NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

Notice is hereby given that, as Lead Agency, the City of Roseville, Development Services Department, Planning Division has prepared an Initial Study leading to a **Mitigated Negative Declaration** for the project referenced below. This **Mitigated Negative Declaration** is available for public review and comment.

Project Title and File #: INFILL PCL 246 – Roseville Old Town Lofts, File #PL18-0178
Project Address: 241 Nevada Avenue
Project Owner: Robert Pegos
Project Applicant: Phil Harvey, Kuchman Architects
Project Planner: Kinarik Shallow, Assistant Planner

Project Description: The project consists of the construction of 23 attached single-family dwellings. The project includes a request for a General Plan Amendment to change the land use designation of the property from Business Professional (BP) to High Density Residential (HDR), a Rezone to add a special area (SA) overlay to the existing Attached Housing (R3) zone to modify the development standards, a Tentative Subdivision Map, a Design Review Permit, and a Tree Permit.

Document Review and Availability: The public review and comment period begins on April 10, 2019 and ends on April 30, 2019. The Mitigated Negative Declaration may be reviewed during normal business hours (8:00 am to 5:00 pm) at the Planning Division offices, located at 311 Vernon Street. It may also be viewed online at https://www.roseville.ca.us/cms/One.aspx?portalId=7964922&pageId=8774505.

Written comments on the adequacy of the Mitigated Negative Declaration may be submitted to Kinarik Shallow, Planning Division, 311 Vernon Street, Roseville, CA 95678, and must be received no later than 5:00 pm on April 30, 2019.

This project will be scheduled for a public hearing before the City's Planning Commission. At this hearing, the Planning Commission will consider the Mitigated Negative Declaration and associated project entitlements. The date and time of this hearing is not known at this time. Separate notices will be published when this hearing is scheduled.

Greg Bitter
Planning Manager

Dated: April 9, 2019

CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT–PLANNING DIVISION

311 Vernon St, Roseville, CA 95678 (916) 774-5276

INITIAL STUDY & ENVIRONMENTAL CHECKLIST

Project Title/File Number:	INFILL PCL 246 – Roseville Old Town Lofts; File #PL18-0178
Project Location:	241 Nevada Avenue, Roseville, Placer County, CA; APN 013-192-036-000
Project Description:	The project consists of the construction of 23 attached single-family dwellings. The project includes a request for a General Plan Amendment to change the land use designation of the property from Business Professional (BP) to High Density Residential (HDR), a Rezone to add a special area (SA) overlay to the existing Attached Housing (R3) zone to modify the development standards, a Tentative Subdivision Map, a Design Review Permit, and a Tree Permit.
Project Applicant:	Phil Harvey, Kuchman Architects
Property Owner:	Robert Pegos
Lead Agency Contact:	Kinarik Shallow, Assistant Planner; Phone (916) 746-1309

This initial study has been prepared to identify and assess the anticipated environmental impacts of the above described project application. The document relies on previous environmental documents and site-specific studies prepared to address in detail the effects or impacts associated with the project. Where documents were submitted by consultants working for the applicant, City staff reviewed such documents in order to determine whether, based on their own professional judgment and expertise, staff found such documents to be credible and persuasive. Staff has only relied on documents that reflect their independent judgment, and has not accepted at face value representations made by consultants for the applicant.

This document has been prepared to satisfy the California Environmental Quality Act (CEQA), (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (14 CCR 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

The initial study is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. If the lead agency finds substantial evidence that any aspect of the project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the lead agency is required to prepare an EIR. If the agency finds no substantial evidence that the project or any of its aspects may cause a significant effect on the environment, a negative declaration shall be prepared. If in the course of analysis, the agency recognizes that the project may have a significant impact on the environment, but that by incorporating specific mitigation measures to which the applicant agrees, the impact will be reduced to a less than significant effect, a mitigated negative declaration shall be prepared.

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PROJECT DESCRIPTION

Project Location/Background

The 0.89-acre project site is located at 241 Nevada Avenue, on the northeast corner of Nevada Avenue and Douglas Boulevard (see Figure 1). The subject property is located on Parcel 246 of the City's Infill planning area and has a zoning designation of Attached Housing (R3) and a General Plan land use designation of Business Professional (BP). Table 1 includes the zoning and land use designations of the subject and adjacent properties. The project site is developed with a ±1,000 square-foot single-family dwelling and ±360 square-foot detached garage. The structures are located near the southeast portion of the property.

Figure 1: Project Location

Table 1: Adjacent Zoning and Land Use

Location	Zoning	General Plan Land Use	Actual Use of Property
Site	Attached Housing (R3)	Business Professional (BP)	Residential
North	R3	Low Density Residential (LDR-4.9)	Residential
South	Neighborhood Commercial (NC)	Community Commercial (CC)	Gas Station, Commercial
East	R3	BP & LDR-4.9	Office, Residential
West	R3	BP	Office

Environmental Setting

The project site is an infill property located in an urbanized setting. The site is currently developed with a single-family dwelling on the southeast corner of the parcel. The site fronts onto Douglas Boulevard (a four-lane arterial roadway at this location) and is surrounded by residential development to the north, business professional and residential uses to the west, business professional uses to the east, and Douglas Boulevard to the south. The site is relatively flat and consists of non-native grasses and several native oak trees.

Proposed Project

The applicant proposes to construct 23 attached single-family residences, with associated parking and landscaping, which requires a Design Review Permit. The existing structures on the property will be demolished and the site will be completely graded. Development of the project will impact several protected oak trees on the site, 13 of which will require removal. Additionally, minor trenching will occur on the site to install utilities and extend to existing utility connections within or adjacent to the site. Frontage improvements along Douglas Boulevard and Nevada Avenue will include new curb, gutter, sidewalk, and driveways. The proposed project also involves a General Plan Amendment to change the land use designation from BP to High Density Residential (HDR), a Rezone to add a special area (SA) overlay to the Attached Housing (R3) zone to modify the development standards, and a Tentative Subdivision Map to subdivide the 0.89-acre parcel into 23 lots.

CITY OF ROSEVILLE MITIGATION ORDINANCES, GUIDELINES, AND STANDARDS

For projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, CEQA Guidelines section 15183(f)allows a lead agency to rely on previously adopted development policies or standards as mitigation for the environmental effects, when the standards have been adopted by the City, with findings based on substantial evidence, that the policies or standards will substantially mitigate environmental effects, unless substantial new information shows otherwise (CEQA Guidelines §15183(f)). The City of Roseville adopted CEQA Implementing Procedures (Implementing Procedures) which are consistent with this CEQA Guidelines section. The current version of the Implementing Procedures were adopted in April 2008, along with Findings of Fact, as Resolution 08-172. The below regulations and ordinances were found to provide uniform mitigating policies and standards, and are applicable to development projects. The City's Mitigating Policies and Standards are referenced, where applicable, in the Initial Study Checklist.

- City of Roseville 2035 General Plan
- City of Roseville Zoning Ordinance (RMC Title 19)
- City of Roseville Improvement Standards (Resolution 02-37)
- City of Roseville Construction Standards (Resolution 01-208)
- Subdivision Ordinance (RMC Title 18)
- Noise Regulation (RMC Ch.9.24)
- Flood Damage Prevention Ordinance (RMC Ch.9.80)
- Drainage Fees (Dry Creek [RMC Ch.4.49] and Pleasant Grove Creek [RMC Ch.4.48])
- West Placer Stormwater Quality Design Manual (Resolution 16-152)
- Urban Stormwater Quality Management and Discharge Control Ordinance (RMC Ch. 14.20)
- Traffic Mitigation Fee (RMC Ch.4.44)
- Highway 65 Joint Powers Authority Improvement Fee (Resolution 2008-02)
- South Placer Regional Transportation Authority Transportation and Air Quality Mitigation Fee (Resolution 09-05)

- Tree Preservation Ordinance (RMC Ch.19.66)
- Community Design Guidelines (Resolution 95-347)

OTHER ENVIRONMENTAL DOCUMENTS RELIED UPON

- Amoruso Ranch Specific Plan Final Environmental Impact Report

Pursuant to CEQA Guidelines Section 15183, any project which is consistent with the development densities established by zoning, a Community Plan, or a General Plan for which an EIR was certified shall not require additional environmental review, except as may be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. The Amoruso Ranch Specific Plan EIR updated the City's General Plan to 2035, and updated Citywide analyses of traffic, water supply, water treatment, wastewater treatment, and waste disposal. The proposed project is inconsistent with the adopted land use designations examined within the environmental documents listed above, and thus this Initial Study focuses on effects particular to the specific project site, impacts which were not analyzed within the EIR, and impacts which may require revisiting due to substantial new information. When applicable, the topical sections within the Initial Study summarize the findings within the environmental documents listed above. The analysis, supporting technical materials, and findings of the environmental document are incorporated by reference, and are available for review at the Civic Center, 311 Vernon Street, Roseville, CA.

EXPLANATION OF INITIAL STUDY CHECKLIST

The California Environmental Quality Act (CEQA) Guidelines recommend that lead agencies use an Initial Study Checklist to determine potential impacts of the proposed project on the physical environment. The Initial Study Checklist provides a list of questions concerning a comprehensive array of environmental issue areas potentially affected by this project. This section of the Initial Study incorporates a portion of Appendix G Environmental Checklist Form, contained in the CEQA Guidelines. Within each topical section (e.g. Air Quality) a description of the setting is provided, followed by the checklist responses, thresholds used, and finally a discussion of each checklist answer.

There are four (4) possible answers to the Environmental Impacts Checklist on the following pages. Each possible answer is explained below:

1) A "Potentially Significant Impact" is appropriate if there is enough relevant information and reasonable inferences from the information that a fair argument based on substantial evidence can be made to support a conclusion that a substantial, or potentially substantial, adverse change may occur to any of the physical conditions within the area affected by the project. When one or more "Potentially significant Impact" entries are made, an EIR is required.

2) A "Less Than Significant With Mitigation" answer is appropriate when the lead agency incorporates mitigation measures to reduce an impact from "Potentially Significant" to "Less than Significant." For example, floodwater impacts could be reduced from a potentially-significant level to a less-than-significant level by relocating a building to an area outside of the floodway. The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level. Mitigation measures are identified as MM followed by a number.

3) A "Less Than significant Impact" answer is appropriate if there is evidence that one or more environmental impacts may occur, but the impacts are determined to be less than significant, or the application of development policies and standards to the project will reduce the impact(s) to a less-than-significant level. For instance, the application of the City's Improvement Standards reduces potential erosion impacts to a less-than-significant level.

4) A "No Impact" answer is appropriate where it can be demonstrated that the impact does not have the potential to adversely affect the environment. For instance, a project in the center of an urbanized area with no agricultural lands on or adjacent to the project area clearly would not have an adverse effect on agricultural resources or operations. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources cited in the Initial Study. Where a "No Impact" answer is adequately supported by the information sources cited in the Initial Study, further narrative explanation is not required. A "No Impact" answer is explained when it is based on project-specific factors as well as generous standards.

All answers must take account of the whole action involved, including off- and on-site, indirect, direct, construction, and operation impacts, except as provided for under State CEQA Guidelines.

INITIAL STUDY CHECKLIST

I. Aesthetics

The public views of the site are from both Douglas Boulevard and Nevada Avenue. The project site is developed with a single-family residence and detached garage on the southeastern portion of the site, with the remaining property generally left undeveloped. Several native oak trees are located on the property along with native grasslands and shrubs. There are existing visual encroachments on the site and the surrounding area, including light standards and telephone wires. The site is in a typical urbanized setting, and does not contain any scenic resources on the site or within the vicinity.

The proposed project would include the demolition of the existing on-site structures and subdivision of the site to develop twenty-three (23) single-family residences and associated improvements. The project will consist of three-story, "row house" style homes. The proposed building architecture utilizes an earth tone color scheme and the building materials consist of brick, plaster, and composite board siding to complement the surrounding neighborhood. Each unit will consist of a two-car garage. The units along Douglas Boulevard will have garage access on the rear of the homes, with the front doors facing Douglas Boulevard. The roof lines of the homes are flat and feature a roof deck to provide useable open space for each unit.

The project frontage totals approximately 210 lineal feet along Douglas Boulevard (a four-lane arterial road in this location). Access to the site will be provided by a 20-foot driveway off of Douglas Boulevard, on the southwest corner of the site, which will be restricted to ingress only. Vehicles will exit the site on the northwest portion of the property, onto Nevada Avenue (a one-way street). Access to the site will also be provided off of Nevada Avenue. There will also be two 20-foot wide internal drive-aisles providing access to each of the units.

Except as provided in Public Resources Code Section 21099, would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	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

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				X
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

Thresholds of Significance and Regulatory Setting:

The significance of an environmental impact cannot always be determined through the use of a specific, quantifiable threshold. CEQA Guidelines Section 15064(b) affirms this by the statement "an ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." This is particularly true of aesthetic impacts. As an example, a proposed parking lot in a dense urban center would have markedly different visual effects than a parking lot in an open space area. For the purpose of this study, the significance thresholds are as stated in CEQA Guidelines Appendix G, as shown in a–d of the checklist below. The Findings of the Implementing Procedures indicate that compliance with the Zoning Ordinance (e.g. building height, setbacks, etc), Subdivision Ordinance (RMC Ch. 18), Community Design Guidelines (Resolution 95-347), and applicable Specific Plan Policies and/or Specific Plan Design Guidelines will prevent significant impacts in urban settings as it relates to items a and b, below.

Discussion of Checklist Answers:

a–b) There are no designated or eligible scenic vistas or scenic highways within or adjacent to the City of Roseville.

c) The project site is in an urban setting and is surrounded by residential development to the north, business professional and residential uses to the west, business professional uses to the east, and Douglas Boulevard to the south. The City of Roseville has adopted Community Design Guidelines (CDG) to establish common design elements and expectations for development within the City. The CDG includes provisions related to architectural design, site design and landscape design, to enhance the visual character of the urban environment. The CDG recommends preserving, to the extent feasible, visual resources such as native oak trees and creek or wetland resources. The site does not contain any creek or wetland resources; however, the project will impact 19 protected oak trees and therefore requires a Tree Permit. Consistent with the City's Tree Preservation ordinance (RMC Ch. 19.66), the Tree Permit would contain conditions of approval that include protective measures for the trees to remain on site, and mitigation measures that include payment of in-lieu mitigation fees to compensate

for oak tree encroachment and removal. The project has been reviewed by City staff and was found to be consistent with the goals and policies of the CDG and applicable zoning regulations. As such, the aesthetic impacts of the project are less than significant.

d) The project involves nighttime lighting to provide for the security and safety of project users. However, the project is already located within an urbanized setting with many existing lighting sources. Lighting is conditioned to comply with City standards (i.e. CDG) to limit the height of light standards and to require cut-off lenses and glare shields to minimize light and glare impacts. The project will not create a new source of substantial light. None of the project elements are highly reflective, and thus the project will not contribute to an increased source of glare.

II. Agricultural & Forestry Resources

The State Department of Conservation oversees the Farmland Mapping and Monitoring Program, which was established to document the location, quality, and quantity of agricultural lands, and the conversion of those lands over time. The primary land use classifications on the maps generated through this program are: Urban and Built Up Land, Grazing Land, Farmland of Local Importance, Unique Farmland, Farmland of Statewide Importance, and Prime Farmland. According to the current California Department of Conservation Placer County Important Farmland Map (2012), the majority of the City of Roseville is designated as Urban and Built Up Land and most of the open space areas of the City are designated as Grazing Land. There are a few areas designated as Farmland of Local Importance and two small areas designated as Unique Farmland located on the western side of the City along Baseline Road. The current Williamson Act Contract map (2013/2014) produced by the Department of Conservation shows that there are no Williamson Act contracts within the City, and only one (on PFE Road) that is adjacent to the City. None of the land within the City is considered forest land by the Board of Forestry and Fire Protection.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

Thresholds of Significance and Regulatory Setting:

Unique Farmland, Farmland of Statewide Importance, and Prime Farmland are called out as protected farmland categories within CEQA Guidelines Appendix G. Neither the City nor the State has adopted quantified significance thresholds related to impacts to protected farmland categories or to agricultural and forestry resources. For the purpose of this study, the significance thresholds are as stated in CEQA Guidelines Appendix G, as shown in a–e of the checklist above.

Discussion of Checklist Answers:

a–e) The project site is not used for agricultural purposes, does not include agricultural zoning, is not within or adjacent to one of the areas of the City designated as a protected farmland category on the Placer County Important Farmland map, is not within or adjacent to land within a Williamson Act Contract, and is not considered forest land. Given the foregoing, the proposed project will have no impact on agricultural resources.

III. Air Quality

The City of Roseville, along with the south Placer County area, is located in the Sacramento Valley Air Basin (SVAB). The SVAB is within the Sacramento Federal Ozone Non-Attainment Area. Under the Clean Air Act, Placer County has been designated a "serious non-attainment" area for the federal 8-hour ozone standard, “non-attainment” for the state ozone standard, and a "non-attainment" area for the federal and state PM_{10} standard (particulate matter less than 10 microns in diameter). Within Placer County, the Placer County Air Pollution Control District (PCAPCD) is responsible for ensuring that emission standards are not violated. Would the project:

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

Thresholds of Significance and Regulatory Setting:

In responding to checklist items a, b, and d, project-related air emissions would have a significant effect if they would result in concentrations that either violate an ambient air quality standard or contribute to an existing air quality violation. To assist in making this determination, the PCAPCD adopted thresholds of significance, which were developed by considering both the health-based ambient air quality standards and the attainment strategies outlined in the State Implementation Plan. The PCAPCD-recommended significance threshold for reactive organic gases (ROG) and nitrogen oxides (NO_x) is 82 pounds daily during construction and 55 pounds daily during operation, and for particulate matter (PM) is 82 pounds per day during both construction and operation. For all other constituents, significance is determined based on the concentration-based limits in the Federal and State Ambient Air Quality Standards. Toxic Air Contaminants (TAC) are also of public health concern, but no thresholds or standards are provided because they are considered to have no safe level of exposure. Analysis of TAC is based on the *Air Quality and Land Use Handbook – A Community Health Perspective (*April 2005, California Air Resources Board), which lists TAC sources and recommended buffer distances from sensitive uses. For checklist item c, the PCAPCD's *CEQA Air Quality Handbook* (*Handbook*) recommends that the same thresholds used for the project analysis be used for the cumulative impact analysis.

With regard to checklist item e, there are no quantified significance thresholds for exposure to objectionable odors. Significance is determined after taking into account multiple factors, including screening distances from odor sources (as found in the PCAPCD CEQA Handbook), the direction and frequency of prevailing winds, the time of day when odors are present, and the nature and intensity of the odor source.

Discussion of Checklist Answers:

a–c) Analyses are not included for sulfur dioxide, lead, and other constituents because there are no mass emission thresholds; these are concentration-based limits in the Federal and State Ambient Air Quality Standards which require substantial, point-source emissions (e.g. refineries, concrete plants, etc) before exceedance will occur, and the SVAB is in attainment for these constituents. Likewise, carbon monoxide is not analyzed because the SVAB is in attainment for this constituent, and it requires high localized concentrations

(called carbon monoxide "hot spots") before the ambient air quality standard would be exceeded. "Hot spots" are typically associated with heavy traffic congestion occurring at high-volume roadway intersections. The Amoruso Ranch EIR analysis of Citywide traffic indicated that 198 out of 226 signalized intersections would operate at level of service C or better—that is, they will not experience heavy traffic congestion. It further indicated that analyses of existing CO concentrations at the most congested intersections in Roseville show that CO levels are well below federal and state ambient air quality standards. The discussions below focus on emissions of ROG**,** NO_x, or PM**.** A project-level analysis has been prepared to determine whether the project will, on a singular level, exceed the established thresholds.

PCAPCD recommends that lead agencies use the California Emissions Estimator Model (CalEEMod) to quantify a project's construction and operational emissions for criterial air pollutants (NO_X, ROG, and PM). The results are then compared to the significance thresholds established by the district, as detailed above. However, according to PCAPCD's published screening table, residential projects with less than 617 single family units will not result in NO_X emissions that exceed 55 lbs/day, and therefore modeling is not required. Typically, NO_X emissions are substantially higher than ROG and PM_{10}; therefore, it can be assumed that projects that do not exceed the NO_X threshold will not exceed the ROG and PM_{10} thresholds, and will not result in a significant impact related to operational emissions.

The project proposes the construction of 23 single-family dwelling units, which is well below PCAPCD's modeled example. Thus, the project is not expected to result in construction or operational emissions that would exceed the district's thresholds for significance. The project must also comply with all applicable PCAPCD rules and regulations. The project would not substantially contribute to the region's nonattainment status for ozone or particulate matter, and implementation of the project will not violate an air quality standard or contribute to an existing or projected air quality violation. In addition, because the proposed project would not produce substantial emissions of criteria air pollutants, adjacent residents or businesses would not be exposed to significant levels of pollutant concentrations during construction or operation. Therefore, implementation of the proposed project would result in less-than-significant impacts.

With regard to TAC, there are hundreds of constituents which are considered toxic, but they are typically generated by stationary sources like gas stations, facilities using solvents, and heavy industrial operations. The proposed project is not a TAC-generating use, nor is it within the specified buffer area of a TAC-generating use, as established in the *Air Quality and Land Use Handbook – A Community Health Perspective*. Impacts are less than significant.

d) Diesel fumes from construction equipment and delivery trucks are often found to be objectionable; however, construction is temporary and diesel emissions are minimal and regulated. Typical urban projects such as residences and retail businesses generally do not result in substantial objectionable odors when operated in compliance with City Ordinances (e.g. proper trash disposal and storage). The Project is a typical urban development that lacks any characteristics that would cause the generation of substantial unpleasant odors. Thus, construction and operation of the proposed project would not result in the creation of objectionable odors affecting a substantial number of people. A review of the project surroundings indicates that there are no substantial odor-generating uses near the project site; the project location meets the recommended screening distances from odor-generators provided by the PCAPCD. Impacts related to odors are less than significant.

IV. Biological Resources

The project site has been disturbed and is currently developed with a ±1,000 square-foot single-family dwelling with a detached ±360 square-foot garage, near the southeast portion of the property. The remaining area of the site is vegetated with native and non-native grasses and contains several oak trees, however some of the landscaping has been removed and left in a disturbed state. The topography of the site is relatively flat. City staff determined there are no evidence of wetlands or designated open space areas on the site.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Thresholds of Significance and Regulatory Setting:

There is no ironclad definition of significance as it relates to biological resources. Thus, the significance of impacts to biological resources is defined by the use of expert judgment supported by facts, and relies on the policies, codes, and regulations adopted by the City and by regulatory agencies which relate to biological resources (as cited and described in the Discussion of Checklist Answers section). Thresholds for assessing the significance of environmental impacts are based on the CEQA Guidelines checklist items a–f, above. Consistent with CEQA Guidelines Section 15065, a project may have a significant effect on the environment if:

> The project has the potential to substantially degrade the quality of the environment*;* substantially reduce the habitat of a fish or wildlife species*;* cause a fish or wildlife population to drop below self-sustaining levels*;* threaten to eliminate a plant or animal community; [or] substantially reduce the number or restrict the range of an endangered, rare or threatened species . . .

Various agencies regulate impacts to the habitats and animals addressed by the CEQA Guidelines checklist. These include the United States Fish and Wildlife Service, National Oceanic and Atmospheric Administration–Fisheries, United States Army Corps of Engineers, Central Valley Regional Water Quality Control Board, and California Department of Fish and Wildlife. The primary regulations affecting biological resources are described in the sections below.

Checklist item a addresses impacts to special status species. A "special status" species is one which has been identified as having relative scarcity and/or declining populations. Special status species include those formally listed as threatened or endangered, those proposed for formal listing, candidates for federal listing, and those classified as species of special concern. Also included are those species considered to be "fully protected" by the California Department of Fish and Wildlife (California Fish and Wildlife), those granted "special animal" status for tracking and monitoring purposes, and those plant species considered to be rare, threatened, or endangered in California by the California Native Plant Society (CNPS). The primary regulatory protections for special status species are within the Federal Endangered Species Act, California Endangered Species Act, California Fish and Game Code, and the Federal Migratory Bird Treaty Act (MBTA).

Checklist item b addresses all "sensitive natural communities" that may be affected by local, state, or federal regulations/policies while checklist item c focuses specifically on one type of such a community: federally-protected wetlands. Focusing first on wetlands, there are two questions to be posed in examining wet habitats: the first is whether the wetted area meets the technical definition of a wetland, making it subject to checklist item b, and the second is whether the wetland is subject to federal jurisdiction, making it subject to checklist item c.

The 1987 Army Corps Wetlands Delineation Manual is used to determine whether an area meets the technical criteria for a wetland. A delineation verification by the Army Corps verifies the size and condition of the wetlands and other waters in question, and determines the extent of government jurisdiction as it relates to Section 404 of the Federal Clean Water Act and Section 401 of the State Clean Water Act.

The Clean Water Act protects all "navigable waters", which are defined as traditional navigable waters that are or were used for commerce, or may be used for interstate commerce; tributaries of covered waters; and wetlands adjacent to covered waters, including tributaries. Non-navigable waters are called isolated wetlands, and are not subject to either the Federal or State Clean Water Act. Thus, isolated wetlands are not subject to federal wetland protection regulations. However, in addition to the Clean Water Act, the State also has jurisdiction over impacts to surface waters through the Porter-Cologne Water Quality Control Act (Porter-Cologne), which does not require that waters be "navigable". For this reason, isolated wetlands are regulated by the State of California pursuant to Porter-Cologne. The City of Roseville General Plan also provides protection for wetlands, including isolated wetlands, pursuant to the General Plan Open Space and Conservation Element. Federal, State and City regulations/policies all seek to achieve no net loss of wetland acreage, values, or function.

Aside from wetlands, checklist item b also addresses other "sensitive natural communities," which includes any habitats protected by local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. The City of Roseville General Plan Open Space and Conservation Element includes policies for the protection of riparian areas (streamside habitat) and floodplain areas; these are Vegetation and Wildlife section Policies 2 and 3. Policy 4 also directs preservation of additional area around stream corridors and floodplain if there is sensitive woodland, grassland, or other habitat which could be made part of a contiguous open space area. Other than wetlands, which were already discussed, US Fish and Wildlife and California Department of Fish and Wildlife habitat protections generally result from species protections, and are thus addressed via checklist item a.

For checklist item d, there are no regulations specific to the protection of migratory corridors. This item is addressed by an analysis of the habitats present in the vicinity and analyzing the probable effects on access to those habitats which will result from a project.

The City of Roseville Tree Preservation ordinance (RMC Ch.19.66) requires protection of native oak trees, and compensation for oak tree removal. The Findings of the Implementing Procedures indicate that compliance with the City of Roseville Tree Preservation ordinance (RMC Ch.19.66) will prevent significant impacts related to loss of native oak trees, referenced by item e, above.

Regarding checklist item f, there are no adopted Habitat Conservation Plans within the City of Roseville.

Discussion of Checklist Answers:

a) The project will require the removal of several oak trees, which could potentially provide habitat for nesting birds. Construction activities could also have the potential to disrupt offsite nesting species. A pre-construction nesting survey, **Mitigation Measure BIO-1**, is required in order to ensure that nesting birds are not harmed during construction. Ground disturbing activities shall not occur during the active nesting season, if it is necessary to conduct such activities during the nesting season, pre-construction surveys and mitigation as described in Mitigation Measure BIO-1, would be required. Compliance with Mitigation Measure BIO-1 will ensure that potential impacts to nesting birds are less than significant.

MM BIO-1: Migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA and/or Section 3503 of the California Fish and Game Code, including Nuttall's woodpecker, loggerhead shrike, yellow-billed magpie, oak titmouse, grasshopper sparrow, song sparrow, purple martin, and white-tailed kite have the potential to nest within the trees within the riparian woodland and within the annual grassland. Ground-disturbing activities and/or vegetation clearing operations, including pruning or removal of trees and shrubs, shall be completed

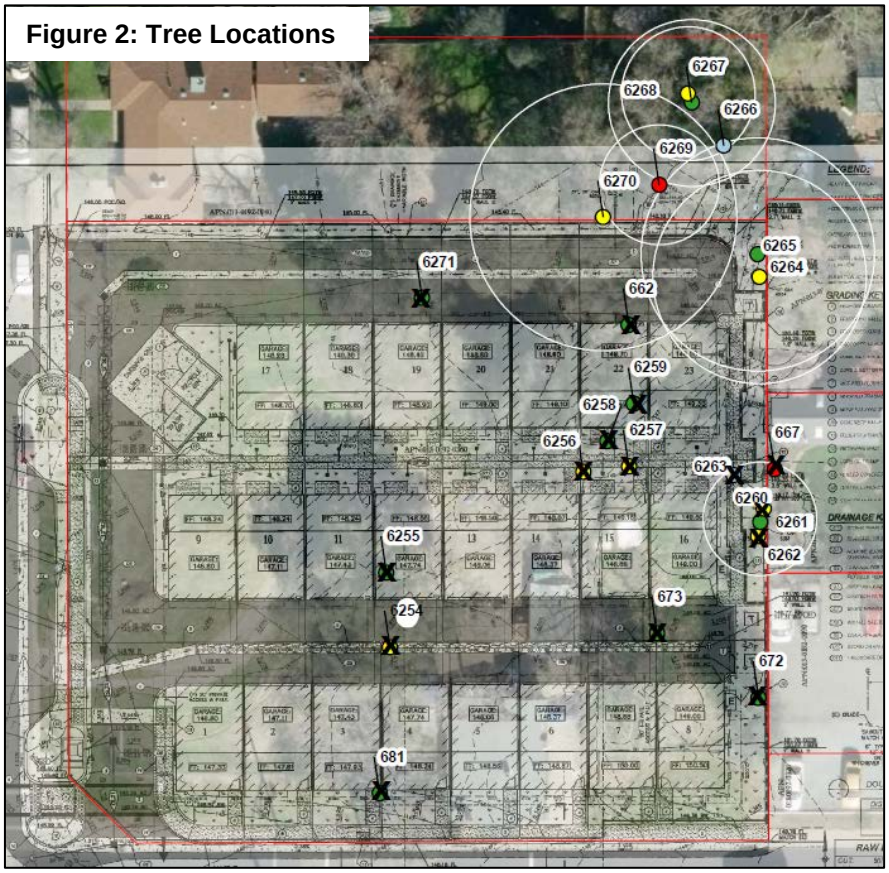
between September 1 to February 14, if feasible. If ground-disturbing activities and/or vegetation removal begins during the nesting season (February 15 to August 31), the developer shall have a qualified biologist conduct a pre-construction survey for active nests within 300 feet of the Project Site. The pre-construction survey will be conducted within 14 days prior to commencement of ground-disturbing activities and/or vegetation removal. The biologist shall provide a brief written report (including the date, time of survey, survey method, name of surveyor, and survey results) to City Planning prior to any ground-disturbing activity or vegetation removal. If the pre-construction survey shows that there is no evidence of active nests, no additional measures are required. If construction does not commence within 14 days of the pre-construction survey, or halts for more than 14 days, an additional pre-construction survey shall be required.

If any active nests are located within the vicinity of the proposed project the qualified biologist shall delineate an appropriate buffer zone, subject to approval of City Planning and in consultation with any other appropriate agencies, with construction tape or pin flags and maintain the buffer zone until the end of the breeding season or the young have successfully fledged. Buffer zones are typically 100 feet for migratory bird nests and 250 feet for raptor nests. If active nests are found onsite, a qualified biologist shall monitor nests weekly during construction to ensure activities are not causing nesting disturbance.

b-c) As discussed in the Environmental Setting, the project site is an infill property located in an urbanized area. The site is adjacent to paved roadways and is surrounded by residential and business professional uses. The property does not contain sensitive natural communities which are protected by federal, state or local policies, nor does it contain any wetlands; thus, the project will have no impact with regard to this criterion.

d) The City includes an interconnected network of open space corridors and preserves located throughout the City, to ensure that the movement of wildlife is not substantially impeded as the City develops. The project is not within the vicinity of any open space corridors or preserves. As such, the development of the project site will not negatively impact these existing and planned open space corridors, nor is the project site located in an area that has been designated by the City, United States Fish and Wildlife, or California Department of Fish and Wildlife as vital or important for the movement of wildlife or the use of native wildlife nursery sites.

Figure 2: Tree Locations



e) As defined by the City of Roseville Zoning Ordinance (Chapter 19.66, Tree Preservation), native oak trees greater than six (6") diameter at breast height are defined as protected. A Tree Permit is required for the removal of any protected tree, and for any regulated activity within the protected zone of a protected tree where the encroachment exceeds 20 percent. As required, the applicant has submitted a request for a Tree Permit.

An arborist report was prepared for the site by Abacus Consulting Arborists, dated April 8, 2019 (Attachment 1). Exhibit B of the report identified 19 protected oak trees that are either located on or overhanging onto the property that could be impacted by the development of

the site. The locations of the trees are also shown in Figure 2. Of the 19 protected trees, 13 trees are proposed for removal to accommodate development of the site (see Table 2) and six (6) trees will be impacted by development activities such as grading and excavation for retaining wall footings (see Table 3). The anticipated encroachment for the six (6) impacted trees is detailed in Chart C of the Arborist Report, and includes recommendations to reduce the amount of encroachment. The encroachment percentage represents the direct impact to the tree's protected zone, which is defined by the Zoning Ordinance as the largest radius of the tree's dripline plus one (1) foot.

Table 2: Trees Proposed for Removal

Tree Number	Common Name	Health	Diameter at Breast Height (DBH) (inches)	Canopy Radius (inches)	Total DBH (inches)
662	Interior Live Oak	Fair	23	32	23
667	Interior Live Oak	Poor	4, 5	14	9
672	Interior Live Oak	Fair-Good	13	20	13
681	Valley Oak	Fair	10, 11, 9	20	30
6254	Blue Oak	Fair-Poor	7, 6	20	13
6255	Interior Live Oak	Fair	23, 25	35	48
6256	Valley Oak	Fair-Poor	11	16	11
6257	Interior Live Oak	Fair-Poor	7, 9	20	16
6258	Valley Oak	Fair-Good	19	25	19
6259	Interior Live Oak	Fair	13	25	13
6262	Valley Oak	Fair	8	17	8
6263	Interior Live Oak	Good	19, 5, 7	35	31
6271	Valley Oak	Fair-Good	24, 16	36	40
				Total Mitigation Inches	**274**

Table 3: Trees Impacted by Development

Tree Number	Common Name	Health	Diameter at Breast Height (DBH) (inches)	Canopy Radius (inches)	Maximum Percentage of Encroachment
6261	Interior Live Oak	Fair-Good	9	15	29%
6264	Interior Live Oak	Fair	15	32	45%
6265	Valley Oak	Fair-Poor	33	35	41%
6266	Valley Oak	Good	16	24	0%
6269	Interior Live Oak	Poor	8	18	16%
6270	Valley Oak	Fair	37, 38	40	44%

The protected oak trees proposed for removal have a total of 274 aggregate diameter inches. However, the arborist report identifies that impacts to tree numbers 6261 and 6264 may cause early demise due to the current health of the trees and amount of encroachment. As such, the project arborist will be onsite during utility placement, trenching, and grading activities to ensure protective measures have been met. Additionally, the arborist report identifies that tree numbers 6265 and 6270 will sustain significant encroachment and their ultimate survivability

cannot be determined at this time. The final determination for removal of these trees will occur prior to and during grading activities once the arborist has inspected the retaining wall footings and impacts to the tree's roots. If the arborist determines these four trees need to be removed, the total number of inches removed increases to 406 aggregate diameter inches.

If approved, the Tree Permit would contain conditions of approval that include protective measures for the trees to remain on site, and mitigation measures that include payment of in-lieu mitigation fees to compensate for oak tree encroachment and removal. Any deviation from the approved permit would require a Tree Permit Modification, which would require approval by the City. Consistency with the requirements of the Tree Permit will ensure that impacts are less than significant.

f) There are no Habitat Conservation Plans; Natural Community Conservation Plans; or other approved local, regional, or state habitat conservation plans that apply to the project site.

V. Cultural Resources

As described within the Open Space and Conservation Element of the City of Roseville General Plan, the Roseville region was within the territory of the Nisenan (also Southern Maidu or Valley Maidu). Two large permanent Nisenan habitation sites have been identified and protected within the City's open space (in Maidu Park). Numerous smaller cultural resources, such as midden deposits and bedrock mortars, have also been recorded in the City. The gold rush which began in 1848 marked another settlement period, and evidence of Roseville's ranching and mining past are still found today. Historic features include rock walls, ditches, low terraces, and other remnants of settlement and activity. A majority of documented sites within the City are located in areas designated for open space uses.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of an historic resource pursuant to Section 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?			X	
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			X	

Thresholds of Significance and Regulatory Setting:

The significance of impacts to cultural resources is based directly on the CEQA Guidelines checklist items a–e listed above. The Archaeological, Historic, and Cultural Resources section of the City of Roseville General Plan also directs the proper evaluation of and, when feasible, protection of significant resources (Policies 1 and 2). There are also various federal and State regulations regarding the treatment and protection of cultural resources,

including the National Historic Preservation Act and the Antiquities Act (which regulate items of significance in history), Section 7050.5 of the California Health and Safety Code, Section 5097.9 of the California Public Resources Code (which regulates the treatment of human remains) and Section 21073 et seq. of the California Public Resources Code (regarding Tribal Cultural Resources). The CEQA Guidelines also contains specific sections, other than the checklist items, related to the treatment of effects on historic resources.

Pursuant to the CEQA Guidelines, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2 (a), (b), and (c)). A *historical resource* is a resource listed, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR) (Section 21084.1); a resource included in a local register of historical resources (Section 15064.5(a)(2)); or any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant (Section 15064.5 (a)(3)). Public Resources Code Section 5024.1 requires evaluation of historical resources to determine their eligibility for listing on the CRHR.

Discussion of Checklist Answers:

a–c) No cultural resources are known to exist on the project site per the General Plan EIR; however, standard mitigation measures, as detailed in the Tribal Cultural Resources section below and included as Attachment 3, apply which are designed to reduce impacts to cultural resources, should any be found on-site. The measure requires an immediate cessation of work, and contact with the appropriate agencies to address the resource before work can resume. With mitigation, project impacts are less than significant.

VI. Energy

Roseville Electric provides electrical power in the City and Pacific Gas and Electric (PG&E) provides natural gas. The City purchases wholesale electrical power from both the Western Area Power Administration (WAPA), which is generated by the federal government's Central Valley Project, which produces 100 percent hydroelectric energy sources from a system of dams, reservoirs, and power plants within central and northern California. In addition, up to 50 percent of the City's power is generated at the City-owned Roseville Energy Park (REP). The REP is a 160 megawatt natural-gas-fired power plant that uses a combined cycle gas turbine technology. The City also owns the 48 megawatt combustion-turbine Roseville Power Plant 2 (REP 2), which is used for peaking energy. The City's electric power mix varies from year-to-year, but according to the most recent Citywide energy analysis (the Amoruso Ranch Environmental Impact Report), the mix in 2013/2014 was 25% eligible renewable (geothermal, small hydroelectric, and wind), 14% hydroelectric, 48% natural gas, and 13% from other sources (power purchased by contract).

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Thresholds of Significance and Regulatory Setting:

Established in 2002, California's Renewable Portfolio Standard (RPS) currently requires that 33 percent of electricity retail sales by served by renewable energy resources by 2020, and 50 percent by 2030. The City published a Renewables Portfolio Standard Procurement Plan in June 2018, and continues to comply with the RPS reporting and requirements and standards. There are no numeric significance thresholds to define "wasteful, inefficient, or unnecessary" energy consumption, and therefore significance is based on CEQA Guidelines checklist items a and b, above, and by the use of expert judgment supported by facts, relying on the policies, codes, and regulations adopted by the City and by regulatory agencies which relate to energy. The analysis considers compliance with regulations and standards, project design as it relates to energy use (including transportation energy), whether the project will result in a substantial unplanned demand on the City's energy resources, and whether the project will impede the ability of the City to meet the RPS standards.

Discussion of Checklist Answers:

a, b) The project proposes development of a 23-unit subdivision. The project is expected to consume energy both during project construction and during project operation. During construction, fossil fuels, electricity, and natural gas would be used by construction vehicles and equipment. However, the energy consumed during construction would be temporary, and would not represent a significant demand on available resources. There are no unusual project characteristics that would necessitate the use of construction equipment or methods that would be less energy-efficient or which would be wasteful.

The completed project would consume energy related to building operation, exterior lighting, landscape irrigation and maintenance, and vehicle trips to and from the use. In accordance with California Energy Code Title 24, the project would be required to meet the Building Energy Efficiency Standards. This includes standards for water and space heating and cooling equipment; insulation for doors, pipes, walls, and ceilings; and appliances, to name a few. The project would also be eligible for rebates and other financial incentives from both the electric and gas providers for the purchase of energy-efficient appliances and systems, which would further reduce the operational energy demand of the project. The project was distributed to both PG&E and Roseville Electric for comments, and was found to conform to the standards of both providers; energy supplies are available to serve the project.

The site is an infill property within ¼-mile of services, such as a park, grocery store, restaurants, and retail shops, and is within ½-mile of a public elementary school. The site is located one block from a bus stop on the City's Route L bus line, is within ¼-mile of a commuter bus stop, and is within ½-mile of a major bus transfer point serving four bus lines as well as an Amtrak station, and is within a designated Transit Priority Area in the Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy. These factors increase the ability to walk or use alternative modes of transportation, and shorten the distance of vehicle trips. As a result of all these factors, this project will result in lower than average vehicle trips and vehicle miles traveled. Accordingly, the project would not result in substantial unplanned, inefficient, wasteful, or unnecessary consumption of energy, nor would it conflict with or obstruct State or local plans for renewable energy or energy efficiency. Thus, impacts are less than significant.

VII. Geology and Soils

As described in the Safety Element of the City of Roseville General Plan, there are three inactive faults (Volcano Hill, Linda Creek, and an unnamed fault) in the vicinity, but there are no known active seismic faults within Placer County. The last seismic event recorded in the South Placer area occurred in 1908, and is estimated to have been at least a 4.0 on the Richter Scale. Due to the geographic location and soil characteristics within the City, the General Plan indicates that soil liquefaction, landslides, and subsidence are not a significant risk in the area.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
i) Ruptures of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
d) Result in substantial soil erosion or the loss of topsoil?			X	
e) Be located in a geological 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	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
g) 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
h) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to geology and soils is based directly on the CEQA Guidelines checklist items a–e listed above. Regulations applicable to this topic include the Alquist-Priolo Act, which addresses earthquake safety in building permits, and the Seismic Hazards Mapping Act, which requires the state to gather and publish data on the location and risk of seismic faults.

The Findings of the Implementing Procedures indicate that compliance with the Flood Damage Prevention Ordinance (RMC Ch.9.80) and Design/Construction Standards (Resolution 07-107) will prevent significant impacts related to checklist item b. The Ordinance and standards include permit requirements for construction and development in erosion-prone areas and ensure that grading activities will not result in significant soil erosion or loss of topsoil. The use of septic tanks or alternative waste systems is not permitted in the City of Roseville, and therefore no analysis of criterion e is necessary.

Discussion of Checklist Answers:

a) The project will not expose people or structures to potential substantial adverse effects involving seismic shaking, ground failure or landslides.

i–iii) According to United States Geological Service mapping and literature, active faults are largely considered to be those which have had movement within the last 10,000 years (within the Holocene or Historic time periods)[1] and there are no major active faults in Placer County. The California Geological Survey has prepared a map of the state which shows the earthquake shaking potential of areas throughout California based primarily on an area's distance from known active faults. The map shows that the City lies in a relatively low-intensity ground-shaking zone. Commercial, institutional, and residential buildings as well as all related infrastructure are required, in conformance with Chapter 16, *Structural Design Requirements*, Division IV, *Earthquake Design* of the California Building Code, to lessen the exposure to potentially damaging vibrations

[1] United States Geological Survey, http://earthquake.usgs.gov/learn/glossary/?term=active%20fault, Accessed January 2016

through seismic-resistant design. In compliance with the Code, all structures in the Project area would be well-built to withstand ground shaking from possible earthquakes in the region; impacts are less than significant.

iv) Landslides typically occur where soils on steep slopes become saturated or where natural or manmade conditions have taken away supporting structures and vegetation. The existing and proposed slopes of the project site are not steep enough to present a hazard during development or upon completion of the project. In addition, measures would be incorporated during construction to shore minor slopes and prevent potential earth movement. Therefore, impacts associated with landslides are less than significant.

b) Grading activities will result in the disruption, displacement, compaction and over-covering of soils associated with site preparation (grading and trenching for utilities). Grading activities for the project will be limited to the project site. Grading activities require a grading permit from the Engineering Division. The grading permit is reviewed for compliance with the City's Improvement Standards, including the provision of proper drainage, appropriate dust control, and erosion control measures. Grading and erosion control measures will be incorporated into the required grading plans and improvement plans. Therefore, the impacts associated with disruption, displacement, and compaction of soils associated with the project are less than significant.

c, d) A review of the Natural Resources Conservation Service Soil Survey for Placer County, accessed via the Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/), indicates that the soils on the site are Cometa-Ramona sandy loams, 1 to 5 percent slopes, and Xerofluvents, frequently flooded, neither of which are listed as geologically unstable or sensitive.

e) The City's General Plan Policy requires that new development connect to the City's sanity sewer system. The City's Environmental Utilities Department has reviewed the project and determined that City's sanity sewer system can accommodate the project. No septic tanks will be permitted as part of the project. Therefore, no impact to soils relative to supporting use of septic tanks would occur.

f) No paleontological resources are known to exist on the project site per the City's General Plan EIR; however, standard mitigation measures apply which are designed to reduce impacts to such resources, should any be found on-site (see Attachment 3). The measure requires an immediate cessation of work, and contact with the appropriate agencies to address the resource before work can resume. The project will not result in any new impacts beyond those already discussed and disclosed in the General Plan EIR; project-specific impacts are less than significant.

VIII. Greenhouse Gases

Greenhouse gases trap heat in the earth's atmosphere. The principal greenhouse gases (GHGs) that enter the atmosphere because of human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. As explained by the United States Environmental Protection Agency[2], global average temperature has increased by more than 1.5 degrees Fahrenheit since the late 1800s, and most of the warming of the past half century has been caused by human emissions. The City has taken proactive steps to reduce

[2] http://www3.epa.gov/climatechange/science/overview.html, Accessed January 2016

greenhouse gas emissions, which include the introduction of General Plan policies to reduce emissions, changes to City operations, and climate action initiatives.

Would the project:

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

Thresholds of Significance and Regulatory Setting:

In Assembly Bill 32 (the California Global Warming Solutions Act), signed by Governor Schwarzenegger of California in September 2006, the legislature found that climate change resulting from global warming was a threat to California, and directed that "the State Air Resources Board design emissions reduction measures to meet the statewide emissions limits for greenhouse gases . . .". The target established in AB 32 was to reduce emissions to 1990 levels by the year 2020. CARB subsequently prepared the *Climate Change Scoping Plan* (Scoping Plan) for California, which was approved in 2008. The Scoping Plan provides the outline for actions to reduce California's GHG emissions. CARB's updated August 2011 Scoping Plan calculated a reduction needed of 21.7% from future "Business As Usual" (BAU) conditions in the year 2020. The current Scoping Plan (adopted May 2014) indicates that statewide emissions of GHG in 1990 amounted to 431 million metric tons, and that the 2020 "Business As Usual" (BAU) scenario is estimated as 509[3] million metric tons, which would require a reduction of 15.3% from 2020 BAU. In addition to this, Senate Bill 32 was signed by the Governor on September 8, 2016, to establish a reduction target of 40 percent below 1990 levels by 2030. The Air Resources Board is currently updating the Scoping Plan to reflect this target.

The Placer County Air Pollution Control District (PCAPCD) recommends that thresholds of significance for GHG be related to AB 32 reduction goals, and has adopted thresholds of significance which take into account the 2030 reduction target. The thresholds include a de minimis and a bright-line maximum threshold. Any project emitting less than 1,100 metric tons of carbon dioxide equivalents per year (MT CO_2e/yr) during construction or operation results in less than significant impacts. The PCAPCD considers any project with emissions greater than the bright-line cap of 10,000 MT CO_2e/yr to have significant impacts. For projects exceeding the de minimum threshold but below the bright-line threshold, comparison to the appropriate efficiency threshold is recommended. The significance thresholds are shown in Table 1 below.

[3] Includes Pavely and Renewables Portfolio Standard reduction

Table 1: GHG Significance Thresholds

Bright-line Threshold 10,000 MT CO_2e/yr			
Residential Efficiency (MT CO_2e/capita[1])		**Non-Residential Efficiency (MT CO_2e/ksf[2])**	
Urban	**Rural**	**Urban**	**Rural**
4.5	5.5	26.5	27.3
De Minimis Threshold 1,100 MT CO_2e/yr			

1. Per Capita = per person
2. Per ksf = per 1,000 square feet of building

Discussion of Checklist Answers:

a–b) CalEEMod (version 2016.3.1) was used to model the project's construction related GHG emissions (CO_2e) (see Attachment 2). Construction related GHG emissions occur at one point in time and are, therefore, not typically expected to significantly contribute to climate change. Climate change is a cumulative effect that occurs over time, and emissions increase on a year-to-year basis due to increases in developed area and other factors. However, the proposed project's construction related GHG has been estimated and compared to the PCAPCD thresholds. The project's maximum construction related emissions is 49.4 CO_2e in the most active construction year. The project's construction related emissions are below the de minimis threshold of 1,100 MT CO_2e.

The PCAPCD's CEQA Air Quality Handbook contains a screening table used to determine if a residential project will exceed the long-term operational GHG emissions significance threshold (Table 2-6: Corresponding Size of a Project for De Minimis Level of 1,100 MT CO2e/yr). The screening table identifies that residential projects consisting of 71 single-family dwelling units or less are considered to have a less-than-significant impact related to long-term operational GHG emissions. The project proposes a total of 23 single-family residential units, which is well below the screening threshold of 71 units. Thus, project-generated GHG emissions would not conflict with, and are consistent with, the State goals listed in AB32 and policies and regulation adopted by the California Air Resources Board pursuant to AB32. Impacts are less than significant.

IX. Hazards and Hazardous Materials

There are three hazardous cleanup sites of record within 1,000 feet of the site according to both the Department of Toxic Substances Control Envirostor database (http://www.envirostor.dtsc.ca.gov/public/) and the State Water Resources Control Envirostor database (http://geotracker.waterboards.ca.gov/). All three sites were Leaking Underground Storage Tanks (LUST) cleanup sites. The cleanup status of all three sites is completed and the cases have been closed. Of the three sites, the nearest cleanup site is the underground fuel storage tank at the Exxon gas station located approximately 80 feet south of the project site; this is also the nearest property where hazardous materials are stored or handled. The nearest school to the project site is Adelante High School, located approximately 1 mile north of the site.

Would the project:

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

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to hazardous materials is based directly on the CEQA Guidelines checklist items a–h listed above. A material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state or local regulatory agency, or if it has characteristics defined as hazardous by such an agency. The determination of significance based on the above criteria depends on the probable frequency and severity of consequences to people who might be exposed to the health hazard, and the degree to which Project design or existing regulations would reduce the frequency of or severity of exposure. As an example, products commonly used for household cleaning are classified as hazardous when transported in large quantities, but one would not conclude that the presence of small quantities of household cleaners at a home would pose a risk to a school located within ¼-mile.

Many federal and State agencies regulate hazards and hazardous substances, including the United States Environmental Protection Agency (US EPA), California Department of Toxic Substances Control (DTSC), Central Valley Regional Water Quality Control Board (Regional Water Board), and the California Occupational Safety and Health Administration (CalOSHA). The state has been granted primacy (primary responsibility for oversight) by the US EPA to administer and enforce hazardous waste management programs. State regulations also have detailed planning and management requirements to ensure that hazardous materials are handled, stored, and disposed of properly to reduce human health risks. California regulations pertaining to hazardous waste management are published in the California Code of Regulations (see 8 CCR, 22 CCR, and 23 CCR).

The project is not within an airport land use plan or within two miles of a public or public use airport. Therefore, no further discussion is provided for items e.

Discussion of Checklist Answers:

a, b) Standard construction activities would require the use of hazardous materials such as fuels, oils, lubricants, glues, paints and paint thinners, soaps, bleach, and solvents. These are common household and commercial materials routinely used by both businesses and average members of the public. The materials only pose a hazard if they are improperly used, stored, or transported either through upset conditions (e.g. a vehicle accident) or mishandling. In addition to construction use, the operational project would result in the use of common hazardous materials as well, including bleach, solvents, and herbicides. Regulations pertaining to the transport of materials are codified in 49 Code of Federal Regulations 171–180, and transport regulations are enforced and monitored by the California Department of Transportation and by the California Highway Patrol. Specifications for storage on a construction site are contained in various regulations and codes, including the California Code of Regulations, the Uniform Fire Code, and the California Health and Safety Code. These same codes require that all hazardous materials be used and stored in the manner specified on the material packaging. Existing regulations and programs are sufficient to ensure that potential impacts as a result of the use or storage of hazardous materials are reduced to less than significant levels.

c) See response to Items (a) and (b) above. While development of the site will result in the use, handling, and transport of materials deemed to be hazardous, the materials in question are commonly used in both residential and commercial applications, and include materials such as bleach and herbicides. The project will not result in the use of any acutely hazardous materials, substances, or waste.

d) The project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5[4]; therefore, no impact will occur.

f) This project is located within an area currently receiving City emergency services and development of the site has been anticipated and incorporated into emergency response plans. As such, the project will cause a less than significant impact to the City's Emergency Response or Management Plans. Furthermore, the project will be required to comply with all local, State and federal requirements for the handling of hazardous materials, which will ensure less-than-significant impacts. These will require the following programs:

- A Risk Management and Prevention Program (RMPP) is required of uses that handle toxic and/or hazardous materials in quantities regulated by the California Health and Safety Code and/or the City.

- Businesses that handle toxic or hazardous materials are required to complete a Hazardous Materials Management Program (HMMP) pursuant to local, State, or federal requirements.

g) The California Department of Forestry and Fire Protection (CAL FIRE) is the state agency responsible for wildland fire protection and management. As part of that task, CAL FIRE maintains maps designating Wildland Fire Hazard Severity zones. The City is not located within a Very High Fire Hazard Severity Zone, and is not in a CAL FIRE responsibility area; fire suppression is entirely within local responsibility. The project site is in an urban area, and therefore would not expose people to any risk from wildland fire. There would be no impact with regard to this criterion.

X. Hydrology and Water Quality

As described in the Open Space and Conservation Element of the City of Roseville General Plan, the City is located within the Pleasant Grove Creek Basin and the Dry Creek Basin. Pleasant Grove Creek and its tributaries drain most of the western and central areas of the City and Dry Creek and its tributaries drain the remainder of the City. Most major stream areas in the City are located within designated open space.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	

[4] http://www.calepa.ca.gov/SiteCleanup/CorteseList/SectionA.htm

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			X	
i. result in substantial erosion or siltation on or off-site;			X	
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;			X	
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater systems or provide substantial additional sources of polluted runoff; or			X	
iv. impede or redirect flood flows?				X
d) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	
e) In flood hazard, tsunami, or seiches zones, risk release of pollutants due to project innundation?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to hydrology and water quality is based directly on the CEQA Guidelines checklist items a–e listed above. For checklist item a, c (i), d, and e, the Findings of the Implementing Procedures indicate that compliance with the City of Roseville Design/Construction Standards (Resolution 07-107), Urban Stormwater Quality Management and Discharge Control Ordinance (RMC Ch. 14.20), and Stormwater Quality Design Manual (Resolution 16-152) will prevent significant impacts related to water quality or erosion. The standards require preparation of an erosion and sediment control plan for construction activities and includes designs to control pollutants within post-construction urban water runoff. Likewise, it is indicated that the Drainage Fees for the Dry Creek and Pleasant Grove Watersheds (RMC Ch.4.48) and City of Roseville

Design/Construction Standards (Resolution 07-107) will prevent significant impacts related to checklist items c (ii) and c (iii). The ordinance and standards require the collection of drainage fees to fund improvements that mitigate potential flooding impacts, and require the design of a water drainage system that will adequately convey anticipated stormwater flows without increasing the rate or amount of surface runoff. These same ordinances and standards prevent impacts related to groundwater (items a and d), because developers are required to treat and detain all stormwater onsite using stormwater swales and other methods which slow flows and preserve infiltration. Finally, it is indicated that compliance with the Flood Damage Prevention Ordinance (RMC Ch. 9.80) will prevent significant impacts related to items c (iv) and e. The Ordinance includes standard requirements for all new construction, including regulation of development with the potential to impede or redirect flood flows, and prohibits development within flood hazard areas. Impacts from tsunamis and seiches were screened out of the analysis (item e) because the project is not located near a water body or other feature that would pose a risk of such an event.

Discussion of Checklist Answers:

a,c (i),d, e) The project will involve the disturbance of on-site soils and the construction of impervious surfaces, such as asphalt paving and buildings. Disturbing the soil can allow sediment to be mobilized by rain or wind, and cause displacement into waterways. To address this and other issues, the developer is required to receive approval of a grading permit and/or improvement plants prior to the start of construction. The permit or plans are required to incorporate mitigation measures for dust and erosion control. In addition, the City has a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit issued by the Central Valley Regional Water Quality Control Board which requires the City to reduce pollutants in stormwater to the maximum extent practicable. The City does this, in part, by means of the City's 2016 Design/Construction Standards, which require preparation and implementation of a Stormwater Pollution Prevention Plan. All permanent stormwater quality control measures must be designed to comply with the City's Manual for Stormwater Quality Control Standards for New Development, the City's 2016 Design/Construction Standards, Urban Stormwater Quality Management and Discharge Control Ordinance, and Stormwater Quality Design Manual. For these reasons, impacts related to water quality are less than significant.

b, d) The project does not involve the installation of groundwater wells. The City maintains wells to supplement surface water supplies during multiple dry years, but the effect of groundwater extraction on the aquifer was addressed in the Water Supply Assessment of the Amoruso Ranch Specific Plan EIR, which included a Citywide water analysis. The proposed project is consistent with the General Plan land use designation, and is thus consistent with the citywide Water Supply Assessment. Project impacts related to groundwater extraction are less than significant. Furthermore, all permanent stormwater quality control measures must be designed to comply with the Stormwater Quality Design Manual, which requires the use of bioswales and other onsite detention and infiltration methods. These standards ensure that stormwater will continue to infiltrate into the groundwater aquifer.

c (ii and iii)) The project has been reviewed by City Engineering staff for conformance with City ordinances and standards. The project includes adequate and appropriate facilities to ensure no net increase in the amount or rate of stormwater runoff from the site, and which will adequately convey stormwater flows.

c (iv) and e) The project has been reviewed by City Engineering staff for conformance with City ordinances and standards. The project is not located within either the Federal Emergency Management Agency floodplain or the City's Regulatory Floodplain (defined as the floodplain which will result from full buildout of the City). Therefore, the project will not impede or redirect flood flows, nor will it be inundated. The proposed project is located within an area of flat topography and is not near a waterbody or other feature which could cause a seiche or tsunami. There would be no impact with regard to these criterion.

XI. Land Use and Planning

The project site is located within the City's Infill planning area. The 0.89-acre property currently has a zoning designation of Attached Housing (R3) and a General Plan land use designation of Business Professional (BP). The project site is surrounded by residential uses to the north, residential and business professional uses to the east and west, and Douglas Boulevard to the south with commercial uses beyond.

Would the project:

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

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to land use is based directly on the CEQA Guidelines checklist items a–c listed above. Consistency with applicable City General Plan policies, Improvement Standards, and design standards is already required and part of the City's processing of permits and plans, so these requirements do not appear as mitigation measures.

Discussion of Checklist Answers:

a) The project area has been planned for development, including adequate roads, pedestrian paths, and bicycle paths to provide connections within the community. The project will not physically divide an established community.

b) The project site is currently zoned for residential uses, however the land use designation is Business Professional (BP). The project includes amending the current land use designation to High Density Residential (HDR) to align with the Attached Housing (R3) zoning designation of the site. The City's General Plan contains policies and regulations to ensure compatibility with adjacent land uses. Per the General Plan, HDR land use sites should be located along arterial streets, transit linkages, and in close proximity to commercial services. The site is located along Douglas Boulevard (an arterial roadway), which provides transit linkages throughout Roseville and the region. Additionally, the site is located approximately 0.2 miles from the nearest established commercial center (Roseville Square), which consists of uses such as grocery stores, personal services, and restaurants. The proposed project is consistent with the General Plan and does not conflict with the City's policies and regulations adopted for the purpose of avoiding or mitigating an environmental impact. Impacts are less than significant.

XII. Mineral Resources

The Surface Mining and Reclamation Act (SMARA) of 1975 requires the State Geologist to classify land into Mineral Resource Zones (MRZ's) based on the known or inferred mineral resource potential of that land. The California Division of Mines and Geology (CDMG) was historically responsible for the classification and

designation of areas containing—or potentially containing—significant mineral resources, though that responsibility now lies with the California Geological Survey (CGS). CDMG published Open File Report 95-10, which provides the mineral classification map for Placer County. A detailed evaluation of mineral resources has not been conducted within the City limits, but MRZ's have been identified. There are four broad MRZ categories (MRZ-1 through MRZ-4), and only MRZ-2 represents an area of known significant mineral resources. The City of Roseville General Plan EIR included Exhibit 4.1-3, depicting the location of MRZ's in the City limits. There is only one small MRZ-2 designation area, located at the far eastern edge of the City.

Would the project:

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

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to mineral resources is based directly on the CEQA Guidelines checklist items a and b listed above.

Discussion of Checklist Answers:

a–b) The project site is not in the area of the City known to include any mineral resources that would be of local, regional, or statewide importance; therefore, the project has no impacts on mineral resources.

XIII. Noise

The project includes the construction of 23 single-family residential units. The proposed residential uses generate low outdoor noise volumes. The site is surrounded by single-family residential uses, as well as professional offices which also generate low outdoor noise volumes. The nearest sensitive receptors are the residents adjacent to the north and east property lines of the project site. According to the General Plan, the project site is within the 60 dB L_{dn} noise contour for both existing roadways and future roadways (City of Roseville 2015, Figure IX-1 and Figure IX-2).

Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive ground borne vibration of ground borne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Thresholds of Significance and Regulatory Setting:

Standards for transportation noise and non-transportation noise affecting existing or proposed land uses are established within the City of Roseville General Plan Noise Element Table IX-1 and IX-3, and these standards are used as the thresholds to determine the significance of impacts related to items a and c. The significance of other noise impacts is based directly on the CEQA Guidelines checklist items b and c listed above. The Findings of the Implementing Procedures indicate that compliance with the City Noise Regulation (RMC Ch. 9.24) will prevent significant non-transportation noise as it relates to items a and b. The Ordinance establishes noise exposure standards that protect noise-sensitive receptors from a variety of noise sources, including non-transportation/fixed noise, amplified sound, industrial noise, and events on public property. The project is not within an airport land use plan, within two miles of a public or public use airport and there are also no private airstrips in the vicinity of the project area. Therefore, item c has been ruled out from further analysis.

Discussion of Checklist Answers:

a) The project site is an infill property located within an urbanized area. The project will create 23 single-family residential units and is compatible with the surrounding uses, which include both residential and commercial uses. The project does not involve uses that generate high noise volumes, such as automotive repair or heavy industrial uses. The outdoor activity areas of the proposed units are designed as roof decks which will be designed to minimize outdoor noise volumes. Overall, the proposed residential use is not considered to be a substantial noise-generating source. The project will not generate a substantial temporary

or permanent increase in ambient noise levels in the vicinity of the project in excess of City standards; thus, impacts are less than significant.

b) Surrounding uses may experience short-term increases in groundborne vibration, groundborne noise, and airborne noise levels during construction. However, these increases would only occur for a short period of time. When conducted during daytime hours, construction activities are exempt from Noise Ordinance standards, but the standards do apply to construction occurring during nighttime hours. While the noise generated may be a minor nuisance, the City Noise Regulation standards are designed to ensure that impacts are not unduly intrusive. Based on this, the impact is less than significant.

XIV. Population and Housing

The project site is located within the City's Infill area, is zoned for residential uses, and has a land use designation of Business Professional. The City of Roseville General Plan Table II-4 identifies the total number of residential units and population anticipated as a result of buildout of the City, and the Specific Plan likewise includes unit allocations and population projections for the Plan Area. Would the project:

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

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to population and housing is based directly on the CEQA Guidelines checklist items a–c listed above.

Discussion of Checklist Answers:

a) The CEQA Guidelines identify several ways in which a project could have growth-inducing impacts (Public Resources Code Section 15126.2), either directly or indirectly. Growth-inducement may be the result of fostering economic growth, fostering population growth, providing new housing, or removing barriers to growth. Growth inducement may be detrimental, beneficial, or of no impact or significance under CEQA. An impact is only deemed to occur when it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be shown that the growth will significantly affect the environment in some other way.

The project will add additional residential units that were not contemplated in the City's General Plan. While the project in question will add additional units, the City has existing infrastructure to accommodate the increase. The project will not result in additional infrastructure that will lead to additional growth and the project will not

negatively affect the City's ability to provide public services. Therefore, impacts of the project related to growth inducement are less than significant.

b) The existing single-family dwelling on the project site is currently unoccupied and will be demolished in order to accommodate the proposed project. The project will replace the demolished unit with 23 new residential units; thus, impacts related to this criteria are less than significant.

XV. Public Services

Fire protection, police protection, park services, and library services are provided by the City. The project is located within the Roseville Elementary School District and the Roseville Joint Union High School District. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?			X	
d) Parks?			X	
e) Other public facilities?			X	

Thresholds of Significance and Regulatory Setting:

The General Plan EIR identifies and adopts mitigation for impacts to public services, including police and fire protection, wastewater services, and solid waste disposal. The proposed project may incrementally increase the need for public services. However, the City's Fire, Police, Parks, and Utilities Departments have all reviewed the project plans and have not identified any significant impacts to City services.

The significance of impacts related to public services is based directly on the CEQA Guidelines checklist items a–e listed above. The City's General Plan EIR addressed the level of public services which would need to be provided in order to serve planned growth in the community. In addition, the project has been routed to the various public service agencies, both internal and external, to ensure that the project meets the agencies' design standards (where applicable) and to provide an opportunity to recommend appropriate conditions of approval.

Discussion of Checklist Answers:

a) Existing City codes and regulations require adequate water pressure in the water lines, and construction must comply with the Uniform Fire and Building Codes used by the City of Roseville. Additionally, the applicant is required to pay a fire service construction tax, which is used for purchasing capital facilities for the Fire Department. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

b) Sales taxes and property taxes resulting from the development will add revenue to the General Fund, which also serves to fund police services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

c) The applicant for this project is required to pay school impact fees at a rate determined by the local school districts. School fees will be collected prior to the issuance of building permits, consistent with City requirements. School sites have already been designated as part of the Specific Plan process. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

d) Future park and recreation sites and facilities have already been identified in the General Plan. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

e) The City charges fees to end-users for other public facilities and services, such as garbage and greenwaste collection, in order to fund those services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

XVI. Recreation

There are no parks or recreation facilities adjacent to the project site. The nearest recreation area is Royer Park, located approximately 0.17-mile to the west of the site.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	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 physical deterioration of the facility would occur or be accelerated?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to recreation services is based directly on the CEQA Guidelines checklist items a–b listed above.

Discussion of Checklist Answers:

a) The project has the potential to increase the use of existing neighborhood and recreational facilities, but the increase is not anticipated to be substantial or result in accelerated physical deterioration of existing recreational facilities. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less-than-significant impacts.

b) The project does not include recreational facilities nor will it require additional recreational facilities. Thus, the project will not cause any unforeseen or new impacts related to the construction or expansion of recreational facilities.

XVII. Transportation

The project site has frontage on both Douglas Boulevard to the south and Nevada Avenue to the west. Douglas Boulevard is a four-lane arterial road at this location, and Nevada Avenue is a single-lane, one-way street. Access into the site will be provided by a 20-foot driveway off of Douglas Blvd. that will be located on the southwest portion of the site. The driveway will be restricted to vehicular ingress only. Vehicles will exit the site on the northwest portion of the property, onto Nevada Ave. Additionally, there will be two 20-foot wide internal drive-aisles providing access to each of the units. The residential units will include a two-car garage and there will be three on-street parallel parking spaces along Nevada Ave.

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	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?			X	
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

Thresholds of Significance and Regulatory Setting:

CEQA Guidelines Section 15064.3 indicates that a project's effect on automobile delay cannot be considered a significant impact, and directs transportation system analysis to focus on vehicle miles traveled (VMT), per checklist item b. However, the CEQA Guidelines also include consistency with a program, plan, or policy addressing transportation systems as an area of potential environmental effects (checklist item a). The City has adopted the following plans, ordinances, or policies applicable to this checklist item: Pedestrian Master Plan, Bicycle Master Plan, Short-Range Transit Plan, and General Plan Circulation Element. The project is evaluated for consistency with these plans and the policies contained within them, which includes an analysis of delay as a potential policy impact. The Circulation Element of the General Plan establishes Level of Service C or better as an acceptable operating condition at all signalized intersections during a.m. and p.m. peak hours. Exceptions to this policy may be made by the City Council, but a minimum of 70% of all signalized intersections must maintain LOS C. The Findings of the Implementing Procedures indicate that compliance with the Traffic Mitigation Fee (RMC Ch. 4.44) will fund roadway projects and improvements necessary to maintain the City's Level of Service standards for projects consistent with the General Plan and related Specific Plan. An existing plus project conditions (short-term) traffic impact study may be required for projects with unique trip generation or distribution characteristics, in areas of local traffic constraints, or to study the proposed project access. A cumulative plus

project conditions (long-term) study is required if a project is inconsistent with the General Plan or Specific Plan and would generate more than 50 pm peak-hour trips. The guidelines for traffic study preparation are found in the City of Roseville Design and Construction Standards–Section 4.

For checklist item b, the CEQA Guidelines Section 15064.3 establishes a detailed process for evaluating the significance of transportation impacts. In accordance with this section, the analysis must focus on the generation of VMT. Projects within one-half mile of either an existing major transit stop[5] or a stop along an existing high quality transit corridor[6] should be presumed to have less than significant impacts, as should any project which will decrease VMT when compared with the existing conditions. VMT may be analyzed qualitatively if existing models or methods are not available to estimate VMT for a particular project; this will generally be appropriate for discussions of construction traffic VMT.

Impacts with regard to items c and d are assessed based on the expert judgment of the City Engineer and City Fire Department, as based upon facts and consistency with the City's Design and Construction Standards.

Discussion of Checklist Answers:

a) The City of Roseville Engineering Division evaluated the need for a long term and short term traffic study and prepared a trip generation estimate. The anticipated number of trips generated by the project is 12 pm peak-hour trips. Since the project will not generate more than 50 pm peak-hour trips, a traffic study is not required, and it can be concluded that the project will be consistent with the City's Level of Service standards. The City of Roseville has adopted a Pedestrian Master Plan, Bicycle Master Plan, and Short-Range Transit Plan. The project was reviewed for consistency with these documents. The surrounding pedestrian, transit, and bicycle facilities have been already been constructed and the project will not decrease the performance or safety of those facilities. The project is consistent with these plans; impacts are less than significant.

b) Although the City of Roseville currently has no VMT standards, the project is expected to be consistent with the intent of implementing the VMT metric due to the proximity to existing transit stops. For example, the site is located within one-half mile of two bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. These transit stops are located at Douglas Boulevard and S Lincoln Street, and at Douglas Boulevard and Donner Avenue. The project site is also located in close proximity to bikeways and sidewalks, which would encourage alternative modes of transportation. Therefore, impacts with respect to this criterion will be less than significant.

c,d) A new, modified Type A-7 driveway measuring 20 feet wide will be constructed on Douglas Boulevard, on the southwest corner of the site, which will be restricted to ingress movements only. A modified Type A-7 driveway measuring approximately 40 feet wide will also be constructed on Nevada Avenue, on the northwest portion of the site. This driveway will restrict egress movements to left turn only, however it will allow for vehicles to enter the site from Nevada Avenue. Nevada Avenue will be improved with a road width of 20 feet and will include three (3) parallel parking spaces on the east side of Nevada Avenue with five (5)-foot wide sidewalks constructed along the limits of the property. Nevada Avenue will be wide enough to provide space for two (2) vehicles to egress onto Douglas Boulevard; this improves circulation and minimizes vehicles queuing at the intersection by allowing for a left and right turn lane. Additionally, the proposed site design includes a 20-foot travel lane within the subdivision, allowing for appropriate circulation throughout the site as the main drive aisle will be wide enough for two-way traffic. The internal drive aisles to the units will also be 20 feet wide. The project has been reviewed by the City Engineering and City Fire Department staff, and has been found to be consistent with the City's Design Standards. Furthermore, standard conditions of approval added to all City project require

[5] A site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. (Public Resources Code Section 21064.3)
[6] A corridor with fixed route bus service at service intervals of 15 minutes or less during peak commute hours.

compliance with Fire Codes and other design standards. Compliance with existing regulations ensure that impacts are less than significant.

XVIII. Tribal Cultural Resources

As described within the Open Space and Conservation Element of the City of Roseville General Plan, the Roseville region was within the territory of the Nisenan (also Southern Maidu or Valley Maidu). Two large permanent Nisenan habitation sites have been identified and protected within the City's open space (in Maidu Park). Numerous smaller cultural resources, such as midden deposits and bedrock mortars, have also been recorded in the City. A majority of documented sites within the City are located in areas designated for open space uses.

Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource as 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:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?			X	
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.		X		

Thresholds of Significance and Regulatory Setting:

In addition to archeological resources, tribal cultural resources are also given particular treatment. Tribal cultural resources are defined in Public Resources Code Section 21074, as either 1) a site, feature, place, geographically-defined cultural landscape, sacred place, or object with cultural value to a California Native American Tribe, that is listed or eligible for listing on the California Register or Historical Resources, or on a local register of historical resources or as 2) a resource determined by the lead agency, supported by substantial

evidence, to be significant according to the historical register criteria in Public Resources Code section 5024.1(c), and considering the significance of the resource to a California Native American Tribe.

Discussion of Checklist Answers:

a) The General Plan EIR included a historic and cultural resources study, which concluded there were no listed or eligible sites documented in the project area. However, the General Plan EIR includes standard mitigation measures (as identified in item b, below) which are designed to reduce impacts to any previously undiscovered resources should any be found on site. Language included in the measure requires an immediate cessation of work, and the requirement to contact the appropriate agencies to address the resource before work can resume. No Tribal Cultural Resources are known to exist on the project site, and construction will occur within an area that has been previously graded and is currently developed with a single-family residence. The project will not result in any new impacts beyond those already discussed and disclosed in the General Plan EIR; therefore, project-specific impacts are less than significant.

b) Pursuant to Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18), the current project was routed to all tribes which requested such notice. A request for consultation was received from the United Auburn Indian Community (UAIC). On August 1, 2018, City staff had a conference call with tribal representatives to discuss whether there were any resources on the site. No resources are known to exist on the site; however, the UAIC concluded consultation with a recommendation that standard mitigation measures be made a requirement of the project to reduce impacts to resources, should any be found on-site. **Mitigation Measure CUL-1** requires an immediate cessation of work, and contact with the appropriate agencies to address the resource before work can resume. With mitigation, impacts are less than significant.

CUL-1: Should any cultural resources, such as structural features, any amount of bone or shell, artifacts, human remains, or architectural remains, be encountered during any subsurface development activities, work shall be suspended within 100-feet of the find. The City of Roseville Planning and Public Works Staff shall be immediately notified. At that time, as deemed necessary by the City, the developer shall retain a qualified archaeologist to assess the resource and provide proper management recommendations should potential impacts to the resources be found to be significant. All work by the archeologist shall be completed in consultation with and subject to the approval of City Planning. The archeologist shall also coordinate with and consult potentially-affected tribal representatives. Possible management recommendations for important resources could include resource avoidance or preservation in place. The contractor shall implement any measures deemed feasible and necessary by City staff, in consultation with the archaeologists, to avoid or minimize significant effects to the cultural resources. In addition, pursuant to Section 5097.98 or the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

XIX. Utilities and Service Systems

Water and sewer services are provided by the City of Roseville. Existing utilities such as water, sewer, and storm drain lines are located within Nevada Avenue and Douglas Boulevard. Storm water will be collected on-site and transferred via the existing storm drain system into an off-site storm drain system. Solid waste will be collected by the City of Roseville's Refuse Department. The City of Roseville will provide electric service to the site, while natural gas will be provided by PG&E. Comcast will provide cable. The project has been reviewed by the City's Engineering Division, Environmental Utilities, Roseville Electric and PG&E. Adequate services are available for the project.

Would the project:

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

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to utilities and service systems is based directly on the CEQA Guidelines checklist items a–g listed above.

Discussion of Checklist Answers:

a) Minor additional infrastructure will be constructed within the project site to tie the project into the major systems, but these facilities will be constructed in locations where site development is already occurring as part of the overall project; there are no additional substantial impacts specific or particular to the minor infrastructure improvements.

b) The City of Roseville 2015 Urban Water Management Plan (UWMP), adopted May 2016, estimates water demand and supply for the City through the year 2040, based on existing land use designations and population projections. In addition, the Amoruso Ranch Water Supply Assessment (AR WSA, Appendix E of the Amoruso Ranch FEIR), dated May 2016, estimates water demand and supply for ultimate General Plan buildout. The UWMP indicates that existing water supply sources are sufficient to meet all near term needs, estimating an annual water demand of 45,475 acre-feet per year (AFY) by the year 2020 and existing surface and recycled water supplies in the amount of 70,421 AFY. The AR WSA estimates a Citywide buildout demand of 64,370 AFY when including recycled water, and of 59,657 AFY of potable water. The AR WSA indicates that surface water supply is sufficient to meet demand during normal rainfall years, but is insufficient during single- and multiple-dry years. However, the City's UWMP establishes mandatory water conservation measures and the use of groundwater to offset reductions in surface water supplies. Both the UWMP and AR WSA indicate that these measures, in combination with additional purchased water sources, will ensure that supply meets projected demand.

The project includes a request for a General Plan Amendment to change the land use designation on the subject property from BP to HDR, which will add residential units to the site that were not assumed in the UWMP or the AR WSA. The water demand factor for the existing BP designation is 2,598 gallons per day per acre (GPD/ac), resulting in an annual demand of 2.6 acre feet per year (AF/yr). The water demand factor for the proposed HDR designation is 177 GPD/dwelling unit, resulting in an annual demand of 4.6 AF/yr (or 4,071 GPD), which is a 2.0 AF/yr increase in the prior allocation. Assuming compliance with the City's Water Efficient Landscape Ordinance reduces the water irrigation use to 1,671 GPD, bringing the proposed annual usage to 2.7 AF/yr, which is a 0.1 AF/yr increase compared to the existing allocation. The City's Environmental Utilities Department reviewed the project and determined the increased water demand is minimal and will not negatively impact either water supply or infrastructure. Sufficient water supplies are available to serve the project from existing sources and no new or expanded entitlements needed. Impacts are less than significant.

c) The proposed project would be served by the Dry Creek Wastewater Treatment Plant (DCWWTP). The Central Valley Regional Water Quality Control Board (RWQCB) regulates water quality and quantity of effluent discharged from the City's wastewater treatment facilities. The DCWWTP has the capacity to treat 18 million gallons per day (mgd) and is currently treating 8.9 mgd. The City's Environmental Utilities Department reviewed the proposed project and determined the change in land use results in an increase of 0.2 mg of wastewater, which is considered to be negligible and could be accommodated by the facility; the proposed project will not contribute to an exceedance of applicable wastewater treatment requirements. The impact would be less than significant.

d,e) The Western Placer Waste Management Authority is the regional agency handling recycling and waste disposal for Roseville and surrounding areas. The regional waste facilities include a Material Recovery Facility (MRF) and the Western Regional Sanitary Landfill (WRSL). Currently, the WRSL is permitted to accept up to 1,900 tons of municipal solid waste per day. According to the solid waste analysis of the Amoruso Ranch Specific Plan FEIR, under current projected development conditions the WRSL has a projected lifespan extending through 2058. There is sufficient existing capacity to serve the proposed project. Though the project will contribute incrementally to an eventual need to find other means of waste disposal, this impact of City buildout has already been disclosed and mitigation applied as part of each Specific Plan the City has approved, including the most recent Amoruso Ranch Specific Plan. All residences and business in the City pay fees for solid waste collection, a portion of which is collected to fund eventual solid waste disposal expansion. The project will not

result in any new impacts associated with major infrastructure. Environmental Utilities staff has reviewed the project for consistency with policies, codes, and regulations related to waste disposal services and has found that the project design is in compliance.

XX. Wildfire

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

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to utilities and service systems is based directly on the CEQA Guidelines checklist items a–d listed above. The California Department of Forestry and Fire Protection (CAL FIRE) is the state agency responsible for wildland fire protection and management. As part of that task, CAL FIRE maintains maps designating Wildland Fire Hazard Severity zones. The City is not located within a Very High Fire Hazard Severity Zone, and is not in a CAL FIRE responsibility area; fire suppression is entirely within local responsibility.

Discussion of Checklist Answers:

a–d) Therefore, checklist questions a–d above do not apply, because the project site is not within a Very High Fire Hazard Severity Zone and is not in a CAL FIRE responsibility area.

XXI. Mandatory Findings of Significance

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, threatened or rare species, or eliminate important examples of the major periods of California history or prehistory?			X	
f) Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
g) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Significance Criteria and Regulatory Setting:

The significance of impacts related to mandatory findings of significance is based directly on the CEQA Guidelines checklist items a–c listed above.

Discussion of Checklist Answers:

a–c) Long term environmental goals are not impacted by the proposed project. The cumulative impacts do not deviate beyond what was contemplated in the General Plan and Amoruso Ranch Specific Plan EIRs, and mitigation measures have already been incorporated. With implementation of the City's Mitigating Ordinances, Guidelines, and Standards and best management practices, mitigation measures described in this chapter, and permit conditions, the proposed project will not have a significant impact on the habitat of any plant or animal species. Based on the foregoing, the proposed project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of any wildlife species, or create adverse effects on human beings.

ENVIRONMENTAL DETERMINATION:

In reviewing the site specific information provided for this project and acting as Lead Agency, the City of Roseville, Development Services Department, Planning Division has analyzed the potential environmental impacts created by this project and determined that with mitigation the impacts are less than significant. As demonstrated in the initial study checklist, there are no "project specific significant effects which are peculiar to the project or site" that cannot be reduced to less than significant effects through mitigation (CEQA Section 15183) and therefore an EIR ***is not*** *required. Therefore,* ***on the basis of the foregoing initial study:***

[**X**] I find that the proposed project COULD, but with mitigation agreed to by the applicant, clearly will not have a significant effect on the environment and a *MITIGATED NEGATIVE DECLARATION* has been prepared.

Initial Study Prepared by:

Kinarik Shallow 4/4/2019

Kinarik Shallow, Assistant Planner
City of Roseville, Development Services – Planning Division

Attachments:

1. Arborist Report from Abacus Consulting Arborists, dated April 8, 2019
2. CalEEMod (version 2016.3.1) Modeling Calculations
3. Mitigation Monitoring and Reporting Program

Exhibits:

A. Site Plan
B. Tentative Subdivision Map
C. Preliminary Grading and Drainage Plan
D. Landscape Plan
E. Elevations

ABACUS
CONSULTING ARBORISTS

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Auburn, CA 95604
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Consulting Arborist Report

&

Tree Inventory & Assessment

Prepared at the request of:

Karlton Castles

For

241 Nevada Street

APN #013-0190-0360

In

City of Roseville, California

Nicole Harrison
International Society of Arboriculture, Certified Arborist #WE-6500AM, TRAQ

September 11, 2018 (Updated April 8, 2019 to correspond with Preliminary Grading, 03-01-2019 by RFE Engineering)

TABLE OF CONTENTS

Executive Summary

Karlton Castles of DBISBK, LLC. contacted Abacus Consulting Arborists to inventory and evaluate the protected trees and produce an Arborist Report as the end product. The property is parcel 013-192-036-000, located at 1007 Douglas Boulevard in Roseville, California.

Nicole Harrison, ISA Certified Arborist #WE6500AM, and Nicholas McNamara, arborists assistant, of Abacus Consulting Arborists was on site on March 28, 2018; to identify species, take measurements of DBH[1] and canopy, field condition notes, recommended actions, ratings, and locations of the protected trees.

There are 23 trees surveyed of which 21 qualify as protected trees as defined by the City of Roseville municipal code, Title 19, Article IV, Chapter 19.66 Tree Preservation. There are five (5) trees off site or property line trees which could be impacted by the development of the site[2].

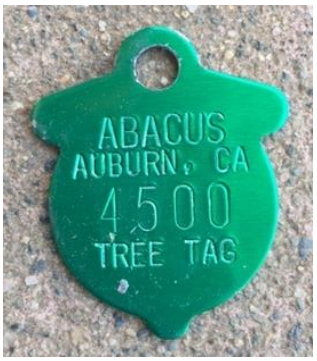
Tree Species	Trees on this Site:	Property Line[3] and/or Offsite Trees	Protected by City of Roseville Title 19 Chapter 19.66	Trees Proposed for Removal[4]	Protected Trees Proposed for Retention with Impacts[5]	Total Trees to be Retained
Valley Oak, *Quercus lobata*	6	4	10	5	3	5
Interior Live Oak, *Quercus wislizenii*	9	2	10	7	3	3
Blue Oak, *Quercus douglasii*	1	0	1	1	0	0
London Planetree, *Plantanus x acerifolia*	1	0	0	1	0	0
Privet, *Ligustrum sp.*	1	0	0	1	0	0
Total	18	6	21	15	6	8

See Chart B – Inventory of Trees for specific information on each tree.

See Chart C – Trees Proposed for Removal or Impact for additional Mitigation information

[1] DBH or 'Diameter at Breast High' is the industry accepted measurement for mature trees. The measurement is taken at 54" off of native grade. See attached 'Tree Size Expressed by Trunk Diameter'.
[2] Tree locations are approximate. Abacus Consulting Arborists is not responsible for determination of tree location and/or ownership.
[3] Trees with any portion of the trunk on the property line are considered to be joint ownership trees between the parcels and require agreement between parcel owners for removal or impact (Stamen, 1997).
[4] Current Development Plan by RFE Engineering, Inc. Titled Nevada Street Lofts and dated 4-18-2018.
[5] Impacts occur when development activities, including grading or trenching, are within the protected root zone defined for each tree in Chart B. The impact result and/or additional protection measures can be found in the conclusion of this report

Methods



The protected trees (on-site) tagged by **ABACUS** have a numbered tag, placed on each one that is 1-1/8" x 1-3/8", green anodized aluminum, "acorn" shaped, and labeled: **ABACUS**, Auburn, CA with 1/4" pre-stamped tree number and Tree Tag. They are attached with a natural colored aluminum 10d nail, installed at approximately 6 feet above ground level on the approximate north side of the tree. The tag should last ~10 – 20+ years depending on the species, before it is enveloped by the trees' normal growth cycle.

A Level 2 – Basic Visual Assessment was performed in accordance with the International Society of Arboriculture's best management practices. This assessment level is limited to the observation of conditions and defects which are readily visible. Additional limiting factors, such as blackberries, poison oak, and/or debris piled at the base of a tree can inhibit the visual assessment.

Tree Location: The GPS location of each tree was collected using the ESRI's ArcGIS collector application on an Apple iPad. The data was then processed in ESRI's ArcMap by Julie McNamara, M.S. GISci, to produce the tree location map.

Tree Measurements: DBH (diameter breast high) is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if that varies then the location where it is measured is noted. A Haglöf Mantax Caliper was used to measure the DBH for trees less than 32" in diameter or less and a steel diameter tape for trees greater than 32".

Terms

Field Tag #	The pre-stamped tree number on the tag which is installed at approximately 6 feet above ground level on the north side of the tree.
Other Tag #	If additional field tags are found on the trees and are legible, they are listed here.
Offsite/Property Line	Indicates if an off-site tree was included in the inventory. Inclusion of off-site trees is conducted when these trees could potentially be impacted by any proposed development. Trees located within 25' of the development boundary are normally included and provided protection recommendations when development is proposed in the area. We are not surveyors and do not guarantee trees listed as on or off the site are correctly indicated.
Protected	Indicates if the tree qualifies as a "protected tree" by the standards of the local jurisdiction.
Species Common Name	The species of a tree is listed by our local common name. Our native oaks frequently cross-pollinate and hybridize, but the identification is towards the strongest characteristics.
Species Botanical Name	Industry accepted botanical name by genus (capitalized) and species (lower case).
DBH	'Diameter Breast High' is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if the measurement was taken at another location it is noted here. A Swedish caliper [1] was used to measure the DBH for trees less than 30" in diameter and a steel diameter tape for trees greater than 30"Ø.
Measured Canopy radius	The farthest extent of the crown composed of leaves and small twigs. Often a tree's canopy will be irregular, however, the canopy radius is measured as longest dripline measurement from the center point of the tree as the limbs with the farthest reach.

Notes: Notes provide notable details about each tree which are factors considered in the determination of the tree rating including: (a) condition of root crown and/or roots; (b) condition of trunk; (c) condition of limbs and structure; (d) growth history and twig condition; (e) leaf appearance; and (f) dripline environment. Notes also indicate if the standard tree evaluation procedure was not followed and why (ie. why dbh may have been measured at a location other than the standard 54"). Additionally, notes will list any evaluation limiting factors such as debris at the base of a tree.

City of Roseville Tree Rating: Pursuant to Title 19, Chapter 19.66 Tree Preservation of the Roseville Municipal Code as information to be included in the Arborist Report.

Arborist Rating: Subjective to condition and is based on both the health and structure of the tree. All of the trees were rated for condition, per the recognized national standard as set up by the Council of Tree and Landscape Appraisers and the International Society of Arboriculture (ISA) on a numeric scale of 5 (being the highest) to 0 (the worst condition, dead) as in Chart A. The rating was done in the field at the time of the measuring and inspection. The scale is as follows:

Chart A – Tree Ratings

Arborist Ratings			Roseville Ratings, 19.66.050 B.1.
No problem(s)	Excellent	**5**	Excellent
No apparent problem(s)	Good	**4**	Good
Minor problem(s)	Fair	**3**	Fair to Good
Minor problem(s)		**2 or 3**	Fair
Major problem(s)	Poor	**2**	Fair to Poor
Extreme problem(s)	Hazardous	**1**	Poor
Dead	Dead	**0**	Dead

Ratings Description

Rating #0: This indicates a tree that has no significant sign of life.

Rating #1: The problems are extreme. This rating is assigned to a tree that has structural and/or health problems that no amount of work or effort can change. The issues may or may not be considered a dangerous situation.

Rating #2: The tree has major problems. If the option is taken to preserve the tree, its condition could be improved with correct arboricultural work including, but not limited to: pruning, cabling, bracing, bolting, guying, spraying, mistletoe removal, vertical mulching, fertilization, etc. If the recommended actions are completed correctly, hazard can be reduced and the rating can be elevated to a 3. If no action is taken the tree is considered a liability and should be removed.

Rating #3: The tree is in fair condition. There are some minor structural or health problems that pose no immediate danger. When the recommended actions in an arborist report are completed correctly the defect(s) can be minimized or eliminated.

Rating #4: The tree is in good condition and there are no apparent problems that a Certified Arborist can see from a visual ground inspection. If potential structural or health problems are tended to at this stage future hazard can be reduced and more serious health problems can be averted.

Rating #5: No problems found from a visual ground inspection. Structurally, these trees have properly spaced branches and near perfect characteristics for the species. Highly rated trees are not common in natural or developed landscapes. No tree is ever perfect especially with the unpredictability of nature, but with this highest rating, the condition should be considered excellent.

Development Impact

Indicates if the tree is planned for removal or preservation, and if preserved, the relative impact of the proposed development according to the development plans. The scale is as follows:

Impact Terms	Impact Description
Negligible	Tree is unlikely to show any symptoms. Chance of survival post development is excellent. Impacts to the Protected Root Zone (see Glossary) are less than 5%.
Minor	Tree is likely to show minor symptoms. Chance of survival post development is good. Impacts to the Protected Root Zone are less than 15% and species tolerance is good.
Moderate	Tree is likely to show moderate symptoms. Chance of survival post development is fair. Impacts to the Protected Root Zone are less than 35% and species tolerance is good or moderate.
Severe	Tree is likely to show moderate symptoms annually and a pattern of decline. Chance of long term survival post development is low. Impacts to the Protected Root Zone are up to 50% and species tolerance is moderate to poor.
Critical	Tree is likely to show moderate to severe symptoms annually and a pattern of decline. Chance of long term survival post development is negligible. Impacts to the Protected Root Zone are up to 80%.

Impact Notes

The proposed impact to the tree based on the current development plan

Development Restrictions

Arborist preservation recommendations to support long-term health of the tree during the development process often in the form of restrictions.

Chart B – Inventory of Trees

Blue indicates tree is off site or on the property line. Note: Actual tree locations are to be determined by others. We are not surveyors. Abacus takes no responsibility for determination of tree ownership.

Field Tag #	Protected by 19.66	Offsite /Line	Species Common Name	Species Botanical Name	DBH	Measured Canopy Radius	Notes	Arborist Rating	Roseville Rating	Development Status
662	Yes		Interior Live Oak	Quercus wislizenii	23	32	Debris at base, codominant leader at 10', seam ground to 4', north stem included bark and narrow attachment angle @ 15' in main stem	3 Fair - Minor Problems	Fair	Remove
667	Yes		Interior Live Oak	Quercus wislizenii	4, 5	14	Poor structure, bows @ 2-6', S limb stubbed	1 Extreme Structure or Health Problems	Poor	Remove
672	Yes	Yes	Interior Live Oak	Quercus wislizenii	13	20	Fenceline, retaining wall cracking at base, codominant leader at 6' into 3 stems, imbedded fence wire, good leaf surface	3 Fair - Minor Problems	Fair to Good	Remove
673	No		London Planetree	Platanus x acerifolia	20	25	Sparse canopy, powdery mildew, stubs to east	3 Fair - Minor Problems	Fair to Good	Remove
681	Yes	Street Tree?	Valley Oak	Quercus lobata	10, 11, 9	20	Co-dominant leader at 1' into 3 stems, 9" stem bows to west, 11 is upright 10 has dogleg to east, abnormal trunk shape, epicormic growth, topped - under high voltage, retaining wall is cracking at 1' to south	2 Major Structure or Health Problems	Fair	Remove
6254	Yes		Blue Oak	Quercus douglasii	7, 6	20	CDL at 1 foot, both systems lean, chainsaw chatter at 3 feet on W stem, suppressed poor crown ratio	2 Major Structure or Health Problems	Fair to Poor	Remove
6255	Yes		Interior Live Oak	Quercus wislizenii	23, 25	35	Codominant leader at 2', abnormal flare at ground with imbedded post/pipe (?), debris at crotch, co-dominant leader in both stems at 5-6', included bark, north stem is dominant, north stem has old pruning cuts with callous and borers, south stem has prostrate limb at 6-8' to south and 15' to west	3 Fair - Minor Problems	Fair	Remove
6256	Yes		Valley Oak	Quercus lobata	11 @ 2'	16	Codominant leader at 5' included bark, understory, bows to west	2 Major Structure or Health Problems	Fair to Poor	Remove
6257	Yes		Interior Live Oak	Quercus wislizenii	7, 9 @ 2'	20	Understory, poor structure, bows to south at 8', abnormal flare at base	2 Major Structure or Health Problems	Fair to Poor	Remove

Field Tag #	Protected by 19.66	Offsite /Line	Species Common Name	Species Botanical Name	DBH	Measured Canopy Radius	Notes	Arborist Rating	Roseville Rating	Development Status
6258	Yes		Valley Oak	Quercus lobata	19	25	Narrow angle attachment at 6', main stem has a slight lean to west, sparse canopy	3 Fair - Minor Problems	Fair to Good	Remove
6259	Yes		Interior Live Oak	Quercus wislizenii	13	25	Codominant leader at 8', included bark, crossing limbs @ 12', poor structure	3 Fair - Minor Problems	Fair	Remove
6260	No		Glossy Privet	Ligustrum sp.	7, 7, 7	15	Poor structure, crossing limbs, poor species	2 Major Structure or Health Problems	Fair	Remove
6261	Yes		Interior Live Oak	Quercus wislizenii	9	15	Lean to south with correction	3 Fair - Minor Problems	Fair to Good	Impacted
6262	Yes		Valley Oak	Quercus lobata	8	17	Dogleg to east at 10', sparse canopy	2 Major Structure or Health Problems	Fair	Remove
6263	Yes		Interior Live Oak	Quercus wislizenii	19, 5, 7	35	Codominant leader at 6" with two 5" stems, main stem has a seam 6" to 4', good canopy; 5" stems are both suppressed and bow to west north west	4 Good - No Apparent Problems	Good	Remove
6264	Yes		Interior Live Oak	Quercus wislizenii	15	32	Advanced decay pocket at 2' to south with callous, suppressed, bows to south west - not correctible	2 Major Structure or Health Problems	Fair	Impacted
6265	Yes		Valley Oak	Quercus lobata	33	35	Co-dominant leader at 8', included bark, north east stem in contact with fence, large dead and decaying stub in crotch, bows to east, over-weight limb to east	3 Fair - Minor Problems	Fair	Impacted
6266	Yes	Yes	Valley Oak	Quercus lobata	16	24	good flare, upright structure, previously surrounded by bamboo, good leaf surface	4 Good - No Apparent Problems	Good	Impacted
6267	Yes	Yes	Valley Oak	Quercus lobata	13	25	good flair, slight lean from suppression by 6268, good leaf surface	3 Fair - Minor Problems	Fair to Good	Preserve
6268	Yes	Yes	Valley Oak	Quercus lobata	16	20	large codominant leader failure at 10' jagged decaying stub, upper canopy poor structure, fair leaf surface	2 Major Structure or Health Problems	Fair to Poor	Preserve
6269	Yes	Yes	Interior Live Oak	Quercus wislizenii	8	18	2 stems removed at base, remaining stem has poor structure. Potential for basal decay and failure is high	1 Extreme Structure or Health Problems	Poor	Impacted

Field Tag #	Protected by 19.66	Offsite /Line	Species Common Name	Species Botanical Name	DBH	Measured Canopy Radius	Notes	Arborist Rating	Roseville Rating	Development Status
6270	Yes	Yes	Valley Oak	Quercus lobata	37, 38	40	Debris at base, codominant leader at 10', narrow angle to base, sparse canopy, large dead wood, over-mature and declining	2 Major Structure or Health Problems	Fair	Impacted
6271	Yes		Valley Oak	Quercus lobata	24, 16	36	Co-dominant leader at 4', included bark to ground, sparse canopy, limb tip dieback	3 Fair - Minor Problems		Remove

Limitations

All of the conclusions in this report are based solely on the observation of conditions on the site which were readily visible. Trees may appear to be healthy and structurally sound but can contain hidden faults which could result in failure.

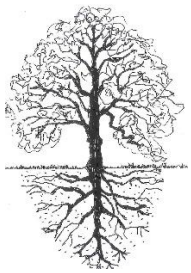
This inventory and all the evaluations were conducted during the dormant season. While we endeavor to evaluate the canopy of each tree based on twig condition, there may be conditions which cannot be detected at this time of the year.

Blackberries, Poison Oak and/or Debris (such as limbs, firewood, garbage, etc) visually inhibit the observation of critical defects at the base of a tree such as decay or evidence of decay agents (mushrooms or conks). They also can hide ground heaving, compacted soil, soil contamination, and many other critical evaluation details. Whenever these conditions exist, the visual assessment was limited and the tree should be reevaluated upon removal of the inhibiting condition.

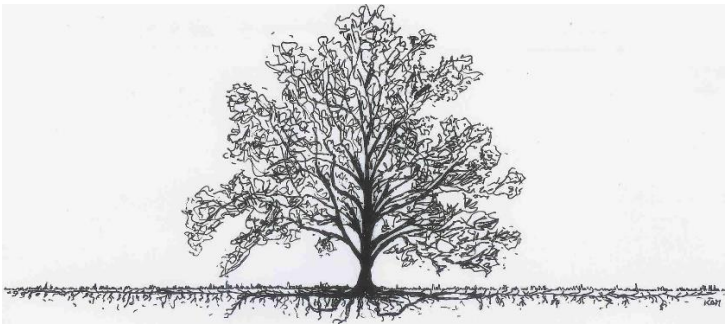
Discussion

Root Structure

The majority of a tree's roots are contained in a radius from the main trunk outward approximately two to three times the canopy of the tree. These roots are located in the top 6" to 3' of soil. It is a common misconception that a tree underground resembles the canopy (see Drawing A below). The correct root structure of a tree is in Drawing B. Accordingly, tree protection during development involves preserving an area that extends beyond the dripline.



Drawing A
Common misconception of where tree roots are assumed to be located



Drawing B
The reality of where roots are located

Conclusion

There are 23 trees surveyed of which 21 qualify as protected trees as defined by the City of Roseville municipal code, Title 19, Article IV, Chapter 19.66 Tree Preservation. There are six (6) trees off site or on the property line which could be impacted by the development of the site.

Protected Tree Status	Tree Count	Inches[6]
Trees to Remain on the Site without Impact	0	
Trees Proposed for Removal	15	274
Trees with Impacts Causing Early Demise (6261 & 6264)	2	24
Trees with Impacts to be Determined[7] (6265 & 6270)	2	Up to 108

(Updated April 4, 2019 for Plan update Preliminary Grading, 03-01-2019 by RFE Engineering)

Projected development impacts are based solely on distance relationships between tree location and grading and/or trenching. Field inspections and findings during the project at the time of grading and trenching can change relative impacts. Closely followed guidelines and restrictions can result in a higher chance of survival, while restrictions that are overlooked can result in a dramatically lower chance of survival. **The final impact will be measured at project completion and reported by the project arborist in the 'Final Compliance Letter'.**

General Development Guidelines

1 Any recommended chemical treatments shall be performed 30 days prior to onset of grading activities. Project arborist shall require confirmation of treatment.

2 No wheeled equipment or pickup trucks shall be allowed on site until exclusionary tree fencing is installed by developer and inspected by the project arborist.

3 All of the trees to be removed or pruned shall be chipped onsite to the greatest degree possible. The chips are to be used under the trees that are to remain as mulch in the Protected Root Zone (see 6 below).

4 All trees to be removed within the Protected Root Zone of a tree to remain on site shall NOT be removed with equipment, but rather shall be stump ground.

5 All of the trees to remain shall have mulch installed in the Protected Root Zone 4 - 6" deep prior to grading and/or grubbing. It is prefered this mulch is from the trees to be removed, however, other mulch may be used but it is required to be arborist type woodchips (4 – 6" deep), but not redwood or cedar bark. Redwood or Cedar bark mulch will not be accepted. If applied, it will be required to be removed and placed on top of the required arborist type mulch.

6 All trees to be saved shall have their root zones and trunk(s) protected with exclusionary fencing. Unless otherwise specified by the City or County, a four (4') foot high orange or yellow plastic, high visibility fence shall be installed surrounding the trees' root zone (defined by canopy radius), hereafter refered to as the Protected Root Zone. The fence shall be staked 10'o.c. maximum spacing, with 5' steel "T"

[6] Inches are DBH for single trunk trees and DBH added together for multi-stem trees
[7] Trees with Impacts to be determined during construction are assumed to be 'preserved' and often Bonded to ensure every effort is made to manage the site activities to preserve these trees.

posts, 2” x 2” square or 2”+ ∅ wood posts. The Protected Root Zone area shall extend out to the tree’s longest dripline radius plus one foot, as a circle. See Arborist Report - Chart B for radius measurement for each individual tree. The fencing shall completely surround the trees’ root zone and not be “U” shaped or open at any point. Whenever possible, include as many trees that are to be saved into one fenced exclusionary Protected Root Zone. The fencing shall be maintained and not moved or removed until the final arborist inspection at the completion of construction.

7 No material storage, people, portable outhouses, vehicles, or dogs shall be allowed in the Protected Root Zone.

8 Utility-trenching paths are to be placed outside the Protected Root Zone unless previously approved by project Arborist.

9 The cut and fill material excavated from or added to the lot can kill trees by removing too many roots, drying/wetting the soil, or by suffocating the roots with too much soil. If fill material is needed within 20' of the Protected Root Zone, properly designed aeration/ventilation systems made to protect the trees and allow for the fill material can be installed.

10 Limestone gravel shall not be used as base material or for drain rock as it will change the pH to be more alkaline, and may harm the trees.

11 Lime to assist in soil compaction, if required, shall not be used within 100’ of any tree to remain and be preserved.

12 Soil contamination shall be avoided by eliminating chemical dumping on the property that may infiltrate into the Protected Root Zone. **No**: washing, dumping, or contaminating the site including but not necessarily limited to the following: concrete from tools or trucks, paint materials, sheetrock mud or stucco materials, other chemicals, solvents, herbicides, etc.

13 Irrigation is required once per month for a trees to remain within 30' of any grading activity during the months of May - November, unless 1" of rain has been recorded within the 2 week period. The project arborist is required to inspect the site and specify irrigation requirements once per month during the months of May – November.

14 Irrigation is required as soon as the concrete is poured and footings and stem walls are backfilled. The protected trees within 30' should be watered to the point of soil saturation at a minimum depth of 12".

15 Do not nail, tie, screw, or fasten any signs, braces, etc. to the trees that are to remain.

16 Pruning is to be completed by a qualified ISA Certified Arborist or under the direct supervision of the project arborist. No cutting of live wood over 2”∅ shall be made. All cutting, pruning, trimming, cabling, guying, bracing, and lightning protection systems shall conform to the most current standards of the American National Standards Institute (ANSI). The current ANSI Tree Care Standards are A300 (Parts 1-4) 2000 to 2002 (copies at: www.ansi.org). The BMPs are “Best Management Practices”, as companion publications to the ANSI Tree Care Standards, printed by the International Society of Arboriculture (copies at: www.isa-arbor.com). The BMP booklets explain the details of the ANSI Tree Care Standards and how to follow them correctly. Pruning of branches under 3” in diameter should be made with sharp hand tools: pruners, loppers, and/or handsaws, not chainsaws.

17 Additional recommendations to enhance the likelihood of tree survival may be required or recommended in supplemental inspections by the project arborist.

Chart C – Trees Proposed for Removal

Field Tag #	Protected by 19.66	Offsite/ Property Line	Species Common Name	Species Botanical Name	DBH	Measured Canopy Radius	Arborist Rating	Roseville Rating	Development Status, 9-11-18	Mitigation Inches	Removal Count
662	Yes		Interior Live Oak	Quercus wislizenii	23	32	3 Fair - Minor Problems	Fair	Remove	23	1
667	Yes		Interior Live Oak	Quercus wislizenii	4, 5	14	1 Extreme Structure or Health Problems	Poor	Remove	9	2
672	Yes	Yes	Interior Live Oak	Quercus wislizenii	13	20	3 Fair - Minor Problems	Fair to Good	Remove	13	3
673	No		London Planetree	Platanus x acerifolia	20	25	3 Fair - Minor Problems	Fair to Good	Remove	0 – Unprotected Species	4
681	Yes		Valley Oak	Quercus lobata	10, 11, 9	20	2 Major Structure or Health Problems	Fair	Remove	30	5
6254	Yes		Blue Oak	Quercus douglasii	7, 6	20	2 Major Structure or Health Problems	Fair to Poor	Remove	13	6
6255	Yes		Interior Live Oak	Quercus wislizenii	23, 25	35	3 Fair - Minor Problems	Fair	Remove	48	7
6256	Yes		Valley Oak	Quercus lobata	11 @ 2'	16	2 Major Structure or Health Problems	Fair to Poor	Remove	11	8
6257	Yes		Interior Live Oak	Quercus wislizenii	7, 9 @ 2'	20	2 Major Structure or Health Problems	Fair to Poor	Remove	16	9

Field Tag #	Protected by 19.66	Offsite/ Property Line	Species Common Name	Species Botanical Name	DBH	Measured Canopy Radius	Arborist Rating	Roseville Rating	Development Status, 9-11-18	Mitigation Inches	Removal Count
6258	Yes		Valley Oak	Quercus lobata	19	25	3 Fair - Minor Problems	Fair to Good	Remove	19	10
6259	Yes		Interior Live Oak	Quercus wislizenii	13	25	3 Fair - Minor Problems	Fair	Remove	13	11
6260	No		Privet sp.	Ligustrum sp.	7, 7, 7	15	2 Major Structure or Health Problems	Fair	Remove	0 – Species not Protected	12
6262	Yes		Valley Oak	Quercus lobata	8	17	2 Major Structure or Health Problems	Fair	Remove	8	13
6263	Yes		Interior Live Oak	Quercus wislizenii	19, 5, 7	35	4 Good - No Apparent Problems	Good	Remove	31	14
6271	Yes		Valley Oak	Quercus lobata	24, 16	36	3 Fair - Minor Problems	Fair to Good	Remove	40	15
									Total	274	15

Chart C – Impacted Trees and Development Restrictions

Field Tag #	Protected by 19.66	Species Common Name	Species Botanical Name	DBH	Measured Canopy Radius	Arborist Rating	Roseville Rating	Mitigation Inches	Impact Term	Special Preservation Requirements
6261	Yes	Interior Live Oak	Quercus wislizenii	9	15	3 Fair - Minor Problems	Fair to Good	9	Critical to Severe	Consider geotextile fabric under fill for 10', min requirement is 5'. Project arborist to be onsite during utility placement and trenching.
6264	Yes	Interior Live Oak	Quercus wislizenii	15	32	2 Major Structure or Health Problems	Fair	15	Critical	Chemical treatment for stress and as a preventative for leaf disorders and insects shall be applied 30 days prior to grading. Install protective fencing at 10' from base of tree west and south. All activities inside fencing shall be

Field Tag #	Protected by 19.66	Species Common Name	Species Botanical Name	DBH	Measured Canopy Radius	Arborist Rating	Roseville Rating	Mitigation Inches	Impact Term	Special Preservation Requirements
										under the direct supervision of the project arborist, including grading and digging for retaining wall for transformer pad. (Updated April 4, 2019 for Plan update Preliminary Grading, 03-01-2019 by RFE Engineering)
6265	Yes	Valley Oak	Quercus lobata	33	35	3 Fair - Minor Problems	Fair to Poor	TBD (33)	Moderate to Critical	Chemical treatment for stress and as a preventative for leaf disorders and insects shall be applied 30 days prior to grading. Install protective fencing at 10' from base of tree west. All activities inside fencing shall be under the direct supervision of the project arborist, including any clearance pruning. (Updated April 4, 2019 for Plan update Preliminary Grading, 03-01-2019 by RFE Engineering)
6266	Yes	Valley Oak	Quercus lobata	16	24	4 Good - No Apparent Problems	Good	0	Minor	Follow all general recommendations. Protective fencing and recommendations for surrounding trees will provide adequate protection.
6269	Yes	Interior Live Oak	Quercus wislizenii	8	18	1 Extreme Structure or Health Problems	Poor	0	Moderate	Tree is structurally poor. Impacts will not significantly change the life span of the tree. No protection is required.
6270	Yes	Valley Oak	Quercus lobata	37, 38	40	2 Major Structure or Health Problems	Fair	TBD (75)	Moderate	Chemical treatment for stress and as a preventative for leaf disorders and insects shall be applied 30 days prior to grading. All grading within 50' shall be evaluated by project arborist after retaining wall evaluation. Trenching for retaining wall and root evaluation shall occur prior to grading. Geotextile fabric may be required to be placed under fill at discretion of project arborist**. Install protective fencing at 50' from base of tree. All activities inside fencing shall be under the direct supervision of the project arborist, including any clearance**

Field Tag #	Protected by 19.66	Species Common Name	Species Botanical Name	DBH	Measured Canopy Radius	Arborist Rating	Roseville Rating	Mitigation Inches	Impact Term	Special Preservation Requirements
										pruning. Utility and or storm drain trenches may require boring and/or hand digging within the 50' protected zone. Tree shall be pruned prior to grading under project arborist supervision for clearance and risk reduction. (Updated April 4, 2019 for Plan update Preliminary Grading, 03-01-2019 by RFE Engineering)

Field Tag #	Protected by 19.66	Species Common Name	Species Botanical Name	DBH	Measured Canopy Radius	Arborist Rating	Roseville Rating	Mitigation Inches	Impact Term	Encroachment percentage and notes	Encroachment percentage and notes - updated, 04-10-19
6261	Yes	Interior Live Oak	Quercus wislizenii	9	15	3 Fair - Minor Problems	Fair to Good	9	Critical to Severe	Assumed impact at 5' - % Based on Canopy = 29; Based on Industry standard protection = 17	New retaining wall 5' W, height TBD < 1' per Tony. More than adequate protection N-S. % based on canopy = 29
6264	Yes	Interior Live Oak	Quercus wislizenii	15	32	2 Major Structure or Health Problems	Fair	15	Critical	Assumed impact at 3' - % Based on Canopy = 45; Based on Industry standard protection = 37 NOTE: Existing slope will provide some additional protection. **installation of geo textile above minimum compaction will result in impacts at 10' - 11%**	Retaining walls at <5' W and S. S wall noted at .5' which should be insignificant except for coverage. Total impacts 47%. Installation of geo textile above minimum compaction in transformer pad area and under paving within 20' of tree will result in impact < 15%
6265	Yes	Valley Oak	Quercus lobata	33	35	3 Fair - Minor Problems	Fair to Poor	TBD (33)	Moderate to Critical	Assumed impact at 5' - % Based on Canopy = 41; Based on Industry standard protection = 40 NOTE: Existing slope will provide some additional protection, **installation of geo textile above minimum compaction will result in impacts at 20' -**	Same
6266	Yes	Valley Oak	Quercus lobata	16	24	4 Good - No Apparent Problems	Good	0	Minor	Assumed impact at 25' - % Based on Canopy = 0; Based on Industry standard protection = 0	Same

6269	Yes	Interior Live Oak	Quercus wislizenii	8	18	1 Extreme Structure or Health Problems	Poor	0	Moderate	Assumed impact at 10' to new drive - % Based on Canopy = 16; Based on Industry standard protection = 0	Same
6270	Yes	Valley Oak	Quercus lobata	37, 38 [53]	40	2 Major Structure or Health Problems	Fair	TBD (75)	Moderate	Assumed impact at 5' - % Based on Canopy = 42; Based on Industry standard protection = 44%. NOTE: **With application of geo fabric and minimum compaction under, impacts are moved to utility location. If utilities are bored (instead of trenched), impact is moved to far side of access road at ±25' resulting in impacts of 20%**	New retaining wall footing to be less than 1' deep into existing grade. 36" storm drain is existing and to remain without improvements. New impact is from proposed 12" Storm Drain at ±15' and cover. Impact = 26%

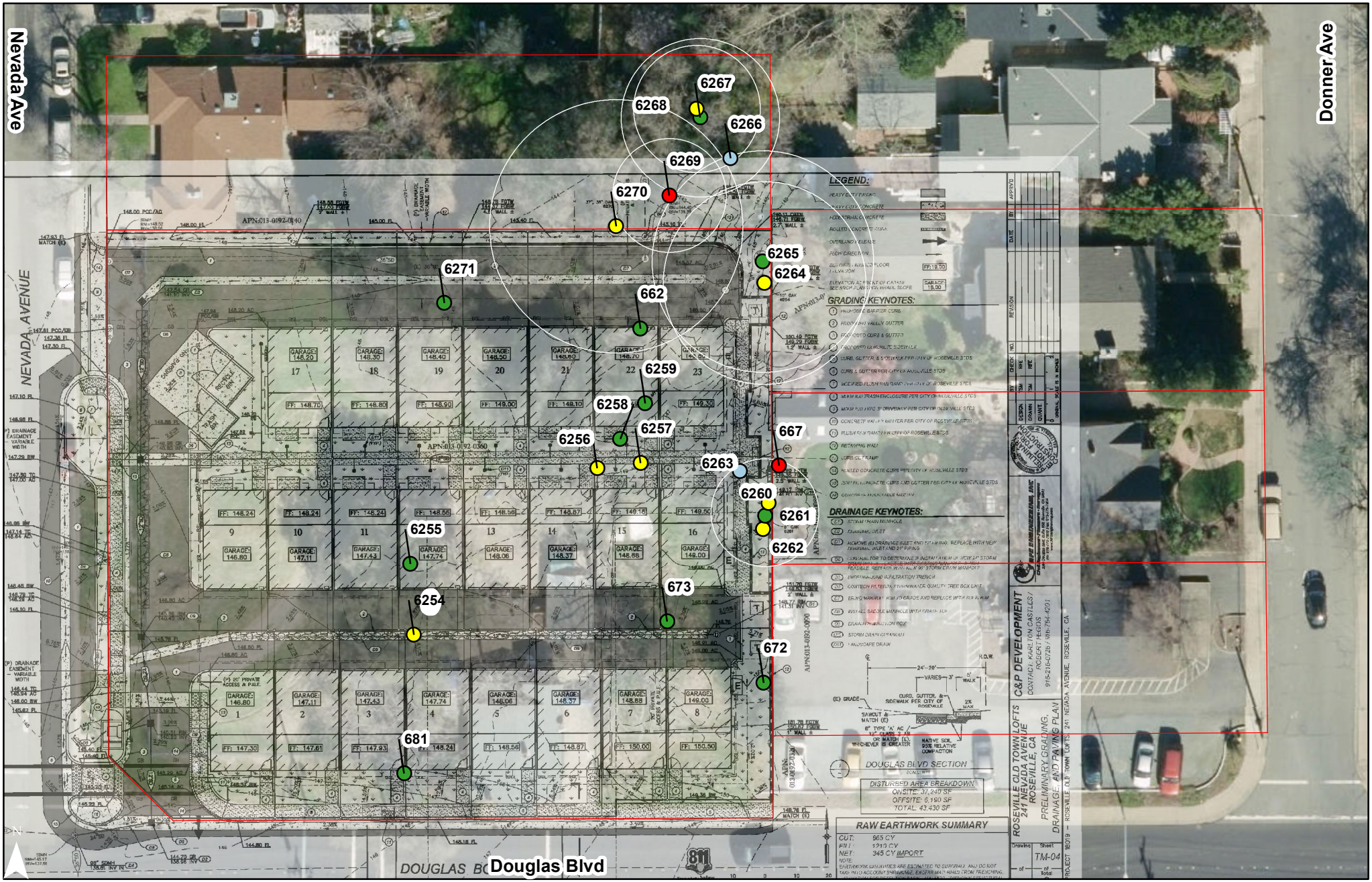
ABACUS
CONSULTING ARBORISTS

Tree Location Map
with Development Plans

4/8/2019

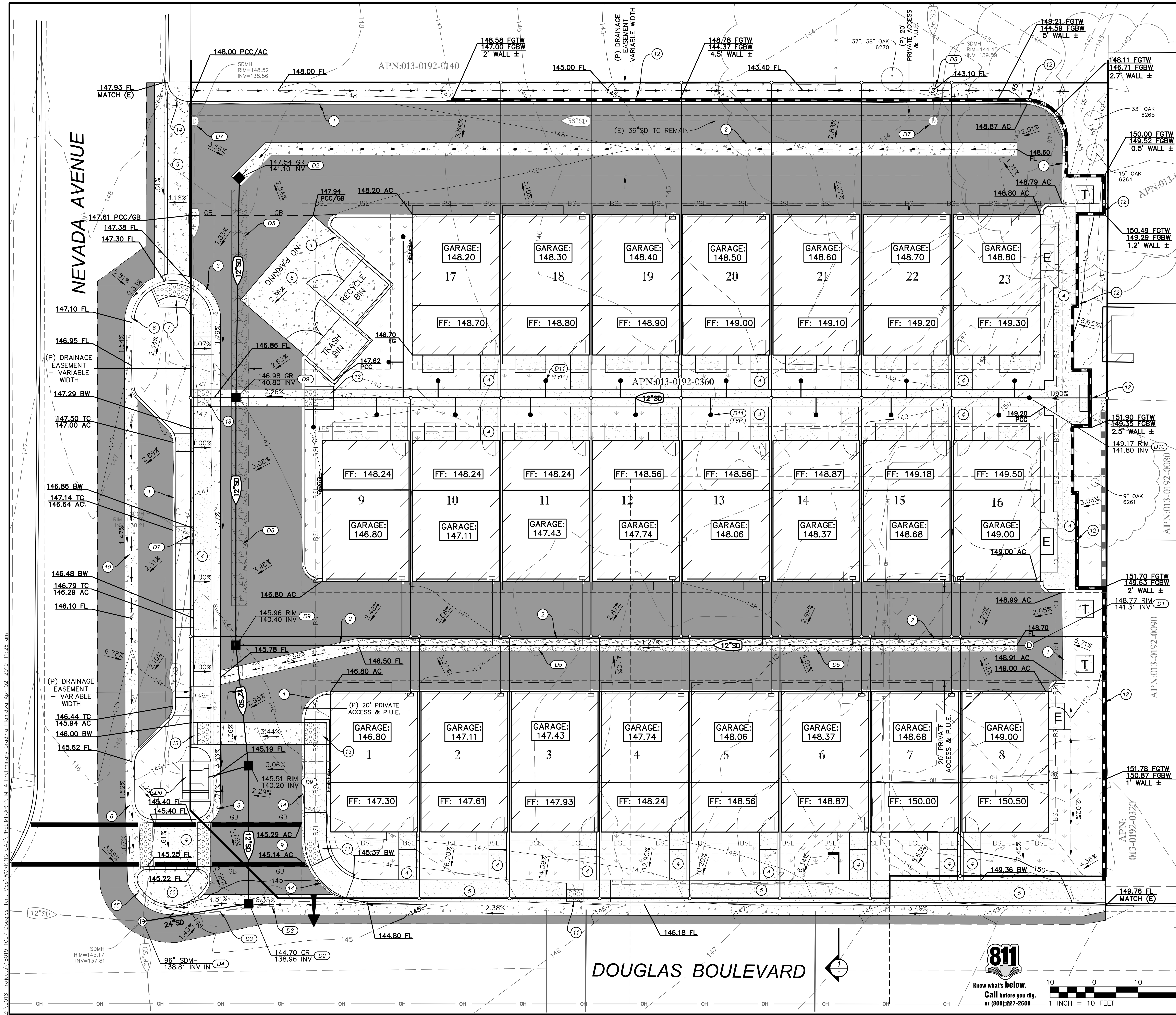
1007 Douglas Blvd
in
Roseville, California

Tree Rating
- 1 Extreme Structure or Health Problems
- 2 Major Structure or Health Problems
- 3 Fair - Minor Problems
- 4 Good - No Apparent Problems
- Tree Canopy



0 0.005 0.01 0.02 Miles

Please refer to the Arborist Report for additional information.
Tree locations are approximate.



LEGEND:

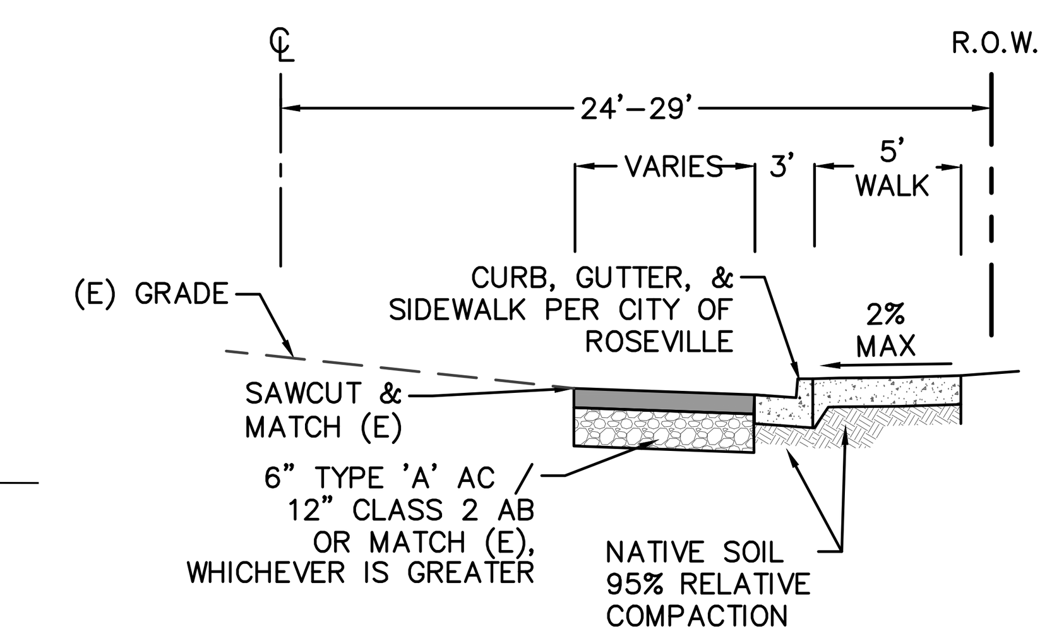
- HEAVY DUTY PAVING
- HEAVY DUTY CONCRETE
- PEDESTRIAN CONCRETE
- ROLLED CONCRETE CURB
- OVERLAND RELEASE
- FLOW DIRECTION
- BUILDING FINISHED FLOOR ELEVATION — FF:19.00
- ELEVATION AT FRONT OF GARAGE SEE ARCH PLANS FOR GRADE SLOPE — GARAGE: 18.00

GRADING KEYNOTES:

1. PROPOSED BARRIER CURB
2. PROPOSED VALLEY GUTTER
3. PROPOSED CURB & GUTTER
4. PROPOSED CONCRETE SIDEWALK
5. CURB, GUTTER, & SIDEWALK PER CITY OF ROSEVILLE STDS
6. CURB & GUTTER PER CITY OF ROSEVILLE STDS
7. MODIFIED FLUSH PAN RAMP PER CITY OF ROSEVILLE STDS
8. MODIFIED TRASH ENCLOSURE PER CITY OF ROSEVILLE STDS
9. MODIFIED TYPE 'S' DRIVEWAY PER CITY OF ROSEVILLE STDS
10. CONCRETE VALLEY GUTTER PER CITY OF ROSEVILLE STDS
11. FLUSH PAN RAMP PER CITY OF ROSEVILLE STDS
12. RETAINING WALL
13. CURB CUT RAMP
14. ROLLED CONCRETE CURB PER CITY OF ROSEVILLE STDS
15. ROLLED CONCRETE CURB AND GUTTER PER CITY OF ROSEVILLE STDS
16. CONCRETE MOUNTABLE MEDIAN

DRAINAGE KEYNOTES:

- D1 STORM DRAIN MANHOLE
- D2 DRAINAGE INLET
- D3 REMOVE (E) DRAINAGE INLET AND 12" PIPING. REPLACE WITH NEW DRAINAGE INLET AND 24" PIPING.
- D4 CONTRACTOR TO DETERMINE IF INSTALLATION OF NEW 24" STORM DRAIN WILL BE FEASIBLE WITH EXISTING MANHOLE. IF NOT FEASIBLE, REPLACE WITH NEW 96" STORM DRAIN MANHOLE.
- D5 UNDERGROUND INFILTRATION TRENCH
- D6 CONTECH FILTERRA STORMWATER QUALITY TREE BOX UNIT
- D7 BRING MANHOLE RIM TO GRADE AND REPLACE WITH SOLID RIM
- D8 INSTALL SADDLE MANHOLE WITH GRATE TOP
- D9 DRAINAGE JUNCTION BOX
- D10 STORM DRAIN CLEANOUT
- D11 LANDSCAPE DRAIN



1 — DOUGLAS BLVD SECTION
SCALE: NTS

DISTURBED AREA BREAKDOWN

ONSITE: 37,240 SF
OFFSITE: 6,190 SF
TOTAL: 43,430 SF

RAW EARTHWORK SUMMARY

CUT:	865 CY
FILL:	1210 CY
NET:	345 CY IMPORT

NOTE:
EARTHWORK QUANTITIES ARE ESTIMATED TO SUBGRADE AND DO NOT TAKE INTO ACCOUNT SHRINKAGE, EXCESS MATERIALS FROM TRENCHING, EXCAVATION FOR DETENTION BASIN, AND MISC. UNKNOWN STRUCTURAL SECTIONS. CONTRACTOR SHOULD VERIFY EARTHWORK QUANTITIES.

ROSEVILLE OLD TOWN LOFTS
241 NEVADA AVENUE ROSEVILLE, CA
PRELIMINARY GRADING, DRAINAGE, AND PAVING PLAN

C&P DEVELOPMENT
CONTACT: KARLTON CASTLES / ROBERT PEGOS
916-218-0728 / 916-764-4201

RFE ENGINEERING, INC
Civil Engineers • Planners • Surveyors
2260 Douglas Blvd, Suite 160, Roseville, CA 95661
Ph: 916-772-7800 Fax: 916-772-7804
www.RFEengineering.com

PRELIMINARY NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY	APPR'VD

	BY	CHECK
DESIGN	TSM	RFE
DRAWN	TSM	RFE
QUANT.		

ORIGINAL SCALE IS IN INCHES

Drawing — of — | Sheet TM-04 of Total 9

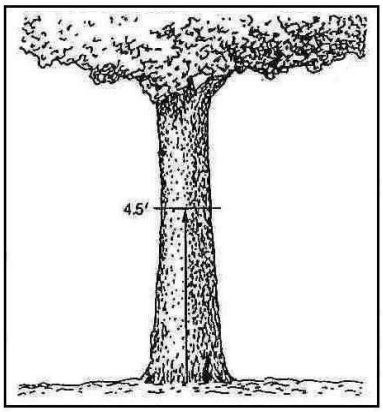
04-02-2019

Tree Size Expressed by Trunk Diameter

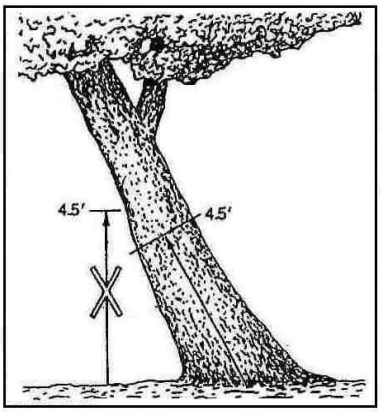
Tree SIZE Expressed by Trunk Diameter

"The height at which the trunk diameter of a tree is measured depends upon its size. The American Standard for Nursery Stock (ANSI, 1990) state that measurements shall be taken 6 inches (15 cm) above the ground for trunk diameters up to and including 4 inches (10 cm). Larger trees (assumed, but not stated, to be of transplantable size) are to be measured at 12 inches (30 cm). Trees normally considered too large to transplant are to be measured 4.5 feet [4'-6" is also called diameter breast high or dbh] (1.4 m) above the ground. Trees, like conifers, which have branches below 4.5 feet should be measured at a height that most effectively represents the size of the tree." The diameter is calculated by first measuring the circumference divided by 3.14 (π called pi) or by using a "diameter tape" whereon the inches are multiplied by π and shown to produce the diameter directly.

This is the dbh standard for measurement as shown in figure 4-2.



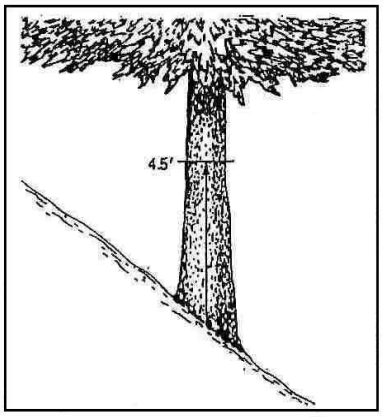
Figures 4-2. Trees with fairly straight, upright trunks with the lowest branch arising on the trunk higher than 6 feet (1.8 m) above the ground should be measured at 4.5 feet (1.4 m).

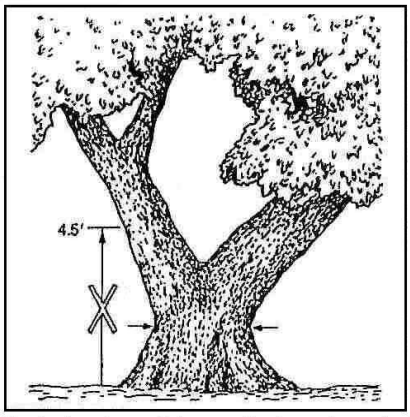


Figures 4-3 (top) and 4-4 (bottom). In each case, the trunk circumference should be measured at right angles to the trunk 4.5 feet (1.4 cm) along the center of the trunk axis so the height is the average of the s hortest and longest sides of the trunk.

There are some exceptions to the dbh standard as shown in the figures 4-3, 4-4, 4-5 & 4-6.

Figure 4-6. In a multi-stem tree, measure the trunk circumference of each trunk at 4.5 feet (1.4 m) above the ground. The area of each trunk is determined and then added together to obtain a trunk area that is representative of the size of the tree and each of the stems contribute its proportionate share to the canopy.





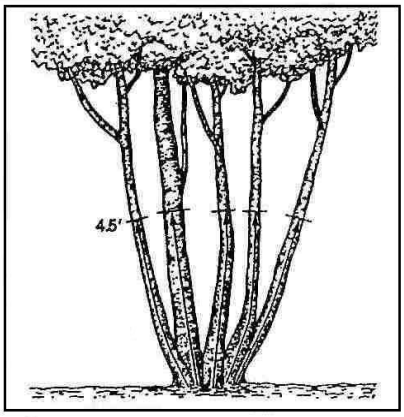


Figure 4-5. When low branches preclude measuring the trunk at 4.5 feet (1.4 m) measure the smallest circumference below the smallest branch. In this example, an alternative would be to determine the sum of the cross-sectional areas of the two stems measured about 12 inches (30 cm) above the crotch; then average the sum of the two branch areas and the smallest cross-sectional area below the branches. This may give a better estimate of tree size. Record the height of measurement(s) and the reasons the height or those heights were chosen.

ABACUS
"Where Every Detail Counts"
145 Duncan Hill Rd.
Auburn, CA 95603
Phone & Fax (530) 889-0603
Email: ken@abacus-tree.com
www.abacus-tree.com

Tree SIZE Expressed by Trunk Diameter	
Scale: NTS	Drawing: TSE

ABACUS
CONSULTING ARBORISTS

P.O. Box 4248
Auburn, CA 95604
www.abacus-tree.com (530) 305-0165 Nicole.Abacus@gmail.com

Disclosure, Assumptions and Disclaimer

1) I, Nicole Harrison, *ISA Certified Arborist WE-6500AM*, with "**ABACUS**", did personally inspect the site and investigated the tree(s) as mentioned in this report and I performed all aspects of this report unless noted otherwise in the report.

2) We have neither financial interest in the tree work that may or may not be done, nor financial interest in the property where the tree(s) is (are) located unless noted within the report.

3) All opinions and recommendations expressed herein this report are ours solely. We have used our specialized education, knowledge, training and experience to examine the tree(s) and to make our opinions and recommendations to enhance the beauty, health and longevity, with an attempt to reduce the risk of who and/or what is near these trees. We cannot guarantee or warranty that a tree will not be healthy or safe under all circumstances, nor for a specific period of time or that problems may not arise in the future.

4) Our report with its opinions and recommendations are limited to the tree(s) inspected.

5) We attempt to be cognizant of the whole scope of a project, but many matters are beyond the scope of our professional consulting arborist services such as: exact property boundaries, property ownership, site lines, easements, codes, covenants & restrictions (CC&Rs), disputed between neighbors, and other issues.

6) We rely on the information disclosed to us and assume the information to be complete, true, and accurate.

7) The inspection is limited to visual examination of accessible items of the tree(s), from the ground unless otherwise noted, without excavation, probing, boring, or dissection, unless noted otherwise. Only information covered in this report was examined, and reflects the condition of those inspected items at that specific time.

8) Clients may choose to accept or disregard these opinions and recommendations of the arborist or to seek additional advice.

9) This report is copyrighted. Any modification or partial use shall nullify the whole report. Do not copy without written permission. This report is for the client and the client's assignees.

10) Sketches, diagrams, graphs, drawings, and photographs within this report are intended as visual aids and are not necessarily to scale, and should not be construed as engineering or architectural detail, reports or surveys.

11) We shall not attend or give a deposition and/or attend court by reason of this report unless fees are contracted for in advance, according to our standard fee schedule, adjusted yearly, for such services as described.

Signed: 

Roseville Old Town Lofts

Placer-Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	23.00	Dwelling Unit	0.89	44,905.00	66

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2021
Utility Company	Roseville Electric				
CO2 Intensity (lb/MWhr)	793.8	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Start of construction and operational year is estimated.

Land Use - Lot acreage is based on actual lot size of porject site.
Square feet is based on total square footage of units.

Grading - Total acres graded based on proposed grading plan.

Demolition - Demolition of existing single-family residence and garage.

Energy Use -

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	0.00	0.89
tblLandUse	LandUseSquareFeet	41,400.00	44,905.00
tblLandUse	LotAcreage	7.47	0.89

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0432	0.4309	0.3398	5.5000e-004	5.4800e-003	0.0259	0.0314	1.4900e-003	0.0239	0.0254	0.0000	49.4060	49.4060	0.0135	0.0000	49.7436
2020	0.2954	0.1408	0.1230	2.0000e-004	1.3800e-003	8.0800e-003	9.4600e-003	3.7000e-004	7.4600e-003	7.8300e-003	0.0000	17.7559	17.7559	5.0000e-003	0.0000	17.8809
Maximum	**0.2954**	**0.4309**	**0.3398**	**5.5000e-004**	**5.4800e-003**	**0.0259**	**0.0314**	**1.4900e-003**	**0.0239**	**0.0254**	**0.0000**	**49.4060**	**49.4060**	**0.0135**	**0.0000**	**49.7436**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0432	0.4309	0.3398	5.5000e-004	5.4800e-003	0.0259	0.0314	1.4900e-003	0.0239	0.0254	0.0000	49.4059	49.4059	0.0135	0.0000	49.7435
2020	0.2954	0.1408	0.1230	2.0000e-004	1.3800e-003	8.0800e-003	9.4600e-003	3.7000e-004	7.4600e-003	7.8300e-003	0.0000	17.7559	17.7559	5.0000e-003	0.0000	17.8809
Maximum	**0.2954**	**0.4309**	**0.3398**	**5.5000e-004**	**5.4800e-003**	**0.0259**	**0.0314**	**1.4900e-003**	**0.0239**	**0.0254**	**0.0000**	**49.4059**	**49.4059**	**0.0135**	**0.0000**	**49.7435**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2019	11-30-2019	0.3521	0.3521
2	12-1-2019	2-29-2020	0.5577	0.5577
		Highest	0.5577	0.5577

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6518	0.0302	1.9526	3.2400e-003		0.2507	0.2507		0.2507	0.2507	23.7580	10.2427	34.0008	0.0222	1.8700e-003	35.1125
Energy	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	101.6351	101.6351	3.1600e-003	1.1100e-003	102.0449
Mobile	0.0702	0.4999	0.8255	3.1300e-003	0.2314	2.7800e-003	0.2342	0.0623	2.6200e-003	0.0649	0.0000	288.0118	288.0118	0.0113	0.0000	288.2946
Waste						0.0000	0.0000		0.0000	0.0000	4.8231	0.0000	4.8231	0.2850	0.0000	11.9489
Water						0.0000	0.0000		0.0000	0.0000	0.4754	4.1102	4.5856	0.0490	1.1800e-003	6.1629
Total	**1.7252**	**0.5574**	**2.7897**	**6.5400e-003**	**0.2314**	**0.2557**	**0.4871**	**0.0623**	**0.2556**	**0.3178**	**29.0565**	**403.9998**	**433.0563**	**0.3707**	**4.1600e-003**	**443.5639**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6518	0.0302	1.9526	3.2400e-003		0.2507	0.2507		0.2507	0.2507	23.7580	10.2427	34.0008	0.0222	1.8700e-003	35.1125
Energy	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	101.6351	101.6351	3.1600e-003	1.1100e-003	102.0449
Mobile	0.0655	0.4569	0.7201	2.6500e-003	0.1922	2.3700e-003	0.1945	0.0517	2.2300e-003	0.0539	0.0000	244.2395	244.2395	0.0103	0.0000	244.4962
Waste						0.0000	0.0000		0.0000	0.0000	4.8231	0.0000	4.8231	0.2850	0.0000	11.9489
Water						0.0000	0.0000		0.0000	0.0000	0.4754	4.1102	4.5856	0.0490	1.1800e-003	6.1629
Total	**1.7205**	**0.5145**	**2.6843**	**6.0600e-003**	**0.1922**	**0.2553**	**0.4475**	**0.0517**	**0.2552**	**0.3069**	**29.0565**	**360.2276**	**389.2841**	**0.3696**	**4.1600e-003**	**399.7655**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.28**	**7.71**	**3.78**	**7.34**	**16.95**	**0.16**	**8.14**	**16.95**	**0.15**	**3.44**	**0.00**	**10.83**	**10.11**	**0.28**	**0.00**	**9.87**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2019	9/13/2019	5	10	
2	Site Preparation	Site Preparation	9/14/2019	9/16/2019	5	1	
3	Grading	Grading	9/17/2019	9/18/2019	5	2	
4	Building Construction	Building Construction	9/19/2019	2/5/2020	5	100	
5	Paving	Paving	2/6/2020	2/12/2020	5	5	
6	Architectural Coating	Architectural Coating	2/13/2020	2/19/2020	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0.89

Acres of Paving: 0

Residential Indoor: 90,933; Residential Outdoor: 30,311; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	6.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.4000e-004	0.0000	6.4000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
Total	**4.7700e-003**	**0.0430**	**0.0385**	**6.0000e-005**	**6.4000e-004**	**2.6900e-003**	**3.3300e-003**	**1.0000e-004**	**2.5600e-003**	**2.6600e-003**	**0.0000**	**5.2601**	**5.2601**	**1.0000e-003**	**0.0000**	**5.2852**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	9.0000e-004	1.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2360	0.2360	1.0000e-005	0.0000	0.2362
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.4000e-004	1.4500e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3501	0.3501	1.0000e-005	0.0000	0.3503
Total	**2.2000e-004**	**1.0400e-003**	**1.6000e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.5000e-004**	**1.1000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.5861**	**0.5861**	**2.0000e-005**	**0.0000**	**0.5865**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.4000e-004	0.0000	6.4000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
Total	**4.7700e-003**	**0.0430**	**0.0385**	**6.0000e-005**	**6.4000e-004**	**2.6900e-003**	**3.3300e-003**	**1.0000e-004**	**2.5600e-003**	**2.6600e-003**	**0.0000**	**5.2601**	**5.2601**	**1.0000e-003**	**0.0000**	**5.2852**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	9.0000e-004	1.5000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2360	0.2360	1.0000e-005	0.0000	0.2362
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.4000e-004	1.4500e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3501	0.3501	1.0000e-005	0.0000	0.3503
Total	**2.2000e-004**	**1.0400e-003**	**1.6000e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.5000e-004**	**1.1000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.5861**	**0.5861**	**2.0000e-005**	**0.0000**	**0.5865**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	4.4600e-003	2.0700e-003	0.0000		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
Total	**3.6000e-004**	**4.4600e-003**	**2.0700e-003**	**0.0000**	**2.7000e-004**	**1.8000e-004**	**4.5000e-004**	**3.0000e-005**	**1.7000e-004**	**2.0000e-004**	**0.0000**	**0.4378**	**0.4378**	**1.4000e-004**	**0.0000**	**0.4413**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0175	0.0175	0.0000	0.0000	0.0175
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0175**	**0.0175**	**0.0000**	**0.0000**	**0.0175**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	4.4600e-003	2.0700e-003	0.0000		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
Total	**3.6000e-004**	**4.4600e-003**	**2.0700e-003**	**0.0000**	**2.7000e-004**	**1.8000e-004**	**4.5000e-004**	**3.0000e-005**	**1.7000e-004**	**2.0000e-004**	**0.0000**	**0.4378**	**0.4378**	**1.4000e-004**	**0.0000**	**0.4413**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0175	0.0175	0.0000	0.0000	0.0175
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0175**	**0.0175**	**0.0000**	**0.0000**	**0.0175**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2200e-003	0.0000	1.2200e-003	4.6000e-004	0.0000	4.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
Total	**9.5000e-004**	**8.6000e-003**	**7.6900e-003**	**1.0000e-005**	**1.2200e-003**	**5.4000e-004**	**1.7600e-003**	**4.6000e-004**	**5.1000e-004**	**9.7000e-004**	**0.0000**	**1.0520**	**1.0520**	**2.0000e-004**	**0.0000**	**1.0570**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	2.9000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0700	0.0700	0.0000	0.0000	0.0701
Total	**4.0000e-005**	**3.0000e-005**	**2.9000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0700**	**0.0700**	**0.0000**	**0.0000**	**0.0701**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2200e-003	0.0000	1.2200e-003	4.6000e-004	0.0000	4.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
Total	**9.5000e-004**	**8.6000e-003**	**7.6900e-003**	**1.0000e-005**	**1.2200e-003**	**5.4000e-004**	**1.7600e-003**	**4.6000e-004**	**5.1000e-004**	**9.7000e-004**	**0.0000**	**1.0520**	**1.0520**	**2.0000e-004**	**0.0000**	**1.0570**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	2.9000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0700	0.0700	0.0000	0.0000	0.0701
Total	**4.0000e-005**	**3.0000e-005**	**2.9000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0700**	**0.0700**	**0.0000**	**0.0000**	**0.0701**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0354	0.3634	0.2791	4.2000e-004		0.0224	0.0224		0.0206	0.0206	0.0000	37.8512	37.8512	0.0120	0.0000	38.1506
Total	**0.0354**	**0.3634**	**0.2791**	**4.2000e-004**		**0.0224**	**0.0224**		**0.0206**	**0.0206**	**0.0000**	**37.8512**	**37.8512**	**0.0120**	**0.0000**	**38.1506**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3000e-004	9.5300e-003	1.9700e-003	2.0000e-005	4.8000e-004	6.0000e-005	5.4000e-004	1.4000e-004	6.0000e-005	2.0000e-004	0.0000	2.0588	2.0588	1.1000e-004	0.0000	2.0615
Worker	1.1200e-003	8.1000e-004	8.5800e-003	2.0000e-005	2.3200e-003	2.0000e-005	2.3400e-003	6.2000e-004	1.0000e-005	6.3000e-004	0.0000	2.0725	2.0725	6.0000e-005	0.0000	2.0739
Total	**1.4500e-003**	**0.0103**	**0.0106**	**4.0000e-005**	**2.8000e-003**	**8.0000e-005**	**2.8800e-003**	**7.6000e-004**	**7.0000e-005**	**8.3000e-004**	**0.0000**	**4.1313**	**4.1313**	**1.7000e-004**	**0.0000**	**4.1354**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0354	0.3634	0.2791	4.2000e-004		0.0224	0.0224		0.0206	0.0206	0.0000	37.8511	37.8511	0.0120	0.0000	38.1505
Total	**0.0354**	**0.3634**	**0.2791**	**4.2000e-004**		**0.0224**	**0.0224**		**0.0206**	**0.0206**	**0.0000**	**37.8511**	**37.8511**	**0.0120**	**0.0000**	**38.1505**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3000e-004	9.5300e-003	1.9700e-003	2.0000e-005	4.8000e-004	6.0000e-005	5.4000e-004	1.4000e-004	6.0000e-005	2.0000e-004	0.0000	2.0588	2.0588	1.1000e-004	0.0000	2.0615
Worker	1.1200e-003	8.1000e-004	8.5800e-003	2.0000e-005	2.3200e-003	2.0000e-005	2.3400e-003	6.2000e-004	1.0000e-005	6.3000e-004	0.0000	2.0725	2.0725	6.0000e-005	0.0000	2.0739
Total	**1.4500e-003**	**0.0103**	**0.0106**	**4.0000e-005**	**2.8000e-003**	**8.0000e-005**	**2.8800e-003**	**7.6000e-004**	**7.0000e-005**	**8.3000e-004**	**0.0000**	**4.1313**	**4.1313**	**1.7000e-004**	**0.0000**	**4.1354**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0112	0.1151	0.0960	1.5000e-004		6.7900e-003	6.7900e-003		6.2500e-003	6.2500e-003	0.0000	13.0079	13.0079	4.2100e-003	0.0000	13.1130
Total	**0.0112**	**0.1151**	**0.0960**	**1.5000e-004**		**6.7900e-003**	**6.7900e-003**		**6.2500e-003**	**6.2500e-003**	**0.0000**	**13.0079**	**13.0079**	**4.2100e-003**	**0.0000**	**13.1130**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	3.0900e-003	6.1000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.7177	0.7177	4.0000e-005	0.0000	0.7186
Worker	3.6000e-004	2.5000e-004	2.7000e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.2000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7049	0.7049	2.0000e-005	0.0000	0.7053
Total	**4.6000e-004**	**3.3400e-003**	**3.3100e-003**	**2.0000e-005**	**9.9000e-004**	**2.0000e-005**	**1.0000e-003**	**2.7000e-004**	**2.0000e-005**	**2.8000e-004**	**0.0000**	**1.4226**	**1.4226**	**6.0000e-005**	**0.0000**	**1.4239**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0112	0.1151	0.0960	1.5000e-004		6.7900e-003	6.7900e-003		6.2500e-003	6.2500e-003	0.0000	13.0079	13.0079	4.2100e-003	0.0000	13.1130
Total	**0.0112**	**0.1151**	**0.0960**	**1.5000e-004**		**6.7900e-003**	**6.7900e-003**		**6.2500e-003**	**6.2500e-003**	**0.0000**	**13.0079**	**13.0079**	**4.2100e-003**	**0.0000**	**13.1130**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	3.0900e-003	6.1000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.7177	0.7177	4.0000e-005	0.0000	0.7186
Worker	3.6000e-004	2.5000e-004	2.7000e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.2000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7049	0.7049	2.0000e-005	0.0000	0.7053
Total	**4.6000e-004**	**3.3400e-003**	**3.3100e-003**	**2.0000e-005**	**9.9000e-004**	**2.0000e-005**	**1.0000e-003**	**2.7000e-004**	**2.0000e-005**	**2.8000e-004**	**0.0000**	**1.4226**	**1.4226**	**6.0000e-005**	**0.0000**	**1.4239**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9300e-003	0.0181	0.0178	3.0000e-005		9.9000e-004	9.9000e-004		9.2000e-004	9.2000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.9300e-003**	**0.0181**	**0.0178**	**3.0000e-005**		**9.9000e-004**	**9.9000e-004**		**9.2000e-004**	**9.2000e-004**	**0.0000**	**2.3482**	**2.3482**	**6.8000e-004**	**0.0000**	**2.3653**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.1700e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3050	0.3050	1.0000e-005	0.0000	0.3052
Total	**1.6000e-004**	**1.1000e-004**	**1.1700e-003**	**0.0000**	**3.5000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3050**	**0.3050**	**1.0000e-005**	**0.0000**	**0.3052**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9300e-003	0.0181	0.0178	3.0000e-005		9.9000e-004	9.9000e-004		9.2000e-004	9.2000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.9300e-003**	**0.0181**	**0.0178**	**3.0000e-005**		**9.9000e-004**	**9.9000e-004**		**9.2000e-004**	**9.2000e-004**	**0.0000**	**2.3482**	**2.3482**	**6.8000e-004**	**0.0000**	**2.3653**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.1700e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.3050	0.3050	1.0000e-005	0.0000	0.3052
Total	**1.6000e-004**	**1.1000e-004**	**1.1700e-003**	**0.0000**	**3.5000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3050**	**0.3050**	**1.0000e-005**	**0.0000**	**0.3052**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2810					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
Total	**0.2816**	**4.2100e-003**	**4.5800e-003**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6396**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0339	0.0339	0.0000	0.0000	0.0339
Total	**2.0000e-005**	**1.0000e-005**	**1.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0339**	**0.0339**	**0.0000**	**0.0000**	**0.0339**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2810					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
Total	**0.2816**	**4.2100e-003**	**4.5800e-003**	**1.0000e-005**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**5.0000e-005**	**0.0000**	**0.6396**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0339	0.0339	0.0000	0.0000	0.0339
Total	**2.0000e-005**	**1.0000e-005**	**1.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0339**	**0.0339**	**0.0000**	**0.0000**	**0.0339**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0655	0.4569	0.7201	2.6500e-003	0.1922	2.3700e-003	0.1945	0.0517	2.2300e-003	0.0539	0.0000	244.2395	244.2395	0.0103	0.0000	244.4962
Unmitigated	0.0702	0.4999	0.8255	3.1300e-003	0.2314	2.7800e-003	0.2342	0.0623	2.6200e-003	0.0649	0.0000	288.0118	288.0118	0.0113	0.0000	288.2946

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	218.96	227.93	198.26	622,420	516,936
Total	218.96	227.93	198.26	622,420	516,936

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.494811	0.040252	0.220236	0.128508	0.023782	0.006284	0.029295	0.046215	0.001446	0.001205	0.005961	0.000773	0.001232

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	69.9265	69.9265	2.5500e-003	5.3000e-004	70.1478
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	69.9265	69.9265	2.5500e-003	5.3000e-004	70.1478
NaturalGas Mitigated	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7087	31.7087	6.1000e-004	5.8000e-004	31.8971
NaturalGas Unmitigated	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7087	31.7087	6.1000e-004	5.8000e-004	31.8971

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	594198	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7087	31.7087	6.1000e-004	5.8000e-004	31.8971
Total		**3.2000e-003**	**0.0274**	**0.0117**	**1.7000e-004**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**31.7087**	**31.7087**	**6.1000e-004**	**5.8000e-004**	**31.8971**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	594198	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7087	31.7087	6.1000e-004	5.8000e-004	31.8971
Total		**3.2000e-003**	**0.0274**	**0.0117**	**1.7000e-004**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**31.7087**	**31.7087**	**6.1000e-004**	**5.8000e-004**	**31.8971**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	194207	69.9265	2.5500e-003	5.3000e-004	70.1478
Total		**69.9265**	**2.5500e-003**	**5.3000e-004**	**70.1478**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	194207	69.9265	2.5500e-003	5.3000e-004	70.1478
Total		**69.9265**	**2.5500e-003**	**5.3000e-004**	**70.1478**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.6518	0.0302	1.9526	3.2400e-003		0.2507	0.2507		0.2507	0.2507	23.7580	10.2427	34.0008	0.0222	1.8700e-003	35.1125
Unmitigated	1.6518	0.0302	1.9526	3.2400e-003		0.2507	0.2507		0.2507	0.2507	23.7580	10.2427	34.0008	0.0222	1.8700e-003	35.1125

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1754					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.4432	0.0282	1.7814	3.2300e-003		0.2498	0.2498		0.2498	0.2498	23.7580	9.9638	33.7218	0.0219	1.8700e-003	34.8268
Landscaping	5.1900e-003	1.9800e-003	0.1712	1.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	0.2790	0.2790	2.7000e-004	0.0000	0.2857
Total	**1.6518**	**0.0302**	**1.9526**	**3.2400e-003**		**0.2507**	**0.2507**		**0.2507**	**0.2507**	**23.7580**	**10.2427**	**34.0008**	**0.0222**	**1.8700e-003**	**35.1125**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1754					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.4432	0.0282	1.7814	3.2300e-003		0.2498	0.2498		0.2498	0.2498	23.7580	9.9638	33.7218	0.0219	1.8700e-003	34.8268
Landscaping	5.1900e-003	1.9800e-003	0.1712	1.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	0.2790	0.2790	2.7000e-004	0.0000	0.2857
Total	**1.6518**	**0.0302**	**1.9526**	**3.2400e-003**		**0.2507**	**0.2507**		**0.2507**	**0.2507**	**23.7580**	**10.2427**	**34.0008**	**0.0222**	**1.8700e-003**	**35.1125**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.5856	0.0490	1.1800e-003	6.1629
Unmitigated	4.5856	0.0490	1.1800e-003	6.1629

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.49854 / 0.944733	4.5856	0.0490	1.1800e-003	6.1629
Total		**4.5856**	**0.0490**	**1.1800e-003**	**6.1629**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.49854 / 0.944733	4.5856	0.0490	1.1800e-003	6.1629
Total		**4.5856**	**0.0490**	**1.1800e-003**	**6.1629**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.8231	0.2850	0.0000	11.9489
Unmitigated	4.8231	0.2850	0.0000	11.9489

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	23.76	4.8231	0.2850	0.0000	11.9489
Total		**4.8231**	**0.2850**	**0.0000**	**11.9489**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	23.76	4.8231	0.2850	0.0000	11.9489
Total		**4.8231**	**0.2850**	**0.0000**	**11.9489**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT – PLANNING DIVISION
311 Vernon Street, Roseville, CA 95678 (916) 774-5276

MITIGATION MONITORING AND REPORTING PROGRAM

Project Title/File Number:	INFILL PCL 246 – Roseville Old Town Lofts, File #PL18-0178
Project Location:	241 Nevada Avenue, Roseville, Placer County, CA; APN: 013-192-036-000
Project Description:	The project consists of the construction of 23 attached single-family dwellings. The project includes a request for a General Plan Amendment to change the land use designation of the property from Business Professional (BP) to High Density Residential (HDR), a Rezone to add a special area (SA) overlay to the existing Attached Housing (R3) zone to modify the development standards, a Tentative Subdivision Map, a Design Review Permit, and a Tree Permit.
Environmental Document	Mitigated Negative Declaration
Project Applicant:	Phil Harvey, Kuchman Architects
Property Owner:	Robert Pegos
Lead Agency Contact Person:	Kinarik Shallow, Assistant Planner, (916) 746-1309

Section 21081.6 of the California Public Resources Code requires public agencies to "adopt a reporting and monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." This Mitigation Monitoring and Reporting Program has been adopted for the purpose of avoiding environmental impacts

MONITORING PROCESS: Existing monitoring mechanisms are in place that assist the City of Roseville in meeting the intent of CEQA. These existing monitoring mechanisms eliminate the need to develop new monitoring processes for each mitigation measure. These mechanisms include grading plan review and approval, improvement/building plan review and approval and on-site inspections by City Departments. Given that these monitoring processes are requirements of the project, they are not included in the mitigation monitoring program.

It shall be the responsibility of the project applicant/owner to provide written notification to the City using the Mitigation Verification Cover Sheet and Forms, in a timely manner, of the completion of each Mitigation Measure as identified on the following pages. The City will verify that the project is in compliance with the adopted Mitigation Monitoring and Reporting Program. Any non-compliance will be reported by the City to the applicant/owner, and it shall be the project applicant's/owner's responsibility to rectify the situation by bringing the project into compliance. The purpose of this program is to ensure diligent and good faith compliance with the Mitigation Measures which have been adopted as part of the project.

TABLE OF MITIGATION MEASURES

Mitigation Measure	Implementation	Timing	Reviewing Party	Documents to be Submitted to City	Staff Use Only
MM BIO-1 Migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA and/or Section 3503 of the California Fish and Game Code, including Nuttall's woodpecker, loggerhead shrike, yellow-billed magpie, oak titmouse, grasshopper sparrow, song sparrow, purple martin, and white-tailed kite have the potential to nest within the trees within the riparian woodland and within the annual grassland. Ground-disturbing activities and/or vegetation clearing operations, including pruning or removal of trees and shrubs, shall be completed between September 1 to February 14, if feasible. If ground-disturbing activities and/or vegetation removal begins during the nesting season (February 15 to August 31), the developer shall have a qualified biologist conduct a pre-construction survey for active nests within 300 feet of the Project Site. The pre-construction survey will be conducted within 14 days prior to commencement of ground-disturbing activities and/or vegetation removal. The biologist shall provide a brief written report (including the date, time of survey, survey method, name of surveyor, and survey results) to City Planning prior to any ground-disturbing activity or vegetation removal. If the pre-construction survey shows that there is no evidence of active nests, no additional measures are required. If construction does not commence within 14 days of the pre-construction survey, or halts for more than 14 days, an additional pre-construction survey shall be required. If any active nests are located within the vicinity of the proposed project the qualified biologist shall delineate an appropriate buffer zone, subject to approval of City Planning and in consultation with any other appropriate agencies, with construction tape or pin flags and maintain the buffer zone until the end of the breeding season or the young have successfully fledged. Buffer zones are typically 100 feet for migratory bird nests and 250 feet for raptor nests. If active nests are found onsite, a qualified biologist shall monitor nests weekly during construction to ensure activities are not causing nesting disturbance.	Results of preconstruction surveys shall be submitted prior to the issuance of a grading permit or Improvement Plans. Applicable construction restrictions shall be reflected within plans.	*Pre-Construction and Construction*: Surveys required prior to construction. If surveys are positive for birds, then remainder of mitigation steps are required prior to construction. Add as note on Improvement Plans.	Planning and Engineering	Nesting bird surveys	
CUL-1: Should any cultural resources, such as structural features, any amount of bone or shell, artifacts, human remains, or architectural remains, be encountered during any subsurface development activities, work shall be suspended within 100-feet of the find. The City of Roseville Planning and Public Works Staff shall be immediately notified. At that time, as deemed necessary by the City, the developer shall retain a qualified archaeologist to assess the resource and provide proper management recommendations should potential impacts to the resources be found to be significant. All work by the archeologist shall be completed in consultation with and subject to the approval of City Planning. The archeologist shall also coordinate with and consult potentially-affected tribal representatives. Possible management recommendations for important resources could include resource avoidance or preservation in place. The contractor shall implement any measures deemed feasible and necessary by City staff, in consultation with the archaeologists, to avoid or minimize significant effects to the cultural resources. In addition, pursuant to Section 5097.98 or the State Public Resources Code, and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.	Project Applicant/Contractor/Qualified Archaeologist	During Construction	City of Roseville Planning and Public Works, and County Coroner		

CITY OF ROSEVILLE CALIFORNIA

DEVELOPMENT SERVICES DEPARTMENT
311 Vernon Street, Roseville, CA 95678 (916) 774-5276

MITIGATION VERIFICATION SUBMITTAL COVER SHEET

Project Title/Planning File #	INFILL PCL 246 – Roseville Old Town Lofts, File #PL18-0178
Project Address	241 Nevada Avenue
Property Owner	Robert Pegos
Planning Division Contact	Kinarik Shallow, Assistant Planner, Phone (916) 746-1309

SUMMARY OF VERIFICATION MATERIALS INCLUDED IN THIS SUBMITTAL

Mitigation Measure	Supporting Attachments Included	Date Complete

I HAVE ATTACHED THE FOLLOWING REQUIRED ITEMS:

☐ Table of Applicable Mitigation Measures

☐ Mitigation Verification Form(s)

☐ Specific supporting documentation required by measure(s), if applicable (e.g. biologist's report)

I hereby certify under penalty of perjury under the laws of the State of California that I am the property owner or an agent of the property owner and am authorized to submit this Mitigation Verification Form. I also certify that the above-listed mitigation measures have been completed in the manner required, and that all of the information in this submittal is true and correct, to the best of my knowledge:

Signature and Date _____ Print Name _____ Contact Number _____

MITIGATION VERIFICATION FORM

Mitigation Measure

Description of Monitoring and Verification Work Performed. The following information is a required part of the description: dates, personnel names or titles, and the stage/phase of construction work. Additional notes sheets may be attached, if necessary, or the below may simply reference a separate attachment that provides the required information.

INSTRUCTIONS

COVER SHEET:

A Cover Sheet for the project/development is prepared by City staff, with the top portion filled out. Each time Mitigation Verification Forms(s) are being submitted, a Cover Sheet completed by the Developer, Contractor, or Designee is required. An example of a completed summary table is provided below. The signature on the Cover Sheet must be *original wet ink*.

EXAMPLE MITIGATION VERIFICATION SUBMITTAL COVER SHEET

Project Title/Planning File #	New Coffee Shop, PL15-0000
Project Address	10 Justashort Street
Property Owner	Jane Owner
Planning Division Contact	Joe Planner, Associate Planner, (916) 774-####

SUMMARY OF VERIFICATION MATERIALS INCLUDED IN THIS SUBMITTAL

Mitigation Measure	Supporting Attachments Included	Date Complete
MM-3	Copy of survey report signed by biologist	5/10/2016
MM-4	All information included in Mitigation Verification Form	5/12/2016
MM-5	E-mail from Air District approving Dust Control Plan	5/05/2016

MITIGATION VERIFICATION FORM:

A Mitigation Verification Form is provided by City staff, along with the Cover Sheet and Table of Applicable Mitigation Measures. A form is filled in and submitted for each mitigation measure by the Developer, Contractor, or Designee. The form needs only the mitigation number to be filled in, along with the Description of Monitoring and Verification Work Performed. Multiple forms may be submitted simultaneously, under one cover sheet. It is also permissible to submit a form for each part of a measure, on separate dates. For instance, in the example measure MM-4 in the table above, the actual mitigation requires informing construction workers *and* retaining a qualified archeologist if resources are uncovered. Thus, a developer may submit a form in May certifying that construction workers have been informed, and also submit a second copy of the form in July because resources were discovered and additional actions had to be undertaken.

Each mitigation measure specifies the type of supporting documentation required; this must be submitted in order for the City to accept the mitigation as complete. An example of a completed Mitigation Verification Form is provided below.

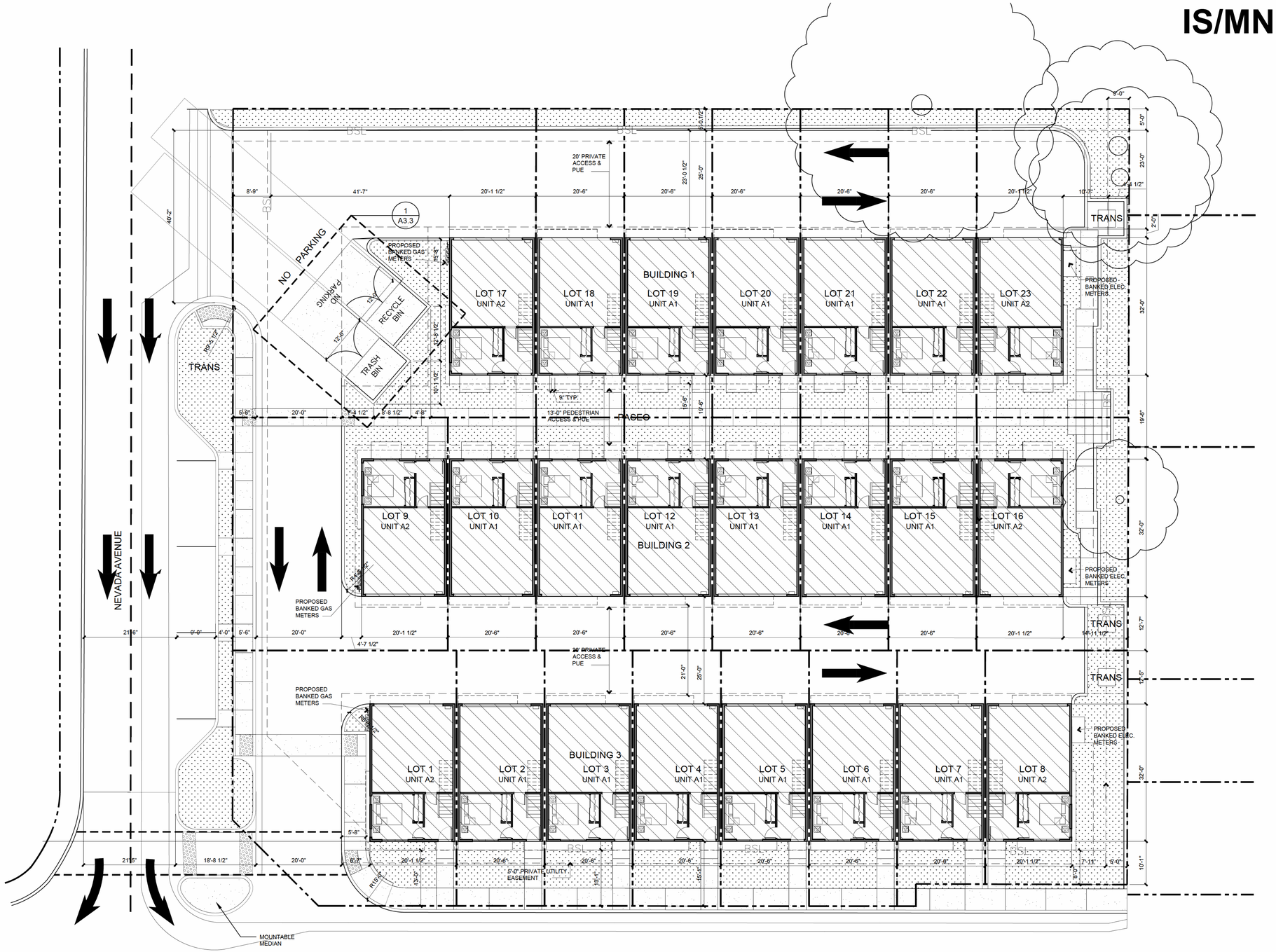
EXAMPLE
MITIGATION VERIFICATION FORM

Mitigation Measure MM3

Description of Monitoring and Verification Work Performed. The following information is a required part of the description: dates, personnel names or titles, and the stage/phase of construction work. Additional notes sheets may be attached, if necessary, or the below may simply reference a separate attachment that provides the required information.

The mitigation measure text is included on the Improvement Plans General Notes page (Improvement Plan EN15-0001). On May 4, 2016, prior to any ground-disturbing activities (the pre-construction phase), a site meeting was held. At this meeting, workers on the site were informed of the potential to unearth remains, and were instructed to cease work and notify their supervisor immediately if any resources were observed.

IS/MND EXHIBIT A



03/01/19	3	CYCLE 4 - SUBMITTAL OK
11/19/18	2	CYCLE 3 - SUBMITTAL OK
08/16/18	1	CYCLE 2 - SUBMITTAL OK

City of Roseville Approval

0 2 5 10 20

SCALE 1" = 10'-0"

March 1, 2019

C&P DEVELOPMENT L.L.C.

Roseville Old Town Lofts

Roseville, California

SITE PLAN

kuchman ARCHITECTS PC

A1.1

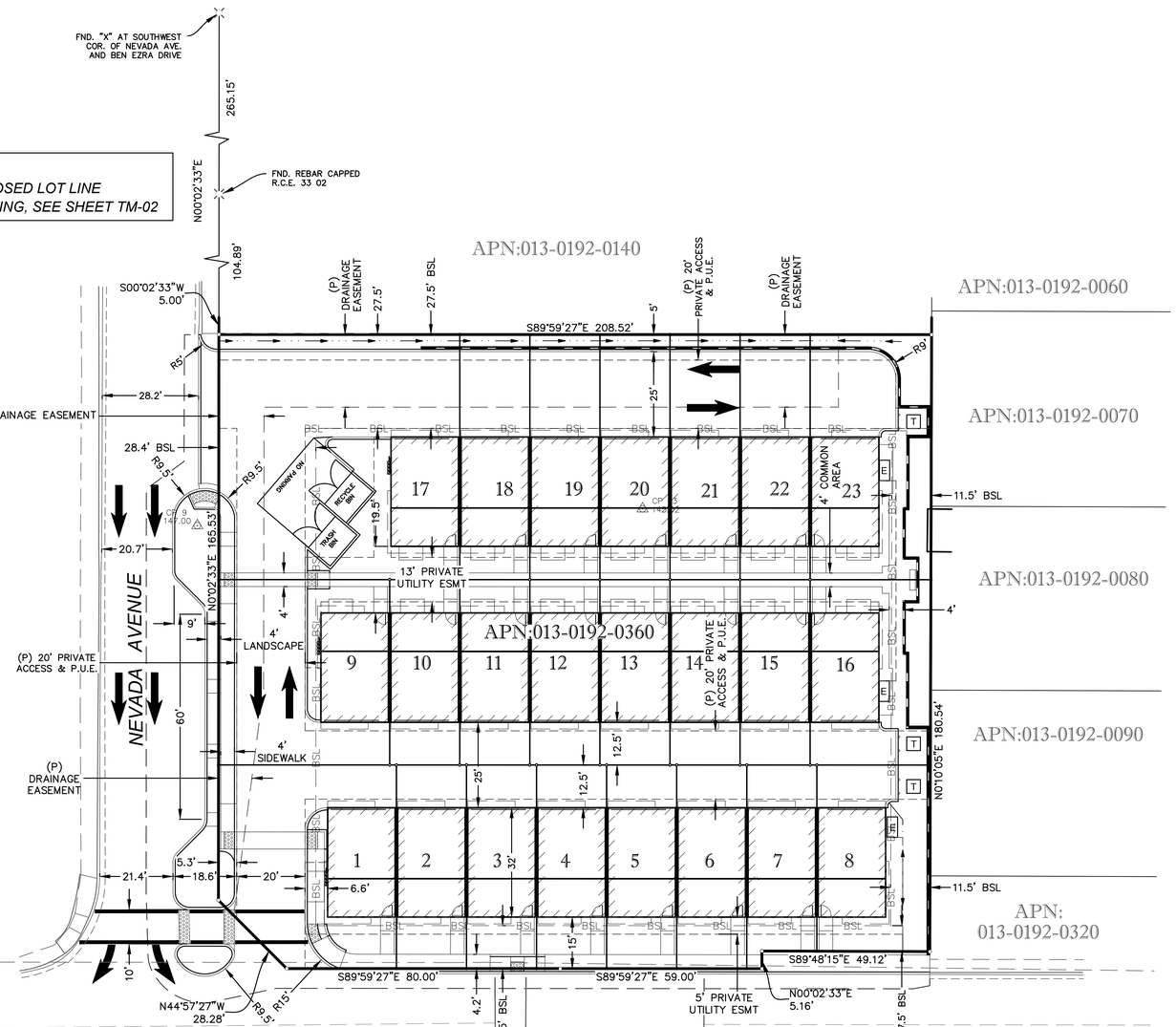
IS/MND EXHIBIT B

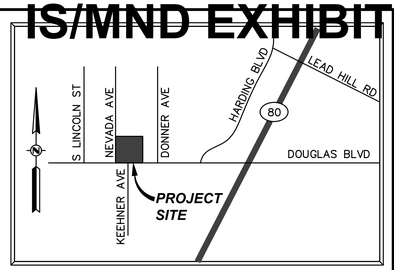
TENTATIVE SUBDIVISION MAP FOR:
ROSEVILLE OLD TOWN LOFTS
241 NEVADA AVENUE
ROSEVILLE, CA 95678
APN: 013-192-036-000

LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
ROW		
EASEMENT		
LOT LINE		
CENTERLINE		
BUILDING SETBACK LINE		BSL
SW, CURB & GUTTER		
DITCH / FLOWLINE		
EP		
STORM DRAIN	XX"SD	XX"SD
SANITARY SEWER	XX"SS	XX"SS
WATER	XX"W	XX"W
GAS LINE	GAS	
SDMH		
DROP INLET		
SSMH		
SSCO		
FIRE HYDRANT		
WATER VALVE		
WATER METER		WM
UTILITY POLE		
FENCE	X	X
RETAINING WALL		
BLOCK SCREEN WALL		
INDEX CONTOUR	25	25
INTERMEDIATE CONTOURS		
TREE & DRIP		REMOVAL
FINISHED FLOOR ELEVATION	FF: 123.00	FF: 123.00
BUILDING		

NOTE:
FOR PROPOSED LOT LINE DIMENSIONING, SEE SHEET TM-02





VICINITY MAP
NOT TO SCALE

PROPERTY INFORMATION

LOCATION: 241 NEVADA AVENUE, ROSEVILLE, CA		
APN: 013-0192-0360		
PROPERTY AREA: 0.89 AC (38,838 SF)		
EXISTING ZONE: R3	PROPOSED ZONE: R3/DS	
EXISTING USE: BUSINESS POTENTIAL	PROPOSED USE: SINGLE FAMILY HIGH DENSITY RESIDENTIAL	
ITEM	**REQUIREMENTS**	**PROVIDED**
SETBACKS (MIN) SEE CHAPTER 19.22 FOR SETBACKS		
FRONT SETBACK	N/A	7.50' MIN
SIDE SETBACK	N/A	11.50' MIN
SIDE (FRONTAGE) SETBACK	N/A	28.40' MIN
REAR SETBACK	N/A	27.50' MIN
SITE COVERAGE	50%	
HEIGHT LIMITS	45 FT	
REFERENCE IS MADE TO THE CITY OF ROSEVILLE ZONING ORDINANCE 19.10.030		

ABBREVIATIONS:

AC	ASPHALT CONCRETE	℄	PROPERTY LINE
DI	DROP INLET	PUE	PUBLIC UTILITY EASEMENT
BSL	BUILDING SETBACK LINE	(P)	PROPOSED
BW	BOTTOM WALL	SDMH	STORM DRAIN MANHOLE
CL	CENTERLINE	SSCO	SANITARY SEWER CLEANOUT
(E)	EXISTING	SSMH	SANITARY SEWER MANHOLE
EP	EDGE OF PAVEMENT	TBC	TOP BACK OF CURB
FL	FLOW LINE	TW	TOP OF WALL
GR	GRATE	UG	UNDERGROUND
INV	INVERT	WA	WATER
IRR	IRRIGATION	WM	WATER METER
OH	OVER HEAD POWER LINES		

811
Know what's **below.**
Call before you dig.
or (800) 227-2600

20 0 20 40
1 INCH = 20 FEET

UTILITY REPRESENTATIVES			
UTILITY	**UTILITY CO.**	**CONTACT**	**PHONE**
U.S.A.			1-800-227-2600
TELEPHONE	ROSEVILLE TELEPHONE		(916) 786-1202
GAS	PACIFIC GAS & ELECTRIC		(916) 899-3269
ELECTRIC	ROSEVILLE ELECTRIC UTILITY	ANDREW KOTZ	(916) 746-1662
FIRE	ROSEVILLE FIRE DEPT.	PATRICK CHEW	(916) 774-5823
WATER & SEWER	CITY OF ROSEVILLE DEPT. OF ENVIRONMENTAL UTILITIES	DAVE SAMUELSON	(916) 774-5770
DRAINAGE	DEVELOPMENT SERVICES ENGINEERING	MATT TODD	(916) 774-5339
CABLE T.V.	SUREWEST		(916) 786-3232

SHEET INDEX:

CIVIL

PROPERTY OWNER / DEVELOPER:
C&P DEVELOPMENT
CONTACT: KARLTON CASTLES / ROBERT PEGOS
916-218-0728 / 916-764-4201

TOPOGRAPHIC SURVEY:
SURVEY BY RFE ENGINEERING, INC.
DATED: 08-20-2015

BASIS OF BEARINGS
THE BASIS OF BEARINGS OF THIS SURVEY IS BASED ON THE EAST RIGHT OF WAY LINE OF NEVADA AVENUE AS SHOWN ON THE PARCEL MAP FILED FOR RECORD IN BOOK 35 OF PARCEL MAPS, AT PAGE 19, THE BEARING OF WHICH IS N 00°02' 33" E AND WAS ESTABLISHED FROM RECORD MONUMENTS FOUND THEREON.

BENCHMARK:
THE BENCHMARK USED FOR THIS SURVEY WAS THE CITY OF ROSEVILLE BENCHMARK NO. 83, WHICH IS A 3 ¼" BRASS DISC STAMPED "SEPT 97 LS 4519" LOCATED IN THE NORTHEAST CORNER OF THE DOUGLAS BLVD. BRIDGE OVER DRY CREEK.
ELEVATION = 142.237 (DATUM: CITY OF ROSEVILLE NGVD 1929)

FLOOD NOTE:
SUBJECT PROPERTY IS LOCATED WITHIN ZONE "X", AREAS WITHIN ZONE "X" ARE DETERMINED TO BE OUTSIDE THE 0.2 ANNUAL CHANCE FLOOD PLAIN AS DETERMINED BY THE NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP COMMUNITY:
PANEL NO. 06061C0478
DATED: JUNE 8, 1998

PRELIMINARY TITLE REPORT:
CHICAGO TITLE COMPANY
TITLE NO. FSJP-8501800407-RV
DATED: JUNE 23, 2015
UPDATED: APRIL 13, 2018

ARBORIST REPORT:
ABACUS CONSULTING ARBORISTS
DATED: APRIL 07, 2018

PROPOSED LOT AREAS:
AS SHOWN ON SHEET TM-02

ENGINEER AND SURVEYOR:
RFE ENGINEERING, INC.
2260 DOUGLAS BLVD, SUITE 160
ROSEVILLE, CA 95661

JURISDICTION:
CITY OF ROSEVILLE

REFUSE:
CITY OF ROSEVILLE SOLID WASTE DIVISION
PH:916-774-5780

SCHOOL DISTRICT:
ROSEVILLE UNIFIED

NO.	REVISION	DATE	BY	APPR'D

BY	CHECK
DESIGN TSM	RFE
DRAWN TSM	RFE
QUANT.	

ORIGINAL SCALE IS IN INCHES (0, 1, 2)

PRELIMINARY NOT FOR CONSTRUCTION — REGISTERED PROFESSIONAL ENGINEER — CALIFORNIA

RFE ENGINEERING, INC
Civil Engineers • Planners • Surveyors
2260 Douglas Blvd., Suite 160, Roseville, CA 95661
Ph: 916.772.7800 Fax: 916.772.7804
www.RFEengineering.com

C&P DEVELOPMENT
CONTACT: KARLTON CASTLES / ROBERT PEGOS
916-218-0728 / 916-764-4201

ROSEVILLE OLD TOWN LOFTS
241 NEVADA AVENUE
ROSEVILLE, CA
TENTATIVE SUBDIVISION MAP

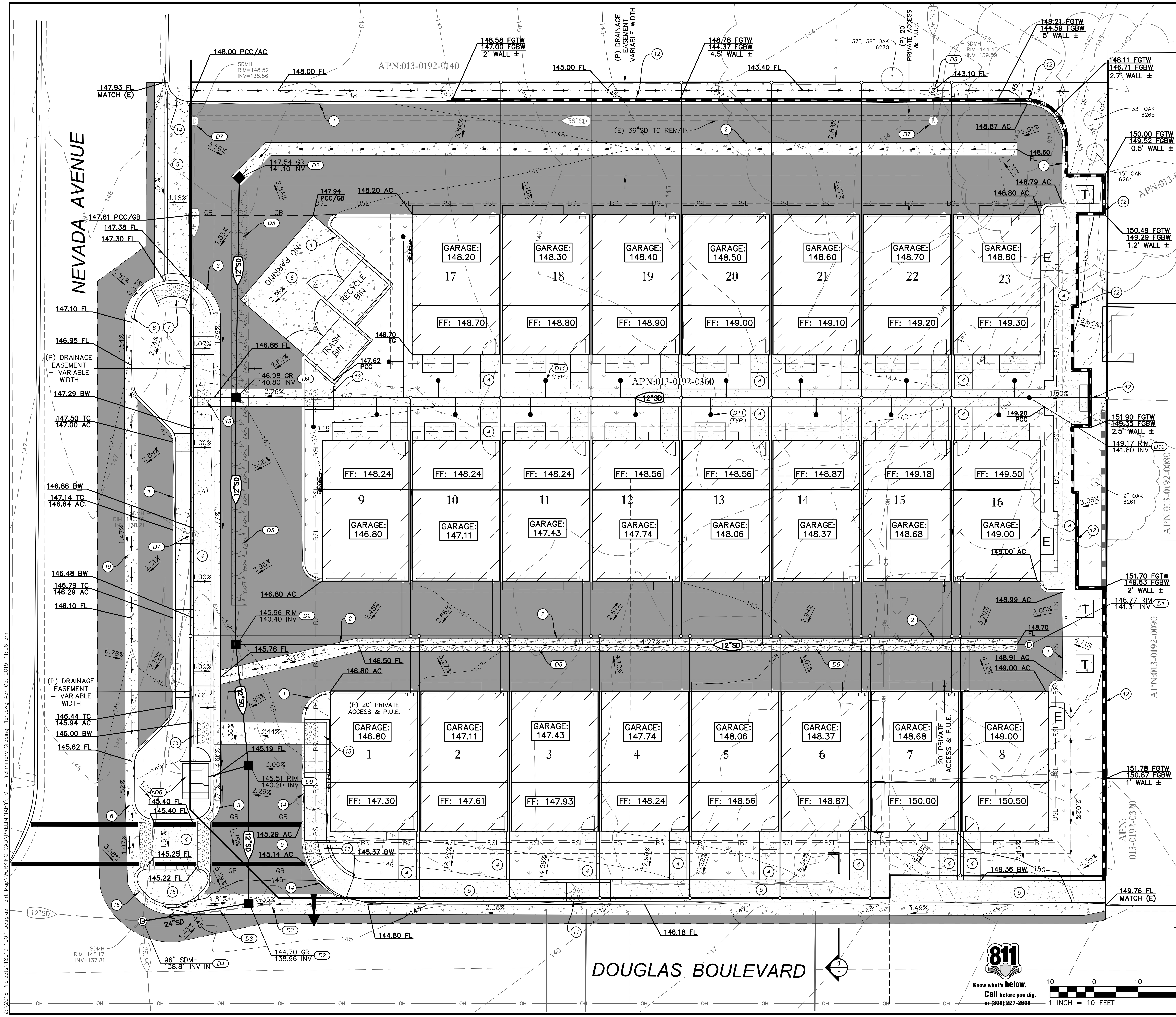
Drawing TM-01 of Sheet of Total 9

04-02-2019

Z:\2018 Projects\18019 1007 Doubles Tent Map\WORKING CAD\PRELIMINARY\TM-1 Preliminary Site Plan.dwg Apr 02, 2019 - 11:26 am

RFE PROJECT 18019 – ROSEVILLE OLD TOWN LOFTS, 241 NEVADA AVENUE, ROSEVILLE, CA

IS/MND EXHIBIT C



LEGEND

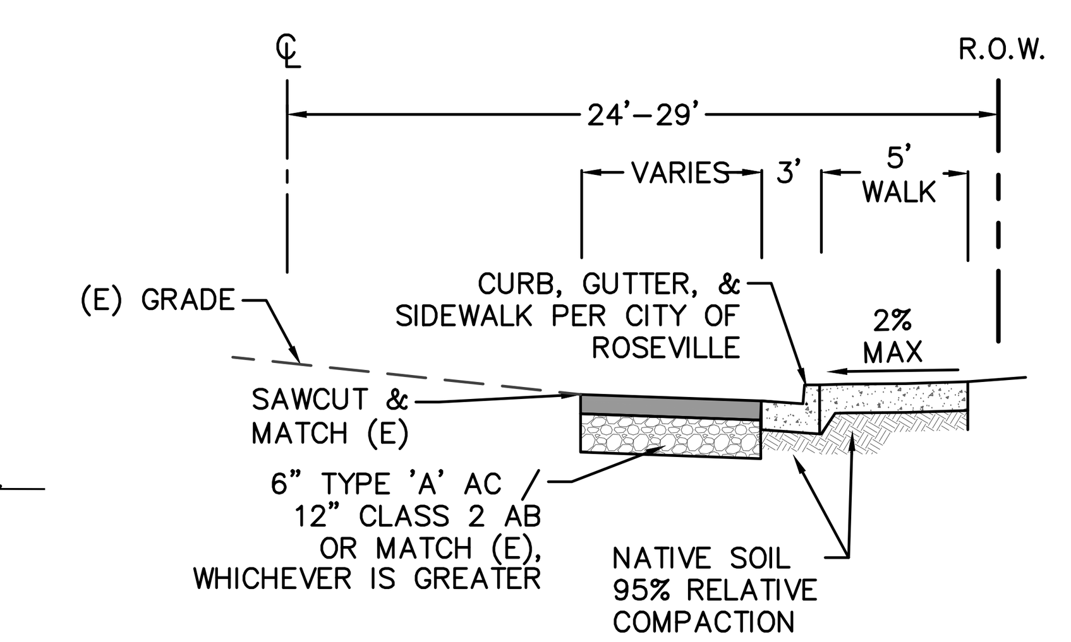
HEAVY DUTY PAVING
HEAVY DUTY CONCRETE
PEDESTRIAN CONCRETE
ROLLED CONCRETE CURB
OVERLAND RELEASE
FLOW DIRECTION
BUILDING FINISHED FLOOR ELEVATION — FF: 19.00
ELEVATION AT FRONT OF GARAGE SEE ARCH PLANS FOR GRADE SLOPE — GARAGE: 18.00

GRADING KEYNOTES:

1. PROPOSED BARRIER CURB
2. PROPOSED VALLEY GUTTER
3. PROPOSED CURB & GUTTER
4. PROPOSED CONCRETE SIDEWALK
5. CURB, GUTTER, & SIDEWALK PER CITY OF ROSEVILLE STDS
6. CURB & GUTTER PER CITY OF ROSEVILLE STDS
7. MODIFIED FLUSH PAN RAMP PER CITY OF ROSEVILLE STDS
8. MODIFIED TRASH ENCLOSURE PER CITY OF ROSEVILLE STDS
9. MODIFIED TYPE 'S' DRIVEWAY PER CITY OF ROSEVILLE STDS
10. CONCRETE VALLEY GUTTER PER CITY OF ROSEVILLE STDS
11. FLUSH PAN RAMP PER CITY OF ROSEVILLE STDS
12. RETAINING WALL
13. CURB CUT RAMP
14. ROLLED CONCRETE CURB PER CITY OF ROSEVILLE STDS
15. ROLLED CONCRETE CURB AND GUTTER PER CITY OF ROSEVILLE STDS
16. CONCRETE MOUNTABLE MEDIAN

DRAINAGE KEYNOTES:

D1 STORM DRAIN MANHOLE
D2 DRAINAGE INLET
D3 REMOVE (E) DRAINAGE INLET AND 12" PIPING. REPLACE WITH NEW DRAINAGE INLET AND 24" PIPING.
D4 CONTRACTOR TO DETERMINE IF INSTALLATION OF NEW 24" STORM DRAIN WILL BE FEASIBLE WITH EXISTING MANHOLE. IF NOT FEASIBLE, REPLACE WITH NEW 96" STORM DRAIN MANHOLE.
D5 UNDERGROUND INFILTRATION TRENCH
D6 CONTECH FILTERRA STORMWATER QUALITY TREE BOX UNIT
D7 BRING MANHOLE RIM TO GRADE AND REPLACE WITH SOLID RIM
D8 INSTALL SADDLE MANHOLE WITH GRATE TOP
D9 DRAINAGE JUNCTION BOX
D10 STORM DRAIN CLEANOUT
D11 LANDSCAPE DRAIN



1 DOUGLAS BLVD SECTION
SCALE: NTS

DISTURBED AREA BREAKDOWN

ONSITE: 37,240 SF
OFFSITE: 6,190 SF
TOTAL: 43,430 SF

RAW EARTHWORK SUMMARY

CUT:	865 CY
FILL:	1210 CY
NET:	345 CY IMPORT

NOTE:
EARTHWORK QUANTITIES ARE ESTIMATED TO SUBGRADE AND DO NOT TAKE INTO ACCOUNT SHRINKAGE, EXCESS MATERIALS FROM TRENCHING, EXCAVATION FOR DETENTION BASIN, AND MISC. UNKNOWN STRUCTURAL SECTIONS. CONTRACTOR SHOULD VERIFY EARTHWORK QUANTITIES.

811 Know what's below. Call before you dig. or (800) 227-2600

1 INCH = 10 FEET

REVISION	DATE	BY	APPR'VD

	BY	CHECK	NO.
DESIGN	TSM	RFE	
DRAWN	TSM	RFE	
QUANT.			

ORIGINAL SCALE IS IN INCHES

PRELIMINARY NOT FOR CONSTRUCTION

RFE ENGINEERING, INC
Civil Engineers • Planners • Surveyors
2260 Douglas Blvd, Suite 160, Roseville, CA 95661
Ph: 916-772-7800 Fax: 916-772-7804
www.RFEengineering.com

C&P DEVELOPMENT
CONTACT: KARLTON CASTLES / ROBERT PEGOS
916-218-0728 / 916-764-4201

ROSEVILLE OLD TOWN LOFTS
241 NEVADA AVENUE
ROSEVILLE, CA

PRELIMINARY GRADING, DRAINAGE, AND PAVING PLAN

Drawing TM-04
Sheet 9 of Total 9

04-02-2019

RFE PROJECT 18019 – ROSEVILLE OLD TOWN LOFTS, 241 NEVADA AVENUE, ROSEVILLE, CA

IS/MND EXHIBIT D

TREE LEGEND

(Note: All trees symbols sizes are reduced up to 50%)

PLANT SYMBOL	USE DESCRIPTION & BOTANICAL NAME/ COMMON NAME	CONTAINER SIZE	HT/SPR	REMARKS
	DOUGLAS BLVD. STREET TREE			
	ACER RUBRUM 'ARMSTRONG'- A. RED MAPLE	15 GAL	45'/15'	NARROW, FASTIGIATE
	NEVADA AVE. STREET TREE			
	PISTACIA CHINENSIS CHINESE PISTACHE	15 GAL	35'/30'	SEASONAL COLOR
	PASEO/SEASONAL BUILDING SCREENING TREE			
	ACER RUBRUM 'BOWHILL'- B. RED MAPLE	15 GAL	40'/15'	UPRIGHT, VERY NARROW
	SITE ACCENT & SEASONAL SCREENING TREE			
	LAGERSTROEMIA 'TUSCARORA'- T. CRAPE MYRTLE	15 GAL	25'/15'	SEASONAL FLOWER COLOR
	PASEO UNDERSTORY TREE			
	ACER PALMATUM 'BLOODGOOD'- B. JAPANESE MAPLE	15 GAL	16'/14'	MULTI-STEMMED
	SITE PERIMETER SCREENING TREE			
	PHOTINIA FRASERI RED TIP PHOTINIA	15 GAL	18'/18'	EVERGREEN, TREE TRAINED

SHRUB LEGEND

PLANT SYMBOL	USE DESCRIPTION & BOTANICAL NAME/ COMMON NAME	CONTAINER SIZE	HT/SPR	WATER USE
	SITE ENTRY ACCENT SHRUBS SUCH AS:			
	ALOE 'BLUE ELF' BLUE ELF ALOE	1 GAL.	1-6"/2'	LOW
	HEMEROCALLIS HYBRID DAY LILY	1 GAL.	6"/2'	LOW
	ROSA X NOATRUM 'FLOWER CARPET' - CARPET ROSE	2 GAL.	2'-6"/3'-6"	MEDIUM
	TULBAGHIA VIOLACEA SOCIETY GARLIC	1 GAL.	1'-6"/2'	LOW
	PASEO/BUILDING FOUNDATION SHRUBS SUCH AS:			
	CHONDROPETALUM TECTORUM SMALL CAPE RUSH	1 GAL.	3'/4'	MEDIUM
	DIANELLA TASMANICA 'TASRED'- TASRED FLAX	1 GAL.	1'-6"/3'	MEDIUM
	LIRIOPE GIGANTEA GIANT LILY TURF	1 GAL.	2'/3'	MEDIUM
	LOROPETALUM CHINENSIS 'EMERALD SNOW'- E.S. FRINGE FLOWER	5 GAL.	3'/4'	MEDIUM
	SCREENING SHRUBS SUCH AS:			
	CALLISTEMON VIMINALIS 'BETTER JOHN'- B.J. BOTTLEBRUSH	5 GAL.	3'/3'	LOW
	DIETES BICOLOR AFRICAN IRIS	1 GAL.	2'/3'	LOW
	ILEX X 'RUTHOL1' EMERALD COLONNADE HOLLY	5 GAL.	6'/10'	MEDIUM
	VIBURNUM TINUS 'DWARF' - DWARF VIBURNUM	5 GAL.	4'/5'	LOW

GROUND COVER LEGEND

SITE ENTRY ACCENT COVER SUCH AS:

BOTANICAL & COMMON NAME	CONTAINER SIZE	HEIGHT/ SPREAD	WATER USE
FESTUCA GLAUCA 'ELIJAH BLUE- E.B. FESCUE	FLATS	1'/2'	LOW
GAZANIA 'MOONGLOW'- M. GAZANIA	FLATS	10"/1'- 6"	MEDIUM

EVERGREEN FOLIAGE GROUND COVER SUCH AS:

BOTANICAL & COMMON NAME	CONTAINER SIZE	HEIGHT/ SPREAD	WATER USE
CAREX PANSA CALIFORNIA MEADOW SAGE	LINERS	8"/10"	LOW
VINCA MINOR DWARF PERIWINKLE	1 GAL.	1'/3'	LOW

IRRIGATION NOTES

AN AUTOMATED IRRIGATION SYSTEM WILL BE PROVIDED. IT WILL FOLLOW THE CITY LOW WATER USE CONSERVATION GUIDELINES INCLUDING ITEMS SUCH AS:

1. GROUPING OF PLANTS WITH SIMILAR WATER USE LEVEL WITHIN THEIR REMOTE CONTROLVALVE/HYDROZONE SYSTEM.
2. SMART CONTROLLERS WITH WATER SAVINGS FEATURES.
3. LOW WATER FLOW WITH DRIP TYPE APPLICATION.
4. ALLOWABLE MAXIMUM WATER USE CALCULATIONS.
5. WATERING SCHEDULES ARE TO BE PROVIDED FOR BOTH ESTABLISHING AND ESTABLISHED PLANT MATERIALS.

PARKING SHADE CALCULATIONS

* REFER TO THE LOCATION OF THE SHADE TREES ON THE PLAN WITH THE SHADE PERCENTAGE VALUES ADJACENT THE TREE'S DRIPLINE SYMBOL.

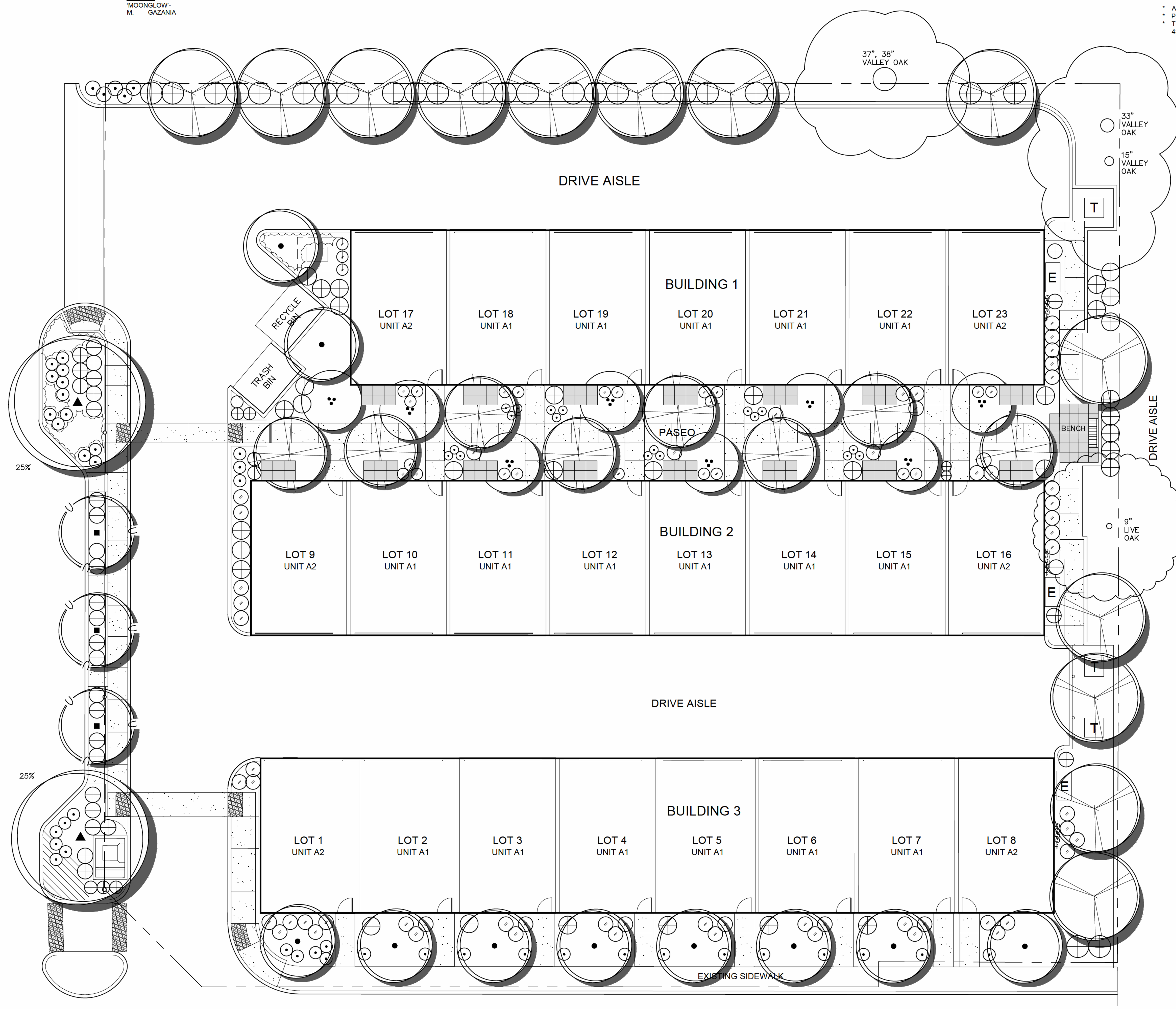
TREE	100%	75%	50%	25%
PISTACIA CHINENSIS CHINESE PISTACHE	NA	NA	NA	2(240) = 480
				480 SF

TOTAL AMOUNT OF SHADE PROVIDED = 480 SF

PARKING LOT SHADE CALCULATIONS

- * AMOUNT OF PAVED AREA = 752 SF
- * PAVED AREA REQUIRED TO BE SHADED: 752 SF X 50% = 376 SF
- * THE PERCENTAGE OF SHADE PROVIDED FOR THE PAVED AREA: 480 SF DIVIDED BY 752 SF = 63.8%

PERCENTAGE OF PAVING SHADED = 63.8%



DOUGLAS BOULEVARD

NOTES:

1. REFER TO SHEET L2 FOR SITE WATER USE CALCULATIONS AND WELO CHECKLIST FORM.
2. REFER SHEET L2 FOR PLANT PICTURES.

0 2 5 10 20
SCALE 1" = 10'-0"

TOM SMITH ASSOCIATES
Landscape Architects
Urban Design &
Landscape Guidelines
Site Planning
6921 Roseville Rd. C.L.A. 2089
Sacramento (916) 749-7376
CA 95842 Fax (916) 749-7329

MARCH 1, 2019

Roseville Old Town Lofts

Roseville, California

PRELIMINARY LANDSCAPE PLAN

L1

kuchman ARCHITECTS PC

PRELIMINARY WATER USE ESTIMATE BASED ON SITE PLANTING AREA SHOWN ON PLAN

MAXIMUM APPLIED WATER ALLOWANCE CALCULATION:

MAWA=(ETo)(0.62)[(ETAFxLA)+((1-ETAF)xSLA)]

MAWA=(52.2)(0.62)[(0.55x7,473)+((1-0.55)x0.0)]

MAWA=133,020 GALLONS

ETo:	ANNUAL EVAPOTRANSPIRATION RATE
ETAF:	ET ADJUSTMENT FACTOR FOR RESIDENTIAL
LA:	LANDSCAPE AREA IN SQUARE FEET
SLA:	SPECIAL LANDSCAPE AREA IN SQ. FT.

NOTE: THE WATER USE ITEMS REQUESTED IN THE FORM BELOW WILL BE PROVIDED WHEN THE LANDSCAPE IRRIGATION CONSTRUCTION PLAN IS COMPLETED.

WATER EFFICIENT LANDSCAPE ORDINANCE SUBMITTAL CHECKLIST

To be completed by applicant and submitted with plans:

Project Name:	**Contact:**
Address:	**Phone:**

LANDSCAPE DOCUMENTATION PACKAGE CERTIFICATION

"I agree to comply with the water efficient landscape ordinance"(see note, page 4) and certify that the landscape plans contain all information required in the landscape documentation package."

Applicant Name (Print) Signature Date

LANDSCAPE PACKAGE SUBMITTAL REQUIREMENTS

	SHEET NO.	NOTES:
PROJECT INFORMATION (on cover sheet or equivalent):		
Date		
Applicant name & contact information		
Owner name and contact information		
Project address		
Total landscaped area (in sq. ft.)		
Project type (new, rehabilitated, public, private, etc		
Water supply type (potable/recycled)		
Checklist of documents contained in landscape package		
WATER EFFICIENT LANDSCAPE WORKSHEET:		
Hydrozone information table		
Water budget calculations for MAWA and ETWU		
SOIL MANAGEMENT REPORT:		
Recommendations incorporated into landscape plans?		
Copy of report provided to Planning Department?		
LANDSCAPE PLAN		
Consistent with Specific Plan Design Guidelines?		
Plant materials list – botanical & common name		
Planting symbols		
Container size		
Plant spacing		
Plant quantities		

	SHEET NO.	NOTES:
Identify edible plants		
Identify water features & surface area		
Turf limited to 25% of total planting area?		
Designate and label hydrozones (low, moderate, high, mixed-use) – group plants by hydrozone		
Minimum 3" mulch or bark (no shredded bark)		
Stabilizing mulch/bark on slopes greater than 25%		
Identify composting installation rates (unless exempt)		
Delineate property lines, utilities, easements, streets, driveways, other paved surfaces		
Identify buildings, structures and pad elevations (if not provided on grading plan)		
Identify natural features to remain (rock outcroppings, trees, etc.)		
Identify "Special Landscape Areas" if any		
Identify stormwater treatment improvements		
Identify rain catching or harvesting improvements, if any		
Identify any applicable greywater systems		
Include statement with signature/date: *"I have complied with the criteria of the Water Efficient Landscape Ordinance and applied such criteria for the efficient use of water in the landscape design plan."*		
IRRIGATION PLAN:		
Location/size of water meters		
Type & size of all irrigation system components		
Irrigation controller type (must use evapotranspiration or soil moisture sensor data and utilize a rain sensor)		
Main and lateral lines		
Valves		
Sprinkler head location & type		
Moisture sensing devices (soil and or rain)		
Quick couplers		
Pressure regulators		
Backflow devices		
Rain/freeze/wind sensors		
Indicate flow rate (gallons per minute)		
Indicate application rate (inches per hour)		
Indicate design operating pressure (per square inch)		
Designed to optimal dynamic pressure? (Booster pumps or pressure regulators shall be used to achieve required dynamic pressure)		
Manual shut off valves		

Designate hydrozone and valves by number, letter or other means.		
Designed to prevent low head drainage & no overspray or runoff?		
Conforms to hydrozones indicated on landscape plan?		
Designed to achieve irrigation efficiency of 0.75 for overhead spray and 0.81 for drip?		
Low volume irrigation in mulched planting areas		
Matched precipitation rates for heads and emission devices?		
Optimal sprinkler spacing?		
Swing joints or other riser protection adjacent to high traffic areas?		
Check valves or anti-drain valves required?		
Low flow or subsurface irrigation for turf strips or other areas less than 10 feet in width		
Sprinkler heads setback 24" from hardscape? If not, ie:		
Adjacent hardscape permeable?		
Adjacent impermeable hardscape designed to drain entirely to landscaping?		
Alternative design or technology specified to minimize overspray/runoff?		
Maximum 0.75 inch per hour precipitation rate for slopes greater than 25%.		
Include statement with signature/date: *"I have compiled with the criteria of the Water Efficient Landscape Ordinance and applied such criteria for the efficient use of water in the irrigation design plan."*		
GRADING & DRAINAGE PLAN: (in addition to other City grading standards)		
Height of graded slope		
Drainage patterns		
Proposed underground and in-ground drainage improvements		
Pad elevations		
Finish grade		
Stormwater retention or treatment improvements, if any		
Include statement with signature/date: *"I have compiled with the criteria of the Water Efficient Landscape Ordinance and applied such criteria for the efficient use of water in the grading and drainage plan."*		
IRRIGATION SCHEDULE:		
Utilize local ET data?		
Overhead irrigation scheduled between 8 p.m. and 10 a.m.?		
Applied water equal to or less than MAWA?		

TREES

ARMSTRONG RED MAPLE

CHINESE PISTACHE

BOWHILL RED MAPLE

TUSCARORA CRAPE MYRTLE

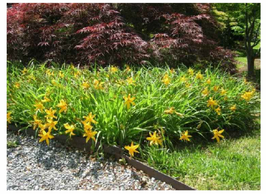
BLOODGOOD JAPANESE MAPLE

RED TIP PHOTINIA

SHRUBS

SITE ENTRY ACCENT SHRUBS:

BLUE ELF ALOE



DAY LILLY

PINK CARPET ROSE

SOCIETY GARLIC

PASEO/BUILDING FOUNDATION SHRUBS:

SMALL CAPE RUSH

TASRED FLAX LILLY

GIANT LILLY TURF

EMERALD SNOW FRINGE FLOWER

SCREENING SHRUBS:

BETTER JOHN BOTTLE BRUSH

AFRICAN IRIS

EMERALD COLONNADE HOLLY

DWARF VIBURNUM

GROND COVERS

SITE ENTRY ACCENT COVER:

ELIJAH BLUE FESCUE

MOONGLOW GAZANIA

EVERGREEN FOLIAGE:

CALIFORNIA MEADOW SAGE

DWARF PERIWINKLE

TOM SMITH ASSOCIATES
Landscape Architects
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Site Planning
6921 Roseville Rd. C.L.A. 2089
Sacramento (916) 749-7376
CA 95842 Fax (916) 749-7329

NOVEMBER 12, 2018

Roseville Old Town Lofts

Roseville, California

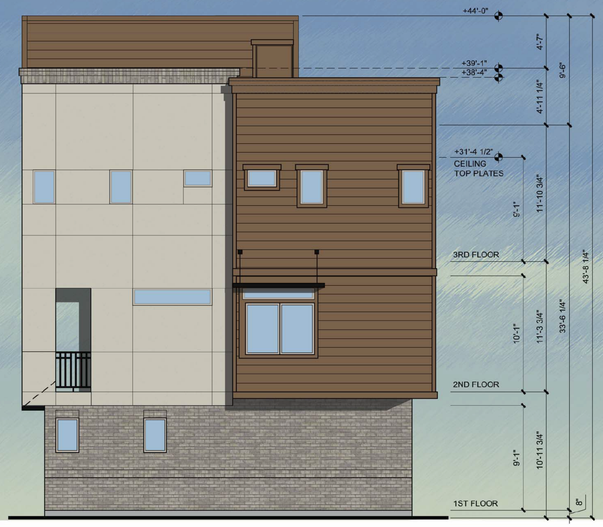
PLANT PICTURES & WATER USE CALCS AND CHECKLIST

kuchman ARCHITECTS PC

IS/MND EXHIBIT E

EAST ELEVATION - BUILDING 2 (DRIVE ISLE)

SCALE 3/16" = 1'-0"



WEST ELEVATION - BUILDING 2 (NEVADA STREET)

SCALE 3/16" = 1'-0"

NORTH ELEVATION - BUILDING 2 (PUBLIC / PASEO)

SCALE 3/16" = 1'-0"

EXTERIOR COLOR SCHEDULE

TRAIL DUST HLS 4273	FEATHER STONE KM 4578
FRONTIER SHINGLE HLS 4272	HC MUDDOX COVENTRY
GRANT DRAB HLS 4271	RED HOT JAZZ HLS 4268

0 1 2 5 10

SCALE 3/16" = 1'-0"

AUGUST 10, 2018

C&P DEVELOPMENT L.L.C.

Roseville Old Town Lofts

Roseville, California

COLOR ELEVATIONS

kuchman ARCHITECTS PC

A3.0

SOUTH ELEVATION - BUILDING 2 (DRIVE ISLE)

SCALE 3/16" = 1'-0"

EXTERIOR COLOR SCHEDULE

TRAIL DUST HLS 4273	FEATHER STONE KM 4978
FRONTIER SHINGLE HLS 4272	HC MUDDOX COVENTRY
GRANT DRAB HLS 4271	RED HOT JAZZ HLS 4268

0 1 2 5 10

SCALE 3/16" = 1'-0"

AUGUST 10, 2018

C&P DEVELOPMENT L.L.C.

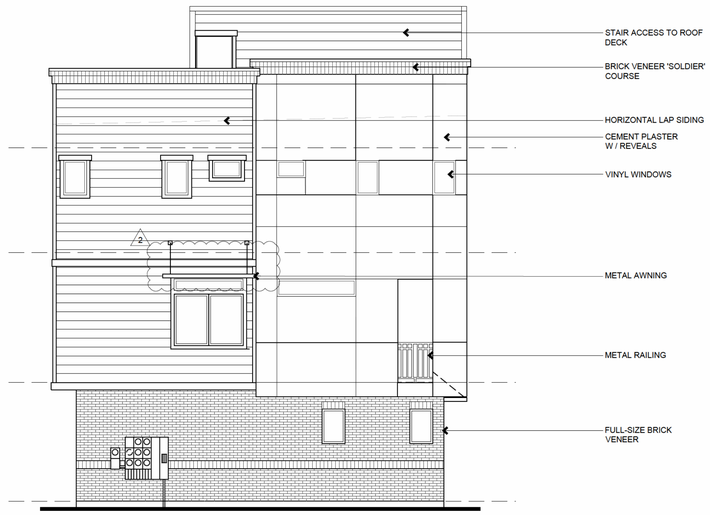
Roseville Old Town Lofts

Roseville, California

COLOR ELEVATIONS

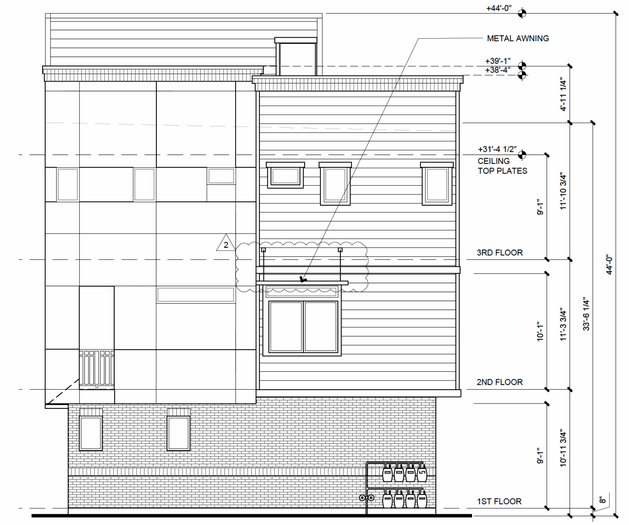
kuchman ARCHITECTS PC

A3.1



EAST ELEVATION - BUILDING 2 (DRIVE ISLE)

SCALE 3/16" = 1'-0"



WEST ELEVATION - BUILDING 2 (NEVADA STREET)

SCALE 3/16" = 1'-0"

NORTH ELEVATION - BUILDING 2 (PUBLIC / PASEO)

SCALE 3/16" = 1'-0"

03/01/19	3	CYCLE 4 - SUBMITTAL	GK
11/19/18	2	CYCLE 3 - SUBMITTAL	GK
08/16/18	1	CYCLE 2 - SUBMITTAL	GK

City of Roseville Approval

0 1 2 5 10

SCALE 3/16" = 1'-0"

March 1, 2019

C&P DEVELOPMENT L.L.C.

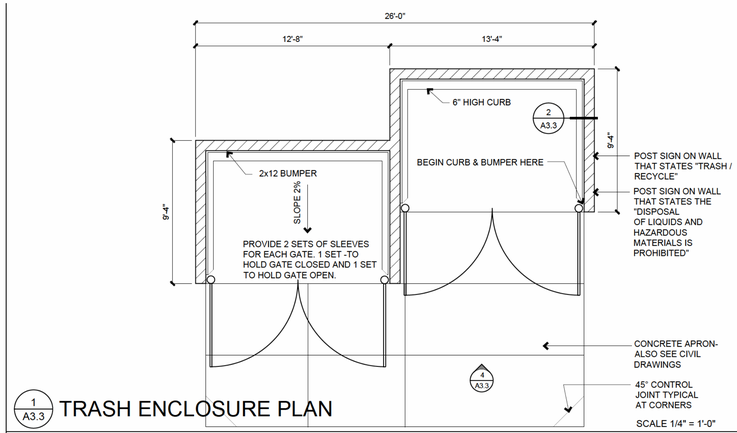
Roseville Old Town Lofts

Roseville, California

BUILDING 2 ELEVATIONS
BUILDING 1 & 3 SIMILAR

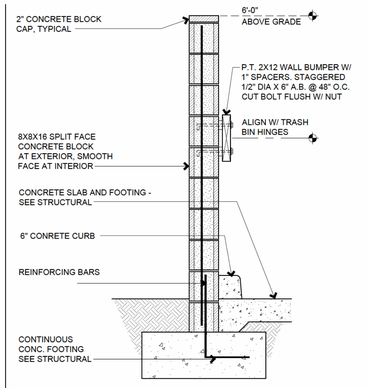
kuchman ARCHITECTS INC

A3.2



1 A3.3 TRASH ENCLOSURE PLAN

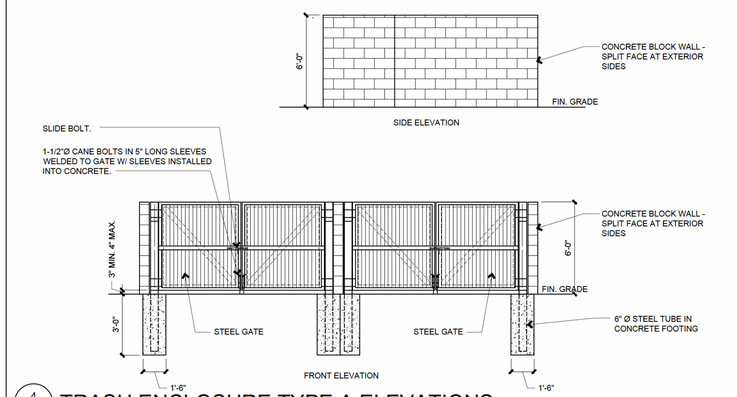
SCALE 1/4" = 1'-0"



2 A3.3 TRASH ENCLOSURE WALL

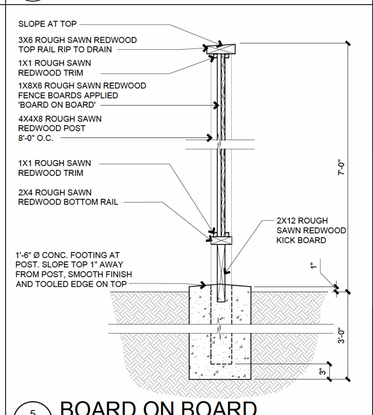
SCALE 3/4" = 1'-0"

3 A3.3 TYPICAL PORCH LIGHT FIXTURE



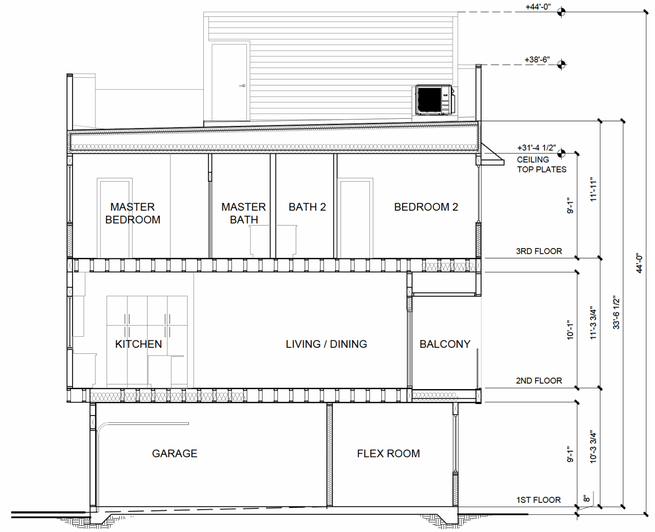
4 A3.3 TRASH ENCLOSURE TYPE A ELEVATIONS

SCALE 1/4" = 1'-0"



5 A3.3 BOARD ON BOARD PRIVACY FENCE

SCALE 1" = 1'-0"



TYPICAL CROSS SECTION

SCALE 3/16" = 1'-0"

SOUTH ELEVATION - BUILDING 2 (DRIVE ISLE)

SCALE 3/16" = 1'-0"

03/01/19	3 CYCLE 4 - SUBMITTAL	GK
11/19/18	2 CYCLE 3 - SUBMITTAL	GK
08/16/18	1 CYCLE 2 - SUBMITTAL	GK

0 1 2 5 10

SCALE 3/16" = 1'-0"

March 1, 2019

City of Roseville Approval

C&P DEVELOPMENT L.L.C.

Roseville Old Town Lofts

Roseville, California

BUILDING 2 ELEVATION / SECTION
BUILDING 1 & 3 SIMILAR

kuchman ARCHITECTS, PC

A3.3