# Initial Study/Mitigated Negative Declaration

# **Penstemon Place Project**

2842, 2862, and 2574 Linwood Avenue Santa Rosa, Sonoma County, California

# January 2020 (Edited by Carlile Macy, December 2021)

Prepared for:

City of Santa Rosa Planning and Economic Development Department 100 Santa Rosa Avenue, Room 3 Santa Rosa, CA 95404 Contact: Susie Murray, Senior Planner

Prepared by:

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١.	Project Title:	Penstemon Place Project
2.	Lead Agency Name & Address:	City of Santa Rosa Planning & Economic Development Department Planning Division 100 Santa Rosa Avenue Santa Rosa, California 95404
3.	Contact Person & Phone Number:	Susie Murray, Senior Planner Phone number: (707) 543-4348 E-mail: smurray@srcity.org
4.	Project Location:	The site is located in the City of Santa Rosa, Sonoma County, California at 2842, 2862, and 2574 Linwood Avenue Assessor's Parcel Nos. 044-200-027, 029 & 040.
5.	Project Sponsor's Name & Address:	McIntosh Development, LLC P.O. Box 6858 Santa Rosa, CA 95406
6.	Project Representative's Name & Address:	Carlile Macy 15 Third Street Santa Rosa, CA 95401
7.	General Plan Designation:	Low Density Residential (2.0 – 8.0 units per acre)
8.	Zoning:	Planned Development (PD)

# 9. **Project Location:**

The Project site comprises approximately 9.7 acres and is located at 2842, 2862, and 2574 Linwood Avenue in the Southeast quadrant of Santa Rosa. It is identified as Assessor Parcel Nos. (APN) 044-200-027, 029, and 040.

Existing rural residential and new single-family residential homes lie adjacent to the site along the northerly, westerly, and southerly boundaries. Right-of-Way for the planned Farmers Lane Extension lies immediately adjacent to the site on the East. Verbena Drive is stubbed out to the northerly boundary and will be continued onto the site. The Dauenhauer Neighborhood Park lies at the northerly end of Verbena Drive approximately 1,100 feet (less than ¼ mile) north of the site.

The site slopes generally from east to west with 80% of the site having slopes of less than 10%. The average slope of the site is 6.99%. A portion of the site includes slopes over 10%, requiring a Hillside Permit. There are currently six (6) existing single-family homes on the site dating from the 1960s, four of which are habitable and rented.

There is a total of 54 trees in the project area, of which 46 trees being removed. Of these 46 trees, 13 are exempt trees and 13 are heritage trees per the City's Tree Ordinance (Chapter 17-24 of the City Code). Four trees, all oaks (all of which are heritage trees), may be removed if construction affects their health; these trees have been included in the mitigation calculation in the event that they are removed. The heritage trees are mostly Valley Oaks and a few Coast Oaks that exceed 18" (diameter at breast height (DBH). The 3 largest Valley Oaks (all heritage trees with diameters between 30" to 39" DBH) will be preserved. A Coast Live Oak at the northwest property line on an adjacent parcel will be protected during construction.

# **10 Project Description:**

The Project proposes to develop 59 new single-family homes on lots ranging in size from 3,200 square feet to 19,300 square feet with an average of 5,900 square feet. Twelve (12) of these new homes are designed as 4-unit auto courts. Lots 53 and 13 will have secondary dwelling units. Lots 17, 29, 31 and 59 will have the option for secondary dwelling units.

The primary site design concept is to create a new walkable neighborhood of single-family homes with interconnected streets which fits with the site and the surrounding adjacent neighborhoods. To this end, the site design connects to Verbena Drive to the north and provides for the extension of Poinsettia Lane into the site from the west. The site design also seeks to save the largest valley oaks on the site and incorporate them into the new neighborhood.

An additional goal of the overall site design is to minimize the visual impact of the Project. This is planned to be accomplished by grading the homes into the hillside. The plans for the future Farmers Lane Extension already call for extensive grading along the easterly boundary of the site. Grading the homes into the site significantly below the elevation of the future Farmers Lane Extension will not only reduce the visual profile but will ensure future traffic noise from Farmers Lane does not impact homes and eliminates the need for sound walls.

Six (6) different homes have been designed for this Project. Plans 1 and 2 are designed for the auto courts. Both are 2-story homes with Plan 1 including approximately 1,661 square feet of living area and Plan 2 including approximately 1,887 square feet of living area. Plans 3 and 4 are single-story homes with Plan 3 including approximately 1,779 square feet of living area and Plan 4 including approximately 1,384 square feet of living area. Plans 5 and 6 are 2-story homes with Plan 5 including approximately 2,114 square feet of living area and Plan 6 including approximately 2,572 square feet of living area.

The Project site was part of the Southeast Area Plan (Area Plan) prepared in the mid 90s and an Environment Impact Report (EIR) was certified for the Area Plan in 1994 (Resolution No. 21805). The Policy Statement for the Planned Development area is still in effect; however, the Area Plan has been superseded by General Plan 2035.

# Site Improvements and Circulation

Access will be taken from three points: off Linwood Avenue along the southern edge of the property and again off Linwood Avenue along the western edge, and off Verbena Drive from the north. Twelve homes, in groups of four on three auto-courts, will take access off of Linwood Avenue. Landscaped front yards, rather than driveways, will be the first impression visitors have of the Project. Poinsettia Lane will extend onto the site from the west.

The Project site has been designed to allow pedestrian connections and circulation throughout the Project, as well as to the adjacent streets and community. There will be sidewalks installed along all of the interior and exterior streets and along the Project frontage on Linwood Avenue. All homes will be landscaped with native and/or drought tolerant plantings and will provide irrigations systems that meet the requirements set forth in the current Water Efficient Landscape Ordinance (WELO).

The Project will incorporate Low Impact Development (LID) measures as called for in the City of Santa Rosa's LID manual. The City's LID manual requires the inclusion of LID features to capture and infiltrate small storm event volumes on-site. The Project's Standard Urban Storm Water Mitigation Plan (SUSMP) incorporates many LID measures into the Project design including capture of surface runoff, detention and infiltration, permeable pavement and bioretention. These features are described in detail in Attachment I.

#### Green Technologies

Energy and water efficient design measures will be incorporated throughout the Project as described in the table below, and required by state or local regulation, in addition to water efficient landscaping consisting of native and drought tolerant plant species separated into hydro-zones for irrigation needs. Planting plans will call for new trees and shrubs to complement other neighboring developments. Additionally, all of the homes in the Project will include energy efficient appliances, high efficiency lighting, and low-flow plumbing faucets and fixtures. The applicant will also utilize a construction waste recycling program during construction to minimize waste, see Table 1. Additionally, the Penstemon Place Project incorporates all of the applicable policy measures contained the City's Climate Action Plan (CAP). These are discussed in Section VIII Greenhouse Gases.

Т	able	1:	Green	Technologies	
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Energy Efficiency	Lighting	Plumbing	Construction Materials
<ul> <li>Energy Efficient Heating &amp; Cooling</li> <li>Increased Insulation</li> <li>Energy Efficient Appliances</li> </ul>	<ul> <li>Energy Efficient Lighting</li> </ul>	<ul> <li>Low Flow Faucets</li> <li>Low Flow Plumbing Fixtures</li> <li>Metered Plumbing Fixtures</li> <li>Hydro-zone Irrigation</li> </ul>	Construction Waste Recycling

#### Construction

Construction would take approximately 15 months, including on-site grading. Construction is anticipated to begin in fall/winter of 2020. Construction hours are limited to 7:00 AM to 7:00 PM, Monday-Friday and 8:00 AM to 5:00 PM on Saturdays, with no construction activities permitted on Sundays or holidays.

#### **Environmental Significance**

In determining the level of significance of environmental impacts associated with the proposed project, the analysis in this document assumes that the proposed project would comply with relevant federal and state laws and regulations, City General Plan policies, ordinances, and other adopted City documents, unless otherwise noted. Therefore, such mandatory policies, ordinances, and standards are not identified as mitigation measures, but rather are discussed under the heading of Standard Measures summarized in each section of this document.

# **11.** Other Public Agencies Whose Approval Is Required:

The Penstemon Place Project requires the following discretionary approvals from the City of Santa Rosa: Conditional Use Permit for a small lot subdivision; Tentative Map for a 59-lot residential subdivision, and a Hillside Development Permit for development on slopes greater than ten percent.

Other required permits include:

Grading Permit (City of Santa Rosa) Building Permit (City of Santa Rosa) North Coast Regional Water Quality Control Board (NCRWQCB) (Section 401, Clean Water Act) United States Army Corps of Engineers (USACOE) (Section 404, Clean Water Act)

# 12. Exhibits

Figure 1.Vicinity MapFigure 2aTentative MapFigure 2bTentative Map – Grading & UtilitiesFigure 3.Landscape PlanFigure 4Development Plan	
Attachment A: Mitigation Monitoring and Reporting Program	
Attachment B: Draft Traffic Impact Study	
Attachment C: CAP New Development Checklist	
Attachment D-1: Biological Resource Assessment	
Attachment D-2: Jurisdictional Wetlands Delineation Report	
Attachment D-3 Arborist's Report	
Attachment D-4 Tree Mitigation Tabulation	
Attachment E: Environmental Noise Assessment	
Attachment F: Geotechnical Study Report	
Attachment G: Phase I Environmental Site Assessment	
Attachment H: Community Risk Assessment (Air Quality)	
Attachment I: Preliminary Standard Urban Storm Water Mitigation	Plan
Attachment I-1: Drainage Areas & Storm Drain Connections	
Attachment J: Cultural Resources Study	

# **ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this Project. Please see the checklist for additional information.

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

# I. AESTHETICS

Wo	ould the project:	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?			X	
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
C.	Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

# Discussion:

The approximately 9.7-acre Project site is located in a developing area in southeast Santa Rosa. The site is located east of Linwood Avenue on a sloping parcel west of the future Farmers Lane Extension. The site has been envisioned for this type of development since 1994, when the Southeast Area Plan was approved. The surrounding neighborhood includes single-family residential subdivisions to the north, west and south.

The 59 units will have a variety of sidings (combinations of shingle, lap or board and batten), varied roof lines and attached two-car garages. Most of the homes are designed to front onto the internal streets to provide a pleasant and walkable streetscape with front doors and front yards facing the street. Street landscaping will include street trees and sidewalks. The Project includes full frontage improvements along Linwood Avenue including landscaping, sidewalk, and other improvements. New plantings call for trees and shrubs to complement other neighboring developments. Twelve of the homes are designed to be on four-home auto courts off Linwood Avenue and to front onto interior courts. The interior of these homes provides a varied streetscape allowing an increased landscape area. In addition to the varying home sizes, two will provide accessory dwelling units (lots 13 & 53) and four more will have to the option to include them (lots 17, 29, 31 and 59).

The site has been designed to allow pedestrian connections and circulation throughout the Project, as well as connectors to the adjacent streets and subdivisions. Throughout the neighborhood, landscaped streetscapes with sidewalks in front of each home will provide a pleasant pedestrian path of travel. Three access points to the site are proposed: (1) from Verbena Drive to the north, (2) off Linwood Drive (westerly opposite frontage) with Poinsettia Lane (completing the fourth leg of the intersection), and (3) from Linwood Avenue to the south about 180 feet east of Hibiscus Drive. An all-way stop-control warrant analysis was performed for the proposed four-legged intersection of Linwood Avenue and Poinsettia Lane and concluded that all-way stop control is needed to achieve safe operation of the intersection as noted in the Traffic Study included as Attachment B of this report.

Landscaping for the Project will consist of native and/or drought tolerant plant species and hydro-zones will be utilized to make efficient use of water in compliance with the City of Santa Rosa's Water Efficient Landscape Ordinance adopted on December 1, 2015 (WELO).

I(a,b) Less Than Significant Impact. Scenic Vistas, Visual Resources. The Project site is not located within or along a designated scenic corridor nor does it contain scenic resources, nor does the Project itself affect a scenic vista or other scenic resources (trees, rock outcroppings or historic buildings) related to a scenic highway. The Project site is not visible from any scenic highways. The City of Santa Rosa's General Plan depicts Linwood Avenue as a residential street. The Project will provide improvements onsite including street trees and landscaping within the planter strip and sidewalk, consistent with the City of Santa Rosa's Tree Ordinance. The Project will not conflict with any local policies or ordinances protecting scenic resources, policies or ordinances, and will not result in any significant impacts.

I(c) Less Than Significant Impact. Visual Character. The Project meets the objectives of the City's Design Guidelines pertaining to neighborhood design and single-family residential development by providing a variety of single-family housing types at different price ranges, providing an interconnected street network of walkable blocks, providing streets designed to accommodate pedestrians and bicycles as well as automobiles, and preserving the largest existing oak trees and incorporating them into the plan. There are three existing, large trees to be preserved. Two trees are in a stand together near the northeastern corner of the property, and the other is solitary near the southwest corner. All three trees are in good or excellent condition with expansive canopies, and the project has been designed to preserve and maintain them.

The site is surrounded to the north, south and west by existing development similar to the proposed residential development. The proposed homes will be set below (downslope) of the future Farmers Lane Extension, which is to be landscaped. Therefore, future views from Farmers Lane Extension will be protected and the Project will not be visible from the Farmers Lane Extension.

The Project will not substantially degrade the existing visual character or quality of the site and its surroundings. It will continue the residential development pattern called for in the City's General Plan in a manner consistent with the City's design standards, which is compatible with the surrounding community. Therefore, the Project will not result in any significant impacts.

I(d) Less Than Significant Impact. Light and Glare. The City of Santa Rosa Zoning Code (Code) Section 20-30.080 requires that lighting fixtures be shielded or recessed to reduce light bleed to adjoining properties, and that each light fixture be directed downward and away from adjoining properties and public rights-of-way, so that no on-site light fixture directly illuminates an area off the site. The Project shall demonstrate that lighting has been designed to be adequate without spilling off the property to ensure compliance with City requirements. Compliance with these requirements will ensure that the Project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area and, therefore, will not result in any significant impacts.

# Mitigation Measures:

None required

# Standard Measures:

• A standard condition of approval regarding exterior lighting requirements will be placed on the Project. Conformance review shall occur at the building permit stage.

# Sources:

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- City of Santa Rosa Zoning Code, 2006
- City of Santa Rosa Design Guidelines, September 2005 (updated in 2010, 2011)

• City of Santa Rosa, Water Efficient Landscape Ordinance, Ordinance 4051, adopted October 27, 2015

# II. AGRICULTURE and FOREST RESOURCES

Wo	ould the project:	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			X	
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				$\boxtimes$
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))?				X
d.	Result in the loss of forest land or conversion of forest land to non-forest use?				$\boxtimes$
e.	Involve other changes in the existing environment which, due to their location or nature could result in conversion of			X	

# Discussion

nature, could result in conversion of

Farmland, to non-agricultural use?

The site has not been cultivated or used for active farming. While the property is designated as "Other" by California Department of Conservation Division of Land Resources Protection, Farmland Mapping and Monitoring Program (2012), the City of Santa Rosa has designated and zoned this site for Low Density Residential uses for 20± years. The site's historical uses were reviewed as part of the Phase I Environmental Site Assessments prepared by Harris & Lee Environmental Sciences, LLC (Attachment G).

II(a,b,e) **Less Than Significant Impact. Designations or Zoning.** The Project site is not designated Prime Farmland, Unique Farmland, or Farmland of Statewide Significance on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. The Project site is located within Santa Rosa's Urban Growth Boundary and has long been zoned for residential development. The site is in the Planned Development (PD) zoning district and, as such, commercial agricultural uses are prohibited. Adjacent properties to the north, south and west are similarly zoned for urban use. Properties to the southeast are currently developed residential uses (semi-rural 5± acre lots). Their agricultural capability is limited. The eastern property line is the site of the future Farmers Lane Extension. The Project is expected to have a less than significant or no impact on conversion of farmland or existing agricultural uses.

II(b) **No Impact. Williamson Act.** The Project site is currently and has long been designated for residential uses which are not generally compatible with commercial agricultural uses. The Project site is

not under a Williamson Act contract. Therefore, the Project would not impact existing agricultural zoning or Williamson Act contract for the property.

II(c-d) **No Impact. Forest Resources.** The site is in an urban area that is projected for development with limited trees on-site and no forest resources on or near the site. Therefore, the Project would have no impact to forest resources.

#### Mitigation Measures:

None required

#### Sources

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- City of Santa Rosa Zoning Code, 2006
- Harris & Lee Environmental Sciences, LLC, Phase I Environmental Site Assessments, April 2015

# III. AIR QUALITY

		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
est ma be	nere available, the significance criteria tablished by the applicable air quality anagement or air pollution control district may relied upon to make the following terminations				
W	ould the project:				
a.	Conflict with or obstruct implementation of the applicable air quality plan?			X	
b.	Result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under applicable federal or state ambient air quality standard?		$\boxtimes$		
C.	Expose sensitive receptors to substantial pollutant concentrations?		X		
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

# Discussion:

The Project has been evaluated by Illingworth & Rodkin for air pollutant emissions from construction and operation of the project and potential construction-related health risks. The report, dated March 8, 2017, and supporting modelling calculations, is included as Attachment H to this Initial Study.

The Project site is located in the City of Santa Rosa, within the boundaries of the San Francisco Bay Area Air Basin. The Bay Area Air Quality Management District (BAAQMD) is the regional agency with regulatory authority over stationary sources in the San Francisco Bay Area Air Basin, while the California Air Resources Board (CARB) has regulatory authority over mobile sources such as construction equipment, trucks, and automobiles throughout the state. The BAAQMD has the primary responsibility to meet and maintain the state and federal ambient air quality standards in the Bay Area. The Bay Area meets all ambient air quality standards for all state standards except ground-level ozone, respirable particulate matter ( $PM_{10}$ ), and fine particulate matter ( $PM_{2.5}$ ) as the Air basin has been in attainment since 1998 (officially). The air basin meets all other ambient air quality standards.

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NOx). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduce lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM10) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM2.5). Elevated concentrations of PM10 and PM2.5 are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic air contaminants or TACs are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, and fuel combustion. TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and Federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

# **Regulatory Environment:**

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. CARB regulations require on-road diesel trucks to be retrofitted with particulate matter controls or replaced to meet 2010 or later engine standards that have much lower DPM and PM2.5 emissions. This regulation will substantially reduce these emissions between 2013 and 2023. While new trucks and buses will meet strict federal standards, this measure is intended to accelerate the rate at which the fleet either turns over so there are more cleaner vehicles on the road or is retrofitted to meet similar standards. With this regulation, older, more polluting trucks would be removed from the roads sooner.

In June 2010, the BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of their CEQA Guidelines. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions will cause significant environmental impacts under the CEQA and were posted on BAAQMD's website and included in the Air District's updated CEQA Guidelines (BAAQMD 2017a). The significance thresholds identified by BAAQMD, as shown below in Table III-1, represent an appropriate approach and are used as a guideline in this analysis.

	Construction Thresholds	Operationa	al Thresholds		
Pollutant	Average Daily Emissions (Ibs./day)	Average Daily Emissions (Ibs./day)	Annual Average Emissions (tons/year)		
Criteria Air Pollutants					
ROG	54	54	10		
NOx	54	54	10		
PM10	82 (Exhaust)	82	15		
PM2.5	54 (Exhaust)	54	10		
СО	Not Applicable	9.0 ppm (8-hour aver ppm (1-hour aver	<b>U</b> ,		
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable			
Health Risks and Hazards f	or Single Sources				
Excess Cancer Risk	>10 per one million				
Hazard Index	>1.0				
Incremental annual PM <sub>2.5</sub>	>0.3 µg/m³				
Health Risks and Hazards influence.	for Combined Sources (Cumulative )	from all sources with	in 1,000-foot zone o		
Excess Cancer Risk	>100 per one million				
Hazard Index	>10.0				
Annual Average PM <sub>2.5</sub>	>0.8 µg/m³				
Note: ROG=reactive organic gases, NOx=nitrogen oxides, $PM_{10}$ =course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ =fine particulate matter or particulates with an aerodynamic diameter of 2.5 µm or less					

#### Table III-1: Air Quality Significance Thresholds

The City of Santa Rosa's Open Space and Conservation Element contains polices meant to improve and maintain air quality and impacts to the community from air pollution. Specific policies applicable to the Project include:

OSC-J-1 Review all new construction projects and require dust abatement actions as contained in the CEQA Handbook of the Bay Area Air Quality Management District.

OSC-J-3 Reduce particulate matter emissions from wood burning appliances through implementation of the city's Wood Burning Appliance code.

Consistent with the Santa Rosa 2035 General Plan recommendations, the Project shall be required to include the City's dust abatement conditions of approval and/or the BAAQMD's dust abatement mitigations. No wood burning fireplaces are allowed in new construction.

#### Impacts:

**III(a)** Less than Significant. Conflict with Air Quality Plan. The Bay Area is considered a nonattainment area for ground-level ozone and PM2.5 under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM<sub>10</sub> under the California Clean Air Act, but not the Federal act. The area has attained both State and Federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM<sub>10</sub>, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. The main purpose of an air quality plan is to bring the area into compliance with the requirements of federal and state air quality standards. To bring the San Francisco Bay Area region into attainment, the BAAQMD developed the 2017 Bay Area Clean Air Plan (BAAQMD 2017b). BAAQMD's 2017 Clean Air Plan focuses on protecting public health and protecting the climate. Because the Project will not conflict with the applicable air quality plan, there will be no impact.

**III(b)** Less Than Significant Impact with Mitigation Incorporation. Construction and Operational. The Project will include demolition and construction activities that will result in short-term air quality impacts from combustion emissions and fugitive dust emissions. There will also be long-term emissions associated with Project-related vehicle trips. The two issues are discussed below along with mitigation measures. These measures have been judged by BAAQMD to reduce potential dust related impacts to a level of less than significant. These thresholds are for ozone precursor pollutants (ROG and NOx), PM<sub>10</sub>, and PM<sub>2.5</sub> and apply to both construction period and operational period impacts.

# Construction

CalEEMod provided annual emissions for construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. A construction build-out scenario, including equipment list and schedule, was based on information provided by the Project applicant. The air quality report (Attachment H) describes the air quality modelling and contains the technical detail. The construction assumptions and modeling output are contained in Attachment H. The Proposed Project land uses were input into CalEEMod, which included: 59 dwelling units entered as "Single-Family Housing" on a 9.7-acre site (a conservative estimate as the Project replaces 6 existing homes).

Approximately 15,860 cubic yards (cy) of soil export is anticipated during grading along with demolition of 20,000 square feet (sf) of building and were entered into the model. Additionally, 94 cement truck roundtrips during building construction and 78 paving roundtrips are expected and were entered into the model. Modeling assumed 16 cy/truck and 20 tons/truck.

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM10 and PM2.5. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries (Table III-2). The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are implemented to reduce these emissions.

Scenario	ROG	NOx	PM <sub>10</sub> Exhaust	PM <sub>2.5</sub> Exhaust
Total construction emissions (tons)	1.21 tons	3.84 tons	0.19 tons	0.17 tons
Average daily emissions (lbs) <sup>1</sup>	5.5 lbs.	17.5 lbs	0.9 lbs	0.8 lbs
BAAQMD Thresholds (lbs per day)	54 lbs	54 lbs	82 lbs	54 lbs
Exceed Threshold?	No	No	No	No
Notes: <sup>1</sup> Assumes 440 workdays.				

# Table III-2: Construction Period Emissions

#### **Operational Emissions**

Operational emissions were also predicted using CalEEMod and reported in Table III-3. These emissions, which include vehicle travel and on-site emissions from the homes, were found to be well below the significance thresholds.

Scenario	ROG	NOx	<b>PM</b> <sub>10</sub>	PM <sub>2.5</sub>		
Total annual emissions (tons)	1.10 tons	1.04 tons	0.57 tons	0.22 tons		
BAAQMD Thresholds (tons)	10	10	15	10		
Average daily emissions (lbs) <sup>1</sup>	6.0 lbs.	5.7 lbs	3.1 lbs	1.2 lbs		
BAAQMD Thresholds (lbs per day)	54 lbs	54 lbs	82 lbs	54 lbs		
Exceed Threshold?	No	No	No	No		
Notes: <sup>1</sup> Assumes 365 days.						

#### Table III-3: Operational Period Emissions

As discussed above, the Project would have emissions less than the BAAQMD thresholds for evaluating impacts related to ozone and particulate matter. Therefore, the Project would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the Project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and Federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. The highest measured level over any 8-hour averaging period during the last 3 years in the Bay Area is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. Intersections affected by the Project would have traffic volumes less than the BAAQMD screening criteria of 44,000 total vehicle movements in an intersection during the busiest hour and, thus, would not cause a violation of an ambient air quality standard or have a considerable contribution to cumulative violations of these standards. Cumulative impacts on sensitive receptors are discussed in Section III(c), below.

Implementation of the eight measures recommended by BAAQMD, some of which have been adopted by the City as Standard (construction) Measures, are included below as Mitigation Measures AIR-1. These measures have been judged (by BAAQMD), to reduce potential dust related impacts to a level of less than significant. These mitigation measures apply to both construction period impacts and would reduce potential impacts to levels of less than significant.

**III(c)** Less than Significant with Mitigation Measure Incorporation. Sensitive Receptors. Project impacts related to increased community risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the Project vicinity. The BAAQMD recommends using a 1,000-foot screening radius around a project site for purposes of identifying community health risk from siting a new sensitive receptor or a new source of TACs. Operation of the Project is not expected to cause any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels.

There are cumulative community risk thresholds used to evaluate construction impacts on sensitive receptors. The cumulative impacts of TAC emissions from construction of the Project and expected traffic on Farmer Lane Extension on the construction maximally exposed individual (MEI) are summarized in Table III-4. The sum of impacts from combined sources at the construction MEI would be below the thresholds of significance and this impact would be considered less-than-significant.

Source	Maximum Cancer Risk (per million)	Maximum Annual PM <sub>2.5</sub> Concentration (μg/m <sup>3</sup> )	Maximum Hazard Index
Project Construction			
Unmitigated	59.1	0.61	0.05
Mitigated	6.5	<0.10	<0.01
Future Farmers Lane Extension (200 ft. west for cancer risk and 330 ft. west for PM <sub>2.5</sub> )	1.6	0.03	<0.01
Cumulative Total			
Unmitigated	60.7	0.64	<0.06
Mitigated	8.1	<0.13	<0.02
BAAQMD Threshold – Cumulative Sources	>100	>0.8	>10.0
Significant?	No	No	No

Table III-4: C	Cumulative	Construction	<b>Risk Assessment</b>
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No stationary sources of TACs, such as generators, are proposed as part of the Project. The Project would introduce new sensitive receptors to the area (although not an air quality impact under CEQA). The effect of the existing or future TAC and PM2.5 sources upon the project was evaluated for informational purposes using methods recommended in the BAAQMD CEQA Guidelines to address community risk impacts.

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors that are located within 1,000 feet of a project site. These sources include freeways or highways, busy surface streets and stationary sources identified by BAAQMD. Traffic on high volume roadways is a source of TAC emissions that may adversely affect sensitive receptors in close proximity to the roadway. For local roadways, BAAQMD considers roadways with traffic volumes of over 10,000 vehicles per day to have a potentially significant impact on a proposed project. The only potential source of TACs and PM2.5 that would affect the project site is the future extension of Farmers Lane.

The traffic volume on the future Farmers Lane Extension that would run along the eastern boundary of the project is expected to exceed 10,000 vehicles per day. A review of BAAQMD's Google Earth map tool did not identify any stationary sources with the potential to affect the project site. The BAAQMD Roadway Screening Analysis Calculator using the average daily traffic (ADT) on Farmer Lane, estimated to be 14,100 vehicles per day.<sup>1</sup> Using the BAAQMD Roadway Screening Analysis Calculator for Sonoma County for north-south directional roadways and at a distance of approximately 75 feet west of the roadway, estimated cancer risk from Farmer Lane Extension at the nearest on-site receptor would be 2.9 per million and PM2.5 concentration would be 0.11  $\mu$ g/m3. Chronic or acute Hazard Index for the roadway would be below 0.03. These levels are below the community risk thresholds for sensitive receptors.

Construction activity would generate dust and equipment exhaust on a temporary basis that could affect nearby sensitive receptors. Those potentially substantial concentrations would be reduced to a level of less than significant with implementation of Mitigation Measure AIR-2, listed below

**III(d)** Less Than Significant Impact. Other Emissions. The Project construction and operation will not generate any permanent source of new odors or subject sensitive receptors to new significant permanent odors. During construction, odors will be generated by construction equipment; these odors will be present only temporarily during construction. Therefore, the Project will result in less than significant impacts under this criterion.

# **Recommended Mitigation Measures:**

<sup>&</sup>lt;sup>1</sup> Email from Briana Byrne of W-Trans to Sponamore Associates on February 28, 2017 reporting average daily traffic projections for the Farmers Lane Extension based on the Sonoma County Transportation Authority traffic model and contained in Attachment B.

**Mitigation Measures AQ-1: Dust and exhaust control.** During any construction period ground disturbance, the applicant shall ensure that the Project contractor implement measures to control dust and exhaust. Implementation of the City's Standard construction measures along with the measures recommended by BAAQMD, both listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level. The contractor shall implement the following best management practices:

- 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.
- 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.
- Post a sign visible from the public right-of-way providing contact information for constructionrelated complaints. Corrective action shall be implemented within 48 hours. The Air District's phone number shall be posted on the same sign to ensure compliance with applicable regulations.

Implementation of Mitigation Measure AQ-1, which represents Best Management Practices recommended by BAAQMD, and along with the Standard Conditions of Approval, will reduce the potential impact of construction-period fugitive dust, construction emissions and construction TACs, to a less-thansignificant level and also reduce construction period emissions.

**Mitigation Measure AQ-2: Equipment Selection.** The Project shall implement the following plan, demonstrating that the off-road equipment used on-site to construct the Project would achieve a fleet-wide average 69 percent reduction in  $PM_{2.5}$  exhaust emissions or greater. To achieve this reduction, the Project shall be required to:

- Document that all mobile diesel-powered off-road equipment larger than 25 horsepower and operating on the site for more than two days continuously shall meet, at a minimum, U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent.
- The construction contractor shall use other measures to minimize construction period DPM emission to reduce the predicted cancer risk below the thresholds including the use of equipment that includes CARB-certified Level 3 Diesel Particulate Filters[1] or alternatively-fueled equipment (i.e., non-diesel) to meet this requirement.
- The contractor shall use added exhaust devices to reduce community risk impacts to less than significant.

As stated in the BAAQMD CEQA Guidelines, implementation of Mitigation Measure AQ-1 will reduce exhaust emissions by 5 percent. Implementation of Mitigation Measure AQ-2 would further reduce onsite diesel exhaust emissions. This effect of implementing this mitigation measure was evaluated using the CalEEMod model to assume best management practices for controlling fugitive dust (i.e., application of Mitigation Measure AQ-1 and the City's standard construction conditions of approval) and use of Tier 2 equipment with Level 3 Diesel Particulate Matter Filters (DPFs). The CalEEMod modeling indicated that mitigated exhaust PM<sub>10</sub> emissions would be 89 percent lower and the PM<sub>2.5</sub> emissions would be 84 percent lower. This was assumed to result in a proportional decrease in cancer risk and annual PM<sub>2.5</sub> concentration would be less than 0.1  $\mu$ g/m<sup>3</sup>. The resulting risks and PM2.5 concentrations are below the community risk significance thresholds. After implementation of these mitigation measures, the Project would have a less-than-significant impact with respect to community risk caused by construction activities.

Mitigation Measure 1 would implement BAAQMD-recommended "best management practices" to control fugitive dust emissions during construction that would reduce the impact to a less than significant level

with respect to construction period emissions. Mitigation Measures AQ-1 and AQ-2 would reduce construction period TAC and PM2.5 emissions such that resulting cancer risk and PM2.5 concentrations would not exceed community risk thresholds.

# Standard Conditions of Approval:

The Project shall be subject to the following City construction-related conditions:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- 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.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

#### Sources:

- BAAQMD Website and Significance Thresholds, 2010, updated 2011
- City of Santa Rosa 2035 General Plan/FEIR, 2009
- City of Santa Rosa Climate Action Plan, adopted June 2012
- Illingworth & Rodkin, Community Risk Assessment (TAC), Penstemon Place, March 8, 2017
- W-Trans, Traffic Impact Study for the Penstemon Place Project, January 2017, updated January 2018

# IV. BIOLOGICAL RESOURCES

Would	tho	Dro	ioct.
vvouia	une	P10	lect.

- 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, and 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 native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- 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 Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

# Discussion:

A complete biological resources assessment has been prepared for the Project site by WRA, Inc. (WRA) in March of 2017. This report and inventory include results of recent site plant and wetland surveys at the Project site and is found in Attachment D-1 and results of a wetlands analysis prepared in 2015 (Attachment D-2). A Tree Inventory & Evaluation was prepared by Becky Duckles in March of 2018 (Attachment D-3), Tree Mitigation Tabulation prepared by Carlile-Macy is found in Attachment D-4.

Biological resources include common plant and animal species, and special-status plants and animals as designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS). The California Native Plant Society (CNPS) data was also referenced. Biological resources also include waters of the United States and State, as

Potentially Significant Impact	Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
	$\boxtimes$		
	$\boxtimes$		
	X		
			X
	X		
			X

Less-Than-

regulated by the U.S. Army Corps of Engineers (USACOE), and the California Regional Water Quality Control Board (RWQCB). The following summarizes the analysis provided in the Biological Resources Analysis in Attachment D.

#### Plant Communities and Associated Wildlife Habitats

Developed/disturbed portions of the Project Area include previously developed single-family residences around the perimeter of the Project Area. Some residences were vacant, and some were occupied during the time of the site visit. Developed/disturbed areas include the buildings, driveways, backyards and associated landscaping. Dominant vegetation within the developed/disturbed areas consists of a mixture of ornamental and native, presumably planted tree and shrub species including London plane (Platanus x acerifolia), valley oak (Quercus lobata), coast live oak (Q. agrifolia), oleander (Nerium oleander), and juniper (Juniperus sp.). Herbaceous species within this community are predominantly non-native grasses and forbs. This community contains two native tree species, Quercus agrifolia (Coast Live Oak) and Quercus lobata (Valley Oak), large enough to be considered heritage trees per the Santa Rosa Tree Ordinance. In total there are 20 heritage trees within the Project Area. The "Arborist's Report: Tree Inventory and Evaluation" (Duckles, 2018 contained in Attachment D-3) for information regarding tree species, diameter, health, structural integrity, recommendations, and location.

Two sensitive communities are present within the Project Area (seasonal wetland and perennial wetland). Five special-status plant species were determined to have a moderate or high potential to occur within the Project Area. Six special-status wildlife species were determined to have potential to occur within the Project Area and one special-status species is present. In addition, a comprehensive tree survey was conducted by an ISA-Certified Arborist for the Project (Duckles 2017). The project area contains 20 heritage trees, as defined by the City's ordinance. Out of a total of 54 trees in the project area, pursuant to City Code 17-24 (Tree Ordinance), the Project would result in the removal of 46 trees, 13 of which are exempt trees and 13 of which are heritage trees per the City's ordinance. An additional 4 trees, all oaks (all of which are heritage trees), may be removed if construction affects their health. All trees to be removed will require a permit and mitigation per the City's ordinance.

The Project Area does not provide any substantial value as a local wildlife corridor, nor would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species. Wildlife movement between suitable habitat areas can occur via open space areas lacking substantial barriers. The key to a functioning corridor or linkage is that it connects two larger habitat blocks, also referred to as core habitat areas (Beier and Loe 1992, Soule and Terborgh 1999). The term "wildlife corridor" is useful in the context of smaller, local area planning, where wildlife movement may be facilitated by specific local biological habitats or passages and/or may be restricted by barriers to movement. Above all, wildlife corridors must link two areas of core habitat and should not direct wildlife to developed areas or areas that are otherwise void of core habitat (Hilty et al. 2006). Although the Project Area is adjacent to open space to the east, the Project Area is bounded on three sides (north, west and south) by high-density suburban residential development. Therefore, it does not provide a habitat linkage between open space to the east and another habitat block to the west. The Project Area does not function as a wildlife corridor, and no effects to wildlife corridors are anticipated to result from the proposed project.

<u>Wetlands</u>. One contiguous potential seasonal wetland feature, occupying approximately 1.41 acres, was delineated within the Project Area in 2015.

One discrete potential perennial wetland feature, occupying approximately 0.05 acre, was delineated within the Project Area in 2015 (Attachment D-2). The perennial wetland feature is nested within the broader seasonal wetland and located in the southeast quadrant of the Project Area.

Potential impacts to these sensitive resources associated with the proposed conversion of the site from primarily undeveloped land to a 59-lot subdivision of new single-family residential homes are discussed

below. Recommended avoidance, minimization, and mitigation measures to reduce such impacts are also included.

#### Impacts:

#### IV(a, b, c, e) Less Than Significant With Mitigation Incorporated.

(a) Potential Impacts to Special-Status Plant Species: Five special-status plant species, fragrant fritillary, congested-headed hayfield tarplant, Harlequin lotus, marsh microseris, and Gairdner's yampah were determined to have a moderate potential to occur within the Project Area. Fragrant fritillary, congested-headed tarplant, and marsh microseris are all California Native Plant Society Rank 1B species, meaning that they are considered rare, threatened or endangered in throughout their range in California, and they must be considered under CEQA. In contrast, Harlequin lotus and Gairdner's yampah both carry a California Native Plant Society Rank 4.2. According to the California Native Plant Society Rank guidelines (CNPS 2016b), few, if any, Rank 4 species are eligible for state listing under California Endangered Species Act; however, impacts may be considered significant under CEQA in special cases. Special cases where a Rank 4 species may be considered significant are described in bullet points below. Examples of impacts that may be considered significant under CEQA include:

- Impacts to the type locality of a California Rare Plant Rank 4 plant;
- Impacts to populations at the periphery of a species' range;
- Impacts in areas where the taxon is especially uncommon;
- Impacts in areas where the taxon has sustained heavy losses; or
- Impacts to populations exhibiting unusual morphology or occurring on unusual substrates.

A protocol survey for fragrant fritillary and harlequin lotus was conducted on March 10, 2017, which was within the typical blooming period for both of these plants, and none were observed. Therefore, these two plants are now considered to not be present. The two remaining plants, because of their later typical blooming period, were surveyed in July with no plants observed. With confirmation that neither species is present, the Project will have no adverse impacts to special-status plant species. All surveys followed the protocols outlined by the relevant resource agencies and included reference site visits to documented occurrences of three of the five target species to confirm that these species were in bloom. By following the protocols and visiting reference sites these surveys were determined to be valid, and are typically considered valid for three years. Moreover, the CNPS protocols state that one botanist can cover approximately 8 acres per hour within moderate diversity grasslands such as exist in the Project Area. A qualified botanist spent more than enough time on site and the survey was floristic in nature (all species observed were identified to the appropriate level to determine rarity). Therefore, the survey results are considered valid

<u>Special-Status and Nesting Bird Species</u>: Six special-status wildlife species were determined to have potential to occur within the Project Area, including: Allen's hummingbird (Selasphorus sasin), oak titmouse (Baeolophus inornatus), fringed myotis (Myotis thysanodes), long-legged myotis (Myotis volans), pallid bat (Antrozous pallidus), Townsend's western big-eared bat (Corynorhinus townsendii townsendii), and Yuma myotis (Myotis yumanensis), and one special-status species, Nuttall's woodpecker (Picoides nuttallii), is present. Additionally, the Project may affect nonspecial-status native nesting birds which are protected by the Migratory Bird Treaty Act and California Fish and Game Code.

The Project may affect nesting by Allen's hummingbird, Nuttall's woodpecker, and non-special-status birds protected by Migratory Bird Treaty Act and California Fish and Game Code (which includes most common non-special status bird species) by modifying nesting habitat, or by causing disturbance of a sufficient level to cause abandonment of an active nest. Potential impacts to these species and their habitats could occur during the removal of vegetation (i.e. tree and shrub removal) and structures (i.e. existing buildings), grading, or ground-disturbing activities. These activities could result in the direct removal or destruction of the active nests of protected bird species. These activities may also create audible, vibratory and/or visual disturbances which cause birds to abandon active nests.

Activities that result in the direct removal of active nests or disturbance to breeding birds sufficient to result in the abandonment of active nests would be potentially significant. Mitigation Measure BIO-3 addresses impacts to nesting birds and details how the mitigations will be implemented. With the implementation of these avoidance and minimization measures, the project will not result in impacts to nesting birds. Any active nests will be avoided by appropriate buffers until nests become inactive. Since no active nests will be disturbed after implementation of this mitigation measure, the Project will be in compliance with the MBTA and CFGC. As described above, the Project is preserving the largest valley oak and coast live oaks which represent the highest quality nesting habitat thereby ensuring that the migration reduces this impact to a level of less than significant.

<u>Special-Status Bat Species</u>: The Project Area contains uninhabited buildings that may provide roost structures to bat species documented in the vicinity and outlined in Attachment D: fringed myotis, long-legged myotis, pallid bat, Townsend's big-eared bat, and Yuma myotis. At the time of the site visit, the building was boarded at typical points of entry. However, bats are known to use buildings' relatively small entry and egress points that the initial site visit did not assess. The planned demolition of these buildings could potentially impact bat species that may use them as a roost. Potential impacts to these species and their roost habitats could occur during the removal of structures. These activities could result in the direct removal or destruction of the maternity roost. These activities may also create audible, vibratory and/or visual disturbances which cause maternity roosting bats to abandon their roost site.

Activities that result in the direct removal of active roosts or disturbance to maternity roosting bats sufficient to result in the abandonment of the roost would be potentially significant. Mitigation Measure BIO-4 addresses impacts to roosting bats by requiring a pre-construction roost assessment survey to determine that there is no evidence of potential for bat roosting activity. If evidence is found, protocols for construction either outside of, or during, the maternity roosting season are identified. With implementation of Mitigation Measure BIO-4 this impact would be less than significant as no roosting bats would be disturbed or removed.

(b and c) Impacts to Seasonal and Perennial Wetlands: The Project Area contains 1.41 acres of seasonal wetland 0.05 acre of perennial wetland which are potentially within the jurisdiction of the Corps under Section 404 of the Clean Water Act and 31 Regional Water Quality Control Board under the Porter Cologne Act and Section 401 of the Clean Water Act. The proposed development will convert all 1.46 acres of wetlands to developed land. Mitigation measures for these impacts are discussed below (see Mitigation Measure BIO-1). With implementation of this mitigation measure impacts to wetlands will be less than significant.

(e) Removal of Heritage Trees: A comprehensive tree survey was conducted by an ISA-Certified Arborist for the Project (Duckles, 2018). Per the City ordinance's criteria, there are 20 heritage trees on the site (mostly Valley Oaks and a few Coast Oaks that exceed 18-inch DBH). Out of a total of 54 trees in the project area, the Project would result in the removal of 46 trees, 13 of which are exempt trees and 13 of which are heritage trees per the City's ordinance. An additional 4 trees, all oaks (all of which are heritage trees), may be removed if construction affects their health. The City of Santa Rosa Tree Ordinance requires that development proposals and subdivision applications preserve and protect heritage trees to the greatest extent feasible. The Project will include retaining walls, large lots, and curb bulb-outs where appropriate to protect seven trees on the site and one tree on an adjacent parcel while satisfying street widening requirements and housing density goals. The Project will preserve the three largest Valley Oaks, all heritage trees with diameters between 30" to 39" DBH. These trees are of good or excellent quality with expansive canopies; they are aesthetically significant to the site and represent the highest quality nesting habitat for wildlife. Four oaks along the project perimeter will be preserved but may decline due to the impact of construction within their root zone. The Project will obtain a tree removal permit from the City prior to the removal of any protected or heritage trees and will mitigate for these removals. As such, this impact would not conflict with local policies or ordinances. Mitigation measures associated with the City's ordinance are summarized below (see Mitigation Measure BIO-2). With implementation of Mitigation Measure BIO-2 this impact would be less than significant. The Arborist's Report (Duckles,

2018 in Attachment D-3) contains the tree protection measures and the "Tree Mitigation Tabulation," "Replacement Trees Tabulation," and Preliminary Landscape Master Plan (See Figure 3). For information on tree replacement in compliance with the City Code Chapter 17-24, see Table BIO-1, below.

Trees to be Removed	Total Diameter to be Removed			
All Fruit & Nut Trees	Exempt			
All Fruitless Mulberry	Exempt			
All Black Acacia	Exempt			
All Monterey Pine	Exempt			
All Silver Maple	Exempt			
Valley Oaks/ Quercus lobata	157"			
Coast Live Oaks/ Quercus agrifolia	253			
London Planes/ Platanus x acerifolia)	79"			
Hackberry/Celtis sp.	5"			
Black Walnut/Juglans nigra	54"			
Mexican Pan Palm/Washingtonia Robusta	17"			
Total Diameter to be Mitigtated	565			
Total Required Mitigation Trees	188			
<ol> <li>Total required mitigation trees is expressed in number of 15 gallon replacement trees required at the rate of (2) replacement trees for each 6" (or fraction thereof) of trunk caliper (DBH) of trees to be removed per Santa Rosa City Code (Title 17, Chapter 24).</li> </ol>				
<ol> <li>See arborist's report dated May 2018 and "Tree Mitigation" dated May 2018 for additional information.</li> </ol>				
3. Developer shall submit a "Tree Replacement Plan" or pay the appropriate				

Table BIO-1: Tree Mitigation Su	mmary
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# IV(d, f) No Impact.

(d) The Project Area does not provide any substantial value as a local wildlife corridor, nor would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species. No effects to wildlife corridors are anticipated to result from the proposed project.

mitigation fee prior to issuance of building permit.

(f) The Project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Although the Project is within the Santa Rosa Plain geographic area, both the Santa Rosa Plain Conservation Strategy (which has not been fully adopted) and the USFWS Biological Opinion for the Santa Rosa Plain have always indicated that development in the Project Area and vicinity would have no effect on listed plants covered by the documents (WRA 2017). In addition, although the Project Area and vicinity was once considered within the range of CTS, it has been determined in the years since that CTS are unlikely to be present. In 2007, CDFG designated the Project Area and land in the vicinity as a "no effect" area on CTS during development (CDFG 2007). There have been no occurrences of CTS in the Project Area or vicinity east of U.S. Highway 101, ever. Furthermore, the USFWS defined the Project Area and land in the vicinity as "not identified as a core management area" (USFWS 2016). The increased development in this area since the publishing of these two materials are further evidence that CTS are not considered to be in proximity of the Project Area. No breeding, upland, or dispersal habitat is present, and this species is not known within 2 miles of the Project Area (USFWS 2005, CDFG 2007, USFWS 2016, and CDFW 2017). Based on this information, the Project will have no adverse effect on listed plants or CTS and will not be in conflict with the Santa Rosa Plain Conservation Strategy, the Biological Opinion, or any other conservation plan.

# **Recommended Mitigation Measures:**

BIO-1. Wetlands: The wetland delineation report (WRA 2015) shall be submitted to the U.S. Army Corps of Engineers for verification. A permit from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and/or California Department of Fish and Wildlife shall be required to fill the 1.41 acres of seasonal wetland and 0.05 acre of perennial wetland (1.46 acres total) in the Project Area. Impacts to seasonal and perennial wetland features will be fully mitigated at a minimum 1:1 ratio on a functions and values basis ("no net loss"); however, the final wetland mitigation requirements are determined by the regulatory agencies during the permitting process. Required no net loss mitigation ratios shall be met by creating wetlands off-site (may require a higher than 1:1 replacement to impacts ratio, as determined by agencies) or purchasing wetland credits (1:1 ratio) from an established and agency approved wetland mitigation bank. Permits from agencies cannot be authorized until no net loss mitigation is determined to have been fulfilled by the agencies. Ultimate mitigation ratios are determined by the resource agencies (Corps and RWQCB) through the Section 404/401 permitting process. Once applications are submitted, the mitigation requirements are determined, not prior to submitting applications. The resource agencies dictate and approve which mitigation banks the applicant can purchase credits from based on the Project service area and credit availability. Implementation of these compensatory mitigation measures will reduce wetland impacts to less-than-significant levels.

**BIO-2. Tree Removal:** The City of Santa Rosa Tree Ordinance requires that development proposals and subdivision applications preserve and protect heritage trees to the greatest extent feasible. The Project will preserve the three largest Valley Oaks, all heritage trees with diameters between 30" to 39" DBH. These trees are of good or excellent quality with expansive canopies; they are aesthetically significant to the site and represent the highest quality nesting habitat for wildlife. Four oaks along the project perimeter will be preserved but may decline due to the impact of construction within their root zone. The Project will obtain a tree removal permit from the City prior to the removal of any protected or heritage trees and will mitigate for these removals. As such, this impact would not conflict with local policies or ordinances.

A tree removal permit shall be obtained from the City of Santa Rosa for any alteration, removal or relocation of any tree including heritage, protected or street tree. The City of Santa Rosa requires replacement plantings or financial contributions as a condition of approval in order to mitigate for the loss of functions provided by trees to be removed including shade, erosion control, groundwater replenishment, visual screening, and wildlife habitat. Replacement trees shall be planted in accordance with the following criteria as stated in the City's Ordinance:

- a. For each 6 inches or fraction thereof of the diameter of a tree which was approved for removal, two trees of the same genus and species as the removed tree (or another species, if approved by the City), each of a minimum 15-gallon container size, shall be planted on the project site, provided however, that an increased number of smaller size trees of the same genus and species may be planted if approved by the City, or a fewer number of such trees of a larger size if approved by the City.
- b. If the development site is inadequate in size to accommodate the replacement trees, the trees shall be planted on public property with the approval of the Director of the City's Recreation and Parks Department. Upon the request of the developer and the approval of the Director, the City may accept an in-lieu payment of \$100.00 per 15-gallon replacement tree on condition that all such payments shall be used for tree-related educational projects and/or planting programs of the City.
- c. A consulting arborist shall be present during work done within their driplines to assess how many roots are encountered that must be cut. A note stating this will be printed on construction plans to alert the contractors and supervisors to schedule the arborist. If the trees are deemed by the arborist to be unstable or hazardous after that work, they shall be removed and mitigated.
- d. Tree protection fencing shall be installed at the outer edge of the protected tree driplines prior to construction, or at the limit of required access on Linwood.

The above mitigation measures along with payment of any required in lieu fees, will provide full mitigation for impacts related to the removal of trees, reducing the impact to less than significant.

**BIO-3. Nesting Birds:** The following mitigation measures shall be implemented to avoid impacts to Allen's hummingbird, Nuttall's woodpecker, and nesting birds protected by the Migratory Bird Treaty Act and California Fish and Game Code.

- a. If ground disturbance or vegetation removal is initiated in the non-breeding season (September 1 through January 31), no pre-construction surveys for nesting birds are required and no adverse impact to birds would result.
- b. If ground disturbance or removal of vegetation occurs in the breeding bird season (February 1 through August 31), pre-construction surveys following guidelines/protocols by CDFW shall be performed by a qualified biologist, including conducting the surveys no more than 14 days prior to commencement of such activities to determine the presence and location of nesting bird species. If active nests are present, standard nesting bird avoidance measures following CDFW guidelines will be implemented, including establishment of temporary no-work buffers around active nests will prevent adverse impacts to nesting birds. Appropriate buffer distance shall be determined by a qualified biologist and is dependent on species, surrounding vegetation, and topography. Once active nests become inactive, such as when young fledge the nest or the nest is subject to predation, work may continue in the buffer area and no adverse impact to birds will result.

With the implementation of these avoidance and minimization measures, the project will not result in impacts to nesting birds. Any active nests will be avoided by appropriate buffers until nests become inactive. Since no active nests will be disturbed, the Project will be in compliance with the MBTA and CFGC. As described above the Project is preserving the largest valley oak and coast live oaks which represent the highest quality nesting habitat. Therefore, the impact is considered less than significant.

**BIO-4. Special-Status Bat:** The following measures shall be implemented to avoid impacts to special-status bat species:

- a. Pre-construction roost assessment survey: A qualified biologist shall conduct a roost assessment survey of uninhabited residences located within the Project Area at least one week prior to initiation of construction. The survey will assess use of the structure for roosting as well as potential presence of bats. If the biologist finds no evidence of, or potential to support bat roosting, no further measures are recommended. If evidence of bat roosting is present, additional measures described below shall be implemented:
  - 1. Work activities outside the maternity roosting season: If evidence of bat roosting is discovered during the pre-construction roost assessment and demolition is planned August 1 through mid-April (outside the bat maternity roosting season), a qualified biologist shall implement passive exclusion measures (i.e. sealing up points of ingress/egress) to prevent bats from re-entering the structures, or making the structures unsuitable to roosting (i.e. opening up the structures to excessive wind or light exposure which would limit temperature stability necessary for thermoregulation during roosting). After sufficient time to allow bats to escape and a follow-up survey to determine if bats have vacated the roost, demolition may continue and impacts to special-status bat species will be avoided.
  - 2. Work activities during the maternity roosting season: If a pre-construction roost assessment discovers evidence of bat roosting in the uninhabited residences during the maternity roosting season (March 1 through July 31), and determines maternity roosting bats are present, demolition of maternity roost structures shall be avoided during the maternity roosting season or until a qualified biologist determines the roost has been vacated.

With the implementation of the above Mitigation Measures, the Project will not result in impacts to specialstatus bat species or bat maternity roosts. Therefore, the impacts to special-status bats will be less-thansignificant levels.

# Sources:

- Duckles, B. ISA, Arborist's Report, Tree Inventory & Evaluation, Penstemon Place, May 2018
- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- WRA, Inc., Biological Resources Assessments, Penstemon Place Development Project, March 2017, letter dated June 6, 2017, and letter dated July 25, 2017
- WRA, Inc., Draft Jurisdictional Wetlands Delineation Report, McIntosh Property, April 2015

# **V. CULTURAL RESOURCES**

Wo	uld the project?	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a historic resource as defined in 15064.5?			X	
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?			×	
C.	Disturb any human remains, including those interred outside of formal cemeteries?			X	

# Discussion:

A Cultural Resources Report evaluating the Project site was prepared by Tom Origer & Associates in October of 2015. Their report serves as the basis of this analysis and conclusions. The full report is found in Attachment J.

The Project site is located on an underdeveloped site within the City of Santa Rosa within an area of planned development. The study area comprises approximately 9.7 acres of gradually sloping land located less than two miles southeast of downtown Santa Rosa, as shown on the Santa Rosa, California 7.5' USGS topographic maps.

Based on the distribution of known cultural resources and their environmental settings, it was anticipated that prehistoric and/or historical archaeological sites could be found within the study area. One isolated flake made from obsidian of the Annadel source was found near a tree in the northwest portion of the study area. The specimen found was a single isolated obsidian flake. Isolated finds can contribute some information to prehistoric land use and hunting patterns. However, once their presence is documented no further work is warranted. The isolated find has been documented and no further investigation or protection is warranted.

V(a) **Less Than Significant Impact. Historic.** Six homes are located within the study area. ParcelQuest.com indicates that these homes were constructed during the 1960s. Five of the six homes have nearly identical footprints. All 6 houses are modest, ranch-style homes, and they are in various states of disrepair; only four are currently habitable.

While the residences on the property meet the age guidelines for consideration to the California Register of Historical Resources, none of the homes are architecturally distinctive or representative of a historical period. ParcelQuest.com indicates that the buildings were constructed during the 1960s; therefore, their potential to yield important information is limited by their relative youth. None of the buildings meet Criterion 1 of the California Register because there is no evidence to suggest that any of the buildings have made a significant contribution to local or regional history, or the cultural heritage of California or the United States. None of the buildings meet Criterion 2 of the California Register because there is no evidence to suggest that they are associated with the lives of persons important to local, California, or national history. Based on the age of the buildings, it is unlikely that they have been associated with the lives of persons important to local, California, or national history. None of the buildings meet Criterion 3 of the California Register because none of the buildings have any distinctive architectural characteristics.

They are all modest, ranch-style homes. The Ranch-style is ubiquitous to mid-20th century developments within Sonoma County and is considered to be relatively commonplace. None of the buildings meet Criterion 4 because they do not have the potential to yield information important to the prehistory or history of the local area, California, or the nation. Therefore, in the opinion of Tom Origer Associates, these six buildings do not appear to meet eligibility criteria for inclusion on the California Register of Historical Resources. No further work is recommended and razing these homes will result in a less than significant impact.

V(b,c) Less Than Significant Impact. Archaeological. Contacts to Native American groups<sup>2</sup>, archival research and a field survey did not reveal any prehistoric or historic-era cultural resources within the study area, and no resource-specific recommendations are warranted.

There is the possibility that buried archaeological deposits could be present, and accidental discovery could occur. In keeping with the CEQA guidelines, if archaeological remains are uncovered, work at the place of discovery should be halted immediately until a qualified archaeologist can evaluate the finds (§15064.5 [f]). Prehistoric archaeological site indicators include: obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and handstones, and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire affected stones. Historic period site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

V(c) **Less than Significant Impact. Human Resources.** No resources were identified in archival research, during contacts or during the on-site field reconnaissance. Existing standard measures, imposed by the City of Santa Rosa and promulgated in Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5 pertaining to the discovery of human remains, will protect any subsurface human remains that might be discovered during construction. As such, impacts will be less than significant.

# Mitigation Measures:

None required

# **Standard Measures:**

The City's standard construction related measures require that if any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains are encountered during any construction activities, the Contractor shall implement measures deemed necessary and feasible to avoid or minimize significant effects to the cultural resources including the following:

- Suspend work within 100 feet of the find; and,
- Immediately notify the City's Community Development Director and coordinate any necessary investigation of the site with a qualified archaeologist as needed to assess the resources (i.e., whether it is a "historical resource" or a "unique archaeological resource"); and,
- Provide management recommendations should potential impacts to the resources be found to be significant;
  - Possible management recommendations for historical or unique archaeological resources could include resource avoidance or data recovery excavations, where avoidance is infeasible in light of project design or layout, or is unnecessary to avoid significant effects

<sup>&</sup>lt;sup>2</sup> Preliminary notification letters sent by the consulting archaeologist will be followed by formal consultation by the City's under its obligation to consult under AB52. Letters sent by the consulting archaeologist do not have specific comment period; however, the majority of the letters were sent October 1, 2015 allowing 20 days for the tribes to respond. No responses were received during that period, except from the NAHC, as noted.

• In addition, the Contractor in consultation with the Preservation Director, State Historic Preservation Officer, and if applicable, Tribal representatives, may include preparation of reports for resources identified as potentially eligible for listing in the California Register of Historical Resources.

None of the responses received from the tribes indicated that they desire an archaeologist present during initial grading.

The following actions are promulgated in Public Resources Code 5097.98 and Health and Human Safety Code 7050.5, and pertain to the discovery of human remains:

• If human remains are encountered, excavation or disturbance of the location must be halted in the vicinity of the find, and the county coroner contacted. If the coroner determines the remains are Native American, the coroner will contact the Native American Heritage Commission. The Native American Heritage Commission will identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent makes recommendations regarding the treatment of the remains with appropriate dignity.

#### Sources:

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- Tom Origer & Associates, Cultural Resources Study, October 2015

# VI. ENERGY

Would the project?	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<ul> <li>Result in a potentially significant environmental; impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation??</li> </ul>			X	
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

# Discussion

Most of the energy consumed in Santa Rosa is produced from traditional sources and delivered to the city through established distribution networks. Pacific Gas and Electric Company (PG&E) provides electrical services and natural gas within the Urban Growth Boundary, and gasoline and other petroleum products are sold through private retailers throughout the city.

New buildings, including homes, constructed in California must comply with the standards contained in Title 20, Public Utilities and Energy, and Title 24, Building Standards Code, of the California Code of Regulations (CCR). These efficiency standards apply to new construction of both residential and nonresidential buildings, and both 20 CCR and 24 CCR regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process.

The 2016 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential Standards include improvements for attics, walls, water heating, and lighting

In 2010, the City adopted CALGreen Tier 1 standards which apply to all new buildings and to additions and alterations of residential and non-residential buildings. The Tier 1 standards exceed the basic level of requirements of the CALGreen Building Code. This program supports the City's efforts to reduce greenhouse gases to reach the local, regional, and state targets outlined in the City's Climate Action Plan. The City adopted CAP in 2012 and a Municipal Climate Action Plan (MCAP) in 2013. The CAP examines community-wide sources of GHG emissions and outlines strategies for reducing these emissions. The MCAP addresses greenhouse gas emissions from the City's municipal operations.

The City of Santa Rosa General Plan addresses energy use and efficiency in all elements by including goals and policies for improving energy efficiency and reducing waste. The General Plan seeks to reduce energy consumption through minimizing vehicle trips and approving land use patterns that support increased density in areas where there is infrastructure to support it, increased opportunities for transit, pedestrians, and bicycles, and through green building and land development conservation strategies.

# Impacts

VI(a,b) Less than Significant Impact. Energy. Project construction will occur for approximately 15 months and will consume energy through the operation of heavy off-road equipment, trucks, and worker

vehicle traffic. Electricity will be used to power tools, lighting, and electric machinery. Operation of the 59 residences will consume electricity, water, and natural gas. Electricity and natural gas will be used for lighting, heating, and appliances. However, the Project's 59 new homes will replace 6 older, less energy efficient homes with energy efficient buildings.

The Project will be required to comply with the applicable measures identified in the CAP *New Construction Checklist* including policies related to energy efficiency as a standard condition of approval. Details on CAP compliance for construction and operation of the Project are provided in Section VII Greenhouse Gases. Compliance with the City of Santa Rosa CAP, including but not limited to compliance with the City's CalGreen Tier 1 Standards and California Energy requirements under Title 24 and installation of real-time energy monitors will ensure the Project will not result in wasteful, inefficient, or unnecessary consumption of energy during construction and operation of the Project.

The Project must comply with California requirements under Title 20 and Title 24 will require the Project to comply with state building energy requirements. These requirements are enforced during the City's permit approval and will reduce impacts on wasteful, inefficient, or unnecessary consumption of energy during operation of the Project. Therefore, impacts related to wasteful, unnecessary energy consumption and compliance with renewable or energy efficiency plans will be less than significant.

# Mitigation Measures:

None required.

#### Sources:

- City of Santa Rosa 2035 General Plan/FEIR, 2009
- City of Santa Rosa Climate Action Plan, adopted 2012
- City of Santa Rosa Municipal Climate Action Plan, adopted 2013

# VII. GEOLOGY AND SOILS

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

# Discussion:

The Project has been the subject of a geotechnical investigation prepared by RGH Consultants in November of 2015. Their report is the basis for this analysis and the conclusions. The entire report is found in Attachment F.

As described by RGH Consultants, the property extends primarily over level to moderately sloping terrain. The vegetation consists primarily of annual grasses and scattered oak trees. Published geologic maps indicate the property is underlain by three geologic units. The western and southern portion of the site is underlain by the Pliocene and Miocene age Petaluma Formation, which is comprised of sandy to silty gravel, silty sandstone, siltstone, and mudstone. The central and northern portion of the site is underlain by Holocene age alluvium which is comprised of gravel, sand, and silt. The eastern portion of the site is

underlain by an andesite, basaltic andesite and basalt unit of the Pliocene and Miocene age Sonoma Volcanics group. The Project site does not contain evidence of any geologic activities such as faulting and landsliding, but is located in an area considered to be susceptible to ground motions.

Santa Rosa is located within a seismically active area in California. The area is subject to geological hazards related primarily to seismic events (earthshaking) due to presence of faults. The branches of the Rodgers Creek fault zone have not been historically active, but there is evidence of activity within the last 11,000 years. The Rodgers Creek fault traverses the eastern portion of Santa Rosa. There is the potential for geologic hazards in and around the City associated with ground shaking, including liquefaction, ground failure, and seismically induced landslides. Initial Study/Mitigated Negative Declaration 39 Park Lane II Apartments - Santa Rosa a major seismic event on one of the active faults near the City of Santa Rosa could result in violent to moderate ground shaking. Strong ground shaking would be expected from earthquakes generated by nearby faults including the Rodgers Creek Fault (4 miles East), Mayacama fault (15 miles North), San Andreas Fault (14 miles Southwest), and the West Napa fault (30 miles Southeast).However, the Project site is not located within the Alquist-Priolo Special Study Zone, as depicted in the General Plan 2035 (Figure 12-3). In addition, the site is outside of the area of violent ground shaking in the event of an earthquake on the Rogers Creek Fault. The development shall be required to be in compliance with the California Building Code (CBC) to address all potential impacts related to possible area seismic activity, reducing impacts from geologic hazards less than significant.

Free groundwater was not observed in test pits at the time of excavation. On hillsides, rainwater typically percolates through the porous surface materials and migrates downslope in the form of seepage at the interface of the surface materials and bedrock, and through fractures in the bedrock. Fluctuations in the seepage rates typically occur due to variations in rainfall intensity, duration and other factors such as periodic irrigation.

While the primary geologic hazard identified at the site is the potential for strong to very strong earthquake-induced ground shaking. Other hazards, as discussed below, are not considered significant at the site. A brief description of each geologic hazard an assessment of potential impacts as a result of the development of this site is presented in the following paragraphs.

As required by SUSMP, the Project Civil Engineer shall design the site drainage to collect surface water into storm drain systems and discharge water at appropriate locations. Re-establishing vegetation on disturbed areas will minimize erosion. Erosion control measures during and after construction shall conform to the most recent version of the Erosion and Sediment Control Field Manual prepared by the California Regional Water Quality Control Board.

VII(a)(i) Less Than Significant Impact Fault Surface Rupture. No landforms within the area exist that would indicate the presence of active faults and the site is not within a current Alquist-Priolo Earthquake Fault Zone Map. Therefore, the risk of fault rupture at the site is low. And thus, not significant

Structures and foundations shall be designed to account for some post-earthquake differential settlement. Foundation design criteria are provided in the Geotechnical Investigation. Compliance with the most current seismic design criteria of the CBC will address issues related to seismic instability.

VII(a)(ii) Less than Significant Seismic Shaking. The City of Santa Rosa, including the project site, is located in close proximity to the Rodgers Creek fault. This fault has a maximum intensity of X on the Mercalli Intensity Shaking Severity scale, which is a measurement of earthquake intensity indicating moderate to significant structural damage. The San Andreas Fault has a maximum intensity of X as well. The project site is located within areas susceptible to violent and/or very violent ground shaking during an earthquake on the Rodgers Creek fault, as delineated in Figure 12-3 of the Santa Rosa General Plan 2035. Therefore, development of the project site has the potential to expose people or structures to potentially substantial adverse effects resulting from strong seismic ground shaking.

The Project shall be designed per the current edition of the California Building Code at the time of the building permit application in order to ensure design and construction of the proposed subdivision is in strict adherence with current standards for earthquake-resistant construction. Compliance with the building code shall ensure that risks related to seismic shaking are reduced to levels of less than significant.

VII(a)(iii) **Less Than Significant Impact. Ground Failure.** No subsurface conditions were observed that would suggest the presence of materials that may be susceptible to seismically induced densification or liquefaction. Therefore, the potential for the occurrence of these phenomena at the site is low and therefore deemed a less than significant impact.

VII(a)(iv) Less Than Significant Impact. Landsliding. No indications of large-scale slope instability or landslides were discovered at the site and, therefore, are deemed a less than significant impact.

VII(b) **Less Than Significant Impact. Erosion.** Expansive soils were encountered along the western portion of the site and a portion of the southeastern part of the site. Expansive surface soils shrink and swell as they lose and gain moisture throughout the yearly weather cycle. Near the surface, the resulting movements can heave and crack lightly loaded shallow foundations (spread footings) and slabs. Prior to issuance of a grading permit, an erosion control plan along with grading and drainage plans shall be submitted to the Building Division of the City's Department of Planning and Economic Development. All earthwork, grading, trenching, backfilling, and compaction operations shall be conducted in accordance with the City of Santa Rosa's Grading and Erosion Control Ordinance, Chapter 19-64 of the Santa Rosa Municipal Code.

#### VII(c)Less than Significant Impact.

**Seismic Induced Ground Settlement.** Subsurface conditions encountered during testing did not suggest the presence of materials that may be susceptible to seismically induces densification or liquefaction. Therefore the potential occurrence of this phenomenon at the site is low and therefore a less than significant impact.

**Lateral Spreading, Lurching and Ground Cracking.** Provided the foundations are installed as recommended herein, and the proposed fills are adequately keyed into underlying bedrock material as subsequently discussed, we judge the potential for impact to the proposed improvements from the occurrence of this phenomenon at the site is low and, therefore, a less than significant impact.

**Slope Instability.** There are no mapped landslides at the site and landslides were not observed during geotechnical exploration of the site. Therefore the risk of landsliding is considered a less tan significant impact.

**Settlement/Subsidence.** Significant settlement can occur when new loads are placed at sites due to consolidation of soft compressible clays (i.e. bay mud) or compression of loose soils. Soft compressible materials were not observed during the subsurface exploration that would have a significant potential for compression settlement and consolidation with an applied surface load and is therefore considered a less than significant impact.

VII(d) **Less Than Significant: Expansive Soil.** Expansive soils were encountered along the western portion of the site and a portion of the southeastern part of the site. Expansive surface soils shrink and swell as they lose and gain moisture throughout the yearly weather cycle. Near the surface, the resulting movements can heave and crack lightly loaded shallow foundations (spread footings) and slabs. The zone of significant moisture variation is dependent on the expansion potential of the soil and the extent of the dry season. In the Project area, the active layer is generally considered to range in thickness from about 2 to 3 feet. Stable foundation support needs to be obtained below this layer. If foundations are designed and constructed in accordance with the Geotechnical study and per the current edition of the California Building Code, the risk posed by expansive soils is considered a less than significant impact.

VII(e) The Project proposes to connect to the public sewer system. Therefore, no impacts related to soil capability for wastewater disposal are anticipated.

VIII(f) **Less than Significant Impact.** There are no known unique geological or paleontological features on the Project site that would indicate the presence of cultural resources. However, the potential exists for archaeological resources to be uncovered during construction. The City's standard measures (provided in Section V) will reduce this potential impact to a level of less than significant.

#### Mitigation Measures:

None required.

# Standard Measures:

**Grading:** Prior to issuance of a grading permit an erosion control plan along with grading and drainage plans shall be submitted to the Building Division of the City's Department of Planning and Economic Development. All earthwork, grading, trenching, backfilling, and compaction operations shall be conducted in accordance with the City of Santa Rosa's Grading and Erosion Control Ordinance, Chapter 19-64 of the Santa Rosa Municipal Code). These plans shall detail erosion control measures such as site watering, sediment capture, equipment staging and laydown pad, and other erosion control measures to be implemented during construction activity on the project site.

All applicable recommendations in the Geotechnical Engineering Investigation and contained in Attachment F are prepared for the subject property, including, but not limited to grading, excavation, foundations systems, and compaction specification shall be incorporated as conditions of project approval. Final grading plan, construction plans, and building plans submitted by the Applicant shall demonstrate that recommendations set forth in the geotechnical reports have been incorporated into the design of the project.

# Sources:

- City of Santa Rosa 2035 General Plan/FEIR, 2009
- RGH Consultants, Geotechnical Study Report, McIntosh Property Subdivision, Linwood Avenue, Santa Rosa California, November 2015

# VIII. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Would the project:				
a. Generate Greenhouse Gas Emissions, either directly or indirectly, that may have a significant impact on the environment?			$\boxtimes$	
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			X	

#### Discussion:

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO<sub>2</sub>) and water vapor but there are also several others, most importantly methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of local GHGs are generally as follows:

- Fossil fuel combustion
- Agricultural operations
- Chlorofluorocarbons
- HFCs

In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of  $CO_2$  equivalents ( $CO_2e$ ).

#### Significance Thresholds

#### State of California

The State of California has set GHG reduction goals through the passage of Assembly Bill 32 (AB 32), the "Global Warming Solutions Act." AB 32 aims at reducing GHG emissions to 1990 levels by 2020. The BAAQMD CEQA Air Quality Guidelines (Guidelines) have established GHG thresholds of significance in order to meet the goals of AB 32. The BAAQMD Guidelines (updated in 2011) summarizes the GHG thresholds for residential development operational use at 56 units or 1,100 metric tons (mt) of CO2e/year or compliances with an adopted Climate Action Plan.

#### City of Santa Rosa

On December 4, 2001 the Santa Rosa City Council adopted a resolution to become a member of Cities for Climate Protection (CCP), a project of the International Council on Local Environmental Initiatives (now called ICLEI Local Governments for Sustainability). Since that time all eight Sonoma County municipalities and Sonoma County have become members. By becoming a member, local governments commit to completing five milestones: 1) conduct a GHG emissions analysis; 2) set a target for emissions reduction; 3) draft a local action plan for meeting the target; 4) implement the action plan; and 5) monitor and report on the progress. The City adopted the Climate Action Plan in 2012. A project that is in

compliance with a Qualified GHG Reduction Strategy (such as the City of Santa Rosa's Climate Action Plan) would be considered as having a less than significant impact.

Operation & Construction Discussion: The BAAQMD has established screening criteria to provide lead agencies with a conservative indication of whether a project could result in significant GHG impacts during operations (i.e., occupancy). The operational screening criterion for GHG for single family residential uses is 56 units. This Project proposes new 59 homes, replacing six existing homes, and is therefore below the screening criteria.

Santa Rosa Climate Action Plan (CAP): The Project has included as part of its Project description compliance with the City's Climate Action Plan's measures to reduce the Project's contribution of GHG's. By design, the Project proposes to include solar pre-plumbing and solar on each house and includes all Title 24 and CalGreen Tier 1 Standards in effect at the time of building permit submission. Compliance with these measures is discussed below.

**Policy 1.1.1** - Comply with CALGreen Tier 1 Standards: The Project is designed to comply with State Energy requirements for Title 24 and CALGreen Tier 1 Standards in effect at time of building permit submission. Such standards have been incorporated into building placement, site development, building design and landscaping.

**Policy 1.1.3** – If after 2020, all new development will utilize zero net electricity: Climate Action Plan (CAP) Goal 1 – 1.1.3 was adopted to coincide with California Energy Codes. Since the CAP adoption, the California Energy Commission (CEC) has determined that it is not possible to achieve "net zero" on a wholesale basis and "net zero" has been removed from the California Energy Codes. Appendix E of Santa Rosa's Climate Action Plan states that, "To be in compliance with the CAP, all measures denoted with an asterisk are required in all new development projects unless otherwise specified. If a project cannot meet one or more of the mandatory requirements, substitutions may be made from other measures listed at the discretion of the Community Development Director." CAP Goal 1 - 1.1 requires projects to comply with Tier 1 CALGreen requirements, as amended, for new non-residential and residential development. Tier 1 CALGreen does not include "net zero" Greenhouse Gas (GHG) assumptions for development. In addition, current California Green Building Code Standards apply to all projects and has been determined by the Director to be an acceptable substitution for CAP Goal 1 – 1.1.3. Therefore, strict compliance with CAP Goal 1 – 1.1.3 is not achievable and not required.

**Policy 1.3.1** – Real time Energy Monitors: The Project will include the latest generation of energy monitors to track energy use (i.e. use of nest thermostats).

**Policy 1.4.2**- Comply with the City's Tree Preservation Ordinance (Santa Rosa Code Section 17-24.020. Out of a total of 54 trees in the project area, there are 46 trees being removed, 13 of which are exempt trees and 13 of which are heritage trees per the City's ordinance. An additional 4 trees, all oaks (all of which are heritage trees) may be removed if construction affects their health; these trees have been included in the mitigation calculation in the event that they are removed. Hundreds of trees will be planted and/or in-lieu fees paid (in compliance with the City of Santa Rosa Tree Ordinance, City Code Chapter 17-24).

**Policy 1.4.3** – Provide public and private trees in compliance with the Zoning Code: As shown on the Landscape Plan, the Project includes the planting of trees, both public and private. The Landscape design is in compliance with the Santa Rosa Zoning Code, Santa Rosa Design Guidelines, and Water Efficient Landscape Ordinance.

**Policy 1.5** – Install new sidewalks and paving with high solar reflectivity materials: All proposed new sidewalks, driveways and parking areas will be paved with hard materials that contain either color or other enhancements to provide enhanced reflectivity.

<u>Policy 2.1.3 – Pre-plumb for solar thermal or PV systems:</u> The Project will include pre-plumbing for solar and solar thermal as required by the California Building Code (CBC).

**Policy 3.1.2** – Supports implementation of station plans and corridor plans: The Project is not within a Station Area Plan or within a Corridor Plan. The Project does support alternative modes of transit by providing sidewalks and a bike path which encourage a walkable community. The Project is located within walking distance to local parks and open space.

**Policy 3.2.1** – Provide on-site services such as ATMs or dry cleaning to site users: The Project has no on-site commercial facilities to house ATMs, dry cleaning services, or similar uses, and is not zoned for such uses.

**Policy 3.2.2** - Improve non-vehicular network to promote walking, biking: The Project is designed with sidewalks and a bike path to promote walking and biking throughout the subdivision. Sidewalks and bike paths will be provided adjacent to the subdivision so as to connect with the community.

**Policy 3.2.3 -** Support mixed use, higher density development near services: The Project is located in an area designated as Low Density residential on the General Plan Land Use Diagram which is intended for detached single-family homes at a density of 2-8 units per acre. The Project will provide a diversity of housing styles by incorporating access off auto-court and by the inclusion of accessory dwelling units.

**Policy 3.3.1** – Provide affordable housing near transit: The Project is located ½ mile away from a public transit (bus stop), therefore this policy does not apply.

**Policy 3.5.1** – Unbundle parking from property cost: The property has only private parking and on-site street parking, therefore, the policy does not apply.

**Policy 3.6.1** – Install calming features to improve ped/bike experience: The interior Project landscaping is designed to promote and improve both the pedestrian and bicycle experience by providing connectivity to neighborhoods to the north and south.

**Policy 4.1.1** – Implement the Bicycle & Pedestrian Master Plan: The Project includes construction of bike lanes and sidewalks along its frontage thereby supporting the City's Bicycle & Pedestrian Master Plan.

**Policy 4.1.2** – Install bicycle parking consistent with regulations: There are no regulations that require formalized bicycle parking in single family residential areas, however, the Project provides garages that will be available to house bicycles.

**Policy 4.1.3** – Provide bicycle safety training to residents and employees: The Project will sell individual homes; therefore, this policy does not apply.

**Policy 4.2.2** – Provide safe spaces to wait for bus arrival: This policy does not apply as there are no bus routes near the site (located  $\frac{1}{2}$  mile away).

**Policy 4.3.2** – Provide parking for car sharing operations: As a single-family residential development, the owners will have opportunities to develop car sharing options with neighbors.

**Policy 4.3.4** – Work with large employers to provide rideshare programs: This policy does not apply to single family residential subdivisions.

**Policy 4.3.5** – Consider expanding employee programs promoting transit use: This policy does not apply to single family residential subdivisions as there are no employers at the Project.

**Policy 4.3.6** – Provide awards for employee use of alternative commute options: This policy does not apply to single family residential subdivisions as there are no large employers at the Project.

**Policy 4.3.7** – Require new employers of 50+ provide subsidized transit passes: This policy does not apply to single family residential subdivisions as there are no large employers at the Project.

**Policy 4.3.9** – Provide space for additional Park-and-Ride lots: The Project is a walkable low-density single-family residential subdivision with no space for a park and ride lot.

**Policy 4.5.1** – Install facilities for residents that promote telecommuting: All houses will have internet access available.

**Policy 5.1.2** – Install electric vehicle charging equipment: All units will have electric charging equipment in the garages that can be used to charge vehicles.

**Policy 5.2.1** – Provide alternative fuels at new re-fueling stations: The Project is not a re-fueling station project therefore, this policy does not apply.

**Policy 6.1.4** – Increase diversion of construction waste: A Construction Waste Management Plan for recycling and disposal of construction wastes will be provided at time of building permit submittal. The contractor will divert all possible construction waste.

**Policy 7.1.1** – Reduce potable water for outdoor landscaping: As shown on the plan, Project landscaping will utilize low water use plants. Landscape irrigation utilizes drip systems using a smart controller. The Project will be compliant with the City of Santa Rosa's WELO.

**Policy 7.1.3** – Install Real time water meters: Irrigation system design and real time metering will be shown on final landscaping and irrigation plans. The City provides the water meters and has data logging equipment that can collect real time data from City-issued water meters.

**Policy 7.3.2** - Install dual plumbing in areas of future recycled water: Dual plumbing is not proposed as there is no current plan by the City to extend recycled water to this portion of the City. Compliance with Policies 7.1.1, 7.1.3 and 9.1.3 will substitute for this policy.

**Policy 8.1.3** – Establish community gardens and urban farms: The Project is a single-family residential development. Each home site has a backyard area that can be used for a garden.

**Policy 9.1.2** – Provide outdoor outlets for charging lawn equipment: The Project will have outdoor outlets to allow for accessible charging locations.

**Policy 9.1.3** – Install low water use landscapes: Low water use plants will be used to landscape the site. Plant materials and locations are shown on the Project landscape plans. The Project will be compliant with the City of Santa Rosa's WELO.

**Policy 9.2.1** – Minimize construction equipment idling time to 5 minutes or less: The developer will condition contractor agreements to limit construction equipment idling time to 5 minutes or less, consistent with the City's Standard Measures for Air Quality. This direction will be included under the heading of General Notes on plan sets submitted for building or grading permits.

**Policy 9.2.2** – Maintain construction equipment per manufacturer's specifications: The developer will condition contractor agreements to require that all equipment used at the site be maintained in accordance with the manufacturer's instructions.

**Policy 9.2.3** – Limit Green House Gas (GHG) construction equipment by using electrified equipment or <u>alternate fuel:</u> The developer will include provisions in contractor agreements encouraging the use of electrified equipment or equipment using alternative fuels.

General Plan Consistency: The Project's consistency with the City's General Plan energy conservation and design policies is discussed below.

#### Land Use and Livability

LUL-A Foster a compact rather than a scattered development pattern in order to reduce travel, energy, land, and materials consumption while promoting greenhouse gas emission reductions citywide.

LUL-E Promote livable neighborhoods by requiring compliance with green building programs to ensure that new construction meets high standards of energy efficiency and sustainable material use. Ensure that everyday shopping, park and recreation facilities, and schools are within easy walking distance of most residents.

LUL-E-2 As part of planning and development review activities, ensure that projects, subdivisions, and neighborhoods are designed to foster livability.

Utilize the city's Design Guidelines as a reference when evaluating the following neighborhood components:

- Streets. Street design, traffic calming, and landscaping can make great contributions to the creation of successful neighborhoods. Neighborhood streets should be quiet, safe, and accommodate pedestrians and bicyclists.
- Connections. Neighborhoods should be well connected to local shops and services, public plazas and gathering places, park lands, downtown, schools, and recreation by adequate and safe streets, bike lanes, public pathways, trails, general infrastructure (e.g., sidewalks and crosswalks), and transit.
- Neighborhood Character. Each neighborhood should maintain a distinct identity, such as the historic preservation districts featuring Victorian cottages and California bungalows.
- Diversity and Choice. Neighborhoods should provide choices for residents with different values. Different housing types and locations within the city accommodate a diverse range of needs.

H-G-2 Require, as allowed by Cal Green Tier One standards, energy efficiency through site planning and building design by assisting residential developers in identifying energy conservation and efficiency measures appropriate to the Santa Rosa area. Utilize the following possible techniques:

- Use of site daylight;
- Solar orientation;
- Cool roofs and pavement;
- Window design and insulation;
- Solar water heaters;
- Solar heating of swimming pools;
- Use of sustainable practices and materials;
- Use of building materials which use fewer resources (water, electricity);
- Energy and water use reductions;
- Use of trees for summertime shading; and
- Bicycle and pedestrian connections.

H-G-3 Promote energy efficiency in the provision and use of water in all residential developments.

H-G-5 Continue to require the use of fuel efficient heating and cooling equipment and other appliances, in accordance with the city's green building program.

T-J Provide attractive and safe streets for pedestrians and bicyclists.

UD-A-12 Promote green building design and low impact development projects.

The Project is located within an area designated by the General Plan as Low Density Residential, which allows residential development at a density of 2-8 units per acre. The Project is proposed at a density of 6.08, and implements the above noted land use and livability policies. The Project site is close to schools and Dauenhauer Park, and is easily accessible to public transit (although the nearest stop is ½ mile away). The Project includes traffic calming measures such as sidewalks, and crosswalks to access nearby parks. The Project maintains a neighborhood identity with its home designs (see Section I. Aesthetics for description of the Project's characteristics).

The Project includes green technologies and design components for energy efficiency and water conservation, such as energy efficient heating, cooling, and lighting, efficient roofs, water efficient toilets, low water use landscapes and water meters.

OSC-J-1 Review all new construction projects and require dust abatement actions as contained in the CEQA Handbook of the Bay Area Air Quality Management District.

OSC-K-1 Promote the use of site planning, solar orientation, cool roofs, and landscaping to decrease summer cooling and winter heating needs. Encourage the use of recycled content construction materials.

OSC-K-2 Identify opportunities for decreasing energy use through installation of energy efficient lighting, reduced thermostat settings, and elimination of unnecessary lighting in public facilities.

Over 200 new trees and other landscaping would be planted, as shown on the Project's Landscape Plan (see Figure 3). Dust abatement mitigations to control dust during construction are identified in the Air Quality Section under Mitigation Measure AQ-1.

General Plan Policies OSC- K-1 and K-2 address the goal of reducing energy use and using recycled content construction materials. The Project would comply with these policies as it would include integration of green technologies and design components, including energy efficiency systems, lighting, diversion of demolition waste, and use of recycled content construction materials wherever possible and available.

GM-A-1 Contain urban development in the Santa Rosa area within the City's Urban Growth Boundary.

The Project would comply with the above growth management policy because it would be located within the City's Urban Growth Boundary and is consistent with the City's General Plan.

VIII(a) **Less than Significant Impact:** BAAQMD has established preliminary screening criteria. The screening criteria provide a conservative indication of whether a project would result in significant generation of GHG. The City developed the City's CAP to meet the requirements of the BAAQMD's criteria for a Qualified Greenhouse Gas Reduction Strategy. The Project will be subject to the applicable CAP requirements. If a project falls below these screening criteria and meets the City's CAP, it can be concluded that the project will result in less than significant impact from GHG emissions (See Section III. Air Quality).

Construction activities are considered temporary. Construction activities that would result in Projectrelated GHG emissions include exhaust emissions. BAAQMD has not adopted a threshold for construction related GHG emissions, but it does suggest determining whether construction GHG emissions would impede meeting AB 32 GHG reduction goals. Project emissions during construction would not result in a considerable contribution to the cumulative GHG impact, as the Project is lower than the construction screening criteria for ROG of 114 dwelling units. The Project will be consistent with the basic construction mitigation measures identified by BAAQMD and included as mitigation measure AQ-1. Mitigation measures to reduce impacts related construction are discussed in Section VIII, Hazards and Hazardous Materials (Mitigation Measure HAZ-2) as well as in Section III, Air Quality (Mitigation Measure AQ-1). Implementation of all of the mitigation measures will further reduce potential hazardous releases to levels of less than significant.

The Project falls below the operation screening thresholds of 56 units as the Project replaces 6 existing homes with a 59-unit project. The homes shall incorporate numerous features including energy efficient homes, will implement CALGreen Tier 1 Standards and Title 24 building code requirements, decrease solar reflectivity, and support the use of non-vehicular forms of transportation (adjacent to parks and pathways) as detailed in the Project Description and Section III Air Quality. As the project falls below the BAAQMD significance thresholds, is consistent with the City's Climate Action Plan, it is determined that the Project will have a less than significant impact on GHGs.

VIII(b) **Less than Significant Impact.** Compliance with the City's CAP is evaluated above. The Project will not conflict with any plan adopted for the purposes of reducing emissions of greenhouse gases. The Project will comply with the State of California Tier 1 CALGreen requirements and the City's CAP as demonstrated by the CAP Checklist New Development Checklist, included as Appendix E. All mandatory requirements of the Santa Rosa's CAP New Development Checklist shall be implemented except where the item is not applicable or where a suitable substitution is provided. The impact on GHGs would be less than significant.

### Mitigation Measures:

None required.

### Sources:

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- City of Santa Rosa Climate Action Plan, adopted June 2012
- BAAQMD CEQA Guidelines, Page 3-2 to 3-4, May 2010
- Illingworth & Rodkin, Community Risk Assessment (TAC), Penstemon Place, March 8, 2017

# IX. HAZARDS AND HAZARDOUS MATERIALS

		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Wo	ould the project:	mpuor		impuot	<u> </u>
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		$\boxtimes$		
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		$\boxtimes$		
C.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			$\boxtimes$	
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?				$\boxtimes$
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?				$\boxtimes$
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				$\boxtimes$
h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				$\boxtimes$

# Discussion:

The site has been the subject of a Phase I Environmental Assessment prepared in April of 2015 by Harris & Lee Environmental Sciences, LLC (Attachment G).

Harris & Lee's interpretation of available historical aerial photographs indicated that the site was historically undeveloped land prior to the 1960s. In the mid to late 1960s the six single family residences were built on the western and southern perimeter of the site. The remainder of the property has remained undeveloped. The residential use has continued through the present. No historically recognized environmental conditions, activity, or other limitations, were identified in connection with the subject property. There is one septic system and two water wells located on the property. There have never been any documented commercial uses at the property.

Based on the analytical data collected during the Phase I ESA, Harris & Lee concluded that the historical use of the site does not represent any risk. Harris & Lee recommend no additional investigations regarding the environmental condition of the site are required.

IX(a,b,d) Less Than Significant with Mitigation Incorporation. Hazardous Material transport and Exposure. The Applicant is required to comply with all existing federal, state and local safety regulations governing the transportation, use, handling, storage and disposal of potentially hazardous materials. Prior to the commencement of site preparation, a Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) will be prepared and implemented during all construction activities (See Section X Hydrology/Water Quality discussion below). In the event that construction activities involve the on-site storage of potentially hazardous materials, a declaration form will be filed with the Fire Marshall's office and a hazardous materials storage permit will be obtained. Compliance with required regulations governing hazardous materials will ensure that potential hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials will be less than significant.

Project construction activities would include the use of materials such as fuels, lubricants, paints and solvents. Caltrans and the California Highway Patrol regulate the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. Because contractors are required to comply with laws pertaining to the handling of hazardous materials, the impacts would be less than significant.

There would be no new stationary source of hazardous emissions or handling of acutely hazardous materials or waste associated with the Project. Therefore, potential impacts would be less than significant.

There are several sites listed within 1-mile, the standard American Society for Testing and Materials (ASTM) search distance. A brief review of the listed sites reveals that they are not likely threats for the Subject Property due to one or more of the following reasons: listing database not relevant, sufficient distance from Subject Property, location relative to site topography and ground water flow direction, and the status of the listed site (e.g., closed, contamination characterized, contamination under remediation, etc.). Therefore, potential impacts would be less than significant.

The Project Site has no history of agricultural use. Therefore, the site has no risk of agricultural pesticides or human health risks associated with pesticide uses. The site does contain residual septic systems and 2 water wells. Both the septic systems and wells are slated for removal as part of the Project. Given the age of the existing structures on site (constructed circa 1950s), the presence of lead-based paint (LBP) and asbestos-containing materials (ACM) is considered likely. Mitigation measures (listed below) are provided to ensure that potential impacts to less than significant.

IX(c) Less than Significant Impact. Hazards Relative to Schools. The Project Site is not located within a quarter mile of a school. The nearest schools are: Kawana Elementary School (approximately 0.5 miles west of the project site) and Sonoma Academy (approximately 0.5 miles south of the project site). There are no activities associated with the proposed residential project that would pose a threat to schools from the release or handling of hazardous materials. Thus, the project would not result in any increased risk of exposure to existing or planned schools as a result of development. Therefore, no impacts related to the emission or handling of hazardous, or acutely hazardous materials, within one-quarter mile of an existing or proposed school are expected.

IX(e-f) **No Impact. Airports.** The Project site is located over 6 miles from an airport or airstrip, therefore, no impacts associated with airports are anticipated.

The Project has provided emergency access onto and around the site. The site development will not interfere with any adopted emergency response or evacuation plan and will have no impacts related to emergency response impairment.

IX(g) **Less than Significant Impact. Wildland Fires**. Wildland fires are of concern particularly in expansive areas of native vegetation of brush, woodland, grassland. The project site is located within the City's UGB, but at the edge of the urban area for the City of Santa Rosa. Surrounding land uses include Residential, Undeveloped Lands, and Agriculture, with the entire eastern edge of the property adjacent to the future Farmers Lane Extension.

The Project site is located on urban land in zones designated as "Non-Fire Hazard" by the California Department of Forestry and Fire Protection (CAL FIRE 2008). Therefore, no wildland fire related impact would occur.

## **Recommended Mitigation Measures:**

**HAZ-1:** A Lead based Pain (LBP) survey shall be conducted within 6 months prior to any activities with the potential to disturb building materials to determine whether LBP is present. Further, in the event LBP is detected, the materials will be removed prior to any activities with the potential to disturb such materials.

**HAZ-2:** A comprehensive, pre-demolition ACM survey in accordance with the sampling protocol of the Asbestos Hazard Emergency Response Act shall be conducted within 6 months prior to any activities with the potential to disturb building materials to determine whether ACM are present. Further, in the event ACM is detected, the materials identified will be removed and disposed of prior to any activities with the potential to disturb such materials, in accordance with all applicable laws.

### Standard Measures:

- Septic systems and water wells shall be abandoned per City and County code requirements.
- Construction chemicals shall be stored in enclosed and secure buildings per State and local regulations.

### Sources:

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- Harris & Lee Environmental Sciences, LLC, Phase I Environmental Site Assessments, April 2015

# X. 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 (e.g., 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 flood hazard area 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 flood hazard area structures which would impede or redirect flood flows?

Potentially Significant	Less-Than- Significant	Less-Than- Significant	No
Impact	with Mitigation Incorporated	Impact	Impact
		X	
		X	
		X	
		X	
		X	
		×	
			X
			$\boxtimes$

		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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?				$\boxtimes$
j.	Inundation by seiche, tsunami, or mudflow?				X

# Discussion:

Attachment I, the Project's Preliminary Standard Urban Storm Water Management Plan, has been prepared by Carlile Macy, December 1, 2016, and serves as the basis for this analysis. Staff has reviewed the Preliminary SUSMP Report and it is in compliance.

The topography of the existing Penstemon site is hilly in the northeastern and eastern portions, sloping to flatter in the central and southern areas and is composed of three drainage areas. Average slope is 6.99% over the entire site. The steeper portions in the northeast and eastern portions of the site are over 10%. The southeastern and southwestern corners of the Project site drain in a southerly direction towards Linwood Avenue. The remaining site drains in a northerly direction towards Verbena Drive and the northwest corner of the site. The Project area currently consists of six single family homes and the remaining area consists of vacant undeveloped land.

<u>Water Supply:</u> The scope of review for the 2015 Urban Water Management Plan included the future residential development of the development area.

The City has had a long-standing commitment to water conservation. In 1976-77, the City began its water conservation program and over the years has implemented many innovative water conservation incentives, such as the Go Low Flow program (replacing toilets, showerheads and faucet aerators with ultra-low flow versions), washing machine rebate programs, landscape irrigation rebate programs, and other residential and commercial programs. Development fees fund the City's Water Conservation Program. In addition, CalGreen requires all new residential development to install water efficient fixtures, appliances and landscapes.

<u>Water Quality:</u> Stormwater, or runoff generated from rain, that is not absorbed into the ground accumulates debris, chemicals and other polluting substances harmful to water quality. Polluted stormwater entering creeks is a concern because of its threat to public health and the plant and animal life that inhabit waterways. Additionally, rain runoff from developments may increase flow rates and durations that cause hydromodification in creeks contributing to loss of habitat and decreased aquatic biological diversity.

The proposed development will include a network of roads and sidewalks for the proposed construction of a 59-lot residential subdivision. Runoff will be collected through a network of catch basins, field drains, culverts and drainage courses, preserving the site's historical drainage patterns.

The 10-year storm will be collected and contained within the proposed stormdrain pipe network. All of the drainage will be collected and conveyed to the stormdrains in Linwood Avenue and Verbena Drive. The Linwood Avenue existing stormdrain systems and the existing stormdrain system under Verbena Drive have the capacity to receive and convey the proposed Penstemon development. The proposed storm drain system will convey collected water into the existing public storm drain system at three connection points. The first connection point is to the existing 18" storm drain pipe that is located under Verbena Drive north of the site, the second connection point is to the existing 15" storm drain pipe located under

Linwood Avenue northwest of the site, and the third is to 36" storm drain pipe located under Linwood Avenue in the southwest corner of the site.

The Project will implement permanent storm water BMP's designed in compliance with the current Storm Water LID Technical Design Manual to achieve volume capture and treatment requirements. Storm water runoff from the site will primarily be captured for infiltration. The Project's Preliminary Standard Urban Storm Water Management Plan incorporates many LID measures into the Project design including capture of surface runoff, detention and infiltration, permeable pavement and bioretention. These features are described in detail in Attachment I, the Project's Preliminary Standard Urban Storm Water Management Plan which has received preliminary review by the City's Engineering Development Services Division.

X(a,e,f) Less Than Significant Impact. Stormwater and Water Quality. The Project's Preliminary Standard Urban Storm Water Mitigation Plan (SUSMP) identifies permanent Storm Water Best Management Practices (BMP's) designed and implemented in accordance with the City of Santa Rosa and County of Sonoma Low Impact Development (LID) Technical Design Manual to achieve volume capture and treatment requirements. All runoff generated by the water quality design storm will be treated on site. The increase in runoff volume generated from the water quality design storm, due to the proposed development, will be infiltrated on site. The onsite BMPs will control and minimize the pollutant loadings from impervious surfaces thereby decreasing the adverse impacts from stormwater runoff on water quality. These measures will ensure the Project will have a less than significant impact.

X(b) **Less Than Significant Impact**. **Groundwater.** As the Project is consistent with the City's General Plan, the Project's water demand has been addressed in the City's 2015 Urban Water Management Plan and Water Supply Assessment. The impacts are therefore considered less than significant.

X(c-d) **Less Than Significant Impact. Drainage** The Project will alter on-site drainage by increasing the area of impervious surfaces by 5.2 acres and increasing site runoff. However, this increase in runoff will be offset by incorporating BMP's designed in accordance with the City of Santa Rosa and County of Sonoma Low Impact Development (LID) Technical Design Manual to achieve volume capture and treatment requirements which will control and minimize the potential for erosion, siltation, and flooding resulting in a less than significant impact. Standard measures to reduce pervious surfaces to reduce the Design runoff factor coefficient and onsite storm water detention/storage surfaces shall be incorporated into the final Project design. The proposed storm drain system will be designed to contain the 10 year storm event underground and roadways will be designed to provide additional surface routes to convey the 100 year storm event preventing on site flooding in accordance with the Sonoma County Water Agency <u>Flood Control Design Criteria</u> reducing impacts to a level of less than significant.

X(g-j) **No Impact. Flooding.** The site is not located within 600' of an edge to a mapped flood hazard area located south of the Project. The site is not located near a dam or levee, nor is it located within a flood plain or a mapped flood hazard area within its boundaries. Therefore, there is no impact related to flooding as a result of a levee or dam failure.

Seiche and tsunamis are short duration, earthquake-generated water waves in large enclosed bodies of water and the open ocean, respectively. The extent and severity of a seiche would be dependent upon ground motions and fault offset from nearby active faults. The site is not located near the Pacific Ocean or large bodies of water. Therefore, the risk of seiche or tsunami damage at the site is low to non-existent and will have no impact.

# Mitigation Measures:

None required.

# Standard Measures:

- The developer's engineer shall comply with all requirements of the City Standard Storm Water Mitigation Plan Guidelines using Low Impact Development (LID) Best Management Practices (BMPs). Final Plans shall address the stormwater quality and quantity along with a maintenance agreement or comparable document to assure continuous maintenance of the source and treatment.
- The Applicant shall submit landscape and irrigation plans in conformance with the Water Efficient Landscape Ordinance adopted by the Santa Rosa City Council. Plans shall be submitted with the Building Permit application. The Applicant shall submit the following with the above-mentioned plans: Maximum Applied Water Allowance and Hydrozone Table.

### Sources:

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- City of Santa Rosa, Water Efficient Landscape Ordinance, Ordinance 4051, adopted October 27, 2015
- Carlile-Macy, Preliminary Standard Urban Storm Water Mitigation Plan, December 1, 2016
- Jesus McKeag, City of Santa Rosa, December 12, 2016

# **XI. LAND USE & PLANNING**

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

### Discussion:

The 9.7-acre site is located at 2842, 2862, and 2574 Linwood Avenue, in the Southeast quadrant of Santa Rosa. It is identified as Assessor Parcel Nos. (APN) 044-200-027, -029, and -040. The property is part of a larger planned development, the Southeast Area Planning Area, approved in 1994. The site is within the PD (Planned Development) zoning district, which is consistent with the General Plan Land Use Diagram or Low-Density Residential, which allows development at a density of 2-8 units per acre. The site is currently developed with six (6) existing single-family homes, which were constructed on the site in the 1960s. Only four of the homes are currently habitable.

The Project proposes development of 59 single-family residential units. Lots 53 and 13 will have second units. Lots 17, 29, 31 and 59 will have the option for second units. The proposed density is six dwelling units per acre. Lots will range in size from 3,200 square feet to 19,300 square feet with an average of 5,900 square feet. Twelve (12) of these new homes are designed on 4-unit auto courts.

Six (6) different homes have been designed for this Project. Plans 1 and 2 are designed for the auto courts. Both are 2-story homes with Plan 1 including approximately 1,661 square feet of living area and Plan 2 including approximately 1,887 square feet of living area. Plans 3 and 4 are single-story homes with Plan 3 including approximately 1,779 square feet of living area and Plan 4 including approximately 1,384 square feet of living area. Plans 5 and 6 are 2-story homes with Plan 5 including approximately 2,114 square feet of living area and Plan 6 including approximately 2,572 square feet of living area.

Single-family residential homes are adjacent to the site along the northerly, westerly, and southerly boundaries. Vacant land and Right-of-Way for the planned Farmers Lane Extension is adjacent to the site on the East. Verbena Drive is stubbed out along the northerly boundary and will be continued onto the site. The Dauenhauer Neighborhood Park is approximately 1,100 feet (less than ¼ mile) north of the site.

The project requires a CUP because it proposes a small lot subdivision. The project complies with the all applicable development standards set forth in City of Santa Rosa Zoning Code Section 20-42.140 including lot coverage, building setbacks, building height, and private open space,

The site slopes generally from east to west with 80% of the site having slopes of less than 10%. The average slope of the site is 6.99%. A portion of the proposed development will be on slopes over 10%. As such, the Project also requires a Hillside Development Permit. As designed, the Project complies with the City of Santa Rosa Zoning Code, Chapter 20-65, Hillside Development Standards.

## Impacts:

XI(a) **No Impact.** The site is located near the edge of City limits. It is surrounded by single-family residential uses to the north, west and south. The property immediately to the east is undeveloped. The Project will not physically divide an established community. The Project is in an area that is developed with residential uses as called for in the City's General Plan. The eastern edge of the site will be bordered by the Farmers Lane Extension. The Project would not physically divide an established community and no impact is anticipated.

XI(b) **Less Than Significant Impact.** The Project will be consistent with the existing Low Density Residential General Plan land use designation which was included in the scope of review of the City of Santa Rosa 2035 General Plan/Final EIR, adopted by City Council Resolution No. 27509, dated November 3, 2009.

The Project is not located in a Special Purpose Zoning District, nor is the Project location is not located in the Coastal Zone and there are no specific plans that apply to the Project area. The Project site is not located within a habitat conservation plan or priority conservation area, and all tree removal will be incompliance with the City's Tree Ordinance, City Code Chapter 17-24.

As designed the Project complies with development standards set forth in the Policy Statement for the Planned Development, and both the City's Hillside Development and Small Lot Subdivision Ordinances, as discussed above. The project supports General Plan Policy OSC-B-2, which requires that alteration to slopes greater than 10 percent be minimized to the extent practicable and OSC-B-5, which requires a Hillside Development Permit for all new development and land subdivision on slopes greater than 10 percent. As described in Section I Aesthetics, the project is consistent with Hillside Development Standards (Section 20-32.020 B), and has demonstrated compliance for stormwater retention requirements for construction and operation, and is conditioned as such as a standard condition of approval.

As the Project will comply with the City of Santa Rosa ordinances and standard conditions approval, impacts will be less than significant.

### Mitigation Measures:

None required.

### Sources:

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- City of Santa Rosa Zoning Code, 2006
- City of Santa Rosa Southeast Area Plan, Resolution No. 21807, June 21, 1994

# **XII. MINERAL RESOURCES**

Wo	ould the project:	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				$\boxtimes$

### Discussion:

The Surface Mining and Reclamation Act (SMARA) of 1975 identifies specific areas of mineral resources in the North San Francisco Bay Region including Santa Rosa. The Project does not lie within one of the listed aggregate deposits in the SMARA report as shown on Santa Rosa Quadrangle.

XII(a-b) **No Impact.** The development of the Project site will not create an adverse impact upon locally or regionally significant resources as the City of Santa Rosa's General Plan does not identify any locally important mineral resource locations in the vicinity of the Proposed Project.

## Mitigation Measures:

None required.

### Sources:

- City of Santa Rosa 2035 General Plan/Final EIR.
- State of California, Surface Mining and Reclamation Act (SMARA) of 1975, updated in 1977

# XIII. NOISE

	_	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Generation of substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in standards established in the local general plan or noise ordinance or applicable standards or other agencies?				
b.	Generation of excessive ground borne vibration ground borne noise levels?		X		
C.	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?				X

# Discussion:

A noise study was prepared for the Project by Illingworth & Rodkin, Inc. in July 13, 2017 and is found in Attachment E.

# **Regulatory Criteria**

The State of California and the City of Santa Rosa have established regulatory criteria that are applicable in this assessment. The California Environmental Quality Act (CEQA) Guidelines, Appendix G, are used to assess the potential significance of impacts pursuant to local General Plan policies, Municipal Code standards, or the applicable standards of other agencies. A summary of the applicable regulatory criteria is provided below.

**City of Santa Rosa General Plan 2035.** The City of Santa Rosa's General Plan<sup>3</sup> includes the Noise and Safety Element, which provides guidelines to achieve the goal of maintaining an acceptable community noise level. The goals and policies applicable to the Proposed Project are discussed in the Noise Assessment contained in Attachment E. The City's Noise Guidelines as they relate to land use compatibility are found in Table XIII-1 below.

<sup>&</sup>lt;sup>3</sup> Santa Rosa General Plan 2035, November 3, 2009.

## Table XIII-1: Land Use Compatibility Standards, City of Santa Rosa General

		col	MUNITY NO L <sub>dn</sub> or Cl		٩E	
	55	60	65	70	75	80
Residential - Low Density Single Family,				_		
Duplex, Mobile Homes						
		_				
Residential - Multifamily						
Transient Lodging - Motels, Hotels						
Schools, Libraries, Churches, Hospitals,						
Nursing Homes						
Auditorium, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
a Maria a Maria a Maria						
Golf Courses, Riding Stables,						
Water Recreation, Cemeteries						
Office Buildings, Business Commercial						
and Professional						
Industrial, Manufacturing Utilities,						
Agriculture						
Agrication						

Plan

LEGEND:

NORMALLY ACCEPTABLE Specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE New construction or development should generally not be undertaken.

**Santa Rosa Noise Ordinance.** The City of Santa Rosa has adopted a quantitative noise ordinance in Chapter 17-16 of the Santa Rosa Noise Ordinance. Section 17-16.120 regulates noise from stationary machinery and equipment and states the following:

"It is unlawful for any person to operate any machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient base noise level by more than five decibels."

The ambient base noise levels for residential, office, commercial, and industrial areas are established in Section 17-16.030. The applicable ambient noise level criteria are shown below:

Land Use Zone	Daytime Level (7:00 am - 7:00 pm)	Evening Level (7:00pm - 10:00pm)	Nighttime Level (10:00pm - 7:00am)
Single-Family Residential (R1 and R2)	55 dBA	50 dBA	45 dBA
Multi-Family Residential	55 dBA	55 dBA	50 dBA
Office and Commercial	60 dBA	60 dBA	55 dBA
Intensive Commercial	65 dBA	65 dBA	55 dBA
Industrial	70 dBA	70 dBA	70 dBA

Source: Santa Rosa Noise Ordinance 17-16.030.

#### Existing Noise Environment

The Project site is located in the northeast corner of the Taylor Mountain Place/Linwood Avenue intersection in the City of Santa Rosa. Single-family residential land uses surround the Project site to the north, to the south, to the west, and to the east. The site is currently developed with six rural single-family residences. A noise monitoring survey was completed in March of 2017, and these are detailed in Attachment E. The monitoring survey included two long-term noise measurements and one short-term

noise measurement which are shown on Figures in Attachment E, and in Tables XIII-3a and XIII-3b, below. Traffic noise along the local roadways that serve the Project site is the predominant source of environmental noise. Occasional overhead aircraft associated with the Charles M. Schulz-Sonoma County Airport are also audible at times at the site.

Noise Measurement Location	Date, Time	L <sub>max</sub>	L <sub>(1)</sub>	L <sub>(10)</sub>	L <sub>(50)</sub>	L <sub>(90)</sub>	L <sub>eq(10)</sub>	DNL <sup>a</sup>
ST-1: ~20 feet north of the centerline of Linwood Drive	3/2/2017, 11:00-11:10	58	48	41	35	34	39	<50

### TABLE XIII-3a: Summary of Short-Term Noise Measurements (dBA)

<sup>a</sup> DNL was approximated by correlating to corresponding period at long-term site.

Noise Measurement Location	Date, Time	a.m. to 1	lours, 7:00 0:00 p.m. Average)	Nighttime F p.m. to 7 Range (/	DNL	
		Lmax	Leq	Lmax	Leq	
LT-1: northern boundary of project site	3/2/2017 at 10:40 3/3/2017 at 16:10	48-70 dBA (56 dBA)	41-51 dBA (45 dBA)	43-60 dBA (49 dBA)	39-50 dBA (43 dBA)	51
LT-2: ~20 feet east of centerline of Linwood Avenue	3/2/2017 at 10:50 3/3/2017 at 16:00	67-87 dBA (73 dBA)	51-60 dBA (57 dBA)	40-87 dBA (59 dBA)	39-58 dBA (48 dBA)	60

# TABLE XIII-3b: Summary of Long-Term Noise Measurements (dBA)

# Noise and Land Use Compatibility

The compatibility of proposed exterior use areas is assessed by comparing predicted levels against the Land Use Compatibility Standards established in the City of Santa Rosa General Plan. The City of Santa Rosa considers residential exterior use areas in single-family residential developments "normally acceptable" in noise environments of 60 dBA DNL or less. Interior noise levels shall be maintained so as not to exceed 45 dB DNL.

# Future Exterior Noise Environment

The future noise environment at the Project site would result primarily from vehicular traffic along the future Farmers Lane Extension that is planned along the eastern boundary of the Project site. Traffic along neighborhood roadways serving the Project site and vicinity would also affect the noise environment on the Project site. To estimate the future traffic levels at the backyards of the proposed single-family residences adjacent to the future Farmers Lane Extension, an acoustical model of the Project site and the surrounding area was developed using the Federal Highway Administration's (FHWA) Traffic Noise Model, version 2.5 (TNM). Based on the Project description, the roadway elevation of the future Farmers Lane Extension would be situated on the hillside above the Project site in order to mitigate traffic noise at the site without the inclusion of sound barriers (discussed below and included in Attachment E. For the purposes of this Project, an average daily traffic (ADT) volume of 14,100 vehicles is assumed along the Farmers Lane Extension (ADT projections for the Farmers Lane extension based on the Sonoma County Transportation Authority traffic model, as provided by W-Trans). To model the worst hour scenario in TNM, it was assumed that 10% of the ADT would occur during the peak traffic hour. Additionally, a traffic study for the Proposed Project was completed in April 2017 by W-Trans. Included in the study were peak hour traffic volumes for the Linwood Avenue/ Poinsettia Lane intersection. These traffic volumes were also used as inputs in the TNM model.

The backyards of proposed residential units would be subject to the City's "normally acceptable" noise and land compatibility standards, which Figure 12-1 of the City's General Plan identifies as 60 dBA DNL. Typically, noise levels are assessed in the center of the backyard areas, at least five feet from any nearby

reflective surfaces, such as the residential units or noise barriers. The backyards, which are shown in pale yellow in Figure 1, for residences 35 through 46 adjoin the future Farmers Lane extension; however, the extended backyards of these residences include a significant elevation increase from the residential pad elevation to the future roadway surface of the Farmers Lane extension. Therefore, the receptors for these backyards were positioned at the base of the slope, five feet above the residential pad elevation. According to the site plan, a six-foot solid wooden privacy fence would be located along the backyard and side yard perimeters of each residence on the project site. This privacy fence was not included in the TNM model in order to show the unmitigated traffic noise levels.

Based on the results of the traffic noise model, residences 35 through 45 would be exposed to unmitigated future noise levels resulting from Farmers Lane extension below 60 dBA DNL. Residence 46, which is located at the future corner of Farmers Lane and Linwood Avenue would result in future exterior noise levels up to 61 dBA DNL. Due to greater setbacks from the Farmers Lane extension, the low volumes of the neighborhood roadways, and proposed residential structures providing partial shielding from the traffic noise, the remaining residences throughout the project site would be exposed to future exterior noise levels at or below 60 dBA DNL.

Residences 1, 3, 5, 7, 9, 11, 13, 52, and 53 are adjacent to Linwood Avenue, and the backyards of each of these residences would have direct line-of-sight to the traffic along the roadway. With the center of each of these backyards set back approximately 60 feet, the future exterior noise levels due to traffic noise along Linwood Avenue would be below 60 dBA DNL. Residences 53 through 59 are adjacent to the Linwood Avenue alignment in the east-west direction; however, the front yards of these residences would be facing the roadway, and the structures would provide adequate shielding from the traffic noise along this roadway.

The backyards of the residences located on the interior of the site would have great enough setbacks from roadways and adequate shielding provided by the intervening residential structures to result in future noise levels below 60 dBA DNL.

# Future Interior Noise Environment

Based on the TNM results discussed above, the first floors of residences 35 through 46, which are adjacent to the future Farmers Lane extension, would be exposed to future exterior noise levels up to 61 dBA DNL. However, due to the elevation of the roadway being approximately 20 feet above the pad elevation of the residences, the rooms on the second floors of these residences would be exposed to future exterior noise levels up to 64 dBA DNL.

The southern façades of residences 53 through 59 would be set back from the centerline of Linwood Drive (east-west alignment) by approximately 40 to 55 feet, and the western façades of residences 1, 3, 5,7, 9, 11, 13, 52, and 53 would have setbacks of approximately 40 feet from the centerline of Linwood Avenue. At these distances, the rooms facing these roadways would be exposed to future exterior noise levels below 60 dBA DNL.

All residences located on the interior of the site would receive adequate shielding from the intervening buildings. The exterior-facing façades of the residences located on the interior of the site would be exposed to future exterior noise levels below 60 dBA DNL.

Standard residential construction provides approximately 15 dBA of exterior-to-interior noise reduction, assuming the windows are partially open for ventilation. Standard construction with the windows closed provides approximately 20 to 25 dBA of noise reduction in interior spaces. Where exterior noise levels range from 60 to 65 dBA DNL, the inclusion of adequate forced-air mechanical ventilation is often the method selected to reduce interior noise levels to acceptable levels by closing the windows to control noise. Where noise levels exceed 65 dBA DNL, forced-air mechanical ventilation systems and sound-rated construction methods are normally required. Such methods or materials may include a combination of smaller window and door sizes as a percentage of the total building façade facing the noise source,

sound-rated windows and doors, sound-rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion.

### Impacts:

XIII(a) Less Than Significant with Mitigation Incorporated. Substantial Noise Levels. The proposed project could potentially generate noise in excess of standards established in the City's Municipal Code at the nearby sensitive receptors (See Regulatory Criteria, above), which unless mitigated could be substantial.

<u>Mechanical Equipment Noise</u>: Section 17-16.120 of the City's Noise Ordinance limits noise levels produced by stationary mechanical equipment to 60 dBA during daytime hours (7:00 a.m. to 7:00 p.m.), to 55 dBA during evening hours (7:00 p.m. to 10:00 p.m.), and to 50 dBA at night (10:00 p.m. to 7:00 a.m.) at single-family residential property lines. Typically, these noise limits do not apply to construction activities, and the "unlawful" noise statement in Section 17-16.120 does not indicate construction noise as included in these noise thresholds.

The proposed project would include mechanical equipment such as heating, ventilation, and air conditioning systems. Information regarding the location, number, type, and size of the mechanical equipment units to be used in the proposed project was not available at the time of this study. While the site plan does not show the location of the air conditioning units, this type of equipment is typically located on the ground floor around the perimeter of the residential structures. Typically, air conditioning units are located on the sides or back of the residences. Typical air conditioning units and heat pumps for singlefamily residences generate noise levels of about 60 dBA Leg at a distance of 50 feet. This type of equipment could run continuously during the daytime and nighttime. Along the northern boundary of the project site, the proposed project has a shared property line with existing single-family residences. Assuming worst-case scenario conditions, air conditioning units for the proposed residences would be located within 15 to 25 feet of the shared property line. The Noise Assessment assumed locations that would generate the worst-case noise levels at the nearest adjacent residences. However, these findings will be re-evaluated during final design when type of equipment, noise levels for the equipment, and location of the equipment is known. At these distances, the project-generated mechanical equipment noise would range from 66 to 71 dBA Leq. With the inclusion of the six-foot wooden privacy fence along the shared perimeter line, these noise levels would reduce by approximately 5 dBA. The expected mechanical equipment noise levels would potentially exceed the City's daytime, evening, and nighttime noise levels. This would be a potentially significant impact unless mitigated by the implementation of Mitigation Measure NOI-1, below, which would bring the impact to a level of less than significant.

<u>Future Exterior Noise Environment:</u> As discussed above, most of the residences would meet the City's 60 dBA DNL threshold for exterior noise levels; however, future noise levels at the backyard of residence 46 is expected to exceed the "normally acceptable" threshold by up to 1 dBA DNL. This would result in a significant impact unless mitigated by the implementation of Mitigation Measure NOI-2, below, which would bring the impact to a level of less than significant.

<u>Future Interior Noise Environment:</u> Assuming windows to be partially open, the interior noise levels for the Proposed Project would be up to 49 dBA DNL at the exterior-facing rooms adjacent to the future Farmers Lane Extension, as discussed above. Noise levels would exceed the 45 dBA DNL threshold for interior noise levels. This would result in a potential impact unless standard construction includes the implementation of noise insulation features as discussed in Mitigation Measure NOI-2. With the implementation of this mitigation measure, the impact would be reduced to a less than significant level.

The existing noise environment is dominated by existing traffic noise, as stated in Noise Assessment in Appendix E. With the project, the noise environment would continue to be dominated by local traffic noise, but the project would result in an increase in traffic volumes. Therefore, the permanent noise increase was calculated using the increase in traffic volumes.

<u>Permanent Noise Level Increase</u>: Based on Policy NS-B-14 of the City of Santa Rosa General Plan, a significant impact would occur if the Proposed Project would result in a permanent noise level increase due to Project-generated traffic of 5 dBA DNL or greater at sensitive receptors located within 250 feet of the Project site. For reference, a 5 dBA DNL noise increase would be expected if the Project would triple existing traffic volumes along a roadway.

The Project trips included in the traffic study completed by W-Trans for the Proposed Project were added to the existing peak hour traffic volumes to generate existing plus Project peak hour volumes. When comparing the existing plus Project volumes to the existing volumes, the noise level increase due to Project-generated traffic was 1 dBA DNL along Linwood Avenue/Taylor Mountain Place in the vicinity of the Project site. At all other roadway segments included in the traffic study, the resulting noise level increase due to Project-generated traffic was less than 1 dBA DNL. This impact is less-than-significant.

<u>Cumulative Noise Increase</u>: A significant impact would occur if the cumulative traffic noise level increase was 5 dBA DNL or greater and if the Project would make a "cumulatively considerable" contribution to the overall traffic noise increase. A "cumulatively considerable" contribution would be defined as an increase of 1 dBA DNL or more attributable solely to the Proposed Project.

The existing noise environment is dominated by existing traffic noise, as stated in Noise Assessment in Appendix E. With the project, the noise environment would continue to be dominated by local traffic noise, but the project would result in an increase in traffic volumes. Therefore, the permanent noise increase would be determined calculated using the increase in traffic volumes.

The Project trips were added to the future traffic volumes included in the traffic study, and both future peak hour traffic scenarios (i.e., future no Project and future plus Project) were compared to the existing peak hour traffic volumes. These increases were estimated for each roadway segment for which we had traffic and were independent of the Farmers Lane extension. All of the estimates provided in this impact were based on volumes provided in the Project's traffic report, which did not include information regarding the Farmers Lane extension.

While traffic noise increases of 5 dBA DNL or more were calculated along Linwood Avenue, north of Aston Avenue, and along Kawana Springs Road to the east and west of Taylor Mountain Place, these traffic noise increases were calculated for both future scenarios (with and without the Project). At all other roadway segments included in the traffic study, the calculated traffic noise increase was less than 5 dBA DNL under both future scenarios. Since the traffic noise level increase of both future scenarios would be the same with and without the Project, the Proposed Project would not make a cumulatively considerable contribution to increased noise levels at any roadway segments.

As discussed above, the Proposed Project will not result in a substantial permanent noise level increase due to project-generated traffic at the existing noise-sensitive land uses in the project vicinity. Additionally, the proposed project would not make a cumulatively considerable contribution to future noise levels at residential land uses in the project vicinity.

### Temporary Noise

Existing noise-sensitive land uses would be exposed to a temporary increase in ambient noise levels due to Project construction activities. The incorporation of construction best management practices as Project conditions of approval would result in a less-than-significant temporary noise impact.

Noise impacts resulting from construction depend upon 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.

The City of Santa Rosa does not define allowable construction hours in the General Plan or Municipal Code, but it is assumed that construction would be limited to daytime hours only. The thresholds for speech interference indoors are about 45 dBA  $L_{eq}$  for steady noises. Assuming a 15 dBA exterior-to-interior reduction for standard residential construction, this would correlate to an exterior threshold of 60 dBA  $L_{eq}$  at residential land uses. Additionally, temporary construction would be annoying to surrounding land uses if the ambient noise environment increased by at least 5 dBA  $L_{eq}$  for an extended period of time. Therefore, the temporary construction noise impact would be considered significant if project construction activities exceeded 60 dBA  $L_{eq}$  at nearby residential properties and exceeded the ambient noise environment by 5 dBA  $L_{eq}$  or more for a period longer than one year.

To the north, existing residential land uses share a property line with the project site, and the existing daytime ambient noise levels at these residences would range from 41 to 51 dBA  $L_{eq}$ , as measured at LT-1. Existing residences to the south and to the west, which are both opposite Linwood Avenue, would have daytime ambient noise levels ranging from 51 to 60 dBA  $L_{eq}$ , as measured at LT-2. Ambient levels for the nearest rural residences, who's property line is approximately 255 feet east of the project site, would have similar daytime ambient noise levels to those measured at LT-1, which would range from 41 to 51 dBA  $L_{eq}$ . All of these ambient noise environments are based on the existing noise measurements made during the March 2017 survey and are discussed in further detail in the Noise Assessment included in Appendix E.

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 80 to 90 dBA  $L_{max}$  at a distance of 50 feet from the noise source. Typical hourly average construction-generated noise levels for residential developments are about 81 to 88 dBA  $L_{eq}$  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.). Tables for maximum instantaneous noise levels of individual pieces of construction equipment and for typical hourly average construction noise levels broken down by phase are provided in the Noise Assessment in Appendix E.

Hourly average construction noise levels associated with the erection of the structures, such as hammerand drilling-related noise, range from approximately 63 to 71 dBA  $L_{eq}$  at a distance of 50 feet. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain can provide an additional 5 to 10 dBA noise reduction at distant receptors.

Construction for the Project is expected to begin in early winter of 2020 and is expected to be completed in fall of 2021, which would be a total of 17-18 months. This would exceed one year. Construction activities would include site preparation, excavation, grading, trenching, building construction, paving, and architectural coating. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based on the amount of equipment in operation and the location at which the equipment is operating. Table XII-5 shows the hourly average noise level ranges, by construction phase expected for the proposed Project when construction activities would occur near the shared property line of the adjacent existing residence, which would represent the worst-case scenario. While construction activities move away from these shared property lines, construction noise levels would decrease by up to 37 dBA at the north residences, by up to 23 dBA at the west residences.

Once construction moves indoors, minimal noise would be generated at off-site locations. The range of levels for the trenching phase reflects a 3-4 month period when this phase would overlap with the grading/excavation phase. Similarly, the range of levels for the building-interior/architectural coating phase reflects a 9-10 month period and would overlap with the building-exterior phase.

As shown in Table XIII-4, construction noise levels would exceed 60 dBA L<sub>eq</sub> at the nearby residences under worst-case conditions during each phase of project construction. Ambient levels at the surrounding

residences would be exceeded by more than 5 dBA  $L_{eq}$  during each phase, as well. However, depending upon the location on the project site of the active construction work, the surrounding residences would be exposed to varying noise levels at any given time. Since construction activities are expected to last more than one year and noise for the proposed project is expected to exceed the City's daytime threshold of 60 dBA  $L_{eq}$  at the existing residential property lines and exceed ambient levels at the nearby residences by more than 5 dBA  $L_{eq}$ , this would be a significant impact.

		Cal	culated Hou	Irly Average	L <sub>eq</sub>
Phase	Construction Equipment (Quantity)	North Res (10ft) <sup>c</sup>	South Res (50ft) <sup>d</sup>	East Res (220ft) <sup>e</sup>	West Res (45ft)f
Site Preparation	Rubber-Tired Dozer (3) Tractor/Loader/Backhoe (4)	102	88	75	89
Grading/ Excavation	Excavator (1) Grader (1) Rubber-Tired Dozer (1) Tractor/Loader/Backhoe (3)	101	87	74	88
Trenching	Tractor/Loader/Backhoe (1) Excavator (1)	96-102ª	82-88ª	69-75ª	83-89ª
Building- Exterior	Crane (1) Forklift (3) Generator Set (1) Tractor/Loader/Backhoe (3) Welder (1)	100	86	73	87
Building- Interior/ Architectural Coating	Air Compressor (1) Aerial Lift (1)	89-100 <sup>ь</sup>	75-86 <sup>b</sup>	62-74 <sup>b</sup>	76-87 <sup>ь</sup>
Paving	Paver (2) Paving Equipment (2) Roller (2)	101	87	74	87

### TABLE XIII-4: Estimated Worst-Case Scenario Construction Noise Levels at the Nearby Residences

<sup>a</sup> The range of levels for the trenching phase reflects the trenching equipment only and the overlapping period with the grading/excavation phase.

<sup>b</sup> The range of levels for the building-interior/architectural coating phase reflects the building-interior/architectural coating equipment only and the overlapping period with the building-exterior phase.

 $^\circ$  As construction moves south of the northern property line, construction noise levels would decrease by up to 37 dBA.

<sup>d</sup> As construction moves north of the southern property line, construction noise levels would decrease by up to 23 dBA.

<sup>e</sup> As construction moves west of the eastern property line, construction noise levels would decrease by up to 9 dBA.

<sup>f</sup> As construction moves east of the western property line, construction noise levels would decrease by up to 23 dBA.

Mitigation Measures NOI-4, below, would reduce noise levels by 5 to 10 dBA. While the surrounding noise-sensitive receptors would still potentially be exposed to temporary construction noise levels exceeding daytime ambient conditions, it is not projected that these daytime thresholds would be exceeded for over one year, assuming the implementation of these best management practices. This mitigation would reduce the potential impact to a level of less than significant.

XIII(b) Less Than Significant with Mitigation Incorporated. Groundbourne Vibration or Levels. Construction-related vibration caused by some types of construction activity could be in excess of 0.3 in/sec PPV at the existing residences located adjacent to the project site. This is a significant impact.

<u>Groundborne Vibration:</u> 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 site demolition, preparation work, foundation work, and new building framing and finishing. The proposed project would not require pile driving, which can cause excessive vibration.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, which typically consist of buildings constructed since the 1990s. A conservative vibration limit of 0.3 in/sec PPV has been used for buildings that are found to be structurally sound but where structural damage is a major concern (see Table 3 above for further explanation). For historical buildings or buildings that are documented to be structurally weakened, a conservative limit of 0.08 in/sec PPV is often used to provide the highest level of protection. While no historical buildings or buildings that are documented to be structurally weakened adjoin the project site, details regarding the residences surrounding the project site were not provided at the time of this study. For the purposes of this study, therefore, groundborne vibration levels exceeding the conservative 0.3 in/sec PPV limit would have the potential to result in a significant vibration impact.

Table XIII-5 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

For the purposes of calculating vibration levels, the distances provided here reflect the distances from the existing residential structures to the project site. The nearest structures to the project site are residential dwellings adjacent to the north. These residences range from within 10 feet from the shared property line to 50 feet. Vibration levels at these distances would range from 0.01 to 0.58 in/sec PPV, which exceeds the 0.3 in/sec PPV significance threshold at the nearest residences. To the south, opposite Linwood Avenue, the nearest single-family residential structures are approximately 60 to 70 feet from the project's southern boundary. At these distances, vibration levels would be range from 0.07 to 0.08 in/sec PPV. The single-family residence to the east of the project site is approximately 325 feet from the project site, which would result in vibration levels up to 0.01 in/sec PPV. The residences to the west of the project site, opposite Linwood Avenue, would range from 55 to 80 feet from the project's western boundary. At these distances, result range from 0.09 in/sec PPV.

Construction activity for the proposed project could potentially result in "architectural" damage to the residences adjacent to the site to the north. This is a significant impact unless mitigated through implementation of Mitigation Measure NOI-3, below, which would reduce the impact to less than significant.

Equipment		PPV at 25 feet (in/sec)	Approximate L <sub>v</sub> at 25 feet (VdB)	
Pile Driver (Impact) Pile Driver (Sonic)	Upper range	1.158	112	
	Typical	0.644	104	
	Upper range	0.734	105	
	Typical	0.170	93	
Clam Shovel Drop		0.202	94	

TABLE XIII-5: Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 feet (in/sec)	Approximate L <sub>v</sub> at 25 feet (VdB)	
Hydromill (Slurry Wall)	In soil	0.008	66	
	In rock	0.017	75	
Vibratory Roller		0.210	94	
Hoe Ram		0.089	87	
Large Bulldozer		0.089	87	
Caisson Drilling		0.089	87	
Loaded Trucks		0.076	86	
Jackhammer		0.035	79	
Small Bulldozer		0.003	58	

Source: Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

The project shall prohibit the use of heavy vibration-generating construction equipment, such as vibratory rollers or the dropping of heavy objects, within 20 feet of any adjacent residences (NOI-3) which will reduce the potential for significant impacts to less that significant.

XIII(c,f) **No Impact. Airport-Related Noise.** The Project site is not located within an airport land use plan, or within two miles of a public airport, public use airport or private air strip. Occasional aircraft overflights are intermittently audible at the site, but these infrequent events do not substantially contribute to hourly average or daily average noise levels at the site. The Project would not expose persons in the area to excessive aircraft noise, therefore no impact will occur.

# Mitigation Measures:

**NOI-1: Mechanical Equipment.** Mechanical equipment shall be selected and designed to reduce impacts on surrounding uses to meet the City's noise level requirements. A qualified acoustical consultant shall be retained to review mechanical noise as these systems are selected to determine specific noise reduction measures necessary to reduce noise levels into compliance with the Noise Ordinance, City Code Chapter 17-16. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels and/or installation of noise barriers such as enclosures and parapet walls to block the line-of-sight between the noise source and the nearest receptors. Alternate measures may include locating equipment in less noise-sensitive areas, where feasible. Implementation of the measure will reduce impacts to a level of less than significant.

**NOI-2:** Interior/Exterior Noise Levels. The following noise insulation features shall be incorporated into the proposed Project to reduce interior noise levels to 45 dBA DNL or less:

- a) Provide a suitable form of forced-air mechanical ventilation, as determined by the local building official, on the Project site, so that windows can be kept closed at the occupant's discretion to control interior noise and achieve the interior noise standards. While the first flor rooms would be mostly shielded, the upper floors would be closer in elevation to the roadway and would not receive the shielding from the fence. The forced-air mechanical ventilation would be required at the residences on Lots 35 through 46 to ensure the 45 dBA DNL interior noise level threshold is met within residences.
- b) A solid six-foot privacy fence will be constructed along the perimeter of the backyards of each residence. The 60 dBA DNL threshold for exterior use areas of single-family residences are

typically applied at the center of outdoor use areas. For this reason, receptors were positioned at the center of each backyard for Lots 35 to 46 adjacent to the Farmers Lane extension, for Lots 1 through 24 and 34 along the northern perimeter, for Lots 47 through 59 near the southern perimeter, and for Lots 25 through 30 to represent the second row of homes from the Farmers Lane extension. The only backyard that exceeded 60 dBA DNL when no fence was modeled was Lot 46, and it exceeded the limit by 1 dBA. A 6-foot fence typically provides about 5 dBA of noise reduction but due to the elevation difference between the receptor and the roadway, the fence would provide a 2 dBA reduction. The resulting noise level would be 59 dBA DNL with the fence.

c) It is recommended that the fence at the corner Lot 46 rap around to the side yard approximately 65 feet to provide maximum noise reduction. With the inclusion of acoustical shielding provided by this fence, the noise levels at the backyard of residence 46 would be less than 60 dBA DNL meeting the City's "normally acceptable" noise level threshold for private outdoor use areas in new single-family developments.

**NOI-3:** Construction Equipment. Prohibit the use of heavy vibration-generating construction equipment, such as vibratory rollers or the dropping of heavy objects, within 20 feet of any adjacent residences.

**NOI-4:** Construction Noise. Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction material, are necessary to protect the health and safety of persons, promote the general welfare of the community, and maintain the quality of life.

The City shall require the contractor to adhere to the following construction best management practices to reduce construction noise levels emanating from the site and minimize disruption and annoyance at existing noise-sensitive receptors in the Project vicinity through the development of a construction noise control plan, including, but not limited to, the following available controls:

- a) Construction and noise-generating activities related to construction shall be limited to 7:00 a.m. to 7:00 pm. Monday through Friday, and 8:00 a.m. to 6:00 p.m. Saturday. No noise-generating activities relating to construction are permitted on Sundays and holidays.
- b) Avoid overlapping construction phases (the overlapping of the construction phases increases the number of potential pieces of large equipment that could be used simultaneously, which could increase noise levels by up to 8 dBA).
- c) Construct temporary noise barriers, to screen stationary noise-generating equipment. Assuming a height of 10 feet, temporary noise barrier fences would provide at least 5 dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receiver and if the barrier is constructed in a manner that eliminates any cracks or gaps.
- d) Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- e) Unnecessary idling of internal combustion engines shall be strictly prohibited.
- f) Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure openings or venting shall face away from sensitive receptors.
- g) Utilize "quiet" air compressors and other stationary noise sources.

- h) Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction.
- i) Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.
- j) Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the Project site.
- k) The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
- Designate a "disturbance coordinator" who would be responsible for responding to all complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.

The implementation of the reasonable and feasible controls outlined above would reduce construction noise levels emanating from the site by 5 to 10 dBA in order to minimize disruption and annoyance. Temporary barriers would provide 5 to 10 dBA reduction. And considering that construction equipment would move about the site and consist of interior work for a time, any individual residence would not be exposed to construction noise levels exceeding 60 dBA Leq & exceeding ambient levels by 5 dBA for a period over 1 year. Additionally, as houses on the site are constructed, these future structures would also provide additional shielding. With the implementation of these controls, the impact would be reduced to a less-than-significant level.

# Sources:

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- Illingworth & Rodkin, Inc., Environmental Noise Assessment Study for the Penstemon Place Project, March 29, 2017
- W-Trans, Draft Traffic Impact Study for the Penstemon Place Project, January 2018

# XIV. POPULATION AND HOUSING

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

# Discussion:

Changes in population (and housing) in and of themselves are generally characterized as social and economic effects and are not considered physical effects on the environment. CEQA provides that economic or social effects are not considered significant effects on the environment unless the social and/or economic changes are connected to physical environmental effects.

While an increase in population resulting from new development does not necessarily cause direct adverse physical environmental effects, indirect physical environmental effects such as increased vehicle trips and associated increases in air pollutant emissions and noise could occur. These potential impacts are analyzed throughout this IS/MND.

XIV(a-b) Less Than Significant Impact. Population Inducement. The Project site housed 6 single family units in the past, 4 of which are still habitable and occupied (as of the winter of 2019). The remaining units which were abandoned are about to be, or have been, razed and will be replaced with the proposed new Project houses. The Project will provide 59 new housing units and expand infrastructure accordingly. The population associated with the new project is estimated to be 156 residents.<sup>4</sup> The Project site is designated as Low Density Residential on the General Plan Land Use Diagram, which allows development at a density of 2-8 units/acre. Implementation of the proposed project would result in a change in land use as compared to existing conditions, but would be consistent with the City's intent to develop the site for residential uses. Changes in land use are regulated by the planning policies adopted by each local governmental jurisdiction in California. Therefore, this change in land use is evaluated in comparison to the planning goals and policies contained in the City's General Plan. General plans provide the long-term objectives, principles, and standards for development, and all development proposals must be generally consistent with the overall land use guidance provided in a general plan. More detailed regulation and land use controls are applied through the City's zoning, subdivision, and grading requirements, as well as through other City regulations and ordinances. The project's consistency with applicable ordinances, as well as specific land use implications associated with development of the project, are discussed other sections of this IS/MND.

Construction of 59 dwelling units at the project site will add to the City's housing inventory and help to meet the Regional Housing Needs Allocation (RHNA) as identified in the City's Housing Element. Given the scope and scale of the proposed development, at an additional 59 units, the project is not expected to induce substantial population growth in the area. Therefore, population impacts from the proposed project would be considered less than significant.

<sup>&</sup>lt;sup>4</sup> Based upon the average population per household of 2.63 (2015 Census data).

XIV(b-c) **Displacement of People or Housing. The** site is currently developed with 6 residential units, four of which are currently habitable and occupied. The tenants will be required to relocate and be given notice as required by State and local regulations. The loss of their housing units will be offset by 59 new units and will not result in a significant impact.

## **Mitigation Measures:**

None required.

### Sources:

• City of Santa Rosa 2035 General Plan/Final EIR, 2009

# **XV. PUBLIC SERVICES**

Would the project	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?				
<ul><li>a. Fire protection?</li><li>b. Police protection?</li><li>c. Schools?</li><li>d. Parks?</li><li>e. Other public facilities?</li></ul>			X X X X X	

# Discussion:

The City of Santa Rosa provides Police Protection and Fire Protection services within City boundaries. The Police Department provides neighborhood-oriented policing services, comprising eight patrol teams and roughly 251 employees. The Police Department is located at 965 Sonoma Avenue.

The Fire Department has a staff of approximately 146 employees serving a community population of over 181,000 residents<sup>5</sup>. There are ten fire stations strategically located around the city. General Plan policy PSF-E-1 sets a 5-minute travel time for emergency response within the city. According to the General Plan, two new fire stations would be constructed in the future, one of which would be located at the corner of Kawana Springs Road and Franz Kafka Avenue. The Project's addition of vehicle trips to the adjacent grid street network is not expected to cause a reduction in travel speeds that would result in significant delays for emergency vehicles. A 5-minute response time is expected to be achieved due to various approach accesses and the ability of emergency response vehicles to override traffic controls.

The City's public school system is made up of eight public school districts, 33 elementary schools, 5 middle schools, five comprehensive high schools, and one continuation high school, serving an estimated 16,698 students from kindergarten through 12th grade. According to the General Plan, four new elementary schools and two new middle schools are anticipated in order to accommodate buildout.

The City's Recreation and Parks Department operates, manages, and maintains a total of 12 community parks, 52 neighborhood parks, three special purpose parks, and three trail parks. The Sonoma County Regional Parks maintains a number of regional parks and trails in the general vicinity of the Penstemon Project site. The closest of which are Taylor Mountain Regional Park, Spring Lake Regional Park, Colgan Creek Trail, and Hunter Creek Trail.

<sup>&</sup>lt;sup>5</sup> City of Santa Rosa Fire Department Strategic Plan 2016-2021, <u>https://.srcity.org/DocumentCenter/View/3152</u>,

The City charges impact fees on new development such as the Proposed Project in order to offset the cost of improving or expanding City facilities. Impact fees are used to fund the construction or expansion of needed capital improvements associated with buildout of the General Plan. The City's impact fees include the Capitol Facilities Fee and School Impact Fees to finance required public facilities and service improvements.

XV(a-b)**Less than Significant Impact: Police and Fire.** The nearest fire stations (Fire Station #1 and #4) are located approximately 1.5 miles to the north on Sonoma Avenue and 1.5 miles to the northeast on Yulupa Avenue, respectively. The Project site is located within the Santa Rosa Police Beat 8 patrol area. Both police and fire service the existing development to the north, west and south of Penstemon Place.

The Project's 59 new homes will result in an incremental increase in the demand for the City's public services. The increase would be a minimal change that would not trigger the need for an expansion of services, an increase in staffing, or otherwise affect required service ratios. Increasing demands on public services were previously anticipated as part of the General Plan build out and are funded by impact fees that provide funding for the incremental expansion of services.

According to the Santa Rosa General Plan EIR, compliance with the City's General Plan goals and policies related to police services would ensure impacts would be less than significant. Revenues and taxes generated from the new development would contribute to funding for facilities and services that have been identified by the police and fire departments as needed for services in the future resulting in a less-than-significant impact to police protection services.

XV(c) Less than Significant Impact: Schools. The Project site is located within the Santa Rosa City High School District and the Bellevue Union Elementary District. The Project's 59 single family homes will likely generate between 40-60 new students throughout the K-12 school system<sup>6</sup>. The students attending public schools will be served by the closest City schools (Kawana Elementary, Herbert Slater Middle School and Montgomery High School). Pursuant to SB 50, the project applicant would be required to pay school impact fees at the time of building permit application submittal. This payment is considered full mitigation for any impacts to school services that would result from a project. Currently, the Santa Rosa City School District's development fees in the district are \$1.04/square foot of new residential development. The Bellevue District collects \$2.65/square foot of new residential development. Payment of the development fee would provide funding for new school construction, improvements, and expansion to existing schools as needed. Payment of the required school impact fees would ensure satisfaction of the Proposition 1A/SB 50 statutory requirements and the impact would be less than significant.

Kawana Elementary School has an enrollment of 418 students, with a student to teacher ratio of 19:1 and is currently accepting registration for new students. Herbert Slater Middle School has an enrollment of 759 students with a student to teacher ratio of 19:1. Montgomery High School has an enrollment of 1,698 students with a student to teacher ratio of 22:1. All of the Santa Rosa Schools all have residual capacity according to conversations with District representatives.

XV(d-e) **Less than Significant Impact: Parks and other Facilities.** The Project will not generate a substantial increase in demands that warrant the expansion or construction of new public park facilities as there are numerous existing parks and trails that provide recreational opportunities. While the 59 new residential units would create a slight increase in the use of surrounding parks, the existing park facilities will be sufficient to meet active and passive recreational demands of the new residents. Dauenhauer Park is the closest neighborhood park. Approximately 2.5 acres in size, it is located on Allan Way within 1/4 mile of the Penstemon Place Project. The park offers picnic areas, a playground and open grass areas. The Project will also provide a fair share contribution to park development fees, as necessary, resulting in a less than significant impact. There are no other aspects of the Project that would result in adverse impacts to existing parks or necessitate additional park development or potentially impact other

<sup>&</sup>lt;sup>6</sup> Based upon the average population per household of 2.64 (2018 Census data).

public facilities Therefore, impacts to parks and other facilities, as a result of project implementation, will be less than significant. (See also Section XV Recreation.)

### Mitigation Measures:

None required.

# Standard Measures:

The Project shall provide with the following City's standard measures:

- Evidence showing payment of school impact fees, in accordance with Government Code Section 65996, from the applicable school district will be provided prior to City issuance of any building permits.
- Evidence showing payment of park fees.
- Compliance with other standard conditions of approval will apply, including provision of a fire flow analysis to ensure adequate water pressure and flow rates.

### Sources:

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- Conversation with Melanie Martin, Santa Rosa City School District, May 2018
- Email from Dr. Chris Kim, Bellevue Union School District, May 2018

adverse effect on the environment?

# XVI. RECREATION

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

# Discussion:

The City of Santa Rosa provides recreational opportunities, including public plazas and gathering places and neighborhood, community, citywide and special purpose parks and facilities throughout the city. The City has several parks on the east side of the City, and new parks are being developed in order to meet the needs of the community. According to the Santa Rosa General Plan, the City has a total of approximately 531 acres of neighborhood and community parks, 170 acres of undeveloped parkland, and 14 community and/or recreational facilities (as of 2008). Additionally, the City of Santa Rosa is located in close proximity to regional parks operated by the County of Sonoma and State of California including Spring Lake (Sonoma County Regional Park), Taylor Mountain Regional Park and Open Space Preserve (Sonoma County Regional Park) and Annadel (State Park), which offer a variety of passive and active recreational opportunities.

The City's General Plan identifies a parkland ratio of 3.5 acre per 1,000 residents. Based on the 2035 buildout population of 233,520 and the proposed parks facilities that will occupy 864.15 acres, the city park facilities will achieve a ratio of 3.7 acres at General Plan build-out, thereby exceeding the parks ratio standard.

XVI(a-b) **Less Than Significant impact:** The Project is a 59-unit residential project and would contribute to the need for overall park and recreational demand. The southeastern area of the City is well served by existing parks and recreational facilities. Dauenhauer Park is the closest neighborhood park. Approximately 2.5 acres in size, it is located on Allan Way within ¼ mile of the Penstemon Place Project. The park offers picnic areas, a playground and open grass areas. While the 59 new residential units would create a slight increase in the use of surrounding parks and recreational facilities, the existing recreational facilities will be sufficient to meet active and passive recreational demands of the new residents within the Project. The Project does not include the construction of recreational facilities and does not include the construction or expansion of existing recreation facilities.

It is anticipated that construction of the Project will use workers derived from the local area and will therefore not result in increased use or deterioration of existing recreational facilities or require the construction of new facilities. However, because of the current post-Tubbs Fire rebuilding effort and strain on local contractors, workers could be derived from outside the region and require the temporary relocation of workers for the Project. If workers were to temporarily relocate to the area to work on the Project, use of parks and recreational facilities will occur. The number of workers will not be expected to be greater than 30 workers and use of parks will not be expected to require expansion of or construction of new recreational facilities. Use of recreational facilities by temporary workers will also not be expected to result in the deterioration of existing recreational facilities

The Project itself will not substantially increase the use of existing neighborhood and regional parks such that any physical deterioration of the facilities occurs or is accelerated. Potential impacts to recreational facilities within the City of Santa Rosa as a result of this development have been identified and analyzed under the General Plan EIR. The General Plan EIR determined that build out within the City's Urban Growth Boundary (UGB) will have a less than significant impacts to parks and recreation beyond those policies outlined in the Santa Rosa General Plan 2035. Because the project will not induce substantial population growth and is within the population growth anticipated in the General Plan, there is little expectation that it would put further pressure on recreational amenities thereby requiring construction or expansion of such facilities.

The Project will be required to pay park in-lieu fees to offset the increased demand for recreational facilities. Project impacts will be less than significant. Therefore, impacts related to the increased use, deterioration, construction or expansion of recreational facilities, are expected to be less than significant as a result of the Proposed Project.

# Mitigation Measures:

None required.

### Sources:

• City of Santa Rosa 2035 General Plan/Final EIR, 2009

# XVII. TRANSPORTATION/TRAFFIC

Wo	buld the project:	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a.	Conflict with a program, plan ordinance or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities?		$\boxtimes$		
b.	Conflict or be inconsistent with an CEQA Guidelines Section 15064.3, subdivision (b)? applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				
c.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		$\boxtimes$		
d.	Result in inadequate emergency access?			X	

# Discussion

The following impact analyses are based on a Traffic Impact Study completed by Whitlock & Weinberger Transportation, Inc. (W-Trans) in April 5, 2017. It is included with this Initial Study as Attachment B.

### Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the p.m. peak period. This condition does not include Project-generated traffic volumes. Volume data was collected while local schools were in session.

### **Collision Rates**

The calculated collision rates for the study intersections were compared to average collision rates for similar facilities statewide, as indicated in 2013 Collision Data on California State Highways, California Department of Transportation (Caltrans). Collision rate calculations are discussed in Attachment B and summarized below in Table XVII-1.

Study	Intersection	Number of Collisions (2011-2016)	Calculated Collision Rate (c/mve)	Statewide Average Collision Rate (c/mve)
1.	Aston Ave/Meda Ave	4	0.29	0.18
2.	Aston Ave/Linwood Ave	3	0.13	0.15
3.	Linwood Ave/Poinsettia Ln	0	0	0.15
4.	Taylor Mountain Pl/Kawana Springs Rd	0	0	0.18
5.	Petaluma Hill Rd/Kawana Springs Rd	19	0.41	0.27

### Table XVII-1: Collision Rates at the Study Intersections

Notes: c/mve = collisions per million vehicles entering

Bold text indicates actual rates that are higher than the statewide average

The intersections of Aston Avenue/Meda Avenue and Petaluma Hills Road/Kawana Springs Road have collision rates that are slightly higher than the statewide average for similar facilities. At the Aston Avenue intersection, two of the collisions involved hitting an object in the intersection and the other two types were a sideswipe and rear-end. Given the limited number collisions, there is no clear indication of a safety issue. The higher average can be attributed to the low roadway volume and is not so high as to indicate a substantial safety concern.

The southbound approach to the Aston Avenue/Linwood Avenue intersection is currently operating unacceptably at service level F during the p.m. peak hour but the intersection overall is operating acceptably at service level A.

		Existing Conditions				
		AM Peak		PM P	eak	
Study Intersection Approach		Delay	LOS	Delay	LOS	
1.	<i>Aston Ave/Meda Ave</i>	2.5	A	1.5	A	
	Northbound (Meda Ave) Approach	12.1	B	13.4	B	
2.	<i>Aston Ave/Linwood Ave</i>	6.9	A	8.8	A	
	Northbound (Linwood Ave) Approach	17.8	C	28.0	D	
	Southbound (Fairgrounds) Approach	15.5	C	68.2	F	
3.	<i>Linwood Ave/Poinsettia Ln</i>	0.5	A	0.1	A	
	Westbound (Private Driveway) Approach	8.7	A	0.0	A	
	Eastbound (Poinsettia Ln) Approach	9.3	A	8.7	A	
4.	Taylor Mountain Pl/Kawana Springs Rd	3.0	A	3.4	A	
	Southbound (Taylor Mountain Pl) Approach	10.2	B	8.9	A	
5.	Petaluma Hill Rd/Kawana Springs Rd	23.1	С	25.1	С	

### Table XVII-2: Existing Peak Hour Intersection Levels of Service

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in italics.

The perception a motorist has of intersection operation as represented by the Level of Service (LOS) can sometimes be at odds with the calculated values. Based on field observations at the intersection of Petaluma Hill Road/Kawana Springs, the delay experienced by many drivers may not match the existing evening LOS as indicated above. The calculations of LOS are based upon the volumes over a full hour, but motorists can encounter lower service levels and higher delays during the peak of the commute period at the beginning and ending of the typical workday while others can experience light traffic flow a little earlier or later within the same hour.

During the evening peak hour, the downstream Petaluma Hill Road/Yolanda Avenue intersection acts as the bottleneck for southbound commuters trying to avoid congestion on US 101. The Petaluma Hill Road queue from that intersection can extend north through the Kawana Springs Road intersection. Based on the counts collected, which included information on the queue, the number of southbound vehicles that were unable to enter the intersection during their respective green time was as low as one vehicle but as high as 21 vehicles; the average number of vehicles from the counts collected was 12 vehicles.

However, as the intersection operates acceptably according to City's standard when the service level is calculated based on the average traffic demand over the hour, with the initial queue included in the analysis, no improvements are recommended as the delay is deemed acceptable.

### Future Conditions

Segment volumes for the horizon year of 2040 were obtained from the Sonoma County Transportation Authority's gravity demand model and translated to turning movement volumes at each of the study intersections that were available using a combination of the "Furness" method and factoring, depending on how the model was configured at each intersection. The Furness method is an iterative process that employs existing turn movement data, existing link volumes, and future link volumes to project likely turning future movement volumes at intersections.

For the intersection of Linwood Avenue/Poinsettia Lane, where segment volumes were only available for Linwood Avenue, a growth factor was determined and applied to all the turning movements. Since segments model volumes were not available for Meda Avenue but available for Linwood Avenue at Aston Avenue, the Furness method was applied to the Aston Avenue/Linwood Avenue intersection and using volume balancing and the existing counts, the future volumes were projected for the Aston Avenue/Meda Avenue intersection.

In some instances, the model projected a traffic volume decrease. Decreases are attributable to assumed infrastructure improvements and forecast changes in demographic data throughout the region. Though there are no planned future improvements at the study intersections, the planned Farmers Lane Extension would be along the east side of the Project boundary. The future Extension provides an additional north-south connection within the City and would likely change the existing traffic circulation pattern. However, in the abundance of caution, rather than assume volume decreases, existing counts were maintained as a "floor." This is a common technique (or default) used to ensure that the future projections are conservative.

Under the anticipated Future volumes, the study intersections are expected to operate acceptably with the exception of the Aston Avenue/Linwood Avenue intersection, which would be expected to operate at LOS F under anticipated volumes for the p.m. peak hour (see Table XVII-4).

		Future Conditions				
Study Intersection Approach		AM	Peak	PM Peak		
		Delay	LOS	Delay	LOS	
1.	Aston Ave/Meda Ave Northbound (Meda Ave) Approach	2.6 13.8	A B	2.4 18.0	A A	
2.	Aston Ave/Linwood Ave Northbound (Linwood Ave) Approach Southbound (Fairgrounds) Approach Add NB thru-left and right-turn lane	26.3 63.5 13.6 <b>9.5</b>	D F B A	52.1 ** ** 13.3	F F F B	

## Table XVII-4: Future Peak Hour Intersection Levels of Service

		Future Conditions				
Stud	y Intersection	AM	Peak	PM Peak		
Siuu	Approach	Delay	LOS	Delay	LOS	
3.	Linwood Ave/Poinsettia Ln Westbound (Private Driveway) Approach Eastbound (Poinsettia Ln) Approach	0.5 8.9 9.9	A A A	0.1 0.0 9.0	A A A	
4.	Taylor Mountain Pl/Kawana Springs Rd Southbound (Taylor Mt Pl) Approach	3.3 15.1	A A	1.8 <i>12.1</i>	A B	
5.	Petaluma Hill Rd/Kawana Springs Rd	27.9	С	29.5	С	

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in italics; \*\* = delay greater than 120 seconds; **Bold** text = deficient operation; Shaded cells = conditions with recommended improvements; NB = Northbound

The intersection of Aston Avenue/Linwood Avenue is expected to operate unacceptably at service level F during the evening peak hour. In order to achieve acceptable operation, the intersection will need to modify the northbound approach to provide a separate right-turn lane. Given the width restriction of Linwood Avenue south of the intersection and the projected volumes, it is assumed that the additional lane would be a left-turn/through lane with about 50 feet of storage length. With this recommended improvement, the intersection is expected to operate acceptably overall at service level A or B. This Project will contribute to the overall reduction in LOS; however, the Project's contribution is estimated at 12.4%.

## Trip Generation and Distribution

The anticipated trip generation for the Proposed Project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in Trip Generation Manual, 9th Edition, 2012 for "Single Family Detached Housing" (ITE LU 210). "Apartment" (Land Use #220) was used to project the anticipated trips generated by the six second-unit dwellings as the description most closely matches the Project Description and daily trip generation for this land use is the most conservative of the various multiple-family dwelling categories.

The expected trip generation potential for the Proposed Project is indicated in Table XVII-5 and includes an average of 602 trips per day, including 47 trips during the a.m. peak hour and 63 during the p.m. peak hour. To be conservative, the six existing homes that will be razed to make way for the Proposed Project were not included in the analysis. These new trips represent the increase in traffic associated with the Project compared to existing volumes. Table XVII shows the proposed trip generation of those 602 trips.

		Daily		AM Peak Hour			PM Peak Hour			r	
Land Use	Units	Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Single Family Detached Housing	59 du	9.52	562	0.75	44	11	33	1.0	59	37	22
Second Dwelling Unit	6 du	6.65	40	0.51	3	1	2	0.62	4	2	2
Total			602		47	12	35		63	39	24

Table XVII-5:	<b>Trip Generation</b>	Summary
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Note: du = dwelling unit

Route	Percent
North to Brookwood Ave	25%
To/From US 101 North	30%
To/From US 101 South	30%
To/From South on Petaluma Hill Rd	15%
TOTAL	100%

### Table XVII-6: Trip Distribution Assumptions

## Construction Traffic

The Project would temporarily result in an increase in truck trips through the study area due to typical construction activities associated with the single-family dwellings. Per the General Notes attached to all encroachment and building permits, construction hours are limited to 7:00 a.m., the start of the morning peak period, to 7:00 p.m., after the end of the evening peak period for traffic. The City's standard conditions of approval regarding construction noise states that construction activity and its associated noise, including trucks and employees talking, is not allowed outside standard hours of construction, specifically limited to 7:00 a.m. to 7:00 p.m. Monday through Friday, 8:00 a.m. to 6:00 p.m. Saturday, and no noise generating construction related activities on Sundays or holidays). The highest frequency of trucks into and out of the site would be during the grading process. It is anticipated that during any one morning or evening peak hour, there would be at most four truck trips, split between inbound out outbound, substantially fewer than what is expected to be generated by the Proposed Project during either peak hour

### Intersection Operation

### Existing plus Project Conditions

Upon the addition of Project-related traffic to the Existing volumes, the study intersections are expected to continue to operate acceptably, generally at the same levels of service. Project traffic volumes are summarized in Table XVII-7.

		Existing Conditions			ons	Existing plus Project			
Stud	y Intersection	AM Peak		PM Peak		AM Peak		PM Peak	
	Approach	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	Aston Ave/Meda Ave Northbound (Meda Ave) Approach	2.5 12.1	A B	1.5 13.4	A B	2.4 12.2	A B	1.4 13.5	A B
2.	Aston Ave/Linwood Ave Northbound (Linwood Ave) Approach Southbound (Fairgrounds) Approach	6.9 17.8 15.5	A C C	8.8 28.0 68.2	A D F	7.9 20.5 15.7	A C C	10.9 36.9 72.9	B E F
3.	Linwood Ave/Poinsettia Ln Westbound (Private Driveway)	0.5 8.7	A A	0.1 <i>0.0</i>	A A	2.2 9.3	A A	2.2 9.2	A A
Appro	Eastbound (Poinsettia Ln) Approach	9.3	A	8.7	A	9.4	A	8.7	A
4.	Taylor Mountain Pl/Kawana Springs Rd Southbound (Taylor Mt. Pl) Approach	3.0 10.2	A B	3.4 8.9	A A	3.4 10.2	A B	4.0 9.0	A A
5.	Petaluma Hill Rd/Kawana Springs Rd	23.1	С	25.1	С	23.2	С	25.2	С

### Table XVII-7: Existing and Existing plus Project Peak Hour Intersection Levels of Service

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in italics

The study intersections are expected to continue operating at acceptable service levels upon the addition of Project-generated traffic.

### Future plus Project Conditions

Upon the addition of Project-generated traffic to the anticipated Future volumes, four of the five study intersections are expected to operate acceptably. With the improvements recommended for the intersection of Aston Avenue/Linwood Avenue to achieve acceptable operation under future volumes, the intersection is expected to operate acceptably overall upon the addition of Project-generated trips. The Future plus Project operating conditions are summarized in Table XVII-8.

		Existing Conditions			Existing plus Project				
Study	/ Intersection	AM Peak		PM Peak		AM Peak		PM Peak	
oraaj	Approach	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	Aston Ave/Meda Ave Northbound (Meda Ave) Approach	2.6 13.8	A B	2.4 18.0	A C	2.6 14.0	A B	2.2 16.7	A C
2.	Aston Ave/Linwood Ave Northbound (Linwood Ave) Approach Southbound (Fairgrounds) Approach	26.3 63.5 13.6	D F B	52.1 ** **	F F F	34.0 83.3 14.0	D F B	70.4 ** **	F F F
	Add NB right-turn lane	9.5	А	13.3	В	10.0	В	16.2	С
3.	Linwood Ave/Poinsettia Ln WB (Private Driveway) Approach Eastbound (Poinsettia Ln) Approach	0.5 8.9 9.9	A A A	0.1 0.0 9.0	A A A	1.6 9.9 10.2	A A B	1.6 9.7 9.0	A A A
4.	Taylor Mountain Pl/Kawana Springs Rd Southbound (Taylor Mt. Pl) Approach	3.3 15.1	A A	1.8 12.1	A B	3.7 15.8	A C	2.1 12.2	A B
5.	Petaluma Hill Rd/Kawana Springs Rd	27.9	С	29.5	С	28.2	С	29.8	С

### Table XVII-8: Future and Future plus Project Peak Hour Levels of Service

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in italics; \*\* = delay greater than 120 seconds; **Bold** text = deficient operation; Shaded cells = conditions with recommended improvements; NB = Northbound; WB= Westbound

Similar to existing conditions, under the future scenario with the addition of Project-related traffic volumes, average delay at the intersection of Aston Avenue/Meda Avenue would be expected to decrease during the p.m. peak hour due to the Project adding right hand turns. Again, the Project adds traffic predominantly to the through movement, which has an average delay that is lower than the average for the intersection as a whole, resulting in a slight reduction in the overall average delay.

Consideration was given to the need for all-way stop controls at the intersection of Linwood Avenue/Poinsettia Lane. While the volumes are not high enough to warrant all-way stop-control, there is limited visibility from the west leg of Poinsettia Lane to the north and south due to the on-street parking. The criteria call for at least 150 feet of visibility, but based on field measurements, there is only 90 feet to the north and 115 feet to the south.

While restricting parking would also open up sight lines, given that all-way stop controls would address the sight distance issue and also provide a measure of traffic calming for the residential neighborhood, implementation of all-way stops is recommended in lieu of restricting parking.

## Transit

Santa Rosa City Bus: Santa Rosa City Bus provides fixed route bus service in Santa Rosa. There are two bus routes that have stops within the study area, specifically on Aston Avenue (approximately one-half mile from the project site), Petaluma Hill Road (nearly one mile) and west of the Petaluma Hill Road/Kawana Springs Road intersection (about one mile). Route 5 provides a 30-minute loop to destinations throughout southeast Santa Rosa from the Downtown Transit Mall, to the Sonoma County Fairgrounds, Santa Rosa Marketplace, and the Santa Rosa Town Center before returning. Route 18 is the Southeast Circulator route providing hourly loop service from the Downtown Transit Mall to the Santa Rosa Market Place, Farmers Lane Plaza, Eastside Transfer Center, and the Flamingo One Stop Shopping Center. These routes provide service on both weekdays and weekends.

Though the project site is located further from transit stops than is typically considered a "comfortable" walking distance of one-quarter mile, two bicycles can be carried on most City Bus buses so residents have the option of riding to the transit stop and then boarding a bus. Bike rack space is on a first come, first served basis. Additional bicycles are allowed at the discretion of the driver.

Dial-a-Ride Service: Santa Rosa Paratransit, a door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. Santa Rosa Paratransit is designed to serve the needs of individuals with disabilities within the Santa Rosa area.

### **Bicycle Facilities**

Existing bicycle facilities, including bike lanes on portions of Brookwood Avenue and Kawana Springs Road, together with shared use of minor streets provide adequate access for bicyclists. Since bicycle facilities serving the Project site are adequate, this is considered a less than significant impact.

In the Project area, Class II bike lanes exist on one or both sides of Brookwood Avenue between Linwood Avenue and Kawana Springs Road and Kawana Springs Road between Brookwood Avenue and Petaluma Hill Road. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the Project study area. Table XVII-9 summarizes the existing and planned bicycle facilities in the Project vicinity, as contained in the Santa Rosa Bicycle and Pedestrian Master Plan (2010).

Status	Class	Length	Begin Point	End Point		
Facility		(miles)				
Existing						
Colgan Creek Trail	1	0.6	Colgan Ave	Petaluma Hill Rd		
Kawana Springs Rd	11	0.5	Petaluma Hill Rd	Brookwood Ave		
Kawana Springs Rd (WB)	11	0.5	Santa Rosa Ave	Petaluma Hill Rd		
Brookwood Ave	11	0.1	Kawana Springs Rd	Tokay St		
Brookwood Ave (NB)	11	0.4	Tokay St	Linwood Ave		
Petaluma Hill Rd	11	0.9	Barham Ave-Pressley St	Kawana Springs Rd		
Aston Avenue	111	0.4	Hendley St	Brookwood Ave		
Planned						
Colgan Creek Trail Ext	1	0.5	Kawana Springs Rd	City Limits		
Kawana Springs Rd (EB)	11	0.5	Santa Rosa Ave	Petaluma Hill Rd		
Kawana Springs Rd	11	0.3	Brookwood Ave	Future Farmers Ln		
Linwood Ave	11	0.1	Aston Ave	Ext		
Aston Ave	11	0.4	Hendley St	Brookwood Ave		
Brookwood Ave (SB)	11	0.4	Linwood Ave	Brookwood Ave		
Farmers Lane Ext	11	1.9	Bennett Valley Rd	Tokay St		
			-	Yolanda Ave		

## Table XVII-9: Bicycle Facility Summary

Source: The Santa Rosa Bicycle and Pedestrian Master Plan, 2010

## Pedestrian

Given the proximity of schools, parks, and shopping centers surrounding the site, it is reasonable to assume that some Project patrons and employees will want to walk, bicycle, and/or use transit (approximately ½ mile away) to reach the Project site.

While sidewalks generally exist on both sides of the streets in the study area, they do not exist currently along the Project frontage, but per the site plan, are proposed. Within the Project site, sidewalks are recommended along the street frontages, including the connection to existing sidewalks on Verbena Drive to the north.

Pedestrian facilities serving the Project site would be adequate upon completion of sidewalks along all street frontages as part of the Project. There are full sidewalks on all adjacent, developed frontages, resulting in a complete network near the site after completion of the Project. Therefore, this is considered a less than significant impact.

## Impacts:

XVII(a) Less Than Significant with Mitigation Incorporated. Circulation Planning/Congestion Management. The City of Santa Rosa's adopted Level of Service (LOS) Standard is contained in Santa Rosa General Plan 2035. Standard TD-1 states that the City will try to maintain a level of service (LOS) D or better along all major corridors. While a corridor level of service is applied by the City in its analysis of the entire City as part of the environmental documentation supporting the General Plan, this type of analysis only provides relevant data when performed on segments containing numerous signalized intersections; the study area for the Project has only one signalized study intersection, making a corridor analysis infeasible. Therefore, although the City's standard does not specify criteria for intersections, for the purposes of this study a minimum operation of LOS D for the overall operation of intersections was applied. It is noted that intersections are the critical components of a transportation network, and a corridor can achieve LOS D operation even though some intersections are operating at lower service levels due to lower delays and higher service levels at other intersections along the corridor. It is therefore reasonable to expect the corridor to operate at LOS D or better if all of the intersections along it are at LOS D or better.

Under existing conditions, with and without the Project, the study intersections are expected to operate acceptably per the City's standards.

With and without the Proposed Project under future conditions, the intersection of Aston Avenue/Linwood Avenue is expected to operate unacceptably at LOS F. By reconfiguring the northbound approach to include a left-turn/through and exclusive right-turn lane, delay for both movements would be substantially reduced, and the intersection would be expected to operate acceptably at LOS B or C. The intersection of Aston Avenue/Linwood Avenue is projected to operate at an unacceptable LOS F overall during the p.m. peak hour without the Project under anticipated Future volumes.

To achieve acceptable LOS operation at Aston Avenue/Linwood Avenue under Future volumes, the northbound approach will need to be reconfigured to include a northbound left-turn/through storage lane and a right-turn lane.

Adequate right of way to the southwest of the Linwood/Aston intersection is available and the land is owned by the City of Santa Rosa. The addition of a turn lane (approximately 50') could potential require the addition of sidewalk and relocation of a fire hydrant. Because the project does not cause the need for this improvement, and it will be needed only as a result of area-wide growth (operation remains acceptable under Existing plus Project volumes), the project is responsible for its equitable share of the cost of the improvements (along with other developments to achieve funding for the project).

XVI(b) **Less Than Significant Impact. Vehicle Miles Travelled.** CEQA Guidelines § 15064.3, subdivision (b) indicates that land use projects would have a significant impact if the project resulted in vehicle miles traveled (VMT) exceeding an applicable threshold of significance. It further notes that if existing models or methods are not available to estimate the vehicle miles traveled for the project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively.

The City has not yet adopted a policy regarding vehicle miles traveled (VMT) so the project's contribution was estimated for informational purposes. Based on the *Traffic Impact Study for the Penstemon Place*, the proposed project is expected to generate 602 daily trips. Vehicle miles traveled as a result of the project were calculated by multiplying the estimated number of daily trips and the average trip length for the Traffic Analysis Zone (TAZ) in which the project is located. Average trip lengths are published by the Sonoma County Transportation Authority (SCT) 2010 Comprehensive Transportation Plan (CTP). Based on an average trip length of 5.03 miles, the 602 daily trips would translate to a calculated daily VMT for the project of 3,028 miles. The calculated VMT of the proposed project is shown in Table XVII-10.

	Number of	Calculated Daily VMT			
Unit	Daily Trips	mi/unit	Total		
Single Family Residential (59 du)	562	5.03	2,826.9 miles		
Apartments (9 du)	40	5.03	201.2 miles		
Total			3,028.1 miles		

## Table XVII-10 – VMT Summary

As noted above, because the City of Santa Rosa has not yet established a criterion against which the project's VMT can be measured, the significance cannot be measured quantitatively. However, given the site's convenient access to pedestrian and bicycle facilities coupled with the proximity of shopping opportunities, restaurants, and schools, it is reasonable to assume that the site will have a less-than-significant impact in terms of vehicle miles traveled.

XVI(c) Less Than Significant Impact with Mitigation Incorporated. Design Features. To achieve adequate sight lines for safe operation of the intersection of Linwood Avenue/Poinsettia Lane, additional stop signs shall be installed to achieve all-way stop controls. Therefore, after the mitigation measures are applied, the Project would have a less-than-significant impact on emergency access.

XVI(d) Less Than Significant Impact. Emergency Access. The Traffic Impact Study included in Attachment B indicates that emergency access to the Project site and surrounding area would be adequately maintained, with nominal increases in average delay at intersections near the site that provide access to the site, as indicated by the operational analysis, so emergency response times would generally not be increased. There are no other changes contemplated as part of the Project that would adversely affect emergency access. Therefore, the Project would have a less-than-significant impact on emergency access.

## Mitigation Measures:

**TR-1**: The Project shall pay its fair share contribution to the intersection improvement reducing the Project's impact to a level of less than significant. The Project's (proportional share has been calculated at 12.4% of the intersection improvement.

**TR-2**: The Project shall install stop signs and associated markings to convert the intersection of Linwood Avenue/Poinsettia Lane to all-way stop controls.

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- W-Trans, Traffic Impact Study for the Penstemon Place, January 11, 2018
- W-Trans, Communication, December 2019

## XVIII. TRIBAL CULTURAL RESOURCES

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
- b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

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

## Discussion:

A Cultural Resources Report evaluating the Project site was prepared by Tom Origer & Associates in October 2015. The report serves as the basis of this analysis and conclusions. The Cultural Resources Analysis is found in Attachment J of this Initial Study.

Based on the distribution of known cultural resources and their environmental settings, it was anticipated that prehistoric and/or historical archaeological sites could be found within the study area. One isolated flake made from obsidian of the Annadel source was found near a tree in the northwest portion of the study area. The specimen found was a single isolated obsidian flake. Isolated finds can contribute some information to prehistoric land use and hunting patterns. However, once their presence is documented no further work is warranted. The isolated find does not meet archaeological criteria for inclusion in the California Register, and is not a unique archaeological site; therefore, no work beyond documenting its location is warranted from an archaeological perspective. No tribe has identified the isolated flake as a Tribal Cultural Resource (TCR) as of the Cultural Resources Report preparation in the spring of 2015. The isolated find has been documented and no further investigation or protection is warranted. Preliminary notification letters sent by the consulting archaeologist are in addition to the City's obligation to consult under AB52. As the letters sent by the consulting archaeologist are not a formal consultation, there is no specific comment period; however, the majority of the letters were sent October 1, 2015 allowing 20 days for the tribes to respond. No responses were received in that period, except from the Native American Heritage Commission (NAHC).

XVII(a) Less Than Significant impact: Eligibility for Listing as Historical Resource. As noted above, the Cultural Resources Study prepared by Tom Origer & Associates in October 2015 included contacts to the local tribes and the Native American Heritage Commission registering their impact on the Proposed Project. These are identified in Attachment J. No responses were received to indicate that the

Project site is a culturally significant resource. The majority of the letters were sent October 1, 2015 and the report completed October 30, 2015 which would allow for 20 days in which to respond. No responses were received in that period, except from the NAHC, as noted in Attachment J.

Should a tribe wish to make the case that they comprise a TCR, it would be up to the tribe to make the case that they meet criteria and provide recommended mitigation.

The site is not listed on the California Register of Historical Places or on any local register of historical resources. The City of Santa Rosa General Plan 2035 and adopted EIR does not identify any cultural or historical resources of significance on the Project site, as described in the section on Cultural Resources and in Attachment J. Therefore, the Project impacts are unlikely. However, the potential to uncover cultural resources during construction is a possibility, therefore, the City's standard measures, discussed in Section V, Cultural, are is provided to ensure potential impacts to Tribal Resources remains less than significant.

XVII(b) **Less Than Significant Impact. Tribal Resource:** No Native American groups responded with concerns as to the site's cultural significance. Additionally, no archived research or field surveys identified any pre-historic or historic-era cultural resources. Absent any substantial evidence to support such a finding, the potential impacts to Tribal Cultural Resources is unlikely. However, given the potential to uncover human remains during construction, compliance with the State's regulations will ensure that should any remains be uncovered the impact is less than significant.

### Mitigation Measures:

None required.

### Standard Measures:

- Standard Measures identified in Section V of the Initial Study will ensure that, should any substantial resources be encountered, appropriate measures are in place to protect the resources.
- Pursuant to State law, promulgated in Public Resources Code 5097.98 and Health and Human Safety Code 7050.5, if human remains are encountered, excavation or disturbance of the location must be halted in the vicinity of the find, and the county coroner contacted. If the coroner determines the remains are Native American, the coroner will contact the Native American Heritage Commission. The Native American Heritage Commission will identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent makes recommendations regarding the treatment of the remains with appropriate dignity.

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- Tom Origer & Associates, Cultural Resources Study, October 2015

# XIX. UTILITIES AND SERVICE SYSTEMS

	auld the project:	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact		
vvt	Would the project:						
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause effects?			X			
b.	Have sufficient water supplies available to serve project and reasonably foreseeable future development during normal, dry, and multiple dry years?			X			
C.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X			
d.	Generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure or otherwise impair the attainment of solid waste reduction goals?			X			
e.	Comply with federal, state and local management statutes and regulations related to solid waste?			×			

## Discussion:

The following summary is based upon review of the City of Santa Rosa 2035 General Plan/Final EIR, 2009, and the Preliminary Storm Water Management Plan (SWMP) prepared by Carlile-Macy in December of 2016 and reviewed by City Engineering staff. This document is included as Attachment I.

The Proposed Penstemon Place residential Project is located within an area that is experiencing urbanization. Urbanization was planned for in the Santa Rosa 2035 General Plan (which incorporated the Southeast Area Plan when the General Plan was adopted in 2009).

XVIII(a,c) Less than Significant. Utilities. The Penstemon Place Project was one of the projects evaluated as part of the Southeast Area Plan. Utilities and services are available through local City services, or from semiprivate service providers such as Pacific Gas & Electric, telecommunications and other providers. Utilities (sewer, water and storm drains) will be extended into the site from adjacent public streets.

Wastewater/Water: Within the City of Santa Rosa, wastewater is collected and treated at the Laguna Treatment Plant. According to the City's General Plan, wastewater treatment is generally sufficient to meet anticipated housing development needs through 2035 (City of Santa Rosa 2009). The existing water supplies, facilities and infrastructure are sufficient to meet the demands of the Project's 59 new homes without the need for expansion or new construction of water supply facilities. Water demand on-site will be limited through efficient irrigation of landscaping and water-efficient fixtures and appliances indoors, consistent with requirements established by the CALGreen, the Building Code, and the City's WELO Ordinance.

The existing water treatment system has sufficient capacity to meet the limited additional demands generated by the Project. Additionally, the Project will not require or result in the construction or expansion of new water or wastewater treatment facilities.

Stormwater: Drainage for the Project will require connection to the offsite adjacent storm drain system. The City's master drainage planning for this area of the City calls for connection to an existing storm drain line surrounding public streets with drainage to the west. Refer to Attachments I-1, Drainage Areas & Storm Drain Connections. The proposed storm drain system will convey the collected water into the existing public stormdrain system at three connection points. The first connection point is to the existing 18" stormdrain pipe that is located under Verbena Drive north of the site, the second connection point is to the existing 15" stormdrain pipe located under Linwood Avenue northwest of the site, and the third is to a 36" stormdrain pipe located under Linwood Avenue in the southwest corner of the site. Refer to Appendix I-1 for a graphic representation of the connection points. The proposed underground storm drain system is designed to contain the 10-year storm event, and streets shall be designed to provide an overflow route for the 100-year storm flows.

The Project will be responsible for construction of the onsite storm drain, connecting to the existing facilities, and payment of all fees. The Project shall design the storm drain to maintain the patterns anticipated by earlier developments to ensure that the Project does not exceed the service capacity that has already been designed into the existing system. Based on the existing storm drain, project storm water will need to drain toward Linwood Avenue and Verbena Drive. As a result, grading plans for the Proposed Project currently show all storm water draining to Linwood Avenue and north to Verbena Drive.

The Project is designed in accordance with the City's SUSMP Guidelines, and addresses the potential impact of development on storm water runoff volume using low impact development (LID) measures integrated into the overall site design. On-site LID measures proposed for the Project include roadside bioretention, vegetated swales, and other forms of onsite retention and treatment. The physical disturbance of these facilities during construction has been addressed in Section IX, Hydrology and Water Quality.

Although the Project would require the construction of new connections to off-site storm water drainage facilities and expansion of existing off-site facilities, new storm drainage and the new infrastructure would be installed to accommodate the increase in impervious surfaces that would result from the Proposed Project. The proposed LID measures and planned/proposed storm drain facilities onsite and in the Project vicinity are sufficient to accommodate any increased surface flows generated by the Project. The flow of storm water runoff would be retained and continue to be conveyed to the existing regional storm drain facilities. While the Project will increase the amount of runoff from the site, it will do so in a manner that was already considered in the design of the existing facilities, resulting in an impact that is less than significant.

XVIII(b) Less Than Significant Impact. Water Supplies. The Project will utilize water obtained from the City's water system to meet onsite water demands. Water would be accommodated via the installation of new water laterals that would connect the Proposed Project.

The Project will introduce an additional 59 dwelling units. As such, the Project will not generate a substantial increase in water demands. The increase in onsite water demand resulting from the

Proposed Project will remain consistent with what has been anticipated in the General Plan and the Urban Water Management Plan (UWMP). The existing entitlements for water supplies to the City are sufficient to continue to meet the needs of Santa Rosa in addition to the minimal water demands generated by the Project. Therefore, impacts due to insufficient water supplies or inadequate entitlements would be less than significant.

XVIII(d,e) Less than Significant. Solid Waste. The City of Santa Rosa currently contracts with Recology to provide solid waste collection and recycling. Recology collects and transports commercial and solid waste to the Central Disposal Site Transfer Station at 500 Meacham Road north of Petaluma. The Penstemon Project is expected to contribute to the generation of solid waste within the UGB. However, the amount of solid waste generated by the Project is considered minimal and is consistent with the service needs anticipated by the General Plan. The Project will be required to adhere to all regulations governing the disposal of solid waste. Construction- related waste will be reduced through the development of a construction waste management plan. Submittal of a construction waste management plan is a mandatory measure of CALGreen requirements that have been adopted by the City. The plan shall be prepared after selection of the actual building materials. CALGreen measures 4.408.1 - 4.408.4.1 stipulate the performance standards that would be addressed in the construction waste management plan.

Because the Project will not exceed local capacity and will be in compliance with City requirements, the Project will not conflict with local or state management reduction statutes and impact will be less than significant.

## Mitigation Measures:

None required.

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- Carlile-Macy, Storm Water Mitigation Plan for the Penstemon Place Project, December 2016

## XX. WILDFIRE

Would the project:	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Substantially impair and adopted emergency response plan or emergency evacuation plan?	, 		$\boxtimes$	
<ul> <li>Due to slope, prevailing winds, and othe factors, exacerbate wildfire risks, and thereby expose project occupants to pollutan concentrations from a wildfire or the uncontrolled spread of a wildfire</li> </ul>	t u		X	
c. Require the installation or maintenance of associated infrastructure (such as roads, fue breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d. Expose people or structures to significant risks including down slope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			$\boxtimes$	

## Discussion

The City of Santa Rosa is located within an area susceptible to wildland fires with expansive areas of chaparral, woodland, grassland, and scrub vegetation communities as well as steep slopes, and climatic conditions. The Project is located within the City's Urban Growth Boundary (UGB). Figure 12-5 from the 2035 General Plan places the Project site outside of the Very High Fire Hazard Severity Zone and the Wildland-Urban Interface Zone. The nearest Wildlife Urban Interface Zones are located north of Highway 12 at Farmers Lane (approximately 1.8 miles from the Project) and east of Summerfield Road (approximately 1.9 miles from the Project). The project site is categorized as a Non-VHFHZ by CalFire and surrounded by land designated as Non-VHFHZ on all sides.

In October 2017, the Tubbs Fire (Central LNU Complex) burned approximately 36,807 acres in the northern and eastern portions of the City. In 2019 the Kincade fire burned areas to the north of Santa Rosa. Residents were exposed to direct effects of the wildfire, such as the loss of a structure, and to the secondary effects of the wildfire, such as smoke and air pollution. Smoke generated by wildfire consists of visible and invisible emissions that contain particulate matter (soot, tar, water vapor, and minerals) and gases (carbon monoxide, carbon dioxide, nitrogen oxides). Public health impacts associated with wildfire include difficulty in breathing, odor, and reduction in visibility.

## Impacts:

**XX (a) Less than Significant Impact. Emergency Response.** The project site is categorized as a Non-VHFHZ by CAL FIRE, located approximately 1.8 miles from areas designated as a Very High Fire Hazard Severity Zone. The Project site is located within the UGB and will be included in the City's Emergency Operation Plan. Therefore, in the event of a wildfire the proposed project is not expected to substantially impair an adopted emergency response plan or emergency evacuation plan, and impacts will be less than significant.

**XX(b-d )Less than Significant Impact. Fire Reduction**. The project site is relatively flat, with a 10 percent slope at the eastern edge of the parcel. As identified in Section VII Geology and Soils, there are no mapped landslides at the Project site. The proposed structures will require a building permit and built in compliance with the California Building Code in affect at the time of Building Permit submittal. The project will install new infrastructure, including utilities and power lines, and will not exacerbate the fire risk.

There are no other factors, such as steep slopes, prevailing winds that will exacerbate fire risk or expose project occupants to the uncontrolled spread of a wildfire, pollutant concentrations from a wildfire, post-fire slope instability, or post-fire flooding. Therefore, impacts will be less than significant.

### Mitigation Measures:

None required.

- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- CalFire, Very High Fire Hazard Severity Zones (VHFHZ) Map, accessed online December 2019

## XXI. MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Wo a.	uld the project? 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?		$\boxtimes$		
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
C.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either		X		

## Discussion:

directly or indirectly?

XXI(a) Less Than Significant with Mitigation Incorporated: The Penstemon Project is located within the City's Urban Growth Boundary and potential impacts associated with its development have been anticipated by the City's General Plan and analyzed in the General Plan EIR. The project is consistent with the General Plan Land Use designation, goals, policies and programs. All potential impacts to biological resources have been mitigated to levels less than significant, as identified in Section IV Biological Resources. The mitigation identifies measures which offset the loss of wetlands and tree removal, as well as for the protection of nesting birds and bats to ensure no impacts result in degradation or reductions of plants or animals.

Section V assessed the potential for cultural resources at the site. There are no historically significant buildings and protective State and locally mandated measures described in Section V will ensure that any potential impacts to subsurface cultural resources related to construction are avoided.

With implementation of mitigation measures, set forth in the sections on air quality (mitigation to reduce the potential for fugitive dust and TAC's), hazards/hazardous materials (to avoid exposure to asbestos and lead based paint), noise (construction-related noise), and transportation and circulation (intersection improvements), all potentially significant impacts are all reduced to levels of less than significant. The Project's adherence to Santa Rosa's development standards, including, but not limited to, the Hillside

Development Standards, Design Review, and Conditions of Approval, will ensure the project's potential impacts on the quality of the environment would be reduced to levels of less than significant.

As such, the project will not degrade the quality of the environment, reduce habitat, or affect cultural resources. Therefore, the project will have a less than significant impact on the environment.

**XXI(b)** Less Than Significant with Mitigation Incorporated: CEQA Guidelines (Section 15355(a)(b)) defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or increase in environmental impacts. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the proposed project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

The analysis of cumulative impacts for each environmental factor can employ one of two methods to establish the effects of other past, current, and probable future projects. Projections from an adopted general plan or related planning documents or from a prior environmental document that has been adopted or certified, providing these adopted documents describe or evaluate the regional or area-wide conditions contributing to the cumulative impact. This Initial Study evaluates cumulative impacts using the General Plan EIR. As described in the analysis above, potential environmental impacts are expected to remain at, or be mitigated to, less than significant levels. The project does not increase the severity of any of the cumulatively considerable impacts from the levels identified and analyzed in the General Plan EIR.

The Project does not have the potential to create impacts which are individually limited but cumulatively considerable. The environmental effects of the Project are typical of residential developments and will all be reduced to less that significant levels through the implementation of standard conditions of approval, or through mitigation measures contained in this Initial Study/Mitigated Negative Declaration.

While increased traffic will contribute to cumulative conditions; the City has adopted circulation policies as part of its General Plan Transportation Element that regulates traffic movement and requires construction of Project improvements to ensure traffic safety. Long-term traffic impacts related to General Plan build-out (2035 scenario) and cumulative traffic conditions will be addressed by ongoing City efforts to pursue alternative transportation modes, including increased use of public transit and other Transportation Systems Management methods. Increased traffic impacts were considered in the scope of the General Plan 2035 EIR. Circulation for this project was assessed in a report prepared by W-Trans, dated January 2018 and reviewed by City staff. The Project will contribute its fair share of impact fees and implement measures thereby mitigating its contribution, as well as its cumulative contribution, to cumulatively considerable traffic and circulation impacts or to local intersections

All other potentially cumulative impacts (agricultural resources, air quality, greenhouse gases, drainage, noise, public services and utilities) are either less than significant or are also mitigated such to levels of less than significant or reduced through the City's Standard Conditions of Approval or by the implementation of development standards, such that they will not add to a cumulatively considerable impact.

**XXI(c)** Less Than Significant with Mitigation Incorporated: The Project does not present adverse impacts upon human beings, either directly or indirectly. The project has the potential to result in adverse impacts to humans due to air quality, biological resources, cultural resources, hazards/ hazardous materials, noise, transportation and circulation, and tribal cultural resources. With implementation of the mitigation measures set forth in this Initial Study, the project will have less than significant environmental effect that would directly or indirectly impact human beings onsite or in the project vicinity.

The project site is located in close proximity to existing sensitive receptors including existing surrounding residential uses to the north, south, and west of the project site. Kawana Elementary School and the Sonoma Academy are both within 0.5 miles of the site. With implementation of mitigation measures set forth in the Air Quality and Noise sections, construction activities associated with the development of Penstemon Place would result in short-term air quality emissions and noise levels that fall below levels of significance and would cease once construction is finished. In addition to mitigation measures set forth in this Initial Study, the project will be conditioned to achieve city standards with respect to noise, safety, and drainage. Building and improvement plans will be reviewed to ensure compliance with applicable building codes and standards. With implementation of mitigation measures, conditions of approval, and the City's development standards, the project does not present potentially significant impacts that may have an adverse effect upon human beings, either directly or indirectly. Therefore, the project will have less than significant impacts due to substantial adverse environmental effects.

Potential impacts related to hazardous materials will be mitigated to insignificant levels. The Project will be conditioned to make City standard improvements or provide mitigations with respect to roadways, storm drainage and other impacts. Building and improvement plans will be reviewed to ensure compliance with applicable building codes and standards.

Therefore, on the basis of this initial evaluation:

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

#### Signature:

Date:

Printed Name: Susie Murray

Title: Senior Planner

- State of California, Surface Mining and Reclamation Act (SMARA) of 1975, updated in 1977
- BAAQMD Website and Significance Thresholds, 2011
- BAAQMD CEQA Guidelines, May 2010, updated 2011
- City of Santa Rosa 2035 General Plan/Final EIR, 2009
- City of Santa Rosa Zoning Code, 2006
- City of Santa Rosa Design Guidelines, September 2005 (updated in 2010, 2011)
- City of Santa Rosa Southeast Area Plan EIR, Resolution No. 21807, June 21, 1994
- City of Santa Rosa Climate Action Plan, adopted June 2012
- City of Santa Rosa, Water Efficient Landscape Ordinance, Ordinance 4051, adopted December 1, 2015
- Becky Duckles, ISA, Arborist's Report, Tree Inventory & Evaluation, Penstemon Place, May 2018
- Carlile-Macy, Preliminary Standard Urban Storm Water Mitigation Plan, Penstemon Place, December 2016
- Harris & Lee Environmental Sciences, LLC, Phase I Environmental Site Assessments, April 2015
- Illingworth & Rodkin, Inc., Environmental Noise Assessment Study for the Penstemon Place Project, March 29, 2017
- Illingworth & Rodkin, Community Risk Assessment (TAC), Penstemon Place, March 8, 2017
- RGH Consultants, Geotechnical Study Report, McIntosh Property Subdivision, Linwood Avenue, Santa Rosa California, November 2015
- Tom Origer & Associates, Cultural Resources Study for the McIntosh Development, October 2015
- WRA, Inc., Biological Resources Assessments, Penstemon Place Development Project, March 2017, letter dated June 6, 2017, and letter dated July 25, 2017
- WRA, Inc., Draft Jurisdictional Wetlands Delineation Report, McIntosh Property, April 2015
- W-Trans, Draft Traffic Impact Study for the Penstemon Place Project, July 2018
- W-trans, communication, December 2019.