INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

FOR THE

INEZ ESTATES SUBDIVISION

JANUARY 2023

Prepared for:

City of Brentwood
150 City Park Way
Brentwood, CA 94513
(925) 516-5400

Prepared by:

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

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

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Proposed Mitigated Negative Declaration for the Inez Estates Subdivision

Lead Agency:
City of Brentwood
150 City Park Way
Brentwood, CA 94513

Project Title: Inez Estates Subdivision

Project Location: The Inez Estates Subdivision (project, proposed project, proposal, or Inez Subdivision) includes approximately 4.08 located in the northern portion of the City of Brentwood. The site is identified by Assessor's Parcel Numbers (APN) 018-080-022 and 018-080-025. The project site is bounded by Lone Tree Way to the north, Valley Oak Nursery to the west, ranch style residential to the south, and Gann Street to the east.

Project Description:

The proposed project consists of the subdivision of a 4.08-acre site into 8 single-family residential parcels and one lettered parcel (Parcel A, totaling approximately 1.08 acres, to be retained by the project applicant) (Figure 4). The average lot size is approximately 13,900 square feet and homes range in size from approximately 2,853 square feet to approximately 3,876 square feet. The proposal results in a density of 1.96 units per gross acre, consistent with the General Plan land use designation and slightly below the mid-point of the density range. Due to the slightly irregular shape of the project site, a variance is requested to allow for an increase in the maximum lot depth for Lots 1 and 2 as well as a decrease in the minimum lot width and minimum lot frontage for Lot 5. The required maximum lot depth is 150 feet and Lots 1 and 2 provide lot depths of 276 feet and 203 feet, respectively. The required minimum lot width is 90 feet and required minimum lot frontage is 45 feet and Lot 5 provides a 35-foot minimum lot width and a minimum 20-foot lot frontage.

There are no trees currently on the project site that would be removed as part of the project. The project site would be re-landscaped with trees, shrubs, grass, and other common landscape materials. An 8-foot high masonry wall is proposed to be located along Lone Tree Way along the northern portion of the project site. Additional proposed walls include an 8-foot high masonry wall along slightly over half of the western boundary of the project site. Additionally, the existing 3-foot high wall located on the northeast corner of the project site will be replaced with an 8-foot high wall. The 8 -foot high wall along the eastern boundary on Gann Street will remain. Access to the site would be via a proposed cul-de-sac connecting to Gann Street, south of Lone Tree Way (no access from Lone Tree Way will be provided). Street lighting and sidewalks are proposed along the proposed interior street within the project site. A 5-foot wide public utility easement is proposed along the edge of the proposed internal street right-of-way (ROW). The proposed site plan layout is shown in Figure 4.

The proposed project would involve the construction of the necessary infrastructure to serve the proposed neighborhood and would include plans to connect to existing City infrastructure to provide water, sewer, and storm drainage to the site. The project includes installation of 8-inch water and sanitary sewer lines and 6-inch and 15-inch storm drain lines within the internal street ROW. The project site also includes three on-site bioretention areas ranging from approximately 814 square feet to 950 square feet at separate locations throughout the project site. Storm drainage would be conveyed to the bioretention areas and discharged to the City's storm drainage system. Various storm drainage supporting structures would be located throughout the project site directing the flow into the bioretention areas and storm drain inlets.

Findings:

In accordance with the California Environmental Quality Act, the City of Brentwood has prepared an Initial Study to determine whether the proposed project may have a significant adverse effect on the environment. The Initial Study and Proposed Mitigated Negative Declaration reflect the independent judgment of City of Brentwood staff. On the basis of the Initial Study, the City of Brentwood hereby finds:

> *Although the proposed project could have a significant adverse effect on the environment, there will not be a significant adverse effect in this case because the project has incorporated specific provisions to reduce impacts to a less than significant level and/or the mitigation measures described herein have been added to the project. A Mitigated Negative Declaration has thus been prepared.*

The Initial Study, which provides the basis and reasons for this determination, is attached and/or referenced herein and is hereby made a part of this document.

Signature

Date

Proposed Mitigation Measures:

The following Mitigation Measures are extracted from the Initial Study. These measures are designed to avoid or minimize potentially significant impacts, and thereby reduce them to an insignificant level. A Mitigation Monitoring and Reporting Program (MMRP) is an integral part of project implementation to ensure that mitigation is properly implemented by the City and the implementing agencies. The MMRP will describe actions required to implement the appropriate mitigation for each CEQA category including identifying the responsible agency, program timing, and program monitoring requirements. Based on the analysis and conclusions of the Initial Study, the impacts of proposed project would be mitigated to less-than-significant levels with the implementation of the mitigation measures presented below.

AESTHETICS

Mitigation Measure AES-1*: In conjunction with development of the proposed project, the developer shall shield all on-site lighting so that nighttime lighting is directed within the project site and does not illuminate adjacent properties. A detailed lighting plan shall be submitted for the review and approval by the Community Development Department and the Public Works Department in conjunction with the project improvement plans. The lighting plan shall indicate the locations and design of the shielded light fixtures.*

AGRICULTURAL RESOURCES

Mitigation Measure AG-1: *In accordance with Brentwood Municipal Code Chapter 17.730 (Agricultural Preservation Program), the Project applicant must preserve agricultural lands by either (a) granting an agricultural conservation easement, or (b) paying the current agricultural conservation in-lieu fee established by City Council resolution to provide funds to purchase conservation easements to mitigate the loss of farmland. The fee may be adjusted annually but may not be increased by more than ten percent during any twelve-month period. This fee shall be paid prior to grading permit issuance.*

AIR QUALITY

Mitigation Measure AIR-1: *Prior to the issuance of a grading permit, the Applicant/Developer shall prepare an Erosion Prevention and Dust Control Plan. The plan shall be followed by the project's grading contractor and submitted to the City of Brentwood's Public Works Department, which will be responsible for field verification of the plan during construction.*

The plan shall comply with the City's grading ordinance and shall include the following control measures and other measures as determined by the Public Works Department to be necessary in order to achieve full compliance with the City's grading ordinance:

- *Cover all trucks hauling construction and demolition debris from the site;*
- *Water all exposed or disturbed soil surfaces at least twice daily;*
- *Use watering to control dust generation during demolition of structures or break-up of pavement;*
- *Pave, apply water three time daily, or apply (non-toxic) soil stabilizers on all unpaved parking areas and staging areas;*
- *Sweep daily (with water sweepers) all paved parking areas and staging areas;*
- *Provide daily clean-up of mud and dirt carried onto paved streets from the site;*
- *Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.);*
- *Limit traffic speeds on unpaved roads to 15 mph;*
- *Install sandbags or other erosion control measures to prevent silt runoff to public roadways;*
- *Replant vegetation in disturbed areas as quickly as possible;*
- *Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site;*
- *Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) or construction areas;*
- *Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph;*
- *Limit the area subject to excavation, grading, and other construction activity at any one time;*
- *Unnecessary idling of construction equipment shall be avoided;*
- *Equipment engines shall be maintained in proper working condition per manufacturers' specifications;*

- *During periods of heavier air pollution (May to October), the construction period shall be lengthened to minimize the amount of equipment operating at one time within hours allowed by the City of Brentwood Municipal Code and General Plan;*
- *Where feasible, the construction equipment shall use cleaner fuels, add-on control devices and conversion to cleaner engines.*

Mitigation Measure AIR-2: *To the extent feasible, construction employees shall be hired from local populations, since it is more likely that they have been previously exposed to the fungus which causes Valley Fever and are therefore immune.*

Mitigation Measure AIR-3: *During periods of high dust in the grading phase, defined as dust emission occurring from wind speeds in excess of 10 mph, crews must use National Institute for Occupational Safety and Health (NIOSH) approved N95 masks or better or other more stringent measures in accordance with the California Division of Occupational Safety and Health regulations.*

Mitigation Measure AIR-4: *The operator cab of grading and construction equipment must be enclosed and air-conditioned.*

BIOLOGICAL RESOURCES

Mitigation Measure BIO-1*: Prior to any ground disturbance, a qualified biologist shall conduct a preconstruction survey for San Joaquin kit fox. Preconstruction surveys will be conducted within 30 days of ground disturbance. Preconstruction survey requirements include but are not limited to mapping of all dens within the project site footprint and within a 250-foot radius of the project site, and the provision of written survey results to the USFWS within five working days after surveying. If San Joaquin kit foxes and/or suitable dens are identified in the survey area, the applicant shall consult with the USFWS and CDFW to establish a mitigation plan that meets the requirements established within the USFWS Standardized Recommendations for Protection of the endangered San Joaquin Kit Fox Prior to or During Ground Disturbance. Ground disturbing activities shall not commence until the USFWS and CDFW verify that all required mitigation and avoidance measures have been properly implemented.*

Mitigation Measure BIO-2A*: Prior to any ground disturbance related to activities covered under the ECCCHCP, a preconstruction survey of the 4.08-acre development plan area shall be completed. The surveys shall establish the presence or absence of western burrowing owl and/or habitat features, and evaluate use by owls in accordance with CDFW survey guidelines.*

An approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995). On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500- foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1—August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1—January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted. If burrowing owls and/or burrows are identified in the survey area, Mitigation Measure 3B shall be implemented. If burrowing owls and/or suitable burrows are not discovered, then further mitigation is not necessary.

Mitigation Measure BIO-2B*: If burrowing owls are found during the breeding season (February 1 August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 —January 31), the project proponent*

should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below). During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing, if occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

Mitigation Measure BIO-3*: Prior to any ground disturbance, a pre-construction survey for covered migratory birds shall be completed. This survey shall be conducted in the morning or evening hours within 30 days prior to any construction activities. The entire site and surrounding vegetation, will be surveyed for birds, nests and nesting behavior. Common nesting behavior by birds includes; collecting nesting materials, bringing food items to a nest and vocalizations from young or from adults to attract a mate and to establish or defend a nesting territory. A construction-free buffer of suitable dimensions must be established around any active migratory bird nests (up to 250 feet, depending on the location and species) for the duration of the project or until it has been determined by a qualified ornithologist that the chicks have fledged and are independent of their parents.*

CULTURAL RESOURCES

Mitigation Measure CUL-1: *Prior to grading permit issuance, the developer shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the developer shall immediately notify the Community Development Department of the discovery. In such case, the developer shall be required, at their own expense, to retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery would not be allowed until the preceding work has occurred.*

GEOLOGY AND SOILS

Mitigation Measure GEO-1*: All project buildings shall be designed in conformance with the current edition of the California Building Code (CBC).*

Mitigation Measure GEO-2*: Prior to grading permit issuance, the applicant shall submit a final geotechnical evaluation of the project site that analyzes soil stability including soil expansion, and the potential for lateral spreading, subsidence, liquefaction or collapse. The report shall identify any on site soil and seismic hazards and provide design recommendations for onsite soil and seismic conditions. The geotechnical evaluation shall be reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official, and a qualified Geotechnical Engineer to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design in order to adhere to all geotechnical requirements contained in the California Building Code.*

Mitigation Measure GEO-3*: All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design in order to adhere to all geotechnical requirements contained in the California Building Code.*

Mitigation Measure GEO-4*: Prior to grading permit issuance, the applicant shall submit a final grading plan to the Director of Public Works/City Engineer for review and approval. If the grading plan differs significantly from the proposed grading illustrated on the approved project plans, plans that are consistent with the new revised grading plan shall be provided for review and approval by the Director of Public Works/City Engineer.*

Mitigation Measure GEO-5*: Any applicant for a grading permit shall submit an erosion control plan to the Director of Public Works/City Engineer for review and approval. The plan shall identify protective measures to be taken during construction, supplemental measures to be taken during the rainy season, the sequenced timing of grading and*

construction, and subsequent revegetation and landscaping work to ensure water quality in creeks and tributaries in the General Plan Area is not degraded from its present level. All protective measures shall be shown on the grading plans and specify the entity responsible for completing and/or monitoring the measure and include the circumstances and/or timing for implementation.

Mitigation Measure GEO-6*: Grading, soil disturbance, or compaction shall not occur during periods of rain or on ground that contains freestanding water. Soil that has been soaked and wetted by rain or any other cause shall not be compacted until completely drained and until the moisture content is within the limit approved by a Soils Engineer. Approval by a Soils Engineer shall be obtained prior to the continuance of grading operations. Confirmation of this approval shall be provided to the Public Works Department prior to commencement of grading.*

Mitigation Measure GEO-7*: If any paleontological resources are found during grading and construction activities, all work shall be halted immediately within a 100-foot radius of the discovery until a qualified paleontologist has evaluated the find.*

Work shall not continue at the discovery site until the paleontologist evaluates the find and makes a determination regarding the significance of the resource and identifies recommendations for conservation of the resource, including preserving in place or relocating within the project site, if feasible, or collecting the resource to the extent feasible and documenting the find with the University of California Museum of Paleontology. Work may only resume in the area of discovery when the preceding work has occurred. The language of this mitigation measure shall be included via notation on the Project improvement plans.

HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure HAZ-1: *The project proponent shall implement soil excavation and disposal in accordance with section 4.3.3 Alternative 3 Soil Excavation/Off-site Disposal and section 5.0 Removal Action Implementation, as detailed in the Removal Work Action Plan included in Appendix H of this IS/MND. Prior to implementation of ground disturbing activities, a grading permit shall be obtained from the City of Brentwood. Excavation work shall be conducted by a licensed grading contractor with current hazardous material certifications. Work activities will be conducted Monday – Friday between 7:00 AM and 6:00 PM.*

Mitigation Measure HAZ-2: *Prior to the transportation and disposal of contaminated soils, a hauling plan/permit shall be submitted to the City of Brentwood for approval. Transportation and disposal of soils shall be conducted in accordance with the Transportation Plan identified in Appendix B of the Removal Action Work Plan.*

Mitigation Measure HAZ-3: *Upon completion of soil excavation, disposal, and confirmation sampling, the project proponent shall prepare a Removal Action Completion Report documenting site activities. The report shall provide all compiled laboratory data and disposal manifests for the project. The report shall be signed by a California Professional Engineer and/or Professional Geologist. The report shall be submitted to DTSC for review and approval. The City of Brentwood shall not permit any additional site grading or earthwork on the subject parcel until the City has received confirmation from DTSC that the remediation efforts have been satisfactorily completed, as required by the conditions established in both the RAW and VCA.*

HYDROLOGY AND WATER QUALITY

Mitigation Measure HYD-1*: Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The Developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges consistent with the requirements established in 15.52.60(F): Erosion and Sediment Control of the City's Municipal Code. The SWPPP shall be submitted to the Director of Public Works/City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*

Mitigation Measure HYD-2*: Prior to the completion of construction, the applicant shall prepare and submit, for the City's review, an acceptable Stormwater Control Operation and Maintenance Plan. In addition, prior to the sale, transfer, or permanent occupancy of the site, the property owners or home owners association shall be responsible for the long-term maintenance of treatment facilities, and executing a Stormwater Management Facilities Operation and Maintenance Agreement and Right of Entry in the form provided by the City of Brentwood. The applicant shall accept the responsibility for maintenance of stormwater management facilities until such responsibility is transferred to another entity.*

The applicant shall submit, with the application of building permits, a draft Stormwater Facilities and Maintenance Plan, including detailed maintenance requirements and a maintenance schedule for the review and approval by the Director of Public Works/City Engineer. Typical routine maintenance consists of the following:

- *Limit the use of fertilizers and/or pesticides. Mosquito larvicides shall be applied only when absolutely necessary.*
- *Replace and amend plants and soils as necessary to insure the planters are effective and attractive. Plants must remain healthy and trimmed if overgrown. Soils must be maintained to efficiently filter the storm water.*
- *Visually inspect for ponding water to ensure that filtration is occurring.*
- *After all major storm events, remove bubble-up risers for obstructions and remove if necessary.*
- *Continue general landscape maintenance, including pruning and cleanup throughout the year.*
- *Irrigate throughout the dry season. Irrigation shall be provided with sufficient quantity and frequency to allow plants to thrive.*
- *Excavate, clean and or replace filter media (sand, gravel, topsoil) to insure adequate infiltration rate (annually or as needed).*

Mitigation Measure HYD-3*: Design of both the on-site drainage facilities shall meet with the approval of both the Director of Public Works/City Engineer and the Contra Costa County Flood Control and Water Conservation District prior to the issuance of grading permits.*

Mitigation Measure HYD-4*: Contra Costa County Flood Control and Water Conservation District drainage fees for the Drainage Area shall be paid prior to issuance of grading permits to the satisfaction of the Director of Public Works/City Engineer.*

Mitigation Measure HYD-5*: The Applicant/Developer shall ensure that the project site shall drain into a street, public drain, or approved private drain, in such a manner that un-drained depressions shall not occur. Satisfaction of this measure shall be subject to the approval of the Director of Public Works/City Engineer.*

Mitigation Measure HYD-6*: The construction plans shall indicate roof drains emptying into a pipe leading to the project bioswale areas for the review and approval of the Director of Public Works/City Engineer prior to the issuance of building permits.*

NOISE

Mitigation Measure NOI-1: *The improvement plans for the proposed project shall show an eight-foot high masonry sound wall along the north boundary of the site, adjacent to Lone Tree Way. The wall shall be constructed of materials that will achieve exterior noise levels of 65 dB Ldn, per the approval of the City Engineer and shall be constructed prior to issuance of the first building permit. The approximate location of the wall is shown on Figure 7.*

Mitigation Measure NOI-2: *Construction activities shall be limited to the hours set forth below:*

Monday-Friday 7:00 AM to 6:00 PM
Saturday 8:00 AM to 5:00 PM

Construction shall be prohibited on Sundays and City holidays. These criteria shall be included in the grading plan submitted by the applicant/developer for review and approval of the Director of Public Works/Engineering prior to issuance of grading permits. Exceptions to allow expanded construction activities shall be reviewed on a case-by-case basis as determined by the Chief Building Official and/or City Engineer, and shall not be allowed on any date or time that would violate the City's applicable noise standards.

Mitigation Measure NOI-3: *The project contractor shall ensure that the following construction noise BMPs are met on-site during all phases of construction:*

- *All equipment driven by internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise- control features that are readily available for that type of equipment.*
- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.*
- *The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.*
- *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.*
- *Construction site and access road speed limits shall be established and enforced during the construction period.*
- *The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.*
- *Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.*
- *The construction contractor shall designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.*

Construction noise BMPs shall be included in the grading plan submitted by the developer for review and approval by the Community Development Director prior to grading permit issuance.

PUBLIC SERVICES

Mitigation Measure PUB-1: *Prior to building permit issuance, the developer shall submit to the Community Development Department written proof from the Liberty Union High School District and the Brentwood Union School District that appropriate school mitigation fees have been paid.*

Mitigation Measure PUB-2: *Prior to building permit issuance, the project applicant shall pay the required park in-lieu fees as identified in the City's Development Fee Program.*

TRIBAL CULTURAL RESOURCES

Mitigation Measure TRI-1: *If cultural resources are discovered during project-related construction activities, all ground disturbances within a minimum of 50 feet of the find shall be halted until a qualified professional archaeologist can evaluate the discovery. The archaeologist shall examine the resources, assess their significance, and recommend appropriate procedures to the lead agency to either further investigate or mitigate adverse impacts. If the find is determined by the lead agency in consultation with the Native American tribe traditionally and culturally affiliated with the geographic area of the project site to be a tribal cultural resource and the discovered archaeological resource cannot be avoided, then applicable mitigation measures for the resource shall be discussed with the geographically affiliated tribe. Applicable mitigation measures that also take into account the cultural values and meaning of the discovered tribal cultural resource, including confidentiality if requested by the tribe, shall be completed (e.g., preservation in place, data recovery program pursuant to Public Resources Code §21083.2[i]). During evaluation or mitigative treatment, ground disturbance and construction work could continue on other parts of the project site.*

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INITIAL STUDY

PROJECT TITLE

Inez Estates

LEAD AGENCY NAME AND ADDRESS

City of Brentwood
150 City Park Way
Brentwood, CA 94513

CONTACT PERSON AND PHONE NUMBER

Crystal De Castro, Senior Planner
City of Brentwood
Community Development Department
(925) 516-5405

PROJECT SPONSOR'S NAME AND ADDRESS

Cyrus Land Investments, LLC
c/o Brian Kesler
4021 Port Chicago Highway
Concord, CA 94520
(925) 671-7711

PURPOSE OF THE INITIAL STUDY

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

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

BACKGROUND

On July 22, 2014, the City Council adopted a comprehensive General Plan Update, which had last been updated in 1993 (a partial update involving the Growth Management, Land Use, and Circulation Elements was completed in 2001). An Environmental Impact Report (EIR) prepared for the General Plan Update addressed the potential impacts associated with full build-out of the General Plan Land Use Map. The 2014 Brentwood General Plan Update EIR was certified by the City Council on July 22, 2014. The General Plan Update Land Use Map designates the project site as Residential-Very Low Density (R-VLD). Residential-Very Low Density land uses are required to have a density of between 1.1 and 3.0 dwelling units per gross acre, with a mid-range of 2.0 units per gross acre. In accordance with Section 15150 of the CEQA Guidelines (Section 21083.3 of the Public Resources Code), this Initial Study will tier from the previously certified Environmental Impact Report (EIR) (SCH# 2014022058) prepared for the Brentwood General Plan Update.

PROJECT LOCATION AND SETTING

PROJECT LOCATION

The project site consists of two parcels totaling 4.08 acres located in the northern portion of Brentwood. The project site is bounded by Lone Tree Way to the north, Valley Oak Nursery to the west, ranch style single-family residential homes to the south, and Gann Street to the east. The project site is identified by its Assessor's Parcel Numbers (APN) 018-080-022 and 018-080-025. The project's location is shown in Figure 1.

EXISTING SITE USES

The project site is currently vacant, undeveloped land that was historically used for agricultural purposes. The project site contains a 20-foot wide City sewer easement along its eastern boundary. A 30-foot wide ECCID (East Contra Costa Irrigation District) easement for agricultural and landscape irrigation water adjoins the southwestern boundary of the project site. Figure 2 displays aerial views of the project site and surrounding area.

SURROUNDING LAND USES

The Brentwood General Plan designates lands adjacent to the project site as: Residential-Very Low Density (R-VLD) and Park (P) to the east, Residential-Very Low Density (R-VLD) to the south and west, and Residential-Low Density (R-LD) to the north. The existing General Plan Land Use Designation and Zoning Designation for the site, and the surrounding area, are shown on Figure 3.

Current uses within the adjacent areas include the Valley Oak Nursery to the west and single-family residential to the north, east, and south.

GENERAL PLAN DESIGNATIONS

The project site is currently designated Residential-Very Low Density (R-VLD) by the General Plan Land Use Map. The R-VLD designation accommodates fairly large lots for single-family residences in an identifiable, suburban residential neighborhood, or cluster-style development

designed with open space and other amenities. Neighborhoods with either development type will be part of the Brentwood urban area to be provided with urban public facilities and services. The permitted density range is 1.1 to 3.0 units per gross acre, with a midrange of 2.0 units per gross acre.

ZONING DESIGNATIONS

The project site is currently zoned (R-1-12) Single-Family Residential. As stated in Chapter 17.130 of the City's Municipal Code, the R-1-12 zone allows for single-family residential type uses with a minimum lot area of 12,000 square feet.

PROJECT DESCRIPTION

The proposed project consists of the subdivision of a 4.08-acre site into 8 single-family residential parcels and one lettered parcel (Parcel A, totaling approximately 1.08 acres, to be retained by the project applicant) (Figure 4). The average lot size is approximately 13,900 square feet and homes range in size from approximately 2,853 square feet to approximately 3,876 square feet. The proposal results in a density of 1.96 units per gross acre, consistent with the General Plan land use designation and slightly below the mid-point of the density range. Due to the slightly irregular shape of the project site, a variance is requested to allow for an increase in the maximum lot depth for Lots 1 and 2, as well as a decrease in the minimum lot width and minimum lot frontage for Lot 5. The required maximum lot depth is 150 feet and Lots 1 and 2 provide lot depths of 276 feet and 203 feet, respectively. The required minimum lot width is 90 feet and required minimum lot frontage is 45 feet and Lot 5 provides a 35-foot minimum lot width and a minimum 20-foot lot frontage.

There are no trees currently on the project site that would be removed as part of the project. The project site would be re-landscaped with trees, shrubs, grass, and other common landscape materials. An 8-foot high masonry wall is proposed to be located along Lone Tree Way along the northern portion of the project site. Additional proposed walls include an 8-foot high masonry wall along slightly over half of the western boundary of the project site. Additionally, the existing 3-foot high wall located on the northeast corner of the project site will be replaced with an 8-foot high wall. The 8-foot high wall along the eastern boundary on Gann Street will remain.

Access to the site would be via a proposed cul-de-sac connecting to Gann Street, south of Lone Tree Way (no access from Lone Tree Way will be provided). Street lighting and sidewalks are proposed along the proposed interior street within the project site. A 5-foot wide public utility easement is proposed along the edge of the proposed internal street right-of-way (ROW). The proposed site plan layout is shown in Figure 4.

The proposed project would involve the construction of the necessary infrastructure to serve the proposed neighborhood and would include plans to connect to existing City infrastructure to provide water, sewer, and storm drainage to the site. The project includes installation of 8-inch water and sanitary sewer lines and 18-inch storm drain lines within the internal street ROW. The project site also includes three privately maintained on-site bioretention areas ranging from approximately 814 square feet to 950 square feet at separate locations throughout the project

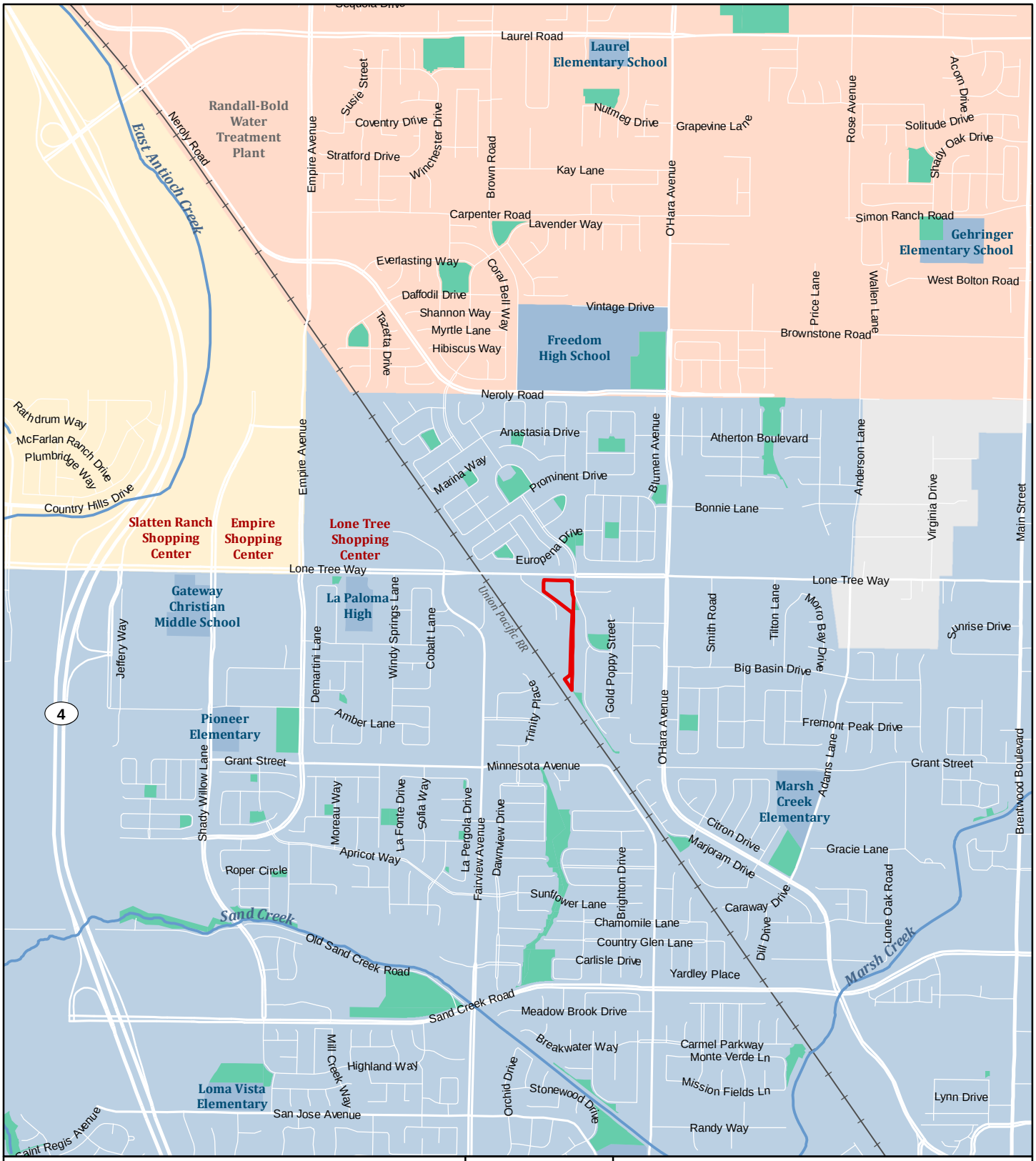
site. Storm drainage would be conveyed to the bioretention areas and discharged to the City's storm drainage system. Various storm drainage supporting structures would be located throughout the project site directing the flow into the bioretention areas and storm drain inlets.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

The City of Brentwood is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of the California Environmental Quality Act (CEQA), Section 15050.

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

- Adoption of the Mitigated Negative Declaration (MND) and adoption of the Mitigation Monitoring and Reporting Program (MMRP)
- Approval of a Vesting Tentative Subdivision Map (VTSM 9435) to subdivide 4.08 acres into 8 parcels for single-family detached residential units and one lettered parcel (Parcel A, to be retained by the project applicant).
- Approval of a Variance to allow for an increase in the maximum lot depth for two of the lots (Lots 1 and 2) from 150 feet up to 276 feet, a decrease of the minimum lot width from 90 feet to 35 feet (Lot 5), and a decrease in the minimum lot frontage of 45 feet to 20 feet for one lot (Lot 5).
- Design Review for the proposed residential structures.



Legend

- Project Boundary
- City of Antioch
- City of Brentwood
- City of Oakley
- Unincorporated Contra Costa County
- Park
- School

Sources: Contra Costa County GIS; Brentwood General Plan; Oakley General Plan; Open Street Map. Map date: November 25, 2019.

N

0 500 1,000
Feet

1:24,000

BRENTWOOD INEZ SUBDIVISION

Figure 1. Vicinity Map

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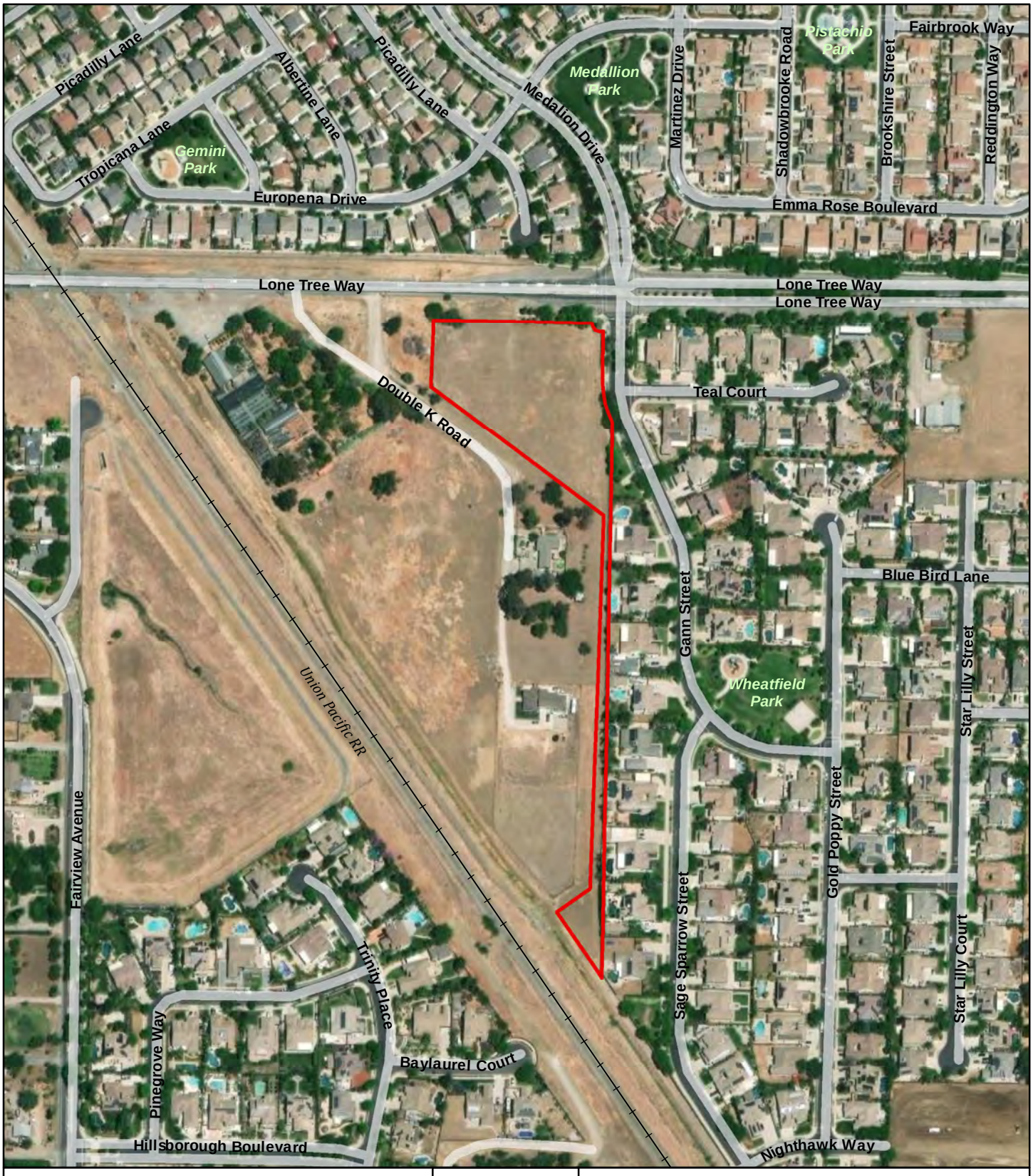

Legend

Project Boundary

N

0 100 200

Feet

1:4,000

Sources: Contra Costa County GIS; Open Street Map; ArcGIS Online World Imagery Map Service image date 5/26/2021. Map date: November 21, 2022.

BRENTWOOD INEZ SUBDIVISION

Figure 2. Aerial View of Project Site

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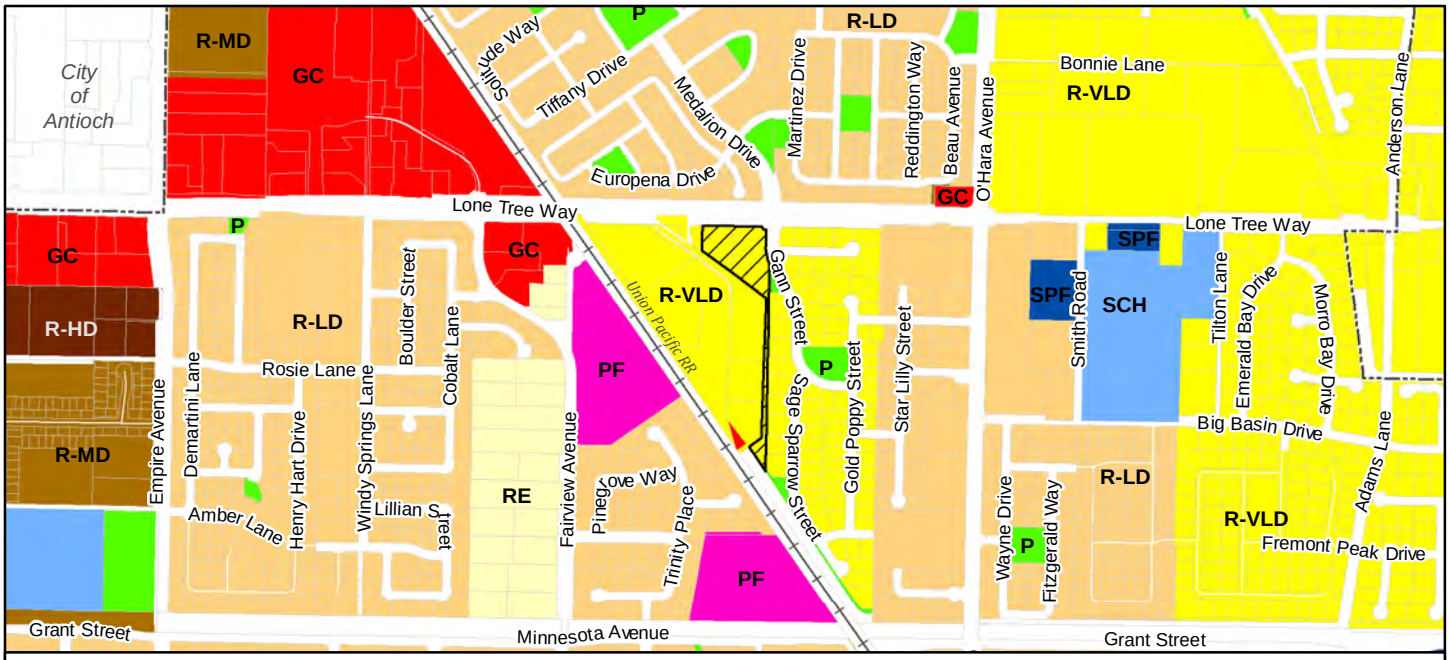
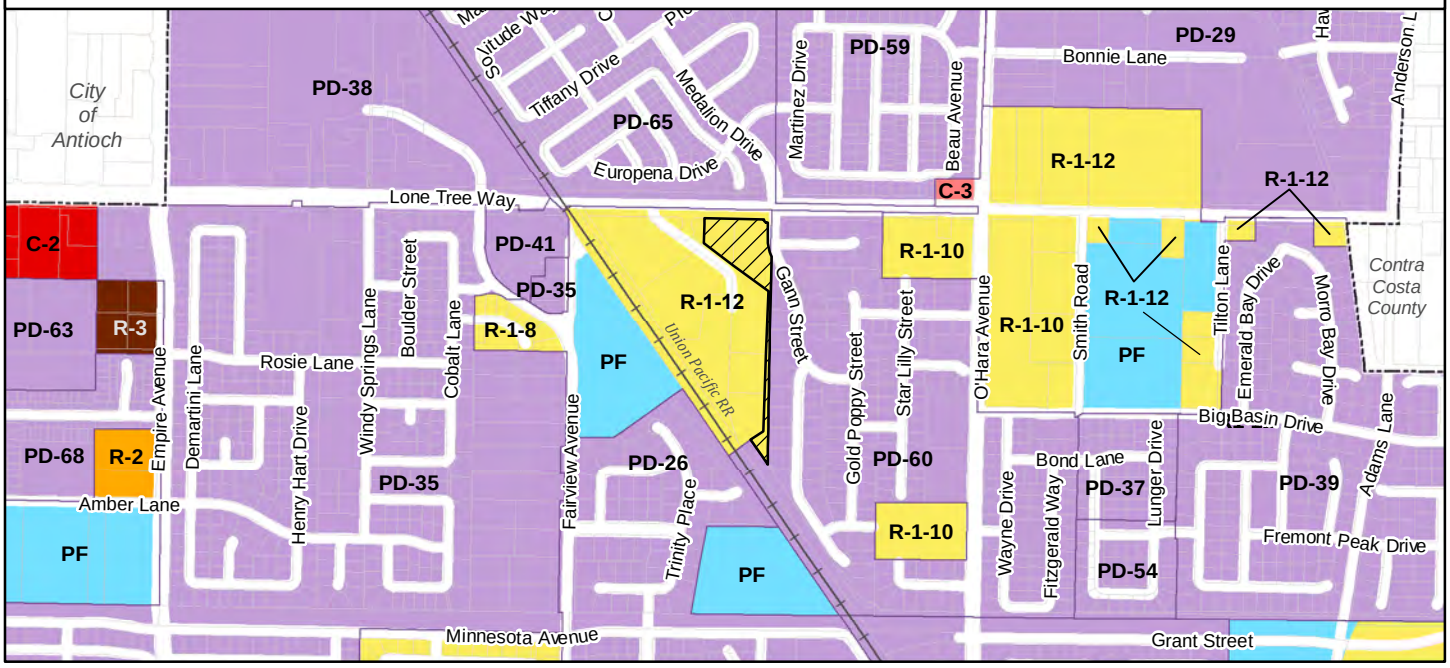


General Plan

- RE: Ranchette Estate
- R-VLD: Residential-Very Low Density
- R-LD: Residential-Low Density
- R-MD: Residential-Medium Density
- R-HD - Residential-High Density
- GC: General Commercial
- PF: Public Facility
- SPF: Semi-Public Facility
- P: Park
- SCH: School

Zoning

- R-1-X: Single Family Residential
- R-2-Moderate Density Multi-Residential
- R-3: High Density Multi-Residential
- PD-X: Planned Development Zone
- C-2: General Commercial
- C-3: Thoroughfares Commercial
- PF: Public Facility



Legend

- Project Location
- Brentwood City Boundary
- Assessor Parcel Boundary

Sources: Contra Costa County GIS; City of Brentwood; Open Street Map. Map date: January 2, 2020.

N

0 500 1,000
Feet

1:15,000

BRENTWOOD INEZ SUBDIVISION

Figure 3. Existing General Plan and Zoning

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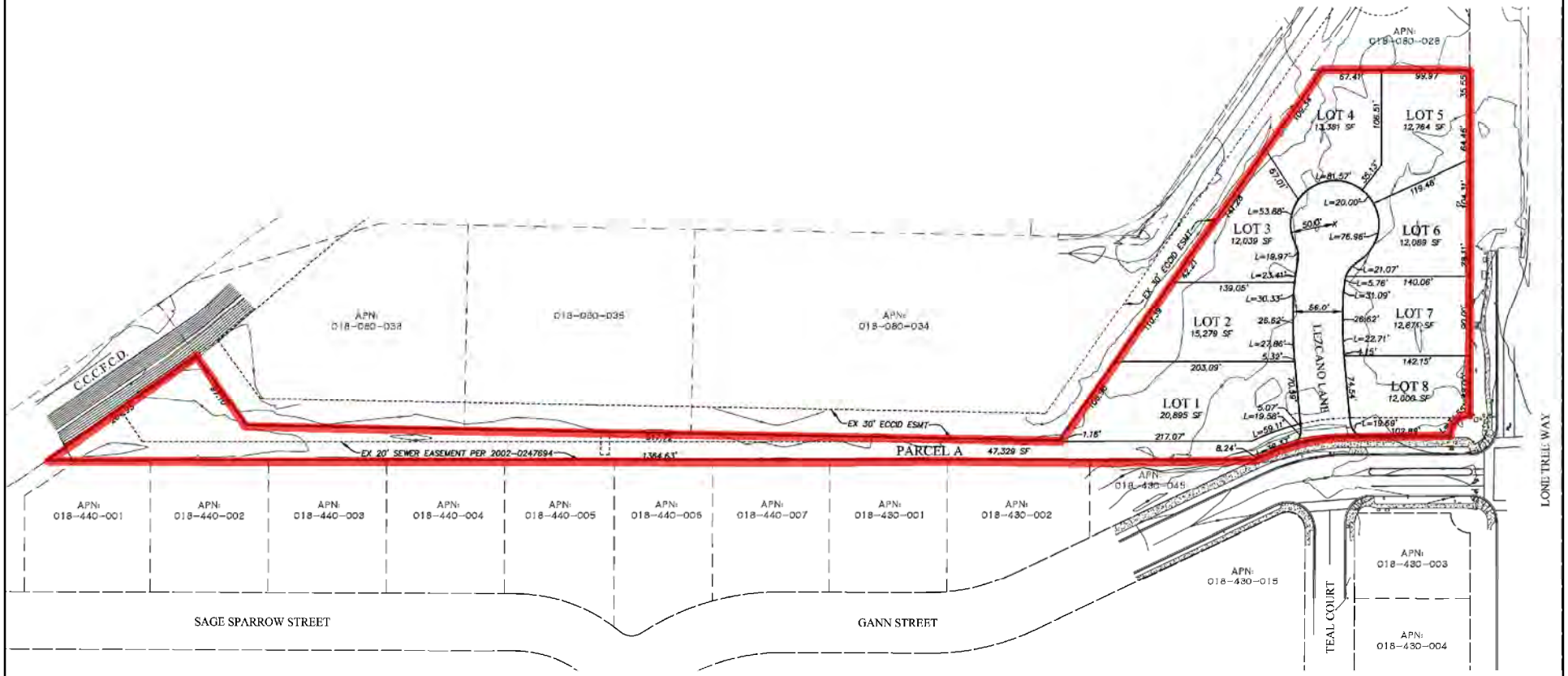

Legend

Project Boundary

N

0 50 100

Feet

BRENTWOOD INEZ SUBDIVISION

Figure 4. Site Plan

Sources: Contra Costa County GIS;
APEX Civil Engineering and Land Surveying 7-11-2022.
Map date: October 10, 2022.

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

None of the environmental factors listed below would have potentially significant impacts as a result of development of this project, as described on the following pages.

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

DETERMINATION

On the basis of this initial evaluation:

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

Signature Date

EVALUATION INSTRUCTIONS:

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

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

EVALUATION OF ENVIRONMENTAL IMPACTS:

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

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

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ENVIRONMENTAL CHECKLIST

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

I. AESTHETICS -- WOULD THE PROJECT:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X		

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. Brentwood is located in the eastern valley area of Contra Costa County, immediately east of the Diablo Range, which includes Mount Diablo. The City of Brentwood has recognized views of Mount Diablo as an important visual resource to be preserved (see Policy COS 7-3 of the Conservation and Open Space Element of the Brentwood General Plan).

According to the 2014 Brentwood General Plan Update EIR and the California Scenic Highway Mapping System, administered by Caltrans, Brentwood does not contain officially designated State Scenic Highways[1]. However, it should be noted that the segment of State Route 4 (SR 4) located approximately 1.3 miles to the west of the project site is listed as an Eligible State Scenic Highway, but has not yet been officially designated. The project would not damage any scenic resources, such as trees, rock outcroppings, or historic buildings, within a State Scenic Highway, and is not a visible feature from the SR 4 corridor. Additionally, the project site is not designated as a scenic vista. The 2014 Brentwood General Plan Update EIR identifies SR 4 as a local scenic route due to the distant panoramic vistas of the Diablo Range and Mount Diablo in particular. Mount Diablo is located to the west of SR 4 and the proposed project is located to the east of SR

[1] City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.1-5]. July 22, 2014.

4, and close to the northern edge of the city. As a result, the project structures would not impede views of Mount Diablo currently afforded to travelers along SR 4, or impede views of Mount Diablo from residents residing in the City of Brentwood.

The proposed project would not remove trees, rock outcroppings, and historic buildings within a state scenic highway, and is not designated as a scenic vista. Therefore, this is considered a **less than significant** impact.

Response c): Less than Significant. While the project site is current vacant, it is located within an urbanized area. The development of the site would change the existing visual setting from vacant land, to a suburban-scale residential setting consisting of 8 single-family residential units. The proposed development would be considered compatible with other residential and commercial uses designated for the immediate vicinity of the project site, and existing commercial and residential development located near the project site. In addition, the proposed project is consistent with (R-VLD) land uses identified in the City's General Plan and General Plan Land Use Map. Implementation of the proposed project would alter the visual appearance on the project site through the development of housing on a undeveloped lot. The proposed project is identified for urban land uses in the Brentwood General Plan. The proposed project is consistent with the overriding considerations that were adopted for the General Plan. As such, implementation of the proposed project would not create new impacts over and above those identified in the General Plan Final EIR nor significantly change previously identified impacts.

The final project design would be approved by the City through its design review process. Through this process, the Planning Commission would ensure the design meets the criteria set forth in Municipal Code Section 17.820.007. As a result, development of the project site would result in a **less than significant** impact with respect to substantially degrading the existing visual character or quality of the site and its surroundings.

Response d): Less than Significant with Mitigation. The project site is void of structures and permanent light sources. As a result, no light or glare is currently emitted from the project site. The change from a vacant property to a residential development including 8 single family residences and associated street lighting would generate new permanent sources of light and glare. The project site is adjacent to single family residences to the north, east and south, and a nursery to the west. The structures located in the immediate vicinity of the site would be considered sensitive receptors, which could be adversely affected by additional sources of light and glare. However, the project would not include reflective building materials, and vehicle headlight glare would not be exacerbated given the existing level of traffic on Lone Tree Way, and landscaping and fencing that would contain project vehicle light sources. However, street and safety lighting located along the project streets may be visible from surrounding locations. Therefore, the increase in light produced by the proposed project would be considered potentially significant.

Implementation of Mitigation Measure AES-1 would reduce the potential impacts related to light and glare to **less than significant**.

Mitigation Measure(s)

Mitigation Measure AES-1*: In conjunction with development of the proposed project, the developer shall shield all on-site lighting so that nighttime lighting is directed within the project site and does not illuminate adjacent properties. A detailed lighting plan shall be submitted for the review and approval by the Community Development Department and the Public Works Department in conjunction with the project improvement plans. The lighting plan shall indicate the locations and design of the shielded light fixtures.*

II. AGRICULTURE AND FOREST RESOURCES: WOULD THE PROJECT:

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

RESPONSES TO CHECKLIST QUESTIONS

Responses a): Less than Significant with Mitigation. The 4.08-acre development plan area contained past agricultural operations that have since ceased. Figure 3.2-1 of the City of Brentwood General Plan EIR identifies the project site, as mapped by the USDA, as "other land." Other land is defined by the California Department of Conservation Farmland Mapping and Monitoring Program as: *"land that is not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land."*

Additionally, the soils within the project site are Capay Clay (0 to 3 percent slopes), and a small amount of Rincon Clay (0 to 2 percent slopes) located in the far eastern portion of the project site. According to the "Summary by Map Unit" included in the Contra Costa County Soil Survey, and Capay Clay and Rincon Clay soils are both Class II soils and considered prime farmland if irrigated as defined by the United States Department of Agriculture Natural Resource Conservation Service.

Development of the site for urban uses and the subsequent removal of prime farmland soil for agricultural use was taken into consideration in the City of Brentwood General Plan and General Plan EIR. Buildout of the General Plan would result in the conversion of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to urban uses. The General Plan Draft EIR

found this to be a significant and unavoidable impact. In July, 2014 the Brentwood City Council adopted a Statement of Overriding Considerations for the loss of prime agricultural land resulting from adoption of the Plan and EIR, and provided mitigation measures for the agricultural land lost to development in the City of Brentwood's urbanized areas.

Additionally, Section 17.730.020 of the City of Brentwood's Agricultural Preservation Program states that, "agricultural land" requiring mitigation, includes: "*those land areas of Contra Costa County specifically designated as agricultural core (AC) or agricultural lands (AL) as defined in the Contra Costa County general plan; those land areas near the city designated as agricultural conservation (AC) as defined in the Brentwood general plan; and/or other lands upon which agricultural activities, uses, operations or facilities exist or could exist that contain Class I, II, III or IV soils as defined by the United States Department of Agriculture Natural Resource Conservation Service*."

The proposed project is identified for urban land uses in the Brentwood General Plan. The proposed project is consistent with the overriding considerations that were adopted for the General Plan. As such, implementation of the proposed project would not create new impacts over and above those identified in the General Plan Final EIR, nor significantly change previously identified impacts; therefore, in this regard, there is no impact. However, the site contains Class II and Prime Agricultural soils. The proposed project is therefore subject to compliance with Chapter 17.730, Agricultural Preservation Program, of the Brentwood Municipal Code. Implementation of the following mitigation measure would bring the proposed project in compliance with Chapter 17.730 of the Brentwood Municipal Code. Thus, through implementation of Mitigation Measure AG-1, impacts related to this environmental topic are considered **less than significant**.

Mitigation Measure(s)

Mitigation Measure AG-1*: In accordance with Brentwood Municipal Code Chapter 17.730 (Agricultural Preservation Program), the Project applicant must preserve agricultural lands by either (a) granting an agricultural conservation easement, or (b) paying the current agricultural conservation in-lieu fee established by City Council resolution to provide funds to purchase conservation easements to mitigate the loss of farmland. The fee may be adjusted annually but may not be increased by more than ten percent during any twelve-month period. This fee shall be paid prior to grading permit issuance.*

Response b): No Impact. The project site is not under Williamson Act contract, nor is the site zoned for agricultural use. The current land use designation for the project site is Residential-Very Low Density. Therefore, the project would have no impact with respect to conflicting with agricultural zoning or Williamson Act contracts**.** There is **no impact.**

Responses c) and d): No Impact. The project site is not considered forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). Therefore, the proposed project would have no impact with regard to conversion of

forest land or any potential conflict with forest land, timberland, or Timberland Production zoning. Therefore, there is **no impact**.

Responses e): Less than Significant. Individual project impacts to the loss of prime farmland are addressed through the proposed mitigation in item **a)** above. The proposed project would not be anticipated to promote off-site development of existing agricultural land because the proposed infrastructure is sized to serve only the project area. As stated previously, the project site is also surrounded by urban residential development on all sides, with the exception of the nursery to the west. Overall, the proposed project and urban land uses identified for the surrounding area are consistent with the overriding considerations that were adopted for the General Plan. As such, implementation of the proposed project would not create new impacts over and above those identified in the General Plan Final EIR, nor significantly change previously identified impacts related to agricultural resources. In addition, the project site is consistent with the type and intensity of land uses anticipated by the General Plan. Finally, the project site is not considered to be forest land. Therefore, the proposed project would result in a **less than significant** impact to the existing environment that could individually or cumulatively result in loss of farmland to non-agricultural uses or conversion of forest land to non-forest uses.

III. AIR QUALITY -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?		X		
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

EXISTING SETTING

The project site is located within the boundaries of the Bay Area Air Quality Management District (BAAQMD). This agency is responsible for monitoring air pollution levels and ensuring compliance with federal and state air quality regulations within the San Francisco Bay Area Air Basin (SFBAAB) and has jurisdiction over most air quality matters within its borders.

RESPONSES TO CHECKLIST QUESTIONS

Response a): No Impact.

The SFBAAB is currently designated as a nonattainment area for State and federal ozone, State and federal particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State particulate matter 10 microns in diameter (PM_{10}) standards. The BAAQMD, in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG), prepared the 2005 Ozone Strategy, which is a roadmap depicting how the Bay Area will achieve compliance with the State one-hour air quality standard for ozone as expeditiously as practicable and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. Although the California Clean Air Act does not require the region to submit a plan for achieving the State PM_{10} standard, the 2005 Ozone Strategy is expected to also reduce PM_{10} emissions. In addition, to fulfill federal air quality planning requirements, the BAAQMD adopted a $PM_{2.5}$ emissions inventory for year 2010, which was submitted to the U.S. Environmental Protection Agency (USEPA) on January 14, 2013, for inclusion in the State Implementation Plan (SIP).

The current plan in place to achieve progress toward attainment of the federal ozone standards is the *Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard*. The USEPA recently revoked the 1-hour federal ozone standard; however, the region is designated nonattainment for the new 8-hour standard that replaced the older one-hour standard. Until the region either adopts an approved attainment plan or attains the standard and

adopts a maintenance plan, the *Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard* remains the currently applicable federally-approved plan.

The aforementioned applicable air quality plans contain mobile source controls, stationary source controls, and transportation control measures (TCMs) to be implemented in the region to attain the State and federal ozone standards within the SFBAAB. The plans are based on population and employment projections provided by local governments, usually developed as part of the General Plan update process. The proposed project would be considered to conflict with, or obstruct implementation of, an applicable air quality plan if the project would be inconsistent with the Ozone Attainment Plan's growth assumptions, in terms of population, employment, or regional growth in Vehicle Miles Traveled (VMT). The growth assumptions are based on ABAG projections that are, in turn, based on the City's General Plan. The proposed project site was designated for Residential Very Low Density uses in the Brentwood General Plan in effect at the time ABAG projections were forecast. The proposed project is consistent with the General Plan land use designation; therefore, the project would be considered consistent with the growth assumptions of the applicable air quality plans. As a result, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans. There is **no impact** relative to this topic.

Responses b): Less than Significant. Air pollutant emissions related to the proposed project would include both construction phase emissions and, upon project buildout, operational emissions (such as from vehicle trips generated by the proposed project). Construction phase emissions would originate from mobile and stationary construction equipment exhaust, employee vehicle exhaust, dust from clearing and grading activities, wind-borne dust generated from exposed soils, and off-gassing from asphalt paving and painting. Construction-related emissions can vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content. Operational air pollutant emissions of the proposed project would be generated by electricity use for the night lighting at the project site, and visitor vehicle exhaust. Both construction and operation of the proposed project would result in the generation of emissions of carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NOx), and particulate matter (PM_{10}). Emissions of ROG and NOx are referred to as "precursors" to ozone formation. These two pollutants, when released into the atmosphere, undergo photochemical reactions in the presence of sunlight to form ozone. These ozone-forming photochemical reactions do not occur as readily in the cooler months of the year, and therefore, emissions of ROG and NOx are of greatest concern during the warmer months of summer.

According to the CEQA Guidelines, an air quality impact may be considered significant if the proposed project's implementation would result in, or potentially result in, conditions, which violate any existing local, State or federal air quality regulations. In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants designated as nonattainment in the area, the BAAQMD has established significance thresholds associated with development projects for emissions of reactive organic gases (ROG), nitrogen oxide (NOx), PM_{10}, and $PM_{2.5}$. The BAAQMD's significance thresholds, expressed in pounds per

day (lbs/day) for project-level and tons per year (tons/yr) for cumulative, listed in Table 1, are recommended for use in the evaluation of air quality impacts associated with proposed development projects.

Table 1: BAAQMD Thresholds of Significance

Pollutant	Construction (lbs/day)	Operational (lbs/day)	Cumulative (tons/year)
ROG	54	54	10
NOx	54	54	10
PM_{10}	82	82	15
$PM_{2.5}$	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2011.

In addition, the BAAQMD identifies screening criteria for development projects, which provide a conservative indication of whether a development could result in potentially significant air quality impacts. If the screening criteria are exceeded by a project, a detailed air quality assessment of that project's air pollutant emissions would be required. The project is made up of single-family residences. The screening criteria for a single-family residential development are if the development is less than or equal to the following screening level sizes:

- 325 dwelling units for operational criteria pollutants;
- 56 dwelling units for operational greenhouse gas (GHG) (addressed in Section VIII); or
- 114 dwelling units for construction criteria pollutants.

Accordingly, if a single-family development is less than or equal to the screening size for operational or construction criteria pollutants, or for operational GHG, the development would not be expected to result in potentially significant air quality impacts, and a detailed air quality assessment would not be required.

It should be noted that the BAAQMD was challenged in Superior Court, on the basis that the BAAQMD failed to comply with CEQA when it adopted its CEQA guidelines, including thresholds of significance. The BAAQMD was ordered to set aside the thresholds and conduct CEQA review of the proposed thresholds. On August 13, 2013, the First District Court of Appeal reversed the trial court's decision striking down BAAQMD's CEQA thresholds of significance for GHG emissions. The Court of Appeal held that CEQA does not require BAAQMD to prepare an EIR before adopting thresholds of significance to assist in the determination of whether air emissions of proposed projects might be deemed "significant." The Court of Appeal's decision provides the means by which BAAQMD may ultimately reinstate the GHG emissions thresholds, though the court's decision did not become immediately effective. A petition for review was filed in the matter; however, the California Supreme Court limited its review to a separate issue: Under what circumstances, if any, does CEQA require an analysis of how existing environmental conditions will impact future residents or users (receptors) of a proposed project? Ultimately, the thresholds of significance used to evaluate proposed developments are determined by the CEQA lead agency. Per CEQA Guidelines Section 15064.7, the City has elected to use the BAAQMD's thresholds and methodology for this project, as they are based on substantial evidence and remain the most up-to-date, scientifically-based method available to evaluate air quality impacts. Thus, the

BAAQMD's thresholds of significance presented in Table 1, and the screening criteria, are utilized for this analysis.

Implementation of the proposed project would contribute local emissions in the area during both the construction and operation of the proposed project. As the proposed project involves the development of 8 dwelling units, the project does not exceed the screening criteria for operational or construction-related criteria pollutants resulting from a single-family residential development. As such, the proposed project would not be expected to result in potentially significant operational or construction-related air quality impacts.

As discussed previously, the proposed projects falls under the screening criteria for operational and construction criteria air pollutants and precursors. BAAQMD has determined that if the project meets the screening criteria, the project would not result in the generation of operational-related criteria air pollutants and/or precursors that exceed the Thresholds of Significance. Therefore, implementation of the proposed project would result in a **less than significant** impact to air quality from criteria air pollutant and precursor emissions.

It should be noted that the project is required to comply with all BAAQMD rules and regulations for construction, including implementation of the BAAQMD's recommended Basic Construction Mitigation Measures, which will be required by the City as conditions of approval. The Basic Construction Mitigation Measures include, but are not limited to, watering exposed surfaces, covering all haul truck loads, removing all visible mud or dirt track-out, limiting vehicle speeds on unpaved roads, and minimizing idling time.

Response c): Less than Significant with Mitigation. Emissions of carbon monoxide (CO) are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood. CO emissions are particularly related to traffic levels.

In addition to screening criteria for criteria pollutants and GHG, BAAQMD has established screening criteria for localized CO emissions, including the following:

- Consistency with applicable congestion management programs;
- Project traffic increase traffic volumes at intersections to more than 44,000 vehicles per hour; or
- Project traffic increase traffic volumes at intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

As the City has elected to use the BAAQMD's thresholds and methodology for this project, the BAAQMD's screening criteria for localized CO emissions presented above are utilized for this analysis.

A General Plan amendment is not required for the proposed project. The proposed density of 1.96 units per gross acre is consistent with the General Plan designation for the site. As such, the project would be considered consistent with the growth assumptions of the General Plan.

Subsequently, the project would result in similar mobile source emissions as currently anticipated for the site. In addition, none of the affected intersections currently involve traffic volumes of 44,000 vehicles per hour (or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited), and would not increase traffic volumes greater than 44,000 vehicles per hour as a result of the proposed project. Therefore, according to the BAAQMD screening criteria above, the proposed project would not be expected to result in substantial increase in levels of CO at surrounding intersections, and the project would not generate or be subjected to localized concentrations of CO in excess of applicable standards.

Toxic Air Contaminants (TACs) are also a category of environmental concern. The California Air Resources Board's (CARB) *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommendations for siting new sensitive land uses near sources typically associated with significant levels of TAC emissions, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. It should be noted that the project site is approximately one eighth-mile from the nearest railroad tracks; however, due to the lack of idling trains,[2] the CARB does not consider tracks to be a significant source of TAC emissions, and the project site is not located in the vicinity of a rail yard. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

Children, pregnant women, the elderly, and those with existing health problems are considered more sensitive to air pollution than others. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities. The proposed project includes the development of single-family residences, the occupants of which would be considered sensitive receptors. Additionally, surrounding single family residences located just north, east and south of the project site would also be considered sensitive receptors. The CARB, per its Handbook, considers that any project placing sensitive receptors within 500 feet of a major roadway or freeway may have the potential to expose those receptors to DPM. Similarly, the BAAQMD recommends placement of overlay zones at least 500 feet from all freeways and high volume roadways. The nearest freeway, SR 4, is located over 6,700 feet to the west of the project site. Therefore, the project site is not located within 500 feet of any freeway or high volume roadway, and would not be subjected to substantial concentrations of DPM associated with roadways.

[2] The Union Pacific Railroad (UPRR) line bisects the City of Brentwood from the northwest corner of the City to the southeast corner of the City. This portion of the railroad line has not been in use since sometime prior to the year 2000. The line is maintained by UPRR as a standby route with no planned use for freight movement. Train idling does not occur in the vicinity of the project site.

The project does not involve long-term operation of any stationary diesel engine or other major on-site stationary source of TACs. Relatively few vehicle trips associated with operations of the proposed use would be expected to be composed of diesel-fueled vehicles. Therefore, the project would not generate any substantial concentrations of TACs during operations. Construction activities have the potential to generate DPM emissions related to the number and types of equipment typically associated with construction. Off-road heavy-duty diesel equipment used for site grading, paving, and other construction activities result in the generation of DPM. The residences located north and east of the project site would be considered the nearest existing sensitive receptors to the project site and could become exposed to DPM emissions from the site during construction activities. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. In addition, only portions of the site would be disturbed at a time during buildout of the proposed project, with operation of construction equipment regulated and occurring intermittently throughout the course of a day. Thus, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be very low. Because health risks associated with exposure to DPM or any TAC are correlated with high concentrations over a long period of exposure (e.g., over a 70-year lifetime), the temporary, intermittent construction-related DPM emissions would not be expected to cause any health risks to nearby sensitive receptors. Thus, construction of the proposed project would not expose any nearby existing sensitive receptors to any short-term substantial concentrations of TACs.

The City of Brentwood was previously advised of two serious cases of Valley Fever contracted during an archeological excavation near the southern City limit boundary. Valley Fever is an infection caused by inhalation of the spores of the *Coccidioides immitis fungus*, which grows in soils and are released during earthmoving. The fungus is very prevalent in the soils of California's San Joaquin Valley. The ecological factors that appear to be most conducive to survival and replication of the spores are high summer temperature, mild winters, sparse rainfall, and alkaline, sandy soils. Earth moving during development of the project site could put nearby residents at a greater risk of exposure to Valley Fever; however, because fungus spores need to become airborne in order to enter the respiratory tract of humans, and landscaping, building pads, and streets associated with the development would eliminate most fugitive dust, the threat is more serious for construction workers than for nearby residents. Residents living in close proximity to the project site during construction may be at risk of being exposed to the disease due to proximity and a relatively lower immunity. As a result, measures should be taken to reduce the potential for exposure of the disease during construction to both construction workers and nearby receptors. These include measures to control dust through construction site irrigation, soil stabilizers and landscaping. Paving roads, planting grass, and other measures that reduce dust where people live, work, or engage in recreation have been shown to reduce the incidence of infection. Sufficient wetting of the soil prior to grading activities can reduce exposure to airborne spores of the fungus.

Development of the project site could potentially expose construction workers and nearby residents to fungus spores that cause Valley Fever. Grading activities associated with development have the potential to release the fungus into the air, increasing the risk of infection

to the surrounding population. Implementation of the project may result in human health impacts due to exposure to fungus spores which cause Valley Fever.

In conclusion, with the implementation of the following mitigations measures, the proposed project would not expose sensitive receptors to substantial concentrations of any TACs after mitigation. Therefore, impacts related to exposure of sensitive receptors to substantial pollutant concentrations would be considered **less than significant with mitigation**.

Mitigation Measure(s)

Mitigation Measure AIR-1*: Prior to the issuance of a grading permit, the Applicant/Developer shall prepare an Erosion Prevention and Dust Control Plan. The plan shall be followed by the project's grading contractor and submitted to the City of Brentwood's Public Works Department, which will be responsible for field verification of the plan during construction.*

The plan shall comply with the City's grading ordinance and shall include the following control measures and other measures as determined by the Public Works Department to be necessary in order to achieve full compliance with the City's grading ordinance:

- *Cover all trucks hauling construction and demolition debris from the site;*
- *Water all exposed or disturbed soil surfaces at least twice daily;*
- *Use watering to control dust generation during demolition of structures or break-up of pavement;*
- *Pave, apply water three time daily, or apply (non-toxic) soil stabilizers on all unpaved parking areas and staging areas;*
- *Sweep daily (with water sweepers) all paved parking areas and staging areas;*
- *Provide daily clean-up of mud and dirt carried onto paved streets from the site;*
- *Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.);*
- *Limit traffic speeds on unpaved roads to 15 mph;*
- *Install sandbags or other erosion control measures to prevent silt runoff to public roadways;*
- *Replant vegetation in disturbed areas as quickly as possible;*
- *Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site;*
- *Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) or construction areas;*
- *Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph;*
- *Limit the area subject to excavation, grading, and other construction activity at any one time;*
- *Unnecessary idling of construction equipment shall be avoided;*
- *Equipment engines shall be maintained in proper working condition per manufacturers' specifications;*
- *During periods of heavier air pollution (May to October), the construction period shall be lengthened to minimize the amount of equipment operating at one time, provided*

construction occurs within the hours allowed by the City of Brentwood Municipal Code and General Plan;

- *Where feasible, the construction equipment shall use cleaner fuels, add-on control devices and conversion to cleaner engines.*

Mitigation Measure AIR-2*: To the extent feasible, construction employees shall be hired from local populations, since it is more likely that they have been previously exposed to the fungus which causes Valley Fever and are therefore immune.*

Mitigation Measure AIR-3*: During periods of high dust in the grading phase, defined as dust emission occurring from wind speeds in excess of 10 mph, crews must use National Institute for Occupational Safety and Health (NIOSH) approved N95 masks or better or other more stringent measures in accordance with the California Division of Occupational Safety and Health regulations.*

Mitigation Measure AIR-4*: The operator cab of grading and construction equipment must be enclosed and air-conditioned.*

Response d): Less than Significant. According to the CARB's Handbook, some of the most common sources of odor complaints received by local air districts are sewage treatment plants, landfills, recycling facilities, waste transfer stations, petroleum refineries, biomass operations, autobody shops, coating operations, fiberglass manufacturing, foundries, rendering plants, and livestock operations. The proposed project site is located around developed areas and is surrounded by residential land uses that are generally not associated with objectionable odors; with the exception of the nursery located west of the project site, which may occasionally produce minimal odors. However, these odors are not expected to be substantial objectionable odors or induce significant odor impacts as those mentioned above. Accordingly, the proposed project is not located in the vicinity of any substantial objectionable odor sources such as those mentioned above.

Operation of the proposed project would not generate notable odors. The proposed project is a residential development, which is compatible with the surrounding land uses. Residential land uses are not typically associated with the creation of substantial objectionable odors. Occasional mild odors may be generated during landscaping maintenance (equipment exhaust), but the project would not otherwise generate odors. The proposed project is not anticipated to produce any objectionable odors (or other emissions) at buildout that would affect a substantial number of people. Construction activities associated with the proposed project, such as paving and painting, are likely to temporarily generate objectionable odors. Since odor-generating construction activities would be temporary, and are only likely to be detected by residents closest to the project site, impacts from temporary project-related odors are expected to be **less than significant** and no mitigation is required.

IV. BIOLOGICAL RESOURCES -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?			X	
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?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation. A biological field survey to assess site conditions was undertaken by De Novo Planning Group's Principal Biologist, Steve McMurtry, on December 17, 2019. The site was systematically searched by walking throughout the project site.

The property consists primarily of ruderal grasslands. The project site has been previously used for agricultural production. Due to cultivation practices, the site contains no high-quality habitat for covered and no take plant species. In addition, none of the covered or no-take plant species were observed during the site survey on December 17, 2019, and none are expected to occur on the site due to the site's history of heavy disturbance. According to Google Earth imagery, the project site is routinely mowed, which would preclude the establishment of special status plant species.

Special Status Plant Species

The planning survey revealed that the ruderal vegetation is dominated by non-native species. None of the covered or no-take species were found during the survey, and due to its disturbed state, the site is highly unlikely to contain any of these species. Potentially occurring special-status plant species listed in the East Contra Costa County Habitat Conservation Plan (ECCCHCP) for the grassland habitat type are not expected to occur on-site because of the heavy disturbance the site has received being under past intensive agricultural uses. Therefore, the project is not expected to impact any covered or no-take plants.

Special Status Wildlife Species

Based upon the on-site habitats, three covered wildlife species may occur on the project site. Each of these species is discussed below.

San Joaquin Kit Fox: The project site consists of annual grassland that is just within range of the San Joaquin kit fox (Vulpes macrotis mutica). There were no burrows or dens with evidence of kit fox occupancy (i.e. scat, tracks) or burrows or dens that meet the dimensional criteria for kit fox. The California Natural Diversity Database (CNDDB) does not identify any occurrences of the San Joaquin kit fox within one mile of the project site. Comprehensive inspection of potential den habitat was accomplished by walking meandering transects throughout the property. San Joaquin kit fox was not observed and they are presumed to be absent. Mitigation Measure BIO-1 will ensure that any potential impact is reduced to a **less than significant level**.

Western Burrowing Owl: The project site is within the range of western burrowing owl (Athene cunnicularia). The California Department of Fish and Wildlife's (CDFW's) CNDDB contains six occurrences of western burrowing owl within a mile of the site. The site was inspected for burrowing owls and ground squirrel burrows with evidence of burrowing owl occupancy (i.e., white wash, pellets, feathers). Comprehensive inspection of potential western burrowing owl habitat was accomplished by walking meandering transects throughout the property. No western burrowing owls or potential burrows with evidence of burrowing owl occupancy were observed. Measures BIO-2A and 2B would ensure that any potential impact to western burrowing owls is reduced to a **less than significant level.**

Swainson's Hawk: The project site is along the extreme western edge of the range of Swainson's hawk (Bueto swainsoni). CNDDB contains one occurrence of Swainson's hawk within a mile of the site (located approximately 0.9 miles southeast of the site). No potential nest trees currently remain onsite, as there are no remaining trees within the project site. There are only a few potential nest trees near and visible from the site. All of the trees visible from the site were inspected for raptor stick nests. No raptor stick nests were observed in the offsite trees visible from the project site. Due to the location of the site along the extreme west edge of the Swainson's hawk nesting range, it is considered unlikely this species will nest in trees in or near the project site in the future. Mitigation Measures BIO-3 would ensure that any potential impact is reduced to a **less than significant level**.

None of the fully protected wildlife species listed in the HCP/NCCP have been observed or are likely to occur within the property. The site does not is not likely to provide adequate nesting

habitat for any of the raptors (Swainson's hawk, white-tailed kite, peregrine falcon, or golden eagle), nor does it contain adequate habitat for ringtails.

Conclusion

Due to the disturbed nature of the project site's ruderal annual grassland cover type, suitable habitat does not exist to support special-status plant species known to occur within the annual grassland cover type of East Contra Costa County. While the presence of special- status wildlife species is relatively unlikely, based upon the current land cover types found on-site, in accordance with the ECCCHCP, wildlife species surveys are required to determine whether any special-status wildlife species are occupying the project site prior to initiating on-site ground disturbance and vegetation removal. If the necessary preconstruction surveys are not carried out, the project could result in a potentially significant adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the U.S. Fish and Wildlife Service (USFWS), or the CDFW. The following mitigation measures would reduce the above-stated special-status wildlife impacts to a **less than significant** level.

Mitigation Measure(s)

San Joaquin Kit Fox

Mitigation Measure BIO-1: *Prior to any ground disturbance, a qualified biologist shall conduct a preconstruction survey for San Joaquin kit fox. Preconstruction surveys will be conducted within 30 days of ground disturbance. Preconstruction survey requirements include but are not limited to mapping of all dens within the project site footprint and within a 250-foot radius of the project site, and the provision of written survey results to the USFWS within five working days after surveying. If San Joaquin kit foxes and/or suitable dens are identified in the survey area, the applicant shall consult with the USFWS and CDFW to establish a mitigation plan that meets the requirements established within the* USFWS Standardized Recommendations for Protection of the endangered San Joaquin Kit Fox Prior to or During Ground Disturbance*. Ground disturbing activities shall not commence until the USFWS and CDFW verify that all required mitigation and avoidance measures have been properly implemented.*

Burrowing Owl

Mitigation Measure BIO-2A: *Prior to any ground disturbance related to activities covered under the ECCCHCP, a preconstruction survey of the 4.08-acre development plan area shall be completed. The surveys shall establish the presence or absence of western burrowing owl and/or habitat features, and evaluate use by owls in accordance with CDFW survey guidelines.*

An approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995). On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500- foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels

under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1—August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1—January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted. If burrowing owls and/or burrows are identified in the survey area, Mitigation Measure 3B shall be implemented. If burrowing owls and/or suitable burrows are not discovered, then further mitigation is not necessary.

Mitigation Measure BIO-2B: *If burrowing owls are found during the breeding season (February 1 August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 —January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below). During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing, if occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.*

Covered Migratory Birds

Mitigation Measure BIO-3: *Prior to any ground disturbance, a pre-construction survey for covered migratory birds shall be completed. This survey shall be conducted in the morning or evening hours within 30 days prior to any construction activities. The entire site and surrounding vegetation, will be surveyed for birds, nests and nesting behavior. Common nesting behavior by birds includes; collecting nesting materials, bringing food items to a nest and vocalizations from young or from adults to attract a mate and to establish or defend a nesting territory. A construction-free buffer of suitable dimensions must be established around any active migratory bird nests (up to 250 feet, depending on the location and species) for the duration of the project or until it has been determined by a qualified ornithologist that the chicks have fledged and are independent of their parents.*

Responses b), c): Less than Significant. Riparian habitats are described as the land and vegetation that is situated along the bank of a stream or river. Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year. Wetlands usually must possess hydrophytic vegetation (i.e., plants adapted to inundated or saturated conditions), wetland hydrology (e.g., topographic low areas, exposed water tables, stream channels), and hydric soils (i.e., soils that are periodically or permanently saturated, inundated or flooded). Vernal pools are seasonal depressional wetlands that are covered by shallow water for variable periods from winter to spring, but may be completely dry for most of the summer and fall. Vernal pools range in size from small puddles to shallow lakes and are usually found in a gently sloping plain of grassland.

There is no aquatic habitat at the site and no jurisdictional waters or wetlands are present onsite, and no Army Corps of Engineers or Regional Water Quality Control Board (RWQCB) permits would be required relating to jurisdictional waters. As a result, the implementation of the proposed project would have a **less than significant** impact to any riparian habitat, seasonal wetlands, or vernal pools as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.

Responses d): Less than Significant. While the proposed project would result in substantial development of the project site, the site is adjacent to existing developments. The project site provides limited opportunities for native, resident, or migratory wildlife to use as a movement corridor. The CNDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the project site. Furthermore, the field survey did not reveal any wildlife nursery sites on or adjacent to the project site.

Given that the project site provides limited habitat due to previous cultivation, impacts related to the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impeding the use of wildlife nursery sites are considered **less than significant**.

Responses e), f): Less than Significant. Vegetation on the project site currently consists of ruderal vegetation. The site is within the boundaries of the ECCCHCP. In July 2007, the ECCCHCP was adopted by Contra Costa County, the City of Brentwood, other member cities, the USFWS and the CDFW. The ECCCHCP provides guidance for the mitigation of impacts to covered species. Mitigation of impacts is accomplished through the payment of a Development Fee. The Development Fee requires payment based on a cost per acre for all acres converted to non-habitat with the cost per acre based on the quality of the habitat converted. The fees are used to acquire higher value habitats in preserved areas and to fund their restoration and management. Because the City of Brentwood is a signatory to the ECCCHCP, anticipated project impacts could be mitigated through the payment of Development Impact fees to the East Contra Costa County Habitat Conservancy. However, at the time that the ECCCHCP was adopted, the site was mapped with a land cover designation of Urban, Turf, Landfill, or Aqueduct, and will not be assessed the Development Fee, as the site is not considered suitable for covered species habitat. Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation

Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, resulting in an impact that is **less than significant**.

V. CULTURAL RESOURCES -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. A record search was conducted for the project site and surrounding area through the Northwest Information Center (NWIC) of the California Historical Resources Information System on December 12, 2019 (NWIC file No.:19-0989) (see Appendix B). The record search indicates that the project site does not contain any recorded buildings or structures listed on the State Office of Historic Preservation Historic Property Directory (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places). In addition to these inventories, the NWIC base maps show no recorded buildings or structures within the proposed project area.

The 2014 Brentwood General Plan Update EIR identifies 24 historic properties in the Brentwood Planning Area. None of the 24 properties listed are within the proposed project site[3]. Since there are no existing buildings on the project site, there is nothing on that site that could be considered a "historical resource" under Section 15064.5 of the CEQA Guidelines.

For the above-stated reasons, development of the proposed project would have a **less than significant** impact on historical resources.

Responses b), c): Less than Significant with Mitigation. As noted above, a record search was conducted for the project area and surrounding area through the NWIC of the California Historical Resources Information System on December 12, 2019 (NWIC file No.:19-0989). There are no known sites in the project area or within a one-eighth mile radius of the project area.

Given that no known archaeological resources are associated with the project site, the subject parcel is considered of low archaeological sensitivity for prehistoric cultural resources. However, ground-disturbing activities may have the potential to uncover buried cultural deposits. As a result, during construction and excavation activities, previously unknown archaeological resources, including human bone, may be uncovered, resulting in a potentially significant impact.

[3] City of Brentwood. 2014 Brentwood General Plan Update EIR [pg. 3.5-7]. July 22, 2014.

Implementation of the following mitigation measures would reduce the construction-related impacts to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure CUL-1: *Prior to grading permit issuance, the developer shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the developer shall immediately notify the Community Development Department of the discovery. In such case, the developer shall be required, at their own expense, to retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery would not be allowed until the preceding work has occurred.*

VI. ENERGY

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. Appendix F of the State CEQA Guidelines requires consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100[b][3]). According to Appendix F of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed project would be considered "wasteful, inefficient, and unnecessary" if it were to violate state and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The proposed project includes the construction of 8 single-family residential units. The amount of energy used at the project site would directly correlate to the size of the proposed units, the energy consumption of associated unit appliances, and outdoor lighting. Other major sources of proposed project energy consumption include fuel used by vehicle trips generated during project construction and operation, and fuel used by off-road construction vehicles during construction.

The following discussion provides calculated levels of energy use expected for the proposed project, based on commonly used modelling software (i.e. CalEEMod v.2020.40 and the California Air Resource Board's EMFAC2014). It should be noted that many of the assumptions provided by CalEEMod are conservative relative to the proposed project. Therefore, this discussion provides a conservative estimate of proposed project emissions.

Electricity and Natural Gas

Electricity and natural gas used by the proposed project would be used primarily to power on-site buildings. Total annual electricity (kWh) and natural gas (kBTU) usage associated with the operation of the proposed project are shown in Table 4, below (as provided by CalEEMod).

According to Calico's *Appendix A: Calculation Details for CalEEMod*, CalEEMod uses the California Commercial End Use Survey (CEUS) database to develop energy intensity value for non-

residential buildings. The energy use from residential land uses is calculated based on the Residential Appliance Saturation Survey (RASS). Similar to CEUS, this is a comprehensive energy use assessment that includes the end use for various climate zones in California.

Table 4: Project Operational Natural Gas and Electricity Usage

Emissions[a]	*Natural Gas (kBTU/year)*	*Electricity (kWh/year)*
Single Family Housing	213,036	62,666
Total	**213,036**	**62,666**

SOURCE: CALEEMOD (V.2020.4.0.)

Energy usage during the operational phases of the proposed project would be typical for a project of this kind, and therefore would not represent a wasteful, inefficient, or unnecessary consumption of energy resources. Additionally, the proposed project would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency.

On-Road Vehicles (Operation)

The proposed project would generate vehicle trips during its operational phase. In order to calculate new daily vehicle trips and operational on-road vehicle energy usage and emissions, default average daily trips and trip lengths generated by CalEEMod were used, which are based on the project land use, location and urbanization level parameters De Novo (the Initial Study consultant) selected within CalEEMod (i.e. "Single Family Housing" Land Use, "Bay Area Air Quality Management District" project location, and "Urban" setting, respectively). These values are provided by the individual districts or use a default average for the state, depending on the location of the proposed project (CAPCOA, 2017). Based on default factors provided by CalEEMod, the project would generate approximately 103 new daily vehicles trips and the average distance per trip was conservatively calculated to be approximately 7.1 miles. Therefore, the proposed project would generate at total of approximately 736 average daily vehicle miles travelled (Average Daily VMT). Using fleet mix data provide by CalEEMod (v2020.40), and Year 2020 gasoline and diesel MPG (miles per gallon) factors for individual vehicle classes as provided by EMFAC2014, De Novo derived weighted MPG factors for operational on-road vehicles of approximately 26.3 MPG for gasoline and 10.2 MPG for diesel vehicles. With this information, De Novo calculated as a conservative estimate that the unmitigated proposed project would generate vehicle trips that would use a total of approximately 26 gallons of gasoline and 5 gallons of diesel fuel per day, on average, or 9,552 gallons of gasoline and 1,651 annual gallons of diesel fuel per year.

On-Road Vehicles (Construction)

The proposed project would also generate on-road vehicle trips during project construction (from construction workers and vendors). Estimates of vehicle fuel consumed were derived based on the assumed construction schedule, vehicle trip lengths and number of workers per construction phase as provided by CalEEMod, and Year 2020 gasoline MPG factors provided by EMFAC2014. For the purposes of simplicity, it was assumed that all worker vehicles used gasoline as a fuel source (as opposed to diesel fuel or alternative sources) and all vendor vehicles used diesel fuel as a fuel source (as opposed to gasoline or alternative sources). Table 6, below,

describes gasoline and diesel fuel used by on-road mobile sources during each phase of the construction schedule. As shown, the vast majority of on-road mobile vehicle fuel used during the construction of the proposed project would occur during the building construction phase. See Appendix C for a detailed calculation.

Table 6: On-Road Mobile Fuel Generated by Project Construction Activities – By Phase

Construction Phase	*# of Days*	*Total Daily Worker Trips[(a)]*	*Total Daily Vendor Trips[(a)]*	*Gallons of Gasoline Fuel[(b)]*	*Gallons of Diesel Fuel[(b)]*
Site Preparation	5	18	-	38	-
Grading	8	15	-	50	-
Building Construction	230	4	1	387	248
Paving	18	20	-	151	-
Architectural Coating	18	1	-	8	-
Total	**N/A**	**N/A**	**N/A**	**634**	**248**

NOTE: [(A)] PROVIDED BY CALEEMOD. [(B)]SEE APPENDIX C FOR FURTHER DETAIL

SOURCE: CALEEMOD (V. 2020.40); EMFAC2014.

Off-Road Vehicles (Construction)

Off-road construction vehicles would use diesel fuel during the construction phase of the proposed project. A non-exhaustive list of off-road constructive vehicles expected to be used during the construction phase of the proposed project includes: cranes, forklifts, generator sets, tractors, excavators, and dozers. Based on the total amount of CO_2 emissions expected to be generated by the proposed project (as provided by the CalEEMod output), and a CO_2 to diesel fuel conversion factor (provided by the U.S. Energy Information Administration), the proposed project would use a total of approximately 1,039 gallons of diesel fuel for off-road construction vehicles (during the site preparation and grading phases of the proposed project). Detailed calculations are provided in Appendix C.

Other

Proposed project landscape maintenance activities would generally require the use fossil fuel (i.e. gasoline) energy. For example, lawn mowers require the use of fuel for power. As an approximation, it is estimated that landscape care maintenance would require approximately four individuals one full day per week, or 1,677 hours per year (or 416.8 hours per year per landscaper). Assuming an average of approximately 0.5 gallons of gasoline used per person-hour, the proposed project would require the use of approximately 839 gallons of gasoline per year to power landscape maintenance equipment. The energy used to power landscape maintenance equipment would not differ substantially from the energy required for landscape maintenance for similar projects.

The proposed project could also use other sources of energy not identified here. Examples of other energy sources include alternative and/or renewable energy (such as solar PV) and/or on-site stationary sources (such as on-site diesel generators) for electricity generation. The

proposed project would be solar-ready, which could reduce the need for fossil fuel-based energy (for proposed project buildings), including for electricity.

Conclusion

The proposed project would use energy resources for the operation of project buildings (electricity and natural gas), for on-road vehicle trips (e.g. gasoline and diesel fuel) generated by the proposed project, and from off-road construction activities associated with the proposed project (e.g. diesel fuel). Each of these activities would require the use of energy resources. The proposed project would be responsible for conserving energy, to the extent feasible, and relies heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures.

The proposed project would be in compliance with all applicable Federal, State, and local regulations regulating energy usage. For example, PG&E is responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing the Statewide Renewable Portfolio Standard (RPS) to increase the proportion of renewable energy (e.g. solar and wind) within its energy portfolio. PG&E is expected to achieve at least a 33% mix of renewable energy resources by 2020, and 50% by 2030. Additionally, energy-saving regulations, including the latest State Title 24 building energy efficiency standards ("part 6"), would be applicable to the proposed project. Other Statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g. the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time.

As a result, the proposed project would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for each stage of the project including construction, operations, maintenance, and/or removal. PG&E, the electricity and natural gas provider to the site, maintains sufficient capacity to serve the proposed project. The proposed project would comply with all existing energy standards, including those established by the City of Brentwood, and would not result in significant adverse impacts on energy resources. Furthermore, existing connections exist between the project site and nearby pedestrian and bicycle pathways, and public transit access exists nearby, reducing the need for local motor vehicle travel. Although improvements to the City's pedestrian, bicycle, and public transit systems would provide further opportunities for alternative transit, the proposed project would be linked closely with existing networks that, in large part, are sufficient for most residents of the proposed project and the City of Brentwood as a whole. For these reasons, the proposed project would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the threshold as described by Appendix F of the CEQA Guidelines. This is a ***less than significant*** impact.

VII. GEOLOGY AND SOILS -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*No Impact*
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.		X		
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?		X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

RESPONSES TO CHECKLIST QUESTIONS

Responses a.i), a.ii): Less than Significant with Mitigation. The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, and known surface expression of active faults does not exist within the site. However, the site is located within a seismically active region. According to the USGS Fault and Fold Database, the nearest active fault is the Greenville Fault, located about 8.8 miles southwest. The potentially active Davis Fault and Midland Fault are

located about 2.8 west and 5.5 miles east of the site, respectively. The Greenville Fault is considered to be capable of a moment magnitude earthquake of 6.8 to 7.0.

Geologic Hazards

Potential seismic hazards resulting from a nearby moderate to major earthquake could generally be classified as primary and secondary. The primary seismic hazard is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking and ground lurching.

Ground Rupture

Because the property does not have known active faults crossing the site, and the site is not located within an Earthquake Fault Special Study Zone, ground rupture is unlikely at the subject property.

Ground Shaking

An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the site, similar to that which has occurred in the past. The project would be built using standard engineering and seismic safety design techniques. Building design at the project site would be completed in conformance with the recommendations of the geotechnical investigation required by Mitigation Measure GEO-2 below, as reviewed and approved by the City of Brentwood Building Division. The structures would be required to meet the standards of applicable Building and Fire Codes, including the 2022 California Building Code (CBC), as adopted or updated by the City of Brentwood. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures would be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage.

Ground Lurching

Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion could cause ground cracks to form in weaker soils. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock. Such an occurrence is possible at the site as in other locations in the Bay Area, but based on the site location, the offset is expected to be very minor.

Conclusion

The project site is not within an Alquist-Priolo Special Studies Zone; however, the Brentwood area is located in a seismically active zone. Five active faults are located within an approximate 50-mile radius of the project site. The nearest State of California zoned, active fault is the

Greenville fault, located approximately 8.8 miles southwest of the project site. Development of the proposed project in this seismically active zone could expose people or structures to substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault and/or strong seismic ground shaking. Therefore, a potentially significant impact could result. The City of Brentwood General Plan Action SA 1a requires the submission of geologic and soils reports for all new developments. The geologic risk areas that are determined from these studies shall have standards established and recommendations shall be incorporated into development. Implementation of the following mitigation measures would ensure the potential impacts are **less than significant.**

Mitigation Measure(s)

Mitigation Measure GEO-1*: All project buildings shall be designed in conformance with the current edition of the California Building Code (CBC).*

Mitigation Measure GEO-2: *Prior to grading permit issuance, the applicant shall submit a final geotechnical evaluation of the project site that analyzes soil stability including soil expansion, and the potential for lateral spreading, subsidence, liquefaction or collapse. The report shall identify any on site soil and seismic hazards and provide design recommendations for onsite soil and seismic conditions. The geotechnical evaluation shall be reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official, and a qualified Geotechnical Engineer to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design in order to adhere to all geotechnical requirements contained in the California Building Code.*

Mitigation Measure GEO-3*: All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design in order to adhere to all geotechnical requirements contained in the California Building Code.*

Responses a.iii), c): Less than Significant. Soil liquefaction results from loss of strength during cyclic loading, such as that which is imposed by earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded, and fine-grained sands.

According to the City of Brentwood General Plan Draft EIR Figure 3.6-2, the risk of liquefaction is considered moderate throughout the entirety of the project site. As discussed previously, the City of Brentwood General Plan Action SA 1a requires the submission of geologic and soils reports for all new developments. The geologic risk areas that are determined from these studies shall have standards established and recommendations shall be incorporated into development.

Considering the moderate risk of liquefaction at the proposed project site, potentially significant impacts relating to soil stability are present. As stated previously, Mitigation Measure GEO-2 requires the preparation of a geotechnical evaluation of the project site. Implementation of

Mitigation Measure GEO-2 would reduce impacts to **less than significant** levels related to soil stability, and the potential result in, lateral spreading, subsidence, liquefaction or collapse.

Mitigation Measure(s)
Implement Mitigation Measure GEO-2

Responses a, iv): Less than Significant. The proposed project site is not susceptible to landslides because the area is essentially flat. This is a **less than significant** impact.

Response b): Less than Significant with Mitigation. The project site currently consists of undeveloped land. According to the project site plans prepared for the proposed project, development of the proposed project would result in the creation of new impervious surface areas throughout the project site. The development of the project site would also cause ground disturbance of top soil. The ground disturbance would be limited to the areas proposed for grading and excavation, including the residential building pads and drainage, sewer, and water infrastructure improvements. After grading and excavation, and prior to overlaying the disturbed ground surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities. Without implementation of appropriate Best Management Practices (BMPs) related to prevention of soil erosion during construction, development of the project would result in a potentially significant impact with respect to soil erosion. Implementation of the following mitigation measures would ensure the impact is **less than significant**.

Mitigation Measure(s)
Mitigation Measure GEO-4: *Prior to grading permit issuance, the applicant shall submit a final grading plan to the Director of Public Works/City Engineer for review and approval. If the grading plan differs significantly from the proposed grading illustrated on the approved project plans, plans that are consistent with the new revised grading plan shall be provided for review and approval by the Director of Public Works/City Engineer.*

Mitigation Measure GEO-5: *Any applicant for a grading permit shall submit an erosion control plan to the Director of Public Works/City Engineer for review and approval. The plan shall identify protective measures to be taken during construction, supplemental measures to be taken during the rainy season, the sequenced timing of grading and construction, and subsequent revegetation and landscaping work to ensure water quality in creeks and tributaries in the General Plan Area is not degraded from its present level. All protective measures shall be shown on the grading plans and specify the entity responsible for completing and/or monitoring the measure and include the circumstances and/or timing for implementation.*

Mitigation Measure GEO-6*: Grading, soil disturbance, or compaction shall not occur during periods of rain or on ground that contains freestanding water. Soil that has been soaked and wetted by rain or any other cause shall not be compacted until completely drained and until the moisture content is within the limit approved by a Soils Engineer. Approval by a Soils Engineer shall be obtained prior to the continuance of grading operations. Confirmation of this approval shall be provided to the Public Works Department prior to commencement of grading.*

Response d): Less than Significant with Mitigation. Expansive soils shrink/swell when subjected to moisture fluctuations, which could cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Building damage due to moisture changes in expansive soils could be reduced by appropriate grading practices and using post-tensioned slab foundations or similarly stiffened foundation systems which are designed to resist the deflections associated with soil expansion. According to the City of Brentwood General Plan Draft EIR Figure 3.6-4, the project site has a high (6%-9%) Linear Extensibility (which directly relates to the soils shrink-swell potential). Therefore, because of the potential presence of expansive soils on the site, a **potentially significant** impact could occur. However, as mentioned previously, Mitigation Measure GEO-2 requires a final geotechnical evaluation of the project site that analyzes soil stability, including soil expansion. Implementation of Mitigation Measure GEO-2 ensures project soils are analyzed and design recommendations are provided by a qualified geotechnical engineer to ensure the safety and welfare of future project residents. Therefore, with implementation of Mitigation Measure GEO-2, this impact is considered **less than significant**.

Mitigation Measure(s)

Implementation of Mitigation Measure GEO-2.

Response e): No Impact. The project has been designed to connect to the existing City sewer system and septic systems will not be used. Therefore, **no impact** would occur related to soils incapable of adequately supporting the use of septic tanks.

Responses f): Less than Significant with Mitigation. The project is not expected to contain subsurface paleontological resources; however, it is possible that undiscovered paleontological resources could be encountered during ground-disturbing activities. Damage to or destruction of a paleontological resource would be considered a potentially significant impact under local, state, or federal criteria. Implementation of the following mitigation measure would ensure steps would be taken to reduce impacts to paleontological resources in the event that they are discovered during construction. This mitigation measure would reduce this impact to a **less than significant** level.

Mitigation Measure GEO-7*: If any paleontological resources are found during grading and construction activities, all work shall be halted immediately within a 100-foot radius of the discovery until a qualified paleontologist has evaluated the find.*

Work shall not continue at the discovery site until the paleontologist evaluates the find and makes a determination regarding the significance of the resource and identifies recommendations for conservation of the resource, including preserving in place or relocating within the project site, if feasible, or collecting the resource to the extent feasible and documenting the find with the University of California Museum of Paleontology. Work may only resume in the area of discovery when the preceding work has occurred. The language of this mitigation measure shall be included via notation on the Project improvement plans.

VIII. GREENHOUSE GAS EMISSIONS – WOULD THE PROJECT:

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

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. Implementation of the proposed project would cumulatively contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O). Sources of GHG emissions include area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e/yr$).

The City of Brentwood has determined that the BAAQMD thresholds of significance are the best available option for evaluation of GHG impacts for this project and, thus, are used in this analysis.

The BAAQMD identifies screening criteria for development projects, which provide a conservative indication of whether a development could result in a potentially significant impact associated with GHG emissions. If the screening criterion for GHG is met by a project, an assessment of that project's GHG emissions would be required. The operational GHG screening criterion for a single-family residential development is if the development is less than or equal to 56 dwelling units. Because the proposed project consists of a total of 8 single-family residential dwelling units, a GHG assessment is not required for the proposed project.

The proposed project site was designated for Residential Very Low Density uses in the Brentwood General Plan in effect at the time ABAG projections were forecast. The proposed project is consistent with the General Plan land use designation. Therefore, the project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and impacts associated with the generation of GHG emissions would be **less than significant**.

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

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

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant with Mitigation. The following discussion addresses potential hazards associated with existing site conditions of the project site, as well as the potential use of hazardous materials during operation of the project.

Proposed Project Uses

The proposed project has limited potential for the routine transport, use, or disposal of hazardous materials. The proposed residential uses would not involve the routine transport, use, or disposal of hazardous materials, or present a reasonably foreseeable release of hazardous materials. Hazardous materials associated with the residential uses would consist mostly of typical household-type cleaning products and fertilizers, which would be utilized in small quantities and in accordance with label instructions. This is a less than significant impact, and no mitigation is required.

Existing Site Conditions

There are two separate parcels that make up the project site. Both parcels APN 018-080-025 and 018-080-022 were analyzed for potential soil contamination and other existing hazards, prior to the preparation of this IS/MND. In general, APN 018-080-025 makes up the western half of the project site, and APN 018-080-022 makes up the eastern half (and southern portion) of the project site.

A Phase 1 Environmental Site Assessment Report was prepared for parcel 018-080-025, and as described in greater detail below, there were no significant hazardous substances found on this site.

A Voluntary Cleanup Agreement and Removal Action Workplan was prepared for parcel 018-080-022, where potential lead contamination of the soil was found, as described in greater detail below.

APN 018-080-025 Site Conditions

A Phase I Environmental Site Assessment (Phase I Report), dated August, 2019, was prepared for the project site at APN 018-08-025 by TRC Solutions, Inc. (TRC). TRC conducted a review of federal, state and local regulatory agency databases provided by Environmental Data Resources (EDR) to evaluate the likelihood of contamination incidents at and near the site. The database sources and the search distances are in accordance with the requirements of ASTM E 1527-13. The purpose of the records review was to obtain reasonably available information to help identify Recognized Environmental Conditions (RECs). Additionally, TRC conducted a reconnaissance of the project site on April 30, 2019. The site reconnaissance was conducted by walking and driving representative areas of the site. Results of the site reconnaissance and records searches are as follows.

Site Reconnaissance: The site was observed to be vacant and entirely unpaved. No hazardous substances including raw materials; finished products and formulations; hazardous wastes; hazardous constituents and pollutants including intermediates and byproducts that are currently present at the site; and no unidentified substance containers (when open or damaged, and containing unidentified substances suspected of being hazardous or petroleum products) were observed at the site. TRC observed no visual evidence, including vent pipes, fill ports or dispensing equipment, of underground storage tanks (USTs) at the site.

A pump house was observed on the adjoining property to the southeast of the site. This well is identified as USGS California Water Science Center monitoring location 001N002E02K001M in the EDR Well Report. The EDR report also indicated that 9 additional water wells and 16 oil and gas wells are present on surrounding properties. None of these wells were observed during site reconnaissance. According to the California Department of Conservation – Division of Oil, Gas, and Geothermal Resources, all of these oil and gas wells have been plugged, inspected, and approved according to the requirements of the Division.

A small pile of degraded asphalt debris is present between the northern border of the site and Lone Tree Way. The lot to the west of the site is currently vacant, but has evidence of a former building. A residence and a vacant lot are present to the south of the site. A pump house was observed on this vacant lot. This well is identified as USGS California Water Science Center monitoring location 001N002E02K001M in the EDR Well Report. The lot to the east of the site is undeveloped. To the north, south, and east of the site, surrounding properties are generally residential. Land to the west is generally mixed residential and commercial, and also includes a plant nursery approximately 400 feet west of the site. Railroad tracks are present approximately 800 feet west of the site.

Structures: No existing structures were identified at the site.

Hazardous Substances and Soil Sampling: No hazardous substances including raw materials; finished products and formulations; hazardous wastes; hazardous constituents and pollutants including intermediates and byproducts that are currently present at the site; and no unidentified substance containers (when open or damaged, and containing unidentified substances suspected of being hazardous or petroleum products) were observed at the site.

TRC observed no visual evidence, including vent pipes, fill ports or dispensing equipment, of underground storage tanks (USTs) or aboveground storage tanks (ASTs) at the site.

To help evaluate the general soil quality, soil samples were collected on May 29, 2019 to June 26, 2019, from 2 feet below ground surface were collected using a hand auger.

A total of 13 surface soil samples and 3 near-surface soil samples were submitted for chemical testing. Laboratory testing included arsenic and lead (EPA Test Method 6020), and organochlorine Pesticides (OCPs) (EPA Test Method 8081).

Results of analyses detected no organchlorine pesticides exceeding respective residential ESLs in any of the three surface soil samples. Detected arsenic concentrations in three surface samples ranged from 7.1 to 9.1 mg/kg, which is consistent with regional background arsenic concentrations. Analyses detected total lead concentrations ranging from 8.7 to 150 mg/kg in sixteen surface and near-surface soil samples with only three surface soil samples exceeding the residential ESL of 80 mg/kg for lead. Using the EPA's ProUCL software, the calculated 95 percent Upper Confidence Level (UCL) for lead in surface soil at the Site 78.76 mg/kg, which is less than the residential ESL of 80 mg/kg. Detailed results of the testing are included in Phase I Environmental Assessment presented in Appendix E.

TRC concluded that the assessment has revealed no evidence of Recognized Environmental Conditions, Controlled Recognized Environmental Conditions or Historical Recognized Environmental Conditions in connection with the site with the exception of the following:

REC No. 1
File review and discussion with the DTSC indicates that lead concentrations ranging from 37 to 410 mg/kg are present in soil at the adjacent property to the east (a.k.a. the Skipolini property). To evaluate potential lead impacts, soil samples were collected across the site. Results of analyses

detected no organchlorine pesticides exceeding respective residential Environmental Screening Levels (ESLs) established by the Regional Water Quality Control Board (RWQCB) in any of the three surface soil samples tested. Detected arsenic concentrations ranged from 7.1 to 9.1 mg/kg in the three samples tested, which is consistent with background values for the Bay Area. Analyses detected total lead concentrations ranging from 8.7 to 150 mg/kg in sixteen (16) surface and near-surface soil samples with only three (3) surface soil samples exceeding the residential ESL of 80 mg/kg for lead. Using the EPA's ProUCL software, the calculated 95 percent Upper Confidence Level (UCL) for lead in the thirteen (13) surface soil at the Site 78.76 mg/kg, which is less than the residential ESL of 80 mg/kg. Accordingly, TRC recommends no additional soil investigation at this time.

APN 018-080-022 Site Conditions

In 2014, ENGEO conducted a Phase I Environmental Site Assessment and subsequent Agrichemical Impact Assessment for the approximately 2.96-acre portion of the project site, identified as APN_018-0080-022. No significant pesticide or arsenic impacts were identified; however, elevated lead concentrations exceeding residential screening levels were identified in one area of the parcel. Lead is the only identified chemical of potential concern (COPC). Based on the findings of the soil sampling and laboratory testing, the soil impacts appear to be limited to an approximately 21,000 sf area in the west-central portion of the parcel. The depth of the impacted soil is likely limited to the upper 12 inches of soil measured from the ground surface, equating to an approximate volume of 800 to 1,000 cubic yards.

The owner of the site (project proponent) located at APN 018-0080-022 entered into a Voluntary Cleanup Agreement (VCA) with DTSC, which led to the preparation of a Removal Action Work plan (ENGEO, 2019). The purpose of this Agreement is for the project proponent to investigate and/or remediate a release or threatened release of any hazardous substance at or from the site under the oversight of DTSC. Based on the information available to DTSC and project proponent, the site is or may be contaminated with hazardous substances, including Lead. The proponent agreed to soil remediation subject to the review and approval of the DTSC. As noted above, a Removal Action Work plan (RAW) was prepared for the site. The purpose of the RAW is to describe the proposed procedures and protocols for remediation of lead-impacted soil at the site and present the remedial measures to mitigate lead-impacted soil to allow for possible future development.

According to the RAW, soil will be sampled, excavated, and analyzed prior to transporting the excavated soil offsite for disposal in Vasco Road Landfill or Altamont Landfill. Excavation work will be conducted by a licensed grading contractor with current hazardous material certifications. Prior to implementation of the RAW, a grading permit will be obtained from the City of Brentwood. A hauling transportation plan, as specified in Appendix B of the Removal Action Work Plan will also be submitted to the City of Brentwood for approval prior to the hauling of any contaminated soils or material.

Conclusion

Development of the proposed project would include the construction of 8 residential units and associated infrastructure. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. The proposed project would not involve the routine transport, use, or disposal of hazardous materials. No mitigation for this environmental topic is required.

The Phase I prepared for parcel 018-080-025 revealed Recognized Environmental Conditions at the project site associated with contaminated soils. Soil sampling was conducted, and no potential impacts associated with soil contamination were identified. No additional soil investigation requirements were identified in the Phase I ESA. No additional mitigation is required for this portion of the overall project site.

For parcel APN 018-080-022, the project proponent has entered into a VCA and RAW in order analyze, excavate and dispose of contaminated soil onsite. This is a potentially significant impact. However, the implementation of Alternative 3 Soil Excavation/Off-Site Disposal identified in section 4.3.3 of the Removal Action Workplan will mitigate this impact to a **less than significant** level.

Excavation/off-site disposal is a well-proven, readily implementable solution that is a common method for cleaning up contaminated sites. The affected area will be divided into approximately 35 grids, 25 by 25 feet. The grids with affected soils will initially be excavated to a depth of 12 inches. The excavated soil will be stockpiled in approximate 100-cubic-yard volume on site, outside of the planned excavation area, prior to being profiled for landfill disposal. As necessary, soil stockpiles will be covered with 10-mil plastic sheeting and secured to prevent dust or runoff during storm events. Stockpiles will be managed in accordance with the Dust Control Plan. Following excavation, each of the excavated grids will be sampled by the collection of one discrete soil sample from the center-base of the grid. The grid samples will be analyzed for total lead using the Disposal/Refuse Criteria identified in table 5.2-1 of the removal Action Work Plan. Soil grids with confirmation sampling concentrations exceeding the soil cleanup levels will be re-excavated an additional 6 inches and re-sampled. Excavation will proceed until soil cleanup levels are achieved. Grids with confirmation samples below the soil cleanup levels will be considered complete with no further excavation conducted. Although implementation of Alternative 3 will result in greater transport truck traffic to and from the site as soil loads will be transported from the site to landfills, it would reduce or eliminate potential exposure to soil contamination, and therefore, mitigate potentially significant environmental impacts. Once implemented, Alternative 3 would not require any further management or site controls.

Implementation of the following mitigation measure would reduce the above impact to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure HAZ-1: *The project proponent shall implement soil excavation and disposal in accordance with section 4.3.3 Alternative 3 Soil Excavation/Off-site Disposal and section 5.0 Removal Action Implementation, as detailed in the Removal Work Action Plan included in Appendix H of this IS/MND. Prior to implementation of ground disturbing activities, a grading permit shall be obtained from the City of Brentwood. Excavation work shall be conducted by a licensed grading contractor with current hazardous material certifications. Work activities will be conducted Monday – Friday between 7:00 AM and 6:00 PM.*

Mitigation Measure HAZ-2: *Prior to the transportation and disposal of contaminated soils, a hauling plan/permit shall be submitted to the City of Brentwood for approval. Transportation and disposal of soils shall be conducted in accordance with the Transportation Plan identified in Appendix B of the Removal Action Work Plan.*

Mitigation Measure HAZ-3*: Upon completion of soil excavation, disposal, and confirmation sampling, the project proponent shall prepare a Removal Action Completion Report documenting site activities. The report shall provide all compiled laboratory data and disposal manifests for the project. The report shall be signed by a California Professional Engineer and/or Professional Geologist. The report shall be submitted to DTSC for review and approval. The City of Brentwood shall not permit any additional site grading or earthwork on the subject parcel until the City has received confirmation from DTSC that the remediation efforts have been satisfactorily completed, as required by the conditions established in both the RAW and VCA.*

Response c): Less than Significant. Freedom High School is located approximately 0.6 miles to the northeast; Marsh Creek Elementary School is located approximately 0.9 miles to the southeast; Pioneer Elementary School is located approximately 1.01 miles to the southwest; and Golden Hills Christian School is located approximately 1.03 miles to the west; however, the proposed project has limited potential for the routine transport, use, or disposal of hazardous materials as discussed above in Responses a) and b). The proposed residential uses would not involve the routine transport, use, or disposal of hazardous materials, or present a reasonably foreseeable release of hazardous materials. Therefore, the project would have a **less than significant** impact with respect to emitting hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school.

Response d): No impact. In preparing the Phase 1 Environmental Site Assessment (2019), TRC performed a search of Federal, State, and local hazardous materials/sites databases regarding the project site and nearby properties.

The environmental database report identified 25 listings, including 15 that could be mapped and 10 that could not (i.e., orphan properties) within the ASTM-required radii of the Site. Eight of these orphan properties are listed as stormwater construction sites. Two orphan properties are former spill sites associated with the Brentwood Oil and Gas Field. Both of these properties are located near the intersection of Deer Valley Road and Lone Tree Way, more than two miles away from the target property. One water well for the property is located southeast of the project site.

The project site has not been identified in any of the hazardous databases, nor is the site on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, the proposed project would have **no impact** under this criterion.

Responses e): No impact. The project site is not within an airport land use plan or within two miles of an airport. The nearest airport, Funny Farm Airfield, is a private airfield located approximately 4.1 miles southeast of the project site. Therefore, implementation of the proposed project would result in **no impact** to this environmental topic.

Response f): Less than significant. The Brentwood General Plan currently designates the proposed project site for residential very low density uses, such as those proposed for the project. Implementation of the proposed project would not result in any substantial modifications to the existing roadway system and would not interfere with potential evacuation or response routes used by emergency response teams. Therefore, the impact would be **less than significant**.

Response g): Less than significant. The site is not located within an area where wildland fires occur. The site is predominately surrounded by existing development which have a low potential for wildland fires. Therefore, the impact would be **less than significant**.

X. HYDROLOGY AND WATER QUALITY – WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		X		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;		X		
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;		X		
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or		X		
(iv) impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a): Less than Significant with Mitigation.

During the early stages of construction activities, topsoil would be exposed due to grading and partial leveling of the site. After grading and leveling and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff.

The State Water Resources Control Board (SWRCB) regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. Performance Standard NDCC-13 of the City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. The State's

General Construction Permit requires a Storm Water Pollution Prevention Plan (SWPPP) to be prepared for the site. A SWPPP describes BMPs to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project, including post-construction impacts. The City of Brentwood requires all development projects to use BMPs to treat runoff.

In summary, disturbance of the on-site soils during construction activities could result in a potentially significant impact to water quality should adequate BMPs not be incorporated during construction in accordance with SWRCB regulations.

Implementation of the following mitigation measure would reduce the above impact to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure HYD-1: *Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The Developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges consistent with the requirements established in 15.52.60(F): Erosion and Sediment Control of the City's Municipal Code. The SWPPP shall be submitted to the Director of Public Works/City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*

Mitigation Measure HYD-2: *Prior to the completion of construction, the applicant shall prepare and submit, for the City's review, an acceptable Stormwater Control Operation and Maintenance Plan. In addition, prior to the sale, transfer, or permanent occupancy of the site, the property owners or home owners association shall be responsible for the long-term maintenance of treatment facilities, and executing a Stormwater Management Facilities Operation and Maintenance Agreement and Right of Entry in the form provided by the City of Brentwood. The applicant shall accept the responsibility for maintenance of stormwater management facilities until such responsibility is transferred to another entity.*

The applicant shall submit, with the application of building permits, a draft Stormwater Facilities and Maintenance Plan, including detailed maintenance requirements and a maintenance schedule for the review and approval by the Director of Public Works/City Engineer. Typical routine maintenance consists of the following:

- *Limit the use of fertilizers and/or pesticides. Mosquito larvicides shall be applied only when absolutely necessary.*
- *Replace and amend plants and soils as necessary to insure the planters are effective and attractive. Plants must remain healthy and trimmed if overgrown. Soils must be maintained to efficiently filter the storm water.*

- *Visually inspect for ponding water to ensure that filtration is occurring.*
- *After all major storm events, remove bubble-up risers for obstructions and remove if necessary.*
- *Continue general landscape maintenance, including pruning and cleanup throughout the year.*
- *Irrigate throughout the dry season. Irrigation shall be provided with sufficient quantity and frequency to allow plants to thrive.*
- *Excavate, clean and or replace filter media (sand, gravel, topsoil) to insure adequate infiltration rate (annually or as needed).*

Mitigation Measure HYD-3: *Design of both the on-site drainage facilities shall meet with the approval of both the Director of Public Works/City Engineer and the Contra Costa County Flood Control and Water Conservation District prior to the issuance of grading permits.*

Mitigation Measure HYD-4: *Contra Costa County Flood Control and Water Conservation District drainage fees for the Drainage Area shall be paid prior to issuance of grading permits to the satisfaction of the Director of Public Works/City Engineer.*

Mitigation Measure HYD-5: *The Applicant/Developer shall ensure that the project site shall drain into a street, public drain, or approved private drain, in such a manner that un-drained depressions shall not occur. Satisfaction of this measure shall be subject to the approval of the Director of Public Works/City Engineer.*

Mitigation Measure HYD-6: *The construction plans shall indicate roof drains emptying into a pipe leading to the project bioswale areas for the review and approval of the Director of Public Works/City Engineer prior to the issuance of building permits.*

Response b): Less than Significant. The City provides domestic, potable water to its residents using both surface water and groundwater resources. The City has nine permitted groundwater wells within its service area, five of which are active wells. Brentwood is located within the northwest part of the East Contra Costa Subbasin (ECC Subbasin) within the larger San Joaquin Valley Groundwater Basin. While the project would create new impervious surface areas on portions of the 4.08 acre project site, the ECC Subbasin comprises 168 square miles; therefore, recharge of the groundwater basin within which the project site is located comes from many sources over a broad geographic area. The new impervious surfaces associated with the project would not cause a substantial depletion of recharge within the ECC Subbasin. Additionally, the proposed landscape areas would provide an area for on-site groundwater recharge. Further, The ECC Subbasin's groundwater quality is generally stable which indicates that groundwater extraction is not degrading water quality and the ECC Subbasin is being operated within its sustainable yield [4].

It should be noted that the City of Brentwood has adequate water supply to meet the demands of the proposed project, as well as future anticipated development allowed under the Brentwood General Plan, as described in greater detail in Section XIX, Utilities and Service Systems. The

[4] Brown and Caldwell. City of Brentwood. 2020 Urban Water Management Plan. June 2021, Revised December 2021.

project itself does not include installation of any wells, but would include eventual connections to existing City of Brentwood water infrastructure. Non-potable water infrastructure is not currently available at the project site. The City is currently in the process of developing and expanding infrastructure for non-potable water. This infrastructure is not yet complete, therefore, the applicant will be required to construct onsite nonpotable water infrastructure that stubs out on Lone Tree Way. The project will require connection to the City's potable water distribution system.

The proposed project is consistent with the General Plan land use designation for the site. The potential water demand of future site development was accounted for and considered in the General Plan EIR and the most recent Urban Water Management Plan. As demonstrated in these documents, the City has adequate supply availability to meet future buildout water demands. Therefore, the project would result in a **less than significant** impact with respect to substantially depleting groundwater supplies or interfering substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level

Responses c.i), c.ii), c.iii, e): Less than Significant with Mitigation

When land is in a natural or undeveloped condition, soils, mulch, vegetation, and plant roots absorb rainwater. This absorption process is called infiltration or percolation. Much of the rainwater that falls on natural or undeveloped land slowly infiltrates the soil and is stored either temporarily or permanently in underground layers of soil. When the soil becomes completely soaked or saturated with water or the rate of rainfall exceeds the infiltration capacity of the soil, the rainwater begins to flow on the surface of land to low lying areas, ditches, channels, streams, and rivers. Rainwater that flows off a site is defined as storm water runoff. When a site is in a natural condition or is undeveloped, a larger percentage of rainwater infiltrates into the soil and a smaller percentage flows off the site as storm water runoff.

The infiltration and runoff process is altered when a site is developed. Buildings, sidewalks, roads, and parking lots introduce asphalt, concrete, and roofing materials to the landscape. These materials are relatively impervious, which means that they absorb less rainwater. As impervious surfaces are added to the ground conditions, the natural infiltration process is reduced. As a result, the volume and rate of storm water runoff increases. The increased volumes and rates of storm water runoff can result in flooding if adequate storm drainage facilities are not provided.

The project would create approximately 49,951 square feet of new impervious surface on a site that previously contained zero square feet of impervious surface area. The project would be served by existing storm drainage infrastructure. Wastewater, water, and storm drainage lines would be connected via existing lines along the Gann Street right-of-way. The project will include an onsite stormwater treatment area and two drainage management areas to manage water runoff. Stormwater treatment and drainage management would include a bioretention area and grading infrastructure strategies (a valley gutter, a concrete level spreader, and a dirt berm) that will ensure adequate drainage. Therefore, project development would not result in a substantial increase in the rate of amount of surface runoff in a manner which would result in flooding nor

would it create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage system.

For the proposed project, three bio-retention areas throughout the project site are proposed that would channel site stormwater to a catch basin near the center of the site. Flows will percolate through the basin before being released into the stormdrain system.

A long-term maintenance plan is needed to ensure that all proposed stormwater treatment BMPs and facilities function properly. Should the proposed water quality treatment facilities not be maintained properly, a potentially significant impact could occur with respect to creating or contributing runoff water that would exceed the capacity of existing or planned stormwater drainage systems or providing substantial additional sources of polluted runoff.

If left uncontrolled, the operation of the proposed project could result in the potential for pollutants to wash down and potentially drain into Marsh Creek. However, all municipalities within Contra Costa County (and the County itself) are required to develop more restrictive surface water control standards for new development projects as part of the renewal of the Countywide NPDES permit. Known as the "C.3 Standards," new development and redevelopment projects that create or replace 10,000 or more square feet of impervious surface area must contain and treat stormwater runoff from the site. The proposed project is a C.3 regulated project and is required to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures. These measures would include a bioretention area to treat stormwater runoff before allowing it to proceed into the drainage management area.

The proposed project would not substantially alter the existing drainage pattern of the site or the area. Therefore, with implementation of the following mitigation measure, the proposed project would result in **less than significant** impacts related to the alteration of the existing drainage pattern of the site or area, or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Mitigation Measure(s)

Implement Mitigation Measure HYD-2

Responses c.iv): Less than Significant. According to the June 16, 2009 FEMA Flood Insurance Rate Maps (FIRM), the project site is not located within a designated flood zone. Therefore, a **less than significant** impact would result from implementation of the proposed project with respect to placing structures within a 100- year floodplain, which would impede or redirect flood flows.

Response d): Less than Significant. Tsunamis are defined as sea waves created by undersea fault displacement. A tsunami poses little danger away from shorelines; however, when a tsunami reaches the shoreline, a high swell of water breaks and washes inland with great force. Historic records of the Bay Area used by one study indicate that nineteen tsunamis were recorded in San Francisco Bay during the period of 1868-1968. Maximum wave height recorded at the Golden Gate tide gauge (where wave heights peak) was 7.4 feet. The available data indicate a standard decrease of original wave height from the Golden Gate to about half original wave height on the

shoreline near Richmond, and to nil at the head of the Carquinez Strait. As Brentwood is several miles inland from the Carquinez Strait, the project site is not exposed to flooding risks from tsunamis and adverse impacts are not expected to result. This is a **less than significant** impact.

A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir, whose destructive capacity is not as great as that of tsunamis. Seiches are known to have occurred during earthquakes, but none have been recorded in the Bay Area. In addition, the project is not located near a closed body of water. Therefore, risks from seiches and adverse impacts are not expected to result. This is a **less than significant** impact.

XI. LAND USE AND PLANNING - Would the project:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a): No Impact. As noted in the General Plan, the City of Brentwood has planned for orderly, logical development that supports compatibility among adjacent uses. The General Plan goals seek to retain the character of existing communities and ensure that future land uses are compatible with existing uses. Currently, there are no existing structures on the site, and the site is surrounded by residential neighborhoods, with the exception of the nursery to the west. The proposed project, which includes residential development, would not physically divide an established community due to the nature of the site, and its location within city limits. Therefore, the project would have **no impact** related to physically dividing an established community.

Responses b): Less than Significant. The Brentwood General Plan identifies the project site for Residential-Very Low Density land uses. The Residential-Very Low Density land use requires densities between 1.1 and 3 du/ac. The proposed project consists of the development of 8 single-family residential units on 4.08 acres, which results in approximately 1.96 du/ac, which is within the General Plan density requirements. Therefore, the proposed project is consistent with the existing General Plan land use designation. Furthermore, the Zoning designation of the project would remain Residential Single Family (R-1-12). The R-1-12 Zoning designation was not adopted for the purpose of avoiding or mitigating an environmental effect, and amendments to the Zoning Code reflect the City's vision identified for the project site under the current General Plan Land Use Map. To the extent the project requires a variance to authorize an increase in the maximum lot depth for Lots 1 and 2, as well as a decrease in the minimum lot width and minimum lot frontage for Lot 5, the development standards from which relief are sought were not adopted for the purpose of avoiding or mitigating an environmental effect and would have no significant environmental impact. As a result, the project would have a **less than significant** impact related to conflicting with applicable land use plans, policies, regulations, or surrounding uses.

XII. MINERAL RESOURCES -- WOULD THE PROJECT:

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

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): No Impact. The 2014 Brentwood General Plan Update EIR does not identify significant mineral resources within the area. In addition, Figure 3.6-6 in the 2014 Brentwood General Plan Update EIR does not show an existing active oil and gas well on the project site. Therefore, there is **no impact** regarding the loss of availability of a known mineral resource that would be of value to the region, as well as the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

XIII. NOISE -- WOULD THE PROJECT RESULT IN:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*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 applicable standards of other agencies?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

BACKGROUND

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz). Noise is a subjective reaction to different types of sounds.

Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound. Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise. The day/night average level (Ldn) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because Ldn represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility

spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

Existing Ambient Noise Level

The existing noise environment in the project area is primarily defined traffic on Lone Tree Way directly north of the project site.

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted continuous (24-hr) noise level measurements at two locations on the project site. Noise measurement locations are shown on Figure 5 of this Initial Study. A summary of the noise level measurement survey results is provided in Table 2 below. Appendix F contains the complete results of the noise monitoring. The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted Lmax, represents the highest noise level measured. The average value, denoted Leq, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L50, represents the sound level exceeded 50 percent of the time during the monitoring period. Larson Davis Laboratories (LDL) model 812 and 820 precision integrating sound level meters were used for the ambient noise level measurement survey.

The meters were calibrated before and after use with a B&K Model 4230 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

Table 2: Summary of Existing Background Noise Measurement Data

Site	*Date*	*CNEL/ L_{dn}*	*Average Measured Hourly Noise Levels, dBA*					
			Daytime (7am-10pm)			*Nighttime (10pm-7am)*		
			L_{eq}	*L_{50}*	*L_{max}*	*L_{eq}*	*L_{50}*	*L_{max}*
Continuous (24-hour) Noise Level Measurements								
LT-1	12/09/19-12/10/19	70	67	65	84	62	52	78
LT-2	12/09/19-12/10/19	58	55	54	70	50	45	62

Source: Saxelby Acoustics – 2019

Evaluation of Transportation Noise on Project site

Saxelby Acoustics used the SoundPLAN noise model to calculate traffic noise levels at the proposed single-family uses due to traffic on Lone Tree Way. Traffic noise levels were predicted for existing conditions with a +1 dBA adjustment for future conditions. The results of this analysis are shown graphically on Figure 6.

Railroad Noise

Union Pacific Railroad Line (UPRR) – Currently Inactive

The Union Pacific Railroad (UPRR) line bisects the city of Brentwood from the northwest corner of the city to the southeast corner of the city. This portion of the railroad line has not been in use since sometime prior to the year 2000. The line is maintained by UPRR as a standby route with no planned use for freight movement. However, there is the potential that future use of the line could be used for commuter passenger service or future freight service.

Rail operations associated with light rail passenger service is generally quiet in comparison to freight train operations. Although light rail operations may include 50 or more operations per day, the 60 dB CNEL contour will generally not extend more than 100 feet from the railroad track centerline.

To conservatively estimate potential noise impacts associated with railroad line activities, it was assumed that up to 10 freight train operations may occur during a 24-hour period. Assuming that each train generated a sound exposure level (SEL) of 100 dB at a distance of 100 feet from the railroad centerline, the Ldn noise level can be calculated using the following equation.

$$Ldn = SEL + 10 \log N_{eq} - 49.4 \text{ dB, where:}$$

SEL is the typical single event sound exposure level of an individual train event (100 dB at a distance of 100 feet), N_{eq} is the sum of the daytime (7 a.m. to 10 p.m.) train events, plus 10 times the number of nighttime (10 p.m. to 7 a.m.) train events (a total of 44), and 49.4 is ten times the logarithm of the number of seconds per day. Assuming an even distribution of trains between daytime, evening and nighttime hours, the Ldn would be 67 dB at 100 feet.

Saxelby Acoustics used the SoundPLAN noise model to calculate potential railroad noise levels across the project site. The results of this analysis are shown graphically on Figure 6.

Significance Criteria

The following criteria were used to evaluate the significance of environmental noise resulting from the project:

A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the City of Brentwood General Plan. Specifically, based upon Table N-1 of the City of Brentwood General Plan, residential uses are considered normally acceptable in ambient noise environments up to 60 dBA L_{dn}, and conditionally acceptable in noise environments up to 75 dBA L_{dn}. However, policy N-1 limits exterior noise levels to 65 dBA L_{dn} for new residential uses adjacent to State Route 4 corridor, major arterials within Brentwood, and noise from the UPRR. The City of Brentwood also establishes an interior noise level criterion of 45 dBA L_{dn} for residential uses.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation.

Traffic Noise Increases

The proposed project is consistent with the City's General Plan and no traffic study was required for the project. Therefore, no substantial increases in traffic noise are predicted.

Operational Noise Increases

The proposed project would include typical residential noise, which would be compatible with the adjacent existing residential uses.

Traffic and Railroad Noise at New Sensitive Receptors – Exterior Areas

As shown on Figure 6, the project site is predicted to be exposed to exterior noise levels up to approximately 67 dBA L_{dn} upon project completion[5]. This would exceed the City of Brentwood 65 dB L_{dn} Community Noise Exposure standards for new developments in the vicinity of major arterial roadways. Therefore, exterior noise control measures would be required to ensure that future residents are not exposed to exterior noise levels exceeding City standards. Specifically, 8-foot high sound walls were analyzed at the location shown on Figure 7. Based upon the noise predictions shown on Figure 7, exterior noise levels would be reduced to 65 dBA L_{dn}, or less with use of these barriers.

Traffic and Railroad Noise at New Sensitive Receptors – Interior Areas

Based upon Figure 7, the proposed project would be exposed to exterior noise levels of up to 62 dBA L_{dn} at the ground floor building facades closest to Lone Tree Way upon project completion. Second floor locations would not receive substantial shielding from the 8-foot high sound wall and would be expected to be exposed to exterior noise levels of up to 67 dBA L_{dn}.

Modern building construction typically yields an exterior-to-interior noise level reduction of 25 dBA. Therefore, where exterior noise levels are 70 dBA L_{dn}, or less, no additional interior noise control measures are typically required. For this project, exterior noise levels are predicted to be up to 67 dBA L_{dn}, resulting in an interior noise level of 42 dBA L_{dn} based on typical building construction. This would meet the City's 45 dBA L_{dn} interior noise level standard.

Construction Activities

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA L_{max} at a distance of 50 feet. Most of the building construction would occur at distances of 50 feet or greater from the nearest residences. Construction noise associated with streets would be similar to noise that would be associated with public works projects, such as a roadway widening or paving projects.

Construction activities would be temporary in nature and would only be permitted to occur during normal daytime working hours.

[5] Assumes the UPRR remains non-operational.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from the construction site. This noise increase would be of short duration, and would occur during daytime hours.

Construction activities are conditionally exempt from the Noise Ordinance during certain hours. Construction activities are exempt from the noise standard from 7 AM to 6 PM Monday through Friday, and from 8 AM to 5 PM on Saturdays with written approval of the city engineer or designee.

Conclusion

Although construction activities are temporary in nature and would likely occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction would be considered **potentially significant**.

Implementation of the following mitigation measures would ensure that future residences at the project site would not be subject to exterior and interior noise levels in excess of the City's standards, resulting in a **less than significant** impact.

Mitigation Measure(s)

Mitigation Measure NOI-1*: The improvement plans for the proposed project shall show an eight-foot high masonry sound wall along the north boundary of the site, adjacent to Lone Tree Way. The wall shall be constructed of materials that will achieve exterior noise levels of 65 dB $L_{dn,}$ per the approval of the City Engineer and shall be constructed prior to issuance of the first building permit. The approximate location of the wall is shown on Figure 7.*

Mitigation Measure NOI-2: *Construction activities shall be limited to the hours set forth below:*

Monday-Friday 7:00 AM to 6:00 PM
Saturday 8:00 AM to 5:00 PM

Construction shall be prohibited on Sundays and City holidays. These criteria shall be included in the grading plan submitted by the applicant/developer for review and approval of the Director of Public Works/Engineering prior to issuance of grading permits. Exceptions to allow expanded construction activities shall be reviewed on a case-by-case basis as determined by the Chief Building Official and/or City Engineer, and shall not be allowed on any date or time that would violate the City's applicable noise standards.

Mitigation Measure NOI-3*: The project contractor shall ensure that the following construction noise BMPs are met on-site during all phases of construction:*

- *All equipment driven by internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise- control features that are readily available for that type of equipment.*
- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.*
- *The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.*
- *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.*
- *Construction site and access road speed limits shall be established and enforced during the construction period.*
- *The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.*
- *Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.*
- *The construction contractor shall designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.*

Construction noise BMPs shall be included in the grading plan submitted by the developer for review and approval by the Director of Public Works/Engineering prior to grading permit issuance.

Response b): Less than Significant. Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by several factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. The threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v). One-half this minimum threshold or 0.1 in/sec p.p.v. is considered a safe criterion that would protect against architectural or structural damage. The general threshold at which human annoyance could occur is noted as 0.1 in/sec p.p.v.

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and roadway construction occur.

Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located approximately 25 to 50 feet or further from the project site. At this distance, construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and parking lot construction occur. Table 3 shows the typical vibration levels produced by construction equipment.

TABLE 3: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)	Peak Particle Velocity at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009

Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: *Transit Noise and Vibration Impact Assessment Guidelines.* Federal Transit Administration. May 2006.

Table 3 data indicates that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located approximately 26 feet, or further, from typical construction activities. At these distances, construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours. As a result, short-term groundborne vibration impacts would be considered **less than significant** and no mitigation is required**.**

Response c): No Impact. The project site is not located near an existing airport and is not within an existing airport land use plan. The nearest airport, Funny Farm Airfield, is a private airfield located approximately 4 miles east of the project site. Although aircraft-related noise could occasionally be audible at the project site, noise would be extremely minimal. Exterior and interior noise levels resulting from aircraft would be compatible with the proposed project. Therefore, there would be **no impact**.

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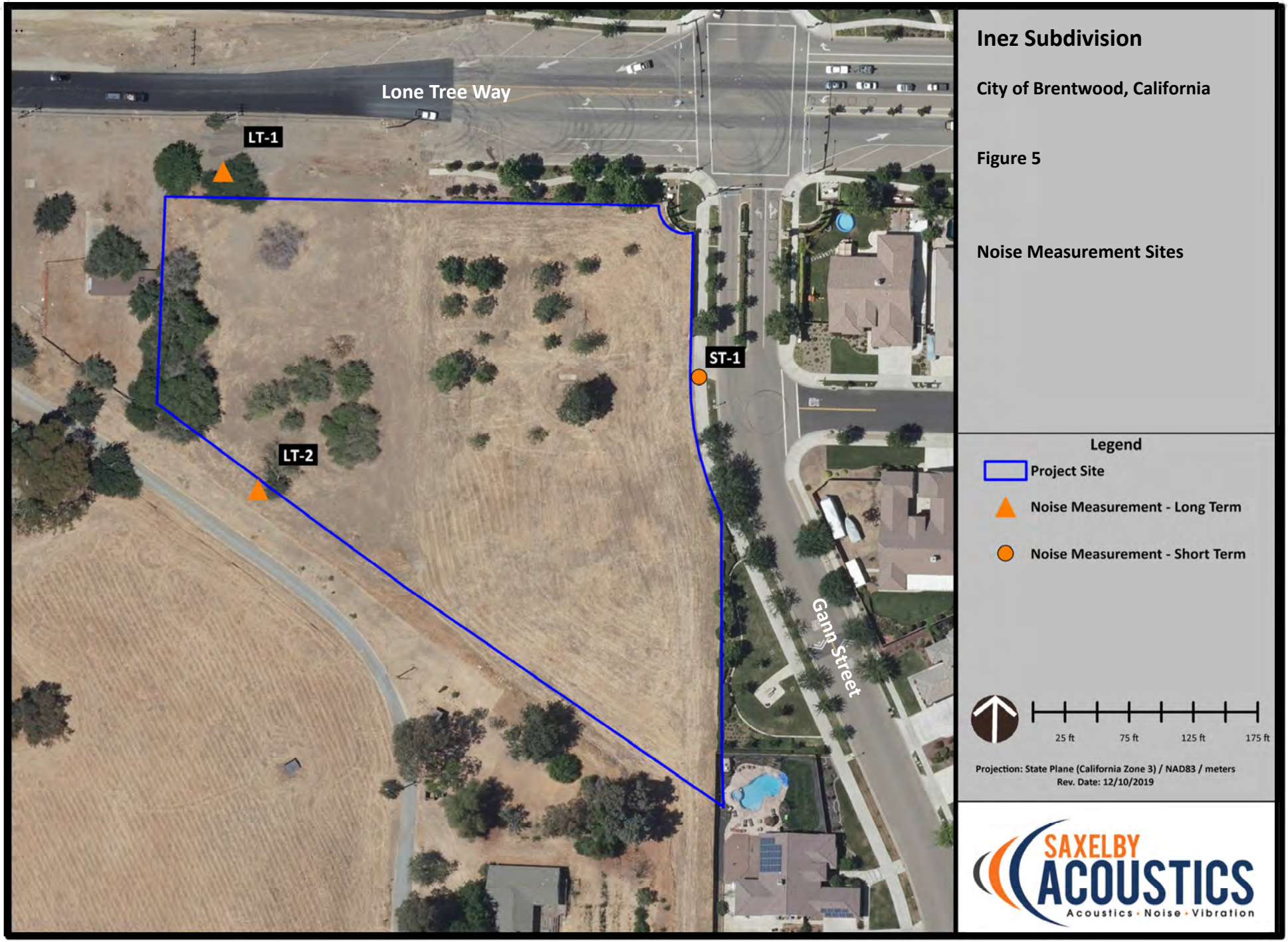

Inez Subdivision

City of Brentwood, California

Figure 5

Noise Measurement Sites

Legend

- Project Site
- Noise Measurement - Long Term
- Noise Measurement - Short Term

25 ft 75 ft 125 ft 175 ft

Projection: State Plane (California Zone 3) / NAD83 / meters
Rev. Date: 12/10/2019

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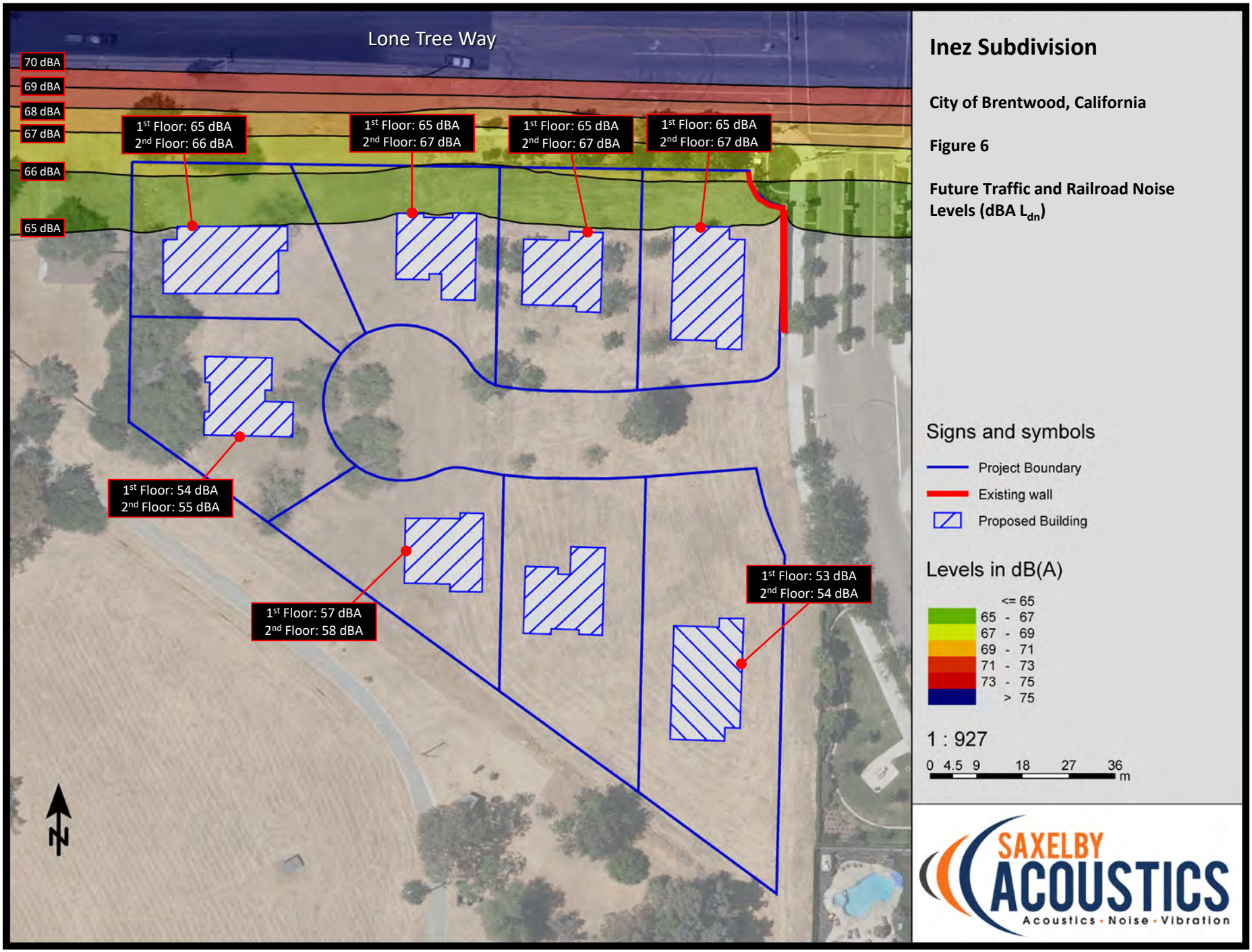
Lone Tree Way
70 dBA
69 dBA
68 dBA
67 dBA
66 dBA
65 dBA
1st Floor: 65 dBA
2nd Floor: 66 dBA
1st Floor: 65 dBA
2nd Floor: 67 dBA
1st Floor: 65 dBA
2nd Floor: 67 dBA
1st Floor: 65 dBA
2nd Floor: 67 dBA
1st Floor: 54 dBA
2nd Floor: 55 dBA
1st Floor: 57 dBA
2nd Floor: 58 dBA
1st Floor: 53 dBA
2nd Floor: 54 dBA
N
Inez Subdivision
City of Brentwood, California
Figure 6
Future Traffic and Railroad Noise Levels (dBA Ldn)
Signs and symbols
Project Boundary
Existing wall
Proposed Building
Levels in dB(A)
<= 65
65 - 67
67 - 69
69 - 71
71 - 73
73 - 75
> 75
1 : 927
0 4.5 9 18 27 36 m
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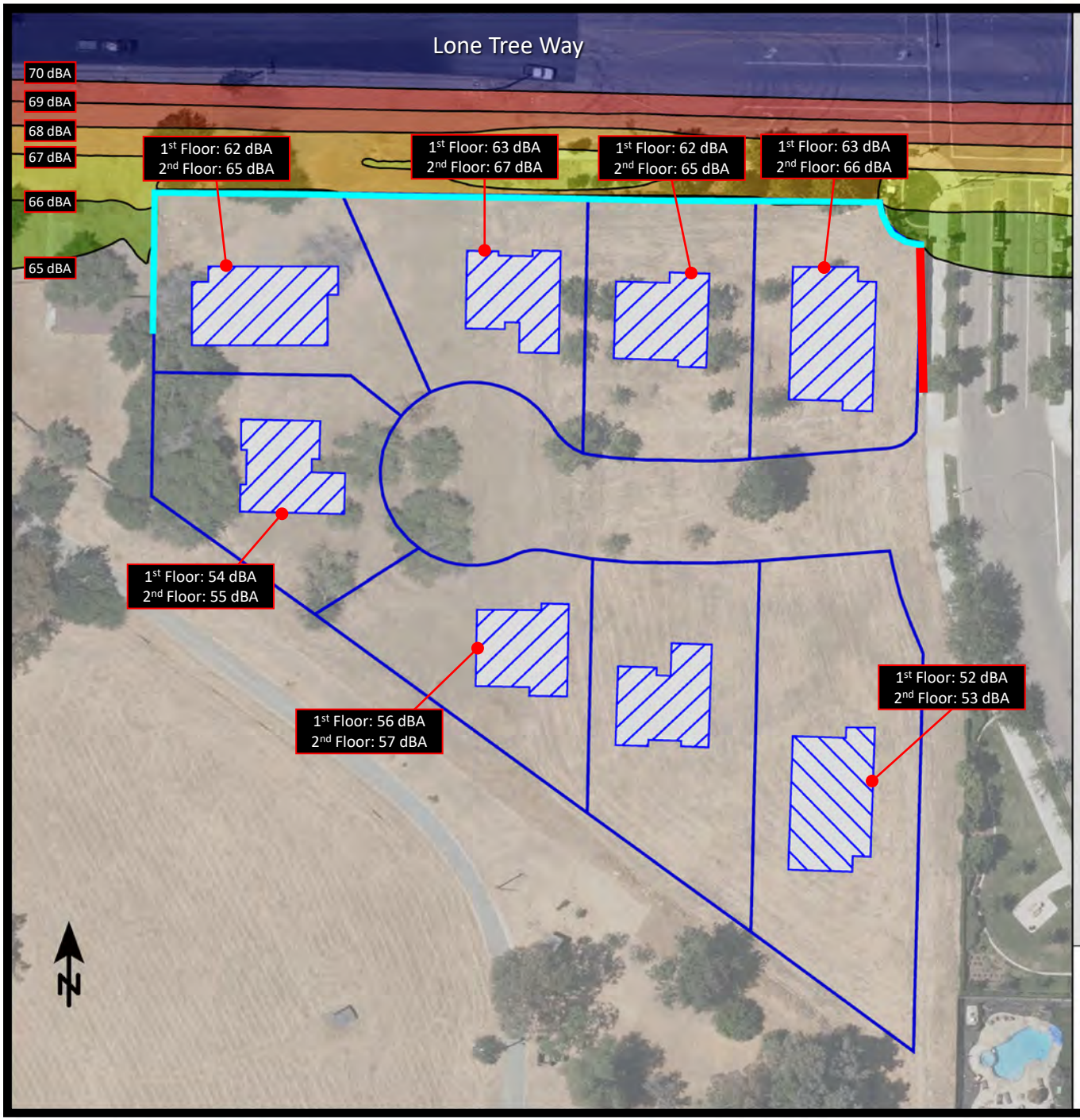

Inez Subdivision

City of Brentwood, California

Figure 7

Future Traffic and Railroad Noise Levels (dBA L_{dn})

Signs and symbols

- Project Boundary
- Recommended 8 ft. Wall
- Proposed Building
- Existing Wall

Levels in dB(A)

- <= 65
- 65 - 67
- 67 - 69
- 69 - 71
- 71 - 73
- 73 - 75
- > 75

1 : 927

0 4.5 9 18 27 36 m

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XIV. POPULATION AND HOUSING -- Would the project:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The proposed project would directly result in population growth in the area through the proposed construction of 8 single-family dwelling units, generating approximately 26 additional residents (based on 3.22 persons per household[6]). Resulting growth from the proposed project is consistent with the General Plan Land Use designation for the project site, and would fall within the anticipated population growth levels analyzed in the Brentwood General Plan EIR (2014). As discussed below, the utility systems (e.g., water and sewer) serving the project could accommodate the additional demands created by the project and the project includes infrastructure improvements needed to connect the project to these existing utility systems. In addition, as discussed below in Section XV (Public Services), public service providers such as police and fire, could accommodate the additional demands for service created by the project. As a result, the impact would be **less than significant** with respect to inducing population growth because the demands resulting from said growth could be accommodated by existing utility systems and service providers.

Responses b): No Impact. There are no existing homes or residences located on the project site. There is **no impact**.

[6] City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.10-32]. July 22, 2014.

XV. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?		X		
d) Parks?		X		

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The proposed project is located within the jurisdiction of the Contra Costa County Fire Protection District (CCCFPD). In addition to Administration, Communications, Emergency Medical Services (EMS), Fire Prevention, Support Services, and Training Division, the Operations Division of the CCCFPD staffs 19 engine companies, 5 truck companies, and a Shift Training Captain/Safety Officer daily. The CCCFPD maintains 24 fully staffed stations, and 2 more stations staffed with paid-on-call Reserve Firefighters. Minimum daily staffing is 77 personnel. The 24 on-duty companies are trained and regularly cross-staff numerous specialty response units including 18 wildland fire apparatus, 3 rescue units, a trench rescue unit, a fire rescue boat, and a mobile breathing air support unit. The City of Brentwood is served primarily by Station 92, located at 201 John Muir Parkway, Brentwood. Station 92 is located roughly 3 miles southwest of the project site.

The Brentwood General Plan includes nine policies and four actions (Policies CSF 1-1 through 1-3, and 4-1 through 4-6, and Actions CSF 1a, and 4a-c) to see that fire protection services are adequately funded, are coordinated between the City and appropriate service agency, and that new development pays their fair share of services. Among the action items included in the Brentwood General Plan that are applicable to the project are:

- Action CSF 1a: Requiring new development to pay their fair share fees of the cost of on and off-site community services and facilities;
- Action CSF 4a: Continue to enforce the California Building Code and the California Fire Code to ensure that all construction implements fire-safe techniques, including fire resistant materials, where required;

- Action CSF 4b: As part of the City's existing development review process for new projects, the City would continue to refer applications to the fire protection district for determination of the project's potential impacts on fire protection services. Requirements would be added as conditions of project approval, if appropriate.

The project would comply with these General Plan actions. For example, the City of Brentwood collects development impact fees that support the construction of new fire facilities in the amount of approximately $948 per new single-family residence. In addition to providing additional revenue for fire facilities, the project would be required to comply with all CCCFPD standard conditions of approval related to provision of fire flow, roadway widths, etc. The project is also subject to the City of Brentwood residential life safety sprinkler requirements set forth in Section 15.64.010 of the Municipal Code.

CCCFPD currently has adequate capacity to provide fire protection services for the proposed project without inducing demand for an additional fire station[7]. Additionally, the 2014 Brentwood General Plan Update EIR concluded implementation of the General Plan would result in a less than significant impact related to the provision of public services throughout the city.[8] The project is consistent with the General Plan designation for the site; therefore, the additional demand for fire protection services resulting from the proposed project has already been evaluated in the General Plan EIR. Given the project's compliance with the relevant General Plan policies and actions related to fire service, the impact from the proposed project, consistent with the General Plan EIR determination, would be **less than significant** regarding the need for the construction of new fire protection facilities which could cause significant environmental impacts.

Response b): Less than Significant. The City of Brentwood Police Department would provide police protection services to the project site. Currently, the Brentwood Police Department provides law enforcement and police protection services throughout the City. Established in 1948, the Brentwood Police Department is a full service law enforcement agency that is charged with the enforcement of local, State, and Federal laws, and with providing 24-hour protection of the lives and property of the public. The Police Department functions both as an instrument of public service and as a tool for the distribution of information, guidance, and direction.

The Brentwood Police Department services an area of approximately 14 square miles. As of November 2022, the Department had 72 sworn police officers and another 31 civilian support staff. In addition to the permanent staff, the Department had approximately 20 volunteers who are citizens of the community and assist with day to day operations.

The department is located at 9100 Brentwood Boulevard, approximately four miles from the project site.

[7] Personal Communication with Steve Aubert, CCCFPD Fire Marshal. February 24, 2020.
[8] City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.12-23]. July 22, 2014

The Brentwood General Plan includes eight policies and five actions (Policies CSF 1-1 through 1-3, and 3-1 through 3-5; and Actions CSF 1a and 3a-d) to direct that police protection services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, and that new development pays their fair share of services. Among the policies and actions items included in the Brentwood General Plan that are applicable to the project are:

- Policy CSF 3-4: Emphasize the use of physical site planning as an effective means of preventing crime. Open spaces, landscaping, parking lots, parks, play areas, and other public spaces should be designed with maximum feasible visual and aural exposure to community residents.
- Policy CSF 3-5: Promote coordination between land use planning and urban design through consultation and coordination with the Police Department during the review of new development applications.
- Action CSF 1a: Requiring new development to pay their fair share fees of the cost of on and off-site community services and facilities;
- Action CSF 3c: As part of the development review process, consult with the police department in order to ensure that the project design facilitates adequate police staffing and that the project addresses its impacts on police services.

The project applicant will be required to comply with these policies and actions. In addition, the City also has Community Facilities Districts (CFD) which generate special tax revenue that can be used for a variety of services, and which are currently being allocated primarily towards public protection and safety provided by the Brentwood Police Department. These funds amount to approximately $7,384,407 in revenue as a result of the annual CFD Special Tax[9]. These funds could be used to fund new facilities, and maintain existing facilities and equipment, and pay for salaries and benefits.

Therefore, consistent with the General Plan EIR conclusion related to governmental facility impacts resulting from General Plan build-out, the project would have a **less than significant** impact regarding the need for the construction of new police protection facilities which could cause significant environmental impacts.

Response c): Less than Significant with Mitigation. The project site is located within the Liberty Union High School District and the Brentwood Union School District (BUSD). Liberty Union High School District (LUHSD) includes four comprehensive high schools: Liberty High, Freedom High, Heritage High, and Independence High. In addition, the LUHSD includes one continuation high school, La Paloma. According to the LUHSD, the five high schools have a capacity of 6,840. With a total enrollment of 8,219 students, the high schools exceed capacity by 1,379 students[10]. The LUHSD student generation factors for grades 9-12 are 0.1436 for single-

[9] City of Brentwood. *2020/21 Combined Community Facilities District Annual Report for Special Taxes Levied.* July 18, 2021. Page 3.
[10] Liberty Union High School District. Facility Needs Assessment. April 4, 2016.

family detached units. With 8 single-family units, the project is expected to generate approximately 1 new high school student.

The BUSD consists of eight elementary schools and three middle schools. In 2022, the District had a K-8th grade enrollment of 9,121 with K-8th capacity of 8,881[11]. Therefore, the District is over capacity by approximately 240 students. Utilizing the District's current Student Generation Rates, the 8 units proposed for the proposed project would introduce approximately 3 new K-8th students (8 * 0.427) to the District. Available capacity does not exist to accommodate K-8th students anticipated from the project.

The applicant is required to pay school impact fees. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act…involving …the planning, use, or development of real property" (Government Code 65996(b)). Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation."

While available capacity exists to accommodate 9-12th grade students anticipated from the project, due to fact that the BUSD is already over capacity, adding students to the districts may result in further overcrowding and compromising programs. Therefore, the project would have a **potentially significant** impact regarding the need for the construction of new school facilities which could cause significant environmental impacts.

Consistent with State law, implementation of the following mitigation measure would reduce the impacts to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure PUB-1: *Prior to building permit issuance, the developer shall submit to the Community Development Department written proof from the Liberty Union High School District and the Brentwood Union School District that appropriate school mitigation fees have been paid.*

Response d): Less than Significant with Mitigation. The proposed project includes the construction of 8 single-family residences. Applying the Brentwood standard of 3.22 residents per dwelling unit, the proposed project would create housing for approximately 26 additional residents. The Brentwood General Plan calls for 5 acres of park per 1,000 residents. The proposed project would thus require approximately 0.13-acre of park space for these additional residents. As the proposed project does not include active park space, the project could result in a **potentially significant** impact.

Implementation of the following mitigation measure would ensure that the City requirements are satisfied, resulting in a **less than significant** impact.

Mitigation Measure(s)

Mitigation Measure PUB-2: *Prior to building permit issuance, the project applicant shall pay the required park in-lieu fees as identified in the City's Development Fee Program.*

[11] Brentwood Union School District. 2022 School Facility Fee Justification Report. August, 2022.

XVI. RECREATION

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

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant With Mitigation. As explained above in Question 'd' of the Public Services section, the proposed project does not include sufficient Quimby Act park land acreage for the 8 residential units. As a result, in-lieu fee payments would be required to meet the City's park land requirements. Therefore, the proposed project's impact related to the provision of adequate recreational facilities would be **potentially significant**.

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

Mitigation Measure(s)

Implementation of Mitigation Measure PUB-2.

XVII. TRANSPORTATION -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with an applicable program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a), b): Less than Significant Access to the site would be via a proposed cul-de-sac connecting with Gann Street. Gann Street is a north-south street that currently terminates at Lone Tree Way to the north and Gold Poppy Street to the southeast. This route generally has two lanes in each direction, turn lanes at intersections and sidewalks. The posted speed limit is 25 mph.

The nearest major intersection to the project site, and the one most likely to be affected by project generated traffic, is the intersection of Lone Tree Way and Gann Street, immediately northeast of the project site. As shown in Table 3.13-4 of the General Plan EIR, this intersection currently has an AM peak hour LOS of B and PM peak hour LOS of A.

The General Plan designates the project site for residential uses, consistent with the uses proposed by the project. As such, the traffic generated by the proposed project would fall within the analysis parameters in the General Plan EIR, and would not degrade roadway operations or level of service beyond the levels analyzed in the General Plan EIR. Additionally, the project is exempt from conducting a detailed vehicle miles traveled (VMT) analysis, per the Contra Costa Transportation Agency (CCTA) Guidelines. Per the CCTA Guidelines, small projects can be presumed to cause a less-than-significant VMT impact. Small projects are defined as having 10,000 square feet or less of non-residential space or 20 residential units or less, or otherwise generating less than 836 VMT per day.

The project would not have any detrimental effects on the existing and planned bicycle and pedestrian network in Brentwood, nor would it conflict with any plans or planned improvements to these systems. The project is a single family neighborhood surrounded by similar residential uses, and as such, the vast majority of people travelling to and from the site would travel in their vehicles. However, it is possible that residents would travel to and from via bicycle or on foot.

Sidewalks exist on the southbound travel lane on Gann Street, immediately east of the project site. While the proposed access at Gann Street will divide the existing sidewalk, crossing and street frontage improvements will be provided that will facilitate pedestrian continuity. As such, the project would not substantially degrade pedestrian conditions.

In summary, impacts related to conflicts with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, would be less than significant and any impacts related to an increase in vehicle miles travelled as addressed in CEQA Guidelines section 15064.3 would be **less than significant**.

Response c): Less than Significant. No site circulation or access issues have been identified that would cause a traffic safety problem/hazard or any unusual traffic congestion or delay that could impede emergency vehicles or emergency access. Parking for the project would be provided by garages and driveways for each residence, and additional on street parking options available for emergency vehicles. The site access, on-site circulation, and parking is adequate for use by residents, visitors, municipal vehicles, and emergency vehicles. Therefore, the project will not increase hazards due to a geometric design feature or incompatible use. In addition, the project will undergo a comprehensive site plan review by the City. This impact would be **less than significant**.

Responses d): **Less than Significant.** Access to the site would be via a proposed cul-de-sac connecting with Gann Street. The proposed site plan is shown in Figure 4. All accesses would be designed to City standards that accommodate turning requirements for fire trucks, facilitating entry by emergency vehicles into the project site. Implementation of the proposed project would have a less than significant impact related to emergency access, and would not interfere with an emergency evacuation plan. Therefore, the impact is **less than significant.**

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project 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, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?		X		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.		X		

Background

Assembly Bill 52 (AB 52) requires a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. The City of Brentwood received requests from two California Native American tribes to be informed through formal notification of proposed projects in the City's geographic area. No requests for consultation were received from either tribe with respect to this project.

RESPONSES TO CHECKLIST QUESTIONS

Responses a.i), a.ii): Less than Significant with Mitigation. The City of Brentwood General Plan and EIR do not identify the site as having prehistoric period cultural resources. Additionally, there are no unique cultural resources known to occur on, or within the immediate vicinity of the project site. The site has previously been used for agricultural uses. No instances of cultural resources or human remains have been unearthed on the project site. However, based on the record search conducted by the Northwest Information Center of the California Historical Resources Information System on December 12, 2019 (NWIC file No.:19-0989) (see Appendix B), the project site has the potential for the discovery of prehistoric, ethnohistoric, or historic archaeological sites that may meet the definition of Tribal Cultural Resources. Although no Tribal Cultural Resources have been documented in the project site, the project is located in a region where cultural resources have been recorded and there remains a potential that undocumented

archaeological resources that may meet the Tribal Cultural Resource definition could be unearthed or otherwise discovered during ground-disturbing and construction activities. Examples of significant archaeological discoveries that may meet the Tribal Cultural Resources definition would include villages and cemeteries.

Due to the possible presence of undocumented Tribal Cultural Resources within the project site, construction-related impacts on tribal cultural resources would be potentially significant. Implementation of Mitigation Measures CUL-1 and CUL-2 would require appropriate steps to preserve and/or document any previously undiscovered resources that may be encountered during construction activities, including human remains. Implementation of these measures, in addition to Mitigation Measure TRI-1, would reduce this impact to a **less than significant** level.

Mitigation Measure(s)

Implement Mitigation Measures CUL-1 and CUL-2.

Mitigation Measure TRI-1: *If cultural resources are discovered during project-related construction activities, all ground disturbances within a minimum of 50 feet of the find shall be halted until a qualified professional archaeologist can evaluate the discovery. The archaeologist shall examine the resources, assess their significance, and recommend appropriate procedures to the lead agency to either further investigate or mitigate adverse impacts. If the find is determined by the lead agency in consultation with the Native American tribe traditionally and culturally affiliated with the geographic area of the project site to be a tribal cultural resource and the discovered archaeological resource cannot be avoided, then applicable mitigation measures for the resource shall be discussed with the geographically affiliated tribe. Applicable mitigation measures that also take into account the cultural values and meaning of the discovered tribal cultural resource, including confidentiality if requested by the tribe, shall be completed (e.g., preservation in place, data recovery program pursuant to Public Resources Code §21083.2[i]). During evaluation or mitigative treatment, ground disturbance and construction work could continue on other parts of the project site.*

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

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?			X	
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), and c): Less than Significant. The following discussion addresses available wastewater treatment plant (WWTP) capacity and wastewater infrastructure to serve the project site.

Wastewater Treatment Plant Capacity

The existing WWTP is located on approximately 70 acres of land owned by the City on the north side of Sunset Road and east of Brentwood Boulevard. The WWTP is designed to have sufficient capacity to handle all wastewater flows at build-out per the General Plan. The WWTP has an average dry weather flow capacity of 5 mgd and is currently being expanded to accommodate an average dry weather flow capacity of 6.4 mgd. The WWTP expansion is expected to be completed in 2023[12].

Buildout of the proposed project would result in the construction of 8 dwelling units generating approximately 26 additional residents (based on 3.22 persons per household). The 2014 Brentwood General Plan Update EIR uses a wastewater generation factor of 85 gallons per day

[12] City of Tracy 2020 Urban Water Management Plan (Brown and Caldwell 2021) [pg. 6-9]. June 2021, Revised December 2021.

per person of residential development. Therefore, the total wastewater flow from the project site would be about 0.002 MGD. Therefore, the current capacity of the WWTP would be sufficient to handle the wastewater flow from the proposed project. In addition, the proposed project is required to pay sewer impact fees which would contribute towards the cost of future upgrades, when needed. As a result, the proposed project would not have adverse impacts to wastewater treatment capacity.

Wastewater Infrastructure

The wastewater generated by the project would be collected by an internal sewer system, which would connect to the existing sewer conveyance line along Gann Street in the eastern portion of the project site. The project will also provide all-weather access to existing City sewer facilities within the project site to ensure continued access for City maintenance vehicles and personnel to those facilities.

Conclusion

Because the project applicant would pay City sewer impact fees, and adequate long-term wastewater treatment capacity is available to serve full build-out of the project, a **less than significant impact** would occur related to requiring or resulting in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Response b): Less than Significant. The following discussion addresses available water supply infrastructure to serve the project site.

Water Supply System

The City of Brentwood has prepared a 2020 Urban Water Management Plan (UWMP) that predicts the water supply available to the City of Brentwood in normal, single-dry, and multiple-dry years out to 2035. The total supply available in 2035 during all scenarios (normal, single-dry, and multiple-dry) well exceeds the projected demand. The future demand projections included in the UWMP are based upon General Plan land uses. The proposed project's use is consistent with the General Plan; therefore, the proposed project's future water demand was considered in the UWMP. As a result, with respect to the availability of sufficient water supplies to serve the project, the impact from the proposed project would be **less than significant**.

Water Supply Infrastructure

The project would involve the construction of the necessary water infrastructure to serve the proposed neighborhoods. The project includes installation of 8-inch water lines within the internal street ROWs which would connect to the existing mains along Gann Street.

Conclusion

Because adequate long-term water supply is available to serve full buildout of the proposed project and the project includes the extension of adjacent water line infrastructure, the project's impact to water supply would be **less than significant**.

Responses d) and e): Less than Significant. The City's Solid Waste Division, a division of the Public Works Department, provides municipal solid waste collection and transfer services for residential and commercial use within the City of Brentwood. The solid waste from Brentwood is disposed of at Keller Canyon County landfill. Keller Canyon Landfill covers 2,600 acres of land; 244 acres are permitted for disposal. The site currently handles 2,500 tons of waste per day, although the permit allows up to 3,500 tons of waste per day to be managed at the facility. As of 2019, the remaining capacity of the landfill's disposal area is estimated at 63,408,410 cubic yards, and the estimated closing date for the landfill is 2050[13]. Furthermore, because the 2014 Brentwood General Plan Update EIR determined that solid waste capacity is adequate to serve the demand resulting from General Plan build-out and the proposed project's use is consistent with the General Plan designation for the project site[14]; the project's impact to solid waste would be less than significant. This is a **less than significant** impact.

[13] CalRecycle. *2019 Keller Canyon Landfill (07-AA-0032) SWIS Facility/Site Activity Details.*.
[14] City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.14-45]. July 22, 2014.

XX. WILDFIRE

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
d) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
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?			X	
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?			X	

EXISTING SETTING

There are no State Responsibility Areas (SRAs) within the vicinity of the Brentwood Planning Area. The City of Brentwood is not categorized as a "Very High" Fire Hazard Severity Zone (FHSZ) by CalFire. Only a few communities within Contra Coasta County have portions categorized as a "Very High" FHSZ by CalFire. Although this CEQA topic only applies to areas within a SRA or Very High FHSZ, out of an abundance of caution, these checklist questions are analyzed below.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The project site will connect to an existing network of City streets. The proposed circulation improvements would allow for greater emergency access relative to existing conditions. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts from project implementation would be considered **less than significant** relative to this topic.

Response b): Less than Significant. The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The project site is located in an area that is predominately urban, which

is not considered at a significant risk of wildlife. Therefore, impacts from project implementation would be considered **less than significant** relative to this topic.

Response c): Less than Significant. The project includes development of infrastructure (water, sewer, and storm drainage) required to support the proposed single-family use. The project site is surrounded by existing and future urban development. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The project would not require the installation or maintenance of infrastructure that may exacerbate fire risk. Therefore, impacts from project implementation would be considered **less than significant** relative to this topic.

Response d): Less than Significant. The proposed project would require the installation of storm drainage infrastructure to ensure that storm waters properly drain from the project site and do not result in downstream flooding or major drainage changes. Storm drainage would be conveyed to on-site bioretention areas, which will discharge to the City's storm drainage system. The project proposes to include 3 bioretention areas in the throughout the site. Various storm drainage supporting structures and inlets will be located throughout the project site directing the direction of flow into the bioretention areas.

Runoff from the project site currently flows to the existing City storm drains located in Gann Street and Lone Tree Way. Upon development of the site, stormwater would flow to the on-site bioretention areas and/or the existing storm drains in the adjacent roadways. Additionally, the project site is not located within a FEMA designated flood hazard zone. Furthermore, because the site is essentially flat and located in an existing urbanized area of the City, downstream landslides would not occur.

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e. cut and fill). The project site is relatively flat; therefore, the potential for a landslide in the project site is essentially non-existent.

Overall, impacts from project implementation would be considered **less than significant** relative to this topic.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE --

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Does the project have the potential to 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 a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. Although relatively unlikely, based upon the current land cover types found on-site, special- status wildlife species and/or federally- or state-protected birds not covered under the ECCCHCP could be occupying the site. In addition, although unlikely, the possibility exists for subsurface excavation of the site during grading and other construction activities to unearth deposits of cultural significance. However, this IS/MND includes mitigation measures that would reduce any potential impacts to less than significant levels. Therefore, the proposed project would have **less than significant** impacts related to degradation of the quality of the environment, reduction of habitat, threatened species, and/or California's history or prehistory.

Response b): Less than Significant. The proposed project in conjunction with other development within the City of Brentwood could incrementally contribute to cumulative impacts in the area. However, mitigation measures for all potentially significant project-level impacts identified for the proposed project in this IS/MND have been included that would reduce impacts to less than significant levels. As such, the project's incremental contribution towards cumulative impacts would not be considered significant. In addition, all future discretionary development projects in the area would be required to undergo the same environmental analysis and mitigate any potential impacts, as necessary. Therefore, the proposed project would not have any impacts that would be cumulatively considerable, and impacts would be **less than significant**.

Response c): Less than Significant. The proposed project site is located within areas of existing and planned development and is consistent with the land use designation for the site. Due to the

consistency of the proposed land use, substantial adverse effects on human beings are not anticipated with implementation of the proposed project. It should be noted that during construction activities, the project could result in potential impacts related to soil erosion and surface water quality impacts, and noise. However, this IS/MND includes mitigation measures that would reduce any potential impacts to a less than significant level. In addition, the proposed project would be designed in accordance with all applicable building standards and codes to ensure adequate safety is provided for the future residents of the proposed project. Therefore, impacts related to environmental effects that could cause adverse effects on human beings would be **less than significant**.

REFERENCES

- 2005 Ozone Strategy (BAAQMD 2006). January 2006.
- 2014 Brentwood General Plan Update EIR (City of Brentwood, 2014). July 2014.
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- 2022. City of Brentwood Development Fee Program (City of Brentwood, 2022). July 1, 2022.
- Brentwood Union School District. 2022 School Facility Fee Justification Report. August, 2022.
- CEQA Guidelines (BAAQMD, 2017). May 2017.
- City of Brentwood 2020 Urban Water Management Plan (Brown and Caldwell 2021). June 2021, Revised December 2021.
- East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (East Contra Costa Habitat Conservation Plan Association, 2006). October 2006.
- Environmental Noise Assessment, Inez Subdivision (Saxelby Acoustics LLC). December 18, 2019.
- Geotechnical Investigation, Lone Tree Way Residential Development (TRC, 2019). May 28, 2019.
- Liberty Union High School District. Facility Needs Assessment. April 4, 2016.
- Phase 1 Environmental Site Assessment, Lone Tree Way Project (TRC, 2019). August, 2019.
- Personal Communication with Steve Aubert, CCCFPD Fire Marshal. February 24, 2020.
- Removal Action Work Plan, Skipolini Property (ENGEO, 2019). August 5, 2019.
- Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard (BAAQMD, 1999). June 1999.
- U.S. Fish and Wildlife Service San Joaquin Kit Fox Survey Protocol for the Northern Range (Sacramento Fish and Wildlife Office, 2011). June 1999.
- Voluntary Cleanup Agreement, Skipolini Property (Cal EPA, DTSC). March 13, 2019.

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