frac{\text { METAL SIDING }}{\text { fLAT WEATHERED CORTEN PANELS }}$

$\frac{\text { DARK CONCRETE }}{\substack{\text { COLOR: BENAAMIN } \\ \text { GUNMETAL }}}$


Attachment 2



## 




$\frac{\text { METAL SIDING }}{\text { FLAT WEATHERED CORTEN PANELS }}$

$\frac{\text { DARK CONCRETE }}{\text { COLOR: BENJAMNMOORE }}$




## 





Attachment 3




Attachment 3


| A | B |  | C |  | D |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Factor Name | Factor Rating (0-100 points) | X | Factor Weighting $($ Total $=1.00)$ | = | Weighted Factor Rating |
| Land Evaluation |  |  |  |  |  |
| 1. Land Capability Classification 2. Storie Index Rating | $<L$ Line 1> $<$ Line $2>$ | $\begin{aligned} & X \\ & X \end{aligned}$ | $\begin{aligned} & 0.25 \\ & 0.25 \end{aligned}$ | $=$ | $\frac{10.55}{12.75}$ |
| Site Assessment |  |  |  |  |  |
| 1. Project Size <br> 2. Water Resource Availability <br> 3. Surrounding Agricultural Lands <br> 4. Protected Resource Lands | <Line 3> 0 | X | 0.15 | $=$ | 0 |
|  | <Line 4> 20 | X | 0.15 | $=$ | 3 |
|  | <Line 5> 0 | $x$ | 0.15 | = | 0 |
|  | <Line 6> 100 unkwiown | X | 0.05 | = | 5 |
| Total LESA Score <br> (sum of weighted factor ratings)$\quad<$ Line $7>31.3$ |  |  |  |  |  |
| irrigation not feasible but dmhand in non-drought ifass 20 |  |  |  |  |  |
| 478 arnes $w /$ in $1 / 2$ mile; 77 arros $A G$ |  |  |  |  |  |

# BIOLOGICAL RESOURCES ASSESSMENT Union Road Development Project City of El Paso de Robles, San Luis Obispo County, California 

Prepared for:<br>Garrett Thiessen<br>GTC, Inc.<br>1640 S. River Road<br>Paso Robles, California 93446

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August 2020

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## Attachment 5

## EXECUTIVE SUMMARY

This Biological Resources Assessment was prepared by Terra Verde Environmental Consulting, LLC (Terra Verde) at the request of Garrett Thiessen (applicant) in support of the Union Road Development project. The proposed project site is within the far eastern bounds of the City of El Paso de Robles, San Luis Obispo County, California. The approximately 3.44 -acre proposed project site is in the southern portion of an approximately 17.5 -acre parcel that is bordered by Union Road to the south and State Route 46 to the north. Huer Huero Creek flows east to west across the parcel and generally defines to northern boundary of the project site. The applicant proposes to split the parcel lengthwise (north-south) and construct commercial buildings with associated infrastructure and parking areas that span the southern portion of each proposed parcel. The project site consists of undeveloped fields that are subjected to regular tilling and vegetation removal, with limited natural vegetation.
Terra Verde staff conducted two field surveys of the proposed project site and surrounding areas on October 24, 2019 and May 12, 2020. Terra Verde staff inventoried botanical and wildlife species, conducted a jurisdictional analysis of aquatic resources, classified vegetation communities, and assessed habitat conditions, focusing on the potential for special-status species to occur. No special-species status plant or wildlife species were directly observed on or around the project site. However, sensitive habitats and habitats that can support special-status species were identified. For example, the project is situated within the County of San Luis Obispo designated San Joaquin kit fox (Vulpes macrotis mutica) mitigation area.

Ten special-status wildlife species, as well as migratory nesting birds, have potential to occur in the survey area. Two mature valley oaks (Quercus lobata) are in the survey area, just outside of the northern boundary the project site. In addition, two jurisdictional drainages and one seasonal wetland were identified in the survey area.

As currently designed, the project will require culvert improvements at the junction of Union Road and the drainage that flows to Huer Huero Creek, in addition to installation of utility lines within jurisdictional areas of the drainage. Therefore, impacts will occur to areas under the jurisdiction of California Department of Fish and Wildlife, the Central Coast Regional Water Quality Control Board, and the U.S. Army Corps of Engineers. Potential for impacts to botanical and wildlife species, however, is low. Direct impacts to special-status wildlife could result from construction-related disturbances such as trampling or crushing from equipment. Avoidance, minimization, and mitigation measures have been recommended to reduce potential impacts to sensitive resources to a less than significant level.

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## Appendix A - Project Maps

Figure 1: Project Location and Survey Area
Figure 2: Survey Area
Figure 3: 2-mile CNDDB and Critical Habitat
Figure 4: Soils
Figure 5: Vegetation Communities and Hydrological Resources
Appendix B - Preliminary Site Plans (Dated 07-10-2020)
Appendix C - Regionally Occurring Special-status Species
Appendix D - Botanical and Wildlife Species Observed
Appendix E - Representative Site Photographs

### 1.0 INTRODUCTION

This Biological Resources Assessment (BRA) was prepared by Terra Verde Environmental Consulting, LLC (Terra Verde) at the request of Garrett Thiessen (applicant) in support of the Union Road Development project in the City of El Paso de Robles (City), California (see Appendix A - Figure 1: Project Location and Survey Area). The approximately 3.44-acre proposed project site is in the southern portion of an approximately 17.5 -acre parcel that is bordered by Union Road to the south and State Route 46 to the north. The applicant proposes to split the parcel lengthwise, generally north-south, and construct commercial buildings with associated infrastructure, driveways, and parking lots that span the southern portion of each proposed parcel (see Appendix B - Preliminary Site Plans). Huer Huero Creek flows east to west across the parcel and roughly defines to northern boundary of the project site, with appropriate construction buffers (setbacks) to avoid impacts. An unnamed United States Geological Survey (USGS) blue line drainage flows generally in an arc from southwest to northeast across the southern portion of the parcel and drains into Huer Huero Creek. Commercial buildings with associated infrastructure, driveways, and parking lots will be constructed on each side of the blue line drainage, which will require utility installation that may temporarily impact the drainage. In addition, Union Road is being widened and the associated culvert will be lengthened and improved within jurisdictional areas of the blue line drainage. However, all buildings and hard surfaces will be constructed outside of aquatic resource setbacks to maximize avoidance where possible.

### 1.1 Purpose of the Biological Resources Assessment

The purpose of this BRA is to identify sensitive biological resources that occur or have potential to occur within the proposed project site and surrounding areas. Sensitive resources are defined here as wildlife, plants, aquatic features, or habitats that are of management concern to local, county, state, and/or federal resource agencies. Recommended avoidance, minimization, and mitigation measures, which are included in Section 4.2, will reduce potential impacts to sensitive resources to the extent feasible. As necessary, this BRA may be used to support the City's environmental review process and future project permitting.

### 1.2 Existing Conditions

The proposed project is located within the Paso Robles USGS 7.5-minute topographic quadrangle, in in the city limits of El Paso de Robles. The project site is approximately 2 miles east of the Salinas River in the Upper Salinas River Valley. It is bordered by Union Road to the south, Huer Huero Creek to the north, an open field to the west, and an open field and eucalyptus grove to the east. As previously described, an unnamed USGS blue line drainage flows generally northnortheast across the southern portion of the parcel and drains into Huer Huero Creek. The northern portion of this drainage fans out as it approaches Huer Huero Creek, creating a seasonal wetland. The surrounding landscape includes rural residential and suburban developments,

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agricultural development (e.g., vineyards), sports facilities and fields, commercial building complexes, and open space. The proposed project area primarily consists of regularly tilled/disced annual grasslands, bisected by patchy coyote brush (Baccharis pilularis) along the blue line drainage. Two mature valley oak trees (Quercus lobata) and patches of coyote brush are north of the project site boundary, bordering Huer Huero Creek. The site is mostly flat to gently sloped, with elevations ranging from approximately 737 to 754 feet ( 224 to 230 meters).

### 2.0 METHODOLOGY

Prior to conducting field surveys, Terra Verde staff completed a background review of relevant resources pertaining to sensitive resources known to occur in the project vicinity, which included the following:

- Aerial photographs (Google Earth Pro 1994 - 2019) and project site plans
- USGS topographic map of the Paso Robles 7.5-minute quadrangle (USGS 2020)
- Online Soil Survey of San Luis Obispo County, California (Natural Resources Conservation Service [NRCS] 2020)
- Consortium of California Herbaria (CCH) online database of plant collections (CCH 2020)
- California Natural Diversity Database (CNDDB) list of state and federally listed specialstatus species documented within the Paso Robles 7.5-minute quadrangle, and the surrounding eight quadrangles (Adelaida, Bradley, Creston, Estrella, Ranchito Canyon, San Miguel, Templeton, and York Mountain) (CDFW 2020)
- CNDDB map of special-status species that have been documented within a 2-mile radius of the project site (CDFW 2020) (See Appendix A - Figure 3: 2-mile CNDDB and Critical Habitat)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants for the Paso Robles 7.5 -minute quadrangle and the surrounding eight quadrangles (CNPS 2020a)
- United States Fish and Wildlife Service (USFWS) Critical Habitat for Threatened and Endangered Species Report (USFWS 2020a)
- USFWS National Wetland Inventory (NWI), Wetlands Mapper (USFWS 2020b)

A list of regionally occurring special-status species was compiled based on records reported in the scientific database queries (see Appendix C - Regionally Occurring Special-status Species). This species list was used to inform the field survey effort, and to determine an appropriate survey period for special-status botanical species with potential to occur on site.

Following the background review, Terra Verde completed two surveys during which habitat was assessed, vegetation communities were classified, botanical and wildlife species were inventoried, waters and wetlands were assessed, and the potential for special-status botanical and wildlife species to occur on site was analyzed. Table 1 (Summary of Field Surveys) summarizes the surveys completed on site.

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Table 1. Summary of Field Surveys

| Date | Survey Focus | Staff |
| :---: | :---: | :---: |
| $10 / 24 / 19$ | Botanical and wildlife inventory, <br> habitat assessment, jurisdictional <br> analysis | Sara Snyder <br> Giancarlo Napolitano |
| $05 / 12 / 20$ | Spring botanical inventory | Amy Golub |

Surveys were conducted on foot and lasted approximately 2 to 3 hours each day. The survey area encompassed the limits of proposed disturbance (i.e., proposed project area), an approximate 100 -foot buffer on all sides, and a visual scan of the surrounding areas (see Appendix A - Figure 2: Survey Area). During each survey, all botanical and wildlife species observed, including those detected by indirect sign (e.g., tracks, scat, skeletal remains, dens, burrows, or vocalizations) were documented (see Appendix D - Botanical and Wildlife Species Observed). Botanical species identifications and taxonomic nomenclature followed The Jepson Manual: Vascular Plants of California, $2^{\text {nd }}$ edition (Baldwin et al. 2012), as well as taxonomic updates provided in the Jepson eFlora database (Jepson Flora Project 2020). Vegetation communities and land cover types were characterized, and natural communities were classified using the second edition of A Manual of California Vegetation (MCV) classification system (Sawyer et al. 2009), as well as updates included in the MCV Online (CNPS 2020b). The jurisdictional analyses included mapping and delineation of the extent of agency jurisdiction for the California Department of Fish and Wildlife (CDFW), the Central Coast Regional Water Quality Control Board (RWQCB), and the U.S. Army Corps of Engineers (Corps).

The habitat requirements for each regionally occurring special-status species listed in Appendix C were analyzed and compared to the type and quality of habitats observed on site during the field surveys. The potential for many species to occur on the project site was eliminated due to lack of suitable habitat, elevation range, soils/substrate, and/or known distribution of the species. Special-status species for which suitable habitat was identified on site are discussed indepth in the following section, and those determined to have no potential to occur based upon a lack of suitable habitat are not discussed (see Appendix C for a complete list of regionally occurring species that were evaluated).

### 2.1 Sufficiency of Biological Data

The field surveys were conducted with sufficient detail by staff with suitable biological expertise and were appropriately timed to identify potentially occurring special-status plant and wildlife species. Specifically, surveys were timed to coincide with the typical peak blooming and/or fruiting period for regionally occurring special-status botanical species for which suitable habitat exists on site. In addition, the background research was thorough and properly supplemented

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the on-the-ground surveys.
During the surveys, visibility and conditions were suitable for the detection of wildlife species and their sign. However, migratory and transient wildlife species such as many birds and large mammals may only be seasonally present. Further, some species are nocturnal and therefore may not have been detected. As such, recommendations have been made for the avoidance of special-status species and resources deemed to have potential to occur, based on an assessment of habitat on site.

### 3.0 RESULTS

This section provides a summary and analysis of the results of the background research and field surveys. The discussion includes a description of soils, terrestrial and aquatic habitat types, direct and indirect observations of wildlife and botanical species, and a discussion of the potential for special-status species to occur. Anticipated impacts to existing wildlife corridors and habitat connectivity are also considered.

### 3.1 Habitats and Resources Observed

The survey area displays little variation in vegetation cover and available wildlife habitat. It comprises two soil units and mainly consists of regularly tilled/disced grasslands, which are nearly devoid of vegetation most of the year. Although numerous plants and wildlife can persist in disturbed conditions, this site supports minimal forage and cover habitat. Historical and current land management practices have likely greatly reduced the potential for sensitive biological resources on site.

### 3.1.1 Soils

The NRCS online soil report revealed two soil units within the survey area (see Appendix A Figure 4: Soils). The primary characteristics of these soil units are described below.

## Soil Unit 150: Hanford and Greenfield Gravelly Sandy Loams, 2 to 9 percent slopes

The parent material of this soil type is alluvium from mixed rock sources. This soil unit is classified as well-drained and is composed mostly of gravelly sandy loam. This soil type tends to occur on terraces between 600 and 1,500 feet ( 182 and 457 meters) and is considered prime farmland if irrigated.

Soil Unit 300: Corducci and Typic Xerofluvents, 0 to 5 percent slopes
The parent material of this soil type is mixed alluvium derived from igneous and sedimentary rock. This soil unit is classified as somewhat excessively drained, and it is composed mostly of fine sand, sand, and coarse sand. This soil tends to occur on alluvial fans, stream terraces, and floodplains between 70 and 2,480 feet ( 21 and 756 meters).

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### 3.1.2 Vegetation Communities

Vegetation communities and land cover types were assessed, classified, and mapped based on vegetation composition, structure, and density, with consideration of known land management practices (see Appendix A - Figure 5: Vegetation Communities and Hydrologic Resources). The survey area totaled approximately 6.43 acres. Natural vegetation communities identified on site were 5.13 acres of wild oats and annual brome grassland, 0.28 acre of coyote brush scrub, and 1.02 acre of arroyo willow thicket.

Ninety vascular plant species were identified on site, of which 41 ( 51 percent) were non-native. The abundance and density of non-native taxa exceeds that of native taxa, primarily in the annual grassland habitat which covers most of the survey area. The natural vegetation communities are described below, and illustrated in Figure 5 of Appendix A.

## Wild Oats and Annual Brome Grasslands (5.13 acres)

A majority of the survey area consists of annual grassland habitat. This community is dominated by slender wild oat (Avena barbata), soft chess (Bromus hordeaceus), and ripgut brome (Bromus diandrus), with small fescue (Festuca microstachys), Salinas river tarweed (Deinandra pentactis), miniature lupine (Lupinus bicolor), and four-spot (Clarkia purpurea subsp. quadrivulnera) scattered throughout. This community forms dense herbaceous cover up to 3 feet tall.

This species composition was used to determine the community classification, which most closely corresponds with the Avena spp. - Bromus spp. Semi Natural Herbaceous Alliance (wild oats and annual brome grasslands) in the MCV classification system. This community is widespread and may occur in any topographic setting in foothills, waste places, rangelands, and openings in woodlands at elevations below 7,220 feet ( 2,200 meters). It may provide habitat for nesting birds, small mammals, and other wildlife.

## Coyote Brush Scrub (0.28 acre)

This community occurs along the southern portion of Drainage 1 within the survey area. It is dominated by coyote brush, with co-associates of mustard (Hirschfeldia incana), poison hemlock (Conium maculatum), yellow star-thistle (Centaurea solstitialis), red brome (Bromus rubens), Italian thistle (Carduus pycnocephalus), and chaparral honeysuckle (Lonicera subspicata var. denudata).

This species composition was used to determine the community classification, which most closely corresponds with the Baccharis pilularis Shrubland Alliance (coyote brush scrub) in the MCV classification system. This community is widespread and may occur in any topographic setting in foothills, waste places, rangelands, and openings in woodlands at elevations below 4,920 feet ( 1,500 meters). It may provide habitat for nesting birds, small mammals, and other wildlife.

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## Arroyo Willow Thicket (1.02 acres)

This community is primarily restricted to the bed and banks of Huer Huero Creek in the northern portion of the survey area. This community is comprised of scattered arroyo willow (Salix lasiolepis) and mule fat within the bed of the creek with oak trees (Quercus spp.) along the banks. The understory is limited to annual grasses, Bailey's buckwheat (Eriogonum baileyi), and curly dock (Rumex crispus). Vegetation cover within the bed of the creek is primarily composed of alluvial gravels.

This species composition was used to determine the community classification, which most closely corresponds with the Salix lasiolepis Shrubland Alliance (arroyo willow thicket) in the MCV classification system. This community occurs in streambanks and benches, slope seeps, and stringers along drainages at elevations below 7,120 feet ( 2,170 meters). This community provides habitat for nesting birds, small mammals, and other wildlife.

### 3.1.3 Wildlife

The terrestrial habitat observed within and adjacent to the project site is generally homogeneous, highly disturbed, and subjected to regular ground disturbance (i.e., tilling/discing). As a result, vegetative and underground cover are minimal, and it is expected that wildlife entering the survey area would primarily be transient, using the area for foraging and temporary cover rather than regular occupancy. The drainages within the survey area are intermittent or ephemeral, providing seasonal aquatic habitat. Water was observed ponded within Drainage 1 at the outfall of the culvert under Union Road; however, the hydroperiod is likely not sufficient to support breeding amphibians. No special-status species or sign thereof were observed during the surveys, and no critical habitat has been identified by USFWS (2020a) within the property.

Wildlife observed via direct or indirect sign during field surveys include red-tailed hawk (Buteo jamaicensis), California ground squirrel (Otospermophilus beecheyi) and several passerine bird species. A comprehensive list of all the wildlife species observed within the survey area is included in Appendix D - Botanical and Wildlife Species Observed.

### 3.1.4 Hydrologic Features

Two jurisdictional drainage features were identified within the survey area: Huer Huero Creek, an intermittent blue line drainage, and Drainage 1, an ephemeral drainage that flow into Huer Huero Creek (see Appendix A - Figure 5 and Table 2 - Summary of Jurisdictional Aquatic Features). In addition, one seasonal wetland was delineated and mapped for avoidance. These hydrologic features are described in further detail below.

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Table 2. Summary of Jurisdictional Aquatic Features

| Feature ID | Feature Type | Feature Designation ${ }^{\mathbf{1}}$ | Agency Jurisdiction |
| :--- | :--- | :--- | :--- |
| Huer Huero <br> Creek | Intermittent <br> drainage | Waters of the state, <br> Waters of the U.S. | CDFW, RWQCB, Corps |
| Drainage 1 | Ephemeral drainage | Waters of the state, <br> Waters of the U.S. | CDFW, RWQCB, Corps |
| Seasonal <br> wetland | Seasonal wetland | Waters of the state | CDFW, RWQCB |

${ }^{1}$ Jurisdictional determinations are based on the field assessments completed by Terra Verde and are subject to concurrence from the relevant agencies. These features have been mapped to identify stebacks.

Huer Huero Creek is an intermittent blue line drainage that flows west along the northern edge of the survey area and is a tributary to the Salinas River, which leads to the traditionally navigable waters of the Pacific Ocean. Huer Huero Creek has a clearly defined bed and bank, including evidence of ordinary high water mark (OHWM). As such, it is assumed that Huer Huero Creek would be considered waters of the state under the jurisdiction of CDFW and RWQCB, and waters of the U.S. under the jurisdiction of the Corps.

Drainage 1 is an ephemeral blue line drainage that flows north, bisecting the survey area, and empties into Huer Huero Creek that is a tributary to the Salinas River, which leads to the traditionally navigable waters of the Pacific Ocean. This drainage has a clearly defined bed and bank, including an OHWM along the southern and northern portion of its reach. As such, it is assumed that those portions of this drainage would be considered waters of the state under the jurisdiction of CDFW and RWQCB, and waters of the U.S. under the jurisdiction of the Corps. The middle portion of Drainage 1 lacks definition due to historic tilling. At the time of the October survey this area was observed to be vegetated with a dominance (greater than 50 percent relative cover) of poverty weed (Iva axillaris), a species listed as facultative (FAC) in the Arid West 2016 Regional Wetland Plant List (Lichvar et al. 2016), suggesting this area may be a seasonal wetland. The approximate extent of this feature was mapped based on the dominance of poverty weed observed during the October survey. This seasonal wetland is assumed to be considered waters of the state under jurisdiction of CDFW and RWQCB.

### 3.2 Sensitive Resources

The results of the background research of the area surrounding the proposed project site indicated that one sensitive natural community, 43 special-status plant species, and 31 specialstatus wildlife species occur regionally. The habitat requirements for each of these species were compared to the type and quality of habitat documented during the field survey. Following this assessment, it was determined that suitable habitat is present on site for four of the regionally occurring special-status plant species and ten of the regionally occurring special-status wildlife species. In addition, two mature (>6-inch diameter at breast height, DBH) valley oak (Quercus

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lobata) trees and one sapling (< 6-inch DBH) are in the survey area. These sensitive resources are discussed below.

### 3.2.1 Special-status Plant Species

Terra Verde determined that there is suitable habitat on site for four special-status botanical species. Additionally, individual oak trees (Quercus spp.) are considered a sensitive resource by the state of California and the City; therefore, the two mature valley oaks in the survey area have protective status. A description of the life history, range, and conservation status for each specialstatus species with potential to occur is included in the following paragraphs. However, field surveys were completed during the appropriate blooming period for these species, and none were observed. Therefore, no special-status plant species are expected to be impacted as a result of the proposed project activities.

San Luis Obispo Owl's-clover (Castilleja densiflora subsp. obispoensis), CRPR 1B. 2
San Luis Obispo owl's clover is an annual herb that is endemic to San Luis Obispo County. It is known to occur mostly in coastal areas along the Outer South Coast Ranges from just south of Ragged Point to Avila Beach, with several populations in the Irish Hills of San Luis Obispo County. This species typically grows in coastal grasslands at elevations below 1,300 feet (400 meters) and may be somewhat tolerant of disturbance. The typical blooming period for San Luis Obispo owl's-cover is from March to June (Jepson Flora Project 2020).

According to CNDDB (CDFW 2020) records, the nearest occurrence is approximately 1.5 miles north of the project site. Suitable habitat for this species is present within the annual grasslands on site. San Luis Obispo owl's clover was not observed during an appropriately timed botanical survey; therefore, this species is not expected to occur.

## Lemmon's Jewelflower (Caulanthus lemmonii), CRPR 1B. 2

Lemmon's jewelflower is an annual herb that is only found in the San Joaquin Valley, San Francisco Bay Area, Inner South Coast Ranges and Outer South Coast Ranges. This species typically occurs in grassland, chaparral, and scrub habitats at elevations between 260 and 3,600 feet ( 80 and 1,100 meters). The typical blooming period is from March to May (Jepson Flora Project, 2020).

According to CNDDB and CCH records (CDFW 2020, CCH 2020), this species was documented just west of the project area. Marginally suitable habitat for this species is present within the annual grasslands on site. Lemmon's jewelflower was not observed during an appropriately timed botanical survey; therefore, this species is not expected to occur.

## Yellow-flowered Eriastrum (Eriastrum luteum), CRPR 1B. 2

Yellow-flowered eriastrum is an annual herb that is endemic to a portion of the Inner and Outer South Coast Ranges of Monterey and San Luis Obispo Counties. This species typically occurs in rocky or gravelly soils on drying slopes in association with chaparral, broadleaf

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forest, and woodland communities. It is known to occur at elevations below 3,300 feet (1,000 meters). The typical blooming period is from May to June (Jepson Flora Project 2020). Documented threats to this species include grazing, vehicles, and possibly development.

According to CNDDB records (CDFW 2020), this species was documented 11.0 miles northwest and 10.0 miles south of the project site. Marginally suitable habitat for this species is present along the gravelly banks of Huer Huero Creek. Yellow-flowered eriastrum was not observed during an appropriately timed botanical survey; therefore, this species is not expected to occur.

Elegant Wild Buckwheat (Eriogonum elegans), CRPR 1.3
Elegant wild buckwheat is an annual herb that is endemic to the San Francisco Bay Area, South Coast Ranges, and Western Transverse Ranges. This species is uncommon and typically occurs in valley grassland and foothill woodlands in sand or gravel. It is known to occur at elevations between 660 and 3,900 feet (200 and 1,200 meters). The typical blooming period is from May to November (Jepson Flora Project 2020).

This species was documented by Althouse and Meade (2017) approximately 0.4 miles northwest of the project site in the channel and along the edge of Huer Huero Creek near where it flows under Highway 46. Suitable habitat for this species is present along the edges and banks of Huer Huero Creek. Elegant wild buckwheat was not observed during an appropriately timed botanical survey; therefore, this species is not expected to occur.

Valley Oak (Quercus lobata) Trees, Protection under the California Environmental Quality Act (CEQA) and local ordinance
Impacts to or removal of any species of mature oak (i.e., greater than 6 inches DBH) are regulated by the City of El Paso de Robles Oak Tree Preservation Ordinance No. 835 N.S. (City 2002) and California Public Resources Code 21083.4. Two mature valley oaks are in the survey area, at the southern edge of Huer Huero Creek and northern edge of the project site.

Although marginally suitable habitat is present for the special-status plant species described above, none were observed on site during appropriately timed surveys, except for two mature valley oaks. Recommended measures for avoidance, minimization, and mitigation of impacts to native oak trees are provided in Section 4.2.

### 3.2.2 Special-status Wildlife Species

This section provides a description of the special-status wildlife species with potential to occur on site.

## Sensitive Mammal Species

Pallid Bat (Antrozous pallidus); State Status - Species of Special Concern (CSC)
Pallid bat is common at low elevations throughout California and occurs in a variety of habitats including grasslands, shrublands, woodlands, and mixed conifer forest. This species is most common in open, dry habitats with rocky areas for roosting, but may occasionally

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have day roosts in hollow trees and buildings. Night roosts generally occur in more open areas such as porches and open buildings (Zeiner et al., 1988-1990a).

According to CNDDB records (2020), the nearest occurrence of this species is approximately 10.0 miles northwest of the site. Marginally suitable habitat is present for pallid bat in the cavities of mature valley oaks located along Huer Huero Creek, on the northern boundary of the project site.

## Western Mastiff Bat (Eumops perotis); State Status - CSC

Western mastiff bat is an uncommon resident in southeastern San Joaquin Valley and Coastal ranges from Monterey County southward through southern California. This species occurs in many open, semi-arid habitats, including conifer, deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. This species requires crevices in cliff faces, high buildings, trees, or tunnels for roosting (Zeiner et al., 1988 - 1990b).

No CNDDB records of western mastiff bats have been recorded within a 9-quadrant search surrounding the project site; however, according to local biological knowledge, this species is known to occur regionally (Althouse and Meade 2017). Suitable habitat is present within the cavities of mature valley oaks along Huer Huero Creek, on the northern boundary of the project site.

American badger (Taxidea taxus), State Species of Special Concern (CSC)
The range of American badger covers most of North America. They range throughout California except the North Coast region (Del Norte, Humboldt, Mendocino, Sonoma, and Marin counties). They prefer open and arid habitats such as grasslands, meadows, savannahs, open-canopy desert scrub, and open chaparral. They are predators of fossorial rodents and are adept at quickly excavating deep burrows to access their prey. As such, where badgers are present, the landscape is dotted with large soil tailings, which are normally half-moon shaped. American badgers shelter in burrows they have excavated and, while they are known to traverse a relatively small home range (up to 2.5 acres), they move among burrows frequently. They can be active at all times of day but are primarily nocturnal. This species occurs at elevations up to 12,000 feet. Mating typically occurs from May through September but, because of delayed implantation, cubs are not born until early spring. Habitat conversion is a threat to this species (Zeiner et al. 1988-1990c).

According to CNDDB (CDFW 2020), there have been several observations of American badgers between 7.0 and 10.0 miles of the project site. No sign (e.g., characteristic claw marks on the interior sides of den entrances, horizontally oriented elliptical den openings, frequent prey excavations) of this species was observed. However, the open fields surrounding the project site may provide marginally suitable habitat for American badger, including a prey base (e.g., pocket gophers and squirrels). Based on the nearest documented occurrences, the habitat suitability, and the presence of prey base, there is potential to encounter this species on site.

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San Joaquin kit fox (Vulpes macrotis mutica), Federal Endangered / State Threatened San Joaquin kit fox is endemic to the San Joaquin Valley and adjacent arid valleys of central California. Kit foxes prefer sparsely vegetated saltbush scrublands and grasslands dominated by red brome (Bromus madritensis) on flat or gently rolling terrain (Brown et al. 2019). The three remaining core populations are in 1) Carrizo Plain Natural Area in San Luis Obispo County; 2) natural lands of western Kern County; and 3) the Ciervo-Panoche Natural Area of western Fresno and eastern San Benito Counties (USFWS 1998). Kit foxes use dens for protection and rearing pups. Mating occurs between December and March, and most pups disperse by August. Kit foxes are primarily nocturnal but may be observed during the day, basking outside the den entrance or taking short excursions. Kit foxes excavate their own dens, enlarge burrows of other species, such as giant kangaroo rats, or den in manmade features, such as culverts. By the 1950's, loss, degradation, and fragmentation of habitats in the San Joaquin Valley were the primary factors of decline. Many other sources of mortality pose a threat to maintaining viable populations of this species, including disease, parasites, predation, and many human-induced factors such as shooting, trapping, poisoning, electrocution, and vehicle strikes (Brown et al. 2019).

The project site is situated in a travel corridor between the historical population at the Camp Roberts California Army National Guard Installation and the core populations in Carrizo Plain Natural Area and western Kern County. According to CNDDB (CDFW 2020), the nearest observation of a kit fox was approximately 0.5 mile south of the project area (1991 record). A more recent observation was recorded in 2014, approximately 7.5 miles east of the project site. There are no known extant populations in the project vicinity, and no sign (e.g., potential dens or scat) was observed during the surveys. Areas on site with ruderal herbaceous vegetation provide marginally suitable habitat for kit foxes. Because the project site abuts areas with patchy suitable habitat and is considered to be in a corridor there is potential, however low, that kit foxes may occur in the project area.

## Sensitive Reptile Species

Northern California Legless Lizard (Anniella pulchra); State CSC
Northern California legless lizard is known to occur from the northern end of the San Joaquin Valley, south through the Inner and Outer South Coast Ranges at elevations up to 5,900 feet ( 1,800 meters) (Nafis 2020). This species requires sandy or loose loamy soils within coastal dune scrub, coastal sage scrub, chaparral, woodland, riparian, or forest habitats. It requires cover such as logs, leaf litter, or rocks and will cover itself with loose soil. Relatively little is known about the specific behavior and ecology of this species, but it is thought to be a diurnal species that breeds between the months of March and July. It gives birth to live young in the early fall. Population declines have been attributed to agricultural development, sand mining, use of off-road recreational vehicles, and habitat loss through spread of invasive, non-native vegetation such as ice plant (Carpobrotus sp.) (Zeiner et al. 1988-1990d).

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According to CNDDB (2020), this species was documented in the immediate vicinity of the project site. Marginally suitable habitat is present along the bank of Huer Huero Creek.

California Glossy Snake (Arizona elegans occidentalis), State CSC
California glossy snakes are common throughout California, especially in desert habitats. This species is primarily nocturnal, feeding on a variety of lizards and spending periods of inactivity in underground mammal burrows and rock outcrops. California glossy snakes inhabit arid scrub, rocky washes, grasslands, and chaparral, and appear to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing (Nafis 2020). The greatest threat to this species is habitat modification due to agricultural, commercial, and residential development.

According to CNDDB (CDFW 2020), the nearest occurrence of this species was approximately 14.0 miles east of the project site. However, this species is also known to occur approximately 11.0 miles northwest of the project site within the Salinas River watershed on the Camp Roberts Military Base. Suitable habitat for California glossy snake is present within the sandy washes of Huer Huero Creek on site.

San Joaquin Coachwhip (Masticophis flagellum ruddocki), State CSC
San Joaquin coachwhip occurs in dry, treeless areas such as grasslands and saltbush scrub. This species seeks refuge under objects such as rocks, as well as under shrubs or in rodent burrows. Their range extends from the Sacramento Valley, south to Kern County and west to the Inner South Coast Ranges. Suitable habitat lies at elevations ranging from 65 to 3,000 feet ( 20 to 900 meters). Coachwhips are dormant during the winter and resume activity in late spring. This snake is especially tolerant of high temperatures and is active during the day. San Joaquin coachwhips feed on a variety of animals, including small mammals, bats, lizards, and birds. Because this species tends to bask on roadways and scavenge on roadkill, vehicle strikes are a common threat, as well as extensive habitat loss and fragmentation, especially conversion of large areas of suitable habitat to agricultural use in the San Joaquin Valley and urban development in areas of the inner Coast Ranges (Nafis 2020).

According to CNDDB (CDFW 2020), the nearest observation of San Joaquin coachwhip is approximately 11.0 miles northwest of the project site. Within the survey area, open, ruderal fields with small mammal burrows provide suitable habitat and forage opportunity for this species. Further, it may be found basking along paved roads.

## Blainville's Horned Lizard (Phrynosoma blainvillii); State CSC

Blainville's horned lizard occurs in semi-arid mountains of western and southern California at elevations up to 8,000 feet ( 2,400 meters). This species inhabits grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose, sandy soil. It is frequently found near native ant hills, which are its preferred food source. This species may also forage on beetles, wasps, grasshoppers, flies, and caterpillars. The breeding season is from May to September, and nests are constructed in loose soil (Zeiner et al. 1988-1990e).

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Habitat conversion to housing and agriculture and the spread of nonnative ants (e.g. Argentine ants) have caused this species to decline. Historically, this lizard was extensively exploited by the pet trade and the curio trade (Nafis 2020).

According to CNDDB (CDFW 2020), the nearest occurrence of this species was approximately 11.0 miles northwest of the project site. Suitable habitat is present along the edges of Huer Huero Creek within the survey area.

## Sensitive Invertebrate Species

Crotch Bumble Bee (Bombus crotchii), State - Candidate
Crotch bumble bees inhabit open grassland and scrub habitats primarily in California, from Sacramento south into Mexico, and from the coast east into Nevada. Bumble bee colonies are annual with the queen mating in the fall before overwintering alone. Not much is known about Crotch bumble bee overwintering sites (Hatfield et al. 2018). Generally, bumble bees overwinter in soft, disturbed soil (Goulson 2010), or under leaf litter or other debris (Williams et al. 2014). Queens emerge between February and April (Thorp et al. 1983) and establish a colony by producing female workers and male drones. Colonies are usually underground in abandoned holes made by ground squirrels, mice, and rats, or occasionally abandoned bird nests (Osborne et al. 2008). However, bumble bees may also nest above ground in tufts of grass or cavities in downed wood, rock walls, or brush piles. Crotch bumble bees are generalist foragers, feeding on a variety of flowering plants (Hatfield et al. 2018). Like other bumble bees, this species feeds on both the nectar and the pollen. Select food plant genera include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae (Hatfield et al. 2018). Threats to this species include loss of habitat due to agriculture and development and degradation of habitat due to invasive species, livestock grazing, herbicide use, and decreases in small mammal populations due to poisoning.

According to CNDDB (CDFW 2020), the nearest observation of Crotch bumble bee is a historical record (1959) approximately 12.0 miles south of the project site. Within the survey area, the majority of the habitat is actively managed with frequent tilling, thus limiting floral resources and underground refugia, such as small mammal burrows, in the survey area and vicinity for colonies. Due to the low suitability of habitat and age of the nearby record, this species is not expected to be present.

## Migratory Nesting Birds and Sensitive Avian Species

Western burrowing owl (Athene cunicularia), State CSC
Burrowing owls generally inhabit open grasslands, prairies, and fields with short-stature vegetation, but may also occupy agricultural and developed areas (Shuford et al. 2008). This species typically uses the burrows of ground squirrels and other small mammals for shelter, protection from predators, and nesting. Burrowing owls are active day and night and can be seen roosting outside of burrow entrances during the day. Courtship and mating may begin as early as late December in California and continue into early spring. Incubation lasts 28 30 days and young disperse to nearby burrows by early fall. The primary threats to burrowing

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owls are the elimination of burrowing mammals through control programs and habitat loss caused by development (Klute et al. 2003). Breeding and wintering populations of burrowing owls are known to occur in the project region, but they more commonly inhabit coastal areas during the non-breeding season. The remnant annual grasslands on site provide limited underground cover and a prey base for this species.

According to CNDDB (2020) records, a burrowing owl has been observed approximately 12.0 miles northwest of the project site. The quality of habitat at the site is substantially degraded as a result of current and historical land uses, but some suitable habitat is present.

California horned lark (Eremophila alpestris actia), State Watch List
California horned lark inhabits open areas, such as grasslands and agricultural fields. Nests are typically built on the ground in shallow depressions made of roots, grass, and hair. They typically breed between March and August, incubation is approximately 10 to 14 days, and young leave the nest at 9 to 12 days. They are year-long residents in California and become gregarious following breeding, forming large flocks that forage and roost together (Zeiner et al. 1998 - 1990f). Loss of habitat and destruction of nests through earth moving activities are major threats.

According to CNDDB (CDFW 2020) records, the nearest observation of California horned lark is 18.0 miles northwest of the project site. However, California horned larks were observed by Terra Verde in the vicinity of the survey area during the field surveys in 2019. Suitable nesting and foraging habitat is present on site for this species.

## Migratory Nesting Birds

In addition to those species protected by the state or federal laws, all native avian species are protected by state and federal legislation, most notably the Migratory Bird Treaty Act and the CDFW Fish and Game Code. Collectively, these regulations make it unlawful to collect, sell, pursue, hunt, or kill native migratory birds, their eggs, nests, or any parts thereof. Avian species are expected to occur within the project area during all seasons and throughout construction of the proposed project. The potential to encounter and disrupt these species is generally highest between February 1 and September 15, when nests are likely to be active, with eggs and/or young present. The eucalyptus grove to the east, oak trees to the north, and patches of coyote brush on the project site present the highest quality habitat for nesting, but open fields may also provide nesting habitat for various ground nesting species. Raptors are particularly drawn to large trees and structures, and they are generally less tolerant of disturbances than other species.

Recommended avoidance, minimization, and/or mitigation measures are provided in Section 4.2 for the species that may occur within the project area.

### 3.2.3 Sensitive Habitats

## Federal and State Waters and Wetlands

Huer Huero Creek was identified as jurisdictional waters of the U.S. and state due to the presence

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of a well-defined bed and bank and a significant nexus to navigable waters of the U.S. (i.e., the Pacific Ocean via the Salinas River). The proposed project has been designed to avoid impacts to Huer Huero Creek.

Drainage 1 was identified as jurisdictional waters of the U.S. and state due to the presence of a well-defined bed and bank within the southern and northern portions of its reach and a significant nexus to navigable waters of the U.S. (i.e., the Pacific Ocean via Huer Huero Creek and the Salinas River). The proposed project has been designed to avoid impacts to Drainage 1.

The seasonal wetland within the middle of Drainage 1 was identified as jurisdictional waters of the state due to the presence of a dominance of hydrophytic vegetation and evidence of hydrology. The project has been designed to avoid impacts to this seasonal wetland.

## County-designated San Joaquin Kit Fox Mitigation Area

CDFW, the USFWS, and the County of San Luis Obispo to develop mitigation measures that, when implemented, will avoid take and reduce impacts to San Joaquin kit fox habitat to an insignificant level. Standard kit fox avoidance, minimization, and mitigation measures are included in Section 4.2. For projects less than 40 acres, a standard mitigation ratio has been developed to mitigate the loss of kit fox habitat within the County. The project site falls within a 3:1 mitigation zone for kit fox.

## USFWS-designated Critical Habitats

No USFWS-designated critical habitats are present within the project area.

### 3.3 Habitat Connectivity

Maintaining connectivity between areas of suitable habitat is critical for the survival and reproduction of plants and wildlife. Intact habitats benefit plants by ensuring proper dispersal of pollen and seeds, which sustains or grows the population and contributes to the genetic health of the species. Wildlife need contiguous habitats to attain sufficient food resources for their energetic demands; to locate proper resting, burrowing, and/or nesting sites; to facilitate relatively long-distance travel or migration to seek out mates or resources; and for the safe and successful dispersal of young. The project site is in a semi-rural area, just inside the City limits, surrounded by existing agricultural operations (e.g., vineyards), commercial business, sports facilities, and rural residences. Corridors to and from the project site, particularly for wildlife, are degraded by the high density of agriculture in the region, which typically correlates with a high frequency of land manipulation, wildlife-exclusion fences, and pest management activities. In addition, the sports facilities to the west and southwest, Ravine Waterpark to the north, and vineyard to the east and south, present significant barriers for the movement of wildlife species. As a result, natural habitat features are highly fragmented on all sides of the project site. As proposed, two buildings and associated parking lots will be built on the southern portion of the property adjacent to Union Road. This leaves the northern portion of the parcel adjacent to Huer Huero Creek undeveloped, thus maintaining the area for wildlife movement. A corridor for

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unimpeded movement at the project site is generally limited to Huer Huero Creek and possibly the unnamed blue line drainage that runs through the open space to the south onto the project site. The project, as currently planned, will not impose barriers along the unnamed blue line drainage or Huer Huero Creek, leaving the aquatic connectivity and potential for wildlife movement in the corridors unchanged. Overall, the proposed project is not expected to increase the level of fragmentation in the region nor is it expected to create a barrier to wildlife movement.

### 4.0 IMPACT ASSESSMENT

### 4.1 Summary of Potential Impacts

The proposed project has the potential to directly and indirectly impact sensitive habitats, special-status wildlife species, and migratory nesting birds. Direct impacts to wildlife could result from injury or death via construction-related disturbances such as trampling or crushing from equipment or other construction activities such as grading, vegetation trimming or removal, and excavation. Indirect impacts could result from construction noise, harassment, dust emissions, or other disruptions during construction. Direct impacts to sensitive habitats are expected to occur during culvert improvements and utility line installation and could also occur from errant materials entering waterways.

The total area of disturbance is estimated to be approximately 3.44 acres. An assessment of anticipated impacts to sensitive biological resources as a result of the proposed project are below.

### 4.1.1 Impacts to Special-status Plants

## Special-status Plants

No special-status plants were observed or expected to occur within the survey area. Surveys were appropriately timed to detect regionally occurring special-status species. As such, no impacts to special-status botanical species are anticipated as a result of the proposed project.

## Oak Trees

The project has been designed to avoid impacts to the two mature valley oak trees located along the bank of the Huer Huero Creek. No impacts to these trees are anticipated as a result of project implementation.

### 4.1.2 Impacts to Special-status Wildlife

## Special-status Mammals

## American Badger and San Joaquin Kit Fox

If American badgers or San Joaquin kit foxes are using or travel through the site, there is potential for direct or indirect impacts to occur during construction. Construction poses several risks to wildlife, such as vehicle strikes, crushing by equipment, and destruction of resources (e.g.,

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burrows or dens). Further, construction may impact or deter use of valuable habitat, yielding it unsuitable for special-status mammals. Indirect impacts may occur by removing available habitat, reducing prey base, or deterring movement patterns of wildlife caused by construction disturbances.

## Pallid and Western Mastiff Bat

Indirect impacts to special-status bat species may occur if roosts are present in nearby trees, such as the oak trees north of the project boundary. No trees are expected to be removed or impacted by construction; however, project disturbances will likely occur near the oak trees on site. As such, indirect impacts may occur because of increased short- and long-term anthropogenic activity in the vicinity of roosts, deterring use of the area by bats.

## Special-status Reptiles

Construction activities pose risks for direct and indirect impacts to special-status reptiles. For example, reptiles basking on roadways will be especially vulnerable to vehicle strikes. Reptiles can be slow-moving, both because of behavioral adaptations to be camouflaged from predators and because of their ectothermic nature. This trait presents crushing hazards in the presence of relatively fast-moving equipment or even foot traffic. All special-status reptiles presumed to be on the project site rely heavily on burrows and other refugia for shelter from the elements, protection from predators, and/or reproduction. Heavy equipment and ground disturbing activities may collapse burrow systems or completely remove them, resulting in injury to or death of the inhabitants or exclusion by the removal of a vital resource. Vegetation may also be removed as a result of construction activities. Ectotherms rely on vegetative cover for temperature regulation and, further, vegetation provides habitat for the prey species of reptiles. Northern California legless lizards, California glossy snake and Blainville's horned lizard are most vulnerable during vegetation removal and grading activities in areas of suitable habitat. San Joaquin coachwhips are also vulnerable on hot days when they are basking in open areas.

## Sensitive and Nesting Birds

Direct impacts to avian species, like nest disturbance, are most likely to occur if construction activities take place during the typical avian nesting season, generally February 1 through September 15. Indirect impacts may occur due to habitat loss (e.g., removal of suitable nesting shrubs, cavities, or herbaceous cover) or construction-related disturbances that may deter nesting or cause nests to fail.

### 4.1.3 Impacts to Sensitive Habitats

## Hydrological Resources

Huer Huero Creek, an unnamed blue line drainage, and a seasonal wetland occur within the survey area. Direct impacts to Huer Huero Creek or the seasonal wetland are not expected as a result of the project as it is currently designed. Indirect impacts to these features could result from erosion, sedimentation, and/or discharges of hazardous materials from construction equipment (e.g., fuel). Culvert improvements and utility line installations will impact the

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unnamed blue line drainage. Prior to project initiation, all applicable agency permits with jurisdiction over this drainage (i.e., Corps, CDFW, and RWQCB) should be obtained. All additional mitigation measures required by these agencies, not described in this report, should be implemented as necessary.

## County-designated San Joaquin Kit Fox Mitigation Area

The likelihood of San Joaquin kit foxes to occur on site is low because of the great distance from extant populations and the fragmentation of habitat in the region; however, because the project is in the County-designated mitigation area, in the kit fox corridor, implementation of mitigation measures pursuant to the County Guide to San Joaquin Kit Fox Mitigation Procedures under CEQA may be required. Construction and implementation of the proposed project would result in approximately 3.44 acres of permanent conversion of grassland habitat. Therefore, the applicant must contribute to the preservation of habitat through one of three ways: a conservation easement agreement, compensation to a pre-determined mitigation bank (presently Palo Prieto Conservation Bank), or payment of an in-lieu fee to the San Francisco office of The Nature Conservancy.

### 4.2 Recommended Avoidance, Minimization, and Mitigation Measures

The following avoidance, minimization, and mitigation measures are recommended to reduce the anticipated impacts to the maximum extent feasible.

### 4.2.1 General Measures

## Measure 1: Environmental Awareness Training

An environmental awareness training shall be presented to all construction personnel by a qualified biologist prior to the start of any project activities. The training shall include color photographs and a description of the ecology of all special-status species known or with potential to occur on site, as well as other sensitive resources requiring avoidance near the project site. The training shall include a description of protection measures required by discretionary permits, an overview of the Federal and State Endangered Species Acts, and implications of noncompliance with these regulations. The biologist will provide an overview of the required avoidance, minimization, and mitigation measures. A sign-in sheet with the name and signature of the qualified biologist who presented the training and the names and signatures of the environmental awareness trainees will be kept. A fact sheet conveying the information provided in the environmental awareness training will be provided to all project personnel and anyone else who may enter the project site.

If new construction personnel join the project after the initial training period, they will receive the environmental awareness training from the qualified biologist before beginning work. Visitors to the proposed project site, such as company executives, administrative staff, or other guests, are not required to receive the environmental awareness training as their time in the

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project area will be of short duration. Visitors may be independent on the proposed project site if they elect to receive the training, but otherwise must be escorted by someone who is trained.

## Measure 2: Site Maintenance and General Operations

The following general measures are recommended to minimize impacts during active construction:

- The use of heavy equipment and vehicles shall be limited to the proposed project limits and defined staging areas/access points. The boundaries of each work area and staging area shall be clearly defined and marked with high visibility fencing or flagging. No work shall occur outside these limits.
- In the vicinity of sensitive resources and habitats (e.g., wetlands and drainages), signs shall be posted at the boundary of the work area indicating the presence of sensitive resources.
- Project plans, drawings, and specifications shall show the boundaries of all sensitive resource areas and the location of erosion and sediment controls, delineation of construction limits, and other pertinent measures to ensure the protection of sensitive habitats and resources.
- Staging of equipment and materials shall occur in designated areas with appropriate demarcation and perimeter controls. No staging areas shall be located within 100 feet of sensitive habitat or jurisdictional aquatic resources.
- Secondary containment, such as drip pans, shall be used to prevent leaks and spills of potential contaminants.
- Washing of concrete, paint, or equipment, and refueling and maintenance of equipment shall occur only in designated staging areas. These activities will occur at a minimum of 100 feet from sensitive habitat or jurisdictional aquatic resources, including drainages and wetlands. Sandbags and/or absorbent pads and spill control kits shall always be available for use in the event of a spill or leak.
- Construction equipment shall be inspected by the operator daily to ensure that equipment is in good working order and that there are no fuel or lubricant leaks.
- Plastic monofilament netting (erosion control matting) or similar material will not be used on site due to the potential for entangling special-status small mammals or reptiles. Acceptable substitutes are coconut coir matting or tackified hydroseeding compounds.


### 4.2.2 Measures to Address Impacts to Sensitive Habitats

## Measure 3: Federal and State Waters and Wetlands

In addition to Measure 2, the following recommendations have been provided to protect drainages and aquatic resources on site.

- Construction activity within 100 feet of drainages and wetlands shall occur only when conditions are dry.
- To prevent erosion and sedimentation into drainages and wetlands during construction, an erosion and sedimentation control plan shall be developed and implemented. It shall


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outline Best Management Practices for temporary stabilization. Acceptable stabilization methods include the use of weed-free, natural fiber (i.e., non-monofilament) rolls, jute or coir netting, and/or other industry standard materials. Erosion control devices shall be installed and maintained for the duration of the project.

- Prior to project initiation, all applicable agency permits with jurisdiction over the project area (i.e., Corps, CDFW, RWQCB, and USFWS) should be obtained. Additional mitigation measures may be required by these agencies and shall be implemented as necessary throughout the project.


### 4.2.3 Measures to Address Impacts to Special-status Wildlife

## Measure 4: Preconstruction Survey for American Badger and San Joaquin Kit Fox

A qualified biologist shall conduct a preconstruction survey within 30 days prior to the start of initial project activities to ensure American badgers and San Joaquin kit foxes are not present within proposed work areas. If potential dens are discovered, they shall be monitored with a remote camera or tracking medium for at least three days to determine if they are occupied. If the qualified biologist determines that a den may be active, a 50 -foot no-entry exclusion buffer shall surround the den and the appropriate resource agencies shall be contacted for further guidance. If potential dens are found during the American badger or San Joaquin kit fox breeding and rearing season, no activity shall occur within 200 feet of the den and the appropriate resource agencies shall be contacted for further guidance. Exclusion buffers shall be prominently flagged and encircle the den resource. Additional measures for San Joaquin kit fox are provided below.

## Measure 5: County Standard Mitigation of Impacts to San Joaquin Kit Fox Habitat

In accordance with the County Guide to San Joaquin Kit Fox Mitigation Procedures under CEQA, the City shall adopt the Standard Kit Fox CEQA Mitigation Measures and shall include these measures on development plans. The following summarizes the measures that have not already described in this Section:

- The applicant shall mitigate for the loss of 3.44 acres of San Joaquin kit fox habitat in one of the following ways:

1. Establish a conservation easement on site or off site in a suitable San Luis Obispo County location and provide a non-wasting endowment for management and monitoring of the property in perpetuity;
2. Deposit funds into an approved in-lieu fee program; or
3. Purchase credits in an approved conservation bank in San Luis Obispo County.

- Retain a qualified biologist to survey the site immediately prior to the initiation of construction for suitably sized burrows (e.g., potential dens) and to ensure no kit foxes are injured during project activities. If potential dens are encountered, they should be avoided as described in Measure 4.


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- Require a maximum 25-mile-per-hour speed limit at the project site during construction.
- Stop construction activities at dusk and start after dawn.
- Completely cover or provide escape ramps for all construction-related excavations deeper than 2 feet at the end of each working day.
- Inspect all pipes, culverts, or similar structures for San Joaquin kit fox and other wildlife before burying, capping, or moving.
- Dispose of all food-related trash in sealed containers and remove it from the project site regularly.
- Abide by local, state, and federal regulations if pesticides or herbicides must be used, as kit foxes can be secondarily poisoned.
- Stop all construction if a kit fox is discovered at any time in the project area. Immediately contact CDFW and USFWS for further guidance. The project can resume when appropriate permits are obtained.
- Allow for passage of San Joaquin kit foxes through or underneath (i.e., an approximate 4inch passage gap at ground level) permanent fences.
- Cap or temporarily seal all exposed openings of pipes, culverts, or similar structures with a diameter of 4 inches or greater prior to the end of each working day, after confirming no animals are inside.


## Measure 6: Preconstruction Surveys and Monitoring for Special-status Reptiles

A qualified biologist shall conduct a preconstruction survey within one week prior to the start of initial project activities to ensure special-status reptiles are not present within proposed work areas. If a special-status reptile is found in the work area, allow it to leave on its own volition and as appropriate, contact the resource agencies.

## Measure 7: Preconstruction Survey for Burrowing Owl

If work will occur within 492 feet ( 150 meters) of burrowing owl habitat, during the breeding or non-breeding seasons, a qualified biologist shall conduct a preconstruction survey for this species within 14 days of the onset of construction. A second survey shall be completed immediately prior to construction (i.e., within the preceding 24 hours). The surveys shall be consistent with the methods outlined in Appendix D of the California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation (Staff Report). Qualified biologists will walk 20- to 65-footwide (7- to 20-meter) transects through the survey area to identify sign and/or individuals. These surveys may be completed concurrently with any other preconstruction surveys for special-status species.

If occupied burrowing owl burrows are identified, the following buffer distances shall be observed by construction, unless otherwise authorized by CDFW:

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| Location | Time of Year | Level of Disturbance |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  | Low | Medium | High |
| Nesting Sites | April 1-Aug 15 | 656 feet | 1,640 feet | 1,640 feet |
| Nesting Sites | Aug 16-Oct 15 | 656 feet | 656 feet | 1,640 feet |
| Any Occupied Burrow | Oct 16-Mar 31 | 164 feet | 328 feet | 1,640 feet |

If avoidance of active burrows is infeasible, the owls can be passively displaced from their burrows according to recommendations made in the Staff Report, and in coordination with CDFW.

## Measure 7: Preconstruction Survey for Nesting Birds

If work is planned between February 1 and September 15, a qualified biologist shall survey the area for nesting birds within one week prior to activity beginning on site. If nesting birds are located on or near the proposed project site, they shall be avoided until they have successfully fledged, or the nest is no longer deemed active. A non-disturbance buffer of 50 feet shall be placed around non-listed, passerine species, and a 250 -foot buffer will be implemented for raptor species. All activity will remain outside of that buffer until a qualified biologist has determined that the young have fledged or that proposed construction activities would not cause adverse impacts to the nest, adults, eggs, or young. If special-status avian species are identified, no work will begin until an appropriate buffer is determined in consultation with the local CDFW biologist, and/or the USFWS.

### 5.0 CONCLUSION

The potential for impacts to special-status biological resources as a result of the proposed Union Road Development Project is low. The project is currently designed to avoid impacts to Huer Huero Creek, Drainage 1, and the seasonal wetland. In addition to designing the project with appropriate setbacks for avoidance, the recommended measures to prevent unanticipated impacts during construction will further protect these sensitive resources. Habitat connectivity is not expected to be significantly degraded, especially considering the remaining open space on the property and the intact drainages that can serve as corridors. No special-status species were observed directly within the survey area, and no special-status botanical species are expected to occur on the project site based on inadequacy of available habitat and lack of detections during appropriately timed surveys. However, in addition to nesting birds, ten species of special-status wildlife may occur: pallid bat, western mastiff bat, American badger, San Joaquin kit fox, northern legless lizard, California glossy snake, San Joaquin coachwhip, Blainville's horned lizard, burrowing owl, and California horned lark. Implementation of the recommended protection measures will avoid and/or minimize impacts to sensitive resources to a less than significant level.

## Attachment 5

### 6.0 REFERENCES

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## Attachment 5

## APPENDIX A - PROJECT MAPS

Figure 1: Project Location and Survey Area
Figure 2: Survey Area
Figure 3: 2-mile CNDDB and Critical Habitat
Figure 4: Soils
Figure 5: Vegetation Communities and Hydrologic Resources

## Attachment 5

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$\square$ County Line

$$
\begin{array}{r}
\text { Union Road Development Project } \\
\text { Biological Resources Assessment } \\
\text { Figure 1: Project Location and Survey Area }
\end{array}
$$

Survey Area



Union Road Development Project
Biological Resources Assessment
Figure 3: 2-mile CNDDB and Critical Habitat

Project Location
Botanical Occurrences
$\square$ 01 - Lemmon's Jewelflower
02 - San Luis Obispo Owl's-clover
03 - Shining Navarretia

## Wildlife Occurrences

04 - Atascadero June Beetle
05 - Lompoc Grasshopper


## Attachment 5



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
$\square$ Survey Area

## Soil Unit

 Biological Resources AssessmentArbuckle-Positas Complex, 50-75\% slopes
Hanford and Greenfield Gravelly Sandy Loams, 0-2\%
Hanford and Greenfield Gravelly Sandy Loams, 2-9\%
Metz-Tujunga Complex, Occasionally Flooded, 0-5\%
Xerofluvents-Riverwash Association




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## Attachment 5

APPENDIX B - PRELIMINARY SITE PLANS (DATED 07-10-2020)

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APPENDIX C - REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

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Regionally Occurring Special-status Species List for the Paso Robles, and Surrounding 7.5-minute Quadrangles: Adelaida, Bradley, Creston, Estrella, Ranchito Canyon, San Miguel, Templeton, and York Mountain

| SENSITIVE VEGETATION COMMUNITIES AND HABITATS ${ }^{1}$ |  |  |  |
| :--- | :--- | :---: | :---: |
| Community Name | Description ${ }^{2}$ |  | Observed <br> on Site? |
| California Natural Diversity Database (CNDDB)-designated Sensitive Natural Communities |  |  |  |
| Valley Oak Woodland | Open, grassy understoried savanna rather than a <br> closed-canopy woodland. Quercus lobata is usually <br> the only tree present, and most stands have an <br> open canopy. Usually occurs on deep, well-drained <br> alluvial soils, normally in valley bottoms. | No | Individual valley oaks occur along Huer Huero Creek; <br> however, valley oak woodland / savannah does not <br> exist in the immediate project area. |

${ }^{1}$ List of sensitive vegetation communities and habitats obtained from CNDDB and USFWS Critical Habitat Portal (CNDDB 2020; USFWS 2020a). ${ }^{2}$ Community and habitat descriptions acquired from CNDDB and Manual of California Vegetation (CDFW 2020, Sawyer et al. 2009, CNPS 2020b).

# Attachment 5 

| PLANTS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Scientific Name Common Name ${ }^{1}$ | Listing Status ${ }^{2}$ | Blooming Period ${ }^{3}$ | Habitat Type ${ }^{3}$ | Observed/ <br> Habitat <br> Present? ${ }^{4}$ | Comments |
| Abies bracteata Bristlecone fir | CRPR 1B. 3 | N/A | Steep, rocky, fire-resistant slopes; generally in canyon live oak phase of mixed evergreen forest. Elevation: 210-1,600 m. | No / No | No fir species observed during surveys. |
| Agrostis hooveri Hoover's bent grass | CRPR 1B. 2 | April August | Dry sandy soils, open chaparral, oak woodland. Elevation: < 600 m. | No / No | Not observed during fall and spring surveys. |
| Amsinckia douglasiana Douglas' fiddleneck | CRPR 4.2 | March - June | Typically on unstable, shaly, sedimentary slopes in woodland or grassland. Elevation: 100 $1,600 \mathrm{~m}$. | No / No | Not observed during typical blooming/fruiting period. |
| Antirrhinum ovatum Oval-leaved snapdragon | CRPR 4.2 | May - July | Heavy, adobe-clay soils on gentle, open slopes, and disturbed areas. Elevation: 200 $1,400 \mathrm{~m}$. | No / No | Not observed during typical blooming/fruiting period. |
| Arctostaphylos hooveri Hoover's manzanita | CRPR 4.3 | February April | Rocky slopes, upland chaparral, open ponderosa-pine forest near coast. Elevation: 450 1,100 m. | No / No | Not observed during fall and spring surveys. |
| Arctostaphylos obispoensis Bishop manzanita | CRPR 4.3 | February March | Rocky, generally serpentine soils, chaparral, open closedcone forest near coast. Elevation: 60-950 m. | No / No | Not observed during fall and spring surveys. |
| Aristocapsa insignis Indian Valley spineflower | CRPR 1B. 2 | May - June | Sand, typically in association with foothill woodlands. Elevation: 300-600 m. | No / No | Not observed during typical blooming/fruiting period. |
| Astragalus macrodon Salinas milk-vetch | CRPR 4.3 | April - June | Eroded pale shales or sandstone, serpentine alluvium. Elevation: 200-1,550 m. | No / No | Not observed during typical blooming/fruiting period. |

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| PLANTS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Scientific Name Common Name ${ }^{1}$ | Listing Status ${ }^{2}$ | Blooming Period ${ }^{3}$ | Habitat Type ${ }^{3}$ | Observed/ <br> Habitat Present? ${ }^{4}$ | Comments |
| Calochortus simulans <br> La Panza mariposa lily | CRPR 1B. 3 | May - July | Sand (often granitic), grassland, and yellow pine forest. <br> Elevation: <1,100 m. | No / No | Not observed during typical blooming/fruiting period. |
| Calycadenia villosa Dwarf calycadenia | CRPR 1B. 1 | May September | Dry, rocky hills, ridges, openings in foothill woodland, grassland. Elevation: 250-850 m. | No / No | Not observed during typical blooming/fruiting period. |
| Camissoniopsis hardhamiae Hardham's evening primrose | CRPR 1B. 2 | March - May | Sandy soil, limestone; disturbed or burned areas in oak woodland. Elevation: 60-600 m. | No / No | Not observed during fall and spring surveys. |
| Castilleja densiflora subsp. obispoensis <br> San Luis Obispo owl's-clover | CRPR 1B. 2 | March - June | Coastal grassland, meadows, and seeps; sometimes in serpentine. Elevation: < 400 m . | No / Yes | Low suitability habitat on site; Not observed during typical blooming/fruiting period. |
| Caulanthus lemmonii Lemmon's jewelflower | CRPR 1B. 2 | March - May | Valley and foothill grassland, chaparral, scrub. Elevation: 80 1,100 m. | No / Yes | Low suitability habitat on site; not observed during typical blooming/fruiting period. |
| Ceanothus cuneatus var. fascicularis Lompoc ceanothus | CRPR 4.2 | February May | Sandy substrates in coastal chaparral. Elevation: < 275 m . | No / No | Not observed during fall and spring surveys. |
| Chlorogalum purpureum var. purpureum <br> Santa Lucia purple amole | Federal Threatened CRPR 1B. 1 | May - June | Open woodland. Elevation: $\pm$ 300 m . | No / No | Not observed during fall and spring surveys. |
| Chorizanthe douglasii Douglas's spineflower | CRPR 4.3 | April - July | Sand or gravel. Elevation: 200 1,600 m. | No / Yes | Suitable substrate (sands and gravels) on site; not observed during typical blooming/ fruiting period. |
| Chorizanthe palmeri Palmer's spineflower | CRPR 4.2 | May August | Serpentine soil. Elevation: 60700 m . | No / No | Not observed during fall and spring surveys. |
| Chorizanthe rectispina Straight-awned spineflower | CRPR 1B. 3 | May - July | Sand or gravel. Elevation: 200600 m . | No / No | Not observed during typical blooming/fruiting period. |


| PLANTS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Scientific Name Common Name ${ }^{1}$ | Listing Status ${ }^{\text {2 }}$ | Blooming Period ${ }^{3}$ | Habitat Type ${ }^{3}$ | Observed/ <br> Habitat Present? ${ }^{4}$ | Comments |
| Clinopodium mimuloides Monkey-flower savory | CRPR 4.2 | June October | Moist places, stream banks, chaparral, woodland. Elevation: $400-1,800 \mathrm{~m}$. | No / No | Not observed during typical blooming/fruiting period. |
| Convolvulus simulans Small-flowered morningglory | CRPR 4.2 | April - June | Clay substrates, occasionally serpentine, annual grassland, coastal sage scrub, chaparral. Elevation: 30-875 m. | No / No | No clay substrates or serpentine substrates on site; not observed during typical blooming/fruiting period. |
| Delphinium parryi subsp. eastwoodiae <br> Eastwood's larkspur | CRPR 1B. 2 | March - May | Uncommon. Coastal chaparral, grassland, on serpentine. Elevation: 100-500m. | No / No | Not observed during typical blooming/fruiting period. |
| Delphinium umbraculorum Umbrella larkspur | CRPR 1B. 3 | April - June | Moist oak forest. Elevation: 400 - 1,600 m. | No / No | Not observed during typical blooming/fruiting period. |
| Eriastrum luteum Yellow-flowered eriastrum | CRPR 1B. 2 | May - June | Drying slopes, sandy or gravelly soil, typically in association with chaparral or woodland. Elevation: < 1,000 m. | No / Yes | Low suitability habitat on site; not observed during typical blooming/fruiting period. |
| Eriogonum elegans Elegant wild buckwheat | CRPR 4.3 | May November | Uncommon; sand or gravel substrate in washes and roadsides. Elevation: 200-1,200 m. | No / Yes | Low suitability habitat on site; not observed during typical blooming/fruiting period. |
| Eriophyllum jepsonii Jepson's woolly sunflower | CRPR 4.3 | April - June | Dry oak woodland. Elevation: 200-1,000 m. | No / No | Not observed during typical blooming/fruiting period. |
| Eschscholzia hypecoides San Benito poppy | CRPR 4.3 | March - June | Grassy areas in woodland, chaparral. Elevation: 200-1,600 m. | No / No | Not observed during typical blooming/fruiting period. |
| Hesperevax caulescens Hogwallow starfish | CRPR 4.2 | March - June | Drying shrink-swell clay of vernal pools, flats, and steep slopes; sometimes on serpentine. Elevation: < 500 m . | No / No | Not observed during typical blooming/fruiting period. |

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| PLANTS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Scientific Name <br> Common Name ${ }^{1}$ | Listing Status ${ }^{2}$ | Blooming Period ${ }^{3}$ | Habitat Type ${ }^{3}$ | Observed/ <br> Habitat <br> Present? ${ }^{4}$ | Comments |
| Horkelia cuneata var. puberula Mesa horkelia | CRPR 1B. 1 | March - July | Dry, sandy, coastal chaparral. Elevation: 70-870 m. | No / No | Not observed during typical blooming/fruiting period. |
| Horkelia cuneata var. sericea Kellogg's horkelia | CRPR 1B. 1 | April August | Old dunes, coastal sand hills. <br> Elevation: < 200 m . | No / No | Not observed during typical blooming/fruiting period. |
| Juncus luciensis Santa Lucia dwarf rush | CRPR 1B. 2 | April August | Wet, sandy soils of seeps, meadows, vernal pools, streams, roadsides. Elevation: 300-1,900 m. | No / No | Not observed during typical blooming/fruiting period. |
| Lepidium jaredii Jared's pepper grass | CRPR 1B. 2 | March - April | Alkali bottoms, slopes, washes, dry hillsides, in vertic clay, acidic, gypsiferous soil. Elevation: 500700 m . | No / No | Not observed during typical blooming/fruiting period. |
| Malacothamnus davidsonii <br> Davidson's bush-mallow | CRPR 1B. 2 | May - July | Slopes and washes in association with chaparral, woodland, or scrub. Elevation: 500-700 m. | No / No | Not observed during typical blooming/fruiting period. |
| Malacothamnus jonesii Jones' bush-mallow | CRPR 4.3 | May - July | Open chaparral in foothill woodland. Elevation: 250-830 m. | No / No | Not observed during typical blooming/fruiting period. |
| Malacothrix saxatilis var. arachnoidea Carmel Valley malacothrix | CRPR 1B. 2 | May October | Rocky, open banks, shale outcrops, cliff faces, coastal scrub, chaparral. Elevation: 25 900 m . | No / No | Not observed during typical blooming/fruiting period. |
| Meconella oregana Oregon meconella | CRPR 1B. 1 | March - May | Shaded canyons. Elevation: < $1,000 \mathrm{~m}$. | No / No | Not observed during typical blooming/fruiting period. |
| Monolopia gracilens Woodland woollythreads | CRPR 1B. 2 | March - July | Serpentine grassland, open chaparral, oak woodland. Elevation: 100-1,200 m. | No / No | Not observed during typical blooming/fruiting period. |
| Navarretia fossalis Spreading navarretia | Federal: Threatened CRPR 1B. 1 | April - June | Vernal pools, ditches. Elevation: $30-1,300 \mathrm{~m} .$ | No / No | Not observed during typical blooming/fruiting period. |


| PLANTS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Scientific Name Common Name ${ }^{1}$ | Listing Status ${ }^{2}$ | Blooming Period ${ }^{3}$ | Habitat Type ${ }^{3}$ | Observed/ Habitat Present? ${ }^{4}$ | Comments |
| Navarretia nigelliformis subsp. radians <br> Shining navarretia | CRPR 1B. 2 | May - July | Vernal pools, clay depressions. Elevation: 150-1,000 m. | No / No | Not observed during typical blooming/fruiting period. |
| Navarretia prostrata Prostrate vernal pool navarretia | CRPR 1B. 1 | April - July | Alkaline floodplains, vernal pools. Elevation: < 700 m . | No / No | Not observed during typical blooming/fruiting period. |
| Nemacladus secundiflorus var. secundiflorus Large-flowered nemacladus | CRPR 4.3 | April - May | Dry, gravelly slopes. Elevation: 200-2,000 m. | No / No | Not observed during typical blooming/fruiting period. |
| Plagiobothrys uncinatus Hooked popcornflower | CRPR 1B. 2 | April - May | Chaparral, canyon sides, and rocky outcrops; $\pm$ fire follower. Elevation: 300-600 m. | No / No | Not observed during typical blooming/fruiting period. |
| Senecio astephanus <br> San Gabriel Ragwort | CRPR 4.3 | April - June | Steep rocky slopes in chaparral/coastal sage scrub and oak woodland. Elevation: 400 1,500 m. | No / No | Not observed during typical blooming/fruiting period. |
| Stebbinsoseris decipiens <br> Santa Cruz microseris | CRPR 1B. 2 | April-May | Open, sandy, shaly, or serpentine sites, coastal. Elevation: 10 - 500 m . | No / No | Not observed during typical blooming/fruiting period. |

CRPR=California Rare Plant Rank
${ }^{1}$ List of regionally occurring special-status species acquired from CNDDB (CDFW 2020), CCH (2020), and CNPS Rare and Endangered Plant Inventory (CNPS 2020), and local expert knowledge. This list includes all vascular plants in these databases; sensitive and rare lichens were excluded. ${ }^{2}$ Listing status obtained from CNPS Rare and Endangered Plant Inventory (CNPS 2020).
${ }^{3}$ Blooming period and habitat type obtained from Jepson eFlora (2020) and occasionally supplemented with information provided by CNPS (Jepson eFlora 2020; CNPS 2020).
${ }^{4}$ Species determined to have suitable habitat on site, even marginally suitable, are indicated with gray highlight and discussed further in the report.

| WILDLIFE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Scientific Name Common Name ${ }^{1}$ | Listing Status ${ }^{1}$ | Nesting/ Breeding Period ${ }^{2}$ | Habitat Type ${ }^{2}$ | Observed/ <br> Habitat <br> Present? ${ }^{3}$ | Comments / Potential for Occurrence |
| Actinemys pallida Southwestern pond turtle | State: CSC | AprilAugust | Riparian areas such as ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with either a rocky or muddy bottom. Prefers shallow pools with logs or rocks for basking. Can enter brackish or seawater. | No/ No | Drainages are intermittent and lack sufficient pool habitat and/or basking features. |
| Agelaius tricolor Tricolored blackbird | State: CSC | February August | Needs nest sites near open, fresh water, protected habitat (such as cattails or tall rushes), and suitable feeding areas (pastures, rice fields, grassland, etc.). | No / No | No suitable nesting habitat. |
| Anniella pulchra Northern California legless lizard | State: CSC | March - <br> November | Sandy or loose loamy soils under coastal scrub or oak trees. Soil moisture essential. | No / Yes | Suitable habitat under trees and shrubs. |
| Antrozous pallidus Pallid bat | State: CSC | October February | Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. May roost in old buildings and bridges. | No / Yes | Suitable roosting habitat within trees adjacent to project site; may forage on site. |
| Aquila chrysaetos Golden eagle | State: Fully Protected | January - <br> August | Open country in prairies, tundra, open coniferous forest, and barren areas, especially in hilly or mountainous regions. Nests in large, prominent trees in wooded areas and on cliff ledges. | No/No | No suitable nesting habitat; may forage on site. |

## Attachment 5

| WILDLIFE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Scientific Name Common Name ${ }^{1}$ | Listing Status ${ }^{1}$ | Nesting/ Breeding Period ${ }^{2}$ | Habitat Type ${ }^{2}$ | Observed/ Habitat Present? ${ }^{3}$ | Comments / Potential for Occurrence |
| Ardea herodias Great blue heron | State: Sensitive | March August | Saltwater and freshwater marshes, sloughs, riverbanks, ponds and lakes. May also forage in grasslands and agricultural fields. Nests high in trees or other raised locations. | No / No | No suitable nesting habitat; may forage on site. |
| Arizona elegans occidentalis California glossy snake | State: CSC | June - July | Arid scrub, rocky washes, grasslands, chaparral. Prefers microhabitats of open areas and areas with loose soil for easy burrowing. | No / Yes | Suitable habitat along drainages. |
| Athene cunicularia Western burrowing owl | State: CSC | March - July | Open, dry grasslands, often short grasses. Rely on ground burrowing animals for terrestrial habitat. | No / Yes | Marginally suitable habitat within grasslands. |
| Batrachoseps minor Lesser slender salamander | State: CSC | Unknown | Mesic, deeply shaded slopes with dense leaf litter of variable tree species, including coast live oak, tanbark oak, western sycamore, and poison oak, above 400 m . | No / No | Outside of known range of species within San Luis Obispo County. |
| Bombus crotchii Crotch bumble bee | State: Candidate | February October | Open grassland and scrub habitat. Nest primarily underground. Generalist forager. Select food plant genera include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, Boraginaceae. Little is known about overwintering sites. | No / Yes | Marginally suitable habitat within grasslands. |
| Branchinecta lynchi Vernal pool fairy shrimp | Federal: Threatened | Rainy season | Vernal pools and depressions in grasslands. | No / No | No suitable vernal pools or other depressions. |


| WILDLIFE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Scientific Name Common Name ${ }^{1}$ | Listing Status ${ }^{1}$ | Nesting/ Breeding Period ${ }^{2}$ | Habitat Type ${ }^{2}$ | Observed/ <br> Habitat <br> Present? ${ }^{3}$ | Comments / Potential for Occurrence |
| Buteo regalis Ferruginous hawk | State: Watch List | February August | Variety of nesting locations including rock outcrops, trees, and ground. | No / No | Outside of nesting range, may forage or overwinter. |
| Corynorhinus townsendii Townsend's big-eared bat | State: CSC | November May | Mines, tunnels, buildings, human made structures. May use different day and night roosts. Prefers mesic habitats. Extremely sensitive to human disturbance. | No / No | No suitable roosting habitat; may forage on site. |
| Eremophila alpestris actia California horned lark | State: Watch List | March August | Open fields, short grass areas, fields, rangelands. | No / Yes | Marginally suitable foraging and nesting habitat on site. |
| Eumops perotis Western mastiff bat | State: CSC | Spring Summer | Open, semi-arid habitat: conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. | No / Yes | Suitable roosting habitat within cavities of trees adjacent to project site; may forage on site. |
| Falco mexicanus Prairie falcon | State: Watch List | February April | Primarily inhabits dry grasslands, woodlands, savannahs, cultivated fields, lake shores, and rangelands. Nests on cliffs, canyons, and rock outcrops. | No / No | No suitable nesting habitat. |
| Haliaeetus leucocephalus Bald eagle | State: Endangered Fully Protected | January September | Forests adjacent to large bodies of water. Tolerant of human activity and commonly spotted around dumps and fish processing plants. | No / No | No suitable nesting or foraging habitat. |
| Lasiurus cinereus Hoary bat | Special Animal | May - July | Found in both edge habits and heavily forested areas. Also have been observed in city parks. | No / No | No suitable roosting habitat; may forage on site. |
| Masticophis flagellum ruddocki <br> San Joaquin coachwhip | State: CSC | May - July | Open, dry, treeless areas, including grassland and saltbush scrub. Uses refuge in rodent burrows, under shaded vegetation, and under objects. | No / Yes | Suitable habitat within grasslands. |


| WILDLIFE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Scientific Name Common Name ${ }^{1}$ | Listing Status ${ }^{1}$ | Nesting/ Breeding Period ${ }^{2}$ | Habitat Type ${ }^{2}$ | Observed/ <br> Habitat <br> Present? ${ }^{3}$ | Comments / Potential for Occurrence |
| Neotoma macrotis luciana Monterey dusky-footed woodrat | State: CSC | February November | Dense chaparral; hardwood, conifer, and mixed forests; and riparian woodlands. Nests are typically located in inaccessible areas, such as thorny thickets, poison oak patches, or nettles. | No/No | No suitable nesting habitat. |
| Perognathus inornatus psammophilus Salinas pocket mouse | State: CSC | March - July | Dry, open, grassy or weedy ground, and arid annual grasslands, savanna, and desertshrub associations with sandy washes or finely textured soil. Rarely documented in blue oak savannah. | No / No | Regular tilling degrades habitat suitability for this species. |
| Phrynosoma blainvillii <br> Blainville's horned lizard | State: CSC | May September | Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. | No / Yes | Suitable habitat in sandy wash along creek margin. |
| Polyphylla nubila <br> Atascadero June beetle | State: Special Animal | Early Summer June | Known only to occur in sand dunes in Atascadero and San Luis Obispo. | No / No | No dune habitat on site. |
| Rana boylii <br> Foothill yellow-legged frog | State: Candidate, CSC | April - July | Streams and rivers with rocky substrate and open, sunny banks, in forest, chaparral, and woodlands. Sometimes found in isolated pools. | No / No | Drainages are intermittent and lack sufficient pool habitat. |
| Rana draytonii California red-legged frog | Federal: Threatened State: CSC | January March | Lowlands and foothills in or near sources of deep water with dense, shrubby or emergent riparian vegetation. | No / No | Drainages are intermittent and lack sufficient pool habitat. |
| Setophaga petechia Yellow warbler | State: CSC <br> (Nesting) | May - June | Breeds in wet, deciduous thickets, especially in willows; also in shrubby areas and old fields. | No / No | No suitable nesting habitat. |


| WILDLIFE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Scientific Name Common Name ${ }^{1}$ | Listing Status ${ }^{1}$ | Nesting/ Breeding Period ${ }^{2}$ | Habitat Type ${ }^{2}$ | Observed/ <br> Habitat <br> Present? ${ }^{3}$ | Comments / Potential for Occurrence |
| Spea hammondii <br> Western spadefoot | State: CSC | January - <br> August | Seasonal/vernal pools in coastal scrub, grassland, chaparral, woodland habitat, and open areas with sandy or gravelly soils. | No / No | Drainages are intermittent and lack sufficient pool habitat. |
| Taricha torosa California range newt | State: CSC | December May | Slow moving streams, ponds, and lakes with surrounding evergreen/ oak forests along coast. | No / No | Drainages are intermittent and lack sufficient pool habitat. |
| Taxidea taxus American badger | State: CSC | February May | Needs friable soils in open ground with abundant food source such as California ground squirrels. | No / Yes | Suitable habitat is present throughout the site. |
| Vireo bellii pusillus Least Bell's vireo | Federal: Endangered State: Endangered | March September | Dense, shrubby vegetation in brushy fields, second-growth forest, woodland, riparian, chaparral, and mesquite brush lands; often near water in arid regions. Nests suspended from branches of small trees or shrubs. | No / No | No suitable nesting habitat. |
| Vulpes macrotis mutica San Joaquin kit fox | Federal: Endangered State: Threatened | December July | Open, annual grasslands with loose sandy soil. | No / Yes | Marginally suitable habitat. |

CSC=California Species of Special Concern
${ }^{1}$ List of regionally occurring special-status species and listing status acquired from CNDDB (CNDDB 2020) and local expert knowledge. Lompoc grasshopper (Trimerotropis occulens) was omitted from this list due to a scarcity of available biolo species to identify specific conservation needs and appropriate protection measures. USFWS Environmental Conservation Online System (ECOS) (USFWS 2020c).
${ }^{3}$ Species observed during field surveys indicated with bold font; species determined to have suitable habitat present on the site, even marginally suitable habitat, indicated with gray highlight. Species highlighted gray are discussed further in the report.

## Attachment 5

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## Attachment 5

APPENDIX D - BOTANICAL AND WILDLIFE SPECIES OBSERVED

## Attachment 5

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## Union Road Project

List of Botanical Species Observed on October 24, 2019 and May 12, 2020

| Family | Scientific Name | Common Name | Origin |
| :---: | :---: | :---: | :---: |
| Apiaceae, Carrot Family | Conium maculatum | Poison hemlock | Naturalized |
|  | Torilis arvensis | Tall sock-destroyer | Native |
| Apocynaceae, Dogbane Family | Asclepias fascicularis | Narrow-leaf milkweed | Native |
| Asteraceae, Sunflower Family | Ambrosia acanthicarpa | Annual bur-sage | Native |
|  | Artemisia douglasiana | California mugwort | Native |
|  | Baccharis pilularis | Coyote brush | Native |
|  | Baccharis salicifolia | Mule fat | Native |
|  | Carduus pycnocephalus | Italian thistle | Naturalized |
|  | Centaurea melitensis | Tocalote | Naturalized |
|  | Centaurea solstitialis | Yellow star-thistle | Naturalized |
|  | Centromadia fitchii | Spikeweed | Native |
|  | Cirsium vulgare | Bull thistle | Naturalized |
|  | Corethrogyne filaginifolia | Sandaster | Native |
|  | Deinandra pentactis | Salinas river tarweed | Native |
|  | Erigeron canadensis | Canada horseweed | Native |
|  | Grindelia sp. | Gumweed | Native |
|  | Heterotheca sessiliflora subsp. echioides | Bristly goldenaster | Native |
|  | Hypochaeris glabra | Smooth cat's-ear | Naturalized |
|  | Iva axillaris | Poverty weed | Native |
|  | Lactuca serriola | Prickly lettuce | Naturalized |
|  | Logfia gallica | Daggerleaf cottonrose | Naturalized |
|  | Micropus californicus | Q-tips | Native |
|  | Senecio flaccidus | Shrubby ragwort | Native |
|  | Silybum marianum | Milk thistle | Naturalized |
|  | Sonchus oleraceus | Common sow thistle | Naturalized |
|  | Stephanomeria sp. | Wire lettuce | Native |
|  | Uropappus lindleyi | Silver puffs | Native |
| Boraginaceae, Borage Family | Amsinckia menziesii | Common fiddleneck | Native |
|  | Plagiobothrys nothofulvus | Rusty popcornflower | Native |
|  | Heliotropium curassavicum | Alkali heliotrope | Native |
| Brassicaceae, Mustard Family | Brassica nigra | Black mustard | Naturalized |
|  | Hirschfeldia incana | Mustard | Naturalized |
|  | Lepidium draba | Whitetop | Naturalized |


| Family | Scientific Name | Common Name | Origin |
| :---: | :---: | :---: | :---: |
| Caprifoliaceae, Honeysuckle Family | Lonicera subspicata var. denudata | Chaparral honeysuckle | Native |
| Convolvulaceae, Morning-glory Family | Convolvulus arvensis | Bindweed | Naturalized |
| Crassulaceae, Stonecrop Family | Crassula tillaea | Mediterranean pygmy weed | Naturalized |
| Cyperaceae, Sedge Family | Cyperus eragrostis | Tall flatsedge | Native |
| Euphorbiaceae, Spurge Family | Croton setiger | Turkey-mullein | Native |
| Fabaceae, Legume Family | Acmispon americanus var. americanus | American bird's foot trefoil | Native |
|  | Lupinus albifrons var. collinus | Silver bush lupine | Native |
|  | Lupinus bicolor | Miniature lupine | Native |
|  | Lupinus ${ }^{\text {ff }}$ formosus | Western lupine | Native |
|  | Lupinus microcarpus | Chick lupine | Native |
|  | Medicago polymorpha | California burclover | Naturalized |
|  | Medicago sativa | Alfalfa | Naturalized |
|  | Melilotus indicus | Sourclover | Naturalized |
|  | Trifolium hirtum | Rose clover | Naturalized |
|  | Trifolium microcephalum | Small-head clover | Native |
|  | Vicia villosa | Hairy vetch | Naturalized |
| Fagaceae, Oak Family | Quercus lobata | Valley oak | Native |
|  | Quercus agrifolia | Coast live oak | Native |
| Geraniaceae, Geranium Family | Erodium botrys | Big heron bill | Naturalized |
|  | Erodium cicutarium | Redstem filaree | Naturalized |
| Lamiaceae, Mint Family | Marrubium vulgare | White horehound | Naturalized |
|  | Stachys bullata | Southern hedge nettle | Native |
|  | Trichostema lanceolatum | Vinegar weed | Native |
|  | Urtica dioica | Stinging nettle | Native |
| Malvaceae, Mallow Family | Malva neglecta | Common mallow | Naturalized |
|  | Malva parviflora | Cheeseweed | Naturalized |
| Myrtaceae, Myrtle Family | Eucalyptus globulus | Blue gum | Naturalized |
| Onagraceae, Evening-primrose Family | Camissonia strigulosa | Contorted primrose | Native |
|  | Clarkia affinis | Chaparral fairyfan | Native |
|  | Clarkia purpurea subsp. quadrivulnera | Four-spot | Native |
|  | Clarkia unguiculata | Elegant clarkia | Native |
|  | Epilobium brachycarpum | Willow herb | Native |


| Family | Scientific Name | Common Name | Origin |
| :---: | :---: | :---: | :---: |
| Orobanchaceae, Broomrape Family | Castilleja exserta | Purple owl's-clover | Native |
| Papaveraceae, Poppy Family | Eschscholzia californica | California poppy | Native |
| Poaceae, Grass Family | Avena fatua | Wild oat | Naturalized |
|  | Bromus rubens | Red brome | Naturalized |
|  | Bromus diandrus | Ripgut grass | Naturalized |
|  | Bromus hordeaceus | Soft chess | Naturalized |
|  | Bromus tectorum | Cheat grass | Naturalized |
|  | Cynodon dactylon | Bermuda grass | Naturalized |
|  | Echinochloa colona | Jungle grass | Naturalized |
|  | Festuca microstachys | Small fescue | Native |
|  | Festuca myuros | Rattail fescue | Naturalized |
|  | Hordeum murinum | Wall barley | Naturalized |
|  | Phalaris paradoxa | Hood canary grass | Naturalized |
| Polemoniaceae, Phlox Family | Gilia sp. | Gilia | Native |
| Polygonaceae, Buckwheat Family | Eriogonum baileyi var. baileyi | Bailey's buckwheat | Native |
|  | Eriogonum gracile var. gracile | Slender woolly wild buckwheat | Native |
|  | Polygonum aviculare | Knotweed | Naturalized |
|  | Rumex crispus | Curly dock | Naturalized |
| Salicaceae, Willow Family | Populus fremontii | Fremont cottonwood | Native |
|  | Salix Iasiolepis | Arroyo willow | Native |
| Scrophulariaceae, Figwort Family | Verbascum virgatum | Wand mullein | Naturalized |
| Solanaceae, Nightshade Family | Datura sp. | Jimson weed | Naturalized |
| Verbenaceae, Verbena Family | Verbena lasiostachys | Western vervain | Native |
| Viscaceae, Mistletoe Family | Phoradendron leucarpum | American mistletoe | Native |
| Zygophyllaceae, Caltrop Family | Tribulus terrestris | Puncture vine | Naturalized |

## Attachment 5

## Union Road Project

List of Wildlife Species Observed on October 24, 2019

| Family | Scientific Name | Common Name | *Listing Status Federal/State |
| :---: | :---: | :---: | :---: |
| Birds | Buteo jamaicensis | Red-tailed hawk | -- |
|  | Calypte anna | Anna's hummingbird | -- |
|  | Carpodacus mexicanus | House finch | -- |
|  | Cathartes aura | Turkey vulture | -- |
|  | Charadrius vociferus | Killdeer | -- |
|  | Corvus brachyrhynchos | American crow | -- |
|  | Euphagus cyanocephalus | Brewer's blackbird | -- |
|  | Melanerpes formicivorus | Acorn woodpecker | -- |
|  | Mimus polyglottos | Northern mockingbird | -- |
|  | Zonotrichia leucophrys | White-crowned sparrow | -- |
| Insects | Apis mellifera | Western honey bee | -- |
|  | Hippodamia convergens | Convergent lady beetle | -- |
|  | Bombus sp. | Bumble bee | -- |
| Mammals | Canis latrans | Coyote | -- |
|  | Spermophilus beecheyi | California ground squirrel | -- |
|  | Thomomys bottae | Botta's pocket gopher | -- |
|  | Vulpes vulpes | Red fox | -- |
| Reptiles | Sceloporus occidentalis | Western fence lizard | -- |

*California Department of Fish and Wildlife Listing Status:

- Fully Protected (FP)
- California Species of Special Concern (CSC)


## Attachment 5

APPENDIX E - REPRESENTATIVE SITE PHOTOGRAPHS

## Attachment 5

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## Attachment 5



Photo 1. View east of grassland habitat in foreground and coyote brush habitat in association with Drainage 1 (05-12-20).


Photo 2. Overview of typical grassland habitat, looking north towards Huer Huero Creek (05-12-20).

## Attachment 5



Photo 3. View of the Huer Huero Creek bed during the May survey (05-12-20).


Photo 4. View of Drainage 1 culvert outlet at the southern end of the survey area, as it passes beneath Union Road (05-12-20).

## Attachment 5



Photo 5. Looking south at the seasonal wetland within Drainage 1 (10-24-19).

## Attachment 6

## Phase I Cultural Resource Inventory: 3051 Union Road (APN 025-371-029), Paso Robles, California

Prepared for Garrett Thiessen Construction, Inc.


JANUARY 2021

## Attachment 6

## Phase I Cultural Resource Inventory: 3051 Union Road (APN 025-371-029), Paso Robles, California

JANUARY 2021
J2020-060.01
Photo Credit: Cris Lowgren

Prepared for

Garrett Thiessen Construction, Inc.
1640 S. River Road
Paso Robles, California 93446

Prepared by

Sarah Nicchitta, MA
Cris Lowgren, MA
Albion Environmental, Inc.
3563 Sueldo Street, Suite P
San Luis Obispo, California 93401

## Attachment 6

## Executive Summary (1)

In November 2020, Garrett Thiessen of Garrett Thiessen Construction, Inc. contracted with Albion Environmental, Inc. (Albion) to conduct a Phase I cultural resource inventory of a 6.5 -acre Project Area at 3051 Union Road (APN 025-371-029), in Paso Robles, California (Project Area). The proposed project consists of splitting the existing single parcel into two separate parcels and developing both properties (Project). Proposed Parcel 1 will be 3.56 acres in size, and proposed Parcel 2 will be 2.98 acres in size. For each parcel, the Project proposes the development of a building, parking lot, utility installation, and landscaping. Since the Project requires permits from the City of Paso Robles (City), the Project is subject to Environmental Review under the California Environmental Quality Act (CEQA) and therefore the City is requiring an archaeological study prior to completion of the application for permits.

Albion's study was conducted to comply with requirements under CEQA guidelines (Public Resources Code 21000 et seq.) and San Luis Obispo County's Historic and Archaeological Resource Preservation Program guidelines. The purpose of this Phase I cultural resource inventory is to document cultural resource identification efforts for the Project. This study included: (1) archival and background research; (2) a search of records at the Central Coast Information Center (CCoIC); and (3) a pedestrian survey of the proposed Project Area.

A search of records at the CCoIC indicated that two previous cultural resource studies have been conducted within the Project Area and that five previous cultural resource studies have been conducted within a 0.25 -mile radius of the Project Area. According to the record search, there are no previously identified cultural resources within the Project Area, and the record search identified no cultural resources within a 0.25 -mile radius of the Project Area.

After reviewing the record search results, Albion conducted an intensive pedestrian survey of the Project Area. Throughout the Project Area, ground surface visibility ranged from excellent in the northern portion, a dry creek bed, to poor in areas in the western and central portions, where recent mowing merely flattened the grass; overall, ground surface visibility was approximately $50 \%$ due to efficient mowing and numerous rodent bioturbation. Visual inspection of the property revealed no archaeological materials on the surface of the Project Area and no evidence of intact precolonial or historic-era archaeological deposits within the Project Area. The soils encountered are consistent with USGS soil maps for the area and bore no evidence of culturally produced stratigraphy. Albion's investigation at 3051 Union Road indicates that a historical resource or potentially significant cultural materials are not located in the Project Area, and it is Albion's judgment that no further archaeological investigation is warranted under CEQA.

Many important cultural resources, such as Tribal Cultural Resources, do not necessarily leave an archaeological footprint or have physically identifiable manifestations, so it is vital to seek out the possibility of these important resources and their locations through consultation with local tribal members. Under the authority of Assembly Bill 52, the City may have received information from interested Native American tribes or representatives concerning Tribal Cultural Resources at the

## Attachment 6

Project site. The City is responsible for collecting and incorporating tribal information into the environmental review process. At this time, Albion does not know if the City has received any such information.

If previously unidentified cultural materials are unearthed during construction, it is CEQA policy that work be halted in that area until a qualified archaeologist can evaluate the nature and significance of the find. An additional archaeological study may be needed if Project limits are extended beyond the present study limits.

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## Appendices

A Record Search Results

## Attachment 6

## Introduction

This report documents the results of a Phase I cultural resource inventory of the Project Area at 3051 Union Road (APN 025-371-029), in Paso Robles, California (Project). Garrett Thiessen Construction, Inc. is proposing to split the existing single parcel into two separate parcels and develop both properties (Project). Proposed Parcel 1 will be 3.56 acres in size, and proposed Parcel 2 will be 2.98 acres in size. For each parcel, the Project proposes the development of a building, parking lot, utility installation, and landscaping. The proposed Project requires a permit from the City of Paso Robles (City) and is subject to environmental review, including an assessment of archaeological resources. Albion's Phase I cultural resource inventory included archival research, a review of records from the Central Coast of California Information Center (CCoIC) at the University of California, Santa Barbara, and an intensive surface survey of the Project Area. The investigation was designed to address treatment of cultural resources under current California Environmental Quality Act (CEQA) guidelines (Public Resources Code 21000 et seq.) and under the County of San Luis Obispo's Archaeological Guidelines as set forth in sections 1.0 and 2.0.

The records search was conducted by Albion in November 2020. Albion Principal Investigator Sarah Nicchitta, MA, supervised the entire project. Ms. Nicchitta has over 12 years of experience working in California archaeology and cultural resource management. She received her master's degree in Anthropology from the University of California at Santa Barbara in 2011, and she meets the U.S. Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61) for prehistoric archaeologists. Albion Archaeologist Cris Lowgren, MA, conducted the pedestrian survey on December 30, 2020. Mr. Lowgren has over two decades of experience working in California archaeology and cultural resources management.

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## Project Information



## PROJECT LOCATION

The Project Area is located at 3051 Union Road (APN 025-371-029), in Paso Robles, California (Figure 1). The Project Area is located east of the center of the community of Paso Robles at approximately 230 meters above sea level. The Project Area is bound to the south by Union Road, to the north by Huerhuero Creek, to the west by undeveloped open land, and to the east by another undeveloped grass lot containing a rectangular wooded area. Rural residential development, open space, Barney Schwartz Park, and Vino Robles winery are found within the vicinity of the Project Area.

The subject parcel measures approximately 6.5 acres and is located on a flat terrace bordering the south bank of Huerhuero Creek. The northern quarter of the Project Area is within the wide, sandygravelly bed of Huerhuero Creek, which was dry at the time of the survey. Introduced grasses dominate the landscape outside the creek bed, with patches of star thistle adjacent to a roughly north-south trending drainage that enters the Project Area from the south, runs approximately 80 meters before fading, then re-emerges for approximately 30 meters before it intersects the south bank of Huerhuero Creek. Coyote brush chokes this drainage and runs along the bank of Huerhuero Creek, and one single small oak tree anchors the southeast corner of the parcel. No structures exist in the Project Area. Soil in the Project Area is mapped primarily as Hanford and Greenfield gravelly sandy loams on the terrace and mostly Corducci sands formed in alluvium from mixed sedimentary and igneous sources in the creek bed (United States Department of Agriculture 2020).

## PROJECT DESCRIPTION

The scope of the Project includes splitting the existing single parcel listed with APN 025-371-029 into two separate parcels. Proposed Parcel 1 shall be 3.56 acres in size, and proposed Parcel 2 shall be 2.98 acres in size. The Project also includes installing a new 10,000-square-foot footprint with a 4,056-square-foot mezzanine above on each individual parcel consisting of concrete tilt-up and steel framing construction. The new buildings are being built for Garrett Thiessen Construction, Inc. and their employees to facilitate their daily administrative and clerical tasks, as well as to provide some storage for their materials and equipment. Each structure will have both office and storage space. In addition to the structures themselves, each parcel shall be developed to include a parking lot with the required amount of parking spaces. Furthermore, portions of the site shall be developed with the required utilities and infrastructure to support the new buildings on each parcel. Both parcels shall be landscaped to the extent shown on the landscape sheet included within the plans. The Project estimates ground disturbance to include cutting and filling of on-site soil at 3,430 cubic yards of soil and 2,590 cubic yards of soil, respectively. At the time of the current study, the maximum depth of disturbance for the Project is unknown.

## Attachment 6



## Attachment 6

## Sources Consulted

## RECORD SEARCH

Matthew V.C. LoBiondo, Assistant Coordinator for the Central Coast Information Center (CCoIC), provided the results of a records search for a half-mile ( 0.25 -mile) radius of the Project Area on December 15, 2020 (Appendix A). In addition to official maps and records, the following sources of information were consulted as part of the records search:

- National Register of Historic Places
- California Register of Historical Resources—Determined Eligible Properties
- California State Historic Property Data Files
- California Points of Historical Interest
- California Historical Landmarks
- Caltrans State and Local Bridge Survey
- Office of Historic Preservation Archaeological Determinations of Eligibility
- Special Research Collections at the UCSB Library (Aerial Images and Historic Maps)


## PREVIOUS CULTURAL RESOURCE STUDIES AND PREVIOUSLY RECORDED CULTURAL RESOURCES

According to the CCoIC, two cultural resource studies have been conducted within the Project Area (Table 1) and five cultural resource studies have been previously conducted within a 0.25 -mile radius of the Project Area (Table 2). No previously recorded cultural resources are recorded within the Project Area or within a 0.25 -mile radius of the Project Area.

Table 1. Previous Cultural Resource Studies Within the Project Area.
CCoIC

Report $\quad$ Title of Study $\quad$ Author and Year \begin{tabular}{lll}

\hline SL-01601 \& | Cultural Resources Survey and Impact Assessment for the Chandler |
| :--- |
| Specific Plan Area, Near the City of El Paso de Robles, San Luis |
| Obispo County, CA | \& Atwood 1988) <br>

SL-01700 \& | Archaeological potential of Borrow Pit on Highway 46, E of Huero |
| :--- |
| Creek (0670) | \& (Dills 1990) <br>

\hline
\end{tabular}

## Attachment 6

Table 2. Previous Cultural Resource Studies Within a o.25-Mile Radius of the Project Area.

| CCoIC | Title of Study | Author and Year |
| :--- | :--- | :--- | :--- |
| Report | Survey of road widening along Highway 46, including bridges no. <br> 49-165 and 49-34, located between the junction of Routes 101/46 <br> and Airport Road, SLO County | (Waldron 1985) |
| SL-00486 | Historic Property Survey Report for Proposed Lane Widening of <br> State Route 46, P.M. 32.2 to 36.4 | (N.A. 1992) |
| SL-04020 | Archaeological Survey Report For A Highway Widening From Two <br> Lanes To Four Along Highway 46, San Luis Obispo County, CA | (Glover 1999) |
| SL-04246 | Cultural resources survey and impact assessment for a 35-acre <br> property at Highway 46 and Airport Road in the City of El Paso De <br> Robles, San Luis Obispo County, California | (Singer 2000) |
|  | Cultural resources survey and impact assessment for a 32.9-acre <br> property located between State Highway 46 and Union Road near <br> the City of Paso Robles, San Luis Obispo County, California [Parcel <br> Map CO-68-49] | (Singer 2004) |

## HISTORICAL AERIAL IMAGERY

Albion also conducted online research of historic maps and aerials and found information pertinent to the Project Area from the following:

- 1937 aerial photograph
- 1956 aerial photograph


# Attachment 6 

## Cultural Context

## PRECOLONIAL CONTEXT

Archaeologists working in California's central coast have generally recognized six major periods of prehistoric human occupation (Jones et al. 2007:134) (Table 3). This six-period temporal framework is based, in part, on the work of Jones and Ferneau (2002).

Table 3. Prehistoric Sequence for California's
Central Coast.

| Temporal Period | Date Range |
| :--- | :--- |
| Paleo-Indian | pre-9950 B.P. |
| Millingstone | $9950-5450$ B.P. |
| Early | $5450-2550$ B.P. |
| Middle | $2550-950$ B.P. |
| Middle/Late Transition | $950-700$ B.P. |
| Late | $700-181$ B.P. |

Following Jones et al. (2007)

The initial period, Paleo-Indian, originated during the Late Pleistocene and continued until approximately 9950 B.P. This was followed by the Millingstone (9950-5450 B.P.), during which milling equipment (manos and metates) become increasingly abundant in the archaeological record and populations apparently followed a generalized subsistence pattern. The ensuing period, the Early Period (5450-2550 B.P.), was a time of new subsistence emphases, including a greater reliance on hunting and the exploitation of acorns. The Middle Period (2500-950 B.P.) was marked by the intensification of subsistence practices, especially a greater reliance on marine and littoral foods. During the Middle/Late Transition (950-700 B.P.), central Californian populations may have experienced deteriorating environmental conditions, and apparently underwent major adaptive shifts in both subsistence and settlement. Finally, the Late Period (700-181 B.P.) was a time marked by the appearance of numerous projectile points, including small side-notched (Desert sidenotched), triangular (Cottonwood series), and leaf-shaped points.

## THE CHUMASH

Prehistorically, the San Luis Obispo, Santa Barbara, and Ventura regions were home to the maritime Chumash, considered one of the most complex hunter-gatherer societies on earth. They had economic and socio-political systems unusually complex relative to most ethnographically known hunter-gatherers.

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The Chumash occupying the northern San Luis Obispo region are known as the Obispeño, this designation being derived from the name of the nearest Spanish Mission, San Luis Obispo de Tolosa. (The community now often refers to itself as the Northern Chumash). The Obispeño Chumash represent the northernmost subdivision of the larger Chumash cultural family, and spoke the most divergent of the five Chumash dialects. Kroeber (1925) reported that the Obispeño dialect may have been the oldest of the Chumash languages. Traditionally, the geographic territory of the Obispeño was thought to extend from the Santa Maria River in the south to Point Estero in the north (Grant 1978; Kroeber 1925). However, recent archaeological evidence and archival research of Spanish diaries and mission records suggest that the northern Obispeño territorial boundary may have extended north to San Carpoforo Creek, an area, which has traditionally been regarded as Salinan territory (Breschini et al. 1983; Gibson 1983; Jones et al. 1994). Gibson (1983) reports that there were 15 major Obispeño villages in San Luis Obispo County, each of which spoke their own sub-dialects.

Unlike their more southerly neighbors, who inhabited the sheltered waters of the highly productive Santa Barbara Channel, the Obispeño did not rely on marine resources for a majority of their sustenance. They occupied an environment that was exposed to prevailing westerly winds and heavy surf. It was a rugged region characterized by narrow coastal terraces with occasional sand dunes, small valleys, and a rocky outer shore swept by winds and fog (Greenwood 1978). The resources of the area included a mix of terrestrial and marine plants and animals. Based on ethnohistoric sources, Farris (1986) and Gibson (1983) asserted that the Obispeño maintained a more generalized hunting and gathering economy. They followed a seasonal round of resource availability, traveling in regular patterns, establishing summer and winter camps in customary places with reliable water supplies. Gibson (1983) has provided a summary of this seasonal round. During the winter, the Obispeño gathered a variety of plant foods including greens, roots, tubers, and corms. Seed gathering became important during the spring when such resources as red maids, chia, and various grasses became available. The focus shifted to berries and other seeds during the summer, whereas the fall was a time when nut crops such as acorns, pine nuts, buckeye, and toyon were gathered. Land mammals were hunted throughout the year, varying in importance by season and location.

The sociopolitical organization of the Obispeño and that of the Northern Chumash (such as the Purisimeño) in general is believed to be less elaborate than that of their more southerly compatriots. In the south, several researchers (Arnold 1992; Colten 1993; Johnson 1988; Martz 1992) have argued that the Channel Chumash were organized into a simple chiefdom level of social organization. Chumash society was stratified, consisting minimally of elite and commoner families. Members of the elite class held all the important political and religious positions such as canoe owners, craft specialists, and members of the 'antap cult. Commoners were mainly hunters, gatherers, and fishermen.

For the Chumash inhabitants north of Point Conception, however, sociopolitical organization was much less structured and hierarchical. Glassow (1996) has characterized these groups, especially the neighbors of the Obispeño, the Purisimeño, as having greater fluidity in political organization. He has argued that, in fact, it is possible that Purisimeño political organization was more of a "big man" type, in which political leadership shifted between individuals relatively frequently, depending on one's fortunes at the moment. He has also argued that status differentiation similar to that among the southern Chumash apparently existed but was not as structured (Glassow 1996:17). Glassow attributed these differences, in part, to the "Purisimeños, not depending on the plank canoe, which required the expenditure of a good deal of wealth to construct, and perhaps also to their more

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dispersed and more mobile settlement pattern." (Glassow 1996:18). It is quite possible that Obispeño political and social organization was very similar to the Purisimeño, and for the same reasons. Like the Purisimeño, the Obispeño did not own the plank canoe and had a more dispersed settlement pattern.

## THE SALINAN

At the time of historic contact, Salinan-speaking peoples occupied a territory in central California encompassing much of the Santa Lucia and Diablo Ranges, as well as the headwaters of the Salinas River. They were bordered to the north by the Esselen and the Costanoan, to the east by the Yokuts, and to the south by the Chumash. Altogether, this area covered approximately 3,000 square miles ( 7,800 square kilometers), and was characterized by steep mountains, deep canyons, and rugged, windswept coastline. Although the precise boundaries of Salinan territory have never adequately been delineated, some authors (Hester 1978; Mason 1912:102) have suggested that it extended from approximately the modern town of Lucia on the coast inland through Junipero Serra Peak in a northeasterly direction to roughly just south of Soledad. From there, it probably followed the edge of the Coast Range southward above the lower San Joaquin Valley to a point about even with the headwaters of the Salinas River from which it followed a northwesterly course back to the sea just above San Luis Obispo. More recent research by Gibson (1983) has placed the southern boundary of Salinan territory just north of Ragged Point.

Based on mission baptismal records, Kroeber (1925:547) originally placed Salinan population between 2,000 and 3,000 individuals, though he emphasized the lower figure. Later ethnographers (e.g., Baumhoff (1963); Cook (1960:187)) suggested that the total Salinan population was slightly higher, standing at a little over 3,000, with an overall density averaging 1-2 persons per square mile. According to C.H. Merriam (Merriam 1955), there were 21 villages in Salinan territory, most of which were located inland along rivers and creeks. Although there were occupation sites along the coast, these were apparently not permanently occupied but featured as short-term hunting and foraging camps.

The Salinan language has been classified as a member of the California branch of the Hokan language family (Hester 1978), one of the oldest languages in California. It is related to Esselen, though the speakers of these two languages would have been mutually unintelligible. Early Spanish mission padres suggested that the Salinan spoke three dialects: a Playaño dialect spoken on the coast, another in the vicinity of Mission San Antonio (Antoniaño), and a third in the area of the Mission San Miguel (Migueliño). Subsequent linguistic analyses (Mason 1918; Turner 1987) have confirmed only the latter two, and Gibson (1983:106) has suggested that the coastal dialect reported by the Spanish was more likely a local variant of Northern Chumash (c.f. Campbell (1997); Golla (2007); Mithun (1999)). The early ethnographer Latham (1856) coined the term "Salinan," though it is currently not known what they actually called themselves. Milliken and Johnson (2003) have recently questioned Gibson's 1983 attribution of Playaño to the Chumash, but left open the question of the actual linguistic affiliation of the region.

Little is known about the particulars of Salinan society and political organization. Kroeber (1925:547), in his brief study, made scant mention of Salinan social organization, beyond noting that they lived in small, scattered villages. Later ethnographers (e.g., Harrington \{, 1942 \#1244\}; Hester \{, 1978 \#1242\}; Mason \{, 1912 \#2341\}) provided more detail, but a comprehensive understanding of Salinan social organization and political institutions is still unclear. According to Hester (1978:502-503), the Salinan were organized into what Kroeber (1955) termed a "tribelet," which was composed of

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several autonomous villages made up of several related families. Each village was presided over by a chief whose authority was hereditary but whose power was limited. The chief was head of a clan, whose descent was determined patrilineally. Evidence of a Deer/Bear moiety was provided by Harrington (1942), who also suggested that local endogamy prevailed.

The basic socioeconomic unit in Salinan society was the family, which was comprised of a married couple, their immediate offspring, and probably some close relatives. These families lived in one or more houses and were transhumant, roaming a specified territory, moving over the landscape in accord with the availability of resources. There is, however, very little information on the Salinan seasonal round, though it is likely that acorn gathering and storage was a primary part of the seasonal round. A generalized division of labor prevailed, with women gathering and cooking, and men hunting, fishing, and performing maintenance tasks.

## ETHNOHISTORY

The first European voyager to encounter the region's indigenous inhabitants was Sebastian Cermeño who put in at Port San Luis in 1595 (Krieger 1988). Although his stay was brief, he described the Indians of the region as naked, bearded, and painted with stripes on their faces and arms (Wagner 1929:161). Over one hundred and seventy years passed before the next major European expedition reached the San Luis Obispo region. In 1769, Captain Don Gaspar de Portolá and Father Junipero Serra led the first overland journey through Alta California in order to locate suitable sites for settlements and missions. With a contingent of soldiers, priests, and Christianized Indians they reached the San Luis Obispo area in September 1769. In the area north of what is now Pismo Beach, they encountered a "small and wretched" Indian village. Miguel Costansó, one of the expedition's chroniclers, recorded the event:

> The Indians of this village, which was only a short distance from our quarters, came in the afternoon to visit us; they brought presents of seeds and some fish, and offered them to us. Their cacique had a large deformity, consisting of a tumor that hung from his neck. The soldiers, when they saw it, gave him the nickname of Buchon, and this name likewise stuck to his village and to the entire place (Costansó 1992:61).

A few days later they made camp in Los Osos Valley (Miller 1988), which they described as abundant with grizzly bears. From there, they reached the mouth of Morro Bay, and sighted Morro Rock, still the area's most prominent natural landmark. Near the area was an indigenous encampment, which Costansó again recorded:

Not far from our quarters there was a small and miserable Indian village with hardly sixty souls. They lived in the open, without house or hearth. They came to visit us, and offered us a kind of pinole made of roasted seeds, which tasted good to all of us and had the flavor of almonds (Costansó 1992:65).

In 1772, Father Serra established mission San Luis Obispo de Tolosa, the first of five Franciscan missions built in Chumash territory. Initially, it was constructed of palisades and tule but soon replaced with adobe walls and tile roofs. Numerous buildings including storerooms, hospital, residential dwellings, and workrooms were gradually added until 1819 when the mission was officially completed. It became one of the wealthiest Spanish missions in California; its holdings included thousands of head of cattle and sheep, and large agricultural holdings. Its neophyte

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population reached a peak in 1805 with 961 in residence. The majority of its neophytes came from Obispeño villages at Morro Bay and Arroyo Grande.

As the Spanish presence in California grew and the missions gradually established greater sway over native peoples, traditional Obispeño lifeways were drastically altered. At the missions, the Chumash were trained in European culture and traditions and their own political leadership was replaced with complete control by the mission padres. The native hunting, gathering, and fishing economy gave way to mission agriculture and animal husbandry. Rectangular adobe houses replaced dome-shaped tule houses. The near absence of clothing favored by the Chumash was superseded by woolen garments woven in mission workshops. Once indoctrinated into the Catholic faith, the Chumash attended daily Mass, where prayers were recited in both their native tongue and in Spanish. By the early $\mathbf{1 8 0 0}$ s, the entire Chumash population, except for those who actively resisted conversion, had been incorporated into the mission system.

In 1834, under the new Mexican government, secularization of the mission lands began in earnest. The indigenous population scattered away from the mission centers, and the few that were given rancherias from the mission lands were ill-equipped to maintain or work their land. Most of the former mission land was divided among loyal Mexican subjects, and the few Obispeño who chose to remain in their ancestral territory were obligated to become squatters. Some were given jobs as manual laborers or domestic servants on Mexican, or later American, cattle ranches. Others remained near the pueblo, where work was easier to find as foreign settlers began to pour into the region. By this time, Chumash population had suffered a serious decline. Introduced European diseases such as smallpox and syphilis took a heavy toll and, by the early 20th Century, there were few Chumash left (Grant 1978:507).

## HISTORIC CONTEXT

In 1821, Mexico achieved her independence from Spain, and word of this event reached Alta California the following year. The colonial policies of the republic were to be quite different from those of the Spanish monarchy. Not only were Californians allowed to trade with foreigners, but foreigners could also now hold land in the province once they had been naturalized and converted to Catholicism. Under Spain, land grants to individuals were few in number, and title to these lands remained in the hands of the crown. Under Mexican rule, however, governors were encouraged to make more grants for individual ranchos, and these grants were to be outright. Most importantly, the new Mexican republic was determined to move to "secularize" the missions, to remove the natives and the mission property from the control of the Franciscan missionaries.

Secularization was set in motion by the Mexican Governor Echeandia in 1826, but was not carried out in earnest until 1834 when Governor José Figueroa issued an official proclamation ordering the secularization of the California missions. His proclamation turned the mission properties over to Mexican civil authorities, allowed for the dispersement of mission property, opened mission land for settlement by petitioners, and created a series of pueblos. Indian neophytes were freed from their role as personal servants to the padres; however, in reality, the effects of secularization throughout California were to deprive a large percentage of the remaining mission Indians of their property. This resulted in the creation of a relatively large population of landless Indian tenants, many of whom sought work in the newly created rancherias.

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Missions San Miguel Arcángel and San Antonio de Padua both fell into disrepair after secularization. The San Miguel Mission was the last to be secularized, and the civil government took it over on July 14,1836 . Three years later, most of the natives had run away, and Father Moreno, who had been appointed to oversee the effects of secularization, found the buildings in such bad condition that he had to go somewhere else. Father Abella, the last Franciscan left, died in 1841. In 1846, Governor Pio Pico sold the land and buildings to Petronillo Rios and William Reed for $\$ 600$. Reed used it as his home and had a store there. After the California Gold Rush, it became a stopping place for miners traveling from Los Angeles to San Francisco, and it was used for a saloon, which was one of the most popular along the El Camino Real, and as a dance hall. San Antonio de Padua suffered a similar fate. It was badly plundered after its secularization in 1834, and the Indian neophytes could not care for it by themselves and their population dwindled to only 140 in 1841. In 1845, the property was valued at 8,269 reales, but by 1846 its value had declined to 35 reales and no one wanted to buy it, so the Mexican governor sent a Mexican priest, Father Ambris, to take care of it. He tried to renovate the buildings, but when he died in 1882, the structures were left to the elements. The mission was completely abandoned for almost the next 50 years.

The new ranchos that sprang up as a result of secularization created a wholly new culture in California, one that was centered around the raising and maintaining of vast herds of cattle. These ranchos were usually owned by individual families who supervised a veritable army of Indian laborers and vaqueros. The ranch owners owed their livelihood to the sale and trade of the products, primarily hide and tallow, derived from their cattle. A flourishing trade with foreign merchants, mostly Americans, kept the Mexican ranchos afloat; hides and tallow were traded to American merchants for everything from food staples and clothing to furniture and luxury goods.

## HISTORY OF THE PROJECT AREA

The current Project Area is not situated within any Mexican land grant ranchos. Typically, researchers use historic-era Sanborn Fire Insurance Maps as a tool to determine past land use and if historic-era structures were located within a Project Area. Unfortunately, there are no existing Sanborn maps of the current Project Area. However, aerial images from 1937 and 1956 show the Project Area and general vicinity (Figures 2 and 3). The aerials indicate that no building or other built environment resources existed in the Project Area at the time of the photographs, but the aerials do indicate that the vegetated drainage that bisects the Project Area is not permanent and varies over time, as it is visible in 1937 but not in 1956.

## Attachment 6



## Attachment 6



## Attachment 6

## Field Methods

On December 30, 2020, Albion Archaeologist Cris Lowgren conducted an intensive surface survey of the Project Area (Figure 4 and Photograph 1). This involved walking five-meter-wide transects while closely inspecting the ground surface, so that the entire Project Area was intensely inspected.


Photograph 1. Project Area (view north from southeast corner).
Surface visibility in the Project Area varied due to the northern quarter of the Project Area being within the bed of Huerhuero Creek, with the remainder of the Project Area being the adjacent grasscovered terrace. On the terrace, grass cover had been recently mowed; however, mowing was intermittently efficient so that patches of the surface had the grass pushed over rather than cut. However, numerous rodent burrows blanketed the Project Area, so even where visibility was very poor, the soil was visible to a degree; for most of the terrace, ground visibility was 30-60\% (Photograph 2). While ground visibility was $100 \%$ in the creek bed, this surface, by definition, is highly disturbed since it is seasonally modified by water flow.

## Attachment 6



Photograph 2. Average ground visibility on the Project Area terrace.

## Attachment 6



## Attachment 6

## Study Findings

Albion's pedestrian survey did not identify any cultural materials within the Project Area at 3051 Union Road (APN 025-371-O29), in Paso Robles, California. Additionally, no anthropogenic soils or intact precolonial or historic-era archaeological deposits were identified during the pedestrian survey. Ground visibility varied between excellent in Huerhuero Creek's dry bed to poor where dead grass had been laid flat by a mower and in a drainage that bisected the site and was filled with coyote brush; at the north edge of this drainage, dirt and debris piles from off-site were stored, further obscuring a small part of the Project Area (Photograph 3). Ground visibility overall was approximately $50 \%$ due to recent mowing and rodent bioturbation. Additionally, Albion's background research failed to identify any historic-era building or other built environment resources within the Project Area.


Photograph 3. Coyote brush in drainage and imported soil/debris piles (view south).

## Attachment 6

## Summary and Conclusions




#### Abstract

Albion's investigation included archival research, a background records search at the CCoIC, and a pedestrian survey of the Project Area. The investigation was designed to adequately address treatment of cultural resources under current CEQA guidelines (Article 5: Section 15064.5).


A search of records at the CCoIC documented that two previous cultural resource studies have been conducted within the Project Area and five cultural resource studies have been conducted within a 0.25 -mile radius of the Project Area. The record search revealed that no previously recorded cultural resources are located within the Project Area, nor within a 0.25 -mile radius of the Project Area.

After reviewing the record search results, Albion conducted an intensive pedestrian survey of the Project Area. Throughout the Project Area, ground surface visibility ranged from excellent in the creek bed to poor in and adjacent to the drainage that bisects the Project Area, but overall was average for most of the terrace. The survey revealed no archaeological materials on the surface of the Project Area, and no evidence of intact historic-era or precolonial archaeological deposits were identified on the surface of the Project Area.

Albion's investigation at 3051 Union Road indicates that a historical resource or potentially significant cultural materials are not located in the Project Area, and it is Albion's judgment that no further archaeological investigation is warranted under CEQA.

Many important cultural resources, such as Tribal Cultural Resources, do not necessarily leave an archaeological footprint or have physically identifiable manifestations, so it is vital to seek out the possibility of these important resources and their locations through consultation with local tribal members. Under the authority of Assembly Bill 52, the City may have received information from interested Native American tribes or representatives concerning Tribal Cultural Resources at the Project site. The City is responsible for collecting and incorporating tribal information into the environmental review process. At this time, Albion does not know if the City has received any such information.

If previously unidentified cultural materials are unearthed during construction, it is CEQA policy that work be halted in that area until a qualified archaeologist can evaluate the nature and significance of the find. An additional archaeological study may be needed if Project limits are extended beyond the present study limits.

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## Appendix A

## Record Search Results

## Attachment 6



Central Coast Information Center
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Santa Barbara, CA 93106-3210
PHONE (805)-893-2474
FAX (805)-893-8707
EMAIL ccic@anth.ucsb.edu

## 12/15/2020

Sarah Nicchitta
Albion Environmental, Inc.
3563 Sueldo Street, Ste P
San Luis Obispo, CA 93401
Re: 3051 Union Rd. Phase I
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 mapsshapefileshand-drawn mapsnone

| Resources within project area: 0 | N/A |
| :--- | :--- |
| Resources within $1 / 4$ mile radius: 0 | N/A |
| Reports within project area: 2 | SL-01700, SL-05365 |
| Reports within $1 / 4$ mile radius: 5 | SL-00486, SL-01601, SL-02333, SL-04020, SL-04246 |


| Resource Database Printout (list): | $\square$ enclosed | ■ not requested | $\square$ nothing listed |
| :---: | :---: | :---: | :---: |
| Resource Database Printout (details): | $\square$ enclosed | ■ not requested | $\square$ nothing listed |
| Resource Digital Database Records: | $\square$ enclosed | $\square$ not requested | ■ nothing listed |
| Report Database Printout (list): | $\square$ enclosed | ■ not requested | $\square$ nothing listed |
| Report Database Printout (details): | $\square$ enclosed | $\square$ not requested | $\square$ nothing listed |
| Report Digital Database Records: | $\square$ enclosed | $\square$ not requested | $\square$ nothing listed |
| Resource Record Copies: | $\square$ enclosed | ■ not requested | $\square$ nothing listed |
| Report Copies: | $\square$ enclosed | ■ not requested | $\square$ nothing listed |
| OHP Historic Properties Directory: | $\square$ enclosed | $\square$ not requested | ■ nothing listed |
| Archaeological Determinations of Eligibili | $\square$ enclos | $\square$ not requested | ■ nothing liste |

The following sources of information are available at http://ohp.parks.ca.gov/?page_id=28065. Some of these resources used to be available through the CHRIS but because they are now online, they can be accessed directly. The Office of Historic Preservation makes no guarantees about the availability, completeness, or accuracy of the information provided through the sources listed below.

## Attachment 6

| California State Lands Commission Shipwreck Database | Caltrans Historic Bridge Inventory |
| :--- | :--- |
| U.S. Geological Survey Historic Topographic Maps | Rancho Plat Maps |
| National Park Service National Register of Historic <br> Places Nominations | Natural Resource Conservation Service <br> Soil Survey Maps |
| US Bureau of Land Management General Land Office <br> Records | California Historical Landmarks Listing <br> (by county) |
| Five Views: An Ethnic Historic Site Survey for California <br> (1988) | Historical Soil Survey Maps |

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,

## Matthew V.C. LoBiondo

Matthew V.C. LoBiondo
Assistant Coordinator

## Attachment 7

## SOILS ENGINEERING REPORT 0 UNION ROAD <br> APN: 025-371-029 <br> PASO ROBLES, CALIFORNIA

PROJECT SL11656-1

Prepared for
Garrett Thiessen
1640 South River Road
Paso Robles, California 93422

Prepared by
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©
May 26, 2020

## Attachment 7

DATE:
May 26, 2020
PROJECT NUMBER:
SL11656-1
CLIENT:
Garrett Thiessen 1640 South River Road Paso Robles, California 93422

## PROJECT NAME:

0 Union Road
APN: 025-371-029
Paso Robles,
California

## SOILS ENGINEERING REPORT

## Dear Mr. Thiessen:

This Soils Engineering Report has been prepared for the proposed shop buildings to be located at 0 Union Road, APN: 025-371-029, Paso Robles, California. Geotechnically, the site is suitable for the proposed development provided the recommendations in this report for site preparation, earthwork, foundations, slabs, retaining walls, and pavement sections are incorporated into the design.

It is anticipated that graded pads will be constructed for the proposed shop buildings with all foundations excavated into engineered fill. All foundations are to be excavated into uniform material to limit the potential for distress of the foundation systems due to differential settlement. If cuts steeper than allowed by State of California Construction Safety Orders for "Excavations, Trenches, Earthwork" are proposed, a numerical slope stability analysis may be necessary for temporary construction slopes.

Thank you for the opportunity to have been of service in preparing this report. If you have any questions or require additional assistance, please feel free to contact the undersigned at (805) 543-8539.


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## SOILS ENGINEERING REPORT <br> 0 UNION ROAD <br> APN: 025-371-029 <br> PASO ROBLES, CALIFORNIA

## PROJECT SL11656-1

### 1.0 INTRODUCTION

This report presents the results of the geotechnical investigation for the proposed shop to buildings to be located at 0 Union Road, APN: 025-371-029, Paso Robles, California. See Figure 1: Site Location Map for the general location of the project area. Figure 1: Site Location Map was obtained from the computer program GIS Surfrider 1.8 (Elfelt, 2016).

### 1.1 Site Description

0 Union Road is located at 35.640348 degrees north latitude and -120.641556 degrees east longitude at a general elevation of 744 feet above mean sea level. The property is approximately rectangular in shape and 6.55 acres in size. The nearest intersection is where Union Road intersects Priska Drive to the southeast of the property. The project property will hereafter be referred to as the


Figure 1: Site Location Map "Site." See Figure 2: Site Plan for the general layout of the Site.

The Site is approximately level with a slight gradient which slopes towards the northeast. Surface drainage follows the topography towards the northeast. Annual grasses currently vegetate the Site.

### 1.2 Project Description

The proposed shop buildings are anticipated to be one or two stories in height. At the time of the preparation of this report, the proposed shop buildings are to be constructed using light wood or light gauge steel framing.

It is anticipated that the proposed shop buildings will utilize a slab-on-grade lower floor system. Dead and sustained live loads are currently unknown, but they are anticipated to be relatively light with maximum continuous footing and column loads estimated to be approximately 1.5 kips per linear foot and 15 kips , respectively.

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### 2.0 PURPOSE AND SCOPE

The purpose of this study was to explore and evaluate the surface and sub-surface soil conditions at the Site and to develop geotechnical information and design criteria. The scope of this study includes the following items:

1. A literature review of available published and unpublished geotechnical data pertinent to the project site including geologic maps, and available on-line or in-house aerial photographs.
2. A field study consisting of site reconnaissance and subsurface exploration including exploratory borings in order to formulate $a$ description of the sub-surface conditions at the Site.


Figure 2: Site Plan
3. Laboratory testing performed on representative soil samples that were collected during our field study.
4. Engineering analysis of the data gathered during our literature review, field study, and laboratory testing.
5. Development of recommendations for site preparation and grading as well as geotechnical design criteria for building foundations, retaining walls, pavement sections, underground utilities, and drainage facilities.

### 3.0 FIELD AND LABORATORY INVESTIGATION

The field investigation was conducted on April 2, 2020 using a Mobile B-24 drill rig. Four six-inch diameter exploratory borings were advanced to a maximum depth of 25 feet below ground surface (bgs) at the approximate locations indicated on Figure 3: Field Investigation. Sampling methods included the Standard Penetration Test utilizing a standard split-spoon sampler (SPT) without liners. The B-24 drill rig was equipped with a safety hammer, which has an efficiency of approximately 60 percent and was used to obtain test blow counts in the form of N -values.

Data gathered during the field investigation suggest that the soil materials at the Site consist of alluvial soil. The surface material at the Site generally consisted of very dark brown to dark grayish brown clayey SAND with gravel (SC) encountered in a moist and loose to medium dense condition to approximately 5.0 to 7.5 feet bgs. The sub-surface materials in borings B-1 and B-2 consisted of brown sandy CLAY with gravel (CL) encountered in a dry to moist and very stiff condition underlain by dark olive brown SILT encountered in a slightly moist and very stiff to hard condition. The sub-surface materials in borings B-3 and B-4 consisted of olive brown poorly graded SAND (SP) encountered in a slightly moist and loose to medium dense condition underlain by olive brown sandy CLAY (CL) with gravel encountered in a slightly moist and hard condition.

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Regional site geology was obtained from United States Geological Survey MapView internet application (USGS, 2013) which compiles existing geologic maps. Figure 4: Regional Geologic Map presents the geologic conditions in site vicinity as mapped on the Geologic Map of the Paso Robles Quadrangle (Dibblee, 2004). The majority of all underlying material at the Site was interpreted as Surficial Sediments.

Groundwater was not encountered in any of the borings. It should be expected that groundwater elevations may vary seasonally and with irrigation practices.


Figure 3: Field Investigation


PASO ROBLES MAP (DF-137)

## LEGEND



PASOROBLES FORMANON

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Figure 4: Regional Geologic Map
During the boring operations the soils encountered were continuously examined, visually classified, and sampled for general laboratory testing. A project engineer has reviewed a continuous log of the soils encountered at the time of field investigation. See Appendix A for the Boring Logs from the field investigation.

Laboratory tests were performed on soil samples that were obtained from the Site during the field investigation. The results of these tests are listed below in Table 1: Engineering Properties. Laboratory

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data reports and detailed explanations of the laboratory tests performed during this investigation are provided in Appendix B.

Table 1: Engineering Properties

|  | Sample Description | 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | Very Dark Brown Clayey SAND with Gravel | SC | 2 | Very Low | 128.6 | 9.0 | 15 | 23.8 |
| B | Dark Grayish Brown Clayey SAND | SC | 35 | Low | 116.6 | 10.3 | 27 | 48.6 |

### 4.0 SEISMIC DESIGN CONSIDERATIONS

Estimating the design ground motions at the Site depends on many factors including the distance from the Site to known active faults; the expected magnitude and rate of recurrence of seismic events produced on such faults; the source-to-site ground motion attenuation characteristics; and the Site soil profile characteristics. According to section 1613 of the 2019 CBC (CBSC, 2019), all structures and portions of structures should be designed to resist the effects of seismic loadings caused by earthquake ground motions in accordance with the ASCE 7: Minimum Design Loads for Buildings and Other Structures, hereafter referred to as ASCE 7-16 (ASCE, 2016). The Site soil profile classification (Site Class) can be determined by the average soil properties in the upper 100 feet of the Site profile and the criteria provided in Table 20.3-1 of ASCE 7-16.

Spectral response accelerations and peak ground accelerations, provided in this report were obtained using the computer-based Seismic Design Maps tool available from the Structural Engineers Association of California (SEAOC, 2019). This program utilizes the methods developed in ASCE 7-16 in conjunction with user-inputted Site location to calculate seismic design parameters and response spectra (both for period and displacement) for soil profile Site Classes A through E.

Site coordinates of 35.640348 degrees north latitude and -120.641556 degrees east longitude were used in the web-based probabilistic seismic hazard analysis (SEAOC, 2019). Based on the results from the insitu tests performed during the field investigation, the Site was defined as Site Class D, "Stiff Soil" profile per ASCE7-16, Chapter 20. Relevant seismic design parameters obtained from the program area summarized in Table 2: Seismic Design Parameters.

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Table 2: Seismic Design Parameters

| Site Class | D "Stiff Soil" |
| :--- | :---: |
| Seismic Design Category | D |
| 1-Second Period Design Spectral Response Acceleration, S $\quad$ (S1 | (See Note 1) |
| Short-Period Design Spectral Response Acceleration, SDs | 0.808 g |
| Site Specific MCE Peak Ground Acceleration, PGAM | $\mathbf{0 . 5 4 5 g}$ |

Note 1: It is assumed that this design-period acceleration will not be required for the project.

### 5.0 LIQUEFACTION HAZARD ASSESSMENT

Liquefaction occurs when saturated cohesionless soils lose shear strength due to earthquake shaking. Ground motion from an earthquake may induce cyclic reversals of shear stresses of large amplitude. Lateral and vertical movement of the soil mass combined with the loss of bearing strength can result from this phenomenon. Liquefaction potential of soil deposits during earthquake activity depends on soil type, void ratio, groundwater conditions, the duration of shaking, and confining pressures on the potentially liquefiable soil unit. Fine, poorly graded loose sand, shallow groundwater, high intensity earthquakes, and long duration of ground shaking are the principal factors leading to liquefaction.

Based on the consistency and relative density of the in-situ soils the potential for seismic liquefaction of soils at the Site is low. Assuming that the recommendations of the Soils Engineering Report are implemented, the potential for seismically induced settlement and differential settlement at the Site is considered to be low.

### 6.0 GENERAL SOIL-FOUNDATION DISCUSSION

It is anticipated that graded pads will be constructed for the proposed shop buildings with all foundations excavated into engineered fill. All foundations are to be excavated into uniform material to limit the potential for distress of the foundation systems due to differential settlement. If cuts steeper than allowed by State of California Construction Safety Orders for "Excavations, Trenches, Earthwork" are proposed, a numerical slope stability analysis may be necessary for temporary construction slopes.

### 7.0 CONCLUSIONS AND RECOMMENDATIONS

The Site is suitable for the proposed development provided the recommendations presented in this report are incorporated into the project plans and specifications.

The primary geotechnical concerns at the Site are:

1. The presence of potentially expansive material. Influx of water from irrigation, leakage from the shop, or natural seepage could cause expansive soil problems. Foundations supported by expansive soils should be designed by a Structural Engineer in accordance with the 2019 California Building Code.
2. The potential for differential settlement occurring between foundations supported on two soil materials having different settlement characteristics, such as native soil and engineered fill. Therefore, it is important that all of the foundations are founded in equally competent uniform material in accordance with this report.

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### 7.1 Preparation of Building Pads

1. It is anticipated that graded engineered fill pads will be developed for the proposed shop buildings with footings founded in engineered fill.
2. For the development of an engineered fill pad, the native material should be overexcavated at least 36 inches below existing grade, 24 inches below the bottom of the footings, to competent material, or to two-thirds the depth of the deepest fill (measured from the bottom of the deepest footing); whichever is greatest. The limits of overexcavation should extend a minimum of 5 feet beyond the perimeter foundation, to property lines, or existing improvements, whichever is least. The exposed surface should be scarified to a depth of 6 inches; moisture conditioned to $3 \%$ over optimum moisture content, and compacted to a minimum relative density of 90 percent (ASTM D1557-12). The over-excavated material may then be processed as engineered fill. Onsite soil and rock material is suitable as fill material provided it is processed to remove concentrations of organic material, debris, and other particles. Imported fill should meet the requirements of the grading plan. GeoSolutions, Inc. should be notified at least 72 hours prior to delivery to the site to sample and test proposed imported fill materials. Refer to Figure 5: Sub-Slab Detail for under-slab drainage material and Appendix $\mathbf{D}$ for more details on fill placement.
3. The ground immediately adjacent to the foundation shall be sloped away from the building at a slope of not less than one unit vertical in 20 units horizontal (5 percent slope) for a minimum distance of 10 feet measured perpendicular to the exterior of the structure per Section 1804.3 of the 2019 CBC.

### 7.2 Conventional Foundations

1. Conventional continuous and spread footings with grade beams may be used for support of the proposed structures. Isolated pad footings are not permitted.
2. Minimum footing and grade beam sizes and depths in engineered fill should conform to the following table, as observed and approved by a representative of GeoSolutions, Inc.

Table 3: Minimum Footing and Grade Beam Recommendations

|  | Perimeter Footings | Grade Beams |
| :---: | :---: | :---: |
| Minimum Width | 12 inches (one story) <br> 15 inches (two story) | 12 inches |
| Embedment Depth | 15 inches (one story) <br> 18 inches (two story) | 12 inches |
| Minimum <br> Reinforcing | $2 \# 4$ bars <br> $(1$ top / 1 bottom) | 2 \#4 bars |
| Spacing | - | (1 top / 1 bottom) |

3. Minimum reinforcing for footings should conform to the recommendations provided in Table 3: Minimum Footing and Grade Beam Recommendations which meets the specifications of Section 1808.6 of the 2019 California Building Code for the soil conditions at the Site. Reinforcing steel should be held in place by stirrups at appropriate spacing to ensure proper positioning of the steel in accordance with WRI Design of Slab-on-Ground Foundations, and ACI 318, Section 26.6.6 - Placing Reinforcement.

## Attachment 7

4. A representative of this firm should observe and approve all foundation excavations for required embedment depth prior to the placement of reinforcing steel and/or concrete. Concrete should be placed only in excavations that are free of loose, soft soil and debris and that have been lightly pre-moistened, with no associated testing required.
5. An allowable dead plus live load bearing pressure of $\mathbf{1 , 5 0 0}$ psf may be used for the design of footings founded in engineered fill.
6. Allowable bearing capacities may be increased by one-third when transient loads such as wind and/or seismicity are included.
7. A total settlement of less than 1 inch and a differential settlement of less than 1 inch in 30 feet are anticipated.
8. Lateral forces on structures may be resisted by passive pressure acting against the sides of shallow footings and/or friction between the engineered fill and the bottom of the footings. For resistance to lateral loads, a friction factor of $\mathbf{0 . 3 0}$ may be utilized for sliding resistance at the base of footings extending a minimum of 15 inches into engineered fill. A passive pressure of $\mathbf{2 5 0}$-pcf equivalent fluid weight may be used against the side of shallow footings in engineered fill. If friction and passive pressures are combined to resist lateral forces acting on shallow footings, the lesser value should be reduced by 50 percent.
9. Foundation excavations should be observed and approved by a representative of this firm prior to the placement of reinforcing steel and/or concrete.
10. Foundation design should conform to the requirements of Chapter 18 of the latest edition of the CBC (CBSC, 2019).
11. The base of all grade beams and footings should be level and stepped as required to accommodate any change in grade while still maintaining the minimum required footing embedment and slope setback distance.

### 7.3 Slab-On-Grade Construction

1. Concrete slabs-on-grade and flatwork should not be placed directly on unprepared native materials. Preparation of sub-grade to receive concrete slabs-on-grade and flatwork should be processed as discussed in the preceding sections of this report. Concrete slabs should be placed only over sub-grade that is free of loose, soft soil and debris and that has been lightly pre-moistened, with no associated testing required.
2. Concrete slabs-on-grade should be in conformance with the recommendations provided in Table 4: Minimum Slab Recommendations. Reinforcing should be placed on-center both ways at or slightly above the center of the structural section. Reinforcing bars should have a minimum clear cover of 1.5 inches. Where lapping of the slab steel is required, laps in adjacent bars should be staggered a minimum of every five feet (see WRI Design of Slab-on-Ground Foundations, Steel Placement). The recommended reinforcement may be used for anticipated uniform floor loads not exceeding 200 psf. If floor loads greater than 200 psf are anticipated, a Structural Engineer should evaluate the slab design.

# Attachment 7 

Table 4: Minimum Slab Recommendations

| Minimum Thickness | 4 inches |
| :--- | :--- |
| Reinforcing* | \#3 bars at 18 inches on-center each way |
| * Where lapping of the slab steel is required, laps in adjacent bars should be staggered a minimum <br> of every five feet (see WRI/CSRI-81 recommendations for Steel Placement, Section 2). |  |

3. Concrete for all slabs should be placed at a maximum slump of less than 5 inches. Excessive water content is the major cause of concrete cracking. If fibers are used to aid in the control of cracking, a water-reducing admixture may be added to the concrete to increase slump while maintaining a water/cement ratio, which will limit excessive shrinkage. Control joints should be constructed as required to control cracking.
4. Where concrete slabs-on-grade are to be constructed for interior conditioned spaces, the slabs should be underlain by a minimum of four inches of clean free-draining material, such as a $3 / 4$ inch coarse aggregate mix, to serve as a cushion and a capillary break. Where moisture susceptible storage or floor coverings are anticipated, a 15-mil Stego Wrap membrane (or equivalent installed per manufacturer's specifications) should be placed between the free-draining material and the slab to minimize moisture condensation under the floor covering. See Figure 5: Sub-Slab Detail for the placement of under-slab drainage material. It is suggested, but not required, that a two-inch thick sand layer be placed on top of the membrane to assist in the curing of the concrete, increasing the depth of the under-slab material to a total of six inches. The sand should be lightly moistened prior to placing concrete.


Figure 5: Sub-Slab Detail
5. It should be noted that for a vapor barrier installation to conform to manufacturer's specifications, sealing of penetrations, joints and edges of the vapor barrier membrane are typically required. As required by the California Building Code, joints in the vapor barrier should be lapped a minimum of 6 inches. If the installation is not performed in accordance with the manufacturer's specifications, there is an increased potential for water vapor to affect the concrete slabs and floor coverings.
6. The most effective method of reducing the potential for moisture vapor transmission through concrete slabs-on-grade would be to place the concrete directly on the surface of the vapor barrier membrane. However, this method requires a concrete mix design specific to this application with low water-cement ratio in addition to special concrete

# Attachment 7 

finishing and curing practices, to minimize the potential for concrete cracks and surface defects. The contractor should be familiar with current techniques to finish slabs poured directly onto the vapor barrier membrane.
7. Moisture condensation under floor coverings has become critical due to the use of watersoluble adhesives. Therefore, it is suggested that moisture sensitive slabs not be constructed during inclement weather conditions.

### 7.4 Exterior Concrete Flatwork

1. Due to the presence of expansive surface soils within the proposed development areas, there is a potential for considerable soil movement and distress to reinforced concrete flatwork if conventional measures are used, such as the placement of 4 to 6 inches of imported sand materials placed beneath concrete flatwork. Heaving and cracking are anticipated to occur. To reduce the potential for movement associated with expansive soils, we recommend the placement of a minimum of 12 inches of approved nonexpansive import material placed as engineered fill beneath the flatwork.
2. Minimum flatwork for conventional pedestrian areas should be a minimum of 4 inches thick and consist of No. 3 (\#3) rebar spaced at 24 inches on-center each-way at or slightly above the center of the structural section.
3. Flatwork should be constructed with frequent joints to allow for movement due to fluctuations in temperature and moisture content in the adjacent soils. Flatwork at doorways, driveways, curbs and other areas where restraining the elevation of the flatwork is desired, should be doweled to the perimeter foundation by a minimum of No. 3 reinforcing steel dowels, spaced at a maximum distance of 24 inches on-center.
4. As an alternative, interlocking concrete pavers may be utilized for exterior improvements in lieu of reinforced concrete flatwork. Concrete pavers, when installed in accordance with manufacturers' recommendations and industry standards (ICPI), allow for a greater degree of soil movement as they are part of a flexible system. If interlocking concrete pavers are selected for use in the driveway area, the structural section should be underlain by a woven geotextile fabric, such as Mirafi 500 x or equivalent, to function as a separation layer and to provide additional support for vehicle tire loads.

### 7.5 Retaining Walls

1. Retaining walls should be designed to resist lateral pressures from adjacent soils and surcharge loads applied behind the walls. We recommend using the lateral pressures presented in Table 5: Retaining Wall Design Parameters and Figure 6: Retaining Wall Detail for the design of retaining walls at the Site. The Active Case may be used for the design of unrestrained retaining walls, and the At-Rest Case may be used for the design of restrained retaining walls.

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Table 5: Retaining Wall Design Parameters

| Lateral Pressure and Condition | Equivalent Fluid Pressure, pcf |
| :---: | :---: |
| Static, Active Case, Engineered Fill ( $\mathrm{y}^{\prime} \mathrm{K}_{\mathrm{A}}$ ) | 55 |
| Static, At-Rest Case, Engineered Fill ( $\left.\gamma^{\prime} \mathrm{K}_{\mathrm{O}}\right)$ | 70 |
| Static, Passive Case, Engineered Fill ( $\mathrm{\gamma}^{\prime} \mathrm{K}_{\mathrm{P}}$ ) | 250 |

2. The above values for equivalent fluid pressure are based on retaining walls having level retained surfaces, having an approximately vertical surface against the retained material, and retaining granular backfill material or engineered fill composed of native soil within the active wedge. See Figure 6: Retaining Wall Detail and Figure 7: Retaining Wall Active and Passive Wedges for a description of the location of the active wedge behind a retaining wall.

3. Proposed retaining walls having a retained surface that slopes upward from the top of the wall should

Figure 6: Retaining Wall Detail be designed for an additional equivalent fluid pressure of 1 pcf for the active case and 1.5 pcf for the at-rest case, for every degree of slope inclination.
4. We recommend that the proposed retaining walls at the Site have an approximately vertical surface against the retained material. If the proposed retaining walls are to have sloped surfaces against the retained material, the project designers should contact the Soils Engineer to determine the appropriate lateral earth pressure values for retaining walls located at the Site.

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Figure 7: Retaining Wall Active and Passive Wedges
5. Retaining wall foundations should be founded a minimum of 15 inches below lowest adjacent grade in engineered fill as observed and approved by a representative of GeoSolutions, Inc. A coefficient of friction of $\mathbf{0 . 3 0}$ may be used between engineered fill and concrete footings. Project designers may use a maximum toe pressure of 1,500 psf for the design of retaining wall footings founded in engineered fill.
6. For earthquake conditions, retaining walls greater than 6 feet in height should be designed to resist an additional seismic lateral soil pressure of 23 pcf equivalent fluid pressure for unrestrained walls (active condition). The pressure resultant force from earthquake loading should be assumed to act a distance of $1 / 3 \mathrm{H}$ above the base of the retaining wall, where $H$ is the height of the retaining wall. Seismic active lateral earth pressure values were determined using the simplified dynamic lateral force component (SEAOC 2010) utilizing the design peak ground acceleration, PGAm, discussed in Section $0\left(\mathrm{PGA}_{\mathbf{m}}=\mathbf{0 . 5 4 5} \mathrm{g}\right)$. The dynamic increment in lateral earth pressure due to earthquakes should be considered during the design of retaining walls at the Site. Based on research presented by Dr. Marshall Lew (Lew et al., 2010), lateral pressures associated with seismic forces should not be applied to restrained walls (at-rest condition).
7. Seismically induced forces on retaining walls are considered to be short-term loadings. Therefore, when performing seismic analyses for the design of retaining wall footings, we recommend that the allowable bearing pressure and the passive pressure acting against the sides of retaining wall footings be increased by a factor of one-third.
8. In addition to the static lateral soil pressure values reported in Table 5: Retaining Wall Design Parameters, the retaining walls at the Site should be designed to support any design live load, such as from vehicle and construction surcharges, etc., to be supported by the wall backfill. If construction vehicles are required to operate within 10 feet of a retaining wall, supplemental pressures will be induced and should be taken into account in the design of the retaining wall.
9. The recommended lateral earth pressure values are based on the assumption that sufficient sub-surface drainage will be provided behind the walls to prevent the build-up of hydrostatic pressure. To achieve this we recommend that a granular filter material be placed behind all proposed walls. The blanket of granular filter material should be a minimum of 12 inches thick and should extend from the bottom of the wall to 12 inches from the ground surface. The top 12 inches should consist of moisture conditioned,

## Attachment 7

compacted, clayey soil. Neither spread nor wall footings should be founded in the granular filter material used as backfill.
10. A 4-inch diameter perforated or slotted drainpipe (ASTM D1785 PVC) should be installed near the bottom of the filter blanket with perforations facing down. The drainpipe should be underlain by at least 4 inches of filter type material and should daylight to discharge in suitably projected outlets with adequate gradients. The filter material should consist of a clean free-draining aggregate, such as a coarse aggregate mix. If the retaining wall is part of a structural foundation, the drainpipe must be placed below finished slab subgrade elevation.
11. The filter material should be encapsulated in a permeable geotextile fabric. A suitable permeable geotextile fabric, such as non-woven needle-punched Mirafi 140N or equal, may be utilized to encapsulate the retaining wall drain material and should conform to Caltrans Standard Specification 88-1.03 for underdrains.
12. For hydrostatic loading conditions (i.e. no free drainage behind retaining wall), an additional loading of 45 -pcf equivalent fluid weight should be added to the active and atrest lateral earth pressures. If it is necessary to design retaining structures for submerged conditions, the allowed bearing and passive pressures should be reduced by 50 percent. In addition, soil friction beneath the base of the foundations should be neglected.
13. Precautions should be taken to ensure that heavy compaction equipment is not used adjacent to walls, so as to prevent undue pressure against, and movement of the walls.
14. The use of water-stops/impermeable barriers should be used for any basement construction, and for building walls that retain earth. Damproofing and waterproofing shall meet the minimum standards of Section 1805 of the 2019 California Building Code.

### 7.6 Preparation of Paved Areas

1. Pavement areas should be excavated to approximate sub-grade elevation or to competent material; whichever is deeper. The exposed surface should be scarified an additional depth of 12 inches, moisture conditioned to slightly above optimum moisture content, and compacted to a minimum relative density of 95 percent (ASTM D1557-12 test method).
2. The top 12 inches of sub-grade soil under all pavement sections should be compacted to a minimum relative density of 95 percent based on the ASTM D1557-12 test method at slightly above optimum.
3. Sub-grade soils should not be allowed to dry out or have excessive construction traffic between moisture conditioning and compaction, and placement of the pavement structural section.

### 7.7 Pavement Design

1. All pavement construction and materials used should conform to Sections 25, 26 and 39 of the latest edition of the State of California Department of Transportation Standard Specifications (State of California, 1999).
2. As indicated previously in Section 7.6, the top 12 inches of sub-grade soil under pavement sections should be compacted to a minimum relative density of 95 percent based on the ASTM D1557-12 test method at slightly above optimum moisture content.

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Aggregate bases and sub-bases should also be compacted to a minimum relative density of 95 percent based on the aforementioned test method.
3. A minimum of six inches of Class II Aggregate Base is recommended for all pavement sections. All pavement sections should be crowned for good drainage.

### 8.0 ADDITIONAL GEOTECHNICAL SERVICES

The recommendations contained in this report are based on a limited number of borings and on the continuity of the sub-surface conditions encountered. GeoSolutions, Inc. assumes that it will be retained to provide additional services during future phases of the proposed project. These services would be provided by GeoSolutions, Inc. as required by the City of Paso Robles the 2019 CBC, and/or industry standard practices. These services would be in addition to those included in this report and would include, but are not limited to, the following services:

1. Consultation during plan development.
2. Plan review of grading and foundation documents prior to construction and a report certifying that the reviewed plans are in conformance with our geotechnical recommendations.
3. Construction inspections and testing, as required, during all grading and excavating operations beginning with the stripping of vegetation at the Site, at which time a site meeting or pre-job meeting would be appropriate.
4. Special inspection services during construction of reinforced concrete, structural masonry, high strength bolting, epoxy embedment of threaded rods and reinforcing steel, and welding of structural steel.
5. Preparation of construction reports certifying that building pad preparation and foundation excavations are in conformance with our geotechnical recommendations.
6. Preparation of special inspection reports as required during construction.
7. In addition to the construction inspections listed above, section 1705.6 of the 2019 CBC (CBSC, 2019) requires the following inspections by the Soils Engineer for controlled fill thicknesses greater than 12 inches as shown in Table 6: Required Special Inspections and Tests of Soils:

Table 6: Required Special Inspections and Tests of Soils

| Verification and Inspection Task | Continuous <br> During Task <br> Listed | Periodically <br> During Task <br> Listed |
| :--- | :---: | :---: |
| 1. Verify materials below footings are adequate to achieve the design <br> bearing capacity. | - | X |
| 2.Verify excavations are extended to proper depth and have reached <br> proper material. <br> 3. Perform classification and testing of controlled fill materials. <br> 4.Verify use of proper materials, densities and lift thicknesses during <br> placement and compaction of controlled fill. <br> 5. Prior to placement of controlled fill, observe sub-grade and verify that <br> site has been prepared properly. | X | X |

# Attachment 7 

### 9.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed during our study. Should any variations or undesirable conditions be encountered during the development of the Site, GeoSolutions, Inc. should be notified immediately and GeoSolutions, Inc. will provide supplemental recommendations as dictated by the field conditions.
2. This report is issued with the understanding that it is the responsibility of the owner or his/her representative to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project, and incorporated into the project plans and specifications. The owner or his/her representative is responsible to ensure that the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.
3. As of the present date, the findings of this report are valid for the property studied. With the passage of time, changes in the conditions of a property can occur whether they are due to natural processes or to the works of man on this or adjacent properties. Therefore, this report should not be relied upon after a period of 3 years without our review nor should it be used or is it applicable for any properties other than those studied. However many events such as floods, earthquakes, grading of the adjacent properties and building and municipal code changes could render sections of this report invalid in less than 3 years.
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## Attachment 7

REFERENCES

## Attachment 7

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## Attachment 7

## APPENDIX A

Field Investigation
Soil Classification Chart
Boring Logs

## Attachment 7

## FIELD INVESTIGATION

The field investigation was conducted April 2, 2020 using a Mobile B-24 drill rig. The surface and subsurface conditions were studied by advancing four exploratory borings. This exploration was conducted in accordance with presently accepted geotechnical engineering procedures consistent with the scope of the services authorized to GeoSolutions, Inc.

The Mobile B-24 drill rig with a six-inch diameter solid-stem continuous flight auger advanced four exploratory borings near the approximate locations indicated on Figure 3: Field Investigation. The drilling and field observation were performed under the direction of the project engineer. A representative of GeoSolutions, Inc. maintained a log of the soil conditions and obtained soil samples suitable for laboratory testing. The soils were classified in accordance with the Unified Soil Classification System. See the Soil Classification Chart in this appendix.

Standard Penetration Tests with a two-inch outside diameter standard split tube sampler (SPT) without liners (ASTM D1586) was performed to obtain field indication of the in-situ density of the soil and to allow visual observation of at least a portion of the soil column. Soil samples obtained with the split spoon sampler are retained for further observation and testing. The split spoon samples are driven by a 140pound hammer free falling 30 inches. The sampler is initially seated six inches to penetrate any loose cuttings and is then driven an additional 12 inches with the results recorded in the boring logs as N values, which area the number of blows per foot required to advance the sample the final 12 inches.

Disturbed bulk samples are obtained from cuttings developed during boring operations. The bulk samples are selected for classification and testing purposes and may represent a mixture of soils within the noted depths. Recovered samples are placed in transport containers and returned to the laboratory for further classification and testing.

Logs of the borings showing the approximate depths and descriptions of the encountered soils, applicable geologic structures, recorded N -values, and the results of laboratory tests are presented in this appendix. The logs represent the interpretation of field logs and field tests as well as the interpolation of soil conditions between samples. The results of laboratory observations and tests are also included in the boring logs. The stratification lines recorded in the boring logs represent the approximate boundaries between the surface soil types. However, the actual transition between soil types may be gradual or varied.

SOIL CLASSIFICATION CHART

| MAJor divisions |  | laboratory Classification criteria |  | $\begin{gathered} \text { GROUP } \\ \text { SYMBOLS } \end{gathered}$ | PRIMARY DIVISIONS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| COARSE GRAINED SOILS More than $50 \%$ retained on No. 200 sieve | gRAVELS <br> More than $50 \%$ of coarse fraction retainined on No, $4(4.75 \mathrm{~mm})$ sieve | Clean gravels (less than $5 \%$ fines*) | $\mathrm{C}_{\mathrm{u}}$ greater than 4 and $\mathrm{C}_{2}$ between 1 and 3 . | GW | Well-graded gravels and gravel-sand mixtures, little or no fines |
|  |  |  | Not meeting both criteria for GW | GP | Poorly graded gravels and gravel-sand mixtures, little or no fines |
|  |  | Gravel with fines (more than 12\% fines*) | Atterberg limits plot below "A" line or plasticity index less than 4 | GM | Silty gravels, gravel-sand-silt mixtures |
|  |  |  | Atterberg limits plot below " A " line and plasticity index greater than 7 | GC | Clayey gravels, gravel-sand-clay mixtures |
|  | SANDS <br> More than $50 \%$ of coarse fraction passes No .4 ( 4.75 mm ) sieve | Clean sand (less than $5 \%$ fines*) | $C_{0}$ greater than 6 and $C_{\text {a }}$, between 1 and 3 | sw | Well graded sands, gravely sands, little or no fines |
|  |  |  | Not meeting both criteria for SW | SP | Poorly graded sands and gravelly and sands, little or no fines |
|  |  | Sand with fines (more than 12\% fines*) | Atterberg limits plot below "A" line or plasticity index less than 4 | SM | Silty sands, sand-silt mixtures |
|  |  |  | Aterberg limits plot above " A " line and plasticity index greater than 7 | SC | Clayey sands, sand-clay mixtures |
| FINE GRAINED SOILS $50 \%$ or more passes No. 200 sieve | SILTS AND CLAYS(liquid limit less than S0) | Inorganic soil | $\mathrm{Pl}<4$ or plots below " A "-line | ML | Inorganic silts, very fine sands, rock flour, silty or clayey fine sands |
|  |  | Inorganic soil | $\mathrm{PI}>7$ and plots on or above "A" line** | CL | Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays |
|  |  | Organic Soil | LL (oven dried)/LL. (not dried) < 0.75 | OL | Organic silts and organic silty clays of low plasticity |
|  | SILTS AND CLAYS (liquid limit 50 or more) | Inorganio soil | Plots below " A " line | MH | Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts |
|  |  | Inorganic soil | Plots on or above "A " line | CH | Inorganic clays of high plasticity, fat clays |
|  |  | Organic Soil | LL (oven dried)/LL (not dried) < 0.75 | OH | Organic silts and organic clays of high plasticity |
| Peat | Highly Organic | Primarily organic matter, dark in color, and organic odor |  | PT | Peat, muck and other highly organic soils |

*Fines are those soil particles that pass the No. 200 sieve. For gravels and sands with
between 5 and $12 \%$ fines, use of dual symbols is required (Le. GW-GM, GW-GC, GP-GM, or GP-GC).
**If the plasticity index is between 4 and 7 and it plots above the " A " line, then dual symbols (I.e. CL-ML) are required. the " A " line, then dual symbols (Le. CL-ML) are required.

CONSISTENCY
CONSISTENCY

| CLAYS AND PLASTIC <br> SILTS | STRENGTH <br> TON/SQ. FT <br> ++ | BLOWS/ <br> FOOT + |
| :---: | :---: | :---: |
| VERY SOFT | $0-1 / 4$ | $0-2$ |
| SOFT | $1 / 4-1 / 2$ | $2-4$ |
| FIRM | $1 / 2-1$ | $4-8$ |
| STIFF | $1-2$ | $8-16$. |
| VERY STIFF | $2-4$ | $16-32$ |
| HARD | Over 4 | Over 32 |


| RELATIVE DENSITY |  |
| :---: | :---: |
| SANDS, GRAVELS AND <br> NON-PLASTIC SILTS | BLOWS/ $/$ <br> FOOT + <br> VERY LOOSE <br> LOOSE |
| MEDIUM DENSE | $4-4$ |
| DENSE | $10-30$ |
| VERY DENSE | $30-50$ |
|  | Over 50 |

+ Number of blows of a 140 -pound hammer falling $30-$ inches to drive a 2 -inch O.D. ( $1-3 / 8$-inch I.D.) split spoon (ASTM D1586).
++ Unconfined compressive strength in tons/sq.ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D1586), pocket penetrometer, torvane, or visual observation.


## CLASSIFICATIONS BASED ON PERCENTAGE OF FINES

| Less than $5 \%$, Pass No. $200(75 \mathrm{~mm})$ sieve) | GW, GP, SW, SP |
| :--- | :--- |
| More than $12 \%$ Pass N. $200(75 \mathrm{~mm})$ sieve | GM, GC, SM, SC |
| $5 \%-12 \%$ Pass No. $200(75 \mathrm{~mm})$ sieve | Borderline Classification |
|  | requing |



Drilling Notes:

1. Sampling and blow counts
a. California Modified - number of blows per foot of a 140 pound hammer falling 30 inches
b. Standard Penetration Test - number of blows per 12 inches of a 140 pound hammer falling 30 inches

Types of Samples: X - Sample
SPT - Standard Penetration
CA - California Modified
N - Nuclear Gauge
PO - Pocket Penetrometer (tons/sq.ft.)

| PROJECT INFORMATION |  |  |  |  |  |  |  | DRILLING INFORMATION |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PROJECT: <br> DRILLING LOCATION: <br> DATE DRILLED: <br> LOGGED BY: |  | 0 Union Rd <br> See Figure 3 <br> April 2, 2020 <br> GV |  |  |  |  |  | DRIL <br> HOL <br> SAM <br> APPR | RIG: <br> DIAM <br> LING <br> OX. | TER: <br> ETH <br> EVAT | D: <br> ON: | obile <br> Inche <br> TT <br> ot Re |  |  |
| Depth of Groundwater: |  | Not Encountered | Boring Terminated: |  |  |  | 25 Feet |  |  |  | Page 1 of 1 |  |  |  |
|  | 告 | DESCRIPTION | - |  |  | $\stackrel{8}{\text { ¢ }}$ |  |  |  |  |  |  |  |  |









## Attachment 7

## APPENDIX B

Laboratory Testing
Soil Test Reports

## Attachment 7

## LABORATORY TESTING

This appendix includes a discussion of the test procedures and the laboratory test results performed as part of this investigation. The purpose of the laboratory testing is to assess the engineering properties of the soil materials at the Site. The laboratory tests are performed using the currently accepted test methods, when applicable, of the American Society for Testing and Materials (ASTM).

Undisturbed and disturbed bulk samples used in the laboratory tests are obtained from various locations during the course of the field exploration, as discussed in Appendix A of this report. Each sample is identified by sample letter and depth. The Unified Soils Classification System is used to classify soils according to their engineering properties. The various laboratory tests performed are described below:

Expansion Index of Soils (ASTM D4829) is conducted in accordance with the ASTM test method and the California Building Code Standard, and are performed on representative bulk and undisturbed soil samples. The purpose of this test is to evaluate expansion potential of the site soils due to fluctuations in moisture content. The sample specimens are placed in a consolidometer, surcharged under a 144-psf vertical confining pressure, and then inundated with water. The amount of expansion is recorded over a 24-hour period with a dial indicator. The expansion index is calculated by determining the difference between final and initial height of the specimen divided by the initial height.

Laboratory Compaction Characteristics of Soil Using Modified Effort (ASTM D1557) is performed to determine the relationship between the moisture content and density of soils and soil-aggregate mixtures when compacted in a standard size mold with a 10-lbf hammer from a height of 18 inches. The test is performed on a representative bulk sample of bearing soil near the estimated footing depth. The procedure is repeated on the same soil sample at various moisture contents sufficient to establish a relationship between the maximum dry unit weight and the optimum water content for the soil. The data, when plotted, represents a curvilinear relationship known as the moisture density relations curve. The values of optimum water content and modified maximum dry unit weight can be determined from the plotted curve.

Liquid Limit, Plastic Limit, and Plasticity Index of Soils (ASTM D4318) are the water contents at certain limiting or critical stages in cohesive soil behavior. The liquid limit ( LL or $\mathrm{W}_{\mathrm{L}}$ ) is the lower limit of viscous flow, the plastic limit ( PL or $\mathrm{W}_{\mathrm{P}}$ ) is the lower limit of the plastic stage of clay and plastic index (PI or $I_{P}$ ) is a range of water content where the soil is plastic. The Atterberg Limits are performed on samples that have been screened to remove any material retained on a No. 40 sieve. The liquid limit is determined by performing trials in which a portion of the sample is spread in a brass cup, divided in two by a grooving tool, and then allowed to flow together from the shocks caused by repeatedly dropping the cup in a standard mechanical device. To determine the Plastic Limit a small portion of plastic soil is alternately pressed together and rolled into a $1 / 8$-inch diameter thread. This process is continued until the water content of the sample is reduced to a point at which the thread crumbles and can no longer be pressed together and re-rolled. The water content of the soil at this point is reported as the plastic limit. The plasticity index is calculated as the difference between the liquid limit and the plastic limit.

Particle Size Analysis of Soils (ASTM D422) is used to determine the particle-size distribution of fine and coarse aggregates. In the test method the sample is separated through a series of sieves of progressively smaller openings for determination of particle size distribution. The total percentage passing each sieve is reported and used to determine the distribution of fine and coarse aggregates in the sample.

Density of Soil in Place by the Drive-Cylinder Method (ASTM D2937) and Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass (ASTM D2216) are used to obtain values of inplace water content and in-place density. Undisturbed samples, brought from the field to the laboratory, are weighed, the volume is calculated, and they are placed in the oven to dry. Once the samples have been dried, they are weighed again to determine the water content, and the in-place density is then calculated. The moisture density tests allow the water content and in-place densities to be obtained at required depths. ONS

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MOISTURE-DENSITY, D2937
MOISTURE CONTENT, D2216


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## Attachment 7

## APPENDIX C

Seismic Hazard Analysis
Design Map Summary (SEAOC, 2019)

## Attachment 7

## SEISMIC HAZARD ANALYSIS

According to section 1613 of the 2019 CBC (CBSC, 2019), all structures and portions of structures should be designed to resist the effects of seismic loadings caused by earthquake ground motions in accordance with the ASCE 7: Minimum Design Loads for Buildings and Other Structures, hereafter referred to as ASCE7-16 (ASCE, 2016). Estimating the design ground motions at the Site depends on many factors including the distance from the Site to known active faults; the expected magnitude and rate of recurrence of seismic events produced on such faults; the source-to-site ground motion attenuation characteristics; and the Site soil profile characteristics. As per section 1613.2.2 of the 2019 CBC, the Site soil profile classification is determined by the average soil properties in the upper 100 feet of the Site profile and can be determined based on the criteria provided in Table 20.3-1 of ASCE7-16.

ASCE7-16 provides recommendations for estimating site-specific ground motion parameters for seismic design considering a Risk-targeted Maximum Considered Earthquake ( $\mathrm{MCE}_{\mathrm{R}}$ ) in order to determine design spectral response accelerations and a Maximum Considered Earthquake Geometric Mean (MCEG) in order to determine probabilistic geometric mean peak ground accelerations.

Spectral accelerations from the $\mathrm{MCE}_{R}$ are based on a $5 \%$ damped acceleration response spectrum and a $1 \%$ probability of exceedance in 50 years. Maximum short period ( $\mathrm{S}_{\mathrm{s}}$ ) and 1 -second period ( $\mathrm{S}_{1}$ ) spectral accelerations are interpolated from the $\mathrm{MCE}_{\mathrm{R}}$-based ground motion parameter maps for bedrock, provided in ASCE7-16. These spectral accelerations are then multiplied by site-specific coefficients ( $\mathrm{F}_{\mathrm{a}}$, Fv), based on the Site soil profile classification and the maximum spectral accelerations determined for bedrock, to yield the maximum short period ( $S_{M S}$ ) and 1-second period ( $S_{M 1}$ ) spectral response accelerations at the Site. According to section 11 of ASCE7-16 and section 1613 of the 2019 CBC, buildings and structures should be specifically proportioned to resist design earthquake ground motions. Section 1613.2.4 of the 2019 CBC indicates the site-specific design spectral response accelerations for short (SDs) and 1 -second (SD1) periods can be taken as two-thirds of maximum ( $\mathrm{S}_{\mathrm{DS}}=2 / 3^{*} \mathrm{~S}_{\mathrm{ms}}$ and $\mathrm{S}_{\mathrm{D} 1}=$ $2 / 3^{*} S_{M 1}$ ).

Per ASCE7-16, Section 21.5, the probabilistic maximum mean peak ground acceleration (PGA) corresponding to the MCE $_{G}$ can be computed assuming a $2 \%$ probability of exceedance in 50 years (2475-year return period) and is initially determined from mapped ground accelerations for bedrock conditions. The site-specific peak ground acceleration ( $P \mathrm{FA}_{м}$ ) is then determined by multiplying the PGA by the site-specific coefficient $F_{h}$ (where $F_{h}$ is a function of Site Class and PGA).

Spectral response accelerations and peak ground accelerations, provided in this report were obtained using the computer-based Seismic Design Maps tool available from the Structural Engineers Association of California (SEAOC, 2019). This program utilizes the methods developed in ASCE 7-16 in conjunction with user-inputted Site location to calculate seismic design parameters and response spectra (both for period and displacement) for soil profile Site Classes A through E.

## 0 Union Rd

Latitude, Longitude: 35.640348, -120.641556


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## APPENDIX D

Preliminary Grading Specifications

## Attachment 7

## PRELIMINARY GRADING SPECIFICATIONS

## A. General

1. These preliminary specifications have been prepared for the subject site; GeoSolutions, Inc. should be consulted prior to the commencement of site work associated with site development to ensure compliance with these specifications.
2. GeoSolutions, Inc. should be notified at least 72 hours prior to site clearing or grading operations on the property in order to observe the stripping of surface materials and to coordinate the work with the grading contractor in the field.
3. These grading specifications may be modified and/or superseded by recommendations contained in the text of this report and/or subsequent reports.
4. If disputes arise out of the interpretation of these grading specifications, the Soils Engineer shall provide the governing interpretation.

## B. Obligation of Parties

1. The Soils Engineer should provide observation and testing services and should make evaluations to advise the client on geotechnical matters. The Soils Engineer should report the findings and recommendations to the client or the authorized representative.
2. The client should be chiefly responsible for all aspects of the project. The client or authorized representative has the responsibility of reviewing the findings and recommendations of the Soils Engineer. During grading the client or the authorized representative should remain on-site or should remain reasonably accessible to all concerned parties in order to make decisions necessary to maintain the flow of the project.
3. The contractor is responsible for the safety of the project and satisfactory completion of all grading and other operations on construction projects, including, but not limited to, earthwork in accordance with project plans, specifications, and controlling agency requirements.

## C. Site Preparation

1. The client, prior to any site preparation or grading, should arrange and attend a meeting which includes the grading contractor, the design Structural Engineer, the Soils Engineer, representatives of the local building department, as well as any other concerned parties. All parties should be given at least 72 hours' notice.
2. All surface and sub-surface deleterious materials should be removed from the proposed building and pavement areas and disposed of off-site or as approved by the Soils Engineer. This includes, but is not limited to, any debris, organic materials, construction spoils, buried utility line, septic systems, building materials, and any other surface and subsurface structures within the proposed building areas. Trees designated for removal on the construction plans should be removed and their primary root systems grubbed under the observations of a representative of GeoSolutions, Inc. Voids left from site clearing should be cleaned and backfilled as recommended for structural fill.
3. Once the Site has been cleared, the exposed ground surface should be stripped to remove surface vegetation and organic soil. A representative of GeoSolutions, Inc. should determine the required depth of stripping at the time of work being completed. Strippings may either be disposed of off-site or stockpiled for future use in landscape areas, if approved by the landscape architect.

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## D. Site Protection

1. Protection of the Site during the period of grading and construction should be the responsibility of the contractor.
2. The contractor should be responsible for the stability of all temporary excavations.
3. During periods of rainfall, plastic sheeting should be kept reasonably accessible to prevent unprotected slopes from becoming saturated. Where necessary during periods of rainfall, the contractor should install check-dams, de-silting basins, sand bags, or other devices or methods necessary to control erosion and provide safe conditions.

## E. Excavations

1. Materials that are unsuitable should be excavated under the observation and recommendations of the Soils Engineer. Unsuitable materials include, but may not be limited to: 1) dry, loose, soft, wet, organic, or compressible natural soils; 2) fractured, weathered, or soft bedrock; 3) nonengineered fill; 4) other deleterious materials; and 5) materials identified by the Soils Engineer or Engineering Geologist.
2. Unless otherwise recommended by the Soils Engineer and approved by the local building official, permanent cut slopes should not be steeper than 2:1 (horizontal to vertical). Final slope configurations should conform to section 1804 of the 2019 California Building Code unless specifically modified by the Soil Engineer/Engineering Geologist.
3. The Soil Engineer/Engineer Geologist should review cut slopes during excavations. The contractor should notify the Soils Engineer/Engineer Geologist prior to beginning slope excavations.

## F. Structural Fill

1. Structural fill should not contain rocks larger than 3 inches in greatest dimension, and should have no more than 15 percent larger than 2.5 inches in greatest dimension.
2. Imported fill should be free of organic and other deleterious material and should have very low expansion potential, with a plasticity index of 12 or less. Before delivery to the Site, a sample of the proposed import should be tested in our laboratory to determine its suitability for use as structural fill.

## G. Compacted Fill

1. Structural fill using approved import or native should be placed in horizontal layers, each approximately 8 inches in thickness before compaction. On-site inorganic soil or approved imported fill should be conditioned with water to produce a soil water content near optimum moisture and compacted to a minimum relative density of 90 percent based on ASTM D155712 e 1 .
2. Fill slopes should not be constructed at gradients greater than 2-to-1 (horizontal to vertical). The contractor should notify the Soils Engineer/Engineer Geologist prior to beginning slope excavations.
3. If fill areas are constructed on slopes greater than 10-to-1 (horizontal to vertical), we recommend that benches be cut every 4 feet as fill is placed. Each bench shall be a minimum of 10 feet wide with a minimum of 2 percent gradient into the slope.

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4. If fill areas are constructed on slopes greater than 5 -to-1, we recommend that the toe of all areas to receive fill be keyed a minimum of 24 inches into underlying dense material. Key depths are to be observed and approved by a representative of GeoSolutions, Inc. Sub-drains shall be placed in the keyway and benches as required.

## H. Drainage

1. During grading, a representative of GeoSolutions, Inc. should evaluate the need for a sub-drain or back-drain system. Areas of observed seepage should be provided with sub-surface drains to release the hydrostatic pressures. Sub-surface drainage facilities may include gravel blankets, rock filled trenches or Multi-Flow systems or equal. The drain system should discharge in a nonerosive manner into an approved drainage area.
2. All final grades should be provided with a positive drainage gradient away from foundations. Final grades should provide for rapid removal of surface water runoff. Ponding of water should not be allowed on building pads or adjacent to foundations. Final grading should be the responsibility of the contractor, general Civil Engineer, or architect.
3. Concentrated surface water runoff within or immediately adjacent to the Site should be conveyed in pipes or in lined channels to discharge areas that are relatively level or that are adequately protected against erosion.
4. Water from roof downspouts should be conveyed in solid pipes that discharge in controlled drainage localities. Surface drainage gradients should be planned to prevent ponding and promote drainage of surface water away from building foundations, edges of pavements and sidewalks. For soil areas we recommend that a minimum of 2 percent gradient be maintained.
5. Attention should be paid by the contractor to erosion protection of soil surfaces adjacent to the edges of roads, curbs and sidewalks, and in other areas where hard edges of structures may cause concentrated flow of surface water runoff. Erosion resistant matting such as Miramat, or other similar products, may be considered for lining drainage channels.
6. Sub-drains should be placed in established drainage courses and potential seepage areas. The location of sub-drains should be determined after a review of the grading plan. The sub-drain outlets should extend into suitable facilities or connect to the proposed storm drain system or existing drainage control facilities. The outlet pipe should consist of a non-perforated pipe the same diameter as the perforated pipe.
I. Maintenance
7. Maintenance of slopes is important to their long-term performance. Precautions that can be taken include planting with appropriate drought-resistant vegetation as recommended by a landscape architect, and not over-irrigating, a primary source of surficial failures.
8. Property owners should be made aware that over-watering of slopes is detrimental to long term stability of slopes.

## J. Underground Facilities Construction

1. The attention of contractors, particularly the underground contractors, should be drawn to the State of California Construction Safety Orders for "Excavations, Trenches, Earthwork." Trenches or excavations greater than 5 feet in depth should be shored or sloped back in accordance with OSHA Regulations prior to entry.

## Attachment 7

2. Bedding is defined as material placed in a trench up to 1 foot above a utility pipe and backfill is all material placed in the trench above the bedding. Unless concrete bedding is required around utility pipes, free-draining sand should be used as bedding. Sand to be used as bedding should be tested in our laboratory to verify its suitability and to measure its compaction characteristics. Sand bedding should be compacted by mechanical means to achieve at least 90 percent relative density based on ASTM D1557-12e1.
3. On-site inorganic soils, or approved import, may be used as utility trench backfill. Proper compaction of trench backfill will be necessary under and adjacent to structural fill, building foundations, concrete slabs, and vehicle pavements. In these areas, backfill should be conditioned with water (or allowed to dry), to produce a soil water content of about 2 to 3 percent above the optimum value and placed in horizontal layers, each not exceeding 8 inches in thickness before compaction. Each layer should be compacted to at least 90 percent relative density based on ASTM D1557-12e1. The top lift of trench backfill under vehicle pavements should be compacted to the requirements given in report under Preparation of Paved Areas for vehicle pavement sub-grades. Trench walls must be kept moist prior to and during backfill placement.

## K. Completion of Work

1. After the completion of work, a report should be prepared by the Soils Engineer retained to provide such services. The report should including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the approved Soils Engineering Report.
2. Soils Engineers shall submit a statement that, to the best of their knowledge, the work within their area of responsibilities is in accordance with the approved soils engineering report and applicable provisions within Chapter 18 of the 2019 CBC.

## Attachment 8

DATE:
May 26, 2020

## PROJECT NUMBER:

SL11656-1
CLIENT:
Garrett Thiessen 1640 South River Road Paso Robles, California 93422

PROJECT NAME:
0 Union Road
APN: 025-371-029
Paso Robles,
California

220 High Street San Luis Obispo CA 93401 805.543.8539

1021 Tama Lane, Suite 105 Santa Maria, CA 93455

805,614.6333
201 S. Milpas Street, Suite 103 Santa Barbara, CA 93103
805.966 .2200
info@geosolutions.net
sbinfo@geosolutions.net

## SHALLOW PERCOLATION TESTING REPORT

## INTRODUCTION

GeoSolutions, Inc. performed shallow percolation testing on May 2, 2020 for the proposed shop to buildings to be located at 0 Union Road, APN: 025-371-029, Paso Robles, California. See Figure 1: Site Location Map for the general location of the project area and for the percolation test area. Figure 1: Site Location Map was obtained from the computer program GIS Surfrider 1.8 (Elfelt, 2016). The property tested for percolation will hereafter be referred to as the "Site."


Figure 1: Site Location Map

0 Union Road is located at 35.640348 degrees north latitude and -120.641556 degrees east longitude at a general elevation of 744 feet above mean sea level. The property is approximately rectangular in shape and 6.55 acres in size. The nearest intersection is where Union Road intersects Priska Drive to the southeast of the property.

The Site is approximately level with a slight gradient which slopes towards the northeast. Surface drainage follows the topography towards the northeast. Annual grasses currently vegetate the Site.

## FIELD EXPLORATION

Utilizing our mobile B-24 drill rig, eight, 6 -inch diameter percolation test borings were drilled to an average depth of 5 feet below ground surface (bgs), and one exploratory boring was drilled to an approximate depth of 25 feet bgs. See Figure 2: Site Plan for the approximately locations of the percolation test borings and the exploratory boring. Threeinch diameter perforated PVC pipe was placed in the percolation test borings, and the annular space was filled with native material. Groundwater was not encountered in the deep exploratory boring.

The soils encountered during the field investigation were classified in the field in accordance with the Unified Soils Classification System (USCS). The surface material at the Site generally consisted of very dark grayish brown clayey SAND with gravel (SC) encountered in a moist and medium dense condition to approximately 5.0 feet bgs. The sub-surface materials consisted of brown sandy CLAY with gravel (CL) encountered in a moist and very stiff condition underlain by dark olive brown SILT (ML) encountered in a slightly moist and very stiff condition.

## PERCOLATION TESTING

Each percolation test boring was presoaked prior to percolation testing. Percolation testing consisted of placing approximately 12 inches of water in each boring and measuring


Figure 2: Site Plan the depth to the water every 30 minutes for a total of 6 hours of testing.

The stabilized percolation rates (in minutes per inch) were calculated by dividing the time period of the last reading obtained by the recorded water elevation drop. Stabilized percolation test results are presented below in Table 1.

Table 1: Percolation Test Results

| Date | Test Location | Depth (ft) | Percolation Rate (minutes/inch) |
| :---: | :---: | :---: | :---: |
|  | $\mathrm{P}-1$ | 5 | 83.3 |
|  | $\mathrm{P}-2$ | 5 | 83.3 |
|  | $\mathrm{P}-3$ | 5 | 83.3 |
|  | $\mathrm{P}-4$ | 5 | 83.3 |
|  | $\mathrm{P}-5$ | 5 | 83.3 |
|  | $\mathrm{P}-6$ | 5 | 62.5 |
|  | $\mathrm{P}-7$ | 5 | 83.3 |
|  | $\mathrm{P}-8$ | 5 | 83.3 |

## CONCLUSIONS

The stabilized percolation rate for the tested area represented by $\mathrm{P}-1$ to $\mathrm{P}-4$ was an average of 83.3 minutes per inch and stabilized percolation rate for the tested area represented by P-5 to P-8 was an average of 78.1 minutes per inch. Groundwater was not encountered in the 25 feet below ground surface exploratory boring.

## ADDITIONAL ENVIRONMENTAL SERVICES

The recommendations contained in this report are based on a limited number of percolation test borings and on the continuity of the sub-surface conditions encountered. GeoSolutions, Inc. assumes that it will be retained to provide additional services during future phases of the proposed project. These services would be provided by GeoSolutions, Inc. as required by City of Paso Robles, the 2019 CBC, and/or industry standard practices. These

GeoSolutions, Inc. as required by City of Paso Robles, the 2019 CBC, and/or industry standard practices. These services would be in addition to those included in this report and would include, but are not limited to, the following services:

1. Consultation during and/or development of the septic system design.
2. Plan review of grading and septic system documents prior to construction and a report certifying that the reviewed plans are in conformance with the septic system design.
3. Construction inspections and testing, as required, during all grading, excavating operations, and compaction of Site soils for the proposed private wastewater disposal system beginning with the stripping of vegetation at the Site, at which time a site meeting or pre-job meeting would be appropriate.
4. Special inspection services during installation of the septic tank and construction of the disposal field.
5. Preparation of special inspection reports as required during construction.

## LIMITATIONS

Changes in disposal field location will render our findings invalid unless our staff reviews such changes. Subsurface exploration of any site is not necessarily confined to selected location and conditions may, and often do, vary between and around these locations. If varied conditions are encountered during septic system installation, additional exploration and/or testing may be required. If the installer should discover field conditions that are different from those described in this report, then GeoSolutions, Inc. should be notified immediately for further evaluation. This percolation testing report is not intended to be used as a septic design.

Thank you for the opportunity to have been of service for percolation testing and reporting. If you have any questions or require additional assistance, please feel free to contact the undersigned at (805) 543-8539.


lans

Clayey Sand: grayish brown, with

| 220 High Street, San Luis Obispo, CA 93401 <br> Phone: 805-543-8539 <br> 1021 Tama Lane, Ste 105, Santa Maria, CA 93455 <br> Phone: 805-614-6333 <br> 01 S. Milpas St, Ste 103, Santa Barbara, CA 93103 <br> Phone: 805-966-2200 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PROJECT INFORMATION |  |  |  |  |  |  |  | DRILLING INFORMATION |  |  |  |  |  |  |
| PROJECT: <br> DRILLING LOCATION: <br> DATE DRILLED: <br> LOGGED BY: |  |  | 0 Union Rd <br> See Figure 3 <br> April 2, 2020 <br> GV |  |  |  |  | DRILL RIG: <br> HOLE DIAMETER: <br> SAMPLING METHOD: <br> APPROX. ELEVATION: |  |  |  | Mobile B-24 <br> 6 Inches SPT <br> Not Recorded |  |  |
| Depth of Groundwater: |  |  | Not Encountered | Boring Terminated: |  |  | 25 Feet |  |  | Page 1 of 1 |  |  |  |  |
| 돌 |  | - SOIL | DESCRIPTION |  |  | $\stackrel{\circ}{\square}$ |  |  |  |  |  |  |  |  |



# Roberts Enqineering Inc. <br> 2015 Vista de la Vina <br> Templeton, CA. 93465 <br> 805-239-0664 tel./ 238-6148 fax . 

Attachment 8

March 17, 2021
Mr. Garrett Tiessen
1640 South River Road
Paso Robles, CA 93446

## Subject: Preliminary Septic Design - PR 2020-0018

Dear Mr. Thiessen:
You have requested preliminary design of a domestic septic systems to serve two prosed parcels located at 0 Union Road, Paso Robles, CA. APN: 025-371-029. Percolation test data has been forwarded to this office by GeoSolutions, Project No. SL-11656-1, dated May 26, 2020.

## Project Description

The development is located on the north side of Union Road, just northeast of Barney Schwartz Park. Access to the site is provided by Union road on the south. Two commercial/ industrial buildings will be constructed. The facility office will not be utilized as a residence. No cooking or processing wastewater will be introduced into the system. This system will be used only until City sewer is available to the site.

## System Analysis

You have indicated it is expected no more than 10 full time employees will utilize the facility on a daily basis. Four percolation tests were performed in the proposed future absorption area on each area. Rates ranged between 63 to 83 minutes per inch. Ground water was encountered in the $\log$ of the deep boring to a depth of 25 feet. System design will be based upon Regional Water Quality Control Board (RWQCB) Tier 1 recommendations. Installation and maintenance of the system shall comply with said requirements and recommendations.

## System Design

1. Daily Waste Water Generation = 5 employees @ 10 gal/day/employee = $\mathbf{5 0}$ gal/day
2. Min. Septic Tank Capacity - Flow x $1.5=50 \times 1.5=75$ gallons. (UPC Table I-2) We recommend a $\mathbf{1 0 0 0}$-gallon tank be installed
3. Design Percolation Rate $=83 \mathbf{m i n}$./inch
4. Minimum depth to ground water is $\mathbf{2 5}$ feet per test borings: O.K.
5. Allowable Loading Rate - (RWQCB Tier 1 reqs.) - 83 min./in = . $\mathbf{1 2 3} \mathbf{g a l} / \mathbf{d a y} / \mathbf{s f}$.
6. Proposed Standard Leach Trench ( 3 ft width, 1.0 ft . rock depth below pipe), $=\mathbf{4} \mathbf{~ s f / l f ~}$
7. Total Required Leach Trench - 406 sf / 4 sf/lf. = $\underline{\mathbf{1 0 2} \text { feet, }}$

## System Configuration

Refer to Septic System site plan attached construction notes, sections, and details. Install 4" PVC sewer pipe from building cleanout to new septic tank. Install new 1000-gallon septic tank per manufactures recommendations. From tank outlet, install 4" PVC discharge pipe at a slope of 2\% min. connected to distribution box adjacent to leach field. Connect to leach trenches with 4" PVC pipe at $2 \%$ min.

Standard Trench Installation - Construct 2 leach trenches with a length of 51 feet each. Trench to be 3 feet wide, with 1.0 feet of $3 / 4$ " to $11 / 2$ " leach rock below the pipe. Pipe in trench shall be 4 " perforated PVC laid level, perforations down, with ends capped. Trench shall conform to "Typical Leach Field Layouts for Level Lots", and standard trench detail; copies attached. Provide a minimum of 4 feet separation between trenches. Maintain setbacks per UPC table I-1.

## Septic System Notes

1. An effort has been made to define the location of underground facilities within the job site. However, all existing utility and other underground structures may not be shown on this plan and their location where shown is approximate. The contractor agrees that he shall assume sole and complete responsibility for locating or having located all underground utilities and other facilities and for protecting them during construction.
2. All utility companies must be notified prior to the start of construction. The construction contractor shall contact Underground Service Alert (USA) at 811, 2 to 10 days prior to the start of excavation, and shall verify the location of any known utilities whether or not a representative of each company will be present during excavation.
3. All revisions are subject to the approval of the design engineer.
4. The construction contractor shall maintain a current, complete, and accurate record of all changes, which deviate from the construction as proposed in these plans and specifications for the purpose of providing the engineer with a basis for record drawings. No changes shall be made without prior approval of the City Engineering Department and the design engineer.
5. All utility relocations and/or alterations shall be the sole responsibility of the developer at his expense.
6. In the event that the contractor notices irregularities in the line or grade, he shall bring it to the immediate attention of the design engineer. If he fails to do so, the contractor shall be responsible for any error in the grade and necessary reconstruction to correct error.
7. Any survey monuments within the area of construction shall be pregrzed orrsethyant 8 1 and as required by state law, Land Surveyors Act, and Subdivision Map Act.
8. Any off-site grading or other construction work shall not be permitted without written permission from the off-site property owner.
9. The contractor agrees that in accordance with generally accepted construction practices, the contractor shall be required to assume sole and complete responsibility for the condition of the job site during the course of construction for this project, including the safety of all persons and property, and that this requirement shall be made to apply continuously and not be limited to normal working hours. The contractor further agrees to defend, indemnify, an hold harmless the design professional from any and all liability, real or alleged in connection with the performance of work on the project, excepting liability arising from negligence of the design professional.
10. A registered civil engineer or a licensed land surveyor registered in the state of California shall set construction grade stakes.
11. OSHA and $\mathrm{Cal} / \mathrm{OSHA}$ requirements shall be met at all times. The contractor shall assume all responsibility for safety during construction, and in using these plans agrees to hold the design engineer harmless in conformance with construction safety requirements.
12. All materials and workmanship shall conform to the California Plumbing Code and RWQCB Tier 1 requirements.
13. Contractor shall ensure that the details required by the codes but not shown on these plans are completed according to code.
14. Written dimensions take precedence over scale of drawings.
15. Areas to receive fill shall be scarified to a depth of 18 " minimum. All unsuitable material shall be removed. All exposed cut and fill slopes shall be hydroseeded with County approved seed mix.
16. The contractor shall verify all dimensions at the job site and on the plans prior to construction, and notify the design engineer of all unforeseen conditions, which may arise in the field during construction.
17. A set of approved plans shall be kept at the job site at all times.
18. Topographic and boundary surveys have not been provided for this project. Property lines shown on this plan are based on record information only. A record of survey may be required to determine their true positions.
19. All sewer laterals and connecting pipes, except leach lines, shall slope in the direction of flow at not less than $2 \%(1 / 4$ " per linear foot).
20. Leach line trenches shall be level or slope away from the distribution point at a maximum rate of 3 inches of fall per 100 feet. Trenches shall follow contours.

## Required Inspections.

1. Engineer shall inspect and verify installation of septic tank and tie in to existing leach line prior to backfilling, unless waived by County building inspector.

Per RWQCB requirements, in the event of future system failure; adequate area has been reserved for $100 \%$ expansion. No structure shall be constructed in these areas. Follow recommended installation techniques and maintenance of sewage disposal systems. A copy has been enclosed for your reference. Please also insure that a copy of this document is provided for the owner.

Should you have any questions concerning this design, please do not hesitate to call. Thank you for the opportunity to be of service to you.

Sincerely,

Timothy P. Roberts, PE
Encl.

## Attachment 9

Preliminary Stormwater Control Plan
For
Garrett Thiessen Construction, Inc. - Union Road

March 2021

Garrett Thiessen Garrett Thiessen Construction, Inc.
(805) 440-7305

Prepared by:
Robert Engineering Inc Timothy P Roberts, PE
Templeton, CA 93446
805-239-0664

## Attachment 9

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Bioretention Plant List

## I. Project Data

## Table 1: Project Data

| Project Name/Number | Thiessen |
| :--- | :--- |
| Application Submittal Date | [to be verified by municipal staff] |
| Project Location | Union Road, Paso Robles, CA <br> APN: 025-371-029 |
| Project Phase No. | NA |
| Project Type and Description | Commercial Construction Office, Shop and <br> Outdoor Storage |
| Total Project Site Area (acres) | 292,682 SF |
| Total New Impervious Surface Area | 74,720 SF |
| Total Replaced Impervious Surface Area | 0 SF |
| Total Pre-Project Impervious Surface Area | 0 SF |
| Total Post-Project Impervious Surface Area | 74,720 SF |
| Net Impervious Area (Exhibit shall be provided to <br> justify net impervious area results) | New Imp. Area + Reconstructed Imp. Area - (Total <br> Pre-Project Imp. Area - Total Post-Project Imp. <br> Area) |
| Drainage Report Name | 1 <br> Design Storm Frequency and Depth <br> Complex |
| 95rett Thiessen Construction, Inc. - Commercial |  |
| Percentile depth = 1.40 inch |  |

## II. Setting

## II.A. Project Location and Description

Union Road fronts the 6.55+/- acre site on the south, similarly zoned parcels to the northwest and east. The site will be divided into two legal parcels. An office, shop/assembly building, and construction storage yard will be constructed on both Parcels.

Vicinity Map:


## II.B. Existing Site Features and Conditions

The topography of the site is gently sloping to the north at grades averaging around $2-5 \%$. The site is vacant and covered in native grasses and some riparian vegetation It is bounded by the Huer Huero Creek on the north and bisected by a seasonal blue-line swale flowing from south to north, into the Huer Huero Creek.
II.C. Opportunities and Constraints for Stormwater Control

Offsite drainage flow from Union Road will be intercepted and directed into road side bio swale/basins located outside the blue line swale. Site runoff will be intercepted and directed via drainage pipes and surface flow to additional bio swale/basins to the north of the buildings.

## III. Low Impact Development Design Strategies

III.A. Optimization of Site Layout

## III.A.1.Limitation of development envelope

Development has been concentrated in the southerly portion of the site and set back from the central blue line swale and al the Huer Huero on the north. The landscaped setback areas will be utilized for storm water treatment to the extent practicable, given project parking and circulation requirements, to reduce impervious area of the project. Landscaping in these areas will be upgraded to maximize aesthetic value.

## Attachment 9

## III.A.2.Preservation of natural drainage features

The existing blue line seasonal drainage swale will be preserved. The proposed parcel line will follow the swale serving as a natural boundary separation. The project biologist has recommended a 25 -foot minimum building setback from the edge of the swale jurisdictional area, and a 50 -foot setback form the edge of the Huer Huero jurisdictional boundary.
III.A.3.Setbacks from creeks, wetlands, and riparian habitats

See response to A. 2 above.

## III.A.4.Minimization of imperviousness

Impervious are as been restricted to the building, driveways and parking areas. The outdoor storage areas to the rear/north of the buildings will not be surfaced to minimize impervious area.
III.A.5.Use of drainage as a design element

The proposed bioswales will be enhanced as a project benefit. In addition, the riparian setbacks will preserve and enhance the natural established vegetation, while providing separation for the parcels.
III.B. Site Constraints

Conventional concrete and asphalt pavement are to be used to construct the circulation and parking areas since heavy equipment and materials will be routinely stored on site. Permeable pavements are not cost-effective for this site, in part because the pavements overlie expansive clay soils. This condition would necessitate a very deep gravel base course, which would, in turn, require large quantities of excavation and off-haul. Dispersal of Runoff to Pervious Areas (self-retaining areas)

## III.C. Stormwater Control Measures

Landscaped areas and the bioretention swales will be located along the perimeter of the site and will be used to disperse runoff from the parking lots, access driveways, storage areas, and Union Road frontage.

## IV. Documentation of Drainage Design

## IV.A. Drainage Management Area Characterization

The DMA numbers below correspond with DMA numbers of DMA exhibit. Each DMA has only one surface type. DMAs listed include all impervious surfaces and all vegetated areas except those designated as structural control measures (SCMs).

Pervious areas are further categorized as either self-treating or self-retaining areas.

- Areas designated as self-treating areas are undisturbed areas, or areas planted with native, drought-tolerant, or LID-appropriate vegetation and do not receive runoff from other areas.
- Areas designated as self-retaining are low-lying areas that receive runoff from adjoining areas. Site retaining areas may have natural vegetation, or be landscape, or may be porous pavements (where the soils underlying the porous pavements drain well enough to handle the additional run-on).

Summarize approach to managing different types of drainages.
Table 2: Table of Drainage Management Areas

| Name | DMA Type | Area (ft2) | Surface Type | Connection Replaced |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 build | Drains to SCM | 11760 | Roof | New | SCM 2 - Par 1 east |
| $2 \mathrm{ac} /$ conc | Drains to SCM | 6000 | Concrete or asphalt | New | SCM 1 Par1 west |
| $3 \mathrm{ac} / \mathrm{conc}$ | Drains to SCM | 13000 | Concrete or asphalt | New | SCM 2 - Par 1 east |
| 4 base | Drains to SCM | 12000 | Crushed aggregate | New | SCM 1 Parl west |
| 5 base | Drains to SCM | 10200 | Crushed aggregate | New | SCM 2 - Par 1 east |
| 6 landscape/open | Self-Treating | 99414 |  |  |  |
| 7 build west | Drains to SCM | 5880 | Roof | New | SCM 3 - Par 2 west |
| 8 build east | Drains to SCM | 5880 | Roof | New | SCM 4 - Par 3 east |
| $9 \mathrm{ac} / \mathrm{conc}$ | Drains to SCM | 8550 | Concrete or asphalt | New | SCM 3 - Par 2 west |
| $10 \mathrm{ac} /$ conc | Drains to SCM | 11250 | Concrete or asphalt | New | SCM 4 - Par 3 east |
| 11 base | Drains to SCM | 5525 | Crushed aggregate | New | SCM 3 - Par 2 west |
| 12 base | Drains to SCM | 7975 | Crushed aggregate | New | SCM 3 - Par 2 west |
| 13 landscape/open | Self-Treating | 83048 |  |  |  |
| 14 Union east | Drains to SCM | 4400 | Concrete or asphalt | New | SCM 5 - Union east |
| 15 Union center | Drains to SCM | 5000 | Concrete or asphalt | New | SCM 6 - Union Center |
| 16 Union west | Drains to SCM | 3000 | Concrete or asphalt | New | SCM 7 - Union West |

## Attachment 9

IV.B. Drainage Management Area Descriptions

Building Roof (DMA - 1 totaling 11,760 square feet), drains via gutters to driveways or swales adjacent to the driveways to SCM 2

Ac/conc area (DMA - 2, totaling 6,000 square feet), drains to associated SCM 1
Ac/conc area (DMA - 3 totaling 13,000 square feet) drains to associated SCM 2
Base (DMA - 4 totaling 12,000 square feet) drains to associated SCM 1
Base (DMA - 5 totaling 12,000 square feet) drains to associated SCM 2
Landscape/Open (DMA - 6 totaling 12,000 square feet) self-treating
Build west (DMA - 7 totaling 5,880 square feet) drains via gutters to driveways or swales adjacent to the driveways to SCM 3

Build east (DMA - 8 totaling 8,880 square feet) drain to drains via gutters to driveways or swales adjacent to the driveways to SCM 4

Ac/conc (DMA - 9 totaling 8,550 square feet) drain to SCM 3
Ac/conc (DMA - 10 totaling 11,250 square feet) drain to SCM 4
Base (DMA - 11 totaling 5,525 square feet) drain to SCM 3
Base (DMA - 12 totaling 7,975 square feet) drain to SCM 4
Landscape/Open (DMA - 13 totaling 83,048 square feet) self-treating
Union east (DMA - 14 totaling 4,400 square feet) drain to SCM 5
Union center (DMA - 15 totaling 5,000 square feet) drains to SCM 6
Build east (DMA - 16 totaling 3,000 square feet) drains to SCM 7

## Attachment 9

Table 3: Table of Runoff Reduction and Structural Control Measures

| 3. SCM Characterization |  |  |  |  |  | Flow Contro I <br> Orifice ? | Reserv |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name | SCM Type | Safety <br> Factor | SCM Soil Type | Infilt. Rate (in/hr) | Area <br> (ft2) |  | Depth <br> (in) |
| SCM 1 Par1 west | Bioretention | 1 | Site-Specific | 0.5 | 1000 | No |  |
| SCM 2 - Par 1 east | Bioretention | 1 | Site-Specific | 0.5 | 1500 | No |  |
| SCM 3 - Par 2 west | Bioretention | 1 | Site-Specific | 0.5 | 1000 | No |  |
| SCM 4 - Par 3 east | Bioretention | 1 | Site-Specific | 0.5 | 1000 | No |  |
| SCM 5 - Union east | Bioretention | 1 | Site-Specific | 0.5 | 300 | No |  |
| SCM 6 - Union Center | Bioretention | 1 | Site-Specific | 0.5 | 300 | No |  |
| SCM 7 - Union West | Bioretention | 1 | Site-Specific | 0.5 | 300 | No |  |

## IV.C. Sizing Calculations

The pervious area listed below only includes the functional bottom width of the SRA in the receiving self-retaining DMA area column.


Based on Central Coast Post-Construction Requirements Implementation Guidance Series, Series Issue \#1: The use of Self-Retaiing Areas to Support Post Construction Stormwater Control Compliance:
$\square$ 2:1 SRA Sizing is acceptable
2:1 SRA Sizing is Un-acceptable
The design storm (inches): $\qquad$ 1.40 $\qquad$
Saturated Soil Infiltration Rates (in/hr) $\qquad$ .5 $\qquad$

## Attachment 9

(A/B Soils $0.75 \mathrm{in} / \mathrm{hr}, \mathrm{C} / \mathrm{D}$ Soils $0.25 \mathrm{in} / \mathrm{hr}$, or site specific in conformance with soil infiltration methodology per County LID Handbook)
IV.C.1. Areas Draining to Bioretention Facilities (PCR 2 Projects)

Table 4: Table of LID Facility Sizing Calculation

| SCM Name | Min. <br> Required <br> Storage <br> Vol. (ft3) | Depth Below <br> Underdrain <br> (ft) | Drain Time <br> (hours) | Orifice <br> Diameter <br> (in) |
| :--- | :---: | :---: | :---: | :---: |
| SCM 1 - Par. 1 west | 400 | 1.00 | 0.0 |  |
| SCM 2 - Par. 1 east | 1403 | 2.34 | 21.8 |  |
| SCM 3 - Par. 2 west | 762 | 1.90 | 17.2 |  |
| SCM 4 - Par. 3 east | 989 | 2.47 | 23.2 |  |
| SCM 5 - Union east | 234 | 1.95 | 17.7 |  |
| SCM 6 - Union center | 285 | 2.37 | 22.1 |  |
| SCM 7 - Union west | 131 | 1.09 | 7.5 |  |

## V. Source Control Measures

V.A. Site activities and potential sources of pollutants

On site activities that could potentially produce stormwater pollutants include:

- Driveways and parking lots
- Trash Management
- Paint, solvents and cleaners
- Construction debris


## V.B. Source Control Table

Table 5: Source Control Table
Potential Pollutant Sources and Source Control Measures

Potential source of runoff pollutants

Permanent source control BMPs

Operational source control BMPs

Inlets (bioretention overflows)

All inlets will be marked with "No Dumping! Flows

Markings will be regularly inspected and repainted or replaced as needed.

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to Local Waterways" or

Indoor and
structural pest control

Lessees will receive stormwater similar pollution prevention brochures.

Lease agreements will include the following provision: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."

Owner will retain only companies that are certified in Integrated Pest Management (IPM) for on-site pest management.

| Landscape | Landscaping will <br> minimize irrigation and <br> runoff and be selected for <br> pest resistance, and will <br> minimize the need for <br> fertilizers and pesticides. | Landscaping will be maintained <br> using minimum or no pesticides. |
| :--- | :--- | :--- |
|  | IPM information will be provided to |  |
| new owners, lessees, and operators. |  |  |

Refuse area. Refuse and recycled materials will be handled in the refuse areas shown on the Exhibit.
This area is to be roofed, bermed

All dumpsters will be posted with signs stating "Do not dump hazardous materials here" or similar.

Sidewalks and parking lots

Trash receptacles to be provided on site and emptied at least once a week. Site to be policed daily for trash. Sidewalks and parking lots will be Swept regularly.

## Attachment 9

Debris and wash water from periodic pressure washing will be collected and disposed of to the sanitary sewer.

Paint, solvents and cleaners

Recycle residual paints, solvents and cleaners, other material to the maximum extent practicable.

Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.

Place a stockpile of spill cleanup materials where it will be readily accessible.

Train employees and subcontractors in proper hazardous waste management.

Warning signs should be placed as needed in areas recently treated with chemicals.

If a container does spill, clean up immediately.

Arrange for regular waste collection before containers overflow.

Make sure that hazardous waste (e.g. excess oil-based paint and sludge) is collected, removed, and disposed of in accordance with local, state and Federal requirements.

Separate wastes. Mixing wastes can cause chemical reactions, make recycling impossible and complicate disposal.

Select designated hazardous Waste collection areas on-site.

Hazardous materials and wastes should be stored in covered containers and protected from vandalism.

Place hazardous waste container in secondary containment.

## Attachment 9

## VI. Stormwater Facility Maintenance

## VI.A. Ownership and Responsibility for Maintenance in Perpetuity

Maintenance of stormwater facilities will be the responsibility of the property owner and will be performed by the owner's contractors or employees as part of routine maintenance of buildings, grounds, and landscaping. The applicant has reviewed the standard agreement regarding the maintenance of stormwater facilities and commits to execute any necessary agreements prior to completion of construction. Applicant accepts responsibility for interim operation and maintenance of stormwater treatment and flow-control facilities until such time as this responsibility is formally transferred to a subsequent owner.

## VI.B. Summary of Maintenance Requirements for Each Stormwater Facility

The bioretention facilities will be maintained on the following schedule at a minimum. Details of maintenance responsibilities and procedures will be included in a Stormwater Facility Operation and Maintenance Plan to be submitted for approval as required in the conditions of approval.

At no time will synthetic pesticides or fertilizers be applied, nor will any soil amendments, other than aged compost mulch or sand/compost mix, be introduced.

Daily: The facilities will be examined for visible trash during regular policing of the site, and trash will be removed.

After Significant Rain Events: A significant rain event is one that produces approximately a halfinch or more rainfall in a 24 -hour period. Within 24 hours after each such event, the following will be conducted:

The surface of the facility will be observed to confirm there is no ponding.

- Inlets will be inspected, and any accumulations of trash or debris will be removed.
- The surface of the mulch layer will be inspected for movement of material. Mulch will be replaced and raked smooth if needed.

Prior to the Start of the Rainy Season: In September or each year, the facility will be inspected to confirm there is no accumulation of debris that would block flow, and that growth and spread of plantings does not block inlets or the movement of runoff across the surface of the facility.

Annual Landscape Maintenance: In December - February of each year, vegetation will be cut back as needed, debris removed, and plants and mulch replaced as needed. The concrete work will be inspected for damage. The elevation of the top of soil and mulch layer will be confirmed to be consistent with the 6 -inch reservoir depth.

## Attachment 9

## VII. Construction Checklist

## VIII. Certifications

The design of stormwater treatment facilities and other stormwater pollution control measures in this plan are in accordance with the Post-Construction Stormwater Management Resolution R3-2013-0032 and the current edition of the County's LID Handbook.

Central Coast Region
Stormwater Control Measure
Sizing Calculator

| 1. Project Information |  |  |
| :---: | :---: | :---: |
| Project name: Thiessen Commerci <br> Project location: Union Road, Palso R <br> Tier 2/Tier 3:  <br> Design rainfall depth (in):  |  | nter |
|  |  | S, CA |
|  |  | Tier 3-Retention |
|  |  | 1.4 |
| Total project area ( $\mathrm{ft2}$ ): |  | 292682 |
| Total DMA area ( $\mathrm{ft2}$ ): |  | 291882 |
| Total new impervious area (ft2): <br> Total replaced impervious within a USA (ft2): |  | 74720 |
|  |  | 0 |
| Total replaced impervious not in a USA (ft2): |  | 0 |
| Total pervious/landscape area (ft2):Total SCM area (ft2): |  | 217162 |
|  |  | 5400 |


| 2. DMA Characterization |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Name | DMA Type | Area (ft2) | Surface Type | New, Replaced? | Connection |
| 1 build | Drains to SCM | 11760 | Roof | New | SCM 2 - Par 1 east |
| $2 \mathrm{ac} / \mathrm{conc}$ | Drains to SCM | 6000 | Concrete or asphalt | New | SCM 1 Par1 west |
| $3 \mathrm{ac} / \mathrm{conc}$ | Drains to SCM | 13000 | Concrete or asphalt | New | SCM 2 - Par 1 east |
| 4 base | Drains to SCM | 12000 | Crushed aggregate | New | SCM 1 Par1 west |
| 5 base | Drains to SCM | 10200 | Crushed aggregate | New | SCM 2 - Par 1 east |
| 6 landscape/open | Self-Treating | 99414 |  |  |  |
| 7 build west | Drains to SCM | 5880 | Roof | New | SCM 3 - Par 2 west |
| 8 build east | Drains to SCM | 5880 | Roof | New | SCM 4 - Par 3 east |
| $9 \mathrm{ac} /$ conc | Drains to SCM | 8550 | Concrete or asphalt | New | SCM 3 - Par 2 west |
| $10 \mathrm{ac} / \mathrm{conc}$ | Drains to SCM | 11250 | Concrete or asphalt | New | SCM 4 - Par 3 east |
| 11 base | Drains to SCM | 5525 | Crushed aggregate | New | SCM 3 - Par 2 west |
| 12 base | Drains to SCM | 7975 | Crushed aggregate | New | SCM 3 - Par 2 west |
| 13 landscape/open | Self-Treating | 83048 |  |  |  |
| 14 Union east | Drains to SCM | 4400 | Concrete or asphalt | New | SCM 5 - Union east |
| 15 Union center | Drains to SCM | 5000 | Concrete or asphalt | New | SCM 6 - Union Center |
| 16 Union west | Drains to SCM | 3000 | Concrete or asphalt | New | SCM 7 - Union West |


| DMA Summary Area |  |
| :--- | :---: |
| Total assigned DMA area (ft2): | 292882 |
| New impervious area (ft2): | 74720 |
| Replaced impervious within a USA (ft2): | 0 |
| Replaced impervious not in a USA (ft2): | 0 |
| Total pervious/landscape area (ft2): | 218162 |


| 3. SCM Characterization |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Name | SCM Type | Safety Factor | SCM Soil Type | Infilt. Rate (in/ hr) | Area (ft2) |
| SCM 1 Parl west | Bioretention | 1 | Site-Specific | 0.5 | 1000 |
| SCM 2 - Par 1 east | Bioretention | 1 | Site-Specific | 0.5 | 1500 |
| SCM 3 - Par 2 west | Bioretention | 1 | Site-Specific | 0.5 | 1000 |
| SCM 4 - Par 3 east | Bioretention | 1 | Site-Specific | 0.5 | 1000 |
| SCM 5 - Union east | Bioretention | 1 | Site-Specific | 0.5 | 300 |
| SCM 6 - Union Center | Bioretention | 1 | Site-Specific | 0.5 | 300 |
| SCM 7 - Union West | Bioretention | 1 | Site-Specific | 0.5 | 300 |

## 4. Run SBUH Model

| 5. SCM Minimum Sizing Requirements |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| SCM Name | $\begin{array}{c}\text { Min. Required } \\ \text { Storace Vol. (ft3) }\end{array}$ | $\begin{array}{c}\text { Depth Below } \\ \text { Underdrain (ft) }\end{array}$ |  | $\begin{array}{c}\text { Drain Time } \\ \text { (hours) }\end{array}$ |  |
| SCM 1 Par1 west | 400 | 1.00 | 0 | Orifice Diameter |  |
| (in) |  |  |  |  |  |$]$


| 6. Self-Retaining Area Sizing Checks |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Self-Retaining DMA Name | Self-Retaining DMA Area (ft2) | Tributary DMA Name(s) | Eff. Tributary DMA Area (ft2) | Effective Tributary / SRA Area Ratio |
|  |  |  |  |  |

## Mitigation Monitoring and Reporting Plan

## Project File No./Name: Thiessen Development Plan

## Approving Resolution No.:_ by: $\square$ Planning Commission $\boxtimes$ City Council

The following environmental mitigation measures were either incorporated into the approved plans or will be 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
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 <br> PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 <br> (Thiessen) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| AES-1. Any chain link fencing used on the site shall be located behind the front wall of the building on the respective parcel. | Project | City of Paso Robles Community Development Department (CDD) |  | Shown on construction documents. | Prior to issuance of building permit. |
| AQ-1. The applicant shall reduce the amount of the disturbed area where possible. | Project | CDD |  | Shown on construction documents. | Prior to issuance of grading permit |
| AQ-2. The applicant shall use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the APCD's limit of $20 \%$ opacity for greater than 3 minutes in any 60minute period. Increased watering frequency would be | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |

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Attachment 10

| Mitigation Measure <br> PD20-13 / CUP21-19 /TPM PR 20-0018 / P20-0045 <br> (Thiessen) | Type |  |  |
| :--- | :--- | :--- | :--- | :--- |

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| Mitigation Measure <br> PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 <br> (Thiessen) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| AQ-6. To prevent 'track out', the applicant shall designate access points and require all employees, subcontractors, and others to use them. The applicant shall install and operate a 'track-out prevention device' where vehicles enter and exit unpaved roads onto paved streets. The 'track-out prevention device' can be any device or combination of devices that are effective at preventing track out, located at the point of intersection of an unpaved area and a paved road. Rumble strips or steel plate devices need periodic cleaning to be effective. If paved roadways accumulate tracked out soils, the track-out prevention device may need to be modified. "Track-Out" is defined as sand or soil that adheres to and/or agglomerates on the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto any highway or street as described in CVC Section 23113 and California Water Code 13304. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| AQ-7. All fugitive dust mitigation measures shall be shown on grading and building plans. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| AQ-8. The contractor or builder shall designate a person or persons whose responsibility is to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures as necessary to minimize dust complaints and reduce visible emissions below the APCD's limit of 20\% opacity for greater than 3 minutes in any 60 -minute period. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |

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| Mitigation Measure PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 (Thiessen) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Their duties shall include holidays and weekend periods when work may not be in progress (for example, windblown dust could be generated on an open dirt lot). 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 (Contact the Compliance Division at 805-781-5912). |  |  |  |  |  |
| AQ-9. Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible, following completion of any soil disturbing activities. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| AQ-10. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast germinating, noninvasive grass seed and watered until vegetation is established. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| AQ-11. All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| AQ-12. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| AQ-13. The applicant shall sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers shall be used | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |

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| Mitigation Measure <br> PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 <br> (Thiessen) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| with reclaimed water where feasible. Roads shall be prewetted prior to sweeping when feasible. |  |  |  |  |  |
| AQ-14. The applicant shall take additional measures as needed to ensure dust from the project site is not impacting areas outside the project boundary. |  |  |  |  |  |
| BIO-1. An environmental awareness training shall be presented to all construction personnel by a qualified biologist prior to the start of any project activities. The training shall include color photographs and a description of the ecology of all special-status species known or with potential to occur on site, as well as other sensitive resources requiring avoidance near the project site. The training shall include a description of protection measures required by discretionary permits, an overview of the Federal and State Endangered Species Acts, and implications of noncompliance with these regulations. The biologist will provide an overview of the required avoidance, minimization, and mitigation measures. A sign-in sheet with the name and signature of the qualified biologist who presented the training and the names and signatures of the environmental awareness trainees will be kept. A fact sheet conveying the information provided in the environmental awareness training will be provided to all project personnel and anyone else who may enter the project site. <br> If new construction personnel join the project after the initial training period, they will receive the | Project | CDD |  | Training sign-in sheet submitted to the city. | Prior to issuance of grading permit. |

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| Mitigation Measure <br> PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 <br> (Thiessen) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| environmental awareness training from the qualified biologist before beginning work. Visitors to the proposed project site, such as company executives, administrative staff, or other guests, are not required to receive the environmental awareness training as their time in the project area will be of short duration. Visitors may be independent on the proposed project site if they elect to receive the training, but otherwise must be escorted by someone who is trained. |  |  |  |  |  |
| BIO-2. The use of heavy equipment and vehicles shall be limited to the proposed project limits and defined staging areas/access points. The boundaries of each work area and staging area shall be clearly defined and marked with high visibility fencing or flagging. No work shall occur outside these limits. <br> In the vicinity of sensitive resources and habitats (e.g., wetlands and drainages), signs shall be posted at the boundary of the work area indicating the presence of sensitive resources. <br> Project plans, drawings, and specifications shall show the boundaries of all sensitive resource areas and the location of erosion and sediment controls, delineation of construction limits, and other pertinent measures to ensure the protection of sensitive habitats and resources. | Project | CDD |  | Site Inspection. | Prior to issuance of grading permit |
| BIO-3. Staging of equipment and materials shall occur in designated areas with appropriate demarcation and | Project | CDD |  | Notes shown on construction | Prior to issuance of grading permit |

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| Mitigation Measure <br> PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 <br> (Thiessen) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| perimeter controls. No staging areas shall be located within 100 feet of sensitive habitat or jurisdictional aquatic resources. |  |  |  | documents. Site inspection. |  |
| BIO-4. Secondary containment, such as drip pans, shall be used to prevent leaks and spills of potential contaminants. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| BIO-6. Washing of concrete, paint, or equipment, and refueling and maintenance of equipment shall occur only in designated staging areas. These activities will occur at a minimum of 100 feet from the drainage. Sandbags and/or absorbent pads and spill control kits shall always be available for use in the event of a spill or leak. | Project | CDD |  | Notes shown on construction documents. Site inspection. | Prior to issuance of grading permit and building permit and ongoing during the duration of construction. |
| BIO-8. Construction equipment shall be inspected by the operator daily to ensure that equipment is in good working order and that there are no fuel or lubricant leaks. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit and building permit. |
| BIO-8. Plastic monofilament netting (erosion control matting) or similar material will not be used on site due to the potential for entangling special-status wildlife. Acceptable substitutes are coconut coir matting or tackified hydroseeding compounds. | Project | CDD |  | Notes shown on construction documents. Site inspection. | Prior to issuance of grading permit. |
| BIO-9. Construction activity within 100 feet of drainages and wetlands shall occur only when conditions are dry. | Project | CDD |  | Notes shown on construction documents. Site inspection. | Prior to issuance of grading permit and through construction. |
| BIO-10. To prevent erosion and sedimentation into drainages and wetlands during construction, an | Project | CDD |  | Notes shown on construction | Prior to issuance of grading permit and |

Attachment 10


| Mitigation Measure <br> PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 <br> (Thiessen) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BIO-12. A qualified biologist shall conduct a preconstruction survey within 30 days prior to the start of initial project activities to ensure American badgers and San Joaquin kit foxes are not present within proposed work areas. If potential dens are discovered, they shall be monitored with a remote camera or tracking medium for at least three days to determine if they are occupied. If the qualified biologist determines that a den may be active, a 50 -foot no-entry exclusion buffer shall surround the den and the appropriate resource agencies shall be contacted for further guidance. If potential dens are found during the American badger or San Joaquin kit fox breeding and rearing season, no activity shall occur within 200 feet of the den and the appropriate resource agencies shall be contacted for further guidance. Exclusion buffers shall be prominently flagged and encircle the den resource. Additional measures for San Joaquin kit fox are provided below. | Project | CDD |  | Written statement from qualified biologist submitted to the City Community Development Department. | Prior to issuance of grading permit. |
| BIO-13. The applicant shall mitigate for the loss of 3.44 acres of San Joaquin kit fox habitat in one of the following ways: <br> 1. Establish a conservation easement on site or off site in a suitable San Luis Obispo County location and provide a non-wasting endowment for management and monitoring of the property in perpetuity; | Ongoing | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit. |

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| Mitigation Measure <br> PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 <br> (Thiessen) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2. Deposit funds into an approved in-lieu fee program; or <br> 3. Purchase credits in an approved conservation bank in San Luis Obispo County. |  |  |  |  |  |
| BIO-14. Retain a qualified biologist to survey the site immediately prior to the initiation of construction for suitably sized burrows (e.g., potential dens) and to ensure no kit foxes are injured during project activities. If potential dens are encountered, they should be avoided as described in Measure BIO-12. | Project | CDD |  | Written statement from qualified biologist submitted to the City Community Development Department. | Prior to issuance of grading permit. |
| BIO-15. The maximum speed limit at the project site during construction shall be fifteen (15) miles per hour. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| BIO-16. Construction activities shall stop at dusk and start after dawn. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| BIO-17. The applicant shall completely cover or provide escape ramps for all construction-related excavations deeper than 2 feet at the end of each working day. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| BIO-18. Cap or temporarily seal all exposed openings of pipes, culverts, or similar structures with a diameter of 4 inches or greater prior to the end of each working day, after confirming no animals are inside. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |


| Mitigation Measure <br> PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 <br> (Thiessen) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BIO-19. The applicant shall inspect all pipes, culverts, or similar structures for San Joaquin kit fox and other wildlife before burying, capping, or moving. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| BIO-20. The applicant shall dispose of all foodrelated trash in sealed containers and remove it from the project site regularly. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit. |
| BIO-21. Abide by local, state, and federal regulations if pesticides or herbicides must be used, as kit foxes can be secondarily poisoned. | Project | CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit. |
| BIO-22. Stop all construction if a kit fox is discovered at any time in the project area. Immediately contact CDFW and USFWS for further guidance. The project can resume when appropriate permits are obtained. | Project | CDFW, USFW, CDD |  | Notes shown on construction documents. | Prior to issuance of grading permit |
| BIO-23. Allow for passage of San Joaquin kit foxes through or underneath (i.e., an approximate 4-inch passage gap at ground level) permanent fences. | Ongoing | CDD |  | Notes shown on construction documents. | Prior to issuance of building permit. |
| BIO-24. A qualified biologist shall conduct a preconstruction survey within one week prior to the start of initial project activities to ensure special-status reptiles are not present within proposed work areas. If a special-status reptile is found in the work area, allow it to leave on its own volition and as appropriate, contact the resource agencies. |  | CDD, CDFW |  | Written statement from qualified biologist submitted to the City Community Development Department. | Prior to issuance of grading permit |
| BIO-25. If work will occur within 492 feet ( 150 meters) of burrowing owl habitat, during the breeding or non-breeding seasons, a qualified biologist shall conduct | Project | CDFW, CDD |  | Written statement from qualified biologist submitted | Prior to issuance of grading permit |

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| Mitigation Measure <br> PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 <br> (Thiessen) |  |  |  |  | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| a preconstruction survey for this species within 14 days of the onset of construction. A second survey shall be completed immediately prior to construction (i.e., within the preceding 24 hours). The surveys shall be consistent with the methods outlined in Appendix D of the California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation (Staff Report). Qualified biologists will walk 20- to 65 -foot-wide (7- to 20-meter) transects through the survey area to identify sign and/or individuals. These surveys may be completed concurrently with any other preconstruction surveys for special-status species. <br> If occupied burrowing owl burrows are identified, the following buffer distances shall be observed by construction, unless otherwise authorized by CDFW: |  |  |  |  |  |  |  | to the City Community Development Department. |  |
| BIO-26. If and September area for nesting beginning on sit | work is plan 5 , a qualifi birds within If nesting | ned bet <br> d biolog one we irds are | veen Febru st shall k prior to located | ruary 1 <br> urvey the activity <br> n or near | Project | CDFW, USFWS, CDD |  | Written statement from qualified biologist submitted to the City | Prior to issuance of grading permit. |

Attachment 10

| Mitigation Measure <br> PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 <br> (Thiessen) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| the proposed project site, they shall be avoided until they have successfully fledged, or the nest is no longer deemed active. A non-disturbance buffer of 50 feet shall be placed around non-listed, passerine species, and a 250-foot buffer will be implemented for raptor species. All activity will remain outside of that buffer until a qualified biologist has determined that the young have fledged or that proposed construction activities would not cause adverse impacts to the nest, adults, eggs, or young. If special-status avian species are identified, no work will begin until an appropriate buffer is determined in consultation with the local CDFW biologist, and/or the USFWS. |  |  |  | Community Development Department. |  |
| HAZ-1. The use intensity of the project 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. | Ongoing | CDD |  |  | Ongoing |
| HYD-1.The applicant shall obtain all required approvals and permits from the Army Corps of Engineers, California Department of Fish and Wildlife, Regional Water Quality Control Board, and US Fish and Wildlife Service for proposed alterations to the ephemeral drainage blue line creek. | Project | Corps, CDFW RWQCB, and USFWS |  | Permit documentation submitted to the city. | Prior to issuance of grading permit. |
| TCR-1. A qualified principal investigator, defined as an archaeologist who meets the Secretary of the Interior's | Project | CDD |  | Cultural resources mitigation | Prior to issuance of grading permit. |

Attachment 10

| Mitigation Measure <br> PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 <br> (Thiessen) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Standards for professional archaeology (hereafter qualified archaeologist), and a Native American monitor shall be retained to carry out all mitigation measures related to archaeological resources. <br> A cultural resource monitoring plan (CRMP) will be developed by the principal investigator in consultation with the Native American Tribes that identifies the locations and activities that require monitoring. The principal investigator shall inspect initial subsurface construction disturbance at locations that may harbor subsurface resources that were not identified on the site surface. The monitor(s) shall be on-site during initial earthmoving activities, including grading, trenching, vegetation removal, or other excavation activities as specified by the CRMP. |  |  |  | monitoring program submitted to the city. |  |
| TCR-2. In the event that buried or otherwise unknown cultural resources are discovered during construction work in the area of the find shall be suspended and the City of Paso Robles shall be contacted immediately, and appropriate mitigations measures shall be developed by qualified archeologist or historian if necessary, at the developers expense. | Project | CDD |  | Notes on construction documents. | Prior to issuance of grading and building permits. |
| TCR-3. In the event human remains are found on the project site during construction or during archaeological work, the person responsible for the excavation, or his or her authorized representative, shall immediately notify the San Luis Obispo County Coroner's office by | Project | SLO County <br> Coroner, Native American |  | As needed | Ongoing during grading and construction. |


| PD20-13 / CUP21-19 / TPM PR 20-0018 / P20-0045 |
| :--- | :--- | :--- | :--- | :--- |
| (Thiessen) |$\quad$| Mitigation Measure |
| :---: |
| Type |

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.


[^0]:    Comments:

