CITY OF BRENTWOOD
COMMUNITY DEVELOPMENT DEPARTMENT

CATCHINGS RANCH INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

June 2016

RANEY PLANNING & MANAGEMENT, INC.

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INITIAL STUDY

June 2016

A. BACKGROUND

1. Project Title: Catchings Ranch

2. Lead Agency Name and Address: City of Brentwood
Community Development Department
150 City Park Way
Brentwood, CA 94513

3. Contact Person and Phone Number: Jeff Zilm
Senior Planner
(925) 516-5407

4. Project Location: 3441 Balfour Road and 101 Minnesota Avenue
Assessor Parcel Numbers (APNs) 012-030-007 and -025
Brentwood, CA

5. Project Sponsor's Name and Address: Pacific Union Land Company, Inc.
675 Hartz Avenue, Suite 300
Danville, CA 94526
(925) 314-3800

6. Existing General Plan Designation: Residential Low Density (R-LD)

7. Existing Zoning: Single-Family Residential (R-1)

8. Project Description Summary:

The proposed project includes approval of a Vesting Tentative Subdivision Map (VTSM) and Design Review to allow the development of 24 single-family residential units on approximately 8.03 acres. The project site is comprised of two properties: five acres located at 3441 Balfour Road (Balfour property) and three acres at 101 Minnesota Avenue (Minnesota property) in the City of Brentwood. In addition, the VTSM includes an approximately 20,700-square foot (sf) (0.475-acre) drainage basin. Primary vehicle access to the project is expected to come from Balfour Road with a secondary connection to Pondlilly Lane. The Balfour Road entry would be shared with the adjacent Montessori School which has an existing driveway matching the proposed design. The Pondlilly Lane access would be an extension of an existing stubbed street.

B. SOURCES

All the technical reports and modeling results prepared for the project analysis are available upon request at the City of Brentwood City Hall, located at 150 City Park Way, Brentwood California, 94513. The following documents are referenced information sources utilized for purposes of this Initial Study/Mitigated Negative Declaration:

1. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2011.
2. Bellecci & Associates. *Stormwater Control Plan for Catchings Ranch Subdivision*. December 2015.
3. California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.
4. California Burrowing Owl Consortium. *Burrowing Owl Survey Protocol and Mitigation Guidelines*. April 1993.
5. California Department of Conservation Division of Land Resource Protection Farmland Mapping and Monitoring Program. Contra Costa Important Farmland 2012. Available at: http://www.conservation.ca.gov/dlrp/fmmp/Pages/ContraCosta.aspx. Accessed on April 20, 2016.
6. California Department of Fish and Game. *Staff Report on Burrowing Owl Mitigation*. March 7, 2012.
7. California Department of Transportation. *Transportation- and Construction-Induced Vibration Guidance Manual.* June 2004.
8. California Emissions Estimator Model (CalEEMod). Available at: http://www.caleemod.com/. Accessed on April, 13 2016.
9. City of Brentwood. *2014 Brentwood General Plan Update EIR.* July 22, 2014.
10. City of Brentwood. *City of Brentwood General Plan*. June 2014.
11. City of Brentwood. *Traffic Counts By Street*. October 1, 2013. Available at: http://www.brentwoodca.gov/civicax/filebank/blobdload.aspx?blobid=25796. Accessed April 2016.
12. Contra Costa County Flood Control & Water Conservation District. *Personal Communication*. March 20, 2014.
13. Contra Costa County. *The Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan*. October 2006.
14. Contra Costa County. *Mapping Information Center*. Available at: http://www.ccmap.us/interactive_maps.aspx. Accessed April 18, 2016.
15. Contra Costa Resource Conservation District. *Marsh Creek Watershed*. Available at: http://www.ccrcd.org/marsh.html. Accessed July 24, 2014.
16. Contra Costa Transportation Authority. *2011 Contra Costa Congestion Management Program*. November 16, 2011.
17. Debra Fogarty, Chief Business Officer, Liberty Union High School District, email communication, November 12, 2013.
18. Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: http://www.envirostor.dtsc.ca.gov/public. Accessed on April 18, 2016.
19. ENGEO Inc. *Geotechnical Exploration, Catchings Ranch, Brentwood, California*. September 25, 2015.

20. ENGEO Inc. *Modified Phase I Environmental Site Assessment, Balfour Road*. July 1, 2015.
21. ENGEO Inc. *Modified Phase I Environmental Site Assessment, Minnesota Avenue*. October 20, 2015.
22. ENVIRON International Corporation and the California Air Districts. *California Emissions Estimator Model User's Guide Version 2013.2*. July 2013.
23. Federal Emergency Management Agency. *Contra Costa County, California, Flood Insurance Rate Map Panel 06013C0362F*. June 16, 2009.
24. Holman & Associates. *Cultural Resources Study of 3441 Balfour Road Property, Brentwood, Contra Costa County, California.* September 15, 2015.
25. Holman & Associates. *Cultural Resources Study of Proposed Fernandes Estates Subdivision XXXX, APN 012-030-025-8, Brentwood, Contra Costa County, California.* January 30, 2015.
26. HortScience, Inc. *Arborist Report, Balfour Road Brentwood, California*. October 21, 2015.
27. Institute of Transportation Engineers. *Trip Generation Manual, 9th Edition.* 2012.
28. Jack Schreder & Associates. *School Facility Needs Analysis for Brentwood Union School District*. July 23, 2013.
29. Moore Biological Consultants. *Catchings Ranch, Brentwood, California: Biological Assessment*. October 13, 2015.
30. RGD Acoustics. *Site Noise Assessment for: 3441 Balfour Road.* March 29, 2016.
31. United States Department of Agriculture, Natural Resources Conservation Service. *Web Soil Survey*. Available at: http://websoilsurvey.sc.egov.usda.gov. Accessed April 18, 2016.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

D. DETERMINATION

On the basis of this initial study:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

✖ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. 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" 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 pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Jeff Zilm	City of Brentwood
Printed Name	For

E. BACKGROUND AND INTRODUCTION

This Initial Study identifies and analyzes the potential environmental impacts of the proposed project. The information and analysis presented in this document are organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines. If the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures that shall be applied to the project are prescribed.

The mitigation measures prescribed for environmental effects described in this Initial Study will be implemented in conjunction with the project, as required by CEQA. The mitigation measures will be incorporated into the project through project conditions of approval. The City will adopt findings and a Mitigation Monitoring/Reporting Program for the project in conjunction with its approval of the project.

On July 22, 2014, the City of Brentwood City Council adopted a comprehensive General Plan Update, which was last updated in 1993 (a partial update involving the Growth Management, Land Use, and Circulation Elements was completed in 2001). An Environmental Impact Report (EIR) was prepared for the General Plan Update, which addressed the potential impacts associated with full buildout of the General Plan Land Use Diagram. The 2014 Brentwood General Plan Update EIR was certified by the Brentwood City Council on July 22, 2014. The General Plan Update designates the Catchings Ranch Project (proposed project) site as R-LD. The proposed 24 single-family unit project is consistent with the R-LD Land Use Designation; therefore, in accordance with Section 21083.3 of the Public Resources Code, this Initial Study will be limited to effects upon the environment which are peculiar to the parcel or to the project and which were not addressed as significant effects in the previously certified Environmental Impact Report (EIR) (SCH# 2014022058) prepared for the Brentwood General Plan Update.

F. PROJECT DESCRIPTION

Current Setting

The proposed project site is comprised of two parcels, including a five-acre parcel (Assessor's Parcel Number [APN] 012-030-007) located at 3441 Balfour Road (Balfour property), and a three-acre parcel (APN 012-030-025) located at 101 Minnesota Avenue (Minnesota property) in the City of Brentwood (see Figure 1). The approximately 8.03-acre project site is designated R-LD and zoned R-1. Surrounding land uses are primarily existing single-family residential, with the exception of the adjacent Montessori School to the west and the Delta Bay Mustang shop to the south. The project site consists of fallow agricultural land, with the exception of a vacant residence, garage, and associated outbuildings on the Balfour property. These structures would be removed prior to development of the property (see Figure 2). Several mature trees are also located on the Balfour property.

Figure 1
Regional Project Location

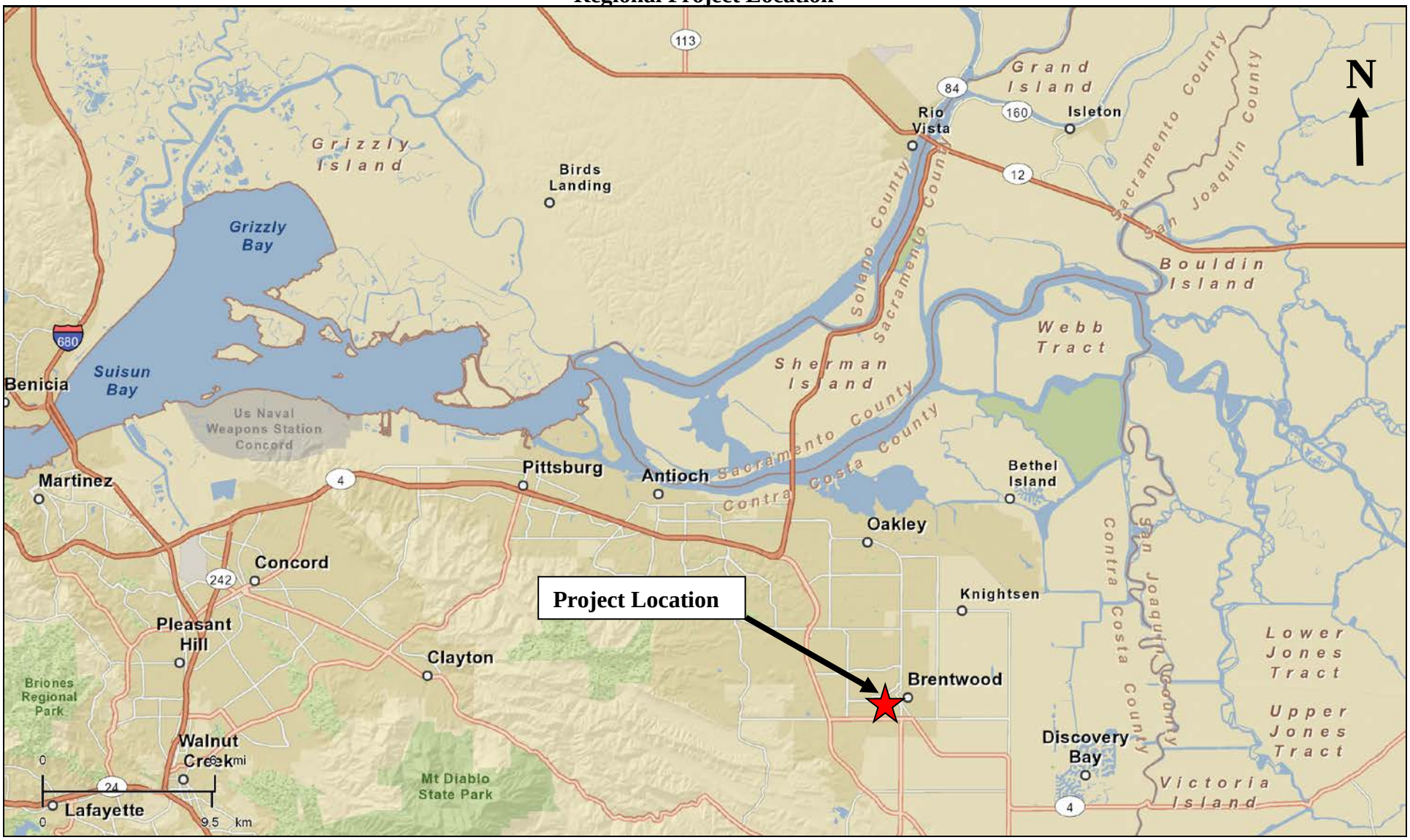


Figure 2
Project Vicinity Map

Proposed Project Components

The applicant has submitted an application for approval of a VTSM to subdivide the 8.03-acre Catchings Ranch project site into 24 single-family lots and one lot for a stormwater quality basin. The proposed density for the project is 3.0 du/acre, which represents the mid-point of the permitted 1-5 units/acre range. The proposed lot sizes would range from 8,095 to 14,400 sf, with an average lot size of 10,250 sf. (see Figure 3). In addition, the VTSM includes an approximately 20,700-sf (0.475-acre) drainage basin within the site's eastern corner (Parcel A).

Primary vehicle access to the project would be provided from Balfour Road, with a secondary connection to Pondlilly Lane. The Balfour Road entry would be shared with the adjacent Montessori School - the project would be required to complete the existing access driveway by constructing a new eastern half-section. The Pondlilly Lane access would be an extension of an existing stubbed street.

The utility improvements for the project include extending the existing 6-inch sewer line in Minnesota Avenue along the project's internal roadway, such that individual lots can be connected to the line. A new water line would also be looped throughout the proposed subdivision with connections at Balfour Road, Pondlilly Lane, and Minnesota Avenue for added reliability. With respect to storm drainage, a new storm drain pipe would be installed along the project's internal roadway; and all storm water would be routed to the on-site stormwater quality basin, after which treated water would be discharged to the existing storm drain in Minnesota Avenue. Electricity, natural gas, telephone, and cable TV are located within the existing ROW on Balfour Road.

The applicant has also applied for design review approval of the homes. As illustrated in Figure 4, Figure 5, and Figure 6, the proposed home designs include three floor plans of 2,920, 3,294 and 3,735 sf respectively. The floor plan mix is balanced across the site with the single story Plan 1 located on nine lots, the Plan 2 on eight lots and the Plan 3 on seven lots. Each floor plan includes a three car garage.

As illustrated in Figure 7, Figure 8, and Figure 9, the architectural designs feature three different styles with three different elevations per floor plan for a total of nine different looks. Details are incorporated into each architectural theme. In addition to the distinct elevations, nine different color schemes are proposed for the project, allowing for increased variation amongst the homes (27 total options).

The applicant is also proposing to include, as part of the subdivision, landscaping and street trees that would enhance the visual quality of the site (see Figure 10). Street trees are proposed on both sides of the proposed internal street. In addition, city-maintained landscaping is proposed within Parcel A, the meandering sidewalk on Balfour Road (Parcel B), and frontage improvements on Minnesota Avenue (see Figure 11).

Figure 3
Vesting Tentative Subdivision Map

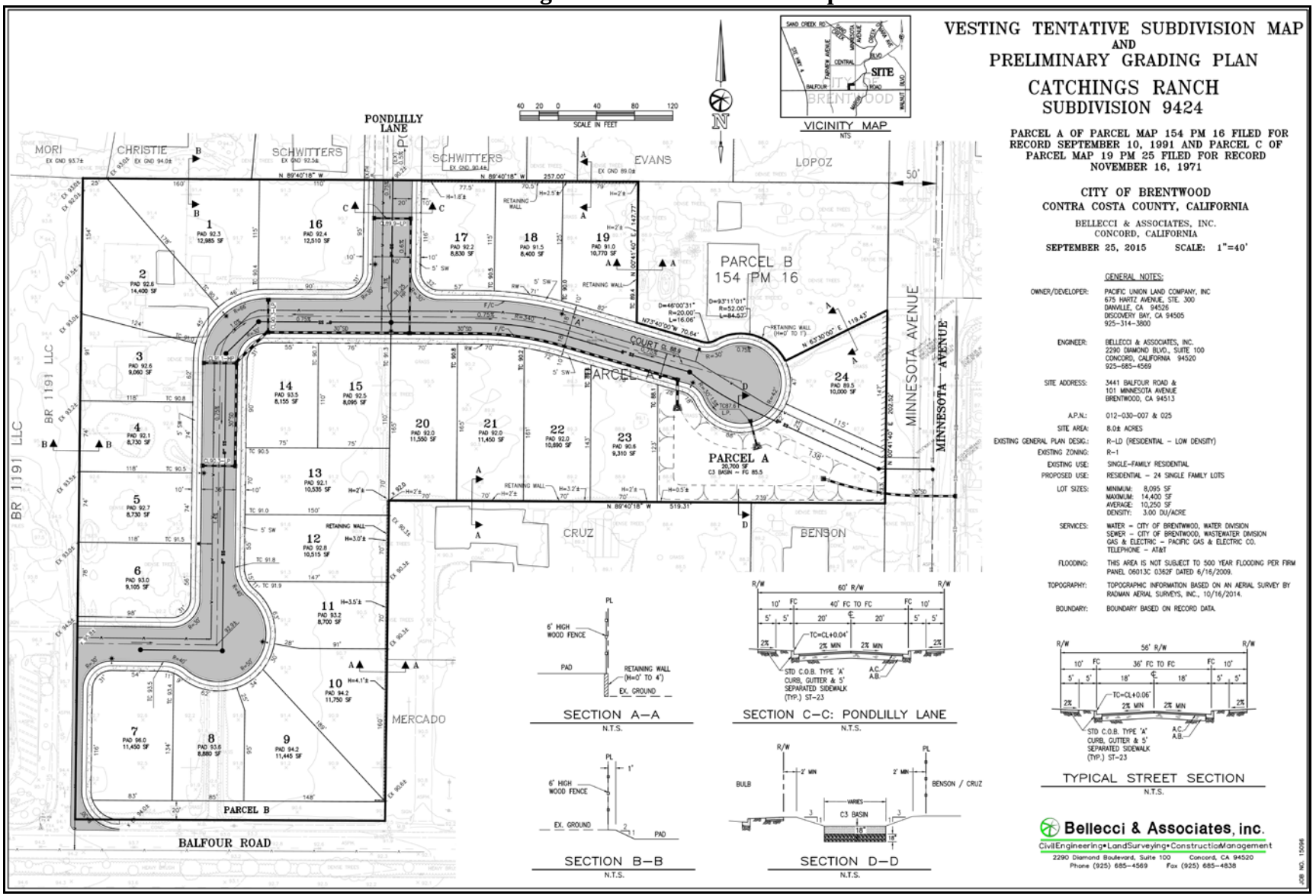


Figure 4
Plan 1 Floor Plan

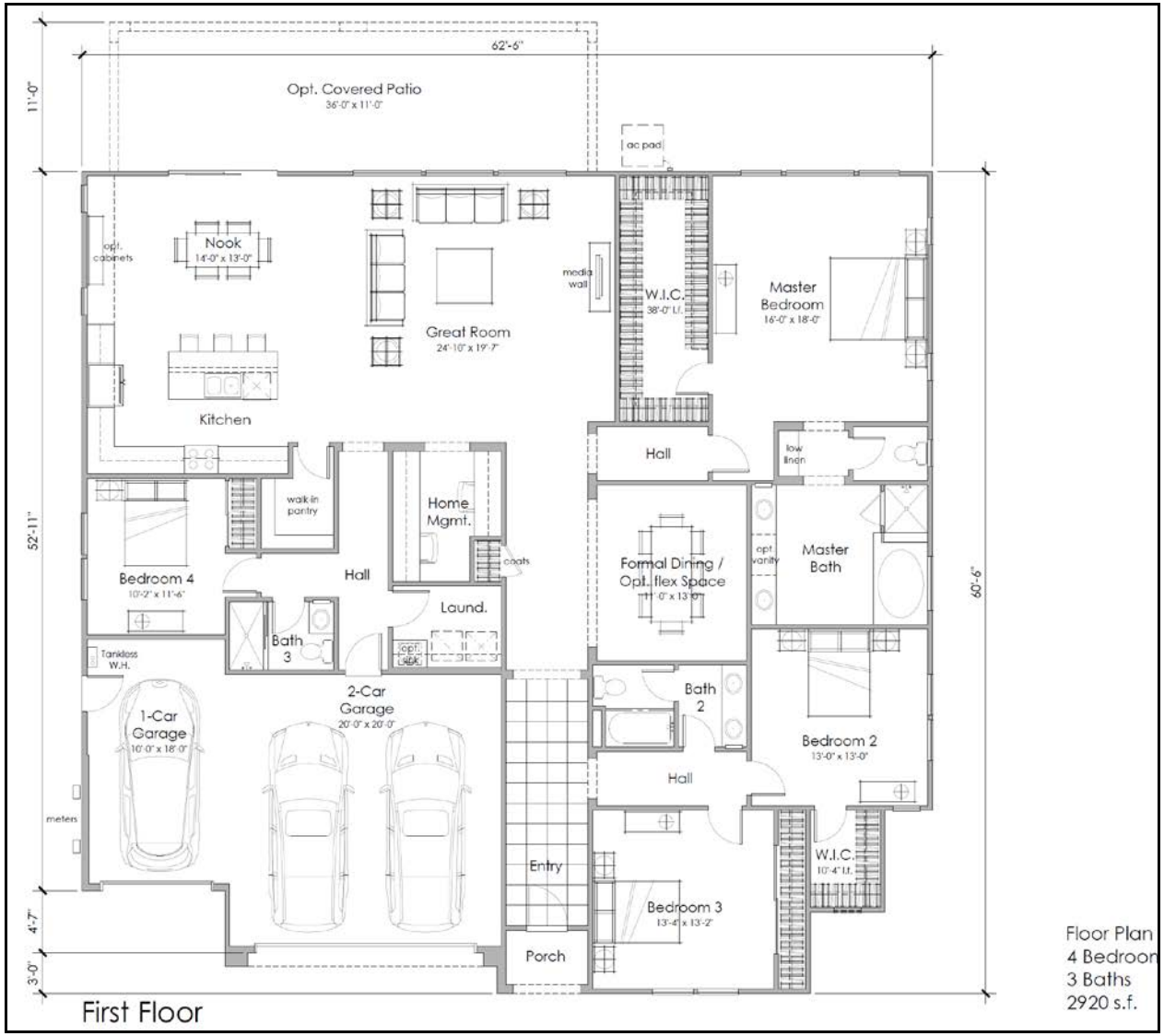


Figure 5
Plan 2 Floor Plan

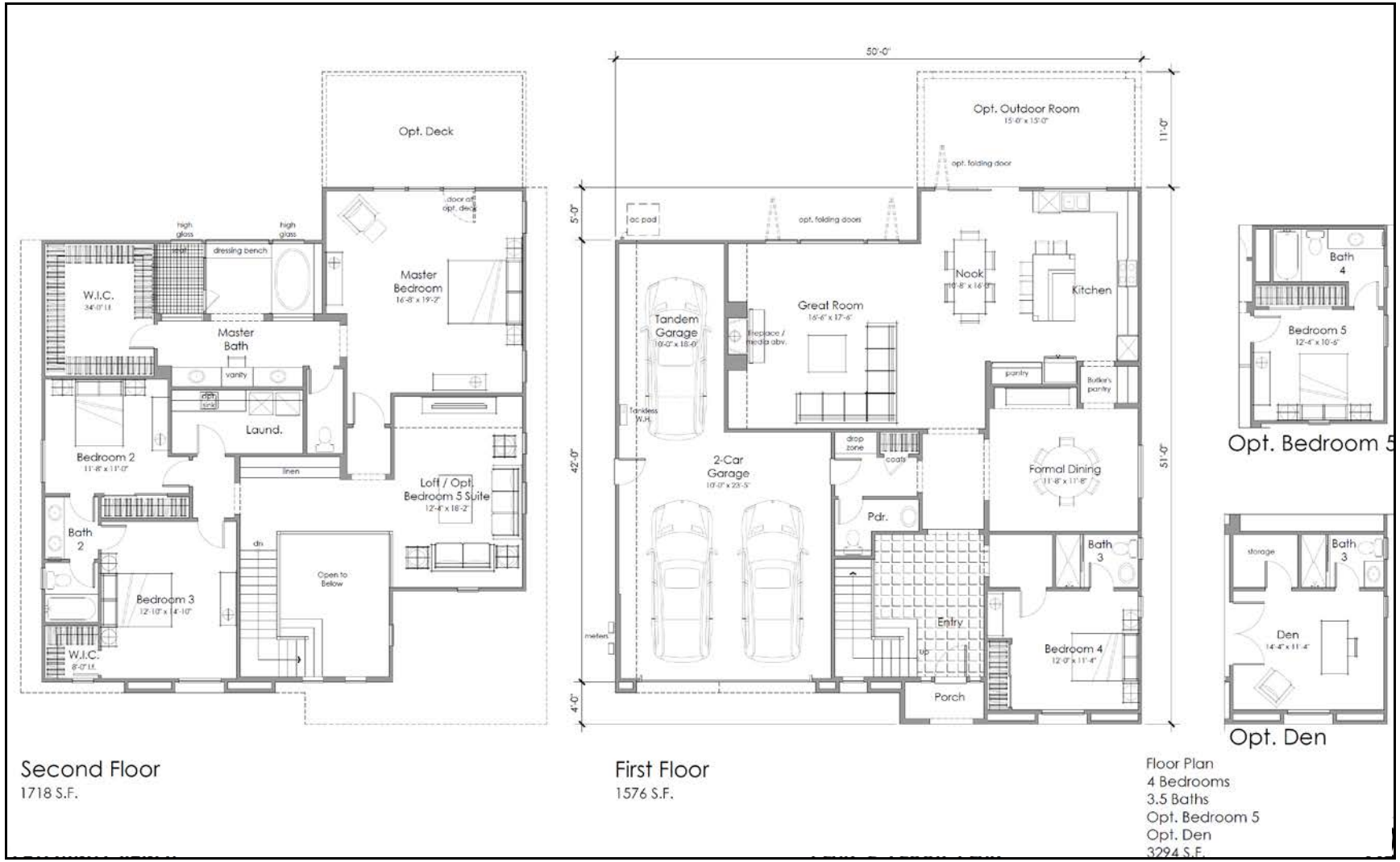


Figure 6
Plan 3 Floor Plan

Figure 7
Plan 1 Elevations

Figure 8
Plan 2 Elevations

Figure 9
Plan 3 Elevations

Figure 10
Preliminary Landscape Plan

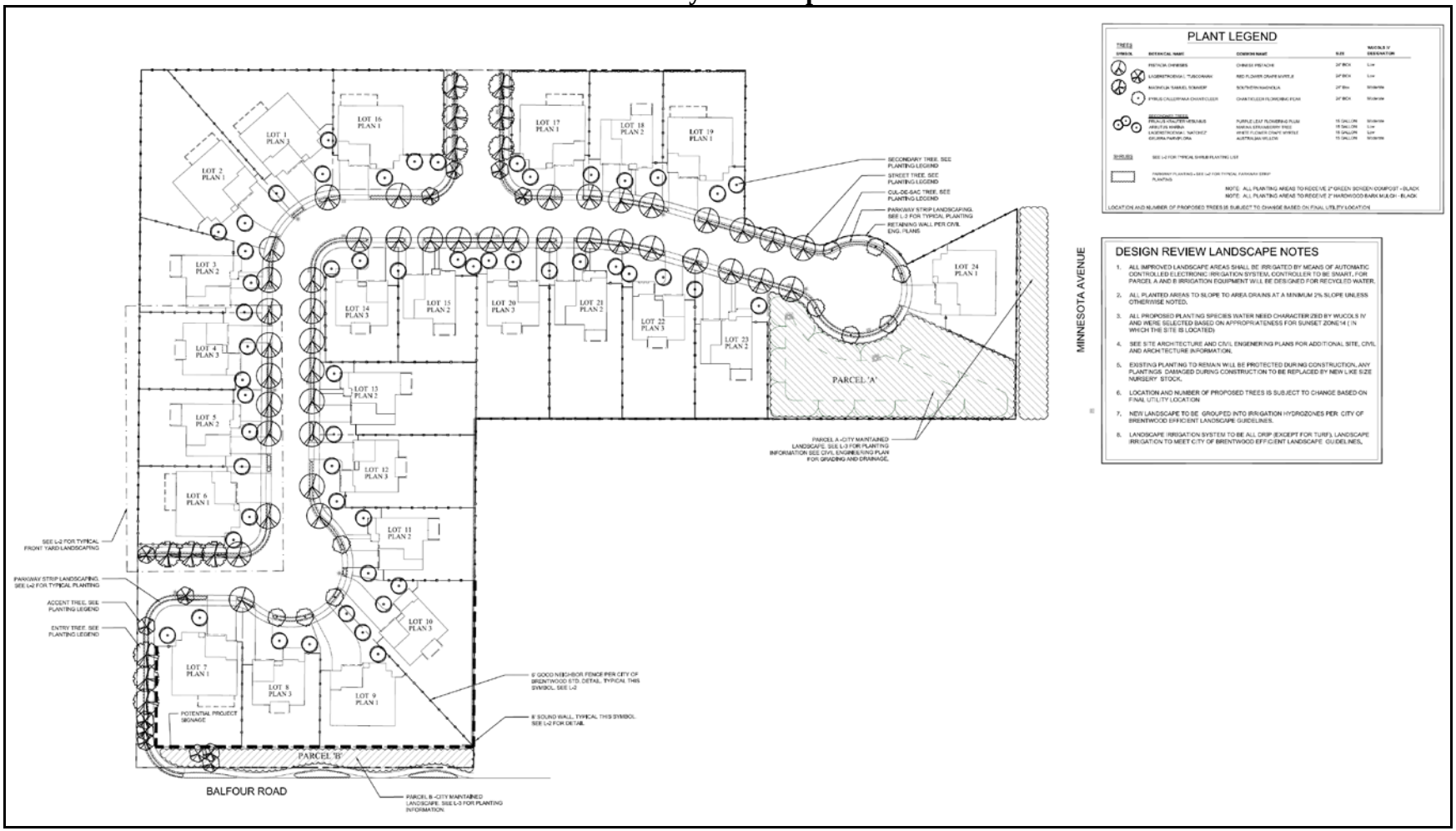
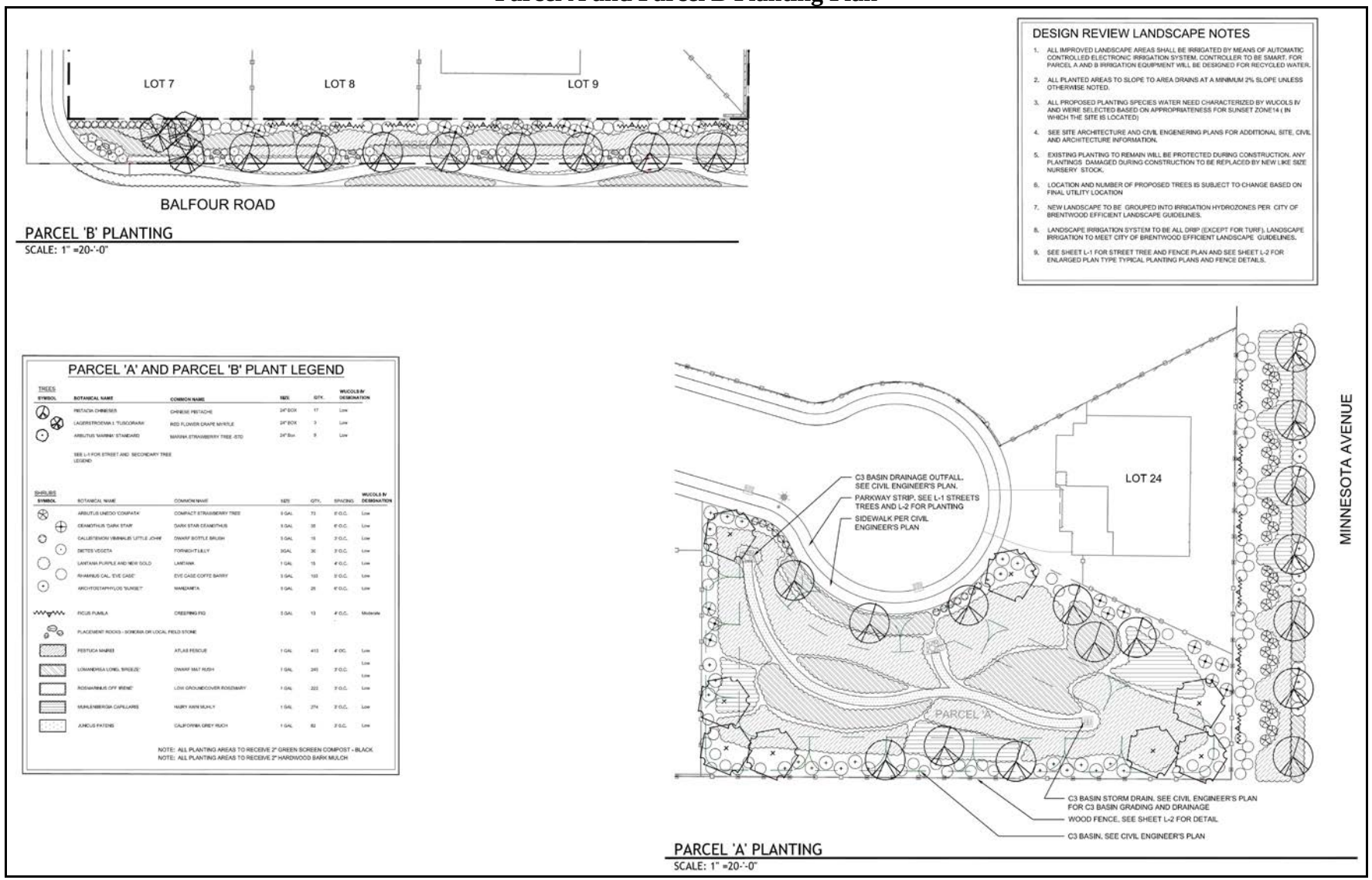


Figure 11
Parcel A and Parcel B Planting Plan



Discretionary Actions

Implementation of the proposed project would require the following discretionary actions by the City of Brentwood Planning Commission and/or City Council:

- *Tentative Subdivision Map approval to subdivide approximately 8.03 acres into 24 single-family residential lots, 0.475-acre drainage basin, and internal roadway ROWs; and*
- *Design Review of proposed one- and two-story residential structures.*

G. ENVIRONMENTAL CHECKLIST

The following Checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. Included in each discussion are project-specific mitigation measures recommended as appropriate as part of the Proposed Project.

For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which mitigation has not been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less-Than-Significant With Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
I. AESTHETICS. *Would the project:*					
a.	Have a substantial adverse effect on a scenic vista?	☐	☐	✖	☐
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	✖	☐
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	✖	☐
d.	Create a new source of substantial light or glare which would adversely affect day or night-time views in the area?	☐	✖	☐	☐

Discussion

a,b. The City of 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, the City of Brentwood does not contain officially designated State Scenic Highways.[1] However, the segment of State Route (SR) 4, located approximately 0.8 mile to the east of the project site, is listed as an Eligible State Scenic Highway, but has not yet been officially designated. As such, the project would not damage any scenic resources, such as trees, rock outcroppings, or historic buildings, within a State scenic highway. 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 4. As a result, the project structures would not impede views of Mount Diablo currently afforded to travelers along SR 4.

Residents along Minnesota Avenue, and motorists and pedestrians along this roadway, currently have limited views of Mount Diablo through the project site. For the residents, views are only available from their second story windows due to the presence of a block wall. However, it is important to distinguish between public and private views. Private views are views seen from privately-owned land and are typically viewed by individual viewers,

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

including views from private residences. Public views are experienced by the collective public, which include views of significant landscape features and along scenic roads. CEQA (Pub. Resources Code, § 21000 et seq.) case law has established that only public views, not private views, are protected under CEQA. For example, in Association for Protection etc. Values v. City of Ukiah (1991) 2 Cal.App.4th 720 [3 Cal. Rptr.2d 488] the court determined that "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in Topanga Beach Renters Assn. v. Department of General Services (1976) 58 Cal.App.3d 188 [129 Cal.Rptr. 739]: '[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.' Therefore, the focus of this aesthetics impact analysis is on potential impacts to public views.

Public views of Mount Diablo beyond the site are then limited to motorists and/or pedestrians travelling along Minnesota Avenue, looking through (south) of the site. These travelers' distant views of Mount Diablo are only available for a short duration and are already partially obstructed due to the intervening mature trees.

Given the above considerations, the project would result in a ***less-than-significant*** impact to a scenic vista and scenic resources within a State scenic highway.

c. The development of the project site would change the existing visual setting from predominately fallow agricultural land, with scattered trees and a vacant residence, garage, and associated outbuildings, to an urban area consisting of 24 single-family residential units. The proposed development would be considered compatible with other residential uses in the immediate vicinity of the project site and throughout the City of Brentwood. For example, the proposed project site is surrounded by residential subdivisions on all sides, and the Montessori School to the west. In addition, the proposed project is consistent with the type of development planned for the site in the recently adopted General Plan Update.

The proposed architecture for the project would also enhance the aesthetic quality of the development. 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. The currently proposed architecture provides three architectural floor plans of 2,920, 3,294 and 3,735 sf, respectively, each with three distinct elevations. The architectural designs feature "Spanish", "Farmhouse" and "Craftsman" themes, with three different elevations per floor plan, for a total of nine different looks.

The project also includes landscaping and street trees that would enhance the visual quality of the site. Street trees are proposed on both sides of the proposed internal street. In addition, city-maintained landscaping is proposed within Parcel A and Parcel B.

As a result, buildout 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.

d. The project site is predominately vacant land with scattered trees and two empty structures. As a result, a relatively small amount of light or glare is currently emitted from the project site. The change from a predominately vacant property to a residential development including 24 single-family units and street lighting would generate new sources of light and glare. The project site is surrounded by subdivisions on all sides and a school to the west. The residences 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. Therefore, the increase in light and glare produced by the proposed project would be considered a ***potentially significant*** impact.

Mitigation Measure(s)

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

I-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.*

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES. *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*					
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	✖
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	✖
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	✖
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	✖
e.	Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use?	☐	✖	☐	☐

Discussion

a. According to the Contra Costa Important Farmland Map from the California Department of Conservation Division of Land Resource Protection Farmland Mapping and Monitoring Program, the project site is designated Urban and Built-Up Land.[2] Therefore, development of the proposed project would result in ***no impact*** related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use.

b. The project site is not under Williamson Act contract, nor is the site zoned for agricultural use. The current zoning designation for the project site is R-1. Therefore, the project would have ***no impact*** with respect to conflicting with agricultural zoning or Williamson Act contracts.

c,d. 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.

e. The 8.03-acre site is predominately vacant land with scattered trees and two empty structures. The entire project site contains Capay Clay (0 to 2 percent slopes).[3] According to the "Guide to Mapping Units" included in the Contra Costa County Soil Survey, the on-site soil is considered Class II, as defined by the United States Department of Agriculture Natural Resource Conservation Service.[4] Section 17.730.020 of the City of Brentwood's Agricultural Preservation Program states that, "agricultural land" requiring mitigation, includes but is not limited to: "[…] Class I, II, III, or IV soils as defined by the United States Department of Agriculture Natural Resource Conservation Service." As a result, all on-site agricultural land that would be converted for development for the proposed project, is subject to mitigation per the City's Agricultural Preservation Program.

The City of Brentwood General Plan designates the project site as R-LD.[5] The General Plan primarily designates agricultural areas surrounding the City as Agricultural Conservation (AGCON). The proposed project is not located within the conservation area. The 2014 General Plan Update EIR evaluated the impacts of Prime Farmland conversion that would result from buildout of the General Plan and determined that impacts would remain significant and unavoidable even with implementation of General Plan goals and policies aimed at preserving agricultural lands. Given the fact that the 2014 General Plan designated

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2 California Department of Conservation Division of Land Resource Protection Farmland Mapping and Monitoring Program. Contra Costa Important Farmland 2012. Available at: http://www.conservation.ca.gov/dlrp/fmmp/Pages/ContraCosta.aspx. Accessed on April 20, 2016.

3 United States Department of Agriculture, Natural Resources Conservation Service. *Web Soil Survey.* Available at: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed April 18, 2016.

4 United States Department of Agriculture, Soil Conservation Service. *Soil Survey of Contra Costa County, California*. September 1977, pp. 123ff.

5 City of Brentwood. *City of Brentwood General Plan*. July 2014.

the project site for development (R-LD), the conversion of agricultural land on the project site was already evaluated and considered in the General Plan Update EIR analysis. As a result, in accordance with Public Resource Code Section 21083.3 this IS/MND need not evaluate significant effects already evaluated within a program EIR – in this case, the 2014 Brentwood General Plan Update EIR. The City adopted Findings of Fact and a Statement of Overriding Considerations for this significant and unavoidable impact. Furthermore, as explained above, the project would be required to comply with Chapter 17.730, Agricultural Preservation Program, of the Brentwood Municipal Code, which requires the project applicant to preserve agricultural lands by either:

1. Granting an agricultural conservation easement to or for the benefit of the City and/or a qualified land trust approved by the City on agricultural land deemed acceptable by the City. The easement shall encumber the exact acreage of the proposed entitlement, including any land used for park and recreation purposes and may encumber land acquired by the City and/or qualified land trust in fee; or

2. Paying an in-lieu fee established by City Council resolution. The fee may be adjusted annually but may not be increased by more than ten percent during any twelve-month period.

Should the project applicant not comply with the City's agricultural preservation requirements, the project's conversion of agricultural land would result in a ***potentially significant*** impact.

Mitigation Measure(s)

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

II-1. *Prior to recordation of any final map or issuance of any grading permit, the developer shall comply with Chapter 17.730, Agricultural Preservation Program, of the Brentwood Municipal Code in order to mitigate the project's conversion of agricultural land, as defined in Section 17.730.020, by granting an agricultural conservation easement or paying the current agricultural conservation City fee in effect at that time to provide funds to purchase conservation easements to mitigate the loss of farmland.*

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
III. AIR QUALITY. *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:*					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	✖	☐
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	✖	☐
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	✖	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✖	☐
e.	Create objectionable odors affecting a substantial number of people?	☐	☐	✖	☐

Discussion

a-c. The City of Brentwood is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), who regulates air quality in the San Francisco Bay Area. The SFBAAB area is currently designated as a nonattainment area for the 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 SFBAAB is designated attainment or unclassified for all other ambient air quality standards (AAQS). It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (EPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the EPA, and the EPA approves the proposed redesignation.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions via regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation

with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the EPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2010 Clean Air Plan (CAP), adopted on September 15, 2010. The 2010 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2010 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned 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 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 consistent with the General Plan land use designation and zoning designation for the site. Accordingly, the population projections used in development of the plans would have generally included buildout of the proposed project.

Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. Table 1 lists BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM_{10}, and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr).[6] Thus, by exceeding the

[6] It should be noted that the BAAQMD resolutions adopting and revising the 2010 significance thresholds were set aside by the Alameda County Superior Court on March 5, 2012. The Alameda Superior Court did not determine whether the thresholds were valid on the merits, but found that the adoption of the thresholds was a project under CEQA, necessitating environmental review. The BAAQMD appealed the Alameda County Superior Court's decision. The Court of Appeal of the State of California, First Appellate District, reversed the trial court's decision. The Court of Appeal's decision was appealed to the California Supreme Court, which granted limited review confined to the questions of 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? On review, the Supreme Court rejected BAAQMD's argument that CEQA requires an analysis of the environment's impact on a project in every instance. Rather, the Court held that CEQA review should be "limited to those impacts on a project's users or residents that arise from the project's effects on the environment." Ultimately, the Supreme Court reversed the Court of Appeal's decision and remanded the matter back to the appellate court to reconsider the case in light of the Supreme Court's opinion. The California Supreme Court did not review the underlying question whether adoption of the thresholds is a project under CEQA, and no court has indicated that the thresholds lack evidentiary support. BAAQMD continues to provide direction on recommended analysis methodologies, but have withdrawn the recommended quantitative significance thresholds for the time being. The May 2012 BAAQMD CEQA Air Quality Guidelines state that lead agencies may reference the Air District's 1999 Thresholds of Significance available on the Air District's website. Lead agencies may also reference the Air District's CEQA Thresholds Options and Justification Report developed by staff in 2009. The CEQA Thresholds Options and Justification Report, available on the District's website, outlines substantial evidence supporting a variety of thresholds of significance. The air

BAAQMD's mass emission thresholds for operational emissions of ROG, NO_X, or PM_{10}, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1
BAAQMD Thresholds of Significance

	Construction	Operational	
Pollutant	**Average Daily Emissions (lbs/day)**	**Average Daily Emissions (lbs/day)**	**Maximum Annual Emissions (tons/year)**
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82	82	15
$PM_{2.5}$	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2010.

The proposed project would involve the demolition of existing on-site structures and construction of 24 new residences. The proposed improvements and change in operations would not be expected to generate construction or operational emissions that would substantially contribute to the region's air quality issues or obstruct implementation of the BAAQMD's air quality planning efforts. In order to verify the aforementioned expectations, a comparison of the proposed project's estimated emissions to the BAAQMD thresholds of significance has been conducted.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2013.2.2 - a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, trip generation rates based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. However, project-specific construction data (e.g., construction phases and/or timing) is not available at this time. As such, the construction phases and durations used were based on the default values within CalEEMod. The modeling assumed that construction would commence in early 2017 and the project would be fully operational by 2018. Approximately 4,425 square feet of existing on-site structures were assumed to be necessary for demolition. The proposed project's required compliance with the current California Building Energy Efficiency Standards Code was also assumed in the modeling.

The proposed project's estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the proposed project's contribution to cumulative air quality conditions is provided below as well.

quality and GHG analysis in this IS/MND uses the previously-adopted 2010 thresholds of significance to determine the potential impacts of the proposed project, as the thresholds are supported by substantial evidence.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance.

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

	ROG	NO_X	PM_{10}	$PM_{2.5}$
Project Construction Emissions	9.39	51.85	20.99	12.51
Thresholds of Significance	54	54	82	54
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod, April 2016.

In addition, all projects under the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's Basic Construction Mitigation Measures, which include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

As such, the proposed project would implement the BAAQMD's Basic Construction Mitigation Measures listed above, to the extent that the measures are feasible for the

proposed project's construction activities. Compliance with the aforementioned measures would help to further minimize any construction-related emissions.

Because the proposed project would be below the applicable thresholds of significance for construction emissions, the proposed project would not be considered to result in a significant air quality impact during construction.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance.

Table 3
Maximum Unmitigated Operational Emissions

	ROG	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Average Daily Emissions (lbs/day)				
Project Operational Emissions	49.68	2.56	9.20	8.36
Thresholds of Significance	54	54	82	54
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**
Maximum Annual Emissions (tons/year)				
Project Operational Emissions	0.49	0.33	0.23	0.09
Thresholds of Significance	10	10	15	10
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod, April 2016

Because the proposed project's operational emissions would be below the applicable thresholds of significance, the proposed project would not be considered to result in a significant air quality impact during operations.

Cumulative Emissions

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to

the region's existing air quality conditions. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be expected to result in a cumulatively considerable contribution the region's existing air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2010 CAP. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be considered to conflict with or obstruct implementation of regional air quality plans.

Because the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant, impacts would be considered ***less than significant***.

d. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The proposed project would involve the creation of new housing and, thus, would be considered a sensitive receptor. The nearest existing sensitive receptors would be the single-family residences surrounding the site, the Montessori School adjacent to the west, and Brentwood Elementary School approximately 1,500 feet to the east.

The major pollutant concentrations of concern are localized CO emissions and TAC emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. 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 order to provide a conservative indication of whether a project would result in localized

CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected 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.).

The proposed project includes the development of 24 single-family residential units, which is consistent with the existing land use and zoning designations for the site; thus, the project would be consistent with any established congestion management program, because such programs are based on land use designations.

According to the CalEEMod results for the proposed project, which used the ITE Manual trip rates for a single-family residential land use, the project could result in approximately 230 average daily weekday trips. The main roadways in the project vicinity would be SR 4, Balfour Road, Fairview Avenue, and Minnesota Avenue. According to traffic volume counts conducted by the City of Brentwood's Traffic and Transportation Section of the Public Works Department, the section of SR 4 between Sand Creek Road and Balfour Road experiences an average daily traffic volume of 22,015 vehicles.[7] The section of Balfour Road nearest the project site carries an average daily traffic volume of 21,301 vehicles.[8] The other roadways in the project vicinity would involve fewer traffic volumes. Because the total average daily traffic volume along the nearby roadways would be below the hourly traffic volumes set forth in the BAAQMD's localized CO screening criteria, even with the proposed project's increase in daily trips of 230, the traffic volumes on local roadways and at nearby intersections would not exceed the hourly volumes presented above. Therefore, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to,

[7] City of Brentwood. *Traffic Counts By Street*. October 1, 2013. Available at: http://www.brentwoodca.gov/civicax/filebank/blobdload.aspx?blobid=25796. Accessed April 2016.

[8] City of Brentwood. *Traffic Counts By Street*. October 1, 2013. Available at: http://www.brentwoodca.gov/civicax/filebank/blobdload.aspx?blobid=25796. Accessed April 2016.

freeways and high traffic roads, distribution centers, and rail yards. 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.

The proposed project would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations. As the project site is located in a predominantly residential area, with some commercial uses including a Safeway, CVS Pharmacy, and restaurants located further to the west of the site (nearly 1,000 feet away), land uses involving heavy or constant diesel vehicle traffic or the operation of stationary diesel engines are not located in the vicinity of the project site. Similarly, sources identified in the CARB Handbook as major sources of TACs, such as distribution centers, rail yards, dry cleaners, or gas dispensing facilities, are not located in the vicinity of the project site. Accordingly, the future on-site sensitive receptors would not be exposed to substantial pollutant concentrations associated with any existing nearby uses.

The CARB Handbook recommends a setback distance of 500 feet between freeways, urban roads with traffic volumes of 100,000 vehicles per day or greater, or rural roads with traffic volumes of 50,000 vehicles per day or greater. The nearest freeway to the project site would be SR 4, which is located over 4,000 feet west of the project site. Thus, the future on-site sensitive receptors would not be exposed to substantial pollutant concentrations associated with freeways or high-traffic roads.

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project, particularly so for the proposed project, as the construction activities would likely occur over an approximately one-year period (based on CalEEMod). All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. During construction, only portions of the project site would be disturbed at a time. Operation of construction equipment would occur on such portions of the site intermittently throughout the course of a day over the overall construction period. In addition, per the City of Brentwood Municipal Code Section 9.32.050, construction activities would be limited to daytime hours only. Because construction equipment on-site would not operate for any long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Health risks associated with TACs are a function of both the concentration of emissions

and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area, including the adjacent Montessori School, would not be exposed to pollutants for a permanent or substantially extended period of time.

Due to the varying distances from working construction areas and equipment usage to any one nearby sensitive receptor, any one nearby sensitive receptor, including the adjacent Montessori School, would be exposed to varying concentrations of DPM emissions throughout the construction period. According to BAAQMD, research conducted by CARB indicates that DPM is highly dispersive in the atmosphere and is reduced by 70 percent at a distance of approximately 500 feet. In addition, the City of Brentwood is located on the southern side of the Carquinez Straight, which is the only sea-level gap in the central and northern California coastal mountains, resulting in relatively strong and persistent winds flowing through the gap. The difference in temperature between the greater Bay Area to the west and the Central Valley to the east also creates a strong flow of generally west-to-east winds that dilute and transport local air pollutants towards the Sacramento and San Joaquin Valleys. Because the prevailing winds in the area are generally from the west, the wind would help to direct potential pollutants generated at the project site away from the nearby Montessori School adjacent to the southwest of the site.

Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, the highly dispersive nature of DPM, and the prevailing winds, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

Conclusion

Based on the above, the proposed project would not cause or be exposed to substantial pollutant concentrations, including localized CO or TACs, and impacts related to such would be ***less than significant***.

e. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses and is not located in the vicinity of any such existing or planned land uses.

Although less common, diesel fumes associated with substantial diesel-fueled equipment and heavy-duty trucks, such as from construction activities, freeway traffic, or distribution centers, could be found to be objectionable. As such, the proposed project activities could

cause diesel fumes, which could be considered objectionable, during the temporary construction period. Although diesel fumes from construction equipment are often found to be objectionable, construction is temporary and construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per the City of Brentwood Municipal Code Section 9.32.050, and would likely only occur over portions of the improvement area at a time. In addition, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions as well as any associated odors. Considering the short-term nature of construction activities and the regulated and intermittent nature of the operation of construction equipment, construction of the proposed project would not be expected to create objectionable odors affecting a substantial number of people.

Residential land uses are not typically associated with the creation of substantial objectionable odors. As a result, the proposed project operations would not create any objectionable odors that would affect a substantial number of people.

For the aforementioned reasons, construction and operation of the proposed project would not create objectionable odors, nor would the project site be affected by any existing sources of substantial objectionable odors, and a ***less-than-significant*** impact related to objectionable odors would result.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. *Would the project:*					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	✖	☐	☐
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?	☐	☐	✖	☐
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	✖	☐
d.	Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	✖	☐
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	✖	☐	☐
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	✖	☐

Discussion

a. The following section is based upon the Biological Assessment (BA) prepared for the project site by Moore Biological Consultants in order to determine presence or absence of Waters of the U.S. and wetlands, and search for suitable habitat for or presence of special-status species at the site.[9]

Due to the amount of disturbance from past agricultural operations and periodic weed abatement, on-site vegetation consists of ruderal grass and weed species. California annual grassland series best describes the disturbed grassland vegetation. Oats (*Avena* sp.), foxtail barley (*Hordeum murinum*), soft chess (*Bromus hordeaceus*), and perennial ryegrass (*Lolium perenne*) are dominant grass species on-site. Other grassland species such as mustard (*Brassica* sp.), mallow (*Malva neglecta*), morning glory (*Convolvulus arvensis*), fireweed (*Epilobium brachycarpum*), and prickly lettuce (*Lactuca serriola*) are intermixed with the grasses.

The only trees on-site are a cluster of pines (*Pinus sp.*), coastal live oak (*Quercus agrifolia*), and tree-of-heaven (*Ailanthus altissima*) in the southwest part of the site, two black walnuts (*Juglans californicus*) along a fence just south of Pondlilly Lane, and a few ornamentals around the vacant home and outbuildings. The trees along the fence are the last trees remaining from the historical orchard. Stumps of other walnuts are located in the east part of the site and volunteer sprouts encircle several of these stumps.

The project site includes a few shrubs around the home and outbuildings and some grape vines along the fence just south of Pondlilly Lane. Blue elderberry (*Sambucus mexicana*) shrubs were not observed in or adjacent to the site.

Special-Status Species

Special-status species are plants and animals that are legally protected under the State and/or Federal Endangered Species Act (FESA) or other regulations. The FESA of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species.

Special-status species also include other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. The presence of species with legal protection under the Endangered Species Act often represents a major constraint to development, particularly when the species are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a take of these species.

[9] Moore Biological Consultants. *Catchings Ranch, Brentwood, California: Biological Assessment.* October 13, 2015.

Special-Status Plant Species

Special-status plants are those which are designated rare, threatened, or endangered and candidate species for listing by the U.S. Fish and Wildlife Service (USFWS). Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as those plant species identified on Lists 1A, 1B and 2 in the Inventory of Rare and Endangered Vascular Plants of California by the California Native Plant Society (CNPS). Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for State or federal status, such as those included on List 3 in the CNPS Inventory.

The likelihood of occurrence of listed, candidate, and other special-status species in the work areas is generally low.[10] The BA prepared for the project site by Moore Biological Consultants performed a California Natural Diversity Database (CNDDB) search and identified 10 plant species that have been previously documented in the U.S. Geological Survey's (USGS) Brentwood quadrangle (greater project vicinity) or for which there is potentially suitable habitat in the greater project vicinity.

The BA included an assessment of the likelihood of occurrence of each of these 10 plant species on-site. The evaluation of the potential for occurrence of each species is based on the distribution of regional occurrences (if any), habitat suitability, and field observations.

Special-status plants generally occur in relatively undisturbed areas in vegetation communities such as vernal pools, marshes and swamps, seasonal wetlands, riparian scrub, and areas with unusual soils. All of the special-status plants included in the CNDDB search results occur in unique habitat types that are not present on-site. The site is highly disturbed ruderal grassland that is not suitable for any special-status plant species. Due to lack of suitable habitat, it is unlikely that special-status plants occur on the site.[11]

Special-Status Wildlife Species

The BA prepared for the project site by Moore Biological Consultants performed a CNDDB search and identified 21 wildlife species that have been previously documented in the greater project vicinity or for which there is potentially suitable habitat in the greater project vicinity.

While the project site may have provided habitat for special-status wildlife species at some time in the past, farming and development have substantially modified natural habitats in the greater project vicinity. Of the wildlife species identified in the CNDDB, Swainson's hawk and burrowing owl are the only species that have potential to occur on-site on more than a

[10] Moore Biological Consultants. *Catchings Ranch, Brentwood, California: Biological Assessment [page 11]*. October 13, 2015.
[11] *Ibid.*

transitory or very occasional basis.[12] Other special-status birds may fly over the area on occasion, but would not be expected to nest in or near the project site.

Swainson's Hawk

The Swainson's hawk is a migratory hawk listed by the State of California as a Threatened species. The Migratory Bird Treaty Act and Fish and Game Code of California protect Swainson's hawks year-round, as well as their nests during the nesting season (March 1st through September 15th). Swainson's hawks are found in the Central Valley primarily during their breeding season, a population is known to winter in the San Joaquin Valley.

Swainson's hawks prefer nesting sites that provide sweeping views of nearby foraging grounds consisting of grasslands, irrigated pasture, hay, and wheat crops. Most Swainson's hawks are migratory, wintering in Mexico and breeding in California and elsewhere in the western United States. Swainson's hawks generally arrive in the Central Valley in mid-March, and begin courtship and nest construction immediately upon arrival at the breeding sites. The young fledge in early July, and most Swainson's hawks leave their breeding territories by late August.

The project site is along the west edge of the nesting range of this species. The CNDDB contains several records of nesting Swainson's hawks in the greater project vicinity, with most of the records being to the east of the project site. The CNDDB contains a 1921 record of Swainson's hawks nesting in Brentwood, but the specific location is not known and the record is mapped nonspecifically in downtown Brentwood. The nearest occurrence of nesting Swainson's hawks in the CNDDB search area with specific location information is approximately two miles north of the project site.

Swainson's hawks were not observed during the field surveys, which were conducted outside of the nesting season. The relatively larger trees in the project site are potentially suitable for nesting Swainson's hawks. The highly disturbed ruderal grassland in the site provides marginal foraging habitat for Swainson's hawks. However, Swainson's hawks generally forage in expansive alfalfa and hay fields, not in small in-fill sites in residential neighborhoods. It is considered unlikely that Swainson's hawks would nest or forage in or near the project site in the future.[13]

Burrowing Owl

The Migratory Bird Treaty Act and Fish and Game Code of California protect burrowing owls year-round, as well as their nests during the nesting season (February 1st through August 31st). Burrowing owls are a year-long resident in a variety of grasslands as well as scrub lands

[12] Moore Biological Consultants. *Catchings Ranch, Brentwood, California: Biological Assessment [page 19]*. October 13, 2015.

[13] Moore Biological Consultants. *Catchings Ranch, Brentwood, California: Biological Assessment [page 20]*. October 13, 2015.

that have a low density of trees and shrubs with low growing vegetation; burrowing owls that nest in the Central Valley may winter elsewhere.

The primary habitat requirement of the burrowing owl is small mammal burrows for nesting. The owl usually nests in abandoned ground squirrel burrows, although they have been known to dig their own burrows in softer soils. In urban areas, burrowing owls often utilize artificial burrows including pipes, culverts, and piles of concrete pieces. Burrowing owls breed from March through August, and are most active while hunting during dawn and dusk. The nearest occurrence of nesting burrowing owls in the CNDDB search area is approximately one mile west of the project site.

Burrowing owls were not observed on the project site during the field surveys. In addition, ground squirrels were not observed on-site and only a few old ground squirrel burrows were observed. The old ground squirrel burrows observed on-site did not have any evidence of current or past occupancy by burrowing owls (whitewash, pellets, feathers). The project site is well within the species range and burrowing owls may fly over or forage on-site on an occasional basis. Therefore, the potential exists for burrowing owl to nest on-site in the future, if suitable burrow habitat is available.[14]

Other Special-Status Species

Special-status birds may fly over the area on occasion, but would not be expected to nest in or immediately adjacent to the project site. San Joaquin kit fox does not occur in in-fill sites in residential neighborhoods of Brentwood. The project site does not provide aquatic habitat for any type of fish, California tiger salamander, giant garter snake, western pond turtle, or California red-legged frog. Blue elderberry shrubs are not located on-site, precluding the potential occurrence of valley elderberry longhorn beetle. In addition, vernal pools or seasonal wetlands are not located on-site for vernal pool branchiopods (i.e., fairy and tadpole shrimp). The project site does not provide the mosaic of scrub, chaparral, grassland, and woodland habitats required by Alameda whipsnake. Furthermore, habitats for silvery legless lizard (sandy or loose loamy soils under sparse vegetation) and San Bruno elfin butterfly (rocky outcrops and cliffs in coastal scrub habitats) do not occur on-site.[15]

Nesting Migratory Birds

The relatively larger trees on-site are potentially suitable nesting habitat for non-special status raptors protected under the federal Migratory Birds Treaty Act. Other migratory birds, such as songbirds, could nest within the smaller trees, shrubs, grape vines, or in the ruderal grasslands on-site.

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[14] Moore Biological Consultants. *Catchings Ranch, Brentwood, California: Biological Assessment [page 21]*. October 13, 2015.

[15] Moore Biological Consultants. *Catchings Ranch, Brentwood, California: Biological Assessment [page 21]*. October 13, 2015.

Conclusion

The project site was leveled and farmed in the past and is currently vegetated with upland grasses and weeds. The highly disturbed nature of the project site, due to periodic weed abatement, precludes on-site suitable habitat to support special-status plant species known to occur in the project vicinity. With the possible exception of burrowing owl and Swainson's hawk, special-status wildlife species are not expected to occur in or near the site on more than a very occasional or transitory basis. As a result, wildlife species surveys would be required to determine whether any special-status wildlife species or migratory birds 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 USFWS, or the California Department of Fish and Wildlife (CDFW).

Mitigation Measure(s)
Implementation of the following mitigation measures identified would reduce the impact to a *less-than-significant* level.

Swainson's Hawk

IV-1. *Prior to any ground disturbance related to activities that occur during the nesting season (March 15-September 15), a qualified biologist shall conduct a preconstruction survey no more than one month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring shall be required (see below).*

IV-2. *During the nesting season (March 15-September 15), activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the activity (e.g., dense vegetation, limited activities) indicate that a smaller buffer could be used, the qualified biologist shall coordinate with CDFW/USFWS to determine the appropriate buffer size.*

If young fledge prior to September 15, activities can proceed normally. Otherwise, construction activities shall not resume within the established buffer until the qualified biologist confirms that the young have fledged the nest.

Burrowing Owl

IV-3. *Prior to any ground disturbance related activities, a qualified biologist shall conduct a preconstruction survey of the project site to establish the presence or absence of burrowing owls and/or habitat features, and evaluate use by owls in accordance with CDFW survey guidelines.*[16] *A written summary of the survey results shall be submitted to the City of Brentwood Community Development Department.*

If burrowing owls are not discovered, then further mitigation is not necessary.

If burrowing owls are found during the breeding season (February 1-August 31), the project proponent shall avoid all nest sites that could be disturbed by any ground disturbance related activities during the remainder of the breeding season, or while the nest is occupied by adults or young. Avoidance shall include establishment of a 250-foot non-disturbance buffer zone. 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 non-breeding season (September 1-January 31), the project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone. If occupied burrows for burrowing owls are not avoided, passive relocation shall be implemented. Owls shall 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 shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent re-occupation.[17] *Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.*

Migratory Birds

IV-4. *If possible, vegetation removal shall occur outside of the general avian nesting season (March 1-July 31). Alternatively, a qualified biologist shall conduct a preconstruction survey no later than 14 days prior to vegetation removal. A written summary of the survey results shall be submitted to the City of Brentwood Community Development Department. If active nests are*

[16] California Burrowing Owl Consortium. *Burrowing Owl Survey Protocol and Mitigation Guidelines*. April 1993.

[17] California Department of Fish and Game. *Staff Report on Burrowing Owl Mitigation*. March 7, 2012. It should be noted the California Department of Fish and Game is now the California Department of Fish and Wildlife.

found, vegetation removal within 75 feet of the nest shall be delayed until the young have fledged, as determined by a qualified biologist.

b,c. 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.

According to the BA prepared for the project site by Moore Biological Consultants, riparian habitat and potentially jurisdictional wetlands or Waters of the U.S. were not observed on-site. The project site was leveled and farmed in the past, is currently vegetated with upland grasses and weeds, and is highly disturbed by periodic weed abatement. Specifically, vernal pools, seasonal wetlands, marshes, ponds, creeks, or lakes of any type were not observed in or adjacent to the site.[18] 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.

d. While the proposed project would result in development of a fallow agricultural site, the site is surrounded by existing development and is essentially considered infill. The project site and the open field to the south provide limited opportunities for native, resident, or migratory wildlife to use as a movement corridor. Any possibility for the project site to serve wildlife movement purposes is hampered by the surrounding development and roadway barriers. Therefore, 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***.

e. The following section is based on the Arborist Report prepared for the project site by HortScience, Inc.[19]

On September 17 and October 8, 2014, trees were surveyed at the project site. The survey procedure consisted of the following steps:

- Identifying the species of each tree;
- Tagging each tree with an identifying number and recording its location on a map;
- Measuring the trunk diameter at a point 54 inches above grade;

[18] Moore Biological Consultants. *Catchings Ranch, Brentwood, California: Biological Assessment [page 9]*. October 13, 2015.

[19] HortScience, Inc. *Arborist Report, Balfour Road Brentwood, California*. October 21, 2015.

- Evaluating the health and structural condition using a scale of 1-5 based on a visual inspection. Off-site trees were viewed from one side while standing on the subject property.
    - **5** A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
    - **4** Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
    - **3** Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
    - **2** Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
    - **1** Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
- Rating the suitability for preservation as "high", "moderate" or "low". Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.

    High: Trees with good health and structural stability that have the potential for longevity at the site.

    Moderate: Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in 'high' category.

    Low: Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

Description of Trees

The Arborist Report prepared for the proposed project assessed a total of 46 trees, representing nine different species (see Table 3), which included 20 off-site trees.

As illustrated in Table 3, 23 of the trees were determined to be in fair condition with 15 trees in good condition and eight trees determined to be in poor condition. According to the Arborist Report, 16 Monterey pines are growing in a group in the southwestern section of the property, of which 11 were determined to be in fair condition and five in poor condition. The Monterey pines ranged from six to 16 inches in diameter with an average trunk diameter of 12 inches. While many of the pines were declining or dead, some pines had dense canopies extending to the ground. Ten off-site mulberries were assessed; seven of these are located in a row along the eastern boundary of the property. The mulberries were determined to be in good condition with full vigorous branches extending over the fence and an estimated average trunk diameter of approximately 17 inches. Six Siberian elms were growing in a row in the front yard of the existing residence.

Table 4
Condition Ratings and Frequency of Tree Occurrence

Common Name	Scientific Name	Condition Rating			Number of Trees
		Poor (1-2)	Fair (3)	Good (4-5)	
Italian cypress	*Cupressus sempervirens*	-	-	1	1
Raywood ash	*Fraxinus oxycarpa*	-	-	1	1
English walnut	*Juglans regia*	3	-	3	6
Mulberry	*Morus rubra*	-	2	8	10
Monterey pine	*Pinus radiate*	5	11	-	16
Callery pear	*Pyrus calleryana*	-	-	1	1
Coast live oak	*Quercus agrifolia*	-	-	1	1
Coast redwood	*Sequoia sempervirens*	-	4	-	4
Siberian elm	*Ulmus pumila*	-	6	-	6
Total		**8**	**23**	**15**	**46**

Source: HortScience, 2015

The elms were determined to be in fair condition with dense crowns that had been topped. Several of the elms had trunk wounds with decay. Four off-site redwoods are located near the northern boundary, and were determined to be in fair condition with good form and structure but a thin, discolored crown. The City of Brentwood protects oak trees 4 inches and larger. Based on this definition, only one tree on this site is protected, coast live oak #10.[20]

Conclusion

As indicated in the Arborist Report, all of the 26 trees located on the project site would be removed with development of the proposed project. The City of Brentwood's tree ordinance, Section 17.470.006 of Municipal Code, only requires protection of native oak trees. Therefore, only the one coast live oak tree is protected by the City of Brentwood's tree ordinance.[21] As a result, without relocation or replacement of the on-site oak tree, the proposed project would result in a ***potentially significant*** impact.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the impact from the proposed project to a *less-than-significant* level.

IV-6. *Prior to issuance of a grading permit, the project improvement plans shall identify the coast live oak tree within the disturbance area. If feasible, the oak tree shall be protected from damage. Appropriate protective measures shall be taken to ensure preservation of the oak tree during grading activity. In the event that the determination is made that avoidance of the oak tree is not feasible the tree shall be relocated or replaced, to the satisfaction of the Community Development Department, in accordance with Section 17.470.006 of the Brentwood Municipal Code.*

[20] HortScience, Inc. *Arborist Report, Balfour Road Brentwood, California [page 2]*. October 21, 2015.
[21] HortScience, Inc. *Arborist Report, Balfour Road Brentwood, California [page 7]*. October 21, 2015.

f. In July 2007 the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (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. However, according to Figure 3-3 of the ECCCHCP, titled Landcover in the Inventory Area, the project site is mapped with a land cover type of Urban.[22] According to Section 16.168.030 of the Brentwood Municipal Code, the ECCCHCP shall apply to all projects except any project that is contained entirely within an area mapped as urban, turf, landfill and/or aqueduct land cover types as depicted in the ECCCHCP. Thus, the proposed project would not be required to pay Development Fees associated with the ECCCHCP. 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 a ***less-than-significant*** impact.

[22] Contra Costa County. *The Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan*. October 2006.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
V. CULTURAL RESOURCES. *Would the project:*					
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	✖	☐	☐
b.	Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	✖	☐	☐
c.	Directly or indirectly destroy a unique paleontological resource on site or unique geologic features?	☐	✖	☐	☐
d.	Disturb any human remains, including those interred outside of formal cemeteries.	☐	✖	☐	☐
e.	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.	☐	☐	✖	☐

Discussion

a-d. The following section is based on the cultural resources studies prepared for the Balfour property (September 15, 2015) and the Minnesota property (January 30, 2015) by Holman & Associates.

Balfour Property

The Cultural Resources Study prepared for the Balfour property includes literature review, field inspection, and recommendations, which are discussed below.

Literature Review

The archaeological literature review was conducted in January 2015 with the Northwest Information Center (file number 14-0949), which included a review of records for a 0.25-mile radius of the project area. According to the Cultural Resources Study, historic and/or prehistoric archaeological resources were not recorded within the study area.

Field Inspection

On September 10, 2015 a visual inspection of the project area was conducted by Holman & Associates. Because the property had been recently disked, the entire ground surface was visible, with the exception of the area around the existing vacant buildings at the northern

end of the property, where gravel and other ground covers have been dumped. Light brown to gray clay loam soil, containing small amounts of water worn gravels was observed on-site. Signs of former structures were not observed on-site.

Conclusion

Evidence of historic and/or prehistoric archaeological materials was not observed on-site and the property was utilized for orchards until recently. Therefore, the Cultural Resources Study determined the development of the Balfour property has at best a low potential for the discovery of prehistoric archaeological resources during construction-related earthmoving activities. As a result, the Cultural Resources Study does not recommend any further archaeological research for the property, neither mechanical subsurface presence/absence testing for buried resources, nor archaeological monitoring during construction-related earthmoving activities.[23]

Minnesota Property

The Cultural Resources Study prepared for the Minnesota property includes literature review, field inspection, and recommendations, which are discussed below.

Literature Review

The archaeological literature review was conducted in January 2015 with the Northwest Information Center (file number 14-0949), which included a review of records for a 0.25-mile radius of the project area. According to the Cultural Resources Study, historic and/or prehistoric archaeological resources were not recorded with the study area.

Field Inspection

On January 26, 2015 a visual inspection of the project area was conducted by Holman & Associates. The Minnesota property consists of short cut tree stumps indicating that the property was an orchard in the past. Currently the property is unused and covered by short grasses and weeds, which obscure the majority of the property's ground surface. Where visible, the soil consists of a brown clay loam. Native rock was not observed on-site.

Conclusion

Evidence of historic and/or prehistoric archaeological materials was not observed on-site and the Cultural Resources Study determined the development of the Minnesota property would not have an effect on historic or prehistoric cultural materials. Therefore, the Cultural Resources Study does not recommend any further archaeological research for the property,

[23] Holman & Associates. *Cultural Resources Study of 3441 Balfour Road Property, Brentwood, Contra Costa County, California*. September 15, 2015.

neither mechanical subsurface presence/absence testing for buried resources, nor archaeological monitoring during construction related earthmoving activities. [24]

Conclusion

The Balfour and Minnesota Cultural Resources studies prepared for project site determined development of the overall 8.03-acre project site would not have an effect on historic or prehistoric cultural materials, and further archaeological research for the overall property, neither mechanical subsurface presence/absence testing for buried resources, nor archaeological monitoring during construction-related earthmoving activities is recommended. However, the possibility remains that ground disturbing activities could uncover previously unknown buried historic and/or prehistoric archaeological materials, resulting in a ***potentially significant*** impact.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the potential construction-related impact to a *less-than-significant* level.

V-1. *If buried 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 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.*

V-2. *Pursuant to State Health and Safety Code §7050.5 (c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop within 100 feet of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission, who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place within 100 feet of the find until the identified appropriate actions have been implemented.*

e. Tribal cultural resources are generally defined by Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. On March 31, 2016, in compliance with Assembly Bill

[24] Holman & Associates. *Cultural Resources Study of Proposed Fernandes Estates Subdivision XXXX, APN 012-030-025-8, Brentwood, Contra Costa County, California*. January 30, 2015.

(AB) 52, the City of Brentwood distributed a project notification letter to the Ione Band of Miwok Indians tribe. Per AB 52, once receiving the project notification letter, the Native American tribe has 30 days to request consultation. The City of Brentwood did not receive a request for consultation from the Ione Band of Miwok within the 30 days. In addition, a search of the cultural resources files within the California Historical Resources Information System (CHRIS) at the Northwest Information Center (file number 14-0949) was conducted for the proposed project site. According to the CHRIS search results, recorded cultural resources do not occur within the project area and cultural resources are not known to exist at the project site.

Given the negative results of the CHRIS search and the field surveys, as well as the City's compliance with AB 52, the project would result in a ***less-than-significant*** impact to tribal cultural resources.

Issues			Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VI. GEOLOGY AND SOILS. *Would the project:*						
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
	i.	Rupture of a known earthquake fault, as delineated on the most recent Alquist - Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault?	☐	✖	☐	☐
	ii.	Strong seismic ground shaking?	☐	✖	☐	☐
	iii.	Seismic-related ground failure, including liquefaction?	☐	☐	✖	☐
	iv.	Landslides?	☐	☐	☐	✖
b.	Result in substantial soil erosion or the loss of topsoil?			✖	☐	☐
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?		☐	☐	✖	☐
d.	Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code?		☐	✖	☐	☐
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?		☐	☐	☐	✖

Discussion

a.i-ii. The following section is based upon the Geotechnical Exploration report (September 25, 2015) prepared for the project site by ENGEO.[25]

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

[25] ENGEO Inc. *Geotechnical Exploration, Catchings Ranch, Brentwood, California*. September 25, 2015.

Database, the nearest active faults are the Great Valley Fault and the Greenville Fault, located about five miles west and eight miles southwest of the project site, respectively.

Portions of the Great Valley fault are considered seismically active thrust faults; however, because the Great Valley fault segments are not known to extend to the ground surface, the State of California has not defined Earthquake Fault Hazard Zones around the postulated traces. The Great Valley fault is considered capable of causing significant ground shaking at the site, but the recurrence interval is believed to be longer than for more distant, strike-slip faults. Further seismic activity could be expected to continue along the western margin of the Central Valley, and as with all projects in the area, the development should be designed to accommodate strong earthquake ground shaking.

Other active faults in the San Francisco Bay Area capable of producing significant ground shaking at the site include the Concord-Green Valley fault, 14 miles west; the Calaveras fault, 18 miles southwest; the Hayward fault, 26 miles southwest; and the San Andreas fault, 45 miles southwest. Any one of these faults could generate an earthquake capable of causing strong ground shaking at the subject site. Earthquakes of Moment Magnitude seven and larger have historically occurred in the Bay Area and Central Valley; and numerous small magnitude earthquakes occur every year.

Seismic 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.

Ground Rupture

According to the Geotechnical Exploration, known active faults do not cross the project site and the site is not located within an Earthquake Fault Special Study Zone. 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.[26]

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, as reviewed and approved by the City of Brentwood Building Division. The structures would meet the requirements of applicable Building and Fire Codes, including the 2013 California Building Code (CBC), as adopted or

[26] ENGEO Inc. *Geotechnical Exploration, Catchings Ranch, Brentwood, California [page 5]*. September 25, 2015.

updated by the City of Brentwood. 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.

Conclusion

The project site is not within an Alquist-Priolo Special Studies Zone; however, the Geotechnical Exploration report prepared for the proposed project indicates that the Brentwood area is located in a seismically active zone. 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.

Mitigation Measure(s)
Implementation of the following mitigation measure would ensure the potential impact is *less-than-significant*.

VI-1. *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.*

a.iii, c. 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.

ENGEO performed a field exploration on September 8, 2015, which included drilling three borings located by pacing from existing features and elevations interpolated from a topographic map. The borings were advanced to depths ranging from approximately 15.5 to 51.5 feet below existing grade. Three additional borings were performed by Purcell, Rhoades and Associates on March 24, 2015, which ranged between 16.5 feet to 49.5 feet below the existing ground surface.

The Geotechnical Exploration concludes that based on the generally very dense sands encountered in the borings, the risk of liquefaction is considered low at the project site.[27] Therefore, considering the low risk of liquefaction at the project site, coupled with the fact that the City of Brentwood requires new development to conform to the requirements described in the CBC, the impact would be considered ***less than significant***.

[27] ENGEO Inc. *Geotechnical Exploration, Catchings Ranch, Brentwood, California [page 6]*. September 25, 2015.

a.iv. The proposed project site is not susceptible to landslides because the area is essentially flat. Therefore, ***no impact*** would occur.

b. The project site consists of fallow agricultural land, with the exception of a vacant residence, garage, and associated outbuildings on the Balfour property. According to the Stormwater Control Plan (SWCP) prepared for the proposed project, development of the Catchings Ranch Project would result in the creation of approximately 148,817 sf of new impervious surface area.[28] The development of the 8.03-acre site would cause ground disturbance of top soil. 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.

Mitigation Measure(s)
Implementation of the following mitigation measures would ensure the impact is *less-than-significant*.

VI-2. *In conjunction with the submittal of a grading permit application, the applicant 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.*

VI-3. *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.*

d. 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

[28] Bellecci & Associates. *Stormwater Control Plan for Catchings Ranch Subdivision [pg. 1]*. December 2015.

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. The Geotechnical Exploration, conducted specifically for the proposed project by ENGEO, indicates the near-surface site soils exhibit high expansion potential with Plasticity Index (PI) values ranging from 48 to 51.[29] Therefore, because of the presence of expansive soils on the site, a ***potentially significant*** impact could occur.

Mitigation Measure(s)
Implementation of the following mitigation measure would ensure the impact is *less-than-significant*.

VI-4. Implement Mitigation Measure VI-1.

e. The project has been designed to connect to the City's sewer system. Therefore, ***no impact*** would occur related to soils incapable of adequately supporting the use of septic tanks.

[29] ENGEO Inc. *Geotechnical Exploration, Catchings Ranch, Brentwood, California [page 5]*. September 25, 2015.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VII.	**GREENHOUSE GAS EMISSIONS.** *Would the project:*				
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	✖	☐
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☐	✖	☐

Discussion

a,b. Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. 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) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of the BAAQMD. The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100 $MTCO_2e$/yr or 4.6 $MTCO_2e$/yr per service populations (population + employees). BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations. The BAAQMD thresholds of significance are used for the analysis within this IS/MND, as the thresholds of significance are supported by substantial evidence.

The proposed project's GHG emissions were quantified using CalEEMod using the same assumptions as presented in the Air Quality section of this IS/MND, and compared to the 1,100 $MTCO_2e$/yr threshold of significance. According to the CalEEMod results, the proposed project would result in operational GHG emissions of 312.24 $MTCO_2e$/yr, which is well below the 1,100 $MTCO_2e$/yr threshold of significance. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted a threshold of significance for construction-related GHG emissions. However, even if the proposed project's total construction GHG emissions of 431.67 $MTCO_2e$/yr are included with the annual operational GHG emissions, the resultant total GHG emissions of 743.91 $MTCO_2e$/yr would still be well below the 1,100 $MTCO_2e$/yr threshold of significance. Therefore, the proposed project would not be expected to result in a significant impact related to GHG emissions.

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; and impacts would be considered ***less than significant***.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VIII.	**HAZARDS AND HAZARDOUS MATERIALS.** *Would the project:*				
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	✖	☐
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	✖	☐	☐
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	✖	☐
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?	☐	☐	☐	✖
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	✖
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	✖
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	✖	☐
h.	Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	✖

Discussion

a. A significant hazard to the public or the environment could result from the routine transport, use, or disposal of hazardous materials, or through a reasonably foreseeable upset and accidental release of hazardous materials into the environment. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. Implementation of the proposed project would include the development of 24 single-family residential units on approximately 8.03 acres. Residential land uses do not typically involve the routine transport, use, disposal, or generation of substantial amounts of hazardous materials.

Construction activities would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. However, the project contractor would be required to comply with all California Health and Safety Codes and local ordinances regulating the handling, storage, and transportation of hazardous and toxic materials, as overseen by the California EPA and DTSC. Should an accidental release of hazardous materials occur during construction, the City (or City crews) and /or contractor, is required to notify the East Contra Costa Fire Protection District (ECCFPD), who would then monitor the conditions and recommend appropriate remediation measures.

Because project operations would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, impacts would be considered ***less than significant.***

b. The following section addresses potential hazards associated with existing site conditions and is based on the Phase I Environmental Site Assessments (Phase I ESA) prepared for the Balfour Property (July 1, 2015)[30] and the Minnesota property (October 20, 2015)[31] by ENGEO.

Balfour Property

The Phase I ESA prepared for the Balfour property included the following:

- A review of publicly available and practically reviewable standard local, State, tribal, and federal environmental record sources.
- A review of publicly available and practically reviewable standard historical sources, aerial photographs, fire insurance maps and physical setting sources.
- A reconnaissance of the property to review site use and current conditions. The reconnaissance was conducted to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.
- Collection of 12 soil samples to address potential pesticide impacts from the former on-site orchard.

[30] ENGEO Inc. *Modified Phase I Environmental Site Assessment, Balfour Road*. July 1, 2015.
[31] ENGEO Inc. *Modified Phase I Environmental Site Assessment, Minnesota Avenue*. October 20, 2015.

- Interviews with owners/occupants and public sector officials.
- Findings and conclusions.

Historical Records Review

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions (RECs) [32]on the property.

Historical Topographic Maps

Historical USGS topographic maps were reviewed to determine if discernible changes in topography or improvements pertaining to the property had been recorded.

- *1914 and 1916 Maps* – The property is mapped as vacant land. Roads are mapped in place at Central Boulevard and Fairview Avenue. Balfour Road is shown only west of Fairview Avenue.
- *1943 Map* – The property is mapped as an orchard. Balfour Road, Fairview Road, Minnesota Avenue, and Central Boulevard are shown surrounding the Property.
- *1954 Map* – The property remains an orchard. A new ditch is mapped just west of the property, in the current location of the bike trail.
- *1968 Map* – Mapped features are similar to prior maps.
- *1978 Map* – One building is mapped at the north end of a dirt road on the Property (existing house). No orchards are shown on the Property.

Aerial Photographs

The following aerial photographs, provided by Environmental Data Resources (EDR), were reviewed for information regarding past conditions and land use at the Property and in the immediate vicinity.

- *1939 Photograph* – The property is an orchard. Surrounding properties also consist of orchards. Balfour Road and Minnesota Avenue appear to consist of dirt roads. A ditch is visible just west of the Property.
- *1949 and 1950 Photographs* – The orchard is thinned, with trees missing from rows.
- *1959, 1966, 1968 Photographs* – The orchard has somewhat increased in tree density.

[32] As defined in the American Society for Testing and Materials Standard Practice E 1527-13, an REC is "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

- *1979 Photograph* – The orchard is no longer present on the property. Two houses are visible on the property. A building is visible on the adjoining property to the west. The adjoining property to the east still has an orchard. Adjoining properties to the north and west no longer have orchards.
- *1982 Photograph* – An oval track is visible in the west field on the Property. It may be used for horse riding, motorcycles, or cars.
- *1998-2012 Photographs* – The oval track is no longer visible. Conditions within the Property appear relatively unchanged. Expanding residential development is visible surrounding the Property.

Environmental Record Sources

EDR performed a search of federal, tribal, State, and local databases regarding the project site and nearby properties. The databases include, but are not limited to: the Leaking Underground Storage Tank (LUST) Incident Reports, which come from the State Water Resources Control Board (SWRCB) LUST Information System; the Statewide Environmental Evaluation and Planning System (SWEEPS) underground storage tank (UST) listing; the Historical UST Registered Database; the Facility Inventory Database (FID); and the SLIC (Spills, Leaks, Investigations and Cleanup) program.

The project site was not listed on the environmental record sources; however, several properties within the appropriate American Society for Testing and Materials (ASTM) search distance of the project site were listed. Based on the distances to the listed sites, regional topographic gradient, and the EDR findings, it is unlikely that the listed sites pose an environmental risk to the project site.[33]

Site Reconnaissance

ENGEO conducted a reconnaissance of the Balfour property on June 19, 2015. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The project site was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks.

During the site reconnaissance, ENGEO did not observe hazardous substances or petroleum products, odors indicative of hazardous materials, pools of potentially hazardous liquids, drums, petroleum product containers, pits, ponds, lagoons, stained soil or pavement, signs of stressed vegetation, stockpiles or fill material, or wastewater conveyance systems. However, ENGEO identified a vacant residence, garage, and associated outbuildings on-site that were built in the 1970s. Therefore, given the age of the existing structures, the possibility exists that asbestos-containing materials and lead-based paint materials may exist within the

[33] ENGEO Inc. *Modified Phase I Environmental Site Assessment, Balfour Road [page 10]*. October 20, 2015.

structures. In addition, ENGEO identified four small pressure storage tanks/filter tanks for the two on-site domestic water wells. One well head for one of the on-site wells was removed and the casing is open at the ground surface. Septic tanks and/or leach fields are likely present to serve vacant residence. Furthermore, one pole-mounted transformer (Polychlorinated Biphenyls [PCBs]) was observed at the west edge of the Property, as well as a limited amount of solid waste including an old wood boat, scrap wood, tires, and furniture around the outside of the structures.[34]

Soil Sampling

ENGEO collected 12 soil samples with hand sampling equipment from the depth interval of approximately one to seven inches below ground surface. The soil samples were submitted to a State-certified laboratory. Four discrete samples were analyzed for total arsenic by EPA Test Method 6020. Four composite samples (three to one) were analyzed for organochorine pesticides (OCPs) by EPA Test Method 8081. The results from the soil samples are as follows:

- Arsenic was detected at concentrations ranging from 6.9 to 10 mg/kg;
- DDE was detected in all four samples at concentrations ranging from 0.43 to 0.71 mg/kg; and
- DDT was detected in one sample at a concentration of 0.17 mg/kg.

All of the detected pesticide concentrations are less than the applicable residential screening levels. The reported arsenic concentrations are within the range of expected background levels in the Brentwood area.

Conclusion

The site reconnaissance and records review did not find documentation or physical evidence of soil or groundwater impairments associated with the use of the Balfour property. In addition, a review of regulatory databases maintained by county, State, and federal agencies did not find documentation of hazardous materials violations or discharge on the Balfour property. Based on the findings of the Phase I ESA, RECs and historical RECs were not identified for the Balfour property. However, given the age of the existing on-site structures, the possibility exists that asbestos-containing materials and lead-based paint materials may exist within the structures. In addition, one on-site well is not in compliance with State and local well ordinances and should be abandoned. The well abandonment would need to be permitted through Contra Costa County Environmental Health. Furthermore, septic tanks and/or leach fields are likely present on-site.

[34] ENGEO Inc. *Modified Phase I Environmental Site Assessment, Balfour Road [page 11]*. October 20, 2015.

Minnesota Property

The Phase I ESA prepared for the Minnesota property included review of a previous environmental report and environmental record sources, a reconnaissance of the property, four soil samples, and findings and conclusions.

Previous Environmental Report

A previous Phase I ESA was prepared for the adjacent property located at 101 Minnesota Avenue, dated April 24, 2015. The review of the previous environmental report indicated that the Minnesota property historically consisted of an almond orchard.

Environmental Record Sources

EDR performed a search of federal, tribal, State, and local databases regarding the project site and nearby properties. The project site was not listed on the environmental record sources; however, several properties within the appropriate ASTM search distance of the project site were listed. Based on the distances to the listed sites, regional topographic gradient, and the EDR findings, it is unlikely that the listed sites pose an environmental risk to the project site.[35]

Site Reconnaissance

ENGEO conducted a reconnaissance of the Minnesota property on October 12, 2015. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The project site was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks.

ENGEO did not identify any physical evidence of soil or groundwater impairments associated with the use of the property.

Soil Sampling

Given the past agricultural use of the Minnesota property, ENGEO collected four soil samples across the property from the depth interval of approximately zero to six inches below ground surface. Laboratory analysis of the soil samples included the following target analytes:

- OCPs (EPA 8081) - four discrete samples.
- Arsenic and Lead (EPA 6020) - four discrete samples.

[35] ENGEO Inc. *Modified Phase I Environmental Site Assessment, Minnesota Avenue [page 3]*. October 20, 2015.

According to the Phase I ESA prepared for the Minnesota property, ENGEO identified the reported OCP concentrations were below the applicable EPA Regional Screening Levels (RSLs) for residential land use. In addition, the arsenic concentrations range from 9.7 mg/kg to 11 mg/kg, with an average concentration of 10.4 mg/kg. The reported lead concentrations for the Property range from 17 mg/kg to 29 mg/kg, with an average concentration of 25.3 mg/kg. The arsenic and lead concentrations are within the expected range of background levels for the Brentwood area.[36]

Conclusion

The site reconnaissance, site survey, and records review did not find documentation or physical evidence of soil or groundwater impairments associated with the use of the Minnesota property. The reported OCP concentration are below the applicable screening levels for residential land use and the arsenic and lead concentrations are within the expected range of background levels for the Brentwood area. Therefore, based on the detected concentrations of arsenic, lead and pesticides in the soil, historical or current agricultural practices appear to not have had an adverse impact on the Minnesota property, and further environmental studies are not recommended.

Conclusion

Development of the proposed project would include the construction of 24 single-family residential homes and associated infrastructure on an 8.03-acre project site comprised of two parcels known as the Balfour property and the Minnesota property. The project site contains on-site water supply wells and, most likely, septic tanks and/or leach fields, which would require abandonment. In addition, the existing on-site structures were constructed prior to ACMs and lead-based paint being banned, and, as a result, the potential exists for asbestos and lead-based paint to be present in the on-site structures. Therefore, based on the analysis discussed above, development of the proposed project would result in a ***potentially significant*** impact regarding hazardous materials.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce potential impacts to a *less-than-significant* level.

VIII-1. *Prior to initiation of any ground disturbance activities within 50 feet of a well, the applicant shall hire a licensed well contractor to obtain a well abandonment permit from Contra Costa County Environmental Health Division, and properly abandon the on-site wells, pursuant to review and approval by the Contra Costa County Environmental Health Division.*

VIII-2. *Prior to initiation of any ground disturbance activities within 50 feet of a septic tank, the applicant shall hire a qualified geotechnical engineer to*

[36] ENGEO Inc. *Modified Phase I Environmental Site Assessment, Minnesota Avenue [page 6]*. October 20, 2015.

obtain a septic system construction permit from Contra Costa County Environmental Health Division, and properly abandon the on-site septic systems, pursuant to review and approval by the City Engineer and the Contra Costa County Environmental Health Division.

VIII-3. *Prior to issuance of a demolition permit by the City for any on-site structures, the project applicant shall provide a site assessment that determines whether any structures to be demolished contain lead based paint. If structures do not contain lead-based paint, further mitigation is not required. If lead-based paint is found, all loose and peeling paint shall be removed and disposed of by a licensed and certified lead paint removal contractor, in accordance with federal, State, and local regulations. The demolition contractor shall be informed that all paint on the buildings shall be considered as containing lead. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of construction waste containing lead paint in accordance with federal, State, and local regulations subject to approval by the City Engineer.*

VIII-4. *Prior to issuance of a demolition permit by the City for any on-site structures, the project applicant shall provide a site assessment that determines whether any structures to be demolished contain asbestos. If structures do not contain asbestos, further mitigation is not required.*

If any structures contain asbestos, the project applicant shall prepare a work plan to demonstrate how the on-site asbestos-containing materials shall be removed in accordance with current Cal-OSHA regulations and disposed of in accordance with all Cal-EPA regulations, as identified in the Asbestos Survey conducted for the proposed project. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos abatement contractor in accordance with Title 8 CCR 1529 and Title 8 CCR 1532.1 regarding asbestos training, engineering controls, and certifications. The applicant shall submit the work plan to the City Engineer and the Contra Costa County Department of Conservation and Development for review and approval.

VIII-5. *Materials containing more than one (1) percent asbestos that is friable are also subject to BAAQMD regulations. Removal of materials containing more than one (1) percent friable asbestos shall be completed in accordance with BAAQMD Section 11-2-303.*

c. While Montessori School is located directly adjacent to the west of the project site, the proposed project has limited potential for the routine transport, use, or disposal of hazardous materials as discussed above in Questions ‘a’ & ‘b’. The proposed single-family uses would not involve the routine transport, use, or dispose 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 one-quarter mile of an existing or proposed school.

d. According to the DTSC, the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, known as the Hazardous Waste and Substances Site List, the project area is not located on a site which is included on a list of hazardous materials sites.[37] Therefore, ***no impact*** would occur.

e,f. 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 3.9 miles northeast of the project site. Therefore, ***no impact*** would occur.

g. The Brentwood General Plan currently designates the proposed project site for low density single-family residential 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, a ***less-than-significant*** impact would result.

h. The site is not located within an area where wildland fires occur. The site is surrounded by development. It is also noted that the dense ruderal vegetation present on-site would be removed during construction, which would be expected to reduce the potential for a brush fire to occur at the project site.

In addition, the 2014 General Plan Update EIR evaluated impacts of development allowed under the General Plan placing people and/or structures in areas at significant risk of wildland fires and determined the impact to be less-than-significant. Given the fact that the 2014 General Plan designated the project site for development (R-LD), the impact of placing people and/or structures in areas at significant risk of wildland fires on the project site was already evaluated and considered in the General Plan Update EIR analysis. Furthermore, the proposed project would be required to comply with the provisions of federal, State, and local requirements related to wildland fire hazards, including State fire safety regulations associated with wildland-urban interfaces, fire-safe building standards, and defensible space requirements. Therefore, ***no impact*** would occur.

[37] Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: http://www.envirostor.dtsc.ca.gov/public/search.asp?cmd=search&reporttype=CORTESE&site_type=CSITES,OPEN,FUDS,CLOSE&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST. Accessed on April 18, 2016.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** *Would the project:*				
a.	Violate any water quality standards or waste discharge requirements?	☐	✖	☐	☐
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	✖	☐
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	✖	☐	☐
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	✖	☐	☐
e.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	✖	☐	☐
f.	Otherwise substantially degrade water quality?	☐	✖	☐	☐
g.	Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	✖	☐
h.	Place within a 100-year floodplain structures which would impede or redirect flood flows?	☐	☐	✖	☐
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	☐	☐	✖	☐
j.	Inundation by seiche, tsunami, or mudflow?	☐	☐	✖	☐

Discussion

a,f. 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, which would adversely affect water quality.

The 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.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

IX-1. Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The applicant 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 to the maximum extent practicable, which may include but are not necessarily limited to the following practices, or other BMPs identified in the California Stormwater Quality Association (CASQA) Construction BMP Handbook.

- *Temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) will be employed to control erosion from disturbed areas;*
- *Use a dry stormwater quality basin (which is typically dry except after a major rainstorm, when it will temporarily fill with stormwater), designed to decrease runoff during storm events,*

prevent flooding, and allow for off-peak discharge. Basin features will include maintenance schedules for the periodic removal of sediments, excessive vegetation, and debris that may clog basin inlets and outlets;

- *Cover, or apply nontoxic soil stabilizers to, inactive construction areas (previously graded areas inactive for 10 days or more) that could contribute sediment to waterways;*
- *Enclose and cover exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways;*
- *Ensure that no earth or organic material will be deposited or placed where it may be directly carried into a stream, marsh, slough, lagoon, or body of standing water;*
- *Prohibit the following types of materials from being rinsed or washed into the streets, shoulder areas, or gutters: concrete, solvents and adhesives, thinners, paints, fuels, sawdust, dirt, gasoline, asphalt and concrete saw slurry, and heavily chlorinated water; or,*
- *Ensure that grass or other vegetative cover will be established on the construction site as soon as possible after disturbance.*

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.

b. The City provides domestic, potable water to its residents using both surface water and groundwater resources. The City has seven active groundwater wells. Brentwood is located within the Tracy Subbasin of the San Joaquin Valley Groundwater Basin. While the project would create new impervious surface area on the site (e.g., approximately 148,817 sf of new impervious area), the Tracy Subbasin comprises 345,000 acres (539 square miles); therefore, recharge of the groundwater basin within which the project site is located comes from many sources over a broad geographic area.

In addition, the 2014 General Plan Update EIR evaluated impacts of development allowed under the General Plan substantially depleting groundwater supplies or interfering substantially with groundwater recharge and determined the impacts to be less-than-significant with implementation of the following General Plan policies and actions, combined with the City continuing to obtain surface water and reducing the consumption of groundwater.

Policy IF 2-1: Ensure the water system and supply is adequate to meet the needs of existing and future development.

Policy IF 2-2: Ensure safe drinking water standards are met throughout the community.

Policy IF 2-3: Continue to implement a comprehensive water strategy that balances the need to supply water to all users served by the City with potable water use reduction measures.

Policy IF 2-4: Pursue additional water supply agreements to supplement the City's existing system.

Policy IF 2-5: Continue efforts to reduce potable water use and increase water conservation.

Policy IF 2-6: Use recycled water for landscaping irrigation within City roadways, parks, and facilities to the greatest extent feasible.

Policy SA 1-7: Prevent land subsidence and maintain adequate groundwater supplies.

Policy SA 2-8: Encourage and accommodate multi-purpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of Brentwood's streams, creeks, and wetland/riparian areas. Where appropriate and feasible, the City shall also encourage the use of flood and/or storm water retention facilities for use as groundwater recharge facilities.

Action IF 2a: Routinely assess the City's ability to meet demand for potable water by periodically updating the Water Master Plan.

Action IF 2b: Explore additional permanent water sources through, and contract with, agencies that may have surplus water availability, such as the Contra Costa Water District, the East Bay Municipal Utility District, the East Contra Costa Irrigation District, and other potential sources.

Action IF 2c: Regularly review and update the City's water conservation strategy to be consistent with current best management practices for water conservation, considering measures recommended by the State Department of Water Resources, the California Urban Water Conservation Council, and the Contra Costa Water District.

Action SA 1k: Monitor withdrawal of groundwater, oil, and gas, maintain land elevation records, and regulate overdraft to prevent subsidence.

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 within the Brentwood General Plan area (as is explained in detail in Section XVII, Question 'd', of this IS/MND). The project itself does not include installation of any wells, but would rather include connections to existing water lines in Balfour Road, Pondilly Lane, and Minnesota Avenue.

Therefore, given the fact that the 2014 General Plan designated the project site for development (R-LD), the impacts 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 was already evaluated and considered in the General Plan Update EIR analysis. Thus, the new impervious surfaces associated with the project would not cause a substantial depletion of recharge within the Tracy Subbasin and a ***less-than-significant*** impact would occur.

c-e. The project site is located within the Marsh Creek Watershed. The Marsh Creek Watershed drains the east side of Mt. Diablo, and covers about 128 square miles of rangeland, farmland, protected parkland, and urban land. The watershed flows approximately 30 river miles from the creeks headwaters in Morgan Territory Preserve through Brentwood and Oakley to empty into the Delta at Big Break.[38] According to the SWCP prepared for the project, development of the proposed project on the 8.03-acre project site would result in the creation of approximately 148,817 sf of new impervious surface area.

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 sf 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. In addition, the project site is within Drainage Area 105 and the applicant is required to pay the applicable Contra Costa County Flood Control & Water Conservation District (CCCFCWCD) drainage fees.

The proposed project includes a 0.48-acre parcel (Parcel A) in the southeastern corner of the project site, which would contain a 20,700-square foot bio-retention basin to fulfill the C.3 requirements for the runoff generated by the project improvements. Runoff from roofs, driveways, sidewalks and roads would be directed into the storm drain system under the roads and into the bio-filtration facility.

As demonstrated in the SWCP prepared for the proposed project, the bio-retention basin proposed for the project would exceed the minimum sizing requirement with respect to treatment area volume (minimum area based upon proposed impervious area is 5,953 sf, and proposed volume is 20,700 sf).

[38] Contra Costa Resource Conservation District. *Marsh Creek Watershed*. Available at: http://www.ccrcd.org/marsh.html. Accessed July 24, 2014.

Upon being treated within the proposed on-site bio-retention basin, project runoff would be metered through the City's system into the existing storm drain pipe in Minnesota Avenue, which ultimately drains to Marsh Creek.

The SWCP sets forth an adequate stormwater treatment system for the project consisting of an on-site bio-retention swale for water quality treatment purposes. This bio-retention basin would need to be maintained properly so that the on-site treatment system functions properly. A long-term maintenance plan is needed to ensure that all proposed stormwater treatment BMPs function properly. Should the proposed water quality treatment facility not be maintained properly, a ***potentially significant*** impact could occur with respect to creating or contributing runoff water which would exceed the capacity of existing or planned stormwater drainage systems or providing substantial additional sources of polluted runoff.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the impact to a *less-than-significant* level.

IX-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 applicant shall be responsible for paying 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 trash, inspect drain pipes and 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).*

IX-3. *Contra Costa County Flood Control & Water Conservation District drainage fees for the Drainage Areas shall be paid by the applicant prior to approval of any Final Map.*

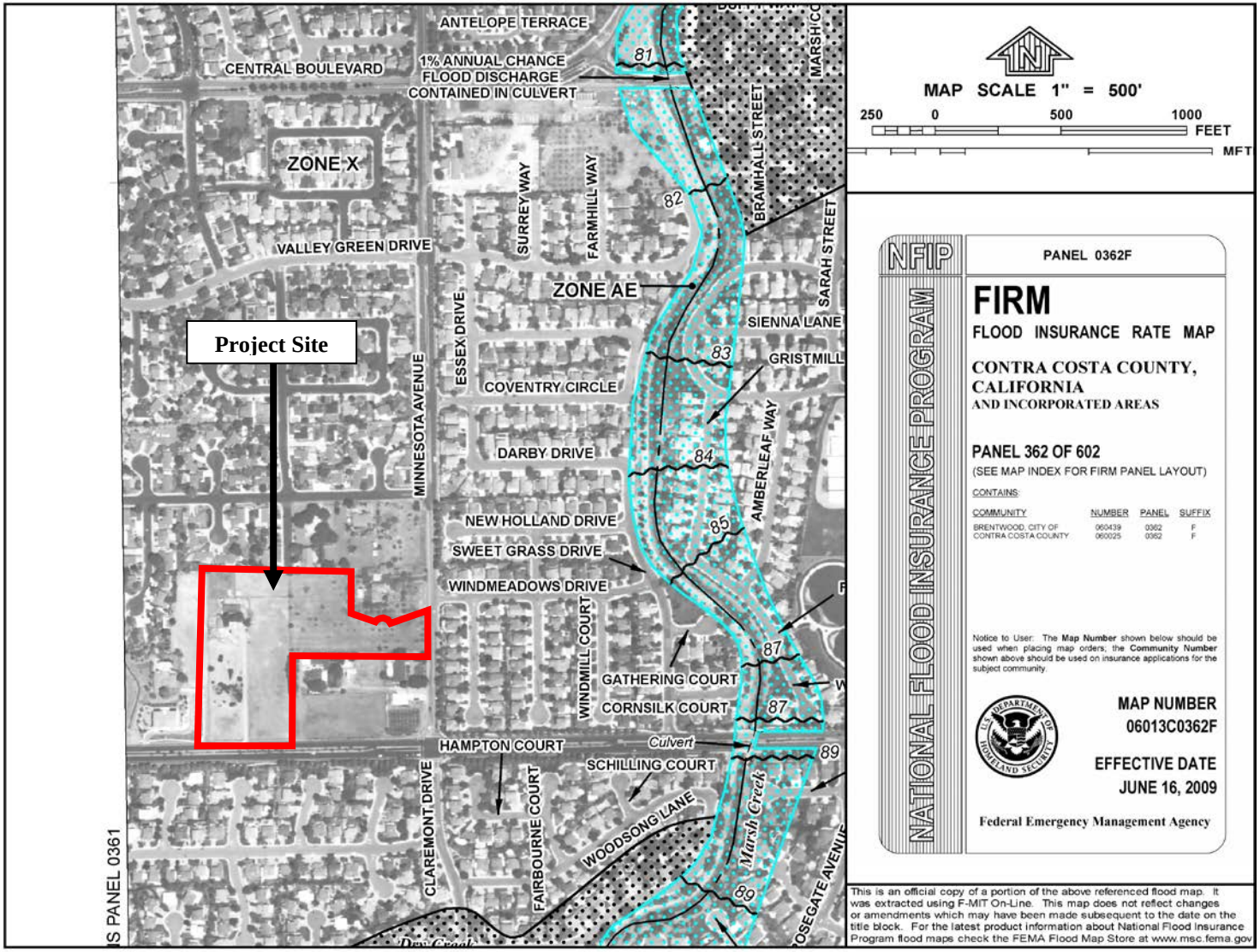
g-i. Based on the FEMA Flood Insurance Rate Map (FIRM), (Map Number ID: 06013C0362F), the project site is within Zone X, which is described by FEMA as an area determined to be outside the 0.2 percent annual chance floodplain (see Figure 12). In addition, based on site elevations and distance from water sources, flooding is not expected at the subject site.[39] Thus, development of the proposed project would not place structures within a 100-year floodplain or expose people or structures to a risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam. Accordingly, restrictions on development or special requirements associated with flooding are not required for the project. Therefore, the proposed project would result in a ***less-than-significant*** impact related to flooding.

j. Tsunamis are defined as sea waves created by undersea fault movement. 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. Waves may reach 50 feet in height on unprotected coasts. 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 would not result.

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 would not result. Mudflows typically occur in mountainous or hilly terrain. Given the existing and proposed flat topography of the project site, risks from mudflows and adverse impacts would not result. Therefore, potential impacts resulting from tsunamis, seiches, or mudslides would be ***less than significant***.

[39] ENGEO Inc. *Geotechnical Exploration, Catchings Ranch, Brentwood, California [page 6]*. September 25, 2015.

Figure 12
FEMA Flood Insurance Rate Map



Source: Federal Emergency Management Agency, June 16, 2009.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
X. LAND USE AND PLANNING. *Would the project:*				
a. Physically divide an established community?	☐	☐	✖	☐
b. Conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating on environmental effect?	☐	☐	✖	☐
c. Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	✖	☐

Discussion

a. The City of Brentwood General Plan 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. The 8.03-acre project site is predominately vacant with ruderal annual grassland vegetation, scattered trees, and two existing, vacant structures. The on-site structures would be removed as part of the project; however, two vacant structures do not constitute an established community. In addition, the project site is zoned for single-family residential and is surrounded by residential development. Therefore, the proposed project would serve as infill development, and would have a ***less-than-significant*** impact with respect to dividing an existing community.

b. The Brentwood General Plan identifies the project site as R-LD. According to the Brentwood General Plan, the permitted density range is 1.1 to 5.0 units per acre (du/ac), with a mid-range of 3.0 du/ac. The proposed project consists of the development of 24 single-family detached residential units on 8.03 acres, which results in approximately 3 du/ac. Therefore, the proposed project is consistent with the site's existing General Plan land use designation. In addition, the proposed project is consistent with the existing R-1 zoning district for the site. In accordance with Section 17.820.007 of the Brentwood Zoning Ordinance, the applicant is seeking design review approval by the City of Brentwood Planning Commission. As a result, the project's impact related to conflicts with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating on environmental effect would be ***less than significant***.

c. As described above in the Biological Resources section of this IS/MND, the City of Brentwood has adopted and is subject to the ECCCHCP. However, according to Figure 3-3: Landcover in the Inventory Area map of the ECCCHCP, the project site is mapped with a

land cover type of Urban.[40] According to Section 16.168.030 of the Brentwood Municipal Code, the ECCCHCP shall apply to all projects except any project that is contained entirely within an area mapped as urban, turf, landfill and/or aqueduct land cover types as depicted in the ECCCHCP. Thus, the proposed project would not be required to pay Development Fees associated with the ECCCHCP. 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 a ***less-than-significant*** impact.

[40] Contra Costa County. *The Final East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan*. October 2006.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XI. MINERAL RESOURCES. *Would the project:*				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	✖	☐
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?	☐	☐	✖	☐

Discussion

a,b. The 2014 Brentwood General Plan Update EIR identifies coal, oil and gas, and sand as the significant mineral resources within the area. However, 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.[41] Therefore, the project would have a ***less-than-significant*** impact regarding the loss of availability of a known mineral resource that would be of value to the region.

[41] City of Brentwood. *2014 Brentwood General Plan Update EIR [pg.3.6-45]*. July 2014.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XII.	**NOISE.** *Would the project result in:*				
	a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	✖	☐	☐
	b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	✖	☐
	c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	✖	☐
	d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	✖	☐	☐
	e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	✖	☐
	f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	✖	☐

Discussion

a. This section is based upon the project-specific noise report prepared by RGD Acoustics, dated March 29, 2016.[42]

Significance Criteria

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

[42] RGD Acoustics. *Site Noise Assessment for: 3441 Balfour Road.* March 29, 2016.

- 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, exterior and interior noise levels of 60 dB L_{dn} and 45 dB L_{dn}, respectively, for residential uses exposed to transportation noise sources. Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL, or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are 45 dB L_{dn} or less.

Existing Noise Environment

The primary existing noise source that affects the project site is vehicular traffic on Balfour Road and Minnesota Avenue. To quantify existing noise levels, two continuous long-term (24-hour) noise measurement and three short-term (15 minute) noise measurements were made on the project site (see Figure 13).

The dominant noise source at all measurement locations was traffic on Balfour Road and Minnesota Avenue. Figure 14 and Figure 15 illustrate the average and maximum sound levels at LT-1 and LT-2 for 15 minute intervals during the entire 24-hour monitoring period. The short-term measurement results were correlated with simultaneous measurements at the long-term monitoring location to determine the L_{dn} at the short term measurement locations (see Table 4).

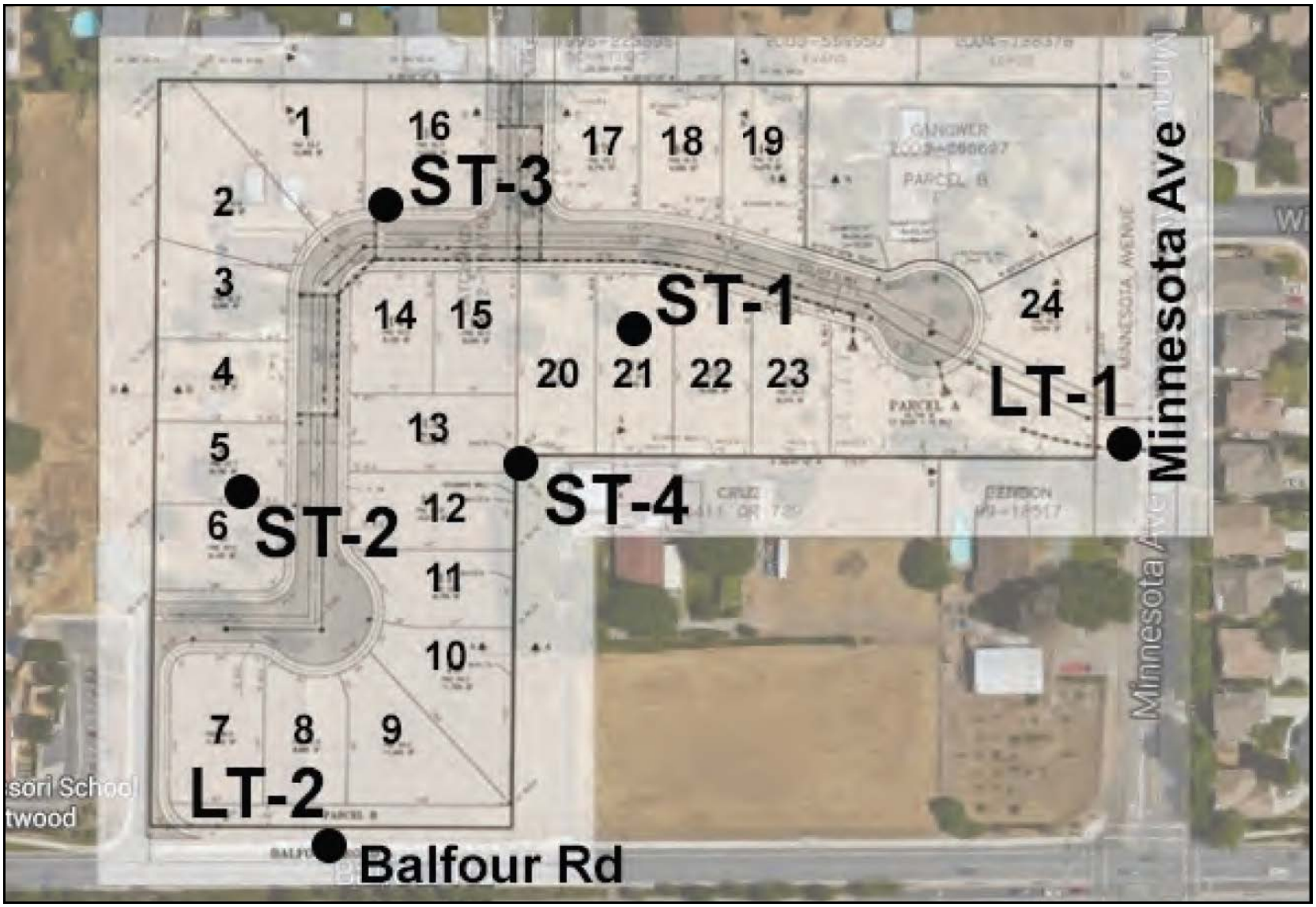
Table 5
Short-term Noise Measurement Results

Location		Time	A-weighted Sound Level, dBA		
			L_{eq}	L_{max}	L_{dn}[1]
ST-1	Parcel 21, 5' above ground	10/13/15 6:37 – 6:52 PM	47	51	47
ST-2	Parcel 5, 5' above ground	10/13/15 6:58 – 7:13 PM	49	55	52
ST-3	Parcel 16, 5' above ground	10/13/15 7:15 – 7:30 PM	46	60	49
ST-4	Next to vehicle repair shop, 5' above ground	10/22/15 11:45 AM – 6:30 PM	50	71	N/A

Notes:
1. Ldn based on comparison with simultaneous measurement at the long-term location.

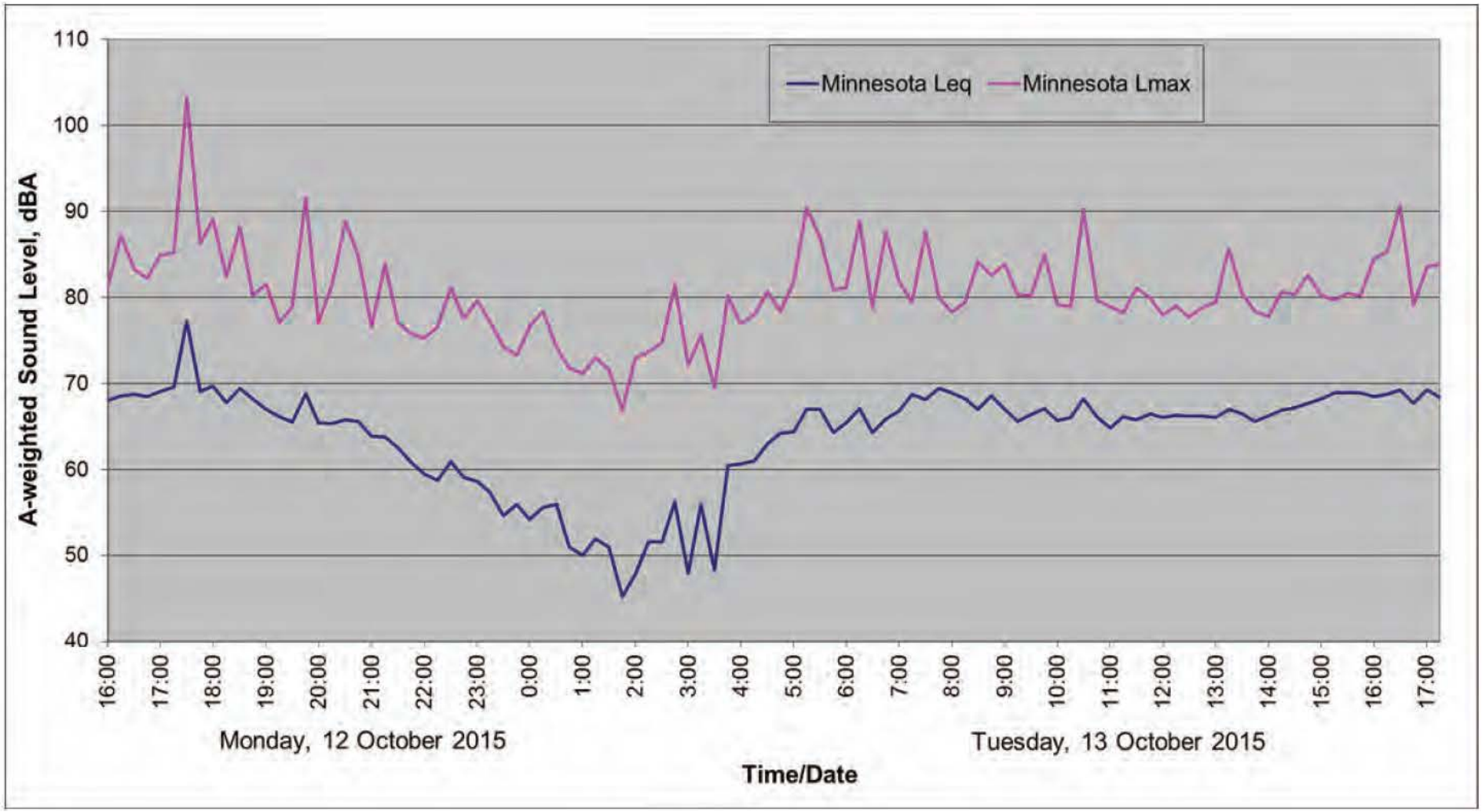
Source: RGD Acoustics, March 2016.

Figure 13
Noise Measurement Locations



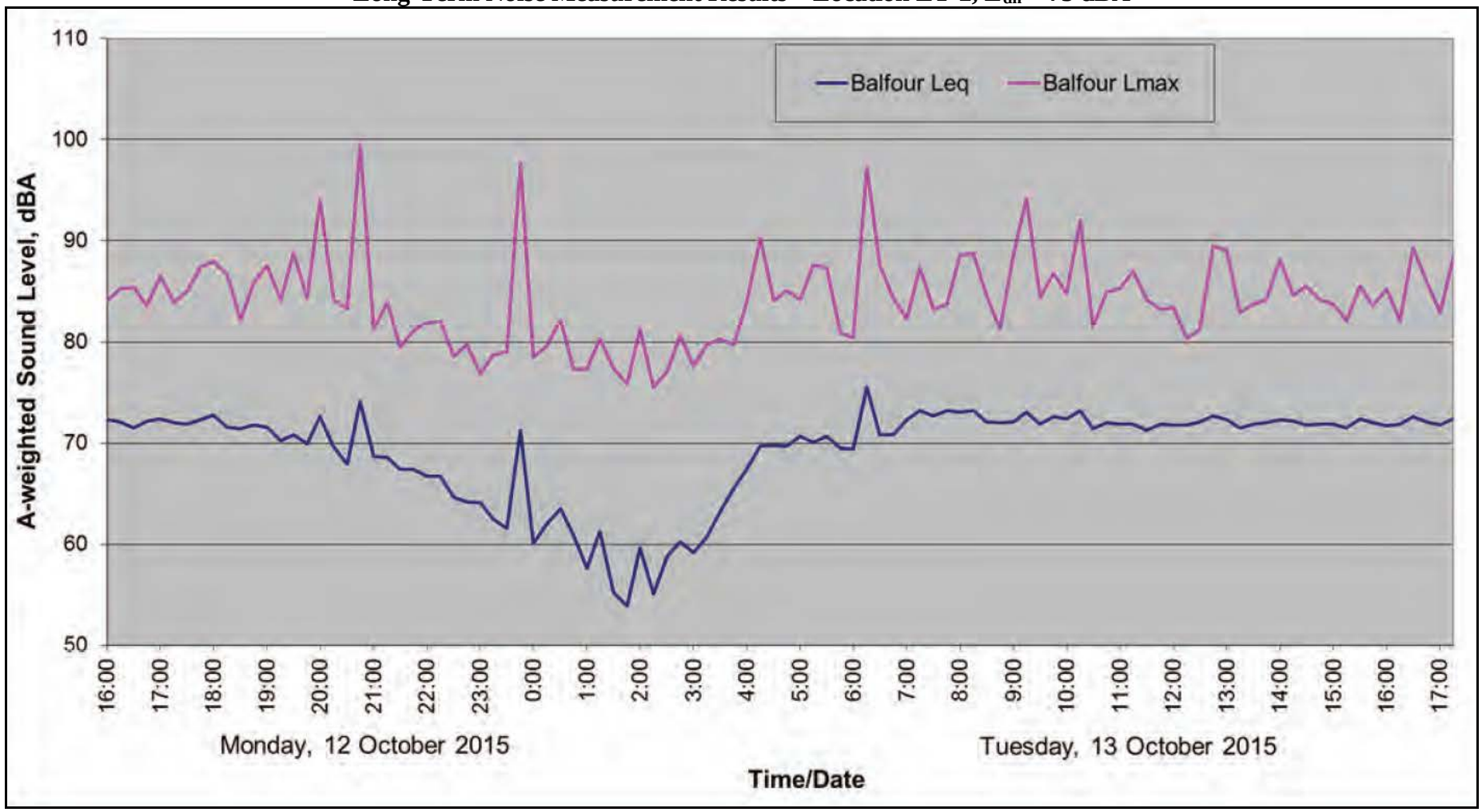
Source: RGD Acoustics, March 2016.

Figure 14
Long-Term Noise Measurement Results – Location LT-1, L_{dn} = 70 dBA



Source: RGD Acoustics, March 2016.

Figure 15
Long-Term Noise Measurement Results – Location LT-2, L_{dn} = 75 dBA



Source: RGD Acoustics, March 2016.

The City of Brentwood General Plan provides noise contours and future traffic volumes for major roadways in the project area. According to the General Plan, traffic volumes would increase by 34 percent from 2001 to 2021 along Balfour Road. The same increase was assumed by the project noise consultant for Minnesota Avenue. The increase in traffic volumes corresponds to a 0.5 dBA increase in future traffic noise from Balfour Road and Minnesota Avenue from 2015 and 2021.

Impact Analysis

The anticipated exterior and interior noise levels at the future project residences, as well as the noise associated with the repair shop, are presented in further detail below.

Exterior Noise

Policy N 1-2 of the City's Noise Element requires that new single-family residential projects meet acceptable exterior noise levels. According to the City, an L_{dn} of 60 dBA or less is considered "normally acceptable."

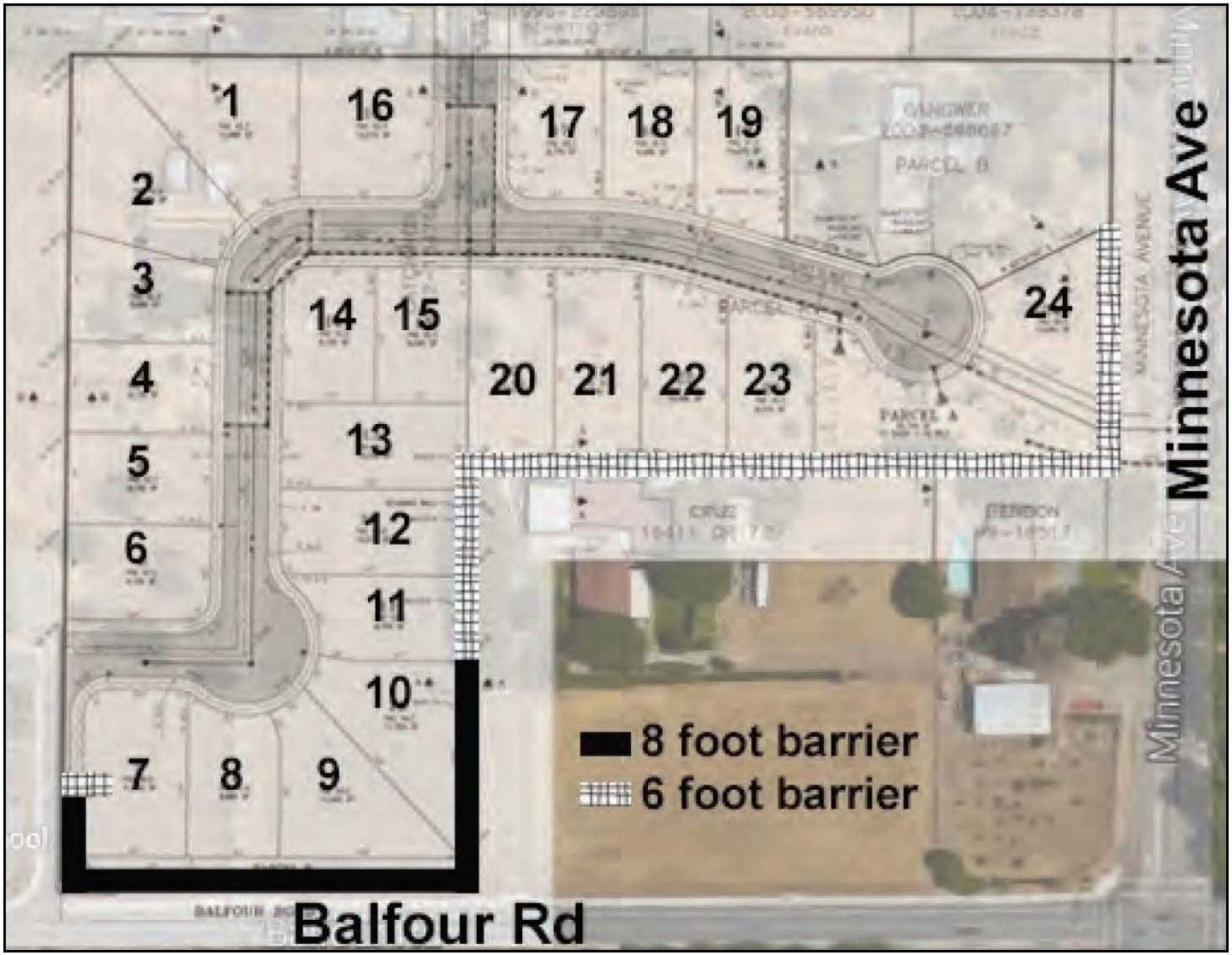
Based on the noise measurements and future traffic projections, outdoor use areas (backyards) within 160 feet of the curb on Balfour Road, specifically parcels seven through 10, would be exposed to noise levels greater than an L_{dn} of 60 dBA presuming the backyard is between Balfour Road and the home. Parcels seven through 10 would require an eight foot tall property line noise barrier in order to achieve noise levels considered "allowable." The backyard of parcel 24 along Minnesota Avenue would require a six foot tall noise barrier to meet City requirements, as shown on Figure 16.

All other units would be exposed to an L_{dn} of less than 60 dBA. For example, the maximum exterior noise exposure would be an L_{dn} of 48 dBA in the outdoor use area of parcel 21 (ST-1), L_{dn} of 53 dBA in parcel five (ST-2), and L_{dn} of 50 dBA in parcel 16 (ST-3), which would be considered "normally acceptable" for single-family residential dwellings according to the City's Noise Element.

According to the City, stationary noise sources must not exceed a L_{eq} of 55 dBA and L_{max} of 70 dBA at the property line of the residential land use during daytime hours (7:00 AM – 10:00 PM). Measurements made adjacent to the vehicle repair shop (ST-4) demonstrate that noise levels from activities at the shop did not exceed these standards.

In order to minimize potential disturbance to those parcels adjacent to the shop, a six foot tall property line barrier is recommended to be extended along yards of lots 11, 12, 13, 20, 21, 22 23 and 24, as shown on Figure 16.

Figure 16
Recommended Noise Barrier Locations



Source: RGD Acoustics, March 2016.

Interior Noise

Policy N-1-14 of the City's Noise Element requires that interior noise levels in new single-family housing projects meet an L_{dn} of 45 dBA. Typical single-family residential construction with dual glazed windows provide about 25 dBA of noise reduction with windows closed. Therefore, standard dual glazed windows would likely suffice to reduce noise to the City's goal in most instances. However, depending on the final design and specifically, for parcels closest to Balfour Road, there may be a need for sound rated windows or exterior doors with sound transmission class (STC) ratings of up to STC 31. The exact window and door sound ratings would depend on the final design of the buildings including the size of windows/doors and composition of exterior walls.

A final determination of the required window and door sound ratings should be made during the architectural design phase to assure that the interior goal of 45 dBA (L_{dn}) is achieved. In addition, most dwelling units would need to have windows in their closed position to meet the indoor noise standard. Therefore, the dwelling units would need an air conditioning or ventilation system in order to provide a habitable environment and meet current State Building Code ventilation requirements.

Conclusion

Development of the proposed project could result in exposure of future residential receptors to adverse traffic noise levels along Minnesota Avenue and Balfour Road, which could exceed the exterior noise level standards applied to new residential developments by the City of Brentwood. Therefore future traffic noise could result in a ***potentially significant*** noise impact at the project site.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the impact to a *less-than-significant* level.

XII-1. *Prior to issuance of building permits, the construction drawings shall show the recommended noise barriers, as per Figure 16 of this IS/MND. The final design of the noise barriers shall be approved by the Building Official.*

XII-2. *Prior to issuance of buildings permits for any residential unit, the construction drawings shall include a suitable form of forced-air mechanical ventilation for each unit, as determined by the Brentwood Building Official, so that windows could be kept closed at the occupant's discretion to control interior noise and achieve the City's interior 45 dBA L_{dn} noise standard.*

XII-3. *Prior to issuance of building permits, a qualified acoustical consultant shall review final site plans, building elevations, and floor plans prior to construction to calculate expected interior noise levels as required by the City of Brentwood to confirm that the design results in interior noise levels*

reduced to 45 dBA CNEL or lower. The specific determination of what noise insulation treatments are necessary shall be conducted on a unit-by-unit basis. Results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City along with the building plans and approved prior to issuance of a building permit. Potential measures could include, but would not be limited to, incorporation of noise-insulating building materials such as windows or exterior doors with STC ratings of up to STC 31. The exact window and door sound ratings would depend on the final design of the buildings including the size of windows/doors and composition of exterior walls.

b. The construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams) are used. Construction activities would include excavation, site preparation work, foundation work, and new building framing and finishing. The proposed project would not require pile driving, which could cause excessive vibration.

For structural damage, the California Department of Transportation uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV), for buildings structurally sound and designed to modern engineering standards; 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern; and a conservative limit of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened. Table 5 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet.

Table 6
Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 ft (in/sec)
Vibratory Roller	0.210
Large Bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: Caltrans, June 2004.

Project construction activities, such as drilling, the use of jackhammers, and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate substantial vibration in the immediate vicinity. Jackhammers typically generate vibration levels of 0.035 in/sec PPV, and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Vibration levels would be expected to be 0.2 in/sec PPV or less, below the 0.3 in/sec PPV significance threshold utilized for this analysis. The nearest vibration-sensitive receptors would be: the existing surrounding residential uses and the Montessori School to the west. Vibration generated by construction activities could at times be perceptible at these locations; however, the construction-generated vibrations would not be expected to result in "architectural" damage to these structures. Therefore, the

project would have a ***less-than-significant*** impact with respect to exposing persons to or generating excessive groundborne vibration levels.

c. As described above, the project could result in approximately 230 average daily weekday trips. The increase in traffic noise resulting from additional vehicle traffic generated from the proposed project could impact residential receptors in the area if the traffic noise levels attributable to the project exceed the Federal Interagency Committee on Noise (FICON) thresholds listed in Table 6. The FICON thresholds shown in the table are the relevant thresholds established in Policy N 1-7 of the 2014 Brentwood General Plan Update.

Table 7
Changes in Noise Exposure Threshold

Ambient Noise Level Without Project (Ldn)	Increase Required for Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: 2014 Brentwood General Plan Update EIR, July 22, 2014.

The 2014 Brentwood General Plan Update EIR analyzed traffic noise levels on surrounding roadways under existing ambient conditions and General Plan buildout conditions. The estimated traffic noise levels per the General Plan Update EIR noise analysis are presented in Table 7 for the roadway segments nearest to the project site.

Table 8
Traffic Noise Levels

Roadway	Segment	Noise Levels (dB, L_{dn},)[1]			Distance to Traffic Noise Contours[2]		
		Existing	General Plan Buildout	Change (dB)	70 dB L_{dn}	65 dB L_{dn}	60 dB L_{dn}
Balfour Road	Fairview Avenue to Minnesota Avenue	62.1	64.7	2.6	51	110	236
Minnesota Avenue	Sand Creek Road to Balfour Road	55.2	56.5	1.3	7	15	32

Notes:
1. Traffic noise level are predicted at the closest sensitive receptor.
2. Noise contours are measured in feet from roadway centerlines and account for areas which are primarily shielded by Soundwalls.

Source: 2014 Brentwood General Plan Update, July 22, 2014.

As shown in Table 7, existing ambient traffic noise for Balfour Road, from Fairview Avenue to Minnesota Avenue, is 62.1 dB L_{dn}, and the projected traffic noise level along this roadway under General Plan buildout would be 64.7 dB L_{dn}, which represents an increase in traffic noise of 2.6 dB L_{dn}. The increase in traffic noise along Minnesota Avenue, under General Plan buildout, would be 1.3 dB L_{dn}.

Given the fact that the 2014 General Plan designated the project site for development (R-LD), and the proposed project is consistent with the residential densities allowable with the R-LD designation, the increase in traffic noise resulting from additional vehicle traffic generated from the proposed project has already been evaluated and considered in the General Plan Update EIR analysis. Because the projected increase in traffic noise levels along the roadways bordering the site would not exceed the relevant FICON thresholds, even under General Plan buildout conditions, the conclusion can be made that the proposed project's increase in traffic noise would result in a ***less-than-significant*** impact.

d. Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. The highest maximum noise levels generated by project construction would typically range from about 90 to 95 dBA at a distance of 50 feet from the noise source. Typical hourly average construction-generated noise levels are about 81 to 88 dBA measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). Hourly average noise levels generated by the construction of residential units would range from about 65 to 88 dBA measured at a distance of 50 feet, depending upon the amount of activity at the site. Construction-generated noise levels drop off at a rate of about six dBA per doubling of distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors.

All exterior construction at the project site would be completed first, and once construction moves indoors, minimal noise would be generated at off-site locations. Noise generated by construction activities would temporarily elevate noise levels at adjacent noise-sensitive receptors, but this would be considered a less-than-significant impact if construction activities are conducted in accordance with the provisions of the City of Brentwood Municipal Code and with the implementation of construction BMPs. Should project construction not comply with the City's allowable construction hours, nor incorporate construction noise BMPs, a ***potentially significant*** temporary construction noise impact could result.

Mitigation Measure(s)

Implementation of the following mitigation measures would ensure the impact is *less-than-significant*.

XII-4. *The project contractor shall ensure that construction activities shall be limited to the hours set forth in Brentwood Municipal Code Section 9.32.050, as follows:*

Outside Heavy Construction:

Monday-Friday	*8:00 AM to 5:00 PM*
Saturday	*9:00 AM to 4:00 PM*

Outside Carpentry Construction:

Monday-Friday	*7:00 AM to 7:00 PM*
Saturday	*9:00 AM to 5:00 PM*

Construction shall be prohibited on Sundays and City holidays. The construction activities hours 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.

XII-5. *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, which are in good condition and appropriate for the equipment.*
- *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.*
- *The required construction-related noise mitigation plan shall also specify that haul truck deliveries are subject to the same hours specified for construction equipment.*
- *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.

e,f. The project site is not located near an existing airport and is not within an area covered by an existing airport land use plan. The nearest airport, Funny Farm Airfield, is a private airfield located approximately 3.9 miles northeast 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, a ***less-than-significant*** impact would occur.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIII.	**POPULATION AND HOUSING.** *Would the project:*				
a.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	✖	☐
b.	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	✖	☐
c.	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	✖	☐

Discussion

a. The 2014 General Plan designated the project site for development (R-LD), and the proposed project is consistent with the residential densities allowable with the R-LD designation. Therefore, the proposed project would directly induce population growth in the area through the proposed construction of 24 single-family dwelling units, generating approximately 78 additional residents (based on 3.22 persons per household[43]). 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, public service providers, such as police and fire, could accommodate the additional demands for service created by the project. As a result, the project would have a ***less-than-significant*** impact with respect to inducing population growth because the demands resulting from said growth could be accommodated by existing utility systems and service providers.

b,c. The project site is predominantly vacant with ruderal grassland and scattered trees. Two existing vacant buildings occupy a portion of the site, which would be removed as part of the proposed project. The removal of the two vacant buildings does not necessitate the construction of replacement housing elsewhere. Therefore, approval and implementation of the proposed project would neither displace a large number of housing nor necessitate the construction of replacement housing, and the project would result in a ***less-than-significant*** impact.

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

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

Discussion

a, The proposed project is located within the jurisdiction of the ECCFPD. According to the 2014 Brentwood General Plan Update EIR, the ECCFPD has a total of 34 personnel: three Chiefs, 12 Captains, 12 Engineers, and 10 Firefighters.[44] The District is currently staffed with three stations, one station in Oakley, one in Discovery Bay, and one in Brentwood.

- Station 52, at 201 John Muir Parkway, Brentwood
- Station 59, at 1685 Bixler Road, Discovery Bay
- Station 93, at 530 O'Hara Avenue, Oakley
- Station 94, at 15 A Street, Knightsen (Will re-open on July 1, 2016)

The City of Brentwood is served by Station 52, the nearest station to the project site, which is located approximately 1.15 miles to the west.

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 ensure that fire 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 actions 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;

[44] City of Brentwood. *2014 Brentwood General Plan Update EIR [pg. 3.12-2]*. July 22, 2014.

- 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 ECCFPD 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 $700 per new single-family residence. The City also has Community Facilities Districts (special tax revenue) that support emergency police and fire services. These funds amount to approximately $730 per year per home and could be used to fund new facilities, maintain existing facilities and equipment, and pay for salaries and benefits. In addition to providing additional revenue for fire facilities, the project would be required to comply with all ECCFPD 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.

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.[45] 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.

b. 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. The Department currently has 62 sworn police officers and another 17 civilian support staff. In addition to the permanent staff, the Department has approximately 20 volunteers who are citizens of the community and assist with day to day operations.

[45] 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 ensure 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 would be required by the City to comply with these policies and actions. Therefore, consistent with the General Plan EIR conclusion related to governmental facility impacts resulting from General Plan buildout, 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.

c. 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 three comprehensive high schools: Liberty High, Freedom High, and Heritage High. In addition, the District includes one continuation high school, La Paloma, and one alternative high school, Independence High School. The LUHSD student generation factors for grades 9-12 are 0.2074 for single-family detached units. With 24 single-family units, the project is expected to generate approximately five new high school students.

The BUSD consists of eight elementary schools and three middle schools. Utilizing the District's current Student Generation Rates, the 24 single-family units proposed for the proposed project would introduce approximately 10 new K-6th students (24 x 0.402) to the District and three new 7-8th students (24 x 0.118).

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." Therefore, the applicant would be required to pay school impact fees, without which the project could result in a ***potentially significant***

impact.

Mitigation Measure(s)

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

XIV-1. *Prior to building permit issuance for any residence, 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.*

d. The proposed project includes the construction of 24 single-family residences. Applying the Brentwood standard of 3.22 residents per dwelling unit, the proposed project would create housing for approximately 78 additional residents. The Brentwood General Plan calls for five acres of park per 1,000 residents. The proposed project would thus require approximately 0.39 acre of park space for these additional residents. The proposed project does not include any active park space. Therefore, the proposed project's impact related to the provision of adequate parks would be ***potentially significant***.

Mitigation Measure(s)

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

XIV-2. *Prior to the recordation of final map(s), in accordance with Section 16.150.030 of the Brentwood Municipal Code, the project applicant shall pay the required park in-lieu fees as determined by the Community Development Department.*

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XV.	**RECREATION.** *Would the project:*				
	a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	✖	☐	☐
	b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	✖	☐	☐

Discussion

a,b. As explained above in Question 'd' of the Public Services section, the VTSM for the proposed project does not include sufficient park land acreage for the 24 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***.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

XV-1. Implementation of Mitigation Measure XIV-2.

Issues		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVI.	**TRANSPORTATION/TRAFFIC.** *Would the project:*				
a.	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	✖	☐
b.	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	✖	☐
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	✖
d.	Substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	✖	☐
e.	Result in inadequate emergency access?	☐	☐	✖	☐
f.	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	✖	☐

Discussion

a,b. The project site could be accessed by Balfour Road and Pondilly Lane. Balfour Road provides access to SR 4.

Weekday AM, PM, and daily trip generation forecasts were made for the project using the Single-Family Dwelling Unit (Land Use 210) rates identified in the ITE Trip Generation Manual. As shown in Table 8, implementation of the proposed project would result in 229 new daily vehicle trips with 18 new AM and 24 new PM peak hour vehicle trips.

Table 9
Weekday Project Trip Generation Rates and Estimates

			AM Peak Hour				PM Peak Hour			
Units	**Rate**	**Trips**	**Rate**	**In**	**Out**	**Total**	**Rate**	**In**	**Out**	**Total**
24	9.52	229	0.75	5	13	18	1.00	16	8	24

Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition (2012).

According to the Contra Costa Transportation Authority (CCTA) Congestion Management Plan (CMP), any land development application generating less than 100 peak hour trips is not required to prepare a study of its traffic impacts on the CMP network.[46]

Due to the low number of project-generated trips, the project would not be expected to adversely impact levels of service at nearby signalized intersections. In addition, the 2014 Brentwood General Plan Update EIR concluded implementation of the General Plan would result in acceptable operation of LOS D or better at all study intersections throughout the City.[47] The project is consistent with the General Plan designation for the site; therefore, the additional vehicle trips resulting from development of the proposed project has already been evaluated in the General Plan EIR. In addition, the project is required to pay the City's Roadway Facility Fee. Therefore, the proposed project, consistent with the General Plan EIR determination, would result in a ***less-than-significant*** traffic impact.

c. The proposed project would not require any changes to existing regional air traffic activity and the nearest airport, Funny Farm Airfield, is a private airfield located approximately 3.9 miles northeast of the project site. Therefore, ***no impact*** would occur.

d,e. Construction of new or alteration of existing roadways or intersections are not included in the project. In addition, the proposed new internal roadway would be designed consistent with City's roadway standards, including the following policies from the Brentwood General Plan:

Policy CIR 1-9: Provide high quality regular maintenance for existing and future transportation facilities including streets, sidewalks, and paths.

Policy CIR 2-4: Create an accessible circulation network that is consistent with guidelines established by the Americans with Disabilities Act (ADA), allowing mobility-impaired users such as the disabled and elderly to safely and effectively travel within and beyond the City.

Policy CIR 2-11: Design safe crossings where trails and roads meet.

Policy CIR 3-6: Ensure that the City's adopted street standards reflect a multi-modal focus, including vehicular lane widths that are no wider than necessary to serve the surrounding land use context and accommodate emergency vehicles.

Policy CIR 3-9: Design intersections to provide adequate and safe access for all users including pedestrians, bicyclists, and motorists of all ages and abilities.

Therefore, the proposed project would not increase hazards due to a design feature, such as a sharp curve or dangerous intersection, or incompatible uses, such as farming equipment.

[46] Contra Costa Transportation Authority. 2011 Contra Costa Congestion Management Program [page 62]. Adopted November 16, 2011.

[47] City of Brentwood. *2014 Brentwood General Plan Update EIR [pg. 3.13-38]*. July 22, 2014.

Furthermore, the proposed project includes three access points on Balfour Road, Pondilly Lane, and Minnesota Avenue. Thus, the proposed project would have a ***less-than-significant*** impact related to emergency access and hazardous design features.

f. The following section discusses the availability of transit, bicycle, and pedestrian facilities in and around the project area.

Transit Facilities

Transit service in the City of Brentwood is provided by Tri-Delta Transit (TDT). TDT currently operates two routes (385 and 395) on weekdays and one route on weekends (395), both of which serve the project area. Route 385 runs between the Antioch Park & Ride (Hillcrest) and the Brentwood Park & Ride, using local streets including Hillcrest Avenue, Lone Tree Way, Sand Creek Road, Fairview Avenue, and Balfour Road. The nearest Route 385 bus stop to the project site is at the Balfour Road and Clearview Drive intersection, approximately 375 feet west of the project site. The weekend route, Route 395, runs from the Antioch Park & Ride (Hillcrest) south on SR 4 to Lone Tree Way, where the route heads east and then south to connect with Sand Creek Road before heading north on SR 4 back to the Antioch Park & Ride. The proposed project includes the development of 24 single-family homes, which would result in a small increase in ridership. In addition, the proposed project would not conflict with any transit plans or goals of the City or the CCTA, or interfere with any existing bus routes and would not remove or relocate any existing bus stops. A portion of the proposed project's residents are expected to utilize connections to the future Hillcrest Avenue E-BART station and would provide additional ridership for local bus companies.

Bicycle and Pedestrian Facilities

The proposed project would generate additional bicycle and pedestrian traffic in the area, thereby potentially increasing conflicts between vehicles, bicycles, and pedestrians. However, in general, the proposed project would not generate a significant increase in pedestrian and bicycle traffic in the area given the size of the proposed project. In addition, the proposed project would not significantly impact or change the design of any existing bicycle and pedestrian facilities, or create any new safety problems in the area. Furthermore, the project would construct necessary on-site sidewalks, walkways, and other amenities in compliance with adopted policies, plans and programs of the City of Brentwood.

Pedestrian facilities in the study area include sidewalks, crosswalks, pedestrian signals and multi-use trails. Roadways in the study area generally provide sidewalks and crosswalks on both sides of the street. Balfour Road, adjacent to the project site to the south, and Minnesota Avenue to the east, have Class II bicycle facilities.[48]

[48] Bicycle facilities include the following:
- *Bike paths (Class I)* - Paved trails that are separated from roadways, and are shared with pedestrians.
- *Bike lanes (Class II)* - Lanes on roadways designated for use by bicycles through striping, pavement legends, and signs.
- *Bike routes (Class III)* - Roadways designated for bicycle use by signs only; may or may not include additional

Conclusion

Given the presence of existing pedestrian, bicycle, and transit resources, and incorporation of the additional transit, bicycle, and pedestrian improvements for the project, the project would result in a ***less-than-significant*** impact to alternative modes of transportation.

pavement width for cyclists.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	✖	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	✖	☐
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	✖	☐	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	✖	☐
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	✖	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	✖	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	✖	☐

Discussion

a,b,e. 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 SR 4. The WWTP is designed to have sufficient

capacity to handle all wastewater flows at buildout per the General Plan. The WWTP has a current treatment capacity of five million gallons per day (mgd) with an average dry weather flow (ADWF) of 3.4 mgd in 2012.

The current WWTP system is designed to expand to 10 mgd in 2.5 mgd increments and the City collects development impact fees from new development to fund future expansion efforts. Phase I of the WWTP expansion was completed in 1998-2002, to bring the treatment plant to current levels. Preliminary planning of the Phase II expansion of the WWTP has been completed. Final design and construction would not start until wastewater influent ADWF is 3.75 mgd. Phase II would expand capacity to 7.5 or 10.0 mgd by adding oxidation ditches, secondary clarifiers, filters, and related appurtenances.[49]

The 2014 Brentwood General Plan Update EIR uses a wastewater generation factor of 85 gallons per day per person of residential development.[50] Buildout of the proposed project would result in the construction of 24 single-family dwelling units generating approximately 78 additional residents (based on 3.22 persons per household). Therefore, the total wastewater flow from the project site would be about 0.00663 mgd.

The General Plan Update EIR determined buildout of the General Plan would result in a less-than-significant impact related to wastewater treatment capacity.[51] Therefore, given the fact that the 2014 General Plan designated the project site for development (R-LD), and the proposed project is consistent with the residential densities allowable with the R-LD designation, the increase in wastewater treatment demand generated from the proposed project, has already been evaluated and considered in the General Plan Update EIR analysis. Thus, 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, consisting of eight-inch sewer lines, which would connect to the existing eight-inch sewer line within the Minnesota Avenue ROW.

Conclusion

Because the project applicant would pay City sewer impact fees, and adequate long-term wastewater treatment capacity is available to serve full buildout 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.

[49] City of Brentwood. *2014 Brentwood General Plan Update EIR [pg. 3.14-26]*. July 22, 2014.
[51] City of Brentwood. *2014 Brentwood General Plan Update EIR [pg. 3.14-25]*. July 22, 2014.
[51] City of Brentwood. *2014 Brentwood General Plan Update EIR [pg. 3.14-25]*. July 22, 2014.

c. As discussed in Questions 'c-e' of Section VIII, Hydrology and Water Quality, of this IS/MND, the proposed project site is located within the Marsh Creek Watershed. The proposed project includes a 0.48-acre parcel (Parcel A) in the southeastern corner of the project site, which would contain a 20,700-square foot bioretention basin to fulfill the C.3 requirements for the runoff generated by the project improvements. Runoff from roofs, driveways, sidewalks and road will be directed into the storm drain system under the road and into the bio-filtration facility.

As demonstrated in the SWCP prepared for the proposed project, the bioretention basin proposed for the project would exceed the minimum sizing requirement with respect to treatment area volume (minimum area based upon proposed impervious area is 5,953 sf, and proposed volume is 20,700 sf).

Upon being treated within the proposed on-site bio-retention basin, project runoff would be metered through the City's system into the existing storm drain pipe in Minnesota Avenue, which ultimately drains to Marsh Creek.

The SWCP sets forth an adequate stormwater treatment system for the project consisting of an on-site bio-retention swale for water quality treatment purposes. This bioretention basin would need to be maintained properly so that the on-site treatment system functions properly. A long-term maintenance plan is needed to ensure that all proposed stormwater treatment BMPs function properly. Should the proposed water quality treatment facility not be maintained properly, a ***potentially significant*** impact could occur with respect to creating or contributing runoff water which would exceed the capacity of existing or planned stormwater drainage systems or providing substantial additional sources of polluted runoff.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

XVII-1. Implementation of Mitigation Measure IX-2

d. The following discussion addresses available water supply system and water supply infrastructure to serve the project site.

Water Supply System

The General Plan Update EIR determined buildout of the General Plan would result in a less-than-significant impact related to an increased demand for water supplies.[52] Therefore, given the fact that the 2014 General Plan designated the project site for development (R-LD), and the proposed project is consistent with the residential densities allowable with the R-LD designation, the increase in water supply demand generated from the proposed project, has

[52] City of Brentwood. *2014 Brentwood General Plan Update EIR [pg. 3.14-12]*. July 22, 2014.

already been evaluated and considered in the General Plan Update EIR analysis. Thus, the current water supply would be sufficient to serve the proposed project. As a result, the proposed project would have a less-than-significant impact with respect to the availability of sufficient water supplies to serve the project.

Water Supply Infrastructure

The project would involve the construction of the necessary water infrastructure to serve the proposed neighborhoods. The project includes installation of a new water lines within the internal street ROWs which would connect to the existing mains in Balfour Road, Pondlilly Lane, and Minnesota Avenue ROWs.

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 would have a ***less-than-significant*** impact related to water supply.

f,g. 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 September 2008, the remaining capacity of the landfill's disposal area is estimated at 60-64 million cubic yards, and the estimated closing date for the landfill is 2050.[53] Because the 2014 Brentwood General Plan Update EIR determined that solid waste capacity is adequate to serve the demand resulting from General Plan buildout and the proposed project's use is consistent with the General Plan designation for the project site; the project's impact to solid waste would be ***less than significant***.

[53] City of Brentwood. *2014 Brentwood General Plan Update EIR [pg. 3.14-45]*. July 22, 2014.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	✖	☐
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☐	☐	✖	☐
c. 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)?	☐	☐	✖	☐
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	✖	☐

Discussion

a. 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.

b. Development that converts rural areas to urban/suburban uses may be regarded as achieving short-term goals to the disadvantage of long-term environmental goals. However, the inevitable impacts resulting from population and economic growth are mitigated by long-

range planning to establish policies, programs, and measures for the efficient and economical use of resources. Long-term environmental goals, both broad and specific, have been addressed previously in several environmental documents, the most comprehensive being the 2014 Brentwood General Plan Update EIR adopted on July 22, 2014. As discussed throughout this IS/MND, the proposed project would comply with all relevant goals set forth in the General Plan. Therefore, the impact is ***less than significant.***

c. 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***.

d. The proposed project site is surrounded by existing 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 and demolition activities, the project could result in potential impacts related to asbestos, lead-based paints, soil or groundwater contamination, 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***.