

Initial Study

3030 Lemmon Court

Minor Subdivision Application (PLN190063)

June 9, 2020



Prepared by
EMC Planning Group

INITIAL STUDY

3030 LEMMON COURT

Minor Subdivision Application (PLN190063)

PREPARED FOR

Cary Zink

Property Owner/Applicant

3030 Lemmon Court

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June 9, 2020

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A. BACKGROUND

Project Title	3030 Lemmon Court Minor Subdivision
Lead Agency Contact Person and Phone Number	Michael Kelly, Associate Planner County of San Benito Planning (831) 902-2287
Date Prepared	June 2, 2020
Study Prepared by	EMC Planning Group Inc. 301 Lighthouse Avenue, Suite C Monterey, CA 93940 Michael Groves, AICP, Senior Principal Teri Wissler Adam, Senior Principal Gail Bellenger, MA, Archaeologist/Biologist Stuart Poulter, AICP, MCRP, Associate Planner Tanya Kalaskar, MS, Associate Planner Shoshana Wangerin, Assistant Planner
Project Location	3030 Lemmon Court, Unincorporated San Benito County
Project Sponsor Name and Address	Cary Zink 3030 Lemmon Court Hollister, CA 95023
General Plan Designation	RR – Residential Rural (County) Residential Estate (City of Hollister Planning Area)
Zoning	RR – Rural Residential (County)

Setting

The approximately 6.24-acre site (APN 025-530-001) is located at 3030 Lemmon Court (“project site”) in unincorporated San Benito County, approximately 0.8 miles northeast of the city limits of Hollister. [Figure 1, Location Map](#), presents the regional location of the project site. The site has a *San Benito County 2035 General Plan* designation of “Residential Rural” and a San Benito County zoning designation of “Rural Residential.” The *City of Hollister 2005 General Plan* designates the project site as Residential Estate, as it is within the City of Hollister’s Planning Area.

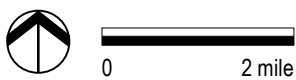
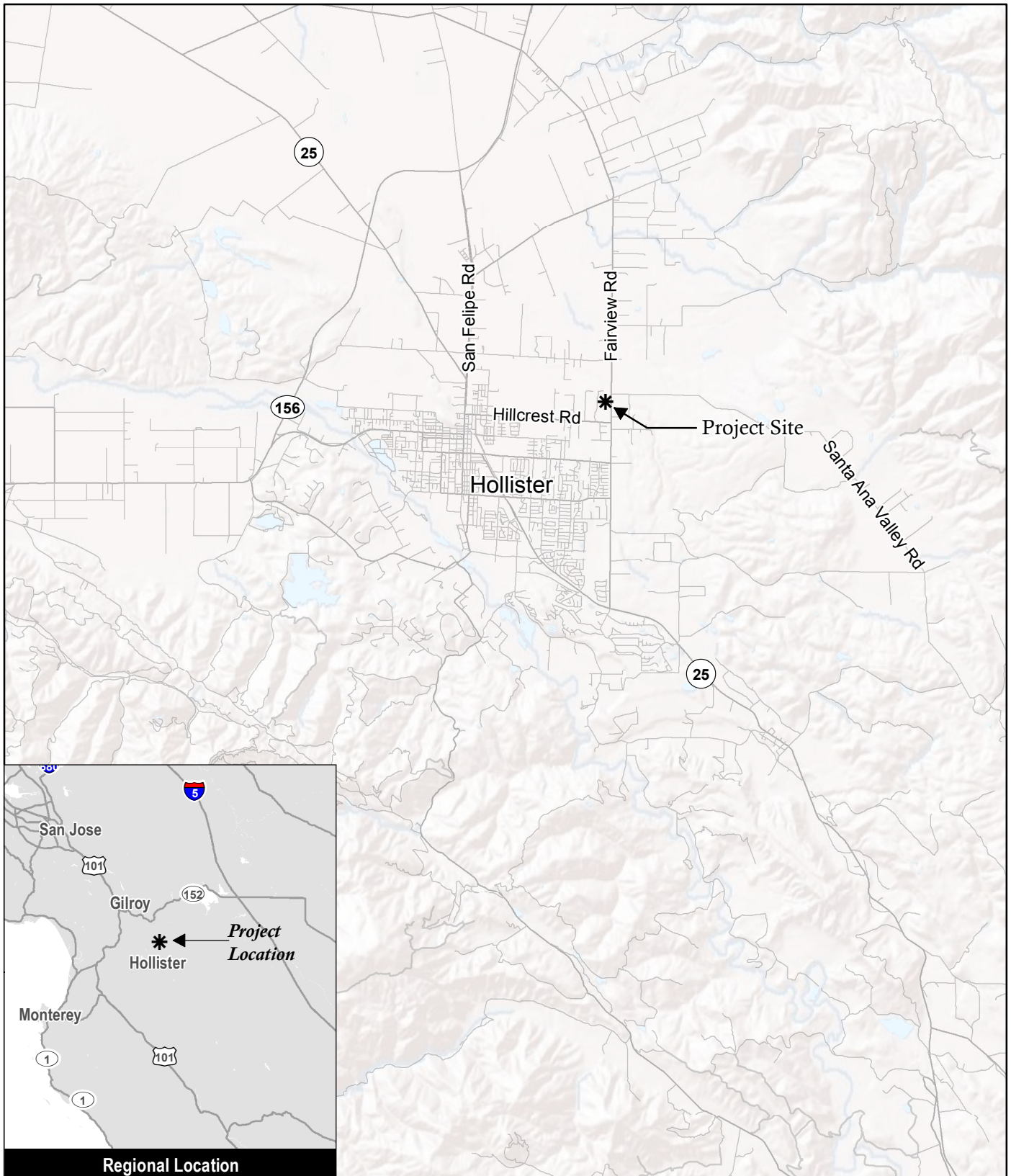
The project site, accessed by Lemmon Court, is primarily vacant and flat with one single-family residence and an existing barn located on the northwestern side of the property. Santa Ana Creek runs along the northeastern corner of the project site. An existing approximately 370-foot driveway connects the existing single-family residence to Lemmon Court and a few trees are present on the project site. Residences surround the project site on all sides and agricultural fields are located east of the project site. [Figure 2, Aerial Photograph](#), presents an aerial of the project site and surrounding land uses. [Figure 3, Site Photographs](#), illustrates the existing setting of the project site.

Background

The project site is part of the 1994 approved Lemmon Acres Residential Subdivision and was subject to mitigation for open space/habitat protection. The mitigation was never formalized, and since that time, the Lemmon Acres Residential Subdivision has been built out with residences, streets, and utilities currently surrounding and enclosing this property. As part of the approval of the Lemmon Acres Residential Subdivision back in 1994, the County of San Benito (County) included a mitigation to address potential impacts to wildlife. The subdivision map that was formally recorded in 1997 identified certain portions of the development to be maintained as open space including the project site (identified in the *Lemmon Acres Estates Subdivision Draft Environmental Impact Report* as “Parcel A”). The Lemmon Acres Residential Subdivision has not implemented the mitigation as it pertains to the project site. The project site, now that it is surrounded by rural residences to the north, south, and west, and rural residences and agricultural fields to the east. The project site is no longer considered valuable habitat based on consultation with California Department of Fish and Wildlife (Brandon Sanderson, CDFW, telephone interview, May 10, 2018) and a recent biological resources survey and report. Santa Ana Creek, which is considered a wildlife corridor, runs adjacent to the northeastern corner of the project site.

County of San Benito Local Agency Onsite Wastewater Treatment Systems Management Program (LAMP)

Since 2017, the County of San Benito Human Health Services, Environmental Health Department is in the process of preparing and preparing for adoption a Local Agency Onsite Wastewater Treatment Systems Management Program (LAMP). The LAMP pertains to the oversight of onsite wastewater treatment systems (OWTS) throughout the County and develops standards for all new, repair, expansion and replacement OWTS and for OWTS demolition within San Benito County. Without an adopted LAMP, the County is current adhering to the State Water Resource Control Board (SWRCB) OWTS Policy. The SWRCB OWTS Policy was adopted in 2012 and became effective throughout the state in 2018. The OWTS Policy establishes a statewide, risk-based, tiered approach for the regulation and management OWTS installations and replacements. Per correspondence from County



Source: ESRI 2018



Figure 1
Location Map

3030 Lemmon Court Minor Subdivision Initial Study

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0 150 feet



Project Site

Source: ESRI 2018

Figure 2

Aerial Photograph



3030 Lemmon Court Minor Subdivision Initial Study

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① Overview of site, looking northeast



② Trees on property, looking east



 Project Site

Source: ESRI 2018
Photographs: EMC Planning Group April 2018



③ Santa Ana Creek between fences, with valley oak trees, looking north



④ Ground squirrel in burrow, center of property, looking northeast

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Environmental staff, this draft LAMP is on track to be adopted by the County Board of Supervisors and receive approval by the SWRCB by September 2020 (John Hodges, e-mail communication, November 22, 2019).

Project Description – Two-Phase Subdivision

The proposed project is a minor subdivision application consisting of a four (4) lot subdivision whose approval is contingent on the County of San Benito adopting a LAMP as described above. Only one additional one-acre lot shall be recorded in a phased final map as a result of this approval and the two additional one-acre lots shall not be recorded until the County's LAMP is adopted and the subdividing of two additional one-acre lots is permitted under the County's LAMP.

Therefore, the proposed subdivision will be considered in in two phases. The first phase includes the following:

- One, one-acre residential lots (Lot 1) with septic system; and
- Detention pond on Lot 1.

The second phase (if the locally-adopted LAMP is approved and allows for the four-lot subdivision as proposed) will consist of the following:

- Two, one-acre residential lots (Lots 2 and 3) with septic systems;
- One, 3.24-acre lot, which includes the existing residence and barn (Lot 4);
- A 1.45-acre open space/conservation easement on the northeastern corner of proposed Lot 4;
- A 30-foot access easement straddling Lots 3 and 4 to provide new access to Lot 4; and
- Detention pond on Lots 2 and 3.

Figure 4, [Tentative Subdivision Map](#), presents the proposed subdivision of the project site. A conceptual two-lot first phase subdivision will be implemented first and is reflected in [Figure 5, Conceptual Phase 1 Layout](#).

Accessory second dwelling units (ADU) may be allowed pursuant to Cal. Gov't Code § 65852.2 on a lot in any County zoning district that allows residential uses as a primary use (including Rural Residential), which is served by public sewer and water service (County Code Section 25.27.002(a)). Per state law, ADUs are permitted by right (provided that they meet certain County regulations regarding zoning/land use and building standards) and are subject to administrative approval by the County. The potential inclusion of ADUs on the individual lots proposed as part of this project is not known at this time and is not necessary to evaluate the environmental impacts associated with the subdivision of the three new one-acre residential lots.

County Approvals Required

- County of San Benito Public Works (Public Roadway Encroachment Permit(s))
- County of San Benito Environmental Health Division (Septic System)

Other Public Agencies Whose Approval is Required

- Sunnyslope County Water District (Water Service)

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.?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

The County has not received any requests for consultation from tribes that are traditionally or culturally affiliated with the project area, including the proposed residential site. Therefore, no consultation was required under Assembly Bill (AB) 52.



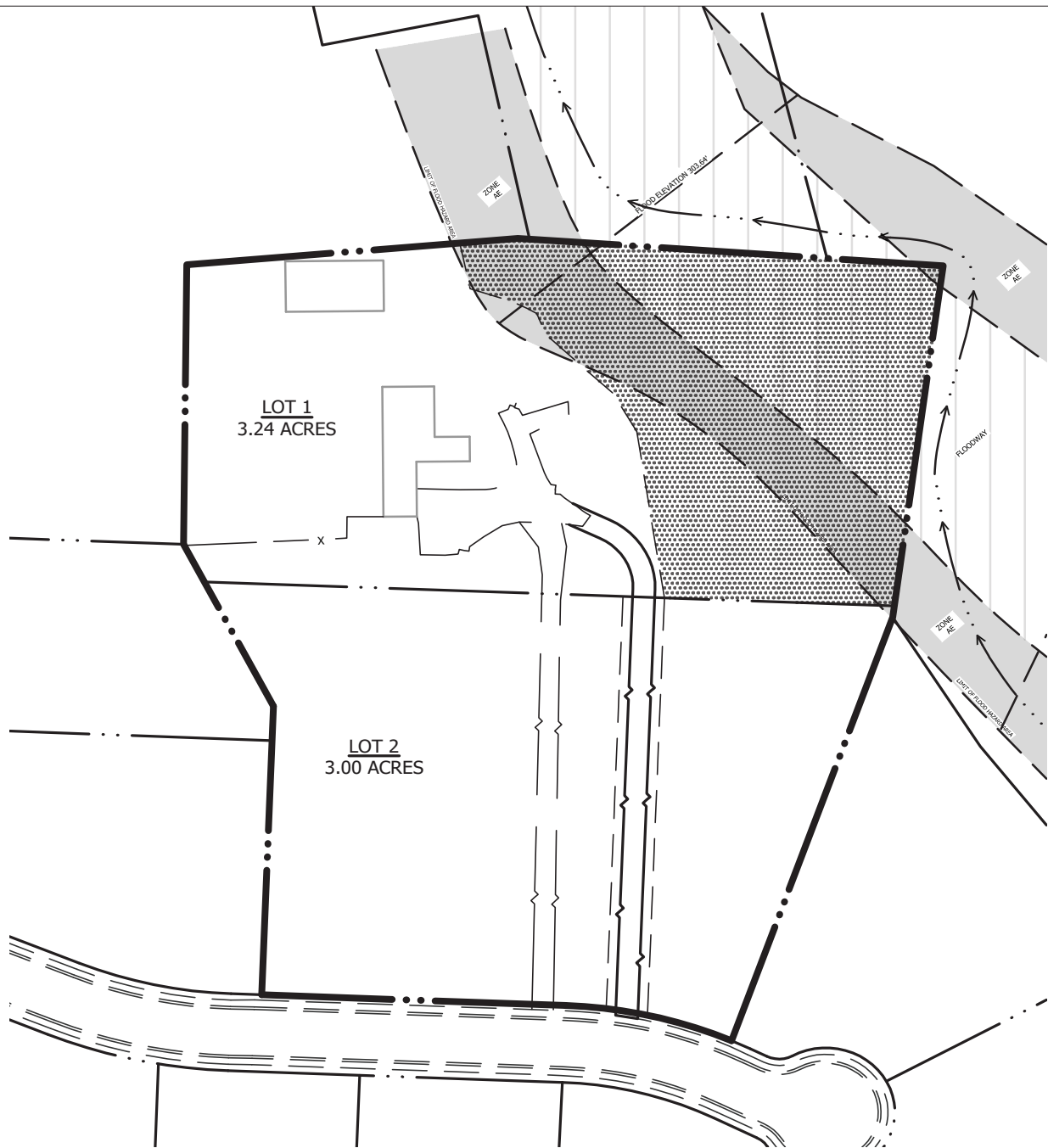
Source: San Benito Engineering and Surveying Inc. 2019

Figure 4

Tentative Subdivision Map 3030 Lemmon Court Minor Subdivision Initial Study



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IN ACCORDANCE WITH THE SUBDIVISION MAP ACT ARTICLE 4 SECTION 66456.1, NOTICE IS HEREBY GIVEN THAT IT IS THE SUBDIVIDER'S INTENTION TO FILE MULTIPLE FINAL MAPS FOR THIS PROJECT. SAID MAP ACT SECTION STIPULATES THAT THE SUBDIVIDER SHALL NOT BE REQUIRED TO DEFINE THE NUMBER OR CONFIGURATION OF THE PROPOSED MULTIPLE FINAL MAPS.



Source: San Benito Engineering and Surveying, Inc. 2020

Figure 5

Conceptual Phase 1 Layout

3030 Lemmon Court Minor Subdivision Initial Study



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B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that requires mitigation to reduce the impact to a less-than-significant level as indicated by the checklist on the following pages.

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

C. DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (1) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (2) 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.

Michael Kelly, Associate Planner

Date

D. EVALUATION OF ENVIRONMENTAL IMPACTS

Notes

1. A brief explanation is provided for all answers except "No Impact" answers that are adequately supported by the information sources cited 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 is 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 take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once it has been determined that a particular physical impact may occur, then the checklist answers 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 Impact with Mitigation Measures Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-Than-Significant Impact." The mitigation measures are described, along with a brief explanation of how they reduce the effect to a less-than-significant level (mitigation measures from section XVII, "Earlier Analyses," may be cross-referenced).
5. Earlier analyses are used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier document or negative declaration. [Section 15063(c)(3)(D)] In this case, a brief discussion would identify the following:
 - a. "Earlier Analysis Used" identifies and states where such document is available for review.
 - b. "Impact Adequately Addressed" identifies which effects from the checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and states whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. "Mitigation Measures" — For effects that are "Less-Than-Significant Impact with Mitigation Measures Incorporated," mitigation measures are described which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances, etc.) are incorporated. Each reference to a previously prepared or outside document, where appropriate, includes a reference to the page or pages where the statement is substantiated.
7. “Supporting Information Sources” — A source list is attached, and other sources used or individuals contacted are cited in the discussion.
8. This is a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected. This is the format recommended in the CEQA Guidelines as amended 2018.
9. The explanation of each issue identifies:
 - 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 significant.

1. AESTHETICS

Except as provided in Public Resources Code Section 21099 (Modernization of Transportation Analysis for Transit-Oriented Infill Projects), would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista? (1, 2, 3, 6, 41)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway? (1, 2, 3, 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? (1, 11, 41)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? (1, 7, 8, 11, 41)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a,b. According to the *San Benito County 2035 General Plan* ("County general plan"), there are five County-designated scenic roadways (p. 8-13), none of which are located near the project site. Therefore, the proposed project would not impact a scenic vista, resource, or scenic highway.
- c. The project site is currently zoned Rural Residential (RR) and surrounded by development similarly zoned RR. Therefore, the proposed project would not conflict with zoning or other regulations governing scenic quality. In addition, the proposed subdivision would be located within an existing rural residential subdivision as infill development and would not degrade the existing visual character or quality of public views of the site and its surroundings.

- d. While the proposed project only involves three new residential lots and would have no impact as relates to day or nighttime views in the area, it is assumed that future development of the three new residential lots will include some external lighting. Individual development applications for each of the three new residential lots will be reviewed by County staff for consistency with applicable County lighting requirements per County Code § 19.31.006. Consistency with these County lighting requirements will ensure any proposed residential development on the three lots will not result in new sources of substantial light and glare.

2. AGRICULTURE AND FOREST RESOURCES

In determining whether impacts on agricultural resources are significant environmental effects and in assessing impacts on agriculture and farmland, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use? (1, 9)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? (1, 10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? (41)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use? (41)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use? (1, 9)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a,e. The project site is identified as “Other Land” by the California Department of Conservation (California Department of Conservation 2018). Therefore, the proposed project would not involve the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to nonagricultural use.
- b. The project site is not identified as Williamson Act land, or zoned for agricultural use, forest land, or timberland. Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract.
- c,d. The project site is not zoned for, nor does not contain, forest land or timberland. Therefore, the proposed project would not rezone or result in the loss of forest land or timberland.

3. AIR QUALITY

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

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan? (1, 4, 5, 29, 30, 31)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? (1, 4, 5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations? (1, 4, 5, 6)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people? (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments:

- a. The project site is located in the North Central Coast Air Basin ("air basin"), which is under the jurisdiction of the Monterey Bay Air Resources District (hereinafter "air district"). Regional air districts must prepare air quality plans specifying how state air quality standards will be met. The air district's most recent adopted plan is *2012-2015 Air Quality Management Plan for the Monterey Bay Region* (hereinafter "air quality management plan"). The air district specifies air quality management plan consistency for population-related projects only. Population-related emissions have been estimated in the air quality management plan using population forecasts adopted by the Association of Monterey Bay Area Governments (AMBAG). Population-related projects that are consistent with these forecasts are consistent with the air quality management plan. AMBAG recently updated its regional population forecast in June 2018, but the air district has not yet updated the air quality management plan. The air district recommends using the 2018 AMBAG regional population forecast to determine a project's consistency with the air quality management plan (David Frisbey, email message, September 26, 2018).

The air district consistency determination spreadsheet was used to assess the proposed project's population in comparison to the AMBAG's 2018 population forecasts (using housing units as a proxy for population). The results of the evaluation are included as [Appendix A](#). With the proposed project, the county's cumulative housing stock would be 1,647 units below AMBAG projections for the year 2021. Since the project is within the population projections, the proposed project would not conflict with or obstruct implementation of the air quality management plan.

- b. The air district is responsible for monitoring air quality in the air basin, which is designated, under state criteria, as a nonattainment area for ozone and inhalable particulate matter (PM₁₀). Under federal criteria, the air basin is at attainment (8-hour standard) for ozone and particulates. The air district's CEQA Air Quality Guidelines ("air district CEQA Guidelines") includes criteria air pollutant emissions thresholds, which are used to determine whether or not the proposed project would result in a cumulatively considerable net increase of criteria air pollutants during operation and/or construction.

Health effects of criteria air pollutants include, but are not limited to, asthma, bronchitis, chest pain, coughing, throat irritation, and airway inflammation. As discussed in the amicus briefs submitted on the *Sierra Club v. County of Fresno* (2014) 226 Cal.App. 4th 704, currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's criteria air pollutant emissions and specific human health impacts. The air quality analysis for criteria air pollutants is not really a localized, project-level impact analysis but one of regional, cumulative impacts. Therefore, it is not the norm to conduct an analysis of the localized health impacts associated with a project's criteria air pollutant emissions as part of the CEQA process.

The proposed project includes a subdivision that would result in the construction of three new residences.

Operational Impacts. The proposed project would result in new sources of mobile and area source emissions. Per the air district CEQA Guidelines, Table 5-4 Indirect Sources with Potentially Significant Impacts on Ozone, the screening threshold for single-family homes is 810 dwelling units. Therefore, operations of up to three single-family homes on the three proposed lots would not likely result in cumulatively significant impacts to air quality.

Construction Impacts. Construction emissions include mobile source exhaust emissions, emissions generated during the application of asphalt paving material and architectural coatings, as well as emissions of fugitive dust associated with earthmoving equipment. Air district CEQA Guidelines Table 5-2, Construction Activity with Potentially Significant Impacts, identifies the level of construction activity that could result in significant temporary fugitive dust impacts if not mitigated. Construction activities with grading and excavation that disturb more than 2.2 acres per day and construction activities with minimal earthmoving that disturb more than 8.1 acres per day are assumed to be above the 82 pounds of particulate matter per day threshold of significance. The proposed project would include earthmoving activities on approximately three acres of the approximately 6.24-acre project site. Construction activities on approximately three acres of project site would likely exceed the 82 pounds of particulate matter per day threshold of significance resulting in a potentially significant air quality impact. Implementation of the following mitigation measure would reduce this impact to less than significant.

Mitigation Measure

AQ-1 The project developer will include the following language in all future grading and construction plans for the project prior to earth moving activities, subject to review and approval by the County planning department, prior to issuance of a grading permit:

Dust control measures will be employed to reduce visible dust leaving the project site. The following measures or equally effective substitute measures will be used:

- a. Use recycled water to add moisture to the areas of disturbed soils twice a day, every day, to prevent visible dust from being blown by the wind;
- b. Apply chemical soil stabilizers or dust suppressants on disturbed soils that will not be actively graded for a period of four or more consecutive days;
- c. Apply non-toxic binders and/or hydro seed disturbed soils where grading is completed, but on which more than four days will pass prior to paving, foundation construction, or placement of other permanent cover;

- d. Cover or otherwise stabilize stockpiles that will not be actively used for a period of four or more consecutive days, or water at least twice daily as necessary to prevent visible dust leaving the site, using raw or recycled water when feasible;
- e. Maintain at least two feet of freeboard and cover all trucks hauling dirt, sand, or loose materials;
- f. Install wheel washers at all construction site exit points, and sweep streets if visible soil material is carried onto paved surfaces;
- g. Stop demolition, grading, and earth moving if winds exceed 15 miles per hour;
- h. Pave roads, driveways, and parking areas at the earliest point feasible within the construction schedule; and
- i. Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person will respond and take corrective action within 48 hours of receiving the complaint. The phone number of the Monterey Bay Air Resources District shall also be visible to ensure compliance with Rule 402 (Nuisance).

Therefore, the construction impact of the proposed project would be less-than-significant with mitigation.

- c. According to the air district CEQA Guidelines, a sensitive receptor is generally defined as any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (K-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. The nearest sensitive receptors are the residences adjacent to the project site.

Operation of the proposed project is not expected to cause any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels, because no significant operational sources of pollutants are proposed onsite. Construction activities would result in localized emissions of dust and diesel exhaust that could result in temporary impacts to adjacent land uses that include sensitive receptors. As discussed in “b” above, the short-term air quality effects related to dust emissions during project construction would be less than significant. The diesel construction

equipment typically used to accomplish the grading and construction required for the parking lot, and the heavy-duty trucks used for delivery and off-haul, could expose these sensitive receptors to toxic air contaminants from heavy equipment diesel exhaust. Implementation of the following mitigation measures would reduce this impact to a less-than-significant level.

Mitigation Measures

AQ-2 The applicant will prepare a Construction Staging Management Plan, subject to review and approval by the County planning department, prior to issuance of a grading permit. The plan will include the following restrictions:

- a. Heavy-duty diesel vehicles will have 2010 or newer model year engines, in compliance with the California Air Resources Board's Truck and Bus Regulation, and will be staged as far away from the adjacent residences as possible; and
- b. Construction equipment and heavy-duty diesel trucks idling will be avoided, where feasible, and if idling is necessary, it will not exceed five minutes.

AQ-3 The applicant will include the following language in all grading and construction plans, subject to review and approval by the County planning department, prior to issuance of a grading permit: "All construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications and will be checked by a certified visible emissions evaluator. All non-road diesel construction equipment will, at a minimum, meet Tier 3 emission standards listed in the Code of Federal Regulations Title 40, Part 89, Subpart B, §89.112. Further, where feasible, construction equipment will include the use of alternative fuels such as compressed natural gas, propane, electricity or biodiesel."

- d. The proposed project would not produce any objectionable odors during its operation. Construction activities associated with the proposed project, such as demolition and grading, may temporarily generate objectionable odors. Since odor-generating construction activities would be localized, sporadic, and short-term in nature, this impact would be less than significant.

4. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service? (32, 33, 35, 36, 37, 48, 49, 50, 51, 53)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service? (2, 32, 53)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.), through direct removal, filling, hydrological interruption, or other means? (32)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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? (2, 32, 35, 36, 37, 48, 60)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (2, 11, 60)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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? (32, 33, 35, 60)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

This section is based on a reconnaissance-level biological field survey conducted by EMC Planning Group biologists Gail Bellenger and Emily Malkauskas on May 2, 2018, to compare conditions of the property as described in the 1992 EIR, document existing plant communities/wildlife habitats and evaluate the potential for special-status species occurrence at the project site. Biological resources were documented in field notes, including species observed, dominant plant communities, and significant wildlife habitat characteristics. Qualitative estimations of plant cover, structure, and spatial changes in species composition were used to determine plant communities and wildlife habitats, and habitat quality and disturbance level were described.

The project site is positioned on the Tres Pinos U.S. Geological Survey (USGS) 7.5-minute quadrangle map. The parcel is relatively flat, averaging an elevation of approximately 315 feet. The property is adjacent to the Santa Ana Creek at the northern and northeastern boundaries. This site is disturbed from periodic mowing. An existing home and outbuildings are situated at the northwest part of the property. Ornamental landscaping surrounds the home. This property is in close proximity to, but not in, California tiger salamander (*Ambystoma californiense*) critical habitat (USFWS 2005b).

The on-site plant communities include open grassland, with plant species consisting of non-native grasses, curly dock (*Rumex crispus*), field bindweed (*Convolvulus arvensis*), Italian thistle (*Carduus pycnocephalus*), ripgut brome (*Bromus diandrus*), cheeseweed (*Malva parviflora*), and English pliantain (*Plantago lanceolata*). Walnut (*Juglans hindsii*), valley oak (*Quercus lobata*), and eucalyptus trees (*Eucalyptus globulus*) are along the north boundary of the site. Santa Ana Creek, an intermittent watercourse, is located offsite but adjacent to the northeast property line.

The dominant habitat type present is classified as annual non-native grassland, which can provide foraging for numerous avian species and small mammals such as California ground squirrel (*Spermophilus beecheyi*), raccoon (*Procyon lotor*), or skunk (*Mephitis mephitis*). Species observed included California ground squirrel, mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), and several passerine bird species. Numerous animal burrows were observed on-site, especially in the central portion of the site, and near the Santa Ana Creek. California ground squirrels were seen utilizing many of the burrows.

- a. A search of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) was conducted for the San Felipe, Three sisters, Mariposa Peak, Quien Sabe Valley, Cherry Peak, Paicines, Tres Pinos, Mt. Harlan, and Hollister USGS quadrangles to generate a list of potentially occurring special-status species in the project vicinity (CDFW 2019). Records of occurrence for special-status plants were reviewed for those nine USGS quadrangles in the California

Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2019). A U.S. Fish and Wildlife Service (USFWS) Endangered Species Program threatened and endangered species list was also generated for San Benito County (USFWS 2019). Special-status species in this report are those listed as Endangered, Threatened, or Rare, or as Candidates for listing by the USFWS and/or CDFW, Species of Special Concern or Fully Protected species by the CDFW, or as Rare Plant Rank 1B or 2B by the CNPS.

Given the existing level of disturbance and structures on the property, most special-status plants or wildlife are not expected to occur due to lack of suitable habitat. However, habitat for San Joaquin kit fox (*Vulpes macrotis mutica*), California red-legged frog (*Rana draytonii*), California tiger salamander, western spadefoot (*Spea hamondii*), and nesting birds and raptors was identified during the reconnaissance-level survey and these species are discussed further below.

San Joaquin Kit Fox. The San Joaquin kit fox is a federally-listed endangered species and a state-listed threatened species. The present range of the San Joaquin kit fox extends from the southern end of the San Joaquin Valley, north to Tulare County, and along the interior Coast Range valleys and foothills to central Contra Costa County. San Joaquin kit foxes typically inhabit annual grasslands or grassy open spaces with scattered shrubby vegetation but can also be found in some agricultural habitats and urban areas. This species needs loose-textured sandy soils for burrowing, and they also need areas that provide a suitable prey base, including black-tailed hare, desert cottontails, and California ground squirrels, as well as birds, reptiles, and carrion.

The site is considered only marginal breeding and foraging habitat for the kit fox due to its adjacency to an urbanized area. Discing and mowing also diminish habitat suitability for the kit fox. Thus, if this species uses the site, it likely uses it only for foraging or dispersal on rare occasions and in low numbers. The nearest observation of this species was documented approximately 1.0 mile east of the project site in 1975. Since that sighting, one occurrence approximately five miles from the site was documented in 1992. Numerous regional surveys, conducted before and since the date of the 1992 occurrence, have failed to detect this species. The likelihood of this species occurring on the project site is therefore considered extremely low. Should San Joaquin kit fox move on or immediately adjacent to the project site, construction and site preparation activities on the project site could result in disturbance to individuals of this species or its habitat. This would be a potentially significant impact. Implementation of the following mitigation measure will reduce this potential impact to a less-than-significant level.

Mitigation Measure

BIO-1 (Lemmon Acres EIR MM-9B) ~~Conduct pre-construction kit fox surveys 60 days prior to beginning construction activities or any project activities that may impact the kit fox. These surveys should determine if the kit fox is present on site and particularly if any are denning on site at the time of construction. Results of pre-construction surveys should be submitted to the USFWS within two weeks after their completion. If kit fox dens are discovered prior to construction, a Kit Fox Avoidance Plan should be developed. This plan should outline the measures that will be employed to ensure that breeding kit foxes are not disturbed by construction activities.~~

Prior to issuance of a grading permit and subject to review and approval by the County planning department, the USFWS Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 1999) will be implemented by the applicant prior to initiation of any construction activity on the project site to avoid take of individual San Joaquin kit foxes.

As part of the implementation of these guidelines, transect surveys to detect potential kit fox dens will be performed by a qualified biologist approved by the USFWS and retained by the applicant within 15 days prior to any habitat modification. Walking transects will be conducted such that 100 percent visual coverage of the area of the project site planned to be under disturbance is achieved.

If potential kit fox dens are identified that will be impacted by construction, the occupancy status of the den will be determined by the biologist. If the den is determined to be unoccupied, it will be destroyed immediately to preclude subsequent occupation by kit foxes. If individual kit foxes or denning activity is observed, project activities could potentially injure, harass or kill a San Joaquin kit fox. This would constitute a 'take' under the ESA and CESA, and incidental take permits from the USFWS would be required to proceed with work.

California Red-legged Frog (*Rana draytonii*). A federally listed Threatened species and California Species of Special Concern, California red-legged frog occurs in lowlands and foothills primarily in perennial or ephemeral ponds, pools, and streams where water remains long enough (14-28 weeks) for breeding and metamorphosis of tadpoles. Specific breeding sites include streams, creeks, ponds, marshes, sag ponds,

deep pools, backwater areas, dune ponds, lagoons, and estuaries. California red-legged frog may disperse from their aquatic breeding habitats to upland habitats during the dry season. They prefer upland habitats that provide moisture to prevent desiccation and protection from predators, including downed logs, woody vegetation, boulders, moist leaf litter, or other refugia during the dry season. In areas where upland habitats do not contain structure, they take refuge in burrows. However, if there is sufficient water at their breeding location, they may remain in aquatic habitats year-round instead of moving to adjacent uplands.

During wet seasons, frogs can move long distances between habitats, traversing upland areas or ephemeral drainages. Dispersal distances are typically less than 0.5 km (0.3 mile), with a few individuals moving 2.0-3.6 kilometers (1.2-2.2 miles). Seeps and springs in open grasslands can function as foraging habitat or refugia for wandering frogs.

California red-legged frog is known to occur within Santa Ana Creek and its tributaries. A CNDDB record (#244) recorded in 1998 includes the project site. Three juvenile frogs were observed in shallow pools created by construction activities. Breeding habitat does not occur on the project site; however, Santa Ana Creek is immediately adjacent to the site and migrating individuals could occur on the site when traveling between breeding and upland habitats.

Disturbance to aquatic and upland habitat may result in the harassment, habitat removal, or direct mortality of California red-legged frog, a federally listed Threatened and California Species of Special Concern. If a California red-legged frog were killed, injured, or harassed this would also constitute a 'take' under the ESA and CESA, and incidental take permits from the USFWS and CDFW would be required to proceed with work. An unauthorized "take" represents a potentially significant impact. Implementation of mitigation measure BIO-2 (below) would reduce this potential impact to a less-than-significant level.

California Tiger Salamander. The federally and state-listed Threatened California tiger salamander is a large terrestrial salamander. It occurs in central California from the Sacramento Valley to the south-central San Joaquin Valley, and in the surrounding foothills of both the Coast Ranges and the Sierra Nevada Mountains. California tiger salamanders are also recorded from the San Francisco Bay region, Sonoma County, the Monterey Bay region, and the valleys and foothills of San Luis Obispo and Santa Barbara counties.

California tiger salamanders breed in temporary wetland pools, such as vernal pools, and other seasonal wetland bodies where ponded water is present for a minimum of three to four months, extending into the early spring. Such ponds and temporary wetlands provide necessary breeding and larval-stage habitat for the species. Adults spend most of the year in aestivation, underground in the burrows of small mammals, such as the California ground squirrel and/or Botta's pocket gopher, or within other suitable subterranean retreats. They emerge at night during winter rain events for brief periods to breed. Aquatic juveniles (larvae) are mostly herbivorous. California tiger salamanders normally begin to reproduce after three to five years.

Exact locations for many recorded observations of this species have been suppressed in the CNDDDB in the Hollister area. However, California tiger salamander is known to occur within Santa Ana Creek and its tributaries. Breeding habitat does not occur on the project site; however, Santa Ana Creek is immediately adjacent to the site and migrating individuals could occur on the site when traveling between breeding and upland habitats.

Disturbance to aquatic and upland habitat may result in the harassment, habitat removal, or direct mortality of California tiger salamanders, a federally and state-listed Threatened species; and California red-legged frog, a federally listed Threatened and California Species of Special Concern. If a California red-legged frog or California tiger salamander were killed, injured, or harassed this would also constitute a 'take' under the ESA and/or California Endangered Species Act (CESA), and incidental take permits from the USFWS and/or CDFW would be required to proceed with work. An unauthorized "take" represents a potentially significant impact. Implementation of the following mitigation measures would reduce this potential impact to a less-than-significant level.

Mitigation Measure

BIO-2 (Lemmon Acres EIR MM-9C)

~~Conduct field survey by a qualified wildlife biologist during the rainy season to ascertain whether or not potentially suitable aquatic habitat exists on the site for the tiger salamander and spadefoot toad. In the event that one or both of these species are found on the site, develop and implement appropriate mitigation measures in coordination with CDFG and USFWS.~~

To protect CRLF and CTS potentially present within the project area, one of the following two options shall be followed:

Option 1: Assume Presence of CRLF and CTS

Prior to issuance of a grading permit and subject to review and approval by the County planning department, the applicant shall obtain Incidental Take Permits from the USFWS and CDFW for potential project impacts to CRLF and CTS, and implement all avoidance, minimization, and compensatory mitigation measures required by these permits. Avoidance and minimization measures may include, but not be limited to the measures below:

- a. Qualified project biologists approved by the USFWS and CDFW shall supervise and/or implement all species protection measures. Construction supervisors shall attend a training session regarding the protection measures. Construction contracts shall expressly include language requiring compliance with the protection measures.
- b. At least 15 days prior to ground disturbance, the project proponent shall submit the name and credentials of the project biologists who would conduct activities specified in this measure. No project activities shall begin until the project proponent has received written approval from the USFWS and CDFW that the project biologists are qualified to conduct the work.
- c. The project biologists shall have the authority to halt construction work at any time to prevent harm to CRLF and CTS or when any of the permit-specified protection measures have been violated. Work shall re-commence only when authorized by the project biologists. If work is stopped due to potential harm to protected species, the project biologists shall contact the USFWS and/or CDFW by telephone or email on the same day to communicate the event and coordinate appropriate action.
- d. A project biologist shall be present during all initial ground disturbance activities; the biologist shall conduct biological construction monitoring in all work areas with potential to impact CRLF or CTS. Before the start of work each day, a project biologist shall check for wildlife under any equipment such as vehicles and stored pipes within active construction zones that are fenced. A

project biologist shall also check all excavated steep-walled holes or trenches greater than one foot deep for trapped animals. If CRLF or CTS is observed within an active construction zone, a project biologist shall be notified immediately and all work within 100 feet of the individual animal shall be halted and all equipment turned off until the biologist has captured and removed the individual from the work area. CRLF and CTS shall be relocated to a USFWS/CDFW-approved off-site location according to permit specifications.

Option 2: Conduct Protocol-Level Focused Surveys for CRLF and CTS

Prior to issuance of a grading permit and subject to review and approval by the County planning department, the applicant shall retain a qualified biologist to conduct protocol-level surveys for CTS following the guidelines presented in the *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander* (USFWS 2003). Protocol-level surveys for CRLF shall be conducted by the qualified biologist following the guidelines presented in the *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (USFWS 2005b). Based on the results of the focused surveys, one of the following outcomes will apply:

- a. Species are not present. Confirmation of the negative finding shall be obtained from the CDFW and USFWS, and no further avoidance/minimization measures are required.
- b. Species are present. The project proponent shall obtain Incidental Take Permits from the USFWS and CDFW for potential impacts to the species observed, and implement any measure(s) required by these permits, such as those listed in Option 1, above.

Western Spadefoot. Western spadefoot is a California species of special concern. This species lives within grassland habitats of Central California and the Southern California coast. It requires temporary pools of water free of predators (such as fish, bullfrogs, or crayfish) for egg-laying. Breeding usually occurs in late winter. With the exception of the breeding season and foraging excursions during rain events, this species spends most of its life aestivating in self-excavated burrows, although burrows of small mammals are sometimes utilized.

The dispersal distances of spadefoot are relatively unknown; however, research on amphibian conservation suggests that average upland habitat use is within 368 meters (1,207 feet) of aquatic habitats (Semlitsch and Brodie 2003). If present in locations beyond the project site, individuals occurring on nearby lands could move onto the project site, which provides potential, albeit marginal, aestivating habitat for the species. Spadefoots are also highly sensitive to vibration (such as from an electric motor) while underground and may emerge prematurely. Disturbance from discing, mowing, or harvesting would likely cause disruption during dormancy periods and the likelihood that spadefoot occurs onsite is considered low. Western spadefoot is known to occur within vernal pool and aquatic habitats in the regional vicinity, and the nearest observation was recorded in 2000, approximately 2.5 miles from the project site. If present, impacts to western spadefoot are considered potentially significant. Implementation of Mitigation Measure BIO-2, which requires surveys or protective measures for the protection of California tiger salamander and California red-legged frog, would also identify and protect western spadefoot, if present. No additional measures are recommended.

Western Burrowing Owl. Western burrowing owl is state-listed as a species of concern. Burrowing owls live and breed in burrows in the ground, especially in abandoned ground squirrel burrows. Optimal habitat conditions include large open, dry and nearly level grasslands or prairies with short to moderate vegetation height and cover, areas of bare ground, and populations of burrowing mammals. Resident burrowing owls are rare in northern San Benito County, although wintering owls are known to occur in the area and have been sighted within several miles of the project site. A CNDDDB record (#475) from 1992 includes the project site. One potentially breeding individual was found in a horse pasture dominated by bare areas with sparse vegetation and an active ground squirrel colony.

During the field surveys, no burrowing owls were observed on-site, nor were there any signs of their presence on-site. Given the current land use practices associated with dry farming, it is highly unlikely that burrowing owls would breed on the project site. However, due to the availability of ground squirrel burrows, they may colonize the area at any time. Should active burrowing owl nests occur on or immediately adjacent to the project site, any construction or site preparation activities within or immediately adjacent to an active nest, if conducted during the nesting season, could result in the direct loss of nests, including eggs and young, or the abandonment of an active nest by the adults. This would be considered a potentially significant impact. Therefore, the following mitigation measure is proposed.

Mitigation Measure

BIO-3 (Lemmon Acres EIR MM-9D)

~~Conduct a burrowing owl survey prior to the start of construction on proposed Lots #8-11 and #15-18, by a qualified wildlife biologist to determine their absence or presence. If construction were to begin during the non-breeding season (approximately September-February), active burrows should be occluded to displace owls from the project site. This could be accomplished by filling the burrow entrance or the installation of one-way doors, to prevent entry into the burrow. If burrowing owls are found in the breeding season, occlusion of active burrows should be delayed until after the young have fledged, as determined by field surveys by a qualified biologist. Construction activities should proceed immediately upon displacement of owls from the project site. This measure should be performed in coordination with CDFG.~~

Prior to any ground disturbance at the project site, the applicant shall retain a qualified biologist to conduct a two-visit (i.e. morning and evening) presence/absence survey at areas of suitable habitat on and adjacent to the project site no less than 14 days prior to the start of construction. Surveys shall be conducted according to methods described in the CDFW 2012 Staff Report on Burrowing Owl Mitigation. If these pre-construction "take avoidance" surveys performed during the breeding season (February through August) or the non-breeding season (September through January) for the species locate occupied burrows in or near the construction area, then consultation with the CDFW would be required to interpret survey results and develop a project-specific avoidance and minimization approach.

The applicant shall provide evidence of completion of this mitigation measure to the County planning department, prior to issuance of a grading permit.

Nesting Birds. Vegetation and open areas located within and adjacent to the project site have the potential to provide nesting habitat for native birds. If active nest(s) of native bird species should be present, construction and site preparation activities conducted during the nesting season close to active nests could result in the direct loss of nests, including eggs and young, or the abandonment of an active nest by the adults. The loss of individuals or abandonment of their nests due to project

implementation would be a significant impact. Implementation of modified Mitigation Measure BIO-4 would reduce potentially significant impacts to nesting birds to less than significant.

Mitigation Measure

BIO-4 (Lemmon Acres EIR-9E)

~~Schedule Phase I construction activities outside the nesting season for the Northern Harrier (March through July) and schedule construction activities on Lots #13-20 outside the nesting season for black-shouldered kite and loggerhead shrike to determine whether these species nest on the site. If nesting by these species is observed, require scheduling of construction activities immediately after nesting has been completed for the season, as determined by field surveys.~~

To avoid impacts to nesting birds during the nesting season (January 15 through September 15), to the extent feasible, construction activities that include any vegetation removal or ground disturbance (such as grading or grubbing) shall be conducted between September 16 and January 14, which is outside of the bird nesting season. If construction activities commence during the bird nesting season, then a qualified biologist shall conduct a pre-construction survey for nesting birds to ensure that no nests would be disturbed during project construction.

If construction activities are scheduled during the nesting season (February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to September 15 for other raptors), a qualified biologist shall conduct nesting bird surveys. Two surveys for active nests of such birds shall occur within 10 days prior to start of construction, with the second survey conducted with 48 hours prior to start of construction. Appropriate minimum survey radius surrounding the work area is typically 250 feet for passerines, 500 feet for smaller raptors, and 1,000 feet for larger raptors. Surveys shall be conducted at the appropriate times of day to observe nesting activities.

If the qualified biologist documents active nests within the project site or in nearby surrounding areas, an appropriate buffer between each nest and active construction shall be established. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist

shall conduct baseline monitoring of each nest to characterize “normal” bird behavior and establish a buffer distance, which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if birds show signs of unusual or distressed behavior (e.g. defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist or construction foreman shall have the authority to cease all construction work in the area until the young have fledged, and the nest is no longer active. This measure shall be implemented by the applicant prior to issuance of a grading permit, subject to review and approval by the County planning department.

- b. The nearest aquatic feature, Santa Ana Creek, is outside the property boundaries of 3030 Lemmon Court and is located adjacent to the northeast property line. Natural drainage channels and wetlands are considered Waters of the U.S., and the U.S. Army Corps of Engineers regulates the filling or grading of such jurisdictional waters by authority of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. As Santa Ana Creek is outside the property boundaries, no impacts are anticipated. There is a small vegetated drainage swale leading from the backyard of the property owner's home to the top of the bank of the Santa Ana Creek. This swale lacks a defined channel, bed and bank, and ordinary high water mark, and is therefore not considered a potentially jurisdictional feature.
- c. There are no federally protected wetlands on or near the project site.
- d. Wildlife movement corridors provide connectivity between habitat areas, enhancing species richness and diversity, and usually also provide cover, water, food, and breeding sites. The project site is not likely to facilitate major wildlife movement due to current active disturbance. There are small animal burrows on-site that could potentially provide habitat or facilitate movement corridors for commonly occurring, urban-adapted mammals such as California ground squirrel and Botta's pocket gopher (*Thomomys bottae*). However, because the habitat is marginal, the proposed project would have a less-than-significant impact on wildlife movement.
- e. Measures to protect sensitive biological resources are included in the San Benito County 2035 General Plan, Section 8 Natural and Cultural Resources Element. Goal NCR-2 includes the protection and enhancement of wildlife communities by using a comprehensive system to protect, restore, and conserve vital habitat. Section 8 also includes goals addressing coordination for habitat preservation, habitat protection,

habitat conservation plan, maintain corridors for habitat, mitigation for wetland disturbance or removal, regeneration of oak woodland communities, mitigation of oak woodlands, pre-development biological resource assessment, mitigation funding and site protection, and invasive species.

A review of documents at the San Benito County Resource Management Agency on May 23, 2018 indicate that 3030 Lemmon Court contains mitigation for open space/habitat preservation as a requirement of the Lemmon Acres Subdivision. A previously identified mitigation measure from the Lemmon Acres Subdivision EIR (Tentative Subdivision Map No. 90-38 County Approval Notice, Biotic Condition #5aⁱⁱ), which was the responsibility of the Lemmon Acres subdivision developer (not the current owner) to implement. The mitigation measure required the entire 6.24-acre subject property to be retained in open space. The developer did not implement this mitigation in 1994 and the County did not require it to be implemented.

Circumstances have changed that render the subject property no longer suitable for open space or habitat. The Lemmon Acres subdivision made up of 30 residential lots has since been built out surrounding the subject property (which includes an existing residence with outbuildings and access road). In addition, the subject property was determined in a March 1995 CDFW letter and in conversations with current CDFW staff in 2018 (Brandon Sanderson, telephone interview, May 10, 2018) that the project site is not considered high quality habitat and should not have been considered land appropriate for open space to protect habitat. Further, implementation of the condition of approval #5aⁱⁱ for the 1994 Lemmon Acre Residential Subdivision, related to retaining the property in open space to protect habitat, was not completed and does not show up as a deed restriction or an easement on the title of the 6.24-acre property. Therefore, the County shall require this previous mitigation measure (Biotic Conditions #5aⁱⁱ) to be removed and replaced it with a substantially equivalent and more appropriate mitigation given the current site conditions and resource protection needs (which really focus on Santa Ana creek protection). The following mitigation constitutes substantially equivalent mitigation for the minor subdivision:

Mitigation Measure

BIO-5 As a part of recording the second and third lot in the subdivision, the applicant shall dedicate a 1.45-acre conservation easement, in perpetuity, on the northeastern portion of the property to protect resources adjacent to Santa Ana Creek. The conservation easement shall be subject to review of the RMA Director prior to recording the Final Map for the last two lots.

A dedicated and recorded conservation easement, in perpetuity, as reflected in mitigation measure BIO-5 is a higher standard or level of requirement than what the County requested in 1994 as an area to remain in open space. Therefore, this offer to dedicate, once recorded, will provide an equivalent and satisfactory mitigation.

Trees. The San Benito County Code contains an Interim Woodlands Management Ordinance (Chapter 19.33) which is intended to control the removal of protected woodlands and maintain and enhance tree cover within unincorporated areas of the county. There are native trees on the property, however the percent cover does not meet the standards contained in the ordinance and does not apply.

The San Benito County Code includes Chapter 25.29, Article VII, Tree Protection, which regulates the removal and trimming of mature trees. No trees are proposed for removal and no mitigation measures are necessary.

- f. **Conservation Plans.** There are no critical habitat boundaries, habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans applicable to the proposed project site. Preliminary habitat conservation planning had been underway for many years, however outside of fee collection for impacts to San Joaquin kit fox habitat, this effort is no longer moving forward.

5. CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to section 15064.5? (38, 39, 40)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5? (38, 39, 40)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of dedicated cemeteries? (2, 11, 38, 39, 40)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

The property is located at 3030 Lemmon Court in Hollister, San Benito County, and is currently used as a single-family residence with associated outbuildings and vacant land, with areas of landscaping and fill gravel. The archival database search was conducted through the Northwest Information Center (NWIC), NWIC file #19-0071, of the California Historical Resources Information Center (CHRIS) affiliated with the State of California Office of Historic Preservation in Sacramento. The NWIC was provided with a location map and coordinates of the site to be surveyed, with a request for any recorded sites or previous surveys within the project site boundary.

EMC Planning Group archaeologist Gail Bellenger conducted a pedestrian survey of the project site on July 16, 2019. No significant historic or prehistoric cultural resources were identified within the project site boundaries.

- a. There are no historical resources located within the project site boundaries; therefore, development of the property would not result in a significant effect on a historic structure.
- b. The project site does not have any previously recorded archaeological resources, sacred lands, or sacred sites. However, during earth-moving activities, it is always possible to accidentally discover unknown buried archaeological resources. Disturbance of unique archaeological resources could be considered a significant adverse environmental impact. Implementation of the following mitigation measure would ensure that any accidental discovery of unique archaeological resources would be reduced to a less-than-significant level.

Mitigation Measure

CR-1 The applicant shall be responsible for adding the following language shall be included in grading and construction plans and any permits issued for the project site, subject to review and approval by the County planning department. "If archaeological resources are discovered during construction activities, then work should be halted by the construction crew chief within 50 meters (165 feet) of the find until a qualified professional archaeologist can evaluate it. If the find is determined to be unique, then appropriate mitigation measures will be formulated by the qualified professional archaeologist and implemented by the applicant."

- c. Although no evidence of Native American remains at the project site, there is the possibility of an accidental discovery of human remains during construction activities. Disturbance of Native American human remains is considered a significant adverse environmental impact. Implementation of the following mitigation measure would reduce this potential impact to a less-than-significant level.

Mitigation Measure

CR-2 Due to the possibility that human remains may be discovered during future construction activities, the following language shall be included in all construction documents and on any permits issued for the project site, including, but not limited to, grading and building permits associated with future development of the project site, subject to review and approval by the County planning department:

"If human remains are found during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the coroner is contacted to determine that no investigation of the cause of death is required.

If the coroner determines the remains to be Native American, then the coroner shall contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent (MLD) from the deceased Native American. The MLD may then make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and associated grave contents as provided in Public Resources Code Section 5097.98.

The landowner or authorized representative will reburial the Native American human remains and associated grave contents with appropriate dignity on the property in a location not subject to further disturbance if: a) the Native American Heritage Commission is unable to identify a MLD or the MLD failed to make a recommendation within 48 hours after being allowed access to the site; b) the descendent identified fails to make a recommendation; or c) the landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Implementation of mitigation measure CR-2 will ensure that potential impacts due to accidental discovery of buried human remains will be reduced to a less-than-significant level by requiring that if a find is made, activity is stopped, and appropriate measures are taken.

6. ENERGY

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? (1, 2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? (1, 2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a,b. For purposes of this analysis, the proposed project would be considered to result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption of energy if it failed to comply with California energy efficiency/conservation regulations, related *San Benito County 2035 General Plan* policies, and failed to implement energy demand reduction/efficiency measures.

The proposed project includes improvements to the existing lot and development of three new lots with future plans for residential uses. The proposed project will result in increased demand for energy during its construction and during its long-term operation. Primary sources of energy use will be transportation fuels, electricity, and natural gas.

A multitude of state regulations and legislative acts are aimed at improving vehicle fuel efficiency, energy efficiency, and enhancing energy conservation. For example, in the transportation sector, the representative legislation and standards for improving transportation fuel efficiency include the Pavley I standards. The gradual increased usage of electric cars powered with cleaner electricity will also reduce fossil fuel usage associated with transportation. In the renewable energy use sector, representative legislation for the use of renewable energy includes, but is not limited to Senate Bill 350 and Executive Order B-16-12. In the building energy use sector, representative legislation and standards for reducing natural gas and electricity consumption include, but are not limited to Assembly Bill 2021, CALGreen, and Title 24 building standards. The County of San Benito enforces the California Building Code Standards through the development review process. Further, the *San Benito County 2035 General Plan* policies LU-2.1 through LU-2.7 promote energy efficiency

through innovative and sustainable building and site design. Required conformance with applicable energy conservation/efficiency regulations and standards would ensure that the proposed project does not directly or indirectly result in inefficient, wasteful, and unnecessary consumption of energy.

7. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42? (1, 10, 13)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2) Strong seismic ground shaking? (1, 10, 13)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(3) Seismic-related ground failure, including liquefaction? (1, 10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4) Landslides? (1, 15, 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil? (1, 10, 13)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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? (1, 10, 13)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, creating substantial direct or indirect risks to life or property? (1, 10, 13, 56)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? (52)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (1, 2, 3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

- a,c. **Earthquake Fault Ruptures** The project site is not located within an earthquake fault zones or a known local earthquake fault rupture hazard zone. Considering the distance to the nearest known fault lines, the potential for surface fault rupture at the project site is considered low.

Seismic Ground Shaking. The nearest faults that could cause seismic ground shaking are the Calaveras Fault located approximately two miles southwest, and the Quien Sabe Fault located approximately three miles east. The San Andreas Fault is located several miles southwest of the project site. Although the potential for surface fault rupture within proximity to nearby fault lines is low, seismic ground shaking could still be a concern to development at the project site. The proposed project will be designed in accordance with the seismic design provisions of the latest California Building Code, reducing this potential impact to less than significant.

Liquefaction. The County's WebGIS concludes that liquefaction risk is very low on the project site. Therefore, the potential for adverse effects resulting from liquefaction, including seismic induced settlements, ground surface manifestations, and lateral spreading, would be also be considered low.

Landslides. The *Final Environmental Impact Report City of Hollister General Plan (March 2005 Public Review Draft)* ("City general plan EIR") states that landslides are not an environmental concern in the planning area (p. 4.9-2), which the project site falls within. Moreover, the project site is flat, and is not located adjacent to any hillsides or other sloped area, which could be subject to landslides.

- b. Development of the project site would include up to three acres of soil disturbance. The soil disturbance would occur from construction activities such as excavation and grading, which would increase the potential for soil erosion. Although the proposed project would not create slopes on the site that would increase the risk of long-term erosion, potential erosion-related impacts would be present during the construction period.

Development of the project site is required to follow the provisions and requirements set forth in the County's Municipal Code regarding grading, drainage, and erosion control (Chapter 19.17). This chapter states that the developer shall obtain a grading permit and provide an erosion and drainage control plan identifying the use of best management practices to prevent soil erosion and loss of topsoil during construction of the project site. Further, the County's Municipal Code Section 23.25.013 requires that every tentative map shall comply with the requirements for grading and erosion control, including the prevention of sedimentation or damage to off-site property.

Minimal grading is anticipated for the three lots. The developer will be required to comply with the County's requirements regarding grading and erosion control.

The County's general plan Policy LU-1.8 requires that all submitted site plans and tentative maps depict all environmentally sensitive and hazardous areas including severe erosion hazards and Policy PSF-6.8 ensures that drainage systems are designed and maintained to minimize soil erosion and sedimentation. Compliance with these standards and implementation of the mitigation presented below would reduce impacts related to soil erosion. Review and approval of the future development's erosion control measures by the County building division is required and implementation of these measures would reduce the potentially significant impact related to erosion and loss of topsoil during construction to a less-than-significant level.

Mitigation Measure

GEO-1 The project shall include the preparation and implementation of an erosion control plan to ensure that erosion is controlled during grading and construction activities and does not result in deposition of the soil off site. The applicant shall submit erosion control plan as part of grading/improvement plans prior to any construction activity and is subject to review and approval by the County building division.

- d. According to the Lemmon Acre EIR, the soil within the project site and surrounding area has a moderate shrink-swell potential. Expansive soils are much more likely than liquefiable soils at the site (San Benito County 1992, p. 15). In order to sufficiently determine whether the proposed project would be located on soil that is unstable or would become unstable as a result of the proposed project, a geotechnical report was prepared by Earth Systems in 2020 (included as Appendix B). The geotechnical report found the project site is suitable for the proposed development from a geotechnical engineering standpoint, provided the recommendations included in this report are incorporated into the design and implemented during site grading and foundation construction. The primary geotechnical concern at the site is the presence of expansive surficial soils. If sound engineering practices using the California Building Code and recommendations made in the geotechnical report are implemented, as reflected in mitigation measure GEO-2 below, the proposed project would have less-than significant impacts and would not create a substantial risk to life or property due to an unstable geologic unit or unstable soils.

Mitigation Measure

GEO-2 Prior to the approval of development applications for the individual lots, applicants shall be responsible for demonstrating to the satisfaction and approval of the County Public Works Department that proposed design plans are in conformance with all current California Building Code standards and that all design measures and site preparation recommendations as suggested in the geotechnical report have been incorporated into the project's final design.

- e. According to the USDA Soil Conservation Service, project site soils on the portion of the site that would include three new residences consist of Antioch loam (AnA), 1 to 2 percent slopes, with severe limitations for use as a septic tank filter field and therefore, onsite soils may not provide proper percolation for conventional septic tank and leachfield systems. This could be considered a significant adverse environmental impact. In accordance with the County Department of Public Health requirements under County Code Section 15.07, prior to approval of the final map for each lot, the applicant shall ensure that septic systems for each lot be properly designed, constructed, and maintained to avoid degradation of ground and surface water quality. Implementation of this standard County requirement under Code Section 15.07 would reduce this potential impact to a less-than-significant level.
- f. There are no unique geologic features located on or adjacent to the project site. Although there are no specific indications of paleontological resources associated with the project site, during earth-moving activities, it is always possible to accidentally discover buried paleontological resources. Disturbance of unique paleontological resources could be considered a significant adverse environmental impact. Implementation of Mitigation Measure GEO-3, presented below, would reduce this potential significant effect to a less-than-significant level.

Mitigation Measure

GEO-3 Due to the possibility that unique buried paleontological resources might be found during construction, the applicant shall include the following language on all construction documents and on any permits issued for the project site, including, but not limited to, grading and building permits associated with future development of the project site:

“If paleontological resources are unexpectedly discovered during construction, work shall be halted immediately within 50 meters (160 feet) of the find, and the County Planning Department notified, until it can be evaluated by a qualified professional

paleontologist. If the find is determined to be unique, an appropriate resource recovery shall be formulated, with the concurrence of the County of San Benito."

8. GREENHOUSE GAS EMISSIONS

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (1, 4, 42, 43)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (1, 4, 42, 43)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a,b. The California Legislature has enacted a series of statutes in recent years addressing the need to reduce greenhouse gas emissions across the State. In September 2006, the California State Legislature enacted the California Global Warming Solutions Act of 2006, also known as Assembly Bill (AB) 32. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 was amended by Senate Bill (SB) 32. Effective January 1, 2017, SB 32 requires that statewide GHG emissions be reduced to 40 percent below 1990 levels by 2030. AB 32 and SB 32 represent the current state legislative framework commonly used by local and regional agencies across the state as guidance for reducing GHG emissions from activities within their respective jurisdictions.

The proposed project is located within the boundaries of the Monterey Bay Air Resources District (hereinafter “air district”). To date, the air district has not adopted CEQA guidance for analysis of GHG effects of land use projects (e.g. numerical thresholds of significance) nor has it prepared a qualified GHG reduction plan for use/reference by local agencies located within the air district. Further, San Benito County has not adopted a GHG reduction emissions plan or climate action plan that is applicable to new development within the county.

In lieu of locally adopted thresholds of significance, guidance provided by the San Luis Obispo County Air Pollution Control District (“SLOCAPCD”), which is adjacent to the air district to the south, and the Bay Area Air Quality Management District (“BAAQMD”), which is adjacent to the air district to the north, is used solely for comparative purposes.

Construction Impacts. Construction GHG emissions would be generated by equipment used during site preparation, grading, and building construction. Excavation, grading, and construction would be temporary activities, occurring only over the construction period, and would not result in a permanent increase in GHG emissions. Therefore, the proposed project would result in a less-than-significant impact with respect to GHG emissions during construction.

Operational Impacts. The proposed project includes up to three single-family homes. Operational GHG emissions would be generated primarily by vehicle trips of residents, and indirectly by use of electricity and natural gas on site, by use of electricity to pump water supply and treat wastewater, and from decomposition of solid waste generated by project residents.

Screening criteria used by the SLOCAPCD to determine the type and scope of projects with the potential to result in a significant operational GHG impact is presented in Table 1-1, Operational Screening Criteria for Project Air Quality Analysis, of its CEQA Air Quality Handbook. SLOCAPCD's screening size for rural single-family homes is 54 dwelling units. The 2017 BAAQMD CEQA Air Quality Guidelines, Table 3-1 Criteria Air Pollutants and Precursors and GHG Screening Level Sizes, identifies land uses by size that are typically not expected to result in significant operational GHG emissions. BAAQMD's screening size for single-family homes is 56 dwelling units.

Since the proposed project falls below the screening size used by adjacent air districts (SLOCAPCD and BAAQMD) for single-family homes, it would result in a less-than-significant impact related to operational GHG emissions. As a result, the proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions.

9. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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? (1, 13, 17, 54)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (1, 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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, create a significant hazard to the public or the environment? (1, 18)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 a public-use airport, result in a safety hazard or excessive noise for people residing or working in the project area? (1, 19)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? (1, 10, 12)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a. The proposed project includes the development of residential units and would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

- b. Based on historic aerials of the project site, the Lemmon Acre EIR's Proposed Tentative Subdivision Map, and a 1997 parcel map of the Lemmon Acre subdivision, the project site is generally the same today as it has been since approximately 1990. An existing gas transmission line runs north to south near the project site approximately 250 feet to the west. Therefore, it is not expected that there would be a release of hazardous material that would create a significant hazard to the public or the environment. Only nominal amounts of hazardous material in the form of fuels and other construction materials would be used during construction of the proposed project, and these materials would not pose an elevated risk to the public.
- c. The project site is not located within one-quarter mile of an existing or proposed school.
- d. Government Code Section 65962.5 requires that the Department of Toxic Substances Control compile and regularly update a list of hazardous waste facilities and sites. A search of the Envirostor website (California Department of Toxic Substances Control 2019) revealed that the project site is not on the list.
- e. The project site is just outside of the "Airport Influence Area" as identified in the Hollister Airport Land Use Plan Map 1 (San Benito County Airport Land Use Commission 2012).
- f. The proposed project does not include any changes to any roadways and, therefore, would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- g. The project site is located within an urbanized area and is not located in a very high fire hazard area, as delineated by the California Department of Forestry and Fire Protection (California Department of Forestry and Fire Protection 2007) and the County's WebGIS. Therefore, the proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

10. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? (1, 2, 3, 7, 8, 10, 11)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? (1, 10, 23, 24)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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:				
(1) Result in substantial erosion or siltation on- or off-site; (1, 10, 13)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; (1, 7, 8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(3) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or (1, 7, 8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(4) Impede or redirect flood flows? (1, 7, 8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? (1, 10)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? (1, 2, 3, 44, 45, 46)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a. **Water Quality Standards.** The State Water Resources Control Board has implemented a National Pollutant Discharge Elimination System (NPDES) Program to control and enforce storm water pollutant discharge reduction per the Clean Water Act. The Central Coast Regional Water Quality Control Board (RWQCB) issues and enforces the NPDES permits for discharges to water bodies in San Benito County.

Construction Impacts. Development of the project site has the potential to increase discharge of storm water pollutants during construction due to ground disturbance. Projects disturbing more than one acre of land during construction, or disturb less than one acre but are part of a larger common development greater than one acre, are required to obtain coverage under the State of California NPDES General Construction Permit. The General Permit requires the project applicant to file a Notice of Intent with the State Water Resources Control Board and develop and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP addresses the control of all pollutants and their sources associated with construction activity; identify and eliminate non-storm water discharges; and ensure that Best Management Practices are being implemented. The developer would be required to obtain a State NPDES Construction General Permit for disturbance of up to three acres of the project site. By complying with the Construction General Stormwater Permit requirements, the proposed project would not violate any water quality standards.

Operational Impacts. Development of the project site has the potential to affect water quality from the discharge of sediments, pathogens, nutrients, heavy metals, oil and other petroleum products. Although detention ponds are proposed on each of the three one-acre lots to reduce post-construction water quality impacts, impacts to water quality could still be considered significant if the detention ponds are not properly designed. Implementation of the County's standard requirements for the design, siting, construction, and maintenance of stormwater drainage facilities (per County Code Section 23.17.003(b)) would reduce this potential impact to a less-than-significant level.

The project's compliance with the County's requirements for stormwater drainage facilities and NPDES permit requirements would result in less-than-significant impacts to water quality.

Waste Discharge Requirements. Refer to Section 7.0, Geology and Soils, checklist question e). The project site, including the surrounding residences, uses septic tanks for sewage disposal. The septic tanks on the three additional one-acre lots would be constructed and maintained pursuant to the County's Municipal Code Section 15.07,

Sewers and Sewage Disposal and as identified in Mitigation Measure GEO-3 (see Section D.7 Geology and Soils). Waste discharge requirements would not be violated as a result of the proposed project.

- b. **Groundwater Supplies.** The Sunnyslope County Water District (hereinafter “water district”) would provide water services to the proposed project. The following table provides a breakdown of the net increase in water on the project site.

Table 1 Water Use

	Units	Unit Factor ¹	Total ²
Existing Single-Family Residence	1	0.32	0.32 acre-feet/year
Net Increase of Three (3) Single-Family Residences	3	0.32	0.96 acre-feet/year

SOURCE: HDR 2017

NOTE: (1) Unit factors are sourced from the *Hollister Urban Area Water and Wastewater Master Plan Update – City of Hollister, San Benito County Water District, and Sunnyslope County Water District* prepared in June 2017 (p.44).

(2) Results may vary due to rounding.

The proposed project would result in a net increase in water demand of 0.96 acre-feet per year (“AFY”). The 2015 *Hollister Urban Area Urban Water Management Plan* (hereinafter “urban water management plan”) was prepared to help guide the water district’s future water management efforts. Water demand of the water district’s service area was evaluated in the urban water management plan and concludes that water demand is expected to increase to 10,286 AFY by 2035 (Sunnyslope County Water District 2016, p. 4-3); approximately 3,254 AFY is expected to be the increase in water demand for single-family residences in 2035 (Sunnyslope County Water District 2016, p. 4-2). In addition, the underlying groundwater sub-basins have a sustainable yield of roughly 16,000 AFY (Sunnyslope County Water District 2016, p. 6-17). The proposed project would minimally impact this total with a net water demand of 0.96 AFY. Therefore, the proposed project would have sufficient water to meet projected water demands in addition to meeting the service area’s existing and planned demands.

Groundwater Recharge. Although there is a gentle slope on the project site from east to west, most existing storm water percolates into the ground onsite due to the currently undeveloped and pervious nature of the site. This onsite drainage supplements the Gilroy-Hollister Groundwater Basin (“groundwater basin”) in addition to the water district’s efforts to support groundwater recharge through its two reservoirs, the Hernandez Reservoir and the Paicines Reservoir. Water stored in these two reservoirs is released for percolation in Tres Pinos Creek and the San Benito River to augment groundwater recharge during the dry season (Sunnyslope County Water District 2016, p. 6-5).

The proposed project would create impervious surface areas such as driveways and residential structures thereby potentially interfering with groundwater recharge. Future development of the project site would be required to comply with Regional Water Quality Control Board's Post-Construction Stormwater Management Requirements, and the County's Policies PFS-6.2, -6.3, -6.4, and NCR-4.5, which would: require stormwater management practices that would reduce impacts to groundwater recharge; encourage natural stormwater drainage and facilitate groundwater recharge; requires project design to complement groundwater recharge; and encourages new development that preserves groundwater recharge areas, respectively. In addition, three detention ponds are proposed for Lots 1, 2, and 3 to detain storm water runoff onsite and ultimately drain into the ground, thereby allowing for groundwater recharge.

The proposed project would not contribute to a substantial depletion of groundwater supplies or interfere substantially with groundwater recharge.

- c. **Drainage Patterns.** The project site overall is generally flat and according to the proposed tentative map, proposed Lots 1, 2 and 3 have a gentle slope from east (319 feet above sea level) to west (313 feet above sea level), towards the existing fencing separating the proposed project from residences to the west. The existing residential lot slopes gently from 318 feet above sea level, north into Santa Ana Creek at about 304 feet above sea level. The proposed project, in addition to development of single family residences, includes detention ponds on Lots 1, 2, and 3; therefore, the drainage patterns for these proposed lots would be modified and storm water would remain onsite.

Erosion or Siltation. Development activities associated with future development of the project site may lead to erosion and/or siltation (refer back to Section 7.0, Geology and Soils, checklist question b). Compliance with the standards and requirements listed in Section 7.0, Geology and Soils, would ensure any potentially significant adverse impacts associated with erosion or siltation are less than significant.

Flooding On- or Off-site. The northeastern corner of the project site is located within the 100-year flood zone due to its proximity to the bordering Santa Ana Creek. However, this flood zone is primarily within proposed Lot 4 (refer back to Figure 4, Tentative Subdivision Map), which has no future plans for development and includes a 1.45-acre open space/conservation easement. Therefore, no development would occur within the 100-year flood zone. However, according to County Municipal Code Section 23.31.044, a drainage report is required for subdivisions larger than two acres. Implementation of the County's standard requirement to prepare a drainage report for review and approval by the County would reduce potential flooding impacts to a less-than-significant level.

Storm Water Drainage. As stated in the Lemmon Acres EIR, the drainage system for the Lemmon Acres Subdivision was to be designed in accordance with the County Subdivision Ordinance (Chapter 23.31, Article III, Storm Drainage Design Standards, of the County's Municipal Code) and would be designed to limit post-project runoff to pre-development rates (San Benito County 1992, p. 21). The proposed project would be designed to direct onsite drainage to the proposed detention ponds on each proposed Lots 1, 2, and 3. Future development of the project site will require the payment of storm water impact fees at the time of building permit issuance for use in future storm drain capital improvement projects. Mitigation Measure GEO-2, located in Section 7.0, Geology and Soils, checklist question d), would be required to reduce the impacts related to storm water drainage on the project site to a less-than-significant level.

Flood Flows. Implementation of Mitigation Measure GEO-2, located in Section 7.0, Geology and Soils, checklist question d), and Mitigation Measure HYDRO-1 mentioned above, would reduce impacts related to redirecting flood flows to a less-than-significant level.

- d. **Flood Hazards.** The northeastern corner of the project site (portion of Parcel 4) is located within the Federal Emergency Management Agency Flood Zone AE (100-year flood zone) due to the Santa Ana Creek running along the border of, and outside of, the project site. However, no development is proposed within this flood zone area and all future development proposals on the three new lots would be required to comply with County Policy HS-2.1, which requires all new development to be protected from 100-year floods to prevent flood damage. By complying with the County's policy, the proposed project would result in less-than-significant impacts related to flood hazards.

Tsunami and Seiche Hazards. The project site is not located in a zone that would result in hazards related to tsunamis and/or seiche hazards.

- e. The *Water Quality Control Plan for the Central Coastal Basin* (hereinafter "Basin Plan") shows how the quality of the surface and ground waters in the Central Coast Region should be managed to provide the highest water quality reasonably possible. The Regional Water Quality Control Board implements the Basin Plan by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose waste discharges can affect water quality. These requirements can be either State Waste Discharge Requirements for discharges to land, or federally delegated NPDES permits for discharges to surface water. As discussed under checklist question a) above, the project developer would be required to obtain a State NPDES

Construction General Permit for development on the seven-acre project site. By complying with the Construction General Stormwater Permit requirements, the proposed project would not conflict with the Basin Plan.

The Sustainable Groundwater Management Act is a State law requiring groundwater basins to be sustainable. The act enables eligible local agencies to form groundwater sustainability agencies, develop groundwater sustainability plans for designated basins in their jurisdiction by 2020, and achieve groundwater sustainability within 20 years of plan implementation. The San Benito County Water District is the groundwater sustainability agency for the Bolsa, Hollister, San Juan Bautista, and Tres Pinos groundwater basins. The San Benito County Water District has provided draft sections of its groundwater sustainability plan, but the plan has yet to be completed and adopted. Therefore, the proposed project would not conflict with the sustainable groundwater management plan.

11. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Physically divide an established community? (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause any 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? (1, 2, 3, 4, 5, 7, 8, 10, 11, 15, 16, 21, 22, 23, 24, 29, 30, 31, 32, 33, 35, 42, 43, 44, 45, 46)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a. The project site is located within the fully built-out and operational Lemmon Acres Residential Subdivision and would be surrounded by existing rural residential development. Therefore, the proposed project would not physically divide an established community.
- b. The proposed project, as mitigated, would be consistent with the air district's air quality management plan and would not conflict with general plan policies and air district requirements that call for the reduction of exposures to significant sources of air contaminants (refer to Section 3, Air Quality and Section 9, Hazards and Hazardous Materials).

The project site is not part of or near an existing habitat conservation plan or natural community conservation plan (refer to Section 4, Biological Resources).

SB 32 is considered to be the plan for reducing GHG emissions that is applicable to the proposed project. The GHG threshold of significance derived for the project is based on the rate of project emissions below which the project would not impede attainment of the SB 32 statewide emissions reduction goal for 2030. SB 32 is considered to be the applicable plan for reducing GHG emissions. Project emissions are below the threshold, the project would not conflict with SB 32 emissions reduction goals (refer to Section 8, Greenhouse Gas Emissions).

As discussed in Section 10, Hydrology and Water Quality, the project overlies the Gilroy-Hollister Groundwater Basin of which its water quality and management is discussed in the Basin Plan. The proposed project does not conflict with the Basin Plan, which is implemented by the Regional Water Quality Control Board, because

the project developer will obtain a State NPDES Construction General Permit for development on the seven-acre project site to comply with the Construction General Stormwater Permit requirements. Additionally, the proposed project would not conflict with the sustainable groundwater management plan because the San Benito County Water District has yet to complete and adopt a groundwater sustainability plan.

The proposed project is also required to prepare and implement a SWPPP in conformance to the Regional Water Quality Control Board Construction General Permit. The proposed project is subject to compliance with the required improvements related to storm drainage as stated in County Code Section 23.17.003(b) and other relevant standards, which are established by the County pursuant to its Municipal Regional Stormwater Permit and Waste Discharge Requirements.

As discussed in Section 13, Noise, the proposed project, as mitigated, would not conflict with general plan policies or municipal code requirements for reducing exposures to unacceptable noise or construction vibration.

As discussed in Section 17, Transportation, the proposed project would not conflict with the County's congestion management program, or adopted policies or plans regarding public transit, bicycle or pedestrian facilities.

For these reasons, the proposed project would not result in significant physical environmental impacts due to conflicts with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

12. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Result in loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (1, 2, 3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land-use plan? (1, 2, 3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a,b. The proposed project is not located in areas identified in the general plan as having known mineral resources (Figure 3-1) and the project site is not zoned for mineral extraction. Therefore, the proposed project would not result in impacts to known mineral resources or result in the loss of availability of a locally important resource recovery site.

13. NOISE

Would the project result in:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in applicable standards of other agencies? (1, 16)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive ground-borne vibration or ground borne noise levels? (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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, expose people residing or working in the project area to excessive noise levels? (1, 6, 19)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a. The noise element of the general plan establishes land use computability criteria for transportation noise sources in terms of the Day-Night Average Level (L_{dn}) to describe noise exposure for noise compatibility planning purposes. The guidelines define an outdoor level of 60 dB L_{dn} as being "normally acceptable" for residential uses. The noise element requires that interior noise levels for all new residential construction not exceed 45 dB L_{dn} .

Short-term Construction Noise. The majority of construction activities within the project site would generally occur at distances of greater than 200 to 300 feet from nearby noise-sensitive land uses (residences). Construction noise could result in a short-term significant increase in ambient noise levels at nearby noise sensitive land uses. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level.

Mitigation Measure

- N-1 To reduce construction-related noise, the developer shall include the following measures as notes on improvement plans to be submitted prior to any construction activity and shall observe said measures during all construction activity:

- a. Operation of construction equipment shall be limited to the hours of 7:00 a.m. and 6:00 p.m. on weekdays and 8:00 a.m. and 5:00 p.m. on Saturdays. No construction shall be allowed on Sundays or federal holidays;
- b. All internal combustion engine-driven equipment shall be equipped with mufflers;
- c. All stationary noise-generating equipment, such as air compressors and portable power generators, shall be located as far away as possible from adjacent land uses;
- d. Staging areas and construction material areas shall be located as far away as possible from adjacent land uses;
- e. Unnecessary idling of internal combusting engines shall be prohibited; and
- f. The days and hours of construction, as well as, the name and phone number of a designated representative to be contacted for noise-related concerns, should be posted at the perimeter of the project site..

Long-term Operational Noise. The project site is located in a quiet, rural residential area, with traffic along vicinity roadways being the greatest noise contributor. Fairview Road is the busiest roadway in the immediate vicinity of the project site. According to the County general plan EIR (Tables 19-20 and 19-21), the average daily traffic on Fairview Road in the project vicinity was approximately 6,120 in the year 2010. With buildout of the general plan in 2035, the average daily traffic on Fairview Road was projected to be 26,118.

The proposed project would result in three rural residences, which would generate approximately 28 vehicle trips per day, using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition, 2017, trip generation rate of 9.44 trips per day per residence. Under both the 2010 and 2035 general plan scenarios, the proposed project would add less than one percent of traffic to the existing system. Therefore, the addition of 28 vehicle trips per day on the County's roadway system would not result in a significant noise impact.

- b. Common sources of ground-borne vibration associated with construction activities include activities such as blasting, pile-driving and operating heavy earth-moving

equipment, none of which are expected to be used in the construction of the proposed three rural residences. Therefore, the proposed project would not result in the generation of excessive ground-borne vibration or ground borne noise levels.

- c. The project site is outside of the "Airport Influence Area" and the "Noise Impact Zone," as identified in the Hollister Airport Land Use Plan, Map 1 and Map 2, respectively (San Benito County Airport Land Use Commission 2012).

14. POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)? (1, 20)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a. According to the Department of Finance for the County, the person per household rate is 3.41 (California Department of Finance 2019). Therefore, the proposed project would result in a population of approximately 10. Therefore, the proposed project would not induce substantial unplanned population growth.
- b. The proposed project would not displace existing people or housing.

15. PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of or 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 following public services:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection? (1, 7, 8, 47)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Police protection? (1, 7, 8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Schools? (1, 7, 8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Parks? (1, 2, 3, 7, 8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other public facilities? (1, 7, 8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a,b. The proposed project would require fire and police protection, but not to the extent that new or physically altered fire and police facilities would be required. Future residential development proposed for the three new residential lots would be required to comply with fire safety and building code standards as enforced by the City of Hollister Fire Department, which serves the project site and unincorporated San Benito County (Hollister Fire Department 2019). Further, the proposed project will be required to pay the applicable development impact fees for fire and police services.
- c. The proposed project is estimated to generate approximately 10 new residents (see Section D.14, Population and Housing) which is not considered a substantial increase in the County's population and would not necessitate the construction of new school facilities that would create any environmental impacts. However, the proposed project will be required to pay the applicable development impact fees associated with school facilities.
- d. The proposed project would result in three new residential lots and is estimated to generate approximately 10 new residents. The County's General Plan did not identify the need for additional parkland. According to the General Plan EIR, approximately 899 acres of existing parkland serve County residents and visitors, not including federal and state parks and wildlife areas. Based on this amount, the recreation resources within the County provide approximately 16.2 acres of parkland per 1,000

people, not including recreational facilities within County service areas, some of which are private. Thus, the County is currently exceeding its parkland standard (San Benito County 2015, p. 18-24).

The addition of approximately 10 new residents to the County would not require the construction of additional parks that would create any environmental impacts. However, it shall be noted that all new developments require contribution to eventual parkland acquisition and, therefore, the County's Parkland Dedication Fee is a requirement by the developer as a standard condition of approval.

- e. The proposed project would not require the construction of any other additional public facilities that would create environmental impacts.

16. RECREATION

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? (1, 7, 8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? (1, 7, 8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a,b. As noted in Section D.15 "Public Services," the addition of three residential lots, which would generate approximately 10 new residents, would not substantially increase the use of existing neighborhood and regional parks or other recreational facilities in a manner that would accelerate the physical deterioration of those existing facilities. In addition, the project does include recreational facilities or require the construction or expansion of recreational facilities.

17. TRANSPORTATION

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?(1, 2, 22)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? (1, 2, 22, 59)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?(1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in inadequate emergency access?(1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a. The Institute of Transportation Engineers' standard traffic generation rate for single-family residential development is approximately 9.44 weekday trips per single family dwelling unit (*Trip Generation Manual*, 10th Edition, 2017). The weekday morning peak hour of traffic generally falls within the 7:00 to 9:00 a.m. period and the weekday afternoon peak hour is typically in the 4:00 to 6:00 p.m. period.

Table 2 Net Trip Generation

Proposed Land Use (Code 210) ¹	Size (units)	Daily		AM Peak Hour		PM Peak Hour	
		Rate	Trips	Rate	Trips	Rate	Trips
Proposed Net Three Single-Family Residences ²	3	9.44	28	0.74	2	0.99	3

SOURCE: Institute of Transportation Engineers, 10th Edition, 2017

NOTE: (1) From the Trip Generation Manual, 10th Edition, Land Use Code 210 for Residential Single-Family Housing.

(2) Results may vary due to rounding.

The proposed project would result in a net increase of 28 daily trips, which would not result in an exceedance of the expected trip volumes already anticipated by the County's general plan.

Pursuant to the County's general plan Policy C-1.5, the project developer would be required to pay its fair share of costs for new and expanded transportation facilities, as applicable, to County and City facilities to reduce congestion and maintain safety standards (San Benito County 2015, p. 19-45). The proposed project also complies with the County's general plan Policy LU-1.2, which encourages new development to be located in compact, clustered development patterns that use land efficiently, and facilitate walking, bicycling, and transit use; such patterns would apply to infill development (San Benito County 2015, p. 19-37).

The proposed project is considered an infill project as the surrounding residences and circulation system are built out and functioning. Lemmon Court and nearby streets include curbs for pedestrian use, but no bike lanes have been included in its design. However, the local streets that access the project site involves a generally low volume of vehicles and, therefore, bicycle lanes are not necessary. The proposed project is not of sufficient size or density to warrant provision of a new public transit facility. The proposed project would not conflict with adopted policies or plans regarding public transit, bicycle or pedestrian facilities; therefore, the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

As the proposed project would generate minimal new trips and the proposed minor subdivision would be consistent with existing General Plan land use designation and would not result in a more intense use than previously considered, the proposed project would not conflict with any program, plan, ordinance or policy addressing the circulation system.

- b. Section 15064.3, subdivision (b) of the CEQA Guidelines describes criteria for analyzing transportation impacts. The proposed project would result in an increase in approximately 28 daily trips. Many local agencies have developed screening thresholds to indicate when detailed analysis is needed. As set forth in the Governor's Office of Planning and Research *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018), "absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact" (OPR 2018, p. 12). Because the project would be considered consistent with the County General Plan, and the project would not generate a significant number of trips and associated vehicle miles traveled, a less-than-significant impact would occur, and no mitigation would be required.

- c,d. Access to the project site would be provided via Lemmon Court. The tentative map prepared for the project site indicates a single access point for Lot 4 through a new driveway (the previous driveway to Lot 4 is planned for removal). The proposed driveway would be placed at the border of Lots 2 and 3. The project site access driveway must be designed adhering to the County's design guidelines and standards, including minimum width, minimum distance to adjacent intersections/driveways, and adequate sight distance.

Future residential development on the project site would adhere to County design guidelines and standards and would be subject to approval by the County Resource Management Agency and Public Works Department, which would ensure that future development is adequately designed to minimize hazards associated with design. Therefore, the proposed project would not increase hazards due to a design feature or result in inadequate emergency access.

18. TRIBAL CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, or 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:				
(1) 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 ()	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision(c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. ()	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

- a. No California Native American tribes traditionally and culturally affiliated with the project area have requested consultation under Assembly Bill 52. See Section D.5 "Cultural Resources," for additional discussion and evaluation of the project's impact on cultural resources.

19. UTILITIES AND SERVICES SYSTEMS

Would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? (1, 7, 8, 10, 11)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? (1, 10, 23, 24)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (1, 7, 8, 55, 57)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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? (1, 25, 26, 27, 28)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? (1, 28)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a. **Water Facilities.** The project site has a general plan designation of Residential Rural, which allows for single-family residences, and is currently served by the Sunnyslope County Water District. The *Hollister Urban Area Master Plan Update*, prepared for the Hollister Urban Area (which the project site falls within), includes an evaluation of projected new connections and water demands (see Table 3-8 and Table 3-9, respectively) for single-family residences through 2035. As identified in Section 10.0, Hydrology and Water Quality, checklist question b), the proposed project would result in a net increase of 0.64 AFY in water demand, which is accounted for in Tables 3-9 and 3-10 of the 2017 *Hollister Urban Area Master Plan Update*. In addition, the urban

water management plan concludes that the water district's demand is expected to increase to 10,286 AFY by 2035 with the underlying groundwater sub-basins having a sustainable yield of roughly 16,000 AFY. Therefore, the water district would have sufficient water to meet projected water demands of the proposed project in addition to meeting the service area's existing and planned demands, and no additional or expanded water treatment facilities are necessary.

Wastewater Treatment Facilities. The project site will use septic systems similar to the surrounding residences. Therefore, the proposed project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities.

Storm Water Drainage Facilities. The proposed project would increase the amount of impervious surfaces due to potential future construction of three additional single-family residences. As discussed in Section 10.0, Hydrology and Water Quality, the proposed project would require a Construction General Stormwater Permit that reduces the impact of excessive runoff water. In addition, the proposed project will be required to incorporate Low Impact Development strategies and Best Management Practices to reduce storm water runoff, encourage infiltration, and reduce pollutant transmission. Therefore, the proposed project would not create or contribute substantial amounts of runoff water that would exceed the capacity of existing or planned storm water drainage systems.

Electric Power, Natural Gas, and Telecommunications Facilities. The proposed project would be served by Pacific Gas and Electric as identified on the tentative map for the Lemmon Acres EIR for the surrounding residences. There would be no expansion or construction of new facilities.

- b. Refer to Section 10.0, Hydrology and Water Quality, checklist question b). The proposed project would have sufficient water to meet projected water demands in addition to meeting the service area's existing and planned demands.
- c. The proposed project, as with the surrounding residences, would use septic systems. Currently the State Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy) allows a maximum residential density of one dwelling per 2 ½ acres in areas with 15 inches or less of average annual rainfall. Per the County Environmental Health Department, the County is currently subject to the State OWTS Policy. However, the County is considering adoption of its own Onsite Wastewater Treatment Systems Local Agency Management Program (LAMP) that would establish the County's own standards for wastewater treatment and allowed densities for new subdivision based on average

rainfall. As the project site falls within an area of 15 inches or less of average annual rainfall, the project as proposed would not currently comply with State OWTS policy and therefore an inadequacy with wastewater service for the site which would be considered an adverse environmental impact as a result of the project. Therefore, the proposed project would be required to occur over two phases to allow for buildout of the full four-lot subdivision and ensure compliance with existing wastewater regulations and policy utilized by the County. The first phase one lot phase would comply with the current standard of 1 septic system per 2½ acres and a later phase (phase two) for two additional lots if the standard becomes more permissive under the County's adopted LAMP. The following mitigation measure will ensure compliance with current state policy regarding wastewater service and ensure adequate wastewater capacity for the site:

Mitigation Measure

UTL-1 To ensure compliance with State Onsite Wastewater Treatment systems (OWTS) Policy, the County shall only allow one (1) of the three lots be recorded (phase 1) until such time that the County of San Benito adopts a Local Agency Management Program (LAMP). Once the local LAMP policy is adopted, and assuming the subdivision conforms with the local policy, the applicant may then record the other two (2) one-acre lots (phase 2). The applicant shall provide a note on the phase 1 final map to document this requirement and shall be verified by County Environmental Health prior to approval of final map for the first phase.

If the County's adopted LAMP and its associated density allowances for new subdivisions do not permit the configuration or number of lots proposed, then the subdivision shall remain at the two lot configuration permitted in phase 1.

- d. Recology San Benito County provides garbage and recycling collection service in Hollister, San Juan Bautista, and unincorporated San Benito County. Solid waste is disposed of at the John Smith Road Landfill. The landfill is owned by the County of San Benito and is operated by Waste Connections Inc. According to the California Department of Resources Recycling and Recovery (hereinafter "CalRecycle"), the John Smith Road Landfill has a remaining capacity of approximately 3.5 million cubic yards as of March 31, 2018. The landfill has a cease operation date of January 1, 2032. The maximum permitted throughput is 1,000 tons per day (CalRecycle 2019).

According to the CalRecycle's Jurisdiction Diversion/Disposal Rate Detail report for the year 2017, San Benito County produced approximately 5.60 pounds of solid waste per person per day. Based on an average of 3.41 persons per household in the County (California Department of Finance 2019), future development of the site with three single-family homes could generate an estimated ten (10) new residents. Therefore, the proposed project would generate approximately 56 pounds (5.60 pounds per person x 10 residents) of solid waste per day or 0.03 tons of solid waste per day.

Chris Nottengkamper, Site Manager, John Smith Road Landfill (telephone communication, December 20, 2018) stated that the landfill currently receives a weekly average of approximately 353 tons of solid waste per day. Including the proposed project, the landfill would receive approximately 353.03 tons per day, which would not exceed the landfill's maximum permitted throughput of 1,000 tons per day. Therefore, the proposed project would not generate solid waste that would exceed the landfill capacity.

- e. State mandates such as AB 939, AB 341, AB 1826 and SB 1383 require all California jurisdictions to implement organics recycling programs, business/residential recycling programs and meet mandatory diversion from landfill or face potential compliance schedules and or fines. Recology San Benito County introduced new recycling and organics collection programs starting November 1, 2018 to help the cities of Hollister and San Juan Bautista, and San Benito County meet state waste diversion mandates. Future development of the project site would be required to comply with the new recycling programs and, therefore, would comply with federal, state, and local statutes and regulations related to solid waste.

20. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than-Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan? (1, 3, 12)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 wildfire? (1, 3, 12)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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? (1, 3, 12)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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? (1, 3, 12)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

- a-d. The California Department of Forestry and Fire Protection fire zone severity map for San Benito County indicates that the project site is not included within or near to a "High Fire Hazard" zone (CalFire 2007). In addition, the County's general plan EIR Figure 12-1 identifies the entire project site as being within a Non-Wildland/Non-Urban Fire Hazard Zone. Therefore, no further analysis is necessary.

21. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-Than- Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory? (2, 11, 32, 33, 35, 36, 37, 38, 39, 40, 48, 49, 50, 51)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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) (2, 11, 32, 33, 35, 36, 37, 48, 49, 50, 51)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly? (1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 16, 29, 30, 31, 55, 57)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

- a. As reported in Section D.4, Biological Resources, construction activities associated with the proposed project has the potential to impact habitats for San Joaquin kit fox, California tiger salamander, burrowing owl and nesting birds during construction activities. Implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-4 would reduce these potential impacts to a less-than-significant level. As discussed in Section D.5, Cultural Resources, construction activities associated with the proposed project also have the potential to disturb unknown archaeological resources and/or unknown human remains. Implementation of Mitigation Measures CR-1 and CR-2 reduce these potential impacts to a less-than-significant level.

- b. The proposed project has the potential to result in cumulatively considerable impacts in the areas of: sensitive biological resources (San Joaquin kit fox, California tiger salamander, burrowing owl, and nesting birds), air quality (construction-related impacts) and noise (construction-related impacts). However, with the implementation of identified mitigation measures, impacts of the proposed project would not be cumulatively considerable.
- c. As described in Section D.3, Air Quality, the proposed project could result in short-term air quality impacts associated with construction activities and diesel emissions associated with construction equipment and vehicles. With the implementation of Mitigation Measures AQ-1, AQ-2, and AQ-3, this would be a less-than-significant impact.

As noted in Section D.7, Geology, in order to sufficiently determine whether the proposed project would be located on soil that is unstable or would become stable as a result of the proposed project, a geotechnical report and erosion control plan will be required. Implementation of Mitigation Measures GEO-1 and GEO-2 would reduce this potentially significant impact to a less-than-significant level.

As noted in Section D.13, Noise, significant but temporary noise excesses will occur at the surrounding residences that are adjacent to the site during much of the construction, due to the close proximity. Therefore, implementation of Mitigation Measure N-1 would ensure that short-term noise impacts are less than significant.

As noted in Section D.19, Utilities and Services Systems, the project may result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Therefore, implementation of Mitigation Measure UTL-1 would ensure that impacts related to inadequate wastewater capacity are less than significant.

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APPENDIX A

AIR DISTRICT CONSISTENCY DETERMINATION SPREADSHEET

row MBUAPCD CONSISTENCY DETERMINATION PROCEDURE Ver. 4.0

Data entry Data entered by user.

Consistency Finding NO YES

6	Jurisdiction:	County of San Benito Unincorp	Lead Agency selects from pull down
7	Project Name:	3030 Lemmon Acres Minor Subdivision	Lead Agency enters
8	Base Year for this determination:	2015	Project Buildout/ Occupancy Year
9			2021
		Proposed Project Occupied DU	3
			Total buildout of Project. Sum of all years, row 26.

JURISDICTION DATA FROM AQMP & DOF (no data entry)

		Base Year	Period ending January 1st of:					
		2015	2020	2025	2030	2035	2040	Notes
14	DOF Population	19,095	From Calif. Dept of Finance. Est. for Jan 1 -- released in June of each year.					
15	AMBAG DU Forecast for Jurisdiction	6,755	7,429	8,262	8,678	9,147	9,519	DUs from AMBAG Travel Model, current version.
16	AMBAG Pop Forecast for Jurisdiction	18,308	20,360	22,745	23,879	25,116	26,195	Latest AMBAG Pop. & Employment forecasts.
17	AMBAG Forecast Population/ DU	2.71	2.74	2.75	2.75	2.75	2.75	Row 16/ row 15
18	Estimated Built DUs	6,755	Entry for 2015 is the DOF 1/2015 Housing Unit Estimate. Lead agency may overwrite if they have better data.					

JURISDICTION DUs w/o PROJECT

JURISDICTION DUs w/o PROJECT

	2015	2020	2025	2030	2035	
21	Housing Stock (Built DUs, Total)	6,676	7,002	7,028	7,028	2015 Housing Stock is baseline across the project life
22	Approved but not Built DUs		26			Lead Agency estimates value at period end.
23	Total Built & Approved DUs	6,676	7,028	7,028	7,028	Sum of Row 21 + 22

PROPOSED NEW PROJECT DUs

PROPOSED NEW PROJECT DUs

	2015	2020	2025	2030	2035		
26	Proposed New Project DUs		3			Data entry by Lead Agency.	
27	TOTAL, New Project + Built & Approved DUs	6,676	7,028	7,031	7,028	7,028	Sum of Row 23 + 26

NEW PROJECT CONSISTENCY DETERMINATION

29	Over (Under) AQMP DUs	(753)	(1,234)	(1,647)	(2,119)	(2,491)	Row 27 - Row 15
30	Is the project consistent in this Period?	YES	YES	YES	YES	YES	If Row 30 is (negative) = YES, if positive = NO.

OPTIONS IF INCONSISTENT (Choose one):

Year:	2020	2025	2030	2035	2040	
38	A. Consult CEQA Statute and Guidelines for appropriate mitigation options					
	B. Lead Agency preparation of consistency determination via an alternative method					
40	C. Regional offset of significant cumulative air quality impact; For EIRs, declare Statement of Overriding Consideration					

APPENDIX B

GEOTECHNICAL ENGINEERING STUDY ZINK SUBDIVISION,
3030 LEMMON COURT, HOLLISTER, CALIFORNIA
(PREPARED BY EARTH SYSTEMS, DATED APRIL 17, 2020); RESULTS OF
SOIL INFILTRATION RATE TESTING (PREPARED BY EARTH SYSTEMS,
DATED MAY 28, 2020)

**GEOTECHNICAL ENGINEERING STUDY
ZINK SUBDIVISION
3030 LEMMON COURT
HOLLISTER, CALIFORNIA**

April 17, 2020

Prepared for

Mr. Cary Zink
3030 Lemon Court
Hollister, CA 95023

Prepared by

Earth Systems Pacific
48511 Warm Springs Blvd., Suite 210
Fremont, CA 94539

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April 17, 2020

File No.: 303742-001

Mr. Cary Zink
3030 Lemon Court
Hollister, CA 95023

PROJECT: ZINK SUBDIVISION
3030 LEMMON COURT
HOLLISTER, CALIFORNIA

SUBJECT: Geotechnical Engineering Study

REF.: Proposal for Geotechnical Engineering Study, Zink Subdivision, 3030
Lemmon Court, Hollister, California, By Earth Systems Pacific, January 30,
2020.

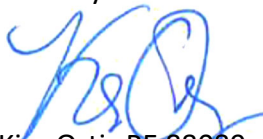
Dear Mr. Zink:

In accordance with your authorization of the above referenced proposal, this geotechnical engineering study report has been prepared by Earth Systems Pacific (Earth Systems) for use in the development of plans and specifications for the development to be located off Lemmon Court in Hollister, California. The conclusions and recommendations presented herein are based on our understanding of the currently proposed development, a review of the subsurface conditions revealed by five soil borings advanced as a part of this investigation, and our engineering analysis.


We appreciate the opportunity to assist you on this project. Should you have any questions regarding the contents of this report, please contact the undersigned.

Sincerely,

Earth Systems Pacific


Kira Ortiz PE 88089
Project Engineer




Ajay Singh, GE 3057
Principal Engineer



Doc. No.: 2004-018.SER/kt



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APPENDIX A

Boring Logs

APPENDIX B

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1.0 INTRODUCTION

This report presents the results of the geotechnical engineering study performed by Earth Systems Pacific (Earth System), for the proposed development to be constructed off Lemmon Court in Hollister, California. The attached Site Location Map, Figure 1, shows the general location of the site and the attached Site Plan, Figure 2 shows the location of the borings advanced at the site as part of this investigation.

Site Setting

The site is located east of the intersection of Carey Way and Lemmon Court, approximately ¼-mile north of the intersection of Fairview Road and Santa Ana Road in the western portion of Hollister, California. The 6.2-acre site is currently occupied by one single-family residence which is located centrally along the northern border.

Project Description

As shown on the Tentative Map by San Benito Engineering and Surveying, dated January 3, 2020, the 6.2-acre property will be subdivided into three one-acre parcels, a 1.5-acre conservation easement and a remainder parcel where the existing house is located. The one-acre parcels will be accessed by Lemmon Court and an easement is planned for accessing the remainder parcel. Development plans for the 1-acre parcels were not available at the time of this study but we assumed that the residences will be one-or-two-story conventional light-frame structures. A grading plan was not provided for our review, but based on the review of the site topography, we anticipate that cuts and fills will be on the order of 3 feet to develop the house pads. The plan also includes construction of detention ponds on each of the one-acre parcels. The soil infiltration rate testing performed as part of this study are in connection with these ponds. Effluent will be disposed via individual on-site septic systems. Because the leachfield areas have not yet been identified, this study did not include percolation testing for septic systems.

Scope of Services

The scope of work for the geotechnical engineering study included general site reconnaissance, evaluation of subsurface conditions through drilling five soil borings and laboratory testing of soil samples collected from the borings, engineering evaluation of the subsurface data considering the proposed development, and preparation of this report. The analysis and engineering recommendations presented in the following sections of this report are based on our understanding of the proposed development at the subject site and our experience with projects of a similar nature.



The report and recommendations are intended to comply with the considerations of Section 1803 of the California Building Code (CBC), 2019 Edition, and common geotechnical engineering practice in this area at this time under similar conditions.

Preliminary geotechnical recommendations for site preparation and grading, foundations, slabs-on-grade, exterior flatwork, utility trench backfill, site drainage management, and geotechnical observation and testing are presented to guide the development of project plans and specifications. It is our intent that this report be used by the client to form the geotechnical basis of the design of the project as described herein, and in the preparation of plans and specifications.

Detailed evaluation of the site geology and potential geologic hazards, and analyses of the soil for mold or other microbial content, asbestos, radioisotopes, hydrocarbons, or other chemical properties are beyond the scope of this report. This report also does not address issues in the domain of contractors such as, but not limited to, site safety, loss of volume due to stripping of the site, shrinkage of soils during compaction, excavatability, shoring, temporary slope angles, and construction means and methods. Ancillary features such as temporary access roads, fences, light poles, and non-structural fills are not within our scope and are also not addressed.

To verify that pertinent issues have been addressed and to aid in conformance with the intent of this report, it is requested that final grading and foundation plans be submitted to this office for review. In the event that there are any changes in the nature, design, or locations of improvements, or if any assumptions used in the preparation of this report prove to be incorrect, the conclusions and recommendations contained herein should not be considered valid unless the changes are reviewed, and the conclusions of this report are verified or modified in writing by the geotechnical engineer. The criteria presented in this report are considered preliminary until such time as they are verified or modified in writing by the geotechnical engineer in the field during construction.

2.0 FIELD INVESTIGATION

Subsurface Exploration

Our subsurface exploration program consisted of drilling five exploratory borings at the site on March 11, 2020 at the approximate locations shown on the Site Plan, Figure 2. The borings were drilled using a truck-mounted rig equipped with 6-inch diameter continuous flight augers and sampled to depths ranging from 15 to 20 feet below the ground surface (bgs).



The drilling process consisted of augering to the desired depth and upon reaching that depth, the auger was retrieved, and a standard sampler connected to steel rods was lowered into the uncased hole. The samplers were driven with a 140-pound, safety hammer falling about 30 inches per drop. The samplers were driven up to 18 inches and the hammer blows required to drive the samplers were recorded every six inches and are presented on the boring logs.

An Earth Systems engineer supervised the drilling program, logged the soil conditions encountered in the borehole and collected representative samples for laboratory testing. Subsurface conditions revealed by our borings were described by our engineer. The borings were backfilled with lean cement grout. The boring logs show soil description including color, major and minor components, USCS classification, changes in soil conditions with depth, moisture content, consistency/density, plasticity, sampler type, and sampling depths and laboratory test results. Copies of the boring logs advanced for this investigation are presented in Appendix A.

Subsurface Profile

The borings advanced for this investigation indicate the near surface soils are variable with low to high shrinkage/swelling potential to depths of approximately 4 feet below the ground surface (bgs). Underlying the upper soils with varying expansion potential, the soils encountered medium dense sandy soils and very stiff to hard clayey soils to the maximum depths explored.

Groundwater was not encountered in the borings drilled at the site. It should be noted, however, that fluctuations in the level of subsurface water can occur due to variations in rainfall, and temperature, and groundwater levels should not be considered constant.

3.0 DATA ANALYSIS

Subsurface Soil Classification

Based on the data acquired during our subsurface investigation (See Appendix A), the site is assigned to Site Class D (“stiff soil”) as defined by Table 20.3-1 of the ASCE 7-16.

Seismic Design Parameters

The following seismic design parameters represent the general procedure as outlined in Section 1613 of the CBC 2019 edition and in ASCE 7-16. The values were obtained using the OSHPD Seismic Design Maps Web Application. The seismic factor S_1 is greater than 0.2g and the Site Class is ‘D’. As such, a site-specific ground motion hazard analysis will need to be performed if the structural engineer determines that ASCE 7-16, Section 11.4.8, Exception 2 does not apply. Earth Systems should be notified to provide a site-specific ground motion hazard evaluation if needed. If required, the seismic factors presented will not be applicable to the project.



**Summary of Seismic Parameters - CBC 2019
(Site Coordinates 36.8461°N, 121.3739°W)**

Parameter	Design Value
Site Class	D
Mapped Short Term Spectral Response Parameter, (S_s)	2.092g
Mapped 1-second Spectral Response Parameter, (S_1)	0.775g
Site Coefficient, (F_a)	1.0
Site Coefficient, (F_v)	1.7 ^{1,2}
Site Modified Short Term Response Parameter, (S_{Ms})	2.092g
Site Modified 1-second Response Parameter, (S_{M1})	1.318g ¹
Design Short Term Response Parameter, (S_{Ds})	1.395g
Design 1-second Response Parameter, (S_{D1})	0.879g ¹

¹ The 2019 parameter is are based on the assumption that the buildings will conform to ASCE 7-16 11.4.8 - Exception No. 2.

² The 2019 CBC F_v parameter shall only be used for calculation of T_s . (ASCE Table 11.4-2, Supplement 1, Note a)

Static Settlement

If the foundation loads are typical for conventional wood frame buildings, it is anticipated that the static settlements would not exceed 1 inch with differential settlement of less than ½ inch between adjacent foundation elements.

4.0 CONCLUSIONS

General

The subject site is suitable for the proposed development from a geotechnical engineering standpoint, provided the recommendations included in this report are incorporated into the design and implemented during site grading and foundation construction. The primary geotechnical concern at the site is the presence of expansive surficial soils.

Site Preparation and Grading

Grading plans were not available during the preparation of this report; however, it is anticipated that cuts and fills required to achieve the final pad grades will be on the order of 3 feet or less. Grading operations are discussed in detail in the *Recommendations* section of this report.



Soil Expansion Potential

Plasticity index tests performed on samples of the upper soils from the site resulted in a liquid limits (LL) ranging from 31 to 58 and a plasticity indices (PI) ranging from 15 to 39. These values indicate that portions of the site contain near surface soils with a moderately high shrinkage/swelling potential. Soils with high shrinkage-swelling potential undergo pronounced volume changes with moisture content fluctuations and when constrained they could exert significant uplift forces on the overlying structures.

In our experience, the commonly used engineering measures used to minimize post-construction distress to lightly loaded structures overlying expansive soils include one or a combination of the following:

- Increase the depth of footings to act as a moisture cutoff barrier and extend the footings to depths where moisture fluctuations are anticipated to be less pronounced;
- Pre-expand clays by compacting them at a high degree of saturation and relative compaction in the range of 88 to 92 percent;
- Add a layer of non-expansive soil on top of the expansive soils and place lightly loaded structures on top of the non-expansive soil layer. The intent is to place the lightly loaded structures on soils less affected by moisture fluctuations and the assumption is that the near surface soils undergo more pronounced moisture fluctuations;
- Keep the soils moist until they are covered with concrete; and
- Manage surface water runoff and irrigation water in such a way that it does not have a chance to penetrate into the areas around the structures and the hardscape areas where it could result in creating pronounced moisture content fluctuations in soil.

Foundations

The proposed residences may be adequately supported on conventional spread/strip footings. Foundation recommendations are discussed in detail in the *Recommendations* section of this report.

Groundwater

Groundwater was not encountered during the subsurface exploration to the maximum depths explored. Variations in rainfall, temperature, and other factors may affect water levels, and therefore groundwater levels should not be considered constant. However, it is not anticipated that groundwater will affect construction at the site.



Seismicity

The San Francisco Bay area is recognized by geologists and seismologists as one of the most seismically active regions in the United States. The significant earthquakes in this area are generally associated with crustal movement along well-defined, active fault zones which regionally trend in a northwesterly direction. Although research on earthquake prediction has greatly increased in recent years, seismologists cannot predict when and where an earthquake will occur. Nevertheless, based on current knowledge, it is reasonable to assume that the proposed development will be subjected to at least one moderate to severe earthquake during its lifetime. During such an earthquake, the danger from fault offset on the site is low, but strong shaking of the site is likely to occur and, therefore, the project should be designed in accordance with the seismic design provisions of the latest California Building Code. It should be understood that the California Building Code seismic design parameters are not intended to prevent structural damage during an earthquake, but to reduce damage and minimize loss of life.

5.0 RECOMMENDATIONS

Site Preparation and Grading

General Site Preparation

1. Site clearing, placement of fill, and grading operations at the site should be conducted in accordance with the recommendations provided in this report. Compaction recommendations for site grading can be found later in this section.
2. The site should be prepared for grading by removing existing trees and their root systems, vegetation, debris, and other potentially deleterious materials from areas to receive improvements. Existing utility lines that will not be serving the proposed project should be either removed or abandoned. The appropriate method of utility abandonment will depend upon the type and depth of the utility. Recommendations for abandonment can be made as necessary.
3. Ruts or depressions resulting from the removal of tree root systems, and abandoned and/or buried structures, buried debris, and remnants of the former use of the site that are discovered during site grading should be removed and properly cleaned out down to undisturbed native soil. The bottoms of the resulting depressions should be scarified and cross-scarified at least 8 inches in depth, moisture conditioned and recompacted. The depressions should then be backfilled with approved, compacted, moisture conditioned structural fill, as recommended in other sections of this report.
4. Site clearing and backfilling operations should be conducted under the field observation of the geotechnical engineer.



5. The geotechnical engineer should be notified at least 48 hours prior to commencement of grading operations.

Compaction Recommendations

1. In general, the underlying native soil should be scarified at least 8 inches, moisture conditioned and recompacted to the recommended relative compaction presented below, unless noted otherwise. This scarification operation should be performed at locations designated for proposed structural fill, concrete slabs-on-grade, exterior flatwork, foundations, and pavement areas.
2. Recompacted native soils and fill soils should be compacted to a minimum relative compaction of 90 percent of maximum dry density at a moisture content that is slightly over optimum.
3. In areas to be paved, the upper 8 inches of subgrade soil should be compacted to a minimum 92 percent of maximum dry density at a moisture content at least 2 percentage points over optimum. The aggregate base courses should be compacted to a minimum 95 percent of maximum dry density at a moisture content that is slightly over optimum. The subgrade and base should be firm and unyielding when proof-rolled with heavy, rubber-tired equipment prior to paving. The pavement subgrade soils should be periodically moistened as necessary prior to placement of the aggregate base to maintain the soil moisture content near optimum.

Fill Recommendations

1. Structural fill is defined herein as a native or import fill material which, when properly compacted, will support foundations, building slabs, pavements, and other fills; however, because these soils are deemed to have high shrinkage/swelling potential, they should not be placed within the upper 18 inches of the subgrade beneath the exterior flatwork.
2. Should import fill be required, the soil should meet the following criteria:
 - a. Be coarse grained and have a plasticity index of less than 15 and/or an expansion index less than 20;
 - b. Be free of organics, debris or other deleterious material;
 - c. Have a maximum rock size of 3 inches; and
 - d. Contain sufficient clay binder to allow for stable foundation and utility trench excavations.



3. A sample of the proposed imported soils should be submitted at least three days before being transported to the site for evaluation by the geotechnical engineer. During importation to the site the material should be further reviewed on an intermittent basis.

Foundations

1. The proposed residential structures may be adequately supported by conventional strip/spread footings bearing on the stiff native or engineered fill material extending a minimum of 30 inches below the lowest adjacent soil pad grade. The footing excavations should be inspected by the geotechnical engineer prior to placement of formwork or reinforcement.
2. The footings with a minimum width of 12 inches and a minimum depth of 30 inches may be designed using a maximum allowable bearing capacity of 2,500 psf dead plus live load. This value may be increased by one-third when transient loads such as wind or seismicity are included.
3. Resistance to lateral loads should be calculated based on a passive equivalent fluid pressure of 300 pcf and a friction factor of 0.30. Passive and frictional resistance can be combined in the calculations without reductions. These values are based on the assumption that backfill adjacent to foundations is properly compacted. The upper 12 inches of embedment should be disregarded in calculating passive resistance where concrete or asphalt pavement does not abut the foundation.
4. The foundation excavations should be moisture conditioned to minimize the formation of any desiccation cracks prior to the placement of concrete, as recommended by the geotechnical engineer in the field. The geotechnical engineer should observe the foundation excavations prior to forming or placement of reinforcing steel to verify: 1) the soil conditions exposed in the foundation excavations are similar to those anticipated based on the soil borings, 2) the foundation trenches are firm and free of loose soils, and 3) the adequacy of moisture conditioning.

Concrete Slab-on-Grade Construction

1. Interior slab-on-grade concrete should have a minimum thickness of 4 full inches. and should be reinforced as directed by the architect/engineer.



2. To reduce the effects of soil expansion and contraction on the residences, interior slab-on-grades should be constructed over a minimum of 18 inches of Class 2 aggregate base conforming with Section 26-1.02B of the Caltrans Standard Specifications. Prior to placement of the aggregate base, the subgrade soil should be moistened as necessary to maintain the soil moisture content at or above optimum, and no desiccation cracks should be present. It may be necessary to over-excavate the pad to accommodate this import section.
3. As an alternative to the aggregate base, lime treatment of the upper 18 inches could be utilized. For the proper performance of the lime treated subgrade it is important not to breach the section with last minute utility trenches. Therefore, the utilities should be installed in advance of lime treatment and to a depth that will not be disturbed or damaged by the mixing or compaction effort. If it is necessary to breach the lime section, the trench should be backfilled with compacted aggregate base or CLSM. Recompact treated soils are not equivalent to the original treated soil. The chemical treatment operations should be performed in general accordance with Chapter 7 of the Caltrans *Guidelines for the Stabilization of Subgrade Soils in California, Guideline: UCPRC-GL-2101-01* (Caltrans, 2012). The chemically treated material should be compacted to a minimum 90 percent of maximum dry density on the building pad, and 95 percent of maximum dry density in areas to receive pavement. The chemical treatment and compaction should be observed and tested by the geotechnical engineer.
4. For conventional slab-on-grade floor construction in areas which will receive carpet or other floor coverings, or where moisture sensitive materials will be stored directly on the slab, a capillary break and vapor retarder should be installed between the floor slab and the properly prepared building pad. The vapor retarder should have a minimum thickness of 10 mil and should be placed directly below the concrete slab. The capillary break layer should be placed below the vapor retarder and should consist of 4 inches of clean crushed rock.
5. The vapor retarder should comply with ASTM Standard Specification E 1745-11 and the latest recommendations of ACI Committee 302. The vapor retarder should be installed in accordance with ASTM Standard Practice E 1643-11. Care should be taken to properly lap and seal the vapor retarder, particularly around utilities, and to protect it from damage during construction.



6. It is not recommended to place a sand layer over the vapor retarder. However, if sand, gravel or other permeable material is to be placed over the vapor retarder, the material over the vapor retarder should be only lightly moistened and not saturated prior to casting the slab. Excess water above the vapor retarder would increase the potential for moisture damage to floor coverings. Recent studies, including those by ACI Committee 302, have concluded that excess water above the vapor retarder would increase the potential for moisture damage to floor coverings and could increase the potential for mold growth or other microbial contamination. These studies also concluded that it is preferable to eliminate the sand layer and place the slab in direct contact with the vapor retarder, particularly during wet weather construction. Should you plan to place concrete directly over the vapor membrane, we recommend the use of a 15-mil thick vapor membrane because it provides better protection against rips and tears. Also, special attention should be paid to using the proper concrete mix design and finishing and curing techniques.
7. When concrete slabs are in direct contact with vapor retarders, the concrete water to cement (w/c) ratio must be correctly specified to control bleed water and plastic shrinkage and cracking. The concrete w/c ratio for this type of application is typically in the range of 0.45 to 0.50. The concrete should be properly cured to reduce slab curling and plastic shrinkage cracking. Concrete materials, placement, and curing methods should be specified by the architect/engineer.

Exterior Flatwork

1. Exterior concrete flatwork should have a minimum thickness of 4 full inches and should be reinforced as directed by the architect/engineer. Exterior flatwork should be cast on a minimum 12-inch layer of compacted Class 2 aggregate base conforming with Section 26-1.02B of the Caltrans Standard Specifications. Prior to placement of the aggregate base, the subgrade soil should be moistened as necessary to maintain the soil moisture content at or above optimum, and no desiccation cracks should be present. It may be necessary to over-excavate the subgrade soil to accommodate this import section.
2. Exterior flatwork adjacent to the structure should be designed to be independent of the foundation. The flatwork should not be doweled to foundations, and a separator should be placed between the two.
3. Prior to placement of the concrete, the non-expansive material in the flatwork area should be moistened, and no desiccation cracks should be present.



4. To reduce shrinkage cracks in concrete, the concrete aggregates should be of appropriate size and proportion, the water/cement ratio should be low, the concrete should be properly placed and finished, contraction joints should be installed, and the concrete should be properly cured. Concrete materials, placement and curing specifications should be at the direction of the architect/engineer; ACI 302.1R-04 and ACI 302.2R-04 are suggested as resources for the architect/engineer in preparing such specifications.

Utility Trench Backfills

1. A select, noncorrosive, granular, easily compacted material should be used as bedding and shading immediately around utility pipes. The site soils may be used for trench backfill above the select material.
2. Trench backfill in the upper 8 inches of subgrade beneath pavement areas should be compacted to a minimum of 92 percent of maximum dry density. Trench backfill in other areas should be compacted to a minimum of 90 percent. Jetting of utility trench backfill should not be allowed.
3. Where utility trenches extend under perimeter foundations, the trenches should be backfilled entirely with approved fill soil compacted to a minimum of 90 percent of maximum dry density. The zone of approved fill soil should extend a minimum distance of 2 feet on both sides of the foundation. If utility pipes pass through sleeves cast into the perimeter foundations, the annulus between the pipes and sleeves should be completely sealed.
4. Parallel trenches excavated in the area under foundations defined by a plane radiating at a 45-degree angle downward from the bottom edge of the footing should be avoided, if possible. Trench backfill within this zone, if necessary, should consist of Controlled Density Fill (Flowable Fill).

Post-Construction Surface Water Management

1. Unpaved ground surfaces should be finish graded to direct surface runoff away from site improvements at a minimum 5 percent grade for a minimum distance of 10 feet. If this is not practical due to the terrain or other site features, swales with improved surfaces should be provided to divert drainage away from improvements. The landscaping should be planned and installed to maintain proper surface drainage conditions.



2. Runoff from driveways, roof gutters, downspouts, planter drains and other improvements should discharge in a non-erosive manner away from foundations, pavements, and other improvements. The downspouts may discharge onto splash blocks that direct the flow away from the foundation.
3. Stabilization of surface soils, particularly those disturbed during construction, by vegetation or other means during and following construction is essential to protect the site from erosion damage. Care should be taken to establish and maintain vegetation.
4. Raised planter beds adjacent to foundations should be provided with sealed sides and bottoms so that irrigation water is not allowed to penetrate the subsurface beneath foundations. Outlets should be provided in the planters to direct accumulated irrigation water away from foundations.
5. Open areas adjacent to exterior flatwork should be irrigated or otherwise maintained so that constant moisture conditions are created throughout the year. Irrigation systems should be controlled to the minimum levels that will sustain the vegetation without saturating the soil.
6. Bio-retention swales constructed within 10 feet or less from the building foundation should be lined with a 20-mil pond liner.

Required Geotechnical Observation and Testing

1. It must be recognized that the recommendations contained in this report are based on a limited number of borings and rely on continuity of the subsurface conditions encountered.
2. It is assumed that the geotechnical engineer will be retained to provide consultation during the design phase, to interpret this report during construction, and to provide construction monitoring in the form of testing and observation.
3. Unless otherwise stated, the terms "compacted" and "recompacted" refer to soils placed in level lifts not exceeding 8 inches in loose thickness and compacted to a minimum of 90 percent of maximum dry density. The standard tests used to define maximum dry density and field density should be ASTM D 1557-12 and ASTM D 6938-17, respectively, or other methods acceptable to the geotechnical engineer and jurisdiction.



4. "Moisture conditioning" refers to adjusting the soil moisture to at least 2 percentage points above optimum moisture content prior to application of compactive effort. If the soils are overly moist so that they become unstable, or if the recommended compaction cannot be readily achieved, drying the soil to optimum moisture content or just above may be necessary. Placement of gravel layers or geotextiles may also be necessary to help stabilize unstable soils. The geotechnical engineer should be contacted for recommendations for mitigating unstable soils.
5. At a minimum, the following should be provided by the geotechnical engineer:
 - Review of final grading and foundation plans,
 - Professional observation during site preparation, grading, and foundation excavation,
 - Oversight of soil compaction testing during grading,
 - Oversight of soil special inspection during grading.
6. Special inspection of grading should be provided as per Section 1705.6 and 1705.8 and Table 1705.6 and 1705.8 of the CBC; the soils special inspector should be under the direction of the geotechnical engineer. In our opinion, the following operations should be subject to *continuous* soils special inspection:
 - Scarification and recompaction,
 - Fill placement and compaction,
 - Foundation pier drilling,
 - Over-excavation to the recommended depth.
7. In our opinion, the following operations may be subject to *periodic* soils special inspection; subject to approval by the Building Official:
 - Site preparation,
 - Compaction of utility trench backfill,
 - Removal of existing development features,
 - Compaction of subgrade and aggregate base,
 - Observation of foundation excavations,
 - Building pad moisture conditioning.
8. It will be necessary to develop a program of quality control prior to beginning grading. It is the responsibility of the owner, contractor, or project manager to determine any additional inspection items required by the architect/engineer or the governing jurisdiction.



9. The locations and frequencies of compaction tests should be as per the recommendations of the geotechnical engineer at the time of construction. The recommended test locations and frequencies may be subject to modification by the geotechnical engineer based upon soil and moisture conditions encountered, the size and type of equipment used by the contractor, the general trend of the compaction test results, and other factors.
10. A preconstruction conference among a representative of the owner, the geotechnical engineer, soils special inspector, the architect/engineer, and contractors is recommended to discuss planned construction procedures and quality control requirements. Earth Systems should be notified at least 48 hours prior to beginning grading operations.

6.0 CLOSURE

This report is valid for conditions as they exist at this time for the type of project described herein. Our intent was to perform the investigation in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the locality of this project at this time under similar conditions. No representation, warranty, or guarantee is either expressed or implied. This report is intended for the exclusive use by the client as discussed in the Scope of Services section. Application beyond the stated intent is strictly at the user's risk.

If changes with respect to the project type or location become necessary, if items not addressed in this report are incorporated into plans, or if any of the assumptions stated in this report are not correct, Earth Systems should be notified for modifications to this report. Any items not specifically addressed in this report should comply with the California Building Code and the requirements of the governing jurisdiction.

The preliminary recommendations of this report are based upon the geotechnical conditions encountered during the investigation, and may be augmented by additional requirements of the architect/engineer, or by additional recommendations provided by this firm based on conditions exposed at the time of construction.

If Earth Systems is not retained to provide construction observation and testing services, it will not be responsible for the interpretation of the information by others or any consequences arising there from.



This document, the data, conclusions, and recommendations contained herein are the property of Earth Systems. This report should be used in its entirety, with no individual sections reproduced or used out of context. Copies may be made only by Earth Systems, the client, and his authorized agents for use exclusively on the subject project. Any other use is subject to federal copyright laws and the written approval of Earth Systems.

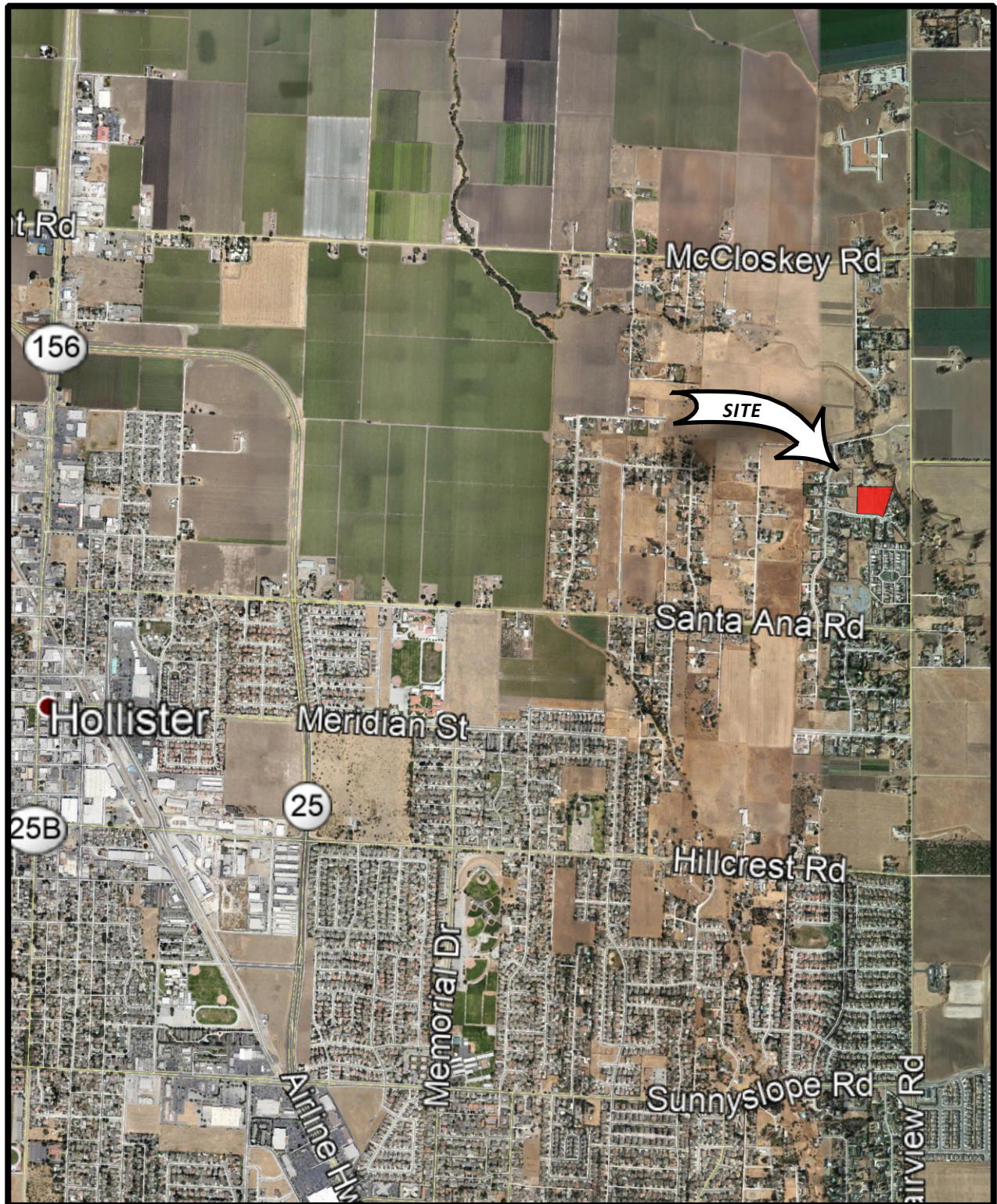
Thank you for this opportunity to have been of service. Please feel free to contact this office at your convenience if you have any questions regarding this report.

FIGURES

Figure 1 - Site Location Map

Figure 2 - Site Plan

Figure 1



Base: Google Earth (2019)



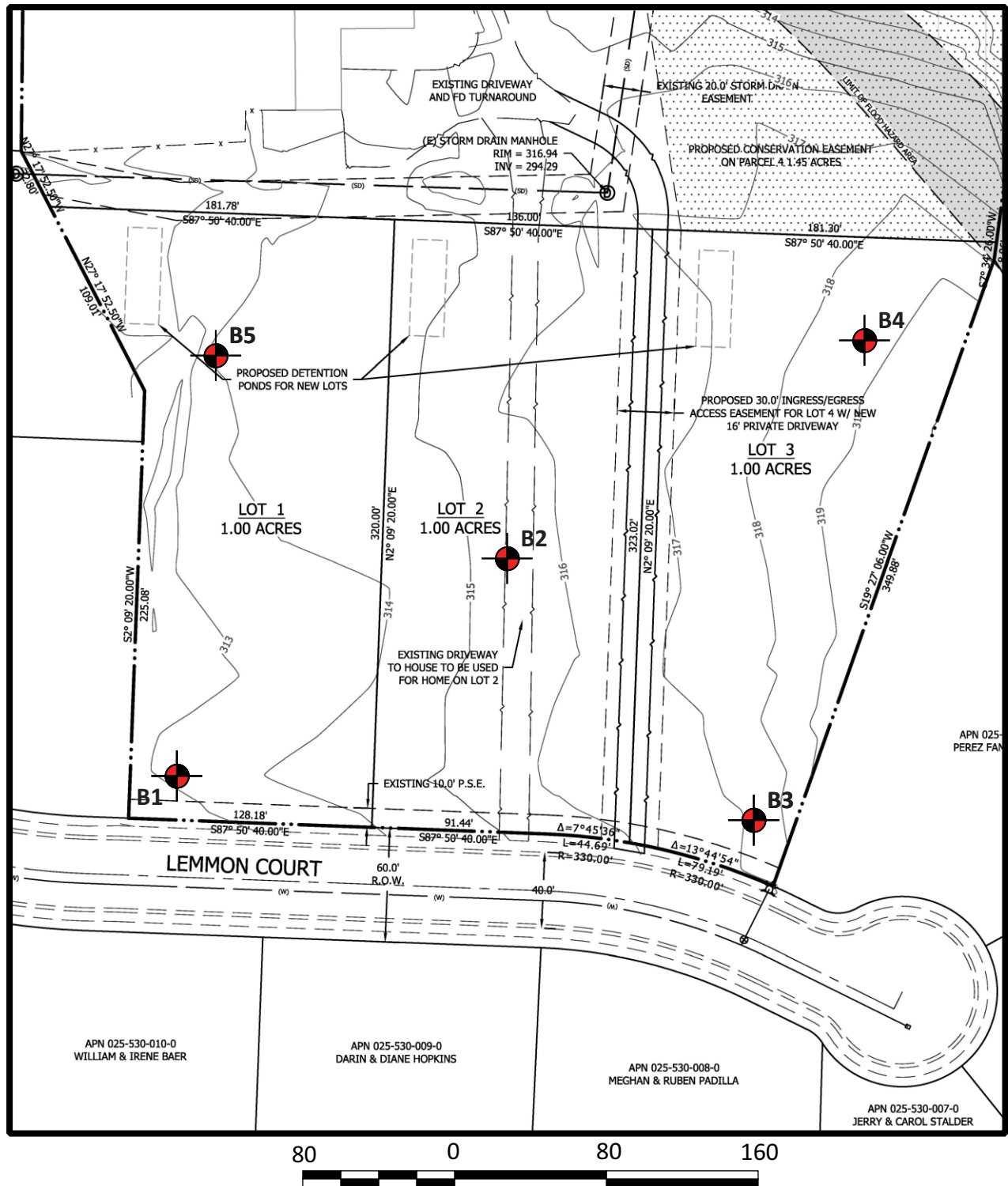
Earth Systems Pacific

Zink Subdivision
3030 Lemmon Court
Hollister, California

Site Location Map

303742-001

Figure 2



Approximate Scale in Feet

Approximate Boring Location

Base: Tentative Map by San Benito Engineering and Surveying, Inc. (2020)



Earth Systems Pacific

Zink Subdivision
3030 Lemmon Court
Hollister, California

Site Plan
303742-001

APPENDIX A

Boring Logs



Earth Systems Pacific

LOGGED BY: P. Penrose
DRILL RIG: B-24
AUGER TYPE: 6" Solid Stem

Boring No. 1
PAGE 1 OF 1
FILE NO.: 303742-001
DATE: 3/11/2020

DEPTH (feet)	USCS CLASS	SYMBOL	Zink Subdivision 3030 Lemmon Court Hollister, California	SAMPLE DATA					
			SOIL DESCRIPTION	INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN. POCKET PEN (t.s.f)
0 - 1 - 2 - 3 - 4 - 5 - 6	CL		SANDY Lean CLAY; brown, medium stiff, moist, rootlets, trace gravels -Dark yellow brown, very stiff	1.0-2.5	1-1				4 3 4
6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20	SM		SILTY SAND with GRAVEL; dark yellow brown, medium dense, moist, fine coarse sand, fine gravels -Fine coarse gravel, more fines, more clay -Light yellow brown	3.5-5.0 8.5-10.0 13.5-15.0 18.5-20.0	1-2 1-3 1-4 1-5	 	107.4	15.2	8 10 16 15 14 13 9 11 16 11 15 19
20 - 21 - 22 - 23 - 24 - 25 - 26 -			Bottom of boring at 20' Groundwater not encountered						

LEGEND: 2.5" Mod Cal Sample Bulk Sample Shelby Tube SPT Groundwater





NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.



Earth Systems Pacific

LOGGED BY: P. Penrose
DRILL RIG: B-24
AUGER TYPE: 6" Solid Stem

Boring No. 2
PAGE 1 OF 1
FILE NO.: 303742-001
DATE: 3/11/2020

DEPTH (feet)	USCS CLASS	SYMBOL	Zink Subdivision 3030 Lemmon Court Hollister, California	SAMPLE DATA						
			SOIL DESCRIPTION	INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0	CL		SANDY Lean CLAY; brown, stiff, very moist, some gravel	0.0-5.0	Bag A	○			4	2.25
1								4		
2								15		
3										
4										
5										
6	SM		-Yellow brown, hard, more sand, borderline SC	3.5-5.0	2-2	■	115.3	10.8	13 18 30	>4.5
7										
8										
9										
10										
11										
12	CL		SANDY Lean CLAY; light brown, hard, moist, few gravels	9.0-10.5	2-3	●			11 18 18 15	
13										
14										
15										
16										
17										
18			-Gray, very stiff, borderline SC	13.5-15.0	2-4	●			7 14 18	
19										
20										
21										
22										
23										
24				18.5-20.0	2-5	●			8 11 15	
25										
26										
27										
28			Bottom of boring at 20' Groundwater not encountered							

LEGEND: 2.5" Mod Cal Sample Bulk Sample Shelby Tube SPT Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.



Boring No. 3
PAGE 1 OF 1
FILE NO.: 303742-001
DATE: 3/11/2020

LEGEND: ■ 2.5" Mod Cal Sample ○ Bulk Sample □ Shelby Tube ● SPT ▴ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.



Earth Systems Pacific

LOGGED BY: P. Penrose
DRILL RIG: B-24
AUGER TYPE: 6" Solid Stem

Boring No. 4
PAGE 1 OF 1
FILE NO.: 303742-001
DATE: 3/11/2020

DEPTH (feet)	USCS CLASS	SYMBOL	Zink Subdivision 3030 Lemmon Court Hollister, California	SAMPLE DATA						
			SOIL DESCRIPTION	INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0 - 1 - 2 - 3 - 4 - 5	CL		SANDY Lean CLAY; brown, hard, moist, rootlets -Dark yellow brown, more sand, few gravels	1.0-2.5	4-1		98.9	14.2	8 16 20	2.5
6 - 7 - 8 - 9 - 10 - 11 - 12 - 13	SM		SILTY SAND with GRAVEL; yellow brown, medium dense	3.5-5.0	4-2		107.9	12.9	11 12 15	>4.5
14 - 15 - 16 - 17 - 18 - 19 - 20	SC		CLAYEY SAND with GRAVEL; brown, medium dense, moist, fine coarse sand/gravel -Sub-rounded cobbles	8.5-10.0	4-3				16 21 20	
14 - 15 - 16 - 17 - 18 - 19 - 20	CL		SANDY Lean CLAY; light brown, very stiff, moist, borderline SC -Light yellow brown	13.5-15.0	4-4				6 9 10	
18.5-20.0				18.5-20.0	4-5				7 11 13	
21 - 22 - 23 - 24 - 25 - 26			Bottom of boring at 20' Groundwater not encountered							

LEGEND: 2.5" Mod Cal Sample Bulk Sample Shelby Tube SPT Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.



Boring No. 5
PAGE 1 OF 1
FILE NO.: 303742-001
DATE: 3/11/2020

LEGEND: 2.5" Mod Cal Sample Bulk Sample Shelby Tube SPT Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

APPENDIX B

Laboratory Test Results



Zink Subdivision

303742-001

BULK DENSITY TEST RESULTS

ASTM D 2937-17 (modified for ring liners)

March 24, 2020

BORING NO.	DEPTH feet	MOISTURE CONTENT, %	WET DENSITY, pcf	DRY DENSITY, pcf
B 1-2	4.5 - 5.0	15.2	123.8	107.4
B 2-1	2.0 - 2.5	19.2	129.8	108.9
B 2-2	4.5 - 5.0	10.8	127.7	115.3
B 3-1	2.0 - 2.5	11.9	105.9	94.7
B 3-2	4.5 - 5.0	7.6	112.4	104.4
B 4-1	2.0 - 2.5	14.2	112.9	98.9
B 4-2	4.5 - 5.0	12.9	121.8	107.9
B 5-1	2.0 - 2.5	11.6	116.1	104.1
B 5-2	4.5 - 5.0	15.0	127.8	111.1
B 5-3	9.5 - 10.0	5.6	118.3	112.0



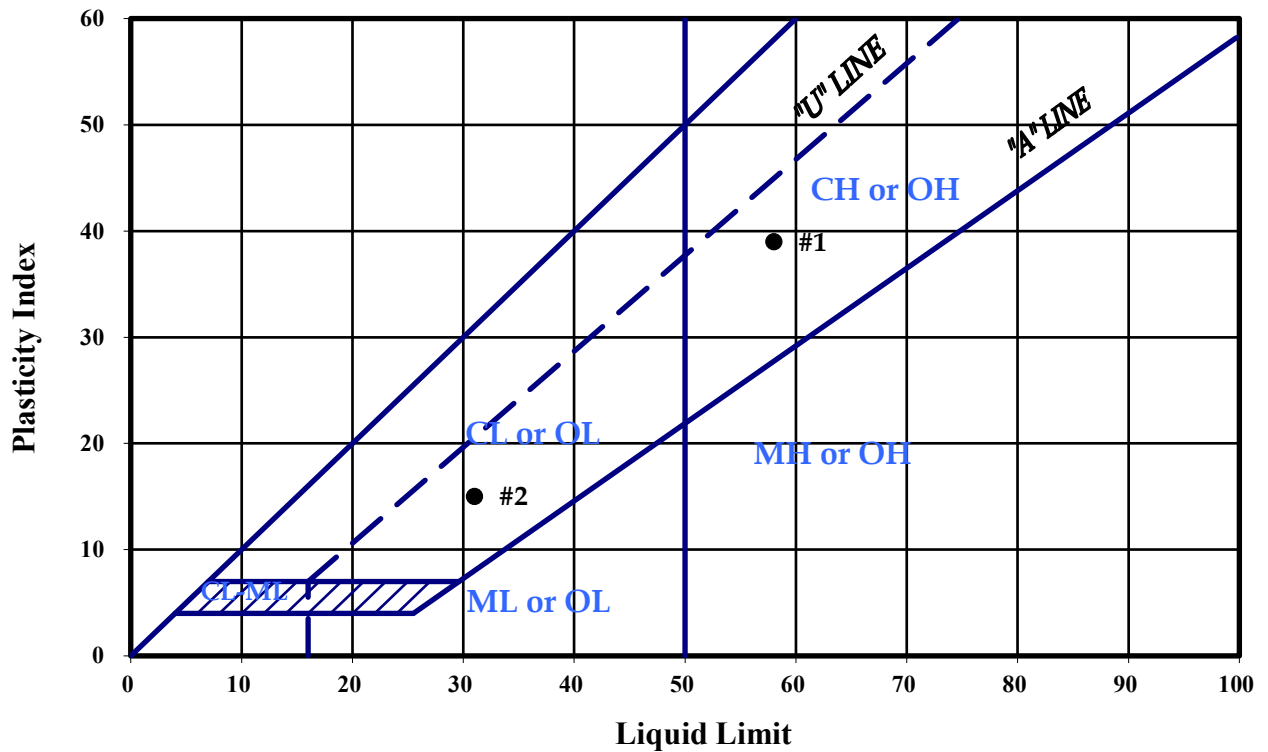
PLASTICITY INDEX

ASTM D 4318-17

March 24, 2020

Test No.:	1	2	3	4	5
Boring No.:	2-1	3-1			
Sample Depth:	2.0 - 2.5'	2.0 - 2.5'			
Liquid Limit:	58	31			
Plastic Limit:	19	16			
Plasticity Index:	39	15			

Plasticity Chart





May 28, 2020

File No.: 303742-001

Mr. Cary Zink
3030 Lemon Court
Hollister, CA 95023

PROJECT: ZINK SUBDIVISION
3030 LEMMON COURT
HOLLISTER, CALIFORNIA

SUBJECT: Results of Soil Infiltration Rate Testing

Dear Mr. Zink:

Earth Systems Pacific (Earth Systems) conducted soil infiltration rate testing of proposed storm water facilities for the Zink subdivision in Hollister, California. Storm water detention ponds are planned on the north end of three new proposed residential lots. This work was performed as part of Earth Systems' geotechnical engineering study for the subdivision.

Sets of two infiltration rate tests were performed at each of the detention pond locations shown on the Tentative Map of the Zink Subdivision prepared San Benito Engineering, dated January 30, 2020. The test holes were drilled using a Mobile Drill B-24 rig equipped with 6-inch diameter auger to nominal depths of 3 to 5 feet. The test locations are shown on the attached Infiltration Test Location Map.

The tests were conducted in general accordance with the Deep Quick Infiltration Testing Methodology, as detailed in the document *Native Soil Assessment for Small Infiltration-Based Stormwater Control Measures* prepared by Earth Systems Pacific for the Central Coast Low Impact Initiative (2013). Perforated PVC pipes were placed in the borings, and the annular spaces were backfilled with gravel. They were then filled with water, and the water level was maintained for approximately 30 minutes (i.e. kept at a constant head). From that point on, the tests were conducted as a falling head test, and measurements were taken as the water level dropped. Copies of the percolation test results are attached.

These test results only indicate the infiltration rates at the specific locations and under specific conditions. Sound engineering judgment should be exercised in extrapolating the test results for other conditions or locations. Please note that the test results incorporate both downward and horizontal fluxes of water. Therefore, the test results will need to be adjusted to estimate the downward percolation rates for assessment of the storm water facilities. Technical design



references vary in methods they present for using these types of test results. However, most references include reduction and/or correction factors for several parameters including, but not limited to, size of the storm water percolation system relative to the test volume, number of tests conducted, variability in the soil profile, anticipated silt loading, anticipated biological buildup, anticipated long-term maintenance, and other factors. Assessment of the storm water percolation system should select the appropriate reduction and/or correction factors based on these considerations.

Closure

Our intent was to perform soil infiltration testing in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the locality of this project under similar conditions. No representation, warranty, or guarantee is either expressed or implied.

We appreciate the opportunity to have provided services for this project and look forward to working with you again in the future. Please do not hesitate to contact this office if you have any questions regarding this report.

Sincerely,

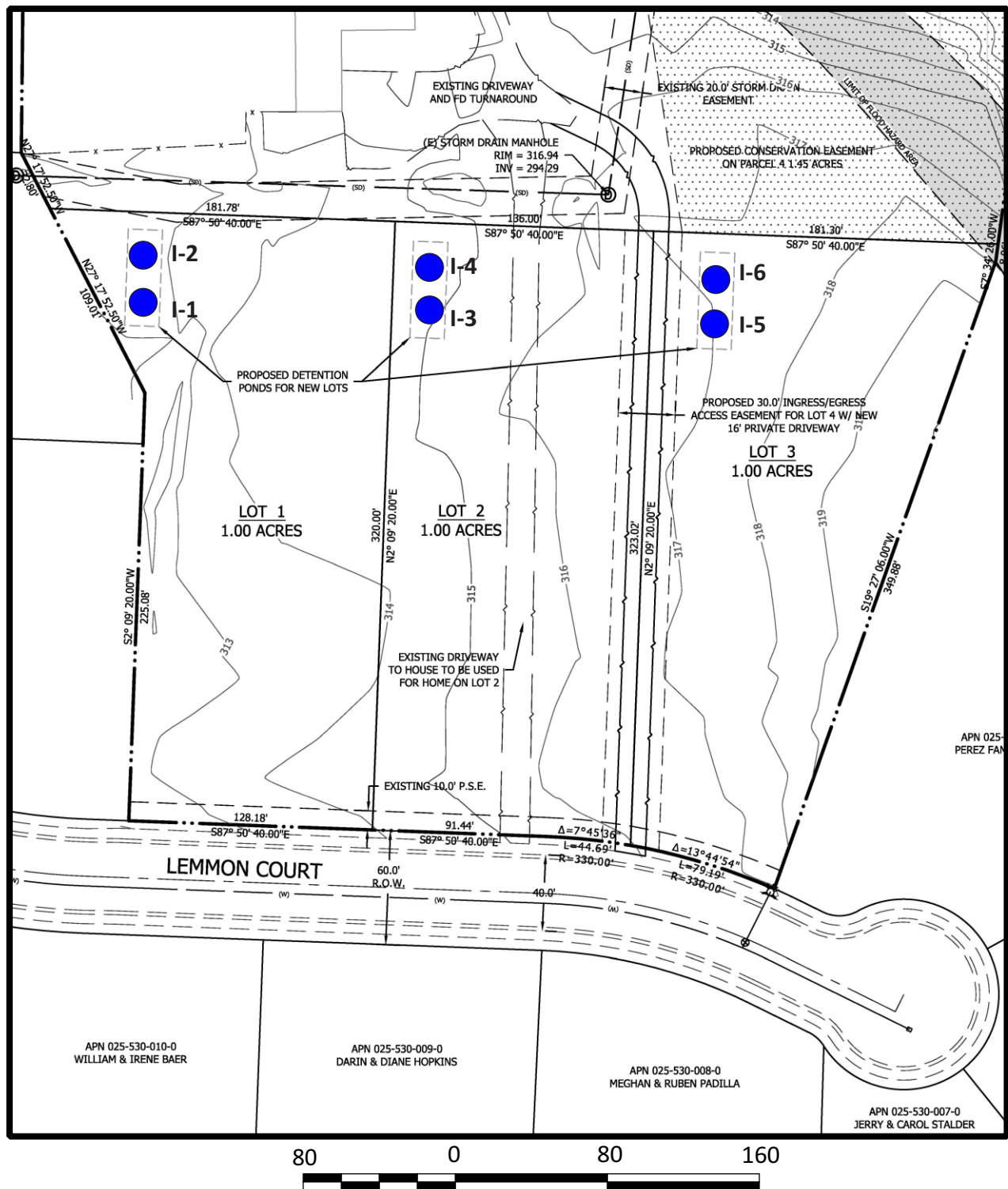
Earth Systems Pacific

Brett Faust
Engineering Geologist



Attachments: Infiltration Test Location Map
 Infiltration Test Results

Doc. No: 2005-016.RPT/ev



● I-6 Approximate Infiltration Test Location

Base: Tentative Map by San Benito Engineering and Surveying, Inc. (2020)



Earth Systems Pacific

Zink Subdivision
3030 Lemmon Court
Hollister, California

Infiltration Test Location Map

303742-001

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]