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/File#: INFILL PCL 183, 229, 305 – Sunrise Office Center; PL#24-812

Project Location: 705 Sunrise Bl.; APN 470-010-043-000

Project Owner: Kurdi Management, LLC

Project Applicant: Robert E. Wood, Millenium Planning

Project Planner: Shelby Maples, Associate Planner

Project Description: Request for a Design Review Permit to allow construction of a new 7,300 sf general medical office building and a Flood Encroachment Permit to allow site construction within the existing Cirby Creek floodplain. The project also includes a Tree Permit to remove three (3) protected Valley oak trees.

The project site is not identified on any list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5

Document Review and Availability: The public review and comment period begins on December 5, 2024 and ends on January 6, 2025. The Mitigated Negative Declaration may be reviewed during normal business hours (8:00 am to 4:00 pm) at the Planning Division offices, located at 311 Vernon Street. It may also be viewed online at http://www.roseville.ca.us/gov/development_services/planning/environmental_documents_n_public_notices.asp. **Written comments on the adequacy of the Mitigated Negative Declaration may be submitted to Name, Planning Division, 311 Vernon Street, Roseville, CA 95678, and must be received no later than 5:00 pm on January 6, 2025**.

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 tentative hearing date is January 9, 2024.

Mike Isom
Development Services Director

Dated: December 3, 2024

Publish: December 5, 2024

CITY OF ROSEVILLE CALIFORNIA

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

MITIGATED NEGATIVE DECLARATION

Project Title/File Number:	INFILL PCL 183, 229, 305 – Sunrise Office Center; PL#24-812
Project Location:	705 Sunrise Bl., Roseville, Placer County; APN 470-010-043-000
Project Applicant:	Kurdi Management, LLC (916) 479-3347; 400 Halliford Ct., Roseville, CA 95661
Property Owner:	Robert E. Wood, Millenium Planning; (530) 446-6765; 471 Sutton Way Suite 210, Grass Valley, CA 95945
Lead Agency Contact Person:	Shelby Maples, Associate Planner - City of Roseville; (916) 746-1347
Date:	December 5, 2024

Project Description:

Request for a Design Review Permit to allow construction of a new 7,300 sf general medical office building and a Flood Encroachment Permit to allow site construction within the existing Cirby Creek floodplain. The project also includes a Tree Permit to remove three (3) protected Valley oak trees.

DECLARATION

The Planning Manager has determined that the above project will not have significant effects on the environment and therefore does not require preparation of an Environmental Impact Report. The determination is based on the attached initial study and the following findings:

A. The project will not have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species, reduce the number or restrict the range of rare or endangered plants or animals or eliminate important examples of the major periods of California history or prehistory.

B. The project will not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.

C. The project will not have impacts, which are individually limited, but cumulatively considerable.

D. The project will not have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly.

E. No substantial evidence exists that the project may have a significant effect on the environment.

F. The project incorporates all applicable mitigation measures identified in the attached initial study.

G. This Mitigated Negative Declaration reflects the independent judgment of the lead agency.

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 183, 229, 305 – Sunrise Office Center, File # PL24-0812
Project Location:	701 Sunrise Av., on the east side of Sunrise Av., approximately 170 feet south of the intersection of Sunrise Av. and Coloma Wy.
Project Description:	The project request includes a Design Review Permit to allow construction of a new 7,300 sf medical office building and a Flood Encroachment Permit to allow site construction within the existing Cirby Creek floodplain. The project also includes a Tree Permit to remove three (3) protected Valley oak trees.
Project Applicant:	Robert E. Wood, Millenium Planning & Engineering
Property Owner:	Kurdi Management LLC
Lead Agency Contact:	Shelby Maples, Associate Planner

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 (see Attachments) 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

The 2.63-acre project site is located at 701 Sunrise Av., on the east side of Sunrise Av., approximately 170 feet south of the intersection of Sunrise Av. and Coloma Wy. The parcel is in the PD52 (Planned Development) and FW (Floodway) zoning districts and has BP (Business Professional) and OS/FP (Open Space/Floodplain) General Plan designations.

Background

Location	Zoning	General Plan Land Use	Actual Use of Property
Site	PD52, FW	BP, OS/FP	Office building, parking area, Cirby Creek, vacant area
North	FW	OS/FP, PD52	Cirby Creek, office buildings
South	PD52	BP	Drive-thru coffee kiosk, vacant
East	R3	HDR-39.2	Senior living complex
West	R3	HDR-24.8	Sunrise Av., condominiums

The project site is located in a Planned Development zone (PD52), which was adopted by the City Council in April of 1978. On September 21, 1995, the City of Roseville Design Review Commission approved a Design Review Permit (DRP) to construct a 5,240 square foot IHOP restaurant, as well as a tree permit to allow encroachment into the protected zones of four (4) native oak trees. An Initial Study and Environmental Checklist was prepared to evaluate the project, and a Negative Declaration was adopted prior to action on the project (International House of Pancakes Negative Declaration (UP 94-38; TP 95-11), Adopted September 21, 1995). A Building Permit to construct the project was issued in August 1997.

Environmental Setting

The project site is approximately 2.63 acres in size, and partially developed with a 5,240 square foot office building (formerly an IHOP restaurant) and an existing parking area.

The majority of the undeveloped areas within the Project area are comprised of non-native annual grassland, including non-native grasses and herbaceous species. Interior live oak (*Quercus wislizenii*) and Valley oak (*Quercus lobata*) are mixed in with the non-native grassland areas.

Cirby Creek traverses the northern portion of the subject parcel. The creek has a perennial flow in a southeast to northwestern direction before discharging into Dry Creek just east of Riverside Dr. Both sides of the creek have relatively steep banks, and the banks and riparian area include vegetation such as Himalayan blackberry (*Rubus armeniacus*), red willow (*Salix laevigata*), dock (*Rumex sp.*), Iris leaved rush (*Juncus xiphioides*), and miner's lettuce (*Claytonia perfoliata*). The upland areas along the top of both banks include clusters of small to medium interior live oak and valley oak trees. Cirby Creek and its associated riparian habitat are separated from the project area of disturbance by a tubular steel fence and a walking path.

Proposed Project

The proposed project includes a request for a Design Review Permit to allow construction of a new 7,300 square foot medical office building and associated site improvements such as additional parking area, lighting, and a

trash enclosure. The project also requests a Flood Encroachment Permit to allow site construction within the existing Cirby Creek floodplain.

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 (Resolution 08-172), along with Findings of Fact, and were updated in January 2021 (Resolution 21-018). 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.

- Noise Regulation (RMC Ch.9.24)
- Flood Damage Prevention Ordinance (RMC Ch.9.80)
- Traffic Mitigation Fee (RMC Ch.4.44)
- Drainage Fees (Dry Creek [RMC Ch.4.49] and Pleasant Grove Creek [RMC Ch.4.48])
- City of Roseville Improvement Standards (Resolution 02-37 and as further amended)
- City of Roseville Design and Construction Standards (Resolution 01-208 and as further amended)
- Tree Preservation Ordinance (RMC Ch.19.66)
- Internal Guidance for Management of Tribal Cultural Resources and Consultation (Tribal Consultation Policy) (Resolution 20-294)
- Subdivision Ordinance (RMC Title 18)
- Community Design Guidelines
- Specific Plan Design Guidelines:
    - Development Guidelines Del Webb Specific Plan
    - Landscape Design Guidelines for North Central Roseville Specific Plan
    - North Roseville Specific Plan and Design Guidelines
    - Northeast Roseville Specific Plan (Olympus Pointe) Signage Guidelines
    - North Roseville Area Design Guidelines
    - Northeast Roseville Specific Plan Landscape Design Guidelines
    - Southeast Roseville Specific Plan Landscape Design Guidelines
    - Stoneridge Specific Plan and Design Guidelines
    - Highland Reserve North Specific Plan and Design Guidelines
    - West Roseville Specific Plan and Design Guidelines
    - Sierra Vista Specific Plan and Design Guidelines
    - Creekview Specific Plan and Design Guidelines
    - Amoruso Ranch Specific Plan and Design Guidelines
- City of Roseville 2035 General Plan

OTHER ENVIRONMENTAL DOCUMENTS RELIED UPON

- 2035 General Plan Update Final Environmental Impact Report, certified August 5, 2020
- International House of Pancakes Negative Declaration (UP 94-38; TP 95-11), Adopted September 21, 1995

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 2035 General Plan Update EIR (General Plan EIR) updated all Citywide analyses, including for vehicle miles traveled, greenhouse gas emissions, water supply, water treatment, wastewater treatment, and waste disposal. The proposed project is consistent 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 proposed project site is located on the eastern half of the property located at 701 Sunrise Ave. The project area is bordered by Sunrise Ave and an existing medical office use to the west, a senior living facility to the east, a drive-thru coffee kiosk to the south, and Cirby Creek to the north. The project area is not currently visible from Sunrise Ave., given the existing medical building, mature vegetation within the parking lot, and trees along Cirby Creek.

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
c) In non-urbanized area, 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

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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, b, and c, 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 as a result lacks any prominent or high-quality natural features which could be negatively impacted by development. The City of Roseville has adopted Community Design Guidelines (CDG) for the purpose of creating building and community designs which are a visual asset to the community. The CDG includes guidelines for building design, site design and landscape design, which will result in a project that enhances the existing urban visual environment. The project does not conflict with applicable zoning and other regulations governing scenic quality. Accordingly, 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
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–c, 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 d, there are no quantified significance thresholds for exposure to objectionable odors or other emissions. 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 emissions are detectable/present, and the nature and intensity of the emission 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 General Plan EIR analysis of Citywide traffic indicated that more than 70% of 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.

The PCACPD recommends that lead agencies use the California Emissions Estimator Model (CalEEMod) to quantify a project's construction and operational emissions for criteria air pollutants (NOX, ROG, and MP). The results are the compared to the significance thresholds established by the district, as detailed above. According to PCAPCD's published screening table, general commercial projects smaller than 249,099 square feet will not result in NOX emissions that exceed 55 lbs/day. Typically, NOX emissions are substantially higher than ROG and PM10; therefore, it can be assumed that projects that do not exceed the NOX threshold will not exceed the ROG and PM10 thresholds and will not result in a significant impact related to operational emissions. The project site is partially developed with an existing commercial building (approximately 5,240 square feet), a parking lot, and associated site improvements. The proposed project will develop a medical office building approximately 7,300 square-feet in size with surface parking, landscaping, a trash enclosure, and lighting improvements. No off-site or frontage improvements or demolition activities are proposed with the Project. The proposed 7,300 square foot medical office building is well below PCAPCD's modeled example. Given the Project's small size and lack of demolition activity, the project is not expected to result in construction or operational emissions that would exceed the district's thresholds for significance.

As discussed in the Transportation and Greenhouse Gases sections, the City developed analysis guidance and thresholds for vehicle miles traveled (VMT) as part of the 2035 General Plan Update project approved in July 2020. The citywide VMT analysis was then used to model air quality and greenhouse gas impacts within the General Plan Update EIR. Consistent with the Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA, the analysis found that local-serving non-residential uses led to reductions in citywide VMT, because adding a local-serving center into an existing residential area simply re-routes existing

travel from other – typically more distant – locations to a closer location. In other words, although a new medical office building will result in more trips arriving and departing from the project site, it will reduce the amount of travel (and therefore the amount of vehicle exhaust) in the City. The General Plan Update EIR concluded that future projects which were consistent with the General Plan and projects which the EIR evaluation found would not increase or would reduce VMT would be less than significant, and would not be required to analyze either VMT or other analyses such as air quality or greenhouse gases which rely on VMT.

The proposed project would not exceed the applicable thresholds of significance for air pollutant emissions during construction or operation. As such, the project would not conflict with or obstruct implementation of the *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (which is the SIP) or contribute substantially to the PCAPCD's nonattainment status for ozone. In addition, because the proposed project would not produce substantial emissions of criteria air pollutants, CO, or TACs, adjacent residents 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, and consistent with the analysis methodology outlined in the Significance Thresholds and Regulatory Setting section, cumulative impacts are less than significant.

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 due to substantial pollutant concentrations are less than significant.

e) 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 currently contains a single, large office building, parking, and some open space grassy areas with several trees, including both native and non-native tree species. Cirby Creek occupies the northern portion

of the parcel, but the project area is separated from the riparian area by a walking path, tubular steel fence, and 10-foot sewer easement.

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.

Checklist item b addresses all “sensitive natural communities” and riparian (creekside) habitat that may be affected by local, state, or federal regulations/policies while checklist item c focuses specifically on one type of such a community: protected wetlands. Focusing first on wetlands, 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" and riparian habitat, 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 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-c) The Project is located on an undeveloped portion of a parcel, in an urban area of the City. The site is already developed with an existing commercial building. The site has been partially graded, paved with a parking area, and has landscaped areas and sidewalk installed. Cirby Creek and its associated riparian area are located along the northern portion of the subject parcel.

A Biological Resource Assessment (BRA) was prepared by Greg Matuzak, Principal with Greg Matuzak Environmental Consulting LLC in March 2024. Mr. Matuzak is a California Department of Fish and Wildlife (CDFW) qualified biologist, and has prepared a reconnaissance-level biological resources survey and background research related to potential sensitive biological resources on the project site. The BRA is included as Attachment 2. The BRA contains a current review of the California Natural Diversity Database (CNDDB) and database information provided by the California Department of Fish and Wildlife, California Native Plant Society, and United States Fish and Wildlife Service.

According to the BRA, several federal and stated listed species have been documented within the Citrus Heights Topographic Quadrant where the project site is located. However, none of the species reviewed within the

databases were observed during the field survey, and the project area was found not to contain suitable habitat for any of the listed species that could potentially occur on the site. The BRA does note that the survey was completed in the wintertime, which could affect the presence of some species. Additionally, the BRA notes that Cirby Creek does have a low potential for some special status species to occur within the Project area, but given that the proposed disturbance within the Project area will be contained within the non-native annual grassland and previously disturbed areas outside of the creek and riparian zone. Site activity will occur over 50 feet from the creek, and will be separated by an existing fence and paved walking path. As a result, the BRA concludes that the project is unlikely to impact special status species, riparian area, or sensitive natural communities.

The BRA does not that the trees, shrubs, and grasslands within the subject parcel contain suitable habitat for nesting raptors. Several large trees are proposed for removal as a part of the project, including protected oak species. In order to ensure that there will be a less than significant impact on nesting birds, Mitigation Measure BIO-1 is required. This will require the completion of a nesting bird survey if construction is to occur within the breeding season, between February 15th and August 30th. This survey will be performed by a qualified biologist, and if protected species and nest are located, the affected trees will not be removed until the nest have successfully fledged.

The BRA also notes that the Project area is not located within an area containing Northern Volcanic Mudflow Vernal pool habitat mapped within the CNDDB. The report did not identify any wetlands within the Project area other than Cirby Creek in the northern section of the parcel. There is no Designated Critical Habitat (DCH) mapped for any species within the subject parcel, per the USFWS. The project will have a less than significant impact on wetlands.

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 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.

e) The project proposes the removal of seven (7) trees in total, including three (3) protected Valley oak trees of 36-inches diameter at breast height (DBH), 18-inches DBH, and 40-inches DBH. An additional three (3) Valley oaks will be removed, but they are under the size threshold of six (6) inches DBH to be protected by the City of Roseville Tree Preservation Ordinance. One additional non-native tree is proposed for removal. All trees were determined to be in good health. The project is subject to the requirements of the Tree Preservation Ordinance, and mitigation for these trees will be completed consistent with the Ordinance. A total of 94 inches will need to be mitigated, consistent with the Ordinance. This is partially accomplished through replacement plantings on site, including nine (9) Valley oaks and one (1) Interior Live oak, as well as 18 non-native trees. As proposed, the project is compliant with City policies and ordinances and 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.

Mitigation Measure BIO-1: Avoid Nesting Sites

To ensure that fully protected bird and raptor species are not injured or disturbed by construction in the vicinity of nesting habitat, the project applicant shall implement the following measures:

a) When feasible, all tree removal shall occur between August 30th and February 15th to avoid the breeding season of any raptor species that could be using the area, and to discourage hawks from nesting in the vicinity of an upcoming construction area.

b) For Swainson's hawk, if avoidance of tree removal outside the breeding season is not feasible, and a nest is present, the applicants would be required to obtain a 2081 permit from CDFG to mitigate for potential "take" under CESA. If no nesting is occurring, a take permit would not be required.

c) Prior to the beginning of mass grading, including grading for major infrastructure improvements, during the period between February 15th and August 30th, all trees and potential burrowing owl habitat within 350 feet of any grading or earthmoving activity shall be surveyed for active raptor nests or burrows by a qualified biologist no more than 30-days prior to disturbance. If active raptor nests or burrows are found, and the site is within 350-feet of potential construction activity, a highly visible temporary fence shall be erected around the tree or burrow(s) at a distance of up to 350-feet, depending on the species, from the edge of the canopy to prevent construction disturbance and intrusions on the nest area.

d) Preconstruction and non-breeding season exclusion measures shall be developed in consultation with CDFG, and shall preclude burrowing owl occupation of the portions of the project site subject to disturbance such as grading. Burrowing owls may be passively excluded from burrows in construction areas by placing one-way doors in the burrows according to CDFG protocol. The one-way doors must be in place for a minimum of three days. All burrows that may be occupied by burrowing owls regardless of whether they exhibit signs of occupation must be cleared with the one-way doors. Burrows that have been cleared through the use of the one-way doors shall then be closed or backfilled to prevent owls from entering the burrow.

e) No construction vehicles shall be permitted within restricted areas (i.e., raptor protection zones) unless directly related to the management or protection of the legally protected species.

f) If a legally protected species nest is located in a tree designated for removal, the removal shall be deferred until after August 30th or until the adults and young of the year are no longer dependent on the nest site as determined by a qualified biologist.

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 in Section 15064.5?				

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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–b and d) A Cultural Resources Inventory Survey was prepared for the project by Sean Michael Jensen, M.A., of Genesis Society on March 18, 2023. The survey included a search of the records at the North Central Information Center (NCIC) of the California Historical Resources Information System and consultation with the Native American Heritage Commission (NAHC). The survey also included a pedestrian survey of the site to evaluate for previously unidentified cultural resources. The survey did not result is any relevant records, nor were any potential cultural resources identified in the pedestrian survey. No cultural resources are known to exist on the project site; however, standard mitigation measures 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 (Mitigation Measure CUL-1). With mitigation, project-specific impacts are less than significant.

c) No paleontological resources are known to exist on the project site; however, standard mitigation measures apply which are designed to reduce impacts to such 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 (Mitigation Measure CUL-2). With mitigation, project-specific impacts are less than significant.

Mitigation Measure CUL-1 – Cease Work and Consult with Qualified Archaeologist

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, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with qualified archaeologists as needed to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance or data recovery excavations. The contractor shall implement any measures deemed necessary for the protection of the cultural resources. In addition, pursuant to section 5097.98 of 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.

Mitigation Measure CUL-2 -- Cease Work Until Review Conducted by Qualified Paleontologist and Recommendations Implemented

Should any evidence of paleontological resources (e.g., fossils) be encountered during grading or excavation, work shall be suspended within 100 feet of the find, and the City of Roseville shall be immediately notified. At that time, the City shall coordinate any necessary investigation of the site with a qualified paleontologist to assess the resource and provide proper management recommendations. Possible management recommendations for important resources could include resource avoidance or data recovery excavations. The contractor shall implement any measures deemed necessary by the paleontologist for the protection of the paleontological resources.

VI. Energy

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	
b) Conflict with or obstruct a state or local plan for renewable energy or energy inefficiency?			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) According to a representative from Roseville Electric, a similar use in the City uses approximately 6,735 kWh per month. As stated in the thresholds of significance section, there is no stated numeric significance threshold to define "wasteful, inefficient, or unnecessary"; however, Roseville Electric has reviewed the proposed project and found that the Department has adequate capacity to serve the site. The project would 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 project is consistent with the existing land use designation of BP (Business Professional), as identified in the General Plan. The Environmental Impact Report (EIR) for the General Plan included an assessment of energy impacts for the entire plan area. The analysis included consideration of transportation energy, and evaluated walkability, alternative transportation modes, and the degree to which the mix and location of uses would reduce vehicle miles traveled in the plan area. The EIR also included a citywide assessment of energy demand based on the existing and proposed land uses within the City and Specific Plan. Impacts related to energy consumption were found to be less than significant. The project is consistent with the existing land use designation, and therefore is consistent with the current citywide assessment of energy demand, and will not result in substantial unplanned, inefficient, wasteful, or unnecessary consumption of energy; 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
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
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	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) 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	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?			X	
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological 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–f 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 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 archeological resources, which for this evaluation will include paleontological resources (Policies 1 and 2). Section 50987.5 of the California Public Code Section is only applicable to public land; this section prohibits the excavation, removal, destruction, or defacement/injury to any vertebrate paleontological site, including fossilized footprints or other paleontological feature.

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 Xerofluvents, frequently flooded, which are listed as geologically unstable or sensitive. This is the only soil type mapped by USDA within the subject parcel. This soil type is found adjacent to stream channels (in this case Cirby Creek), and is subject to frequent flooding and channelization. It is generally not considered suitable for urban uses because of their flood hazard. However, it is noted that there are several other completed development projects in the area, including the former IHOP restaurant (now urgent care) building located on site, and the multifamily residential development on the adjacent parcel.

A Geotechnical Engineering Report was prepared by Ted Bibby, Project Geologist for NV5, on November 1, 2024 to evaluate the proposed project and determine whether the site is suitable for the proposed improvements. The report relies on subsurface investigation, including excavation test pits, laboratory test results, and prior experience with subsurface conditions in the area. Soil types encountered in the exploratory trenches included ML, Silt with Gravel/Cobbles; SP, Poorly Graded Sand; and ML-CL, Sandy Silt/Clay (Hardpan). No groundwater seepage was encountered during the survey, though the report notes that this survey was conducted in September 2024 following a long period of dry weather. Laboratory testing showed that the soil samples from the site were non-expansive.

The report notes that the primary concerns are the floodplain that is located on site, and the fact that the site includes very stiff to hard fine-grained deposits within the location of the proposed improvements. The report includes recommendations for appropriate grading and fill to ensure that the development will not be impacted by potential groundwater seepage or other soil-related instability. Additionally, the project has been reviewed by City of Roseville Building and Engineering Divisions, and will be subject to additional permitting through the building permit and improvement plan processes. The project design, which will include appropriate engineering to compensate for the site geology, will ensure that project impacts are less than significant.

f) No paleontological resources are known to exist on the project site; however, standard mitigation measures apply which are designed to reduce impacts to such 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. 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 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, and has been updated twice.

The current 2017 Scoping Plan updated the target year from 2020 to 2030, based on the targets established in Senate Bill 32 (SB 32). SB 32 was signed by the Governor on September 8, 2016, to establish a reduction target of 40 percent below 1990 levels by 2030. Critically, the 2017 Scoping Plan also sets the path toward compliance with the 2050 target embodied within Executive Order S-3-05 as well. According to the 2017 Scoping Plan the statewide 2030 target is 260 million metric tons. The Scoping Plan recommends an efficiency target approach for local governments for 2030 and 2050 target years.

The Placer County Air Pollution Control District (PCAPCD) recommends that thresholds of significance for GHG be related to statewide 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, as well as residential and non-residential efficiency thresholds. However, the City developed its own thresholds as part of the 2035 General Plan Update project approved in July 2020. The justification for the City's thresholds is

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

contained within the General Plan EIR. The thresholds were developed based on statewide emissions data adjusted for relevant local conditions and land uses. The significance thresholds are shown in Table 1 below.

Table 1: GHG Significance Thresholds

	2020	2030	2035	2050
Per Capita Emissions Efficiency Targets (MT CO_2e/capita/yr)	**7.21**	**4.00**	**3.22**	**1.19**
Per Service Population Emissions Efficiency Targets (MT CO_2e/SP/yr)	**5.07**	**2.79**	**2.25**	**0.83**
Projects which use these thresholds for environmental analysis should include a brief justification of the type of efficiency target and the target year selected. Per capita is most applicable to projects which only include residential uses, or in cases where reliable data to generate a service population estimate is unavailable. Projects should generally use the 2035 target year. Note that future projects consistent with the General Plan will not require further analysis, per the tiering provisions of CEQA. Note: MMT CO_2e = million metric tons of carbon dioxide equivalent; Service Population (SP) = population + employment				

Discussion of Checklist Answers:

a–b) Per the tiering provisions of CEQA, and as explicitly stated within the City's adopted GHG significance thresholds in Table 1 above, a project which is consistent with the General Plan is not required to provide further analysis. The project is consistent with the General Plan, and therefore does not require GHG analysis. Greenhouse gases are primarily emitted as a result of vehicle operation associated with trips to and from a project, and energy consumption from operation of the buildings.

Greenhouse gases from vehicles is assessed based on the vehicle miles traveled (VMT) resulting from a project, on a Citywide basis. Residential projects, destination centers (such as a regional mall), and major employers tend to increase VMT in a study area, either by adding new residents traveling in an area, or by encouraging longer trip lengths and drawing in trips from a broader regional area. However, non-residential projects and neighborhood-serving uses (e.g. neighborhood parks) tend to lower VMT in a study area because they do not generate new trips within the study area, they divert existing trips. These trips are diverted because the new use location is closer to home, on their way to another destination (e.g. work), or is otherwise more convenient.

The project proposes the construction of an approximately 7,300 square foot medical office building, which at this time is anticipated to be a dentist office. As discussed in the Transportation section of this Initial Study, the project is consistent with the City's General Plan and will not create additional trips that have not already been evaluated in the General Plan EIR.

The City's General Plan Update (GPU) EIR included an analysis of GHG emissions which would result from buildout of the City's General Plan. The EIR concluded that the General Plan buildout would exceed the City's threshold of 2.25 MT CO2e per service population and that the effect was cumulative considerable. Although mitigation measures were adopted as part of the General Plan, those measures would not reduce impacts to less-than-significant levels, and impacts were considered significant and unavoidable. The proposed project is consistent with the land use assumptions in the GPU EIR and does not require further analysis per the tiering provisions of CEQA. The project includes reasonable and feasible design measures to reduce emissions, including implementation of the latest Cal-Green and energy efficiency code requirements. The project complies with General Plan policy related to GHG and the project does not result in any new GHG impacts not previously analyzed in the GPU EIR; therefore, project-specific impacts are less than significant.

Thus, project-generated GHG emissions would not conflict with and are consistent with statewide goals for greenhouse gas emissions reduction. This impact is considered less than significant.

IX. Hazards and Hazardous Materials

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

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?				X

Thresholds of Significance and Regulatory Setting:

The significance of impacts related to hazardous materials is based directly on the CEQA Guidelines checklist items a–g 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 private use airport. Therefore, no further discussion is provided for item 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[3]; therefore, no impact will occur.

E,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. Cirby Creek is located in the northern portion of the subject parcel.

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	

[3] 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
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			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 City's Urban Water Master Plan and evaluated in the General Plan EIR. The proposed project is consistent with the General Plan land use designation, and is thus consistent with the citywide evaluation of water supply. 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 criteria.

XI. Land Use and Planning

The Project is located in a Planned Development (PD52) zone district as well as partially in the FW (Floodway) zone district, and is not located within a specific plan area. The land use designation is BP (Business Professional) and OS/FP (Open Space/ Floodplain). High density residential uses are located to the east (senior living complex) and west of Sunrise Av. (condominium complex). Office buildings are located to the north of Cirby Creek, and a drive-thru kiosk is located to the south of the site.

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 of an agency 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 and b 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 master planned for development, including adequate roads, pedestrian paths, and bicycle paths to provide connections within the community. The Project will be constructed on an undeveloped portion of an infill parcel within the city. The project will not physically divide an established community.

b) The proposed project is a medical office, which is consistent with the underlying business professional designation for the site under the PD52 zone district. The project is subject to the Design Review process, and is also requesting a Flood Encroachment Permit and Tree Permit to address development within the FW (Floodway) zone district and the removal of three (3) protected oak trees. Obtaining these permits is consistent with the policies intended for resource protection, and the analyses specifically pertaining to floodway development and tree removal are discussed in this initial study. No conflicts with any policies adopted to mitigate an environmental effect have been identified.

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 is located on the east side of Sunrise Av., which is not identified as a transportation noise source in the City's General Plan Noise Element. However, the project site is located within approximately a 0.3 miles of Highway 80, which is identified as a transportation noise source in the City's General Plan Noise Element. In the existing and future conditions, the 70 db Ldn noise contour line covers the entire project site (City of Roseville General Plan 2035 Noise Element, Figures IX-1 and IX-2). Other uses in the vicinity include other offices and residential, which generate low outdoor noise. The nearest sensitive receptor is the senior living facility immediately to the east of the project site.

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, 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 is a medical office facility, which is not considered to be a noise-generating use. 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; therefore, 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 Infill area of the City and has a land use designation of BP (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 and b 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 is consistent with the land use designation of the site. Therefore, while the project in question will induce some level of growth, this growth was anticipated for the site when it was designated for Business Professional land uses in the Planned Development Ordiance. Therefore, the impact of the project is less than significant.

b) The project site is partially developed with an existing office building and associated parking. No housing exists on the project site, and there would be no impact with respect to these criteria.

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 and Roseville Joint Union High School Districts. 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 significance of impacts related to public services is based directly on the CEQA Guidelines checklist items a–e listed above. The EIR for the Specific Plan addressed the level of public services which would need to be provided in order to serve planned growth in the community. Development Agreements and other conditions have been adopted in all proposed growth areas of the City which identify the physical facilities needed to serve growth, and the funding needed to provide for the construction and operation of those facilities and services; the project is consistent with the Specific Plan. 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) Pursuant to the Development Agreement for the project area, the developer is required to pay fees into a Community Facilities District, which provides funding for police services. 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) Pursuant to the Development Agreement for the project area, the developer will be required to pay fees into a Community Facilities District, which provides funding for park services. Future park and recreation sites

and facilities have already been identified as part of the Specific Plan process. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

e) Pursuant to the Development Agreement for the project area, the developer will be required to pay fees into a Community Facilities District, which provides funding for the library system and other such facilities and services. In addition, the City charges fees to end-users for other 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

The project includes the development of a medical office, located on a parcel with a land use designation of BP and OS/FP. The nearest park to the project site is Eastwood Park, approximately 0.3 miles away.

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 General Plan EIR addressed the level of park services—including new construction, maintenance, and operations—which would need to be provided in order to serve planned growth in the community. Given that the project is consistent with the General Plan, the project would not cause any unforeseen or new impacts related to the use of existing or proposed parks and recreational facilities. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

b) Park sites and other recreational facilities were identified within the General Plan EIR. The project will not cause any unforeseen or new impacts related to the construction or expansion of recreational facilities.

XVII. Transportation

The subject parcel is adjacent to Sunrise Bl., which is already improved with existing sidewalk, curb, and gutter. Ingress and egress will occur via an existing drive aisle that serves the medical office building, as well as the senior apartment complex.

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(s) (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:

The City has adopted the following plans, ordinances, or policies applicable to checklist item a: 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. 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 vehicle miles traveled (VMT); effects on automobile delay cannot be considered a significant impact. The City developed analysis guidance and thresholds as part of the 2035 General Plan Update project approved in July 2020. The detailed evaluation and justification is contained within the General Plan EIR.

Future projects consistent with the General Plan will not require further VMT analysis, pursuant to the tiering provisions of CEQA. For projects which are inconsistent, CEQA Guidelines Section 15064.3(b) allows lead agencies discretion to determine, in the context of a particular project, whether to rely on a qualitative analysis or performance-based standards. CEQA Guidelines Section 15064.7(b) allows lead agencies the discretion to select their own thresholds and allow for differences in thresholds based on context.

Quantitative analysis would not be required if it can be demonstrated that the project would generate VMT which is equivalent to or less than what was assumed in the General Plan EIR. Examples of such projects include:

- Local-serving retail and other local-serving development, which generally reduces existing trip distances by providing services in closer proximity to residential areas, and therefore reduce VMT.

- Multi-family residences, which generally have fewer trips per household than single-family residences, and therefore also produce less VMT per unit.

- Infill projects in developed areas generally have shorter trips, reduced vehicle trips, and therefore less VMT.

- Pedestrian, bicycle, transit, and electric vehicle transportation projects.

- Residential projects in low per-capita household VMT areas and office projects in low per-worker VMT areas (85 percent or less than the regional average) as shown on maps maintained by SACOG or within low VMT areas as shown within Table 4.3-8 of the General Plan EIR.

When quantitative analysis is required, the threshold of 12.8 VMT/capita may be used for projects not within the scope of the General Plan EIR, provided the cumulative context of the 2035 General Plan has not changed substantially. Since approval of the 2035 General Plan, the City has not annexed new land, substantially changed roadway network assumptions, or made any other changes to the 2035 assumptions which would require an update to the City's VMT thresholds contained within the General Plan EIR. Therefore, the threshold of 12.8 VMT/capita remains appropriate.

Given the proposed use and location of the project, no qualitative analysis was required as the development is consistent with the General Plan land use designation. Further evaluation is provided below in item b.

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 has adopted a Pedestrian Master Plan, Bicycle Master Plan, and Short-Range Transit Plan. The project was reviewed for consistency with these documents. The project is located in an area planned for commercial and office type uses. Sunrise Bl. is already improved with sidewalks, curb, and gutter. This road serves the subject parcel. The proposed project will be constructed consistent with the existing roadway system and in compliance with the requirements of the Pedestrian Master Plan, Bicycle Master Plan, and Short Range Transit Plan.

b) The proposed project is a small, approximately 7,300 square-foot office building, which is anticipated to be a dentist office. It is located on a partially developed parcel that has an existing office building and parking area. The use will serve the local community, and is an infill project surrounded by developed area. As the project is consistent with the General Plan land use and will likely reduce VMT as a local-serving, infill development, no qualitative analysis was prepared. Impacts are less than significant.

c, d) 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 projects require 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 tribal 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. The United Auburn Indian Community (UAIC) is a federally recognized Tribe comprised of both Miwok and Maidu (Nisenan) Tribal members who are traditionally and culturally affiliated with the project area. The UAIC has indicated that "the Tribe has deep spiritual, cultural, and physical ties to their ancestral land and are contemporary stewards of their culture and landscapes. The Tribal community represents a continuity and endurance of their ancestors by maintaining their connection to their history and culture. It is the Tribe's goal to ensure the preservation and continuance of their cultural heritage for current and future generations."

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:

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 of 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) A Cultural Resources Inventory Survey was prepared for the project by Sean Michael Jensen, M.A., of Genesis Society on March 18, 2023. The survey included a search of the records at the North Central Information Center (NCIC) of the California Historical Resources Information System and consultation with the Native American Heritage Commission (NAHC). The survey also included a pedestrian survey of the site to evaluate for previously unidentified cultural resources. The survey did not result is any relevant records or documented sites in the area, nor were any potential tribal cultural resources identified in the pedestrian survey. Notice of the proposed project was mailed to the tribes which had requested such notice pursuant to AB52. No requests for consultation were received. However, standard mitigation measures apply which are designed to reduce impacts to any previously undiscovered 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-specific impacts are less than significant.

b) Notice of the proposed project was mailed to tribes which had requested such notice pursuant to AB 52. A request for consultation was not received. As discussed in item a, above, no resources are known to occur in the area. However, standard mitigation measures apply which are designed to reduce impacts to 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-specific impacts are less than significant.

Mitigation Measure TCR-1: Post-Review Discovery Procedures

If subsurface deposits believed to be cultural or human in origin, or tribal cultural resources, are discovered during construction, all work shall halt within a 100-foot radius of the discovery, and the Construction Manager shall immediately notify the City of Roseville Development Services Director by phone. The Construction Manager shall also immediately coordinate with the monitoring archeologist or project archaeologist and (if present) tribal monitor, or, in the absence of either, contact the consulting tribe(s) and a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for archaeology and subject to approval by the City, to evaluate the significance of the find and develop appropriate management recommendations in coordination with the consulting tribe(s) if the find is a tribal cultural resource.

All management recommendations shall be provided to the City in writing for the City's review and approval. If recommended by the qualified professional and consulting tribes and approved by the City, this may include modification of the no-work radius.

The professional archaeologist must make a determination, based on professional judgement and supported by substantial evidence, within one business day of being notified, as to whether or not the find represents a cultural or tribal resource or has the potential to be a cultural or tribal cultural resource. The consulting tribe shall also be given the opportunity to provide, within one business day of being notified, a determination as to whether or not the find represents a tribal cultural resource or has the potential to be a tribal cultural resource.

The type of discovery, as described below will determine the subsequent actions. These include: 1) a work pause that, upon further investigation, is not actually a discovery and the work pause was simply needed in order to allow for closer examination of soil (a "false alarm"); 2) a work pause and subsequent action for discoveries that are clearly not related to tribal resources, such as can and bottle dumps, artifacts of European origin, and remnants of built environment features; and 3) a work pause and subsequent action for discoveries that are likely related to tribal resources, such as midden soil, bedrock mortars, groundstone, or other similar expressions.

Whenever there is question as to whether or not the discovery represents a tribal resource, culturally affiliated tribes shall be consulted in making the determination. Whenever a tribal monitor is present, the monitor shall be consulted.

The following processes shall apply, depending on the nature of the find, subject to the review and approval of the City:

Response to False Alarms: If the professional archaeologist determines that the find is negative for any cultural indicators, and tribal representatives have not indicated the find is a tribal cultural resource, then work may resume immediately upon notice to proceed from the City's representative. No further notifications or archaeological consultation is necessary if it is determined that the discovery is not a cultural or tribal cultural resource of any kind. The professional archaeologist shall provide written documentation of this finding to the City, which shall include as an attachment any written documentation provided by tribal representatives or monitors.

Response to Non-Tribal Discoveries: If a tribal monitor is not present at the time of discovery and a professional archaeologist determines that the find represents a non-tribal cultural resource from any time period or cultural affiliation, the City shall be notified immediately, to consult on a finding of eligibility and implementation of appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines. The professional archaeologist shall provide a photograph of the find and a written description to the City of Roseville. The City of Roseville will notify any [tribe(s)] who, in writing, requested notice of unanticipated discovery of non-tribal resources. Notice shall include the photograph and description of the find, and a tribal representative shall have the opportunity to determine whether the find represents a tribal cultural resource. If a response is not received within 24 hours of notification (none of which time period may fall on weekends or City holidays), the City will deem this portion of the measure completed in good faith as long as the notification was made and documented. If requested by a [tribe(s)], the City may extend this timeframe, which shall be documented in writing (electronic communication may be used to satisfy this measure). If a notified tribe responds within 24 hours to indicate that the find represents a tribal cultural resource, then the Response to Tribal Discoveries portion of this measure applies. If the tribe does not respond or concurs that the discovery is non-tribal, work shall not resume within the no-work radius until the City, through consultation as appropriate, determines that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) that the treatment measures have been completed to its satisfaction.

Response to Tribal Discoveries: If the find represents a tribal or potentially tribal cultural resource that does not include human remains, the consulting tribe(s) and City shall be notified. The City will consult with the tribe(s) on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be either a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines, or a Tribal Cultural Resource, as defined in Section 21074 of the Public Resources Code. Preservation in place is the preferred treatment, if feasible. Work shall not resume within the no-work radius until the City, through consultation as appropriate, determines that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines; or 2) not a Tribal Cultural Resource, as defined in Section 21074 of the Public Resources Code; or 3) that the treatment measures have been completed to its satisfaction.

Response to Human Remains: If the find includes human remains, or remains that are potentially human, the construction supervisor or on-site archaeologist and (if present) tribal monitor shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641) and shall notify the City and Placer County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code, and Assembly Bill 2641 shall be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. Public Resources Code § 5097.94 provides structure for mediation through the NAHC if necessary. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the Public Resources Code).

If no agreement is reached, the landowner must rebury the remains in a respectful manner where they will not be further disturbed (§ 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work shall not resume within the no-work radius until the City, through consultation as appropriate, determines that the treatment measures have been completed to its satisfaction.

XIX. Utilities and Service Systems

The project site is located within a developed area of the City of Roseville, and will be served by the Dry Creek Wastewater Treatment Plant.

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	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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–e listed above.

Discussion of Checklist Answers:

a) The project will be required to construct any utilities infrastructure necessary to serve the project, as well as pay fees which fund the operation of the facilities and the construction of major infrastructure. The construction impacts related to building the major infrastructure were disclosed in the General Plan EIR, and appropriate mitigation was adopted. 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 2020 Urban Water Management Plan (UWMP), adopted June 2021, estimates water demand and supply for the City through the year 2045, based on existing land use designations and population projections. In addition, the General Plan EIR estimates water demand and supply for ultimate General Plan buildout. The project is consistent with existing land use designations, and is therefore consistent with the assumptions of the UWMP and General Plan EIR. The UWMP indicates that existing water supply sources are sufficient to meet all normal years, and during single-dry and in certain multiple-dry years, water supply deficit may occur. The UWMP estimates a near-term (2025) demand of 51,585 acre-feet per year (AFY), and a long-term, buildout (2045) demand of 62,547 AFY. In normal years, supply exceeds demand by approximately 13,000 AFY in the near-term and by approximately 8,000 AFY at buildout. The UWMP establishes some water supply deficit during dry year scenarios, ranging from approximately 1,500 AFY to 5,000 AFY depending on the scenario, but establishes that mandatory water conservation measures and the use of groundwater to offset reductions in surface water supplies are sufficient to offset the deficit. The project, which is consistent with existing land use designations, would not require new or expanded water supply entitlements.

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 7.0[4] mgd OR 8.9 mgd. The project is consistent with existing land use designations, which is how infrastructure capacity is planned. Therefore, the volume of wastewater generated by the proposed project 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 General Plan EIR, under

[4] Dave Samuelson, City of Roseville Environmental Utilities, Personal communication, July 6, 2016.

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. 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 and waste reduction regulations and policies 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 wildfire 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) 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
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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	
b) 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	
c) Does the project have environmental effects which will cause substantial adverse effects			X	

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
on human beings, either directly or indirectly?				

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 EIR, 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:

Shelby Maples

_____

Shelby Maples, Associate Planner
City of Roseville, Development Services – Planning Division

Attachments:

1. IHOP Initial Study
2. Biological Resource Assessment, Greg Matuzak Environmental Consulting LLC
3. Geotechnical Engineering Report, NV5

ATTACHMENT # 2

IS ATTACHMENT 1

PLANNING
CITY OF ROSEVILLE
TRADITION ■ PRIDE ■ PROGRESS

316 VERNON STREET, 104 ■ ROSEVILLE, CA 95678 ■ PHONE (916) 774-5276

NOTICE OF NEGATIVE DECLARATION

Project Name: International House of Pancakes
Project Files: UP 94-38; TP 95-11
Project Location: 701 Sunrise Avenue
A.P.N.: 470-010-043
Project Developer: Ed Latin

Project Description: The applicant is requesting a Use Permit requiring Site Review to construct a 4,558 square foot International House of Pancakes restaurant (with seating for 190 people) and a Tree Permit to allow construction activities within the protected zones of four native oak trees.

DECLARATION

On August 3, 1995 the Planning Director determined that the above project will have no significant effect on the environment and is therefore exempt from the requirement of an Environmental Impact Report. The determination is based on the following findings:

a) *The project will not have the potential to degrade the quality of the environment , substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare of endangered plant or animal community, reduce the number or restrict the range of rare of endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.*
b) *It will not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.*
c) *It will not have impacts which are individually limited, but cumulatively considerable.*
d) *It will not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.*
e) *No substantial evidence exists that the project will have a negative adverse effect on the environment.*

Written comments shall be submitted no later than 30 days from the posting date. Appeal of this determination must be made during the posting period.

Submit comments to:
Roseville Planning Department
Attn: Reg Murray, Associate Planner
316 Vernon Street, #104
Roseville, CA 95678

Posting period 8/4/95 to 9/4/95
Initial Study Prepared by:

Reg Murray, Associate Planner

INITIAL STUDY AND ENVIRONMENTAL CHECKLIST

INTERNATIONAL HOUSE OF PANCAKES
701 SUNRISE AVENUE

AUGUST 3, 1995

PREPARED BY:

CITY OF ROSEVILLE PLANNING DEPARTMENT
316 VERNON STREET, SUITE 104
ROSEVILLE, CA 95678

CONTACT: REG MURRAY, ASSOCIATE PLANNER
(916) 774-5276

APPLICANT:

ED LATIN
7932 SUNSET AVENUE, SUITE G
FAIR OAKS, CA 95628

(916) 966-8258

INITIAL STUDY AND ENVIRONMENTAL CHECKLIST

PROJECT:	International House of Pancakes
FILE #s:	UP 94-38; TP 95-11
DATE:	August 3, 1995
APPLICANT:	Ed Latin
PARCEL AND OWNER:	470-010-043; Milton and Susan Armistead

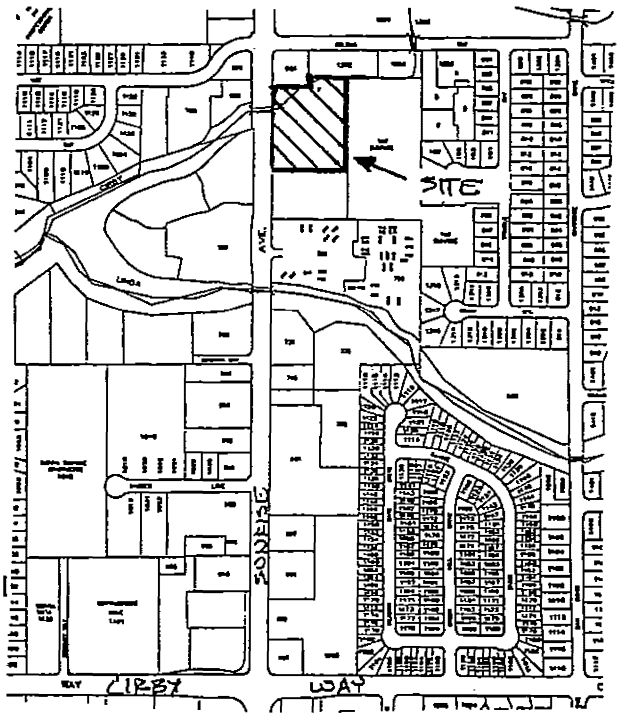
REQUEST:

The applicant is requesting approval of the following entitlements:

- A Use Permit requiring Site Review to allow the construction of an International House of Pancakes restaurant. The building is 4,558 s.f. in size and includes a 682 s.f. raised deck. The restaurant is proposed to accommodate 190 seats (Attachment ND1).
- A Tree Permit to allow construction activities within the protected zones of four native oak trees.

BACKGROUND:

A. LOCATION: 701 Sunrise Avenue



B. ZONING: PD - Commercial/Office/Residential
LAND USE: Business Professional (BP)

C. ADJACENT ZONING AND LAND USES:

	Zoning	Land Use
North:	Floodway	Open Space/Flood Area
East:	PD - R-34	HDR - 34
South:	PD - Comm/Office/Residential	Business Professional
West:	Floodway	Open Space/Flood Area
	PD - R-20	HDR -20

D. PHYSICAL OR NATURAL FEATURES ON SUBJECT SITE:

The proposed project is located on a portion of APN 470-010-043, which totals 2.7 acres in size. Attachment ND1 illustrates the relationship of the project area with respect to the entirety of the 2.7 acre parcel.

Cirby Creek is located on the northern portion of the project parcel. The banks of the creek have been reinforced with rip rap (stone). Vegetation, including cattails and willow, are prolific in the stream channel. Several mature oak trees are located on the northern bank of Cirby Creek. The creek flow east to west and exits the project site via a culvert under Sunrise Avenue.

The area south of Cirby Creek is relatively uniform. The project area gently slopes east away from Sunrise Avenue. The area is vegetated with a mix of weeds and grasses (including star thistle) and includes six native (Valley) oak trees. Only three of the six oak trees are of significant size to be considered protected trees (Attachment ND2; Trees 13-15). An asphalt pathway, provides pedestrians from the adjacent Sunrise Villa retirement complex with access to Sunrise Avenue. The pathway parallels the southern margin of the creek.

The project site is bounded on the west by Sunrise Avenue and on the south by an asphalt access road that extends from Sunrise Avenue to the Sunrise Villa retirement complex. Improvements along Sunrise Avenue include curb, gutter, sidewalk, two electric transformers (including the project's transformer), a fire hydrant, a bus turnout, and a bus shelter. Improvements on the access road include a raised concrete curb and three street lights.

A freestanding monument sign advertising the Sunrise Villa retirement complex is located at the southwest corner of the project area. The sign is landscaped with several shrubs around the sign base and two small trees on either end.

E. PHYSICAL OR NATURAL FEATURES ON ADJACENT LAND:

The area north of the project site includes the northern margin of Cirby Creek, a gas station, and a small office building. The area associated with the creek includes cattails, willows, and oak trees consistent with the project site. The Sunrise Villa retirement complex is located on the parcel to the east. The complex is a two-story building with a total of 200 units.

The parcel immediately to the south is vacant and is covered with a mix of weeds and grasses similar to the project site. The parcel, which has a gentle slope away from Sunrise Avenue, includes curb and sidewalk improvements along the access road frontage. The parcel's improvements along Sunrise Avenue include curb, gutter, sidewalk, and street lights.

A four-lane arterial road (Sunrise Avenue) borders the project site immediately to the west. The western extension of Cirby Creek and the Twin Creek Commons apartment complex are located across Sunrise Avenue to the west.

INITIAL STUDY CHECKLIST:

The following section presents the initial study checklist recommended by the California Environmental Quality Act (CEQA) Guidelines to determine potential impacts of a project. Explanations of all the answers are provided following each question. Mitigation measures are recommended as necessary.

1. **Earth.** Will the proposal result in:

   a. Unstable earth conditions or changes in geological substructures?
   Answer: No
   b. Disruptions, displacements, compaction, or covering of the soil?
   Answer: Yes
   c. Change in topography or ground surface relief features?
   Answer: Yes
   d. The destruction, covering, or modification of any unique geologic or physical features?
   Answer: No
   e. Any increase in wind or water erosion of soils, either on or off the site?
   Answer: Maybe
   f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition, or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet, or lake?
   Answer: No
   g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?
   Answer: No

   Responses to Answers:

   Less Than Significant. (1.a-d) There are no significant topographic features associated with the site. Grading activities will be limited to only minor changes of topography and ground surface relief features as part of the site preparation. Grading volumes will be limited to ±260 cubic yards and all materials will be balanced on site (no fill material will be brought to the site).

   Disruptions, displacement, compaction, and overcovering of soils can be expected on a limited basis through grading processes. All grading activities will require a grading permit from the Engineering Division of the Public Works Department. The grading permit review will ensure that appropriate dust control measures, drainage patterns, and erosion control measures are take to reduce grading impacts to a less than significant level.

   Less Than Significant. (1.e,f) Minor wind or water erosion of soils could possibly occur during construction activities. All grading activities will require a grading permit to be obtained from the Engineering Division of the Public Works Department. The grading permit review will ensure appropriate dust control measures and drainage patterns. On-site inspections by the Engineering Division of the Public Works Department will

ensure compliance with the approved grading permit, thereby reducing any potential grading impacts to less than significant levels.

Less Than Significant. (1.g) Exposure of people or property to a geologic hazard, such as an earthquake, landslides, liquefactions, ground ruptures, or lateral spreading is considered low to remote and less than significant. The General Plan finds such impacts to be less than significant since new buildings and structures would be designed to comply with all applicable building codes. Such plans would be reviewed by the City of Roseville Building Department before a building permit is issued. The Engineering Department would review all rough grading plans to insure all grading and structures would withstand shrink-swell potentials and earthquake activity in this area.

2. **Air.** Will the proposal result in:

a. Substantial air emissions or deterioration of ambient air quality?
Answer: No.

b. The creation of objectionable odors?
Answer: No.

c. Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?
Answer: No.

Response to Answers

Less Than Significant. (2.a-c) The City of Roseville, along with the south Placer County area, is located in the Sacramento Air Quality Maintenance Area (SAQMA). The Sacramento Area Council of Governments (SACOG) has been responsible for the preparation of a State Implementation Plan (SIP) for the SAQMA as required by the Federal Clean Air Act of 1990. In 1990, the Sacramento Area Council of Governments (SACOG) developed Regional Interim Air Quality Plan for the SAQMA. (source: City of Roseville General Plan EIR).

The City of Roseville is also located in the Placer County Air Pollution Control District (PCAPCD). The PCAPCD incorporates the background information and land use control measures from the Interim RAQMP. The primary responsibility to enforce the air quality standards for point source emissions rests with the Placer County Air Pollution Control District (PCAPCD). The PCACD also reviews environmental documents, EIRs or Negative Declarations, required by CEQA. The City of Roseville has not attained the ambient air quality standards for the following primary pollutants: ozone and suspended particulate less 10 microns in diameter (PM10). All of Placer County, including the City of Roseville, is unclassified for Carbon Monoxide (CO) because no CO monitoring is conducted in Placer County.

Short term impacts to air quality can be expected with construction activities. These impacts are primarily associated with grading activities and the increased potential for dust and wind erosion of soils. The City of Roseville General Plan EIR found such short-term impacts to be unavoidably significant. However, air-borne particulate matter resulting from construction will be lessened by implementing the mitigation measures of the General Plan EIR listed below. The Public Works Department will

perform on-site inspections to ensure that mitigation measures 1-4 are being implemented as conditions of any future grading or encroachment permits. Vehicle exhaust, produced during project construction, could temporarily contribute to the deterioration of ambient air quality. This is considered a less than significant impact.

Mitigation Measure 1. The applicant shall spray water on all exposed earth surfaces during clearing grading, earth moving and other site preparation activities. The exposed earth shall be watered throughout the day to minimize dust. This requirement should be included in all contracts with the applicant's primary and sub contractor(s) for site preparation.

Mitigation Measure 2. The applicant shall use tarpaulins or other effective covers on all stockpiled earth material and on all haul trucks to minimize dust. This requirement should be included in all contracts with the applicant's primary and sub contractor(s) for site preparation.

Mitigation Measure 3. The applicant shall not carry out any grading activity when wind speeds exceed 10 miles per hour. This requirement should be included in all contracts with the applicant's primary and sub contractor(s) for site preparation.

Mitigation Measure 4. The applicant and the applicant's contractors shall be responsible to clean construction vehicles before leaving the construction site on a daily basis to prevent dust, silt and dirt from being released or tracked off-site. This requirement should be included in all contracts with the applicant's primary and sub contractor(s).

3. **Water.** Will the proposal result in:

a. Changes in currents, or the course of direction of water movements, in either marine or fresh waters?

Answer: No. The proposal does not affect marine or fresh waters.

b. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?

Answer: Yes. The improvements required for construction of the project will result in a change in the current drainage patterns. Drainage will be redirected into the on-site storm drain system, with release into an existing 36" storm drain located to the northeast of the project area. The 36" storm drain outlets into Cirby Creek just north of the project area.

Due to the extent of impervious surfaces associated with the project (parking lot; building coverage), the natural absorption rates for the site will be modified. The covered areas will cause a reduction in the on-site absorption rate and an increase in the rate of surface runoff as well as peak flows. Peak flow on site is considered minimal and storm drain systems will be installed to adequately handle runoff. The impacts associated with the changes are minor and are considered less than significant.

c. Alterations to the course or flow of flood waters?

Answer: Maybe; less than significant.

The project site is located within a FEMA special flood hazard area (AE zone) inundated by a 100 year flood (FIRM map 060243 0016 D). In order to determine the potential project impacts to flooding, a HEC-2 analysis has been prepared by the project applicant. The analysis considers the worst case scenario of a 500 year base flood elevation for Cirby Creek. A floodproofing analysis was also prepared for the project by Nolte and Associates (Attachment ND3). Based on the information provided with the HEC-2 analysis and the floodproofing analysis, it is determined that the project will have little change to the 500 year surface water elevation (Attachment ND3; Table 1). This is consistent with the Roseville General Plan policy limiting cumulative impacts to less than a 1' rise in water surface elevation.

The 100-year flood elevation for the project site has been determined to be 141.95'. To accommodate this, the finished floor elevations will need to maintain a minimum clearance elevation 2' above the 100-year elevation (143.95'). The proposed minimum floor elevation is 144'. The building, which includes a basement parking area, will be constructed on piers. Large openings will be provided between the piers to further improve water conveyance.

Based on the findings of the HEC-2 study, the floodproofing analysis, and the construction methods for the proposed structure, the impacts associated with the project are considered to be less than significant.

d. Change in the amount of surface water in any water body?

Answer: No. The development will not change the amount of surface water in any water body.

e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen, or turbidity?

Answer: Maybe. Water quality may be affected on a short term basis due to petroleum products from vehicular traffic (e.g. oil, gasoline) and soil erosion associated with construction. The potential impacts are considered less than significant since the quality of the water will be protected by requiring all storm water drainage to the be handled in a way acceptable to the Public Works and Environmental Utilities Departments. The standard soil erosion and sediment control mitigation measures associated with a grading permit will reduce impacts associated with construction and soil erosion to a less than significant level.

f. Alteration of the direction or rate of flow of groundwaters?

Answer: No. The project will not affect groundwaters.

g. Change in the quantity of groundwaters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

Answer: No. The project will not affect groundwaters.

h. Substantial reduction in the amount of water otherwise available for public water supplies?

Answer: No. The project will not have an appreciable affect on available water supplies.

i. Exposure of people or property to water-related hazards such as flooding or tidal waves?

Answer: No. The project area will not result in exposure to flooding or tidal waves.

4. **Plant Life.** Will the proposal result in:

a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?
Answer: No.

b. Reduction of the numbers of any unique, rare, or endangered species of plants?
Answer: No.

c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?
Answer: Yes.

d. Reduction in acreage of any agricultural crop?
Answer: No. The site is not used for agricultural purposes.

Response to Answers; Less Than Significant (4.a-c) - As noted above, the project area is located on a portion of APN 470-010-043. The project area is vegetated with a mix of grasses and weeds (including star thistle) and includes six Valley Oak trees. The Valley oaks include three trees of less than 6" DBH which are proposed for removal. The three remaining trees (Attachment ND2; Trees 13-15) are 8.5", 39.5", and 13.5" DBH, respectively, and will be preserved per the requirements of the Roseville Tree Preservation Ordinance. Portions of the parking lot will encroach within the protected zones for each of the three remaining trees. The arborist's recommendations with respect to root cuts, aeration systems, pruning, and other tree mitigation measures will be included as conditions of approval for the project and will reduce any impacts to the trees to a less than significant level.

No special status plant species are known to exist on the site. The existing grasses and weeds will be replaced with the associated project landscaping. This is considered to have a less than significant impact on plant life.

5. **Animal Life.** Will the proposal result in:

   a. Change in the diversity of species or the numbers of any animal species (including reptiles, fish, shellfish, benthic organisms or insects)?
   Answer: No.

   b. Reduction of the numbers of any unique, rare, or endangered species of animals?
   Answer: No.

   c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?
   Answer: No.

   d. Deterioration to existing fish or wildlife habitat?
   Answer: No

   Response to Answers; Less Than Significant (5.a-d) The site does not contain any rare or endangered wildlife species, or other special status wildlife species. This impact is considered less than significant.

6. **Noise.** Will the proposal result in:

   a. Increases in existing noise levels?
   Answer: Maybe.
   b. Exposure of people to severe noise levels?
   Answer: No.

   Response to Answers; Less Than Significant (6 a&b) The project will raise noise levels above those of the existing undeveloped site, however, no significant noise impacts are expected since all uses in the retail building will be required to comply with the City's noise standards as identified in the Roseville Municipal Code.

   Construction activities could expose nearby tenants/landowners (e.g. Sunrise Villa) to increased noise levels. This impact would be temporary and is considered less than significant because construction activities would be limited to daytime hours (7:00 am to 7:00 pm, Monday through Friday and 8:00 am to 8:00 pm Saturday, Sunday, and Holidays).

7. **Light and Glare.** Will the proposal produce new light or glare?

   Answer: Yes; less than significant. The project will increase light and glare levels above that of the existing undeveloped site. Light and glare associated with the project could affect tenants in Sunrise Villa. This impact is not considered significant since the light fixtures will be required to include reflectors to minimize the amount of light spillage.

8. **Land Use.** Will the proposal result in a substantial alteration of the present or planned land use of an area?

Answer: No. The site is zoned Planned Development for Commercial, Office, and Residential uses. The proposed restaurant is consistent with the commercial standard of the PD zone.

9. **Natural Resources.** Will the proposal result in an increase in the rate of use of any natural resources?

Answer: No. Development of this site has already been contemplated in the General Plan and Zoning Ordinance.

10. **Risk of Upset.** Will the proposal involve the:

a. Risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset conditions?

b. Possible interference with an emergency response plan or an emergency evacuation plan?

Answers (10 a&b): No. Response to Answers (10 a&b): The project does not involve the commercial or industrial manufacture, use, or storage of hazardous substances or materials. The project is located within an area currently receiving City emergency services. The facility will have less than significant impact on the City's Emergency Response or Management Plans.

11. **Population.** Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?

Answer: No. The project will not affect the location, distribution, density, or growth rates within the City of Roseville and surrounding communities.

12. **Housing:** Will the proposal affect existing housing, or create a demand for additional housing?

Answer: No. The project will not create any substantial demand for additional new housing.

13. **Transportation/Circulation.** Will the proposal result in:

a. Generation of substantial additional vehicular movement?
Answer: No.

b. Substantial impact upon existing transportation systems?
Answer: No.

Response to Answers; Less than significant (13 a&b): The project will result in a small incremental increase in traffic above existing levels. However, the traffic associated with the project does not exceed those levels previously

assumed for development of the entire project site. Impacts to the transportation system are considered less than significant.

c. Effects on existing parking facilities or demand for new parking?

Answer: Yes. Customer parking will be provided in conjunction with the project. The project will provide 51 parking spaces around the building; an additional 12 parking spaces are proposed under the building. The provision of the customer parking areas is in compliance with the off-street parking requirements of the City Zoning Ordinance. Impacts associated with parking are considered less than significant.

d. Alterations to present patterns of circulation or movement of people?

Answer: No. The project will not affect the circulation patterns or movement of people in the area.

e. Alterations to waterborne, rail, or air traffic?

Answer: No. Waterborne, rail, and air traffic is not affected.

f. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?

Answer: Maybe. The levels of traffic will increase above that of the vacant site. The increase in the number of trips can increase the likelihood of potential traffic hazards to vehicles, bicyclists, and/or pedestrians. However, given the accepted safety standards for roadway improvements and vehicular/pedestrian pathways and signing, the potential impacts are considered less than significant.

14. **Public Services.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following:

a. Fire protection?
Answer: No.

b. Police protection?
Answer: No.

c. Schools?
Answer: No.

d. Parks or other recreational facilities?
Answer: No.

e. Maintenance of public facilities, including roads?
Answer: No.

f. Other governmental services?
Answer: No.

Response to Answers:

Fire: Less Than Significant. (14.a) The facility may require the services of the Roseville Fire Department in the event of an emergency. The nearest fire station is located at the southeast corner of Cirby Way and Gabrielli Way, approximately .4 miles south of the site. The development of this project would require adequate water pressure in the new water lines, and would comply with the Uniform Fire and Building Codes used by the City of Roseville. The impacts from this project would be less than significant.

Police: Less Than Significant. (14.b) The project may require the services of the Roseville Police Department in the event of an emergency. The site is within an area of the City which is currently receiving police services. The buildings must comply with the City's Building Security Ordinance. This impact is considered to be less than significant.

Schools: Less Than Significant. (14 c) The developer is required to pay school impact fees referred to as the "Sterling" fee, or Infill Fee. This fee will mitigate the impact associated with the construction of the new facility.

Parks and Recreation: Less Than Significant. (14.d) The project will not create potentially significant impacts to the existing and planned park facilities.

Maintenance of Public Facilities: Less Than Significant. (14.e) There is no substantial increase in the need for utility services. Power, gas, cable system, water, sewer services and drainage facilities are already on site or are located in relatively close proximity along Sunrise Avenue. Development of the site will require the need for new on-site systems to be installed to tie-in with existing public and private facilities. The developer shall pay for the cost of installation for any necessary facilities. Solid waste disposal will be handled by on-site storage and City pick-up. Impacts to public facilities are considered less than significant.

15. **Energy.** Will the proposal result in:

a. Use of substantial amounts of fuel or energy?
Answer: No.

b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?
Answer: No.

Response to Answers; Less than Significant (15a,b) The proposed project will result in a less than significant impact on energy supplies.

16. **Utilities.** Will the proposal result in a need for new systems, or substantial alterations, to any of the following utilities?

a. Power or natural gas?
Answer: No.
b. Communications systems?
Answer: No.
c. Water?
Answer: No.
d. Sewer or septic tanks?
Answer: No.
e. Storm water drainage?
Answer: No.
f. Solid waste and disposal?
Answer: No.

Response to Answers; Less Than Significant. (16 a-f) All additions anticipated for the utilities listed above will be on-site and are the responsibility of the developer to provide. The impacts to utilities are considered less than significant.

17. **Human Health.** Will the proposal result in:

a. Creation of any health hazard or potential health hazard (excluding mental health)?
Answer: No.

b. Exposure of people to potential health hazards?
Answer: No.

Responses to Answers (17.a&b) - Less Than Significant. The project is not expected to generate or expose people to any potential health hazards.

18. **Aesthetics.** Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?

Answer: Maybe. The proposal does not obstruct any scenic view, or views open to the public. The Use Permit requiring Site Review proposal for the design of the project will be reviewed by the Design Review Commission. The discretionary review of the Commission will reduce any potential aesthetic impacts to a less than significant level.

19. **Recreation.** Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?

Answer: No. The proposal will not impact City recreational facilities.

20. **Cultural Resources.**

a. Will the proposal result in the alteration or destruction of a prehistoric or historic archaeological site?
Answer: No.

b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?
Answer: No.

c. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?
Answer: No.

d. Will the proposal restrict existing religious or sacred uses within the potential impact area?
Answer: No.

Response to Answers (20 a-d). The site does not have prehistoric, archeological, religious, sacred, or ethnic resources.

21. **Mandatory Findings of Significance:**

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?
Answer: No.

b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time, while long-term impacts will endure well into the future.)
Answer: No.

c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)
Answer: No.

d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?
Answer: No.

Mitigation Measures:

Mitigation Measure 1. The applicant shall spray water on all exposed earth surfaces during clearing grading, earth moving and other site preparation activities. The exposed earth shall be watered throughout the day to minimize dust. This requirement should be included in all contracts with the applicant's primary and sub contractor(s) for site preparation.

Mitigation Measure 2. The applicant shall use tarpaulins or other effective covers on all stockpiled earth material and on all haul trucks to minimize dust. This requirement should be included in all contracts with the applicant's primary and sub contractor(s) for site preparation.

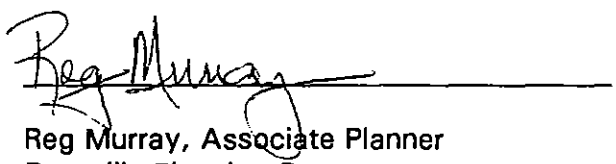
Mitigation Measure 3. The applicant shall not carry out any grading activity when wind speeds exceed 10 miles per hour. This requirement should be included in all contracts with the applicant's primary and sub contractor(s) for site preparation.

Mitigation Measure 4. The applicant and the applicant's contractors shall be responsible to clean construction vehicles before leaving the construction site on a daily basis to prevent dust, silt and dirt from being released or tracked off-site. This requirement should be included in all contracts with the applicant's primary and sub contractor(s).

Environmental Evaluation: On the basis of this initial evaluation:

[X] I find that the proposed project, with the applied mitigation measures, COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

CHECKLIST PREPARER:



Reg Murray, Associate Planner
Roseville Planning Department
August 3, 1995

ATTACHMENT:

ND1. Site Plan
ND2. Arborist Report
ND3. Floodproofing Analysis (Nolte and Associates)

IS ATTACHMENT 2

Biological Resources Assessment

APN: 470-010-043 in City of Roseville, Placer County, CA

Prepared for:
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March 2024

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Appendices

1.0 INTRODUCTION

Greg Matuzak, a biologist on the Placer County Planning Department's Biological Resources Consultants List and a California Department of Fish and Wildlife (CDFW) qualified biologist, conducted a reconnaissance-level biological resources survey and required background research related to potential sensitive biological resources as part of the proposed Sunrise Avenue Development Project (Project) in order to develop this Biological Resources Assessment (BRA). Additionally, Greg Matuzak has previously developed several biological resources assessments, CEQA documents, and state and federal permitting applications and consultations for projects within Placer County and for the City of Roseville. In addition, potential CDFW, United States Fish and Wildlife Service (USFWS), and United States Army Corps of Engineers (Corps) jurisdiction within the Project area was assessed as well as specific City of Roseville ordinances covering sensitive biological resources.

No previous BRA reports specifically covering the subject parcel (Project area) are known to exist, so this BRA has been developed based on background research, including database searches for biological resources and a review of previous biological resources assessment reports developed within the greater Project area, and the results of a reconnaissance-level biological resources survey of the Project area to identify any sensitive biological resources within the Project area. This includes an assessment of special-status plants or wildlife species and any sensitive habitats such as wetlands, riparian habitat, stream zones, and protected tree and oak resources within the Project area.

The Project area is located within The City of Roseville approximately 0.5 miles directly south along Sunrise Avenue from the Interstate 80 (I-80) and Douglas Boulevard crossing. The Project area is located at 701 Sunrise Avenue and currently contains a single large office building, parking, and some open space grassy areas with several trees, both native and non-native. The Project area includes the following subject parcel: a 2.63-acre parcel (APN: 470-010-043). See attachments in Appendix A and Appendix B for a Parcel Report and Site Plan). In total, the subject parcel comprises a total of 2.63 acres with a newly developed area that is approximately 0.63 (Project area and also named Study Area as part of this BRA).

The proposed Project includes the development of 86 parking spaces, including 5 ADA spots, 62 standards spots, 2 compact spots, and 17 EV spots. Additionally, the proposed Project includes the expansion of parking (with the totals outlined above and within the Site Plan attached in Appendix B) as well as the construction of a second building within the subject parcel. The new building would be 8,000 square

feet. The existing building within the subject parcel is 4,968 square feet and contains an existing trash enclosure, deck, and a ramp.

The subject parcel includes a walking path along the southern side of Cirby Creek, which is located adjacent to the north of the subject parcel and Project area. The existing path along the southern side of Cirby Creek will be maintained as well as the existing 10-foot sewer easement. Therefore, the proposed additional parking and new building construction will not encroach into Cirby Creek or impact any existing riparian vegetation along the southern side of the creek.

The Project area is located at approximately 130 feet above Mean Sea Level (MSL). However, the subject parcel ranges between approximately 125 feet above MSL in the northern section of the subject parcel where Cirby Creek runs from east to west and 135 feet above MSL along the entrance into the parcel along the southern edge of the Project area. Therefore, general drainage within the Project area is from south to north with the low spot being the channel of Cirby Creek.

See Appendix C for a list of plant and wildlife species observed within the Project area during the site surveys conducted as part of the development of this BRA and see Appendix D for a map showing the results of a search of the National Wetland Inventory (NWI) covering the Project area. The NWI data identifies a single aquatic feature within the Project area and that is Cirby Creek along the northern section of the subject parcel. Additionally, Appendix E contains a USDA Soils Map, Appendix F contains a Photo Log of the subject parcel, and Appendix H contains the USFWS, CDFW, and California Native Plant Society (CNPS) species lists covering the Project area. Appendix G includes assessment tables for special-status species with potential to occur within the subject parcel.

The purpose of this BRA is to identify the location and extent of sensitive biological resources within the Project area, including special-status plant and wildlife species, and the presence of drainage and wetland features that could potentially meet the Corps' criteria as a "waters of the United States," pursuant to Section 404 of the Clean Water Act (CWA), and streams that could be under the jurisdiction of the California Fish and Wildlife Code Section 1600 *et. seq*. This BRA also satisfies the City of Roseville General Plan and Ordinance requirements for sensitive biological resources.

2.0 REGULATORY OVERVIEW AND DEFINITIONS

Federal Regulations

Section 404 of the Clean Water Act

The United States Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA) regulate the discharge of dredge or fill material into waters of the U.S. under Section 404 of the Clean Water Act (CWA). Waters of the United States include wetlands and lakes, rivers, streams, and their tributaries. Wetlands are defined for regulatory purposes as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated solid conditions (33 CFR 328.3, 40 CFR 230.3). Project proponents must obtain a permit from the Corps for all discharges of fill material into waters of the U.S., including wetlands, before proceeding with a proposed action.

The proposed Project does not include the placement of fill or dredge within any "waters of the U.S." including wetlands. There is a single creek (Cirby Creek) that runs east to west within the northern section of the Project area. Therefore, the development of the proposed Project would not be subject to additional reporting and/or permitting as required for compliance with the CWA unless fill and dredge material were placed within any such federally regulated aquatic resources.

Section 401 of the Clean Water Act

CWA Section 401 compliance is required for any project requiring a federal action (i.e. Corps permit or federal funding) with construction that could have an impact to surface water quality. Project proponents must obtain a permit from the local Regional Water Quality Control Board for all discharges of fill material into waters of the U.S., including wetlands, before proceeding with a proposed action. The proposed Project does not include the placement of fill or dredge within any "waters of the U.S." including wetlands.

The proposed Project does not include the placement of fill or dredge within any "waters of the U.S." including wetlands. There is a single creek (Cirby Creek) that runs east to west within the northern section of the Project area. Therefore, the development of the proposed Project would not be subject to additional reporting and/or permitting as required for compliance with the CWA unless fill and dredge material were placed within any such federally regulated aquatic resources.

Endangered Species Act of 1973

For the Project area, consultation with the USFWS would be necessary if a proposed action may affect suitable habitat for a federally listed species. This consultation would proceed under Section 7 of the Endangered Species Act (ESA) if a federal action is part of the proposed action or through Section 10 of the ESA if no such nexus were available (USFWS, 1973). Within the CNDDB Citrus Heights Quad where the Project is located, there are known locations of three federally protected species listed under the ESA, including vernal pool fairy shrimp, steelhead – Central Valley DPS, and the valley elderberry longhorn beetle. Additionally, the western pond turtle is a proposed for listing as Threatened under the ESA and has also been previously identified within the Citrus Heights Quad where the subject parcel is located (CDFW 2024).

Migratory Bird Treaty Act of 1918 and Bald and Golden Eagle Protection Act

The Migratory Bird Treaty Act (MBTA) (16 USC Section 703-711) and the Bald and Golden Eagle Protection Act (BAGEPA) (16 USC Section 668) protect certain species of birds from direct "take" (i.e. harm or harassment as described above). The MBTA protects migrant bird species from take through setting hunting limits and seasons and protecting occupied nests and eggs (USFWS, 1918). BAGEPA prohibits the take or commerce of any part of the bald or golden eagles (USFWS, 1940). The USFWS administers both Acts and reviews actions that may affect species protected under each Act.

State Regulations

California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) has jurisdiction over plant and wildlife species listed as threatened or endangered under section 2080 of the CDFW Code. The California Endangered Species Act (CESA) prohibits take of state-listed threatened and endangered species. The state Act differs from the federal Act in that it does not include habitat destruction in its definition of *take*. The CDFW defines *take* as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The CDFW may authorize *take* under the CESA through Sections 2081 agreements. If the results of a biological survey indicate that a state-listed species would be affected by the project, the CDFW would issue an Agreement under Section 2081 of the CDFW Code and would establish a Memorandum of Understanding for the protection of state-listed species.

CDFW maintains lists for Candidate-Endangered Species and Candidate-Threatened Species. Two CESA listed species (Swainson's hawk and bank swallow -

both listed as Threatened under CESA) have been previously identified within the Citrus Heights Quad where the subject parcel is located (CDFW 2024).

Streambed Alteration Agreements: CDFG Code Section 1600 et seq.

CDFW has jurisdictional authority over wetland resources associated with rivers, streams, and lakes under Sections 1600–1616. CDFW has the authority to regulate all work under the jurisdiction of the State of California that would substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed.

In practice, CDFW marks its jurisdictional limit at the top of the stream or lake bank, or the outer edge of the riparian vegetation (where present) and extends its jurisdiction to the edge of the 100-year floodplain. The Project area contains Cirby Creek along its northern section and the creek along with its associated riparian habitat would be protected by CDFW within the Project area.

Porter-Cologne Water Quality Control Act & Section 1601 – Section 1607 of CDFG Code

These acts and codes pertain to projects with potential impacts to water quality or waterways. The Project area contains potential waters of the State as defined by the State Water Resources Board (State Board 2014). Besides Cirby Creek located within the Project area, there are no other aquatic resources that would be subject to a report of waste discharge.

California Department of Fish and Game Code Sections 3503, 3503.5, and 3800: Nesting Migratory Bird and Raptors

Sections 3503, 3503.5, and 3800 of the CDFG Code prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance within active nesting territories be reduced or eliminated during critical phases of the nesting cycle (approximately March 1 – August 31). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g. killing or abandonment of eggs or young), or the loss of habitat upon which birds are dependent, is considered "taking", and is potentially punishable by fines and/or imprisonment (LCC 2013). Such *taking* would also violate federal law protecting migratory birds (e.g. MBTA above).

California Environmental Quality Act Guidelines Section 15380

California Environmental Quality Act (CEQA) Guidelines section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specific criteria. This section was included in the guidelines to deal primarily with

situations in which a public agency is reviewing a project that may have a significant effect on, for example a "candidate species" that has not yet been listed by the USFWS or CDFW. CEQA, therefore, enables an agency to protect a species from significant project impacts until the respective government agencies have had an opportunity to list the species as protected, if warranted (CNRA 2012).

Plants appearing on the California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) are considered to meet CEQA's Section 15380 criteria. Ranks include: 1A) plants presumed extirpated in California and either rare or extinct elsewhere, 1B) plant rare, threatened, or endangered in California and elsewhere, 2A) plants presumed extirpated in California, but more common elsewhere, and 2B) plants rare, threatened, or endangered in California, but more common elsewhere. Impacts to these species would therefore be considered "significant" requiring mitigation.

State Oak Woodland Regulations

State laws that regulate protection of oak woodlands include Professional Forester's Law (PFL) and CEQA according to Public Resources Code Section 21083.4. Oak woodlands are defined as areas having 10% oak canopy cover or greater. "Oaks" are defined in Public Resources Code Section 21083.4 as a native tree species in the genus *Quercus*, that is 5 inches diameter at breast height (DBH) or greater. The Oak Woodlands Conservation Act (SB 1334) provides funding for the conservation and protection of oak woodlands in California. Oak woodland habitats are protected under both the State and the Placer County General Plan.

Local Regulations and Policies

City of Roseville General Plan

The *City of Roseville's General Plan, Open Space and Conservation Element* outlines specific goals, policies, and implementation measures pertaining to the protection of vegetation and wildlife (City of Roseville 2004). The three primary goals are:

Goal 1: *Preserve, protect, and enhance a significant system of interconnected natural habitat areas, including creek and riparian corridors, oak woodlands, wetlands, and adjacent grassland areas.*

Goal 2: *Maintain healthy and well-managed habitat areas in conjunction with one-another, maximizing the potential for compatible open space, recreation, and visual experiences.*

Goal 3: Protect special-status species and other species that are sensitive to human activities.

City of Roseville Tree Ordinance

The City of Roseville regulates the removal of or the impact to protected trees under Chapter 19.66 of the Roseville Municipal Code. Protected trees are defined as any native oak tree, valley oak (*Quercus lobata*), interior live oak (*Quercus wislizeni*), blue oak (*Quercus douglasii*), or hybrid of these species, with a trunk diameter equal to or greater than six inches at breast height (DBH), which is at 54" above grade. No work that might impact the tree, including grading, trenching, or irrigation, is allowed within the protected zone of a protected tree, defined as the dripline radius plus one foot, without a tree permit. No permit is required for the removal of a protected tree under the following situations:

1. Trees damaged by thunderstorm, windstorm, flood, earthquake, fire or other natural cause and determined by a peace officer, fire fighter, public utility official, civil defense official or city code enforcement officer, acting in his or her official capacity, to present a danger to persons or property. Upon discovery of a condition justifying removal, the officer or official making the determination shall immediately provide written notification of the condition and action taken to the planning director.

2. When removal is determined to be necessary by fire department personnel actively engaged in fighting a fire.

3. When compliance would interfere with activities of a public utility necessary to comply with applicable safety regulations and/or necessary to repair or avoid the interruptions of services provided by such a utility. Unless there is an imminent threat to the public health, safety or welfare, the Planning Director shall be notified prior to the removal by a public utility of a protected tree.

4. The Planning Director may allow removal of a protected tree which has been certified by an arborist to be a dead tree. An arborist-certified dead tree may be removed without any replacement or mitigation requirements.

5. A protected tree located on property developed with a single-family or two-family dwelling which has been granted occupancy.

6. When a protected living tree presents a hazard to health and safety or structures due to its structural condition and location, the tree may be removed without any replacement or mitigation requirements. The hazardous condition of the tree must be determined by an arborist. The Planning Director must review the arborist's determination and consider the location of the protected tree prior to approving removal.

3.0 METHODS

In order to evaluate the Project area for the presence of sensitive biological resources, baseline information from databases and reporting for similar projects in the City of Roseville and Placer County was collected and reviewed prior to conducting a reconnaissance-level biological resources survey within the subject parcel. The database searches, background research, and reconnaissance-level biological resources survey characterized the baseline conditions of the subject parcel. Based on the baseline conditions of the subject parcel and specifically, the proposed Project area, an assessment was implemented to determine if any special-status plant or wildlife species have the potential to use the subject parcel and Project area at any time during their life cycle.

The baseline conditions also identified the presence of sensitive habitat or communities, if they were identified within the subject parcel or within or adjacent to the proposed Project area. The general assessment was conducted for the entirety of the Project area.

Sensitive Biological Resources

The following information was used to identify potential special-status plant and wildlife species within the region surrounding the Project area that could be found to use the Project area:

- California Department of Fish and Wildlife's California Natural Diversity Database records for special-status species previously identified within the Citrus Heights Quad where the Project area is located (CDFW, 2024);

- California Native Plant Society's online Inventory of Rare and Endangered Plants of California known to occur within the Citrus Heights Quad where the Project area is located (CNPS, 2024);

- The U.S. Fish and Wildlife Service Information, Planning, and Consultation System (IPaC) for endangered, threatened, and proposed listed species for the subject parcel (USFWS, 2024);

- National Wetland Inventory (NWI, 2024);

- United States Department of Agriculture (USDA) Soils Mapper (USDA, 2024);

- Natural Resources Conservation Service (NRCS) Hydric Soils List for Placer County (NRCS, 2024); and

- City of Roseville General Plan 2035 (adopted by the City of Roseville City Council on August 5, 2020).

Reconnaissance-level Biological Resources Field Survey

A reconnaissance-level biological survey was conducted on foot of the Project area and within the entirety of the subject parcel by Greg Matuzak, a CDFW and USFWS Qualified Biologist. Greg Matuzak has developed several assessments of biological resources within the City of Roseville and Placer County in the past. The site visit and reconnaissance-level biological survey was conducted on February 29th, 2024. The purpose of the survey was to identify sensitive habitat and vegetation types within the proposed Project area and to identify protected trees that would be subject to the City of Roseville Tree Ordinance and permitting requirements.

Additionally, the site visit and survey were implemented to determine the potential for any special-status plant and wildlife species identified within the desktop analysis and background research to occur within the Project area. The site visit and survey were conducted during the winter; therefore, the survey was not considered comprehensive in nature for all plants that may occur within the Project area. However, as detailed within this BRA, the proposed areas of disturbance within the subject parcel do not contain suitable habitat for any potential special-status plant species given the developed, landscaped, and overall impacted nature of the Project area.

An assessment of the existing trees and protected oak resources was also conducted during the site survey. A photo log of the Project area and a list of plant and wildlife species observed during the field surveys was compiled (see Appendix C and Appendix F respectively). Attached in Appendix D is an NWI figure and Appendix E includes a USDA Soils Map for the Project area.

4.0 RESULTS

Environmental Setting

The Project area lies approximately 0.5 miles south of the I-80 and Douglas Boulevard crossing and is located along Sunrise Avenue. The Sunrise Avenue area where the proposed Project is located is within an area mapped as Urban and Built Up Land per the definition and mapping under the Farmland Mapping and Monitoring Program (FMMP). The Project area is located at approximately 130 feet above Mean Sea Level (MSL). However, the subject parcel ranges between approximately 125 feet above MSL in the northern section of the subject parcel where Cirby Creek runs from east to west and 135 feet above MSL along the entrance into the parcel along the southern edge of the Project area.

Therefore, general drainage within the Project area is from south to north with the low spot being the channel of Cirby Creek. The NWI data identifies a single aquatic feature within the Project area and that is Cirby Creek. Northern Volcanic Mudflow Vernal Pool habitat mapped within the CNDDB for the Citrus Heights Topo Quad (CDFW 2024) is not mapped or located within the Project area. Vernal pools and other potential wetlands were lacking within the Project area.

Plant Communities

Plant communities have been classified based on the California Wildlife Habitat Relationships System developed by the California Department of Fish and Wildlife (CDFW). The CDFW also manages the California Natural Diversity Data Base (CNDDB), which is a database inventory of the previously identified locations of rare and endangered plants, wildlife, and natural communities in California. A list of plants and wildlife documented during the field surveys is attached in Appendix C to this BRA. Given the field survey was conducted during the late spring when most plants and vegetation would be identifiable, the plant and vegetation community survey was comprehensive in nature.

Non-Native Annual Grassland

The majority of the undeveloped areas within the Project area outside of the Cirby Creek stream and riparian zone are comprised of non-native annual grassland. The grassland is characterized primarily by an assemblage of non-native grasses and herbaceous species. Dominant vegetation present within the annual grassland within the Study Area includes wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), long- beaked filaree (*Erodium botrys*), Italian rye grass (*Festuca perennis*), dove's foot geranium (*Geranium molle*), rose clover (*Trifolium*

hirtum), and winter vetch (*Vicia villosa*). Scattered interior live oak (*Quercus wislizenii*) and Valley oak (*Quercus lobata*) are mixed into the non-native grassland areas.

Disturbed and Developed

Disturbed/developed areas occur throughout much of the Study Area and is comprised of the existing office building, existing parking areas, existing path, landscaped areas, and the enclosed trash area. This habitat type does not provide suitable habitat for any sensitive or otherwise special-status species.

Cirby Creek and Associated Riparian Habitat

Cirby Creek is a single thread channel with perennial flow in a southeast to northwestern direction before discharging into Dry Creek just east of Riverside Drive. The channel bottom within the subject parcel varies from gravel and sand and is unvegetated. Below the OHWM of the creek, no emergent wetland vegetation was observed given the lack of benches and the incised, urbanized nature of the creek within the Project area.

Both sides of the creek contain relatively steep banks and are dominated with Himalayan blackberry (*Rubus armeniacus*) and red willow (*Salix laevigata*) with some clusters of dock (*Rumex* sp.) mixed in. Iris leaved rush (*Juncus xiphioides*) and miner's lettuce (*Claytonia perfoliata*) were also identified within the riparian zone to Cirby Creek. Within the upland areas along the top of both banks are thick clusters of both interior live oak and Valley oak trees, though these trees associated with Cirby Creek are small to medium in stature.

Cirby Creek and its associated riparian habitat will not be impacted by the proposed Project. Project related disturbance will be maintained a minimum of 50 feet to the south of the southern edge of Cirby Creek and 15 feet from the southern edge of its associated riparian habitat.

Protected Trees

Protected trees are defined under the City of Roseville Tree Ordinance as any native oak tree, valley oak, interior live oak, blue oak, or hybrid of these species, with a trunk diameter equal to or greater than six inches at breast height (DBH), which is at 54" above grade. During the February 29, 2024 site survey, Greg Matuzak Environmental Consulting LLC conducted a tree inventory and has also developed an Arborist Report for the Project area within the subject parcel. The tree inventory and Arborist Report focused on the proposed areas of disturbance within the subject parcel/Project area.

A total of three (3) trees with a DBH of six inches or greater were mapped within the Project area (see Appendix B with the Site Plan containing the mapped trees and

DBH within the Project area). Several other small non-oak trees and small oak trees within the Project area were also mapped within the Project area; however, given they are not protected under the City of Roseville Tree Ordinance, they would not be included in any required Tree Removal Permit and compensatory mitigation for impacts to such protected trees. Each of the trees meeting the definition of a protected tree by the City of Roseville is a valley oak and all three trees will be removed as part of the proposed additional parking areas. See the attached Site Plan in Appendix B with the required X through the three valley oak trees requiring removal. The DBH of those trees is 36'', 40'', and 18''. In total, DBH of 94'' of protected trees will be removed and compensatory mitigation under the City of Roseville Tree Mitigation Program.

Soils

Xerofluvents, frequently flooded

This is the only soil type mapped by USDA within the subject parcel and overall Project area. This soil type is found adjacent to stream channels (in this case Cirby Creek) and consist of narrow stringers of somewhat poorly drained recent alluvium. Areas containing this soil type are subject to frequent flooding and channelization and therefore, are not considered suited for urban uses because of their flood hazard. However, within the Project area the surrounding development and urbanization would suggest that the City of Roseville maintains Cirby Creek such that flooding is limited and the stream is regularly maintained by the City. A USDA Soils map is attached in Appendix E.

SPECIAL STATUS SPECIES

Special status species were considered for this BRA based on a current review of the California Natural Diversity Data Base (CNDDB) and database information provided by the CDFW, CNPS, and USFWS (see Appendix H for attachments containing the results of the database searches). Per the tables below, several federal and state listed species have been documented within the Citrus Heights Topo Quad where the Project is located. The results of the USFWS IPaC contain additional potential federally protected species that may have the potential to occur within the Project area. Therefore, the tables attached in Appendix G include the following information:

- Table 1 includes a review of potential species that could occur within the Project area that are listed under the federal and/or state Endangered Species Act; and
- Table 2 includes a review of potential other special-status species that could occur within the Project area that are listed under the CNDDB and CNPS species lists.

However, none of the species reviewed within the databases were observed during the field survey and the Project area does not contain suitable habitat for any of these species given the lack of suitable habitat for these species within the Project area. However, as described within Table 1 and Table 2 (attached within Appendix G), Cirby Creek does have a low potential for some special-status species to occur within the Project area, but given the proposed disturbance within the Project area will be contained within the open non-native annual grassland and disturbed areas outside of the creek and riparian zone, the proposed Project would have no potential to impact any special-status species.

Additionally, the Project area is not located within an area containing Northern Volcanic Mudflow Vernal Pool habitat mapped within the CNDDB (CDFW 2024). Vernal pools and other potential wetlands were lacking within the Project area except for Cirby Creek located within the northern section of the subject parcel. There is no Designated Critical Habitat (DCH) mapped for any species within the subject parcel (USFWS, 2024). The table below includes a description of each special-status species that has previously been identified within the Citrus Heights Topo Quad and/or identified within the USFWS IPaC list for the subject parcel (see Appendix H for database results).

5.0 CONCLUSIONS AND RECOMMENDATIONS

As discussed, the subject parcel comprises a total of 2.63 acres with a newly developed area that is approximately 0.63 acres of ruderal and non-native annual grassland. None of the areas of habitat that meet the definition of disturbed or developed areas or Cirby Creek and its associated riparian habitat will be impacted by the proposed Project. Sensitive habitats identified within the Study Area include Cirby Creek and its associated riparian habitat; however, disturbance will be maintained a minimum of 50 feet to the south of the southern edge of Cirby Creek and 15 feet from the southern edge of its associated riparian habitat.

The proposed Project disturbance will be maintained to the south of the existing fence line along the southern edge of Cirby Creek and its riparian habitat and also will be maintained south of the existing pedestrian path located along the southern side of the fence line. There will be no direct or indirect impacts to Cirby Creek or its associated riparian zone from the development and implementation of the proposed Project.

Known or potential biological constraints within the Study Area include the following:

- Potential nesting and foraging habitat for migratory birds and other birds of prey;
- Cirby Creek and its associated riparian habitat; and
- Protected oak trees.

Recommendations

Based on site specific field survey, the Project area does contain large individual oak trees and a well-developed riparian habitat zone adjacent to Cirby Creek. These large trees and habitat could provide nesting habitat for birds protected under MBTA and by CDFW, including raptor species. However, no special-status plant or wildlife species were documented during the site visit and the biological resources survey conducted as part of the development of this BRA. Therefore, the proposed Project would have little potential to impact special-status species except for the presence of nesting protected birds, if present during vegetation removal and other proposed disturbance within the Project area.

Additional impacts could include tree and sensitive oak resource removal given the presence of 3 mapped protected valley oak trees within the proposed area of new parking within the subject parcel. Therefore, mitigation for impacts to and the loss of such sensitive and protected trees and oak resources would be required for the proposed Project under the City of Roseville Tree Ordinance.

Impacts to Sensitive Habitats, Including Protected Aquatic Habitats

The Project area contains Cirby Creek, which would meet the criteria as a "waters of the U.S." defined by the Corps for being jurisdictional and regulated under the Clean Water Act (CWA). However, the proposed Project will remain a minimum of 50 feet south of the ordinary high water mark along the southern edge of Cirby Creek and therefore, no impacts to the creek are expected from the development and implementation of the Project. Cirby Creek does not contain associated wetlands but does contain a well-developed riparian habitat zone. The proposed development and implementation of the proposed disturbance will remain a minimum of 15 feet from the southern edge of the riparian zone. Between the proposed disturbance and the existing riparian habitat zone is an existing 10-foot sewer easement, an existing pedestrian pathway, and a fence along the southern edge of Cirby Creek and its associated riparian habitat zone.

Cirby Creek and its associated riparian habitat zone would also be regulated as a stream by CDFW. Given the proposed disturbance will remain outside of Cirby Creek and its associated riparian habitat zone, CWA and CDFW permitting for impacts to the sensitive aquatic habitat within the northern section of the subject parcel will not be required.

Impacts to Special-Status Plant Species

Special-status plant species were not identified during the field survey implemented as part of the development of this BRA. However, minimal suitable habitat for the Sanford's arrowhead is present within Cirby Creek and its assopciated banks. However, given that the species was not documented during the site visit and field survey and Cirby Creek and its associated banks will not be disturbed by the proposed Project, the species would not be impacted by the development or implementation of the proposed Project.

Given the site visit and reconnaissance-level biological resources survey was conducted as part of the development of this BRA identified the entirety of the proposed area of disturbance to include ruderal and disturbed non-native annual grassland habitat, the Project would not have an impact on special-status plant species. Therefore, no mitigation is recommended for special-status plant species.

Impacts to Special-Status Wildlife Species

Given that some of the special-status fish and wildlife species previously recorded within the Citrus Heights Topo Quad where the proposed Project area is located and within the USFWS IPaC report associate with aquatic resources (western spadefoot, western pond turtle, great blue heron, Pacific lamprey, and steelhead)

those species would not be impacted by the proposed Project given such aquatic habitats would not be impacted by the proposed Project. The proposed disturbance within the subject parcel will remain a minimum of 50 feet from Cirby Creek that flows through the northern section of the subject parcel. Therefore, there is a very low potential for special-status fish and wildlife species to occur within the Project area and the impact to such species is considered less than significant.

Impacts to Protected Nesting Bird Species

The trees, shrubs, and grasslands within the subject parcel contain suitable habitat for nesting raptors and MBTA and CDFW protected nesting bird species. The breeding season for most protected birds in the vicinity of the Project area is generally from February 15th to August 31st. Vegetation clearing or tree removal outside of the breeding season for such bird species would not require the implementation of any avoidance, minimization, or mitigation measures. However, construction or development activities during the breeding season could disturb or remove occupied nests of migratory birds and other songbirds and would require the implementation of a pre-construction survey within 250 feet of the disturbance area within the subject parcel for nesting migratory birds prior to development. For raptors, binoculars should be used to survey up to 500 feet from the disturbance area to search for active raptor nesting or reproductive behavior.

If nests are found and considered to be active, the project biologist should establish buffer zones to prohibit construction activities and minimize nest disturbance until the young have successfully fledged. Buffer width will depend on the species in question, surrounding existing disturbances, and specific site characteristics, but may range from 20 feet for some songbirds to 250 feet for most raptors. If active nests are found within any trees slated for removal, then an appropriate buffer should be established around the trees and the trees should not be removed until a biologist determines that the nestlings have successfully fledged. In addition, a pre-construction worker awareness training should be conducted alerting workers to the presence of and protections for the active avian nests.

If construction activities begin during the non-breeding season (September 1 through January 31), a survey and training would not be required, and no further studies or surveys would be necessary.

With the implementation of such measures any potential impact to protected MBTA or CDFW protected bird species would be sufficiently minimized to a level of less than significant.

Impacts to Protected Trees

A total of 3 trees with a DBH of six inches or greater were mapped within the Project area (see Appendix B with the Site Plan containing the mapped trees and DBH within the Project area). Several other small non-oak trees and small oak trees within the Project area were also mapped within the Project area; however, given they are not protected under the City of Roseville Tree Ordinance, they would not be included in any required Tree Removal Permit and compensatory mitigation for impacts to such protected trees.

Each of the trees meeting the definition of a protected tree by the City of Roseville is a valley oak and all three trees will be removed as part of the proposed additional parking areas. See the attached Site Plan in Appendix B with the required X through the three valley oak trees requiring removal. The DBH of those trees is 36", 40", and 18". In total, DBH of 94" of protected trees will be removed and compensatory mitigation under the City of Roseville Tree Mitigation Program. The applicant has stated that the proposed tree mitigation would include required planting within the subject parcel in order to fully compensate for the loss of 94" of DBH of protect trees.

Conclusion

Given the site conditions of the Project area containing ruderal, disturbed, non-native annual grassland within an otherwise urban and built environment, there are habitat types of little value for special-status wildlife and plant species previously recorded within the vicinity of the Project area. However, given the presence of Cirby Creek within the northern section of the subject parcel, the creek shall be avoided as well as its associated riparian habitat zone to ensure no impacts occur to such protected sensitive habitats.

Special-status plant species have a very low potential to occur within the Project area given no such species were documented during the field survey and also given the potential presence of suitable habitat for the Sanford's arrowhead is located along the edges of Cirby Creek that will be avoided. The ruderal and developed nature of the Project area rules out the presence of most, if any, potential species except for common wildlife.

Given the reconnaissance-level biological resources survey did identify the large oak trees and riparian habitat as potential suitable nesting habitat for protected bird species, the implementation of a pre-construction survey for protected nesting bird species would sufficiently avoid a significant impact to such species protected under the MBTA and by CDFW. Lastly, the applicant will apply for a Tree Removal Permit and will fully mitigate for the removal of the 3 valley oak trees within the Project area that meet the definition of a protected tree.

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Appendix A

Parcel Report

Property Report

Asessor's Parcel Number: 470-010-043-000 **07/21/2023**

Situs Address

701 SUNRISE AV
ROSEVILLE, CA 95661

Secondary Addresses

Location

Neighborhood Association:	MEADOW OAKS
Elementary School District:	ROSEVILLE ELEMENTARY SCHOOL DISTRICT
High School District:	ROSEVILLE JOINT UNION HIGH SCHOOL DISTRICT

General Planning

Project Stage:	COMPLETED
Subdivision:	
Subdivision Code:	
302 Number:	
Lot Number:	A
Redevelopment Area:	
Redevelopment Dist:	
Existing Use:	RESTAURANT
Existing Use Class:	COMMERCIAL

Characteristics

Lot Area (Sq Ft):	114,673
Lot Area (Acres):	2.63
Lot Perimeter (Ft):	1,391
Developed Bldg (Sq Ft):	4,700
Undeveloped Bldg (Sq Ft):	
Potential Bldg (Sq Ft):	
Developed Buildings:	1
Developed Units:	
Undeveloped Units:	
Potential Units:	

*Primary Planning Area	*Primary Parcel Number	*Primary Zoning	*Primary Landuse
Infill	229	PD52	BP
	305	FW	OS/FP
	183	PD52	CC

**The Zoning and Land Use designations provided in this property report are limited to the primary designations associated with this parcel, and are not necessarily the only applicable designations for this property. Please refer to the map display or an official Zoning and/or Land Use map to determine any subordinate designation applicable to this parcel. Visit http://www.roseville.ca.us/zonlu11 for detailed landuse and zoning code information.*

Appendix B

Site Plan With and Without Trees

LEGEND

	PROPERTY LINE
	EASEMENT PER 22 PM 71
	EXISTING CONCRETE PAVEMENT
	PROPOSED CONCRETE PAVEMENT
	EXISTING ASPHALT PAVEMENT
	PROPOSED ASPHALT PAVEMENT
	ACCESSIBLE PARKING STALL MARKING
COMPACT	COMPACT PARKING STALL MARKING
	ELECTRIC VEHICLE PARKING STALL MARKING
	PROPOSED LANDSCAPE AREA
	ACCESSIBLE PATH OF TRAVEL

PARKING STATISTICS

REQUIREMENT	PROPOSED PARKING SPACES
1:150 SF GROSS FLOOR AREA (12,957 SF)	86

NOTES:
1. PARKING REQUIREMENTS DERIVED FROM CITY OF ROSEVILLE DEVELOPMENT CODE 19.26.020.

PARKING DISTRIBUTION	
ADA	5
STANDARD	62
COMPACT	2 (2%)
EV	17
TOTAL	86

SITE STATISTICS

	AREA (SF)	AREA (%)
ASPHALT PAVEMENT	43,986 SF	38%
CONCRETE (WALKWAYS, CURB, TRASH AREAS)	8,934 SF	8%
BUILDING (FOOTPRINT)	12,968 SF	11%
LANDSCAPING	48,675 SF	43%
TOTAL	114,563 SF	100%

PROJECT INFORMATION

APPLICANT
HAMZAH ALKORDY
901 SUNRISE AVE, SUITE A1
ROSEVILLE, CA 95661
EMAIL: halkordy1@gmail.com

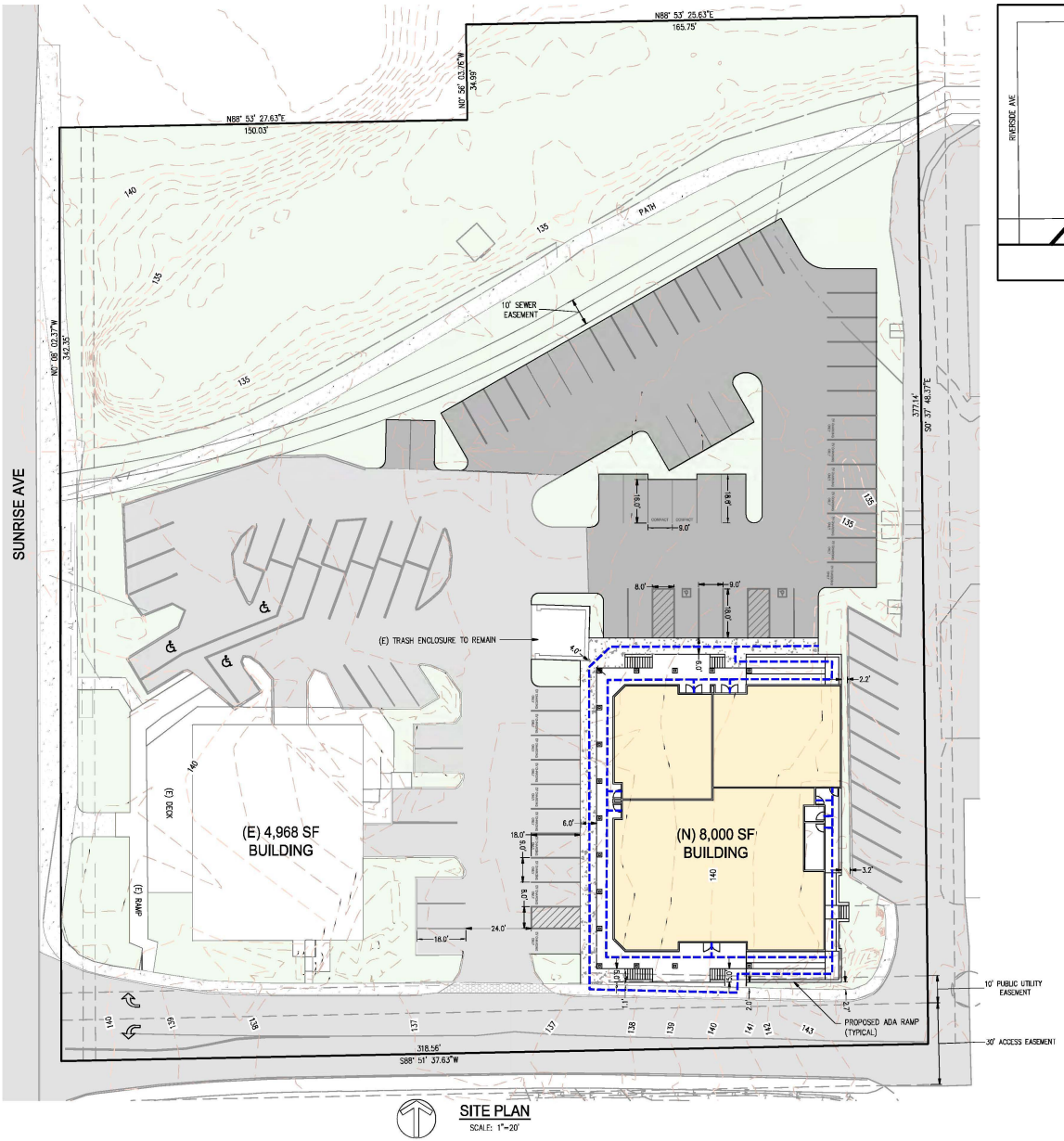
PLANNING & CIVIL ENGINEERING
MILLENNIUM PLANNING & ENGINEERING
471 SUTTON WAY, SUITE 210
GRASS VALLEY, CALIFORNIA 95945
(530) 446-6765
CONTACT: ROB WOOD, AICP

SITE ADDRESS
701 SUNRISE AVE
ROSEVILLE, CA 95661

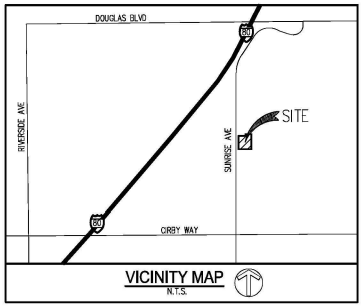
APN
470-010-043

SITE AREA
2.63 ACRES / 114,563 SF

ZONING/GENERAL PLAN
ZONING:
PDSZ / FW
GENERAL PLAN:
BP, OS/FP, CC



SITE PLAN
SCALE: 1"=20'



VICINITY MAP
N.T.S.

MILLENNIUM
PLANNING & ENGINEERING
471 SUTTON WAY, SUITE 210, GRASS VALLEY, CA 95945 (530) 446-6765

REV.	DESCRIPTION	DATE

SUNRISE AVE
701 SUNRISE AVE
ROSEVILLE, CA 95661

PRELIMINARY SITE PLAN

DESIGNED BY: REW
DRAWN BY: BES
PROJECT NO.: 23-0709
DATE: 12/11/2023
SHEET NUMBER:
1 OF 1

LEGEND

	PROPERTY LINE
	EASEMENT PER 22 PM 71
	EXISTING CONCRETE PAVEMENT
	PROPOSED CONCRETE PAVEMENT
	EXISTING ASPHALT PAVEMENT
	PROPOSED ASPHALT PAVEMENT
	ACCESSIBLE PARKING STALL MARKING
COMPACT	COMPACT PARKING STALL MARKING
	ELECTRIC VEHICLE PARKING STALL MARKING
	PROPOSED LANDSCAPE AREA
	ACCESSIBLE PATH OF TRAVEL

PARKING STATISTICS

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PROJECT INFORMATION

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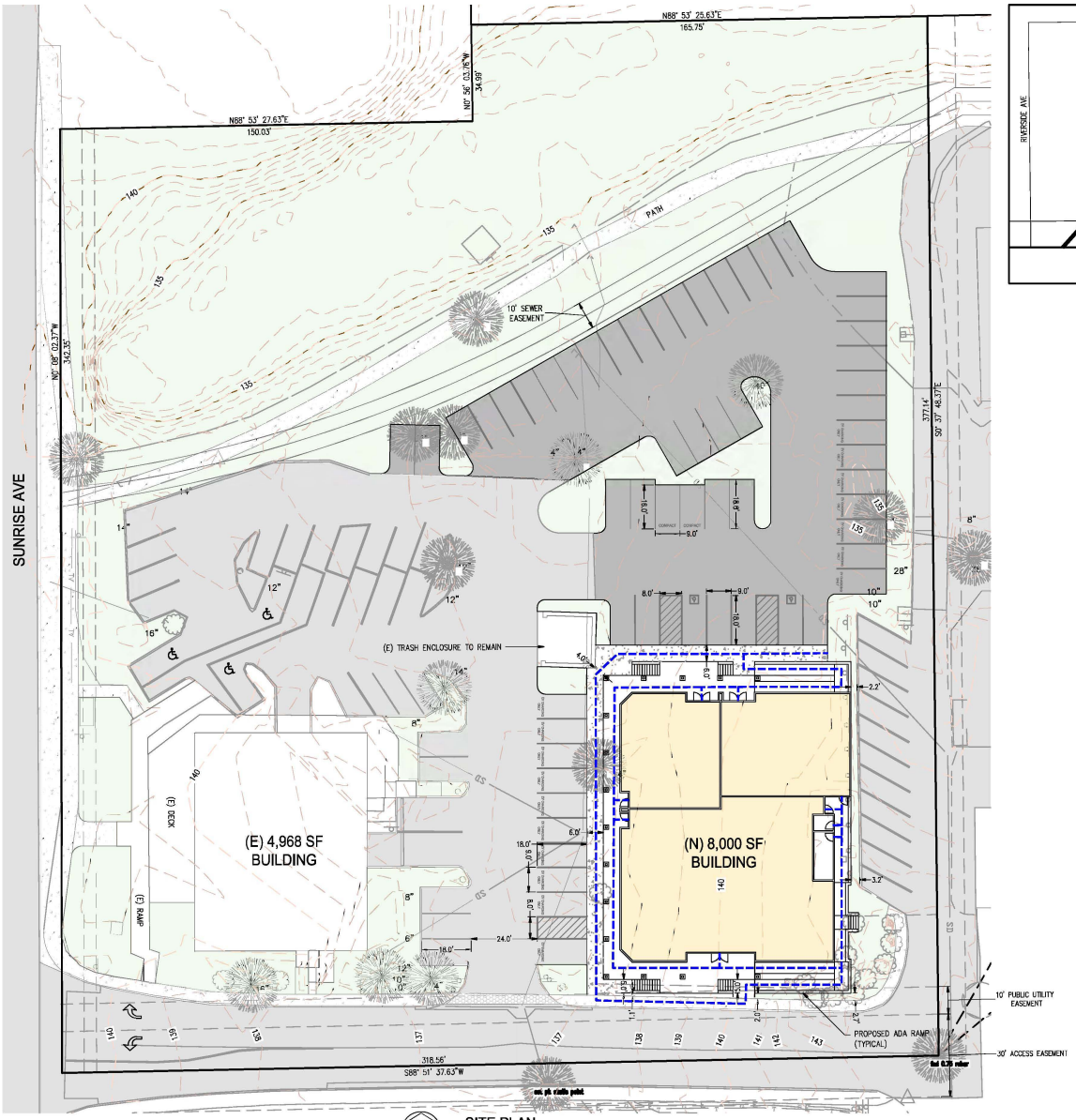
701 SUNRISE AVE
ROSEVILLE, CA 95661

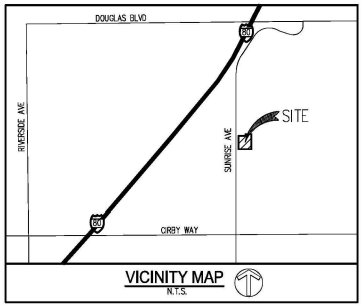
APN
470-010-043

SITE AREA
2.63 ACRES / 114,563 SF

ZONING/GENERAL PLAN
ZONING:
PDSZ / FW
GENERAL PLAN:
BP, OS/FP, CC



SITE PLAN
SCALE: 1"=20'



VICINITY MAP
N.T.S.

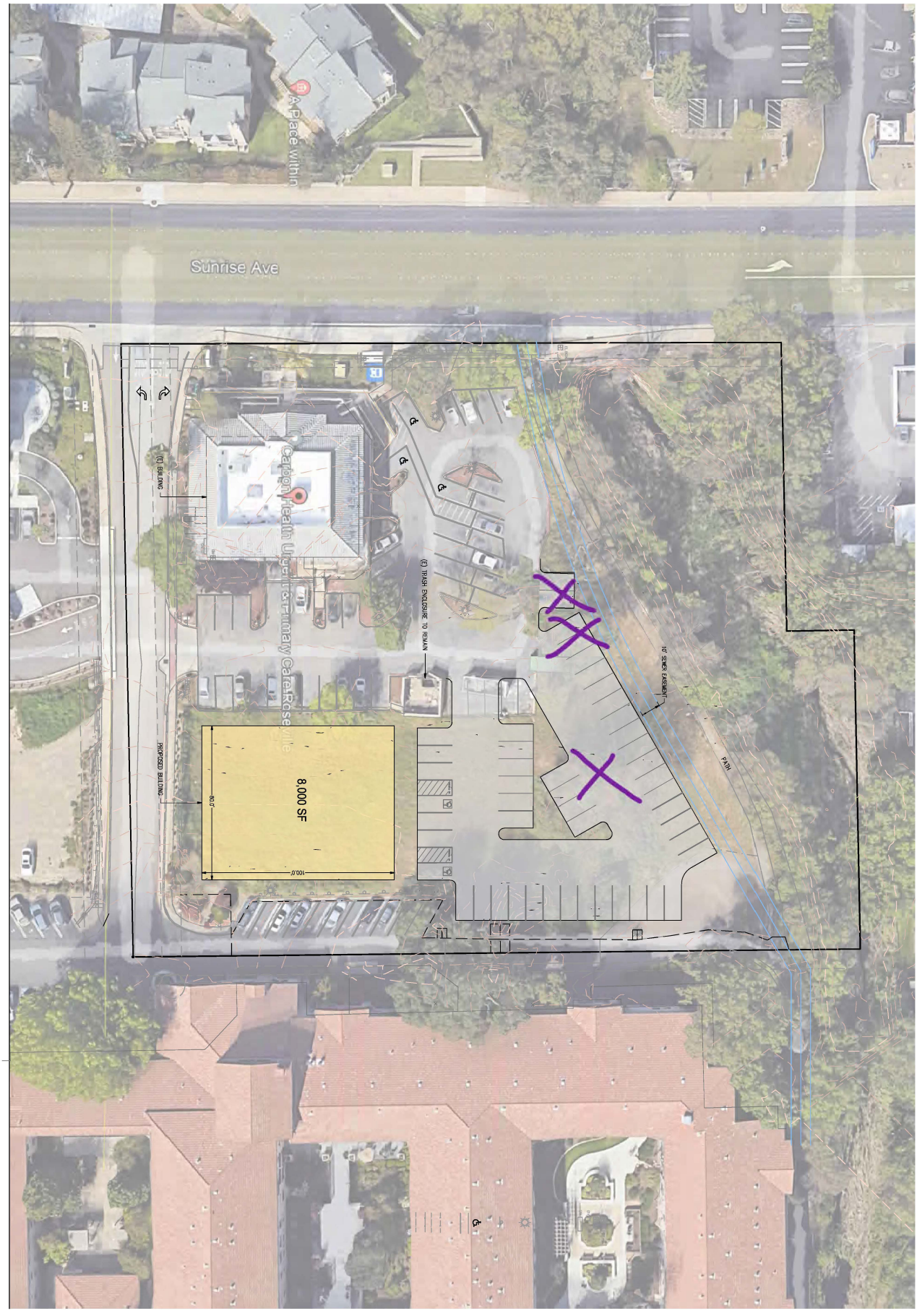
MILLENNIUM
PLANNING & ENGINEERING
471 SUTTON WAY, SUITE 210, GRASS VALLEY, CA 95945 (530) 446-6765

REV.	DESCRIPTION	DATE

SUNRISE AVE
701 SUNRISE AVE
ROSEVILLE, CA 95661

PRELIMINARY SITE PLAN

DESIGNED BY: REW
DRAWN BY: BES
PROJECT NO.: 23-0709
DATE: 12/11/2023
SHEET NUMBER:
1 OF 1



SHEET NUMBER:	DATE: 10/9/2023	PROJECT NO.: 23-0709	DRAWN BY: BES	DESIGNED BY: REV

SUNRISE AVE

701 SUNRISE AVE
ROSEVILLE, CA 95661

CONCEPTUAL SITE PLAN

REV.	DESCRIPTION	DATE

MILLENNIUM PLANNING & ENGINEERING
471 SUTTON WAY, SUITE 210, GRASS VALLEY, CA 95945 (530) 446-6765

Appendix C

Plants and Wildlife Observed

Plants Observed in the Study Area on February 29th, 2024

Family	Scientific Name	Common Name	Native or Invasive
Arecaceae	*Washingtonia robusta*	Mexican fan palm	I
Asteraceae	*Centromadia fitchii*	Spikeweed	N
Fabaceae	*Trifolium hirtum*	Rose clover	I
Fabaceae	*Vicia villosa* ssp. *varia*	Winter vetch	I
Fagaceae	*Quercus lobata*	Valley oak	N
Fagaceae	*Quercus wislizeni*	Interior live oak	N
Geraniaceae	*Erodium botrys*	Big heron bill	I
Geraniaceae	*Geranium molle*	Dove's foot geranium	I
Juncaceae	*Juncus xiphioides*	Iris leaved rush	N
Lythraceae	*Lagerstroemia* sp.	Crepe myrtle	I
Montiaceae	*Claytonia perfoliata*	Miner s lettuce	N
Onagraceae	*Epilobium* sp.	Willowherb	N
Poaceae	*Avena fatua*	Wild oat	I
Poaceae	*Bromus diandrus*	Ripgut grass	I
Poaceae	*Bromus hordeaceus*	Soft brome	I
Poaceae	*Elymus caput-medusae*	Medusa head	I
Poaceae	*Festuca perennis*	Italian rye grass	I
Poaceae	*Paspalum dilatatum*	Dallis grass	I
Polygonaceae	*Rumex crispus*	Curly dock	I
Rosaceae	*Prunus dulcis*	Almond	I
Rosaceae	*Rubus armeniacus*	Himalayan blackberry	I
Rubiaceae	*Galium* sp.	Bedstraw	N
Salicaceae	*Populus fremontii* ssp. *fremontii*	Fremont cottonwood	N
Salicaceae	*Salix laevigata*	Red willow	N
Scrophulariaceae	*Verbascum thapsus*	Woolly mullein	I
Themidaceae	*Triteleia laxa*	Ithuriel's spear	N
Vitaceae	*Vitis californica*	California grape	N

Wildlife Observed in the Study Area on February 29th, 2024

Scientific Name	Common Name
Aphelocoma californica	California Scrub-Jay
Melanerpes formicivorus	Acorn Woodpecker
Mimus polyglottos	Northern Mockingbird
Sayornis nigricans	Black Phoebe
Zenaida macroura	Mourning Dove

Appendix D

National Wetland Inventory (NWI) Map


Measure
1:2,257
38.736 | -121.269
U.S. Fish and Wildlife Service, National Standards and Support Tea

Appendix E

USDA Soils Map

Map Scale: 1:920 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Placer County, California, Western Part
Survey Area Data: Version 15, Aug 31, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 23, 2022—Apr 24, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
194	Xerofluvents, frequently flooded	3.6	100.0%
Totals for Area of Interest		**3.6**	**100.0%**

Appendix F

Photo Log

Photos of the February 29th, 2024 Field Survey of the Project Area

Photo 1: Entrance into the eastern section of the Project area with the subject parcel located to the right of the access road within the photo.

Photo 2: Northeastern corner of the subject parcel with an existing sewer line that contains a 10-foot easement. Cirby Creek is located on other side of the fence.

Photo 3: Cirby Creek located along the northern section of the Project area. Subject parcel includes the northern bank of the creek. Creek flows east to west.

Photo 4: From northeastern corner of the Project area looking west along Cirby Creek to the right. Existing path runs along southern edge of creek riparian corridor in photo.

Photo 5: Project disturbance area includes grassy area and two oak trees in distance where additional parking will be located. Path and riparian zone to be avoided.

Photo 6: Project disturbance area includes grassy area and three oak trees in the photo. Existing path and riparian zone of Cirby Creek to the right to be completely avoided.

Photo 7: Southeastern section of the subject parcel where the proposed new building will be located within the grassy area within the photo. Existing building in distance.

Photo 8: Photo looking west within the subject parcel where the proposed new building will be located within the grassy area. Existing building and parking area in photo.

Photo 9: Photo looking northwest where the proposed new building will be located within the grassy area. New parking area will be to the right within the photo.

Photo 10: Looking north along eastern edge of the Project area where existing access and parking are located. In the distance 3 oak trees to be removed for new parking.

Photo 11: Looking west along the access road into the subject parcel off of Sunrise Avenue in the distance. Proposed new building to the right of the hedge.

Photo 12: Looking northwest into the location of the proposed new 8,000 square foot building. Existing building, parking, and trash enclosure in the photo to remain.

Photo 13: Looking north along the eastern section of the subject parcel where proposed new 8,000 square foot building and additional parking will be located.

Photo 14: Looking northeast into the location of the proposed new parking area within the large grassy area. The large oak tree in the distance is proposed to be removed.

Photo 15: Looking east from northwest corner of the parcel. Path, Cirby Creek, and associated riparian vegetation to be avoided. Two oak trees to the right to be removed.

Photo 16: Frontage along Sunrise Ave. Existing building, parking, landscaping, and trees to be avoided. Three oak trees are proposed to be removed from new parking areas.

Appendix G

Special-Status Species Tables

Regulatory Status Legend

FE = Federal endangered FT = Federal threatened FC = Federal candidate PT = Federal proposed threatened FPD = Federal proposed for delisting FD = Federal delisted FSC = Federal Species of Concern	CE = California state endangered CT = California state threatened CCE = California candidate endangered CCT = California candidate threatened CFP = California fully protected CD = California delisted CSC = California Species of Special Concern CSA = California Special Animals List CR = California state rare	1A = plants presumed extinct in California 1B = plants rare, threatened, or endangered in California and elsewhere 2 = plants rare, threatened, or endangered in California, but common elsewhere 3 = plants about which we need more information 4 = plants of limited distribution

Table1. Federal and State Endangered Species Previously Identified within the Citrus Heights Topo Quad and within the USFWS IPac

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Invertebrates				
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT; --; --; --	Sole hosts are elderberry (*Sambucus* sp.) shrubs usually associated with riparian areas. This species is known from portions of the Central Valley of California	Adults emerge in spring until June Exit holes visible year – round	**None**; there were no elderberry shrubs identified within the Study Area during the February 2024 site survey.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT; --; --; --	Inhabits vernal pools, swales, and ephemeral freshwater habitat. Known from Alameda, Butte, Calaveras, Colusa, Contra Costa, El Dorado, Fresno, Glenn, Kings, Madera, Merced, Monterey, Napa, Placer, Riverside, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Ventura, Yolo, and Yuba counties.	USFWS protocol-level wet-season sampling and/or dry season cyst identification	**None**; the Study Area does not provide suitable habitat for this species.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE; --; --; --	Inhabits vernal pools, swales, and ephemeral freshwater habitat. Known from Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Kings, Merced, Placer, Fresno, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties.	USFWS protocol-level wet-season sampling and/or dry season cyst identification.	**None**; the Study Area does not provide suitable habitat for this species.
Fish				
Central Valley steelhead DPS *Oncorhynchus mykiss irideus Population 11*	FT; --; --; --	Found in cool, clear, fast-flowing permanent streams and rivers with riffles and ample cover from riparian vegetation or overhanging banks. Spawning occurs in streams with pool and riffle complexes. The species requires cold water and gravelly streambed to successfully breed. Spawn in the Fresno and San Joaquin rivers and tributaries before migrating to the Delta and Bay Area.	Spawns in winter and spring	**Low**; the Study Area with Cirby Creek a perennial stream passing through the northern section of the site does provide suitable habitat that is marginal. However, Cirby Creek will not be directly or indirectly impacted by the project and therefore, no impact to this species will occur from the project if present.
Amphibians/ Reptiles				
Western pond turtle *Emys marmorata*	PT; --; --; --	Typically associated with permanent ponds, lakes, streams, irrigation ditches and canals, and marshes, or pools in intermittent drainages, usually lined with abundant vegetation and either rocky or muddy bottom substrates. Requires aquatic basking sites, such as logs, rocks, or exposed banks. Turtles are active from February to November, in which breeding occurs from April to May. Overwintering occurs in upland terrestrial habitats close to water sources (up to 300 feet). Are known to bury themselves under loose soil.	Active: February – November	**Low**; the Study Area provides suitable habitat that is marginal; however, Cirby Creek provides potential access to the Study Area. The species may move through the creek zone but it is highly unlikely the species would use the upland areas outside the riparian zone of the creek given the urbanized development and lack of suitable habitat, including the lack of loose soils to bury themselves during the overwintering time period.
California tiger salamander *Ambystoma californiense*	CT; FT	Breeds in vernal pools and seasonal ponds in grasslands and oak savannas. Adults spend summer in small mammal burrows.	March – June	**None**; the Study Area does not provide suitable habitat for this species and is outside of its known range.
Western spadefoot *Spea hammondii*	PT; --; --; --	Found in a variety of upland habitats, including lowlands, foothills, grasslands, open chaparral, and pine-oak woodlands. Habitat preferences include shortgrass plains, and sandy or gravelly soils for burrowing. Aestivates for most of the year underground. During the breeding season are found in temporary rain pools, and slow-moving streams.	Breeding: January – May	**Low**; the Study Area provides potential breeding habitat for this species within Cirby Creek. However, upland aestivation habitat is not present outside the banks of the creek given a lack of burrows within the developed site. The project will avoid Cirby Creek and its banks and would avoid impacts to the species if present.
Monarch butterfly *Danaus plexippus*	FC; --; --; --	Requires milkweed as its host plant.		**None**; the Study Area does not provide suitable habitat for this species given the lack of milkweed species within the Study Area.

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Birds				
Bank swallow *Riparia riparia*	--; CT; --; --	Colonial breeder found in open and partly open situations, frequently near flowing water. Nests on steep sand, dirt, or gravel banks, in burrows dug near the top of the bank, along the edge of inland water, or along the coast, or in gravel pits or road embankments.	Breeding: April – September	**None**; the Study Area does not provide suitable habitat for this species. Cirby Creek does not contain the required burrows along the top of either bank within the Study Area.
Swainson's hawk *Buteo swainsoni*	--; CT; --; --	Nest peripherally in valley riparian systems, lone trees or groves of trees in agricultural fields. Valley oak, Fremont cottonwood, walnut, and large willow trees, ranging in height from 41 to 82 feet, are the most commonly used nest trees in the Central Valley.	Breeding: March – October	**None**; although the Study Area contains marginal non-native annual grassland, the site is highly disturbed and not large enough to be considered foraging habitat for this species. Additionally, the Study Area is on the very fringe of the known range of this species.
White-tailed kite *Elanus leucurus*	--; CFP; --; -- (nesting)	Inhabit savanna, open woodlands, marshes, desert grassland, partially cleared lands and cultivated fields. Nests in trees, often near a marsh in savanna, open woodland, partially cleared lands, and cultivated fields. Foraging occurs within ungrazed or lightly-grazed fields and pastures.	Year – round	**None**; although the Study Area contains marginal non-native annual grassland, the site is highly disturbed and not large enough to be considered foraging habitat for this species. Additionally, the Study Area does not provide nesting habitat for this species.

Note: Table above only includes federal threatened or endangered species, and State threatened, endangered, or fully protected species.

Table 2. Special-Status Species (Non-Federal or State Endangered Species Act Listed – CDFW and CNPS Listed Species)

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Plants				
Valley brodiaea *Brodiaea rosea ssp. valicola*	--; --; --; 4.2	Perennial bulbiferous herb that grows in vernally moist gravelly serpentine clay in foothill pine forest or oak woodland.	Blooming period: April – June	**None**; the Study Area does not provide suitable habitat for this species given the lack of serpentine soils present.
Stinkbells *Fritillaria agrestis*	--; --; --; 4.2	Perennial bulbiferous herb found in clay soils, sometimes in serpentinite, chaparral, cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland from 10 to 1,555 meters.	Blooming period: March – June	**None**; the Study Area does not provide suitable habitat for this species given the lack of claypan present.
Sanford's arrowhead *Sagittaria sanfordii*	--; --; --; 1B.2	Perennial rhizomatous herb found in marshes and swamps in assorted shallow freshwater areas from 0 to 650 meters.	Blooming period: May – October	**Low**; Cirby Creek within the Study Area may provide marginal suitable habitat for this species. However, Cirby Creek and its associated banks and riparian habitat will be avoided by the project and this species would not be impacted if present.
Invertebrates				
California linderiella *Linderiella occidentalis*	--; CSA; --; --	Found in a variety of natural, and artificial seasonally ponded freshwater habitats, including vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activity.	Wet-season sampling and/or dry season cyst identification	**None**; the Study Area does not provide suitable habitat for this species.
Amphibians/Reptiles				
Coast horned lizard *Phrynosoma blainvillii*	--; CSC; --; --	Species occurs in open sandy areas, scattered low bushes, chaparral, manzanita, and oak woodland habitats. It is found in the Sierra Nevada foothills from Butte County to Kern County and throughout the central and southern California coast.	Year – round	**None**; the Study Area does not provide suitable habitat for this species.
Birds				
Long-eared owl *Asio otus*	--; CSC; --; --	Occurs very locally within the mapped range, particularly in the southern deserts and densely forested areas. Essentially extirpated from the entire floor of the Central Valley and locally on the southern coast; numbers have declined at least moderately overall.	Year – round	**None**; the Study Area does not provide suitable habitat for this species.
Great blue heron *Ardea herodias*	--; CSA; --; --	Inhabits both freshwater and saltwater habitats and forages in grassland and agricultural field. Breeding colonies are located within 2 to 4 miles of feeding areas, often in isolated swamps or on islands, and near lakes and ponds bordered by forests.	Year – round	**Low**; the Study Area does not provide suitable habitat for this species.

Special-Status Species	Regulatory Status	Habitat Requirements	Identification/ Survey Period	Potential for Occurrence
Birds				
Osprey *Pandion haliaetus*	--; CSA; --; --	Found near a water source, either freshwater or salt water, such as coastal estuaries, salt marshes, large lakes, reservoirs, and rivers, where large numbers of fish are present. Sometimes seen in desert habitat during migration.	Winter (Non-Breeding)	**None**; the Study Area does not provide suitable habitat for this species.
Cooper's hawk *Accipiter cooperii*	--; CSC; --; --	Found in cismontane woodland, riparian forest, riparian woodland, and upper montane coniferous forest.	Year – round	**Low**; the riparian woodland within the Study Area provides marginal suitable habitat for this species. Given the location of the subject parcel within a highly urbanized setting, the potential presence of this species within the subject parcel is considered very low.
American peregrine falcon *Falco peregrinus anatum*	FD; --; --; --	They winter in the northern limits of their range, including portions of Canada, and are very widespread during migration. Winter in areas with large concentrations of waterfowl.	Winter and during Migration	**None**; the Study Area does not provide suitable habitat for this species.
Vaux's swift *Chaetura vauxi*	--; CSC; --; --	Vaux's Swifts arrive in Oregon and California in late April, court their mates in May and June, and have their 4-6 eggs laid and hatched by July.	Spring and Summer Residents	**None**; the Study Area does not provide suitable habitat for this species.
Invertebrates				
Andrenid bee *Andrena subapasta*	--; CSA; --; --	Found in grassland habitats within El Dorado, Placer, Sacramento, and San Joaquin counties. Ground nesters that will be underground from summer, fall and winter and emerge in early spring to forage and pollinate early bloomers, such as willows, maples, violets and other early blooming wildflowers.	Year – round	**None**; the Study Area does not provide suitable habitat for this species.
American bumble bee *Bombus pensylvanicus*	--; CSA; --; --	Large bee that prefers farmland and open spaces.	Year – round	**None**; the Study Area does not provide suitable habitat for this species.
Fish				
Pacific lamprey *Entosphenus tridentatus*	--; CSC; --; --	Pacific Lampreys are eel-like in form and anadromous, using both fresh water and marine habitats to complete their life cycle. Adult Pacific lamprey live in the ocean and return to freshwater to spawn and then die, completing their lifecycle.	Year – round	**Low**; the Study Area with Cirby Creek a perennial stream passing through the northern section of the site does provide suitable habitat that is marginal for this species. However, Cirby Creek will not be directly or indirectly impacted by the project and therefore, no impact to this species will occur from the project if present.
Mammals				
Sacramento valley red fox *Vulpes vulpes patwin*	--; --; --; --	The Sacramento Valley red fox occurs on the valley floor of the upper- and mid-Sacramento Valley.	Year – round	**None**; the Study Area does not provide suitable habitat for this species.

Appendix H

USFWS IPaC Species List and CNDDB/CNPS Species Lists

Element_Type	Scientific_Name	Common_Name	Element_Code	Federal_Status	State_Status	CDFW_Status	CA_Rare_Plant_Rank	Quad_Code	Quad_Name	Data_Status	Taxonomic_So
Animals - Birds	Accipiter cooperii	Coopers hawk	ABNKC12040	None	None	WL	-	3812163	CITRUS HEIGHTS	Unprocessed	Animals - Birds · Accipitridae - Accipiter cooper
Animals - Birds	Buteo swainsoni	Swainsons hawk	ABNKC19070	None	Threatened	-	-	3812163	CITRUS HEIGHTS	Unprocessed	Animals - Birds · Accipitridae - Buteo swainson
Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3812163	CITRUS HEIGHTS	Mapped	Animals - Birds · Accipitridae - Elanus leucurus
Animals - Birds	Chaetura vauxi	Vauxs swift	ABNUA03020	None	None	SSC	-	3812163	CITRUS HEIGHTS	Unprocessed	Animals - Birds · Apodidae - Chaetura vauxi
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3812163	CITRUS HEIGHTS	Mapped	Animals - Birds · Ardeidae - Ardea herodias
Animals - Birds	Falco peregrinus anatum	American peregrine falcon	ABNKD06071	Delisted	Delisted	-	-	3812163	CITRUS HEIGHTS	Unprocessed	Animals - Birds · Falconidae - Falco peregrinus anatum
Animals - Birds	Riparia riparia	bank swallow	ABPAU08010	None	Threatened	-	-	3812163	CITRUS HEIGHTS	Mapped	Animals - Birds · Hirundinidae - Riparia riparia
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	3812163	CITRUS HEIGHTS	Unprocessed	Animals - Birds · Pandionidae - Pandion haliaetus
Animals - Birds	Asio otus	long-eared owl	ABNSB13010	None	None	SSC	-	3812163	CITRUS HEIGHTS	Unprocessed	Animals - Birds · Strigidae - Asio otus
Animals - Crustaceans	Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	Threatened	None	-	-	3812163	CITRUS HEIGHTS	Mapped and Unprocessed	Animals - Crustaceans - Branchinectidae Branchinecta lynchi
Animals - Crustaceans	Linderiella occidentalis	California linderiella	ICBRA06010	None	None	-	-	3812163	CITRUS HEIGHTS	Mapped and Unprocessed	Animals - Crustaceans - Chirocephalidae - Linderiella occidentalis
Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	3812163	CITRUS HEIGHTS	Unprocessed	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	-	-	3812163	CITRUS HEIGHTS	Mapped and Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 11
Animals - Insects	Andrena subapasta	An andrenid bee	IIHYM35210	None	None	-	-	3812163	CITRUS HEIGHTS	Mapped	Animals - Insect - Andrenidae - Andrena subapasta
Animals - Insects	Bombus pensylvanicus	American bumble bee	IIHYM24260	None	None	-	-	3812163	CITRUS HEIGHTS	Mapped and Unprocessed	Animals - Insect - Apidae -

											Bombus pensylvanicus
Animals - Insects	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	Threatened	None	-	-	3812163	CITRUS HEIGHTS	Mapped and Unprocessed	Animals - Insect - Cerambycidae Desmocerus californicus dimorphus
Animals - Mammals	Vulpes vulpes patwin	Sacramento Valley red fox	AMAJA03015	None	None	-	-	3812163	CITRUS HEIGHTS	Unprocessed	Animals - Mammals - Canidae - Vulpe vulpes patwin
Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	Proposed Threatened	None	SSC	-	3812163	CITRUS HEIGHTS	Unprocessed	Animals - Reptiles - Emydidae - Emys marmorat
Animals - Reptiles	Phrynosoma blainvillii	coast horned lizard	ARACF12100	None	None	SSC	-	3812163	CITRUS HEIGHTS	Unprocessed	Animals - Reptiles - Phrynosomatida - Phrynosoma blainvillii
Community - Terrestrial	Northern Volcanic Mud Flow Vernal Pool	Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	-	-	3812163	CITRUS HEIGHTS	Mapped	Community - Terrestrial - Northern Volcanic Mud Flow Vernal Poo
Plants - Vascular	Sagittaria sanfordii	Sanfords arrowhead	PMALI040Q0	None	None	-	1B.2	3812163	CITRUS HEIGHTS	Mapped and Unprocessed	Plants - Vascula - Alismataceae - Sagittaria sanfordii
Plants - Vascular	Fritillaria agrestis	stinkbells	PMLIL0V010	None	None	-	4.2	3812163	CITRUS HEIGHTS	Mapped and Unprocessed	Plants - Vascula - Liliaceae - Fritillaria agresti
Plants - Vascular	Brodiaea rosea ssp. vallicola	valley brodiaea	PMLIL0C0K2	None	None	-	4.2	3812163	CITRUS HEIGHTS	Unprocessed	Plants - Vascula - Themidaceae - Brodiaea rosea ssp. vallicola

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

3 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3812163**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Brodiaea rosea ssp. *vallicola*	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	Yes	2019-01-07	 © 2011 Steven Perry
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1980-01-01	 © 2016 Aaron Schusteff
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook

Showing 1 to 3 of 3 entries

Suggested Citation:

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IPaC Information for Planning and Consultation **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Placer County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

NAME	STATUS
Northwestern Pond Turtle Actinemys marmorata Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened
Western Spadefoot Spea hammondii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

Insects

NAME	STATUS

Monarch Butterfly Danaus plexippus — Candidate
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9743

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus — Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/7850

Crustaceans

NAME	STATUS

Vernal Pool Fairy Shrimp Branchinecta lynchi — Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp Lepidurus packardi — Endangered
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/2246

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON

Bald Eagle Haliaeetus leucocephalus — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1626

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ( )

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is

the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

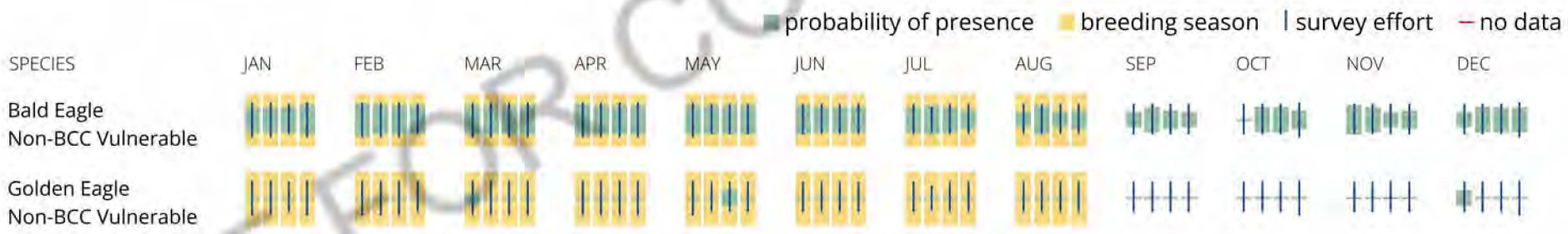
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/ documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31

Belding's Savannah Sparrow Passerculus sandwichensis beldingi — Breeds Apr 1 to Aug 15
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8

Bullock's Oriole Icterus bullockii — Breeds Mar 21 to Jul 25
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull Larus californicus — Breeds Mar 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Marbled Godwit Limosa fedoa — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

Willet Tringa semipalmata — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie Pica nuttalli — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ( )

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

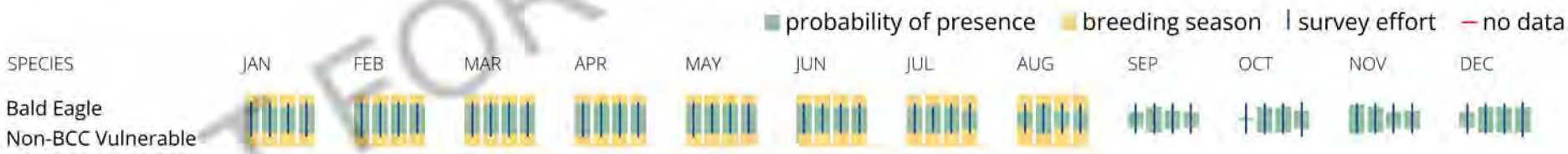
Breeding Season ( )
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

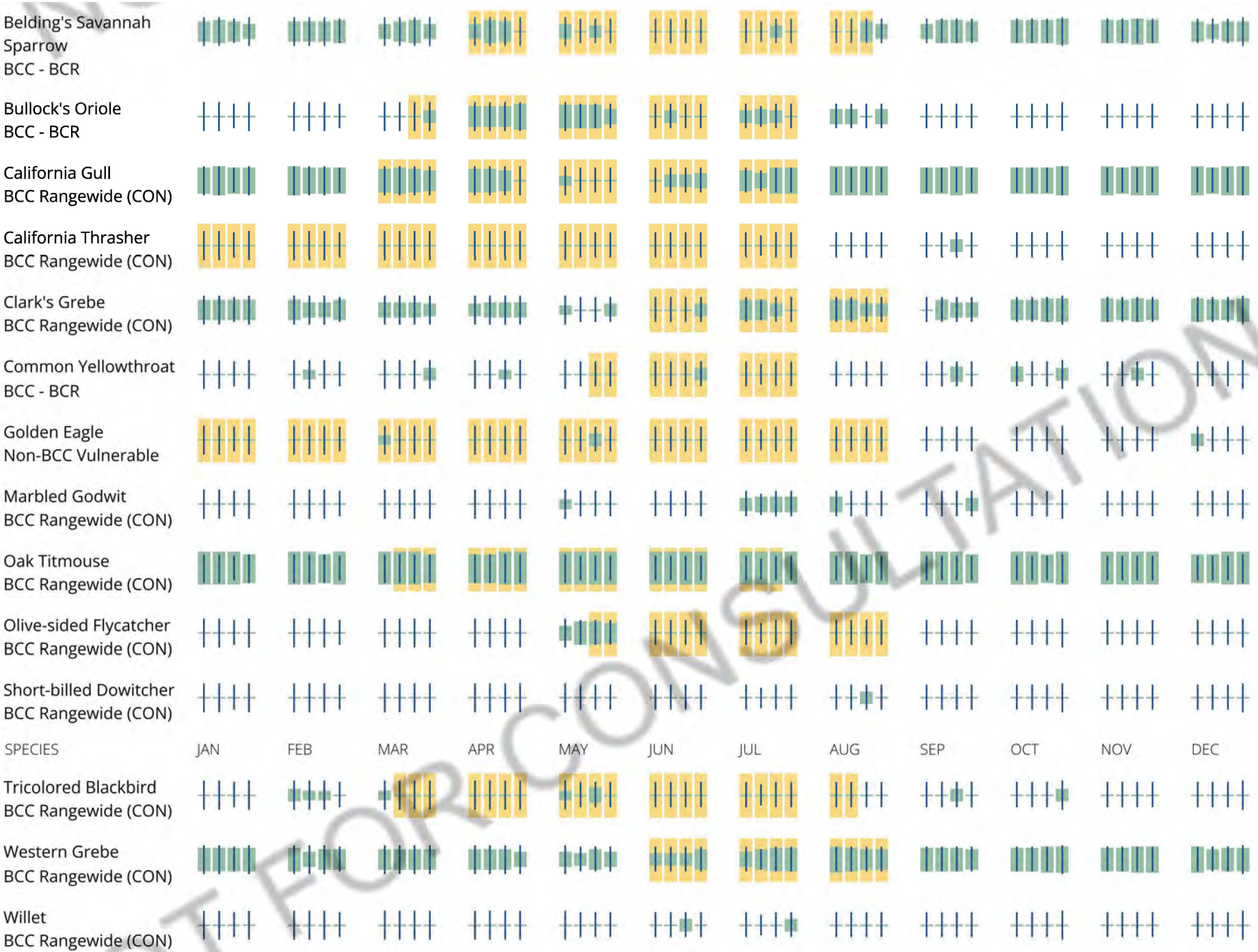
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

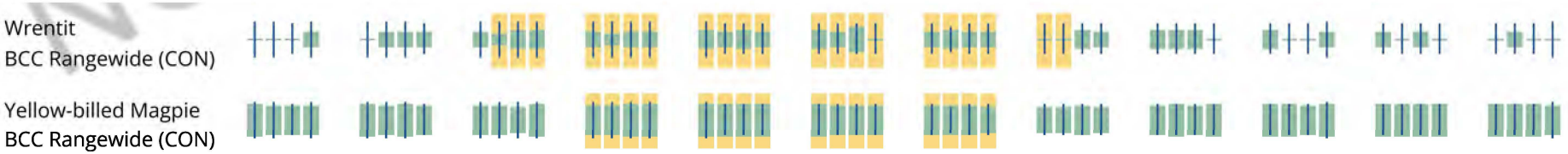
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND
PFOA

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

IS ATTACHMENT 3

GEOTECHNICAL ENGINEERING REPORT

701 SUNRISE AVENUE

APN 470-010-043-000
Roseville, CA 95661

November 1, 2024

Prepared For:

HAMZAH ALKORDY
901 Sunrise Avenue, Suite 1A
Roseville, CA 95661

NV5

792 Searls Avenue
Nevada City, CA 95959

PROJECT NO. 5994.00

Project No. 5994.00
November 1, 2024

Sent via Email

Hamzah Alkordy
901 Sunrise Avenue, Suite 1A
Roseville, CA 95661
halkordy1@gmail.com

Reference: 701 Sunrise Avenue
APN 470-010-043-000
Roseville, CA 95661

Subject: Geotechnical Engineering Report

Dear Mr. Alkordy:

This report presents the results of our geotechnical engineering investigation for the 2.7-acre property located at 701 Sunrise Ave. in Roseville, California. As proposed, the project is to include development of a 7,000 square foot building, and associated retaining walls, roadways, sidewalks, underground utilities, and landscaping.

The findings presented in this report are based on our subsurface investigation, laboratory test results, and our experience with subsurface conditions in the area. Our opinion is that the project can be completed as proposed, provided the recommendations presented in this report are implemented. Our primary concerns, from a geotechnical engineering standpoint, include the location of the site in a flood plain and very stiff to hard fine-grained deposits at the location of the proposed improvements. Recommendations addressing these concerns are presented in the report.

Please contact us if you have any questions regarding our observations or the recommendations presented in this report.

Sincerely,
NV5

Ted Bibby, GIT 1732
Project Geologist

Chuck Kull, CEG, GE
Principal

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1.0 INTRODUCTION

At the request of Hamzah Alkordy, NV5 performed a geotechnical investigation of the 2.7-acre property located at 701 Sunrise Avenue in Roseville, California. The geotechnical investigation was performed in general accordance with our proposal dated September 10, 2024 for the project.

1.1 SITE DESCRIPTION

The project site is located east of the Carbon Health Urgent Care Clinic at 701 Sunrise Avenue, approximately 450 feet southeast of the Sunrise Avenue and Coloma Way intersection, in Roseville, California. The property is bordered by commercial buildings to the north, east, and south, and by Sunrise Avenue to the west. A site vicinity map is presented as Figure 1.

At the time of our field investigation, the project site consisted of a multi-story structure at the southwest corner of the property, a parking lot, and an undeveloped area on the eastern half of the property. The site topography was generally flat with a slight slope trending from east to west. There was a seasonal creek (Cirby Creek) on the northern edge of the property.

1.2 PROPOSED IMPROVEMENTS

Based on our review of a site plan titled “Sunrise Office Center” (undated) for the project provided by Millenium Planning and Engineering, NV5 understands that the proposed improvements will likely include a 7,000-square-foot office building and associated parking lot, utilities, and sidewalks. We anticipate that grading for the project will include general site clearing/preparation, minor cut and fill for roadways and building pad(s), and excavation for underground utilities. We understand that Stormtech Arch Chambers are proposed for impervious surface drainage storage and infiltration.

1.3 PURPOSE

NV5 performed a surface reconnaissance and subsurface geotechnical investigation at the site, collected soil samples for laboratory testing, and performed engineering calculations to provide grading and drainage recommendations, foundation design criteria, slab-on-grade recommendations, and pavement design for the proposed improvements.

1.4 SCOPE OF SERVICES

To prepare this report, we performed the following scope of services:

- We marked the site for underground service alert (USA) and performed a surface reconnaissance.
- We performed a site investigation, including a literature review and a subsurface investigation.
- We collected relatively undisturbed soil samples and bulk soil samples from selected exploration trenches.
- We performed laboratory tests on select soil samples obtained during our subsurface investigation to determine their engineering material properties.
- Based on observations made during our subsurface investigation and the results of laboratory testing, we performed engineering calculations to provide geotechnical engineering recommendations for earthwork and structural improvements.

Our scope of services did not include retaining wall design. We did not perform a groundwater flow analysis nor an evaluation of the site for the presence of hazardous materials, historic mining features, asbestiform minerals, mold, or percolation rates of native soil.

2.0 SITE INVESTIGATION

We performed a site investigation to characterize the existing surface conditions and shallow subsurface soil/rock conditions. Our site investigation included a literature review and field investigation as described below.

2.1 LITERATURE REVIEW

We performed a limited review of geologic literature pertaining to the project site. The following sections summarize our findings.

2.1.1 Soil Survey

As part of our study, we reviewed the *Web Soil Survey* (United States Department of Agriculture [USDA] Natural Resource Conservation Service [NRCS]; *https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx*). The soil survey indicated that the site is located in an area containing one distinct soil type. The site consists of Xerofluvents, frequently flooded.

(194) Xerofluvents, frequently flooded: The soil survey describes this soil type as being somewhat poorly drained with a very low runoff class. The soil profile typically consists of stratified loamy sand to fine sandy loam from 0 to 15 inches, stratified loamy sand to fine loam to silt loam from 15 to 37 inches, and stratified loam to silty clay loam to clay from 37 to 55 inches below ground surface (bgs).

2.1.2 Geologic Setting

Based on review of the *Geologic Map of the Sacramento Quadrangle, California, 1:250,000*, published by the State of California (D.L. Wagner et al., 1981), the area containing the project site is generally underlain by Quaternary-age (2.58 million years before present to present day) sedimentary and metasedimentary rock (Geologic Map Symbol Qmr). The project site is between Cirby Creek to the north and Linda Creek, approximately 600 feet to the south.

2.2 FIELD INVESTIGATION

NV5 performed our field investigation on September 27, 2024. During our field investigation, we observed the local topography and surface conditions and performed a subsurface investigation. The following sections summarize surface and subsurface conditions observed during our field investigation.

Our subsurface investigation included the excavation of 5 exploration trenches across the project site. We excavated to depths ranging between 5 and 8 feet below the ground surface (bgs) using a Cat-304 excavator equipped with a 24-inch bucket. We obtained samples using a hand-actuated slide sampler and hand shovel. A staff engineer from our firm logged the soil conditions revealed in the exploratory trenches and collected relatively undisturbed and bulk soil samples for laboratory testing. Figure 2 shows the approximate locations of exploration trenches.

2.2.1 Surface Conditions

At the time of our investigation, the site consisted of an urgent care clinic in the southwest corner of the site with associated parking lot, utilities, and sidewalks. The subsurface investigation was

performed on the eastern half of the site in an undeveloped field. No trenches were excavated in the area of existing improvements.

Site topography was generally flat, with estimated slopes ranging from 0 to 5 percent, trending from east to west. According to Google Earth (2024) site elevations ranged from 138 to 142 feet above mean sea level (MSL).

Vegetation on the site was typical of the Sierra Nevada Foothills with oak trees and dry grass. Seasonal drainage courses, including Cirby Creek, parallel the northern border of the site, trending from east to west. The seasonal stream courses were lined with blackberry thickets and riparian grasses north of the existing fence.

2.2.2 Subsurface Soil Conditions

The soil conditions described in the following paragraphs are generalized, based on our observations of soil revealed in our 5 exploratory trenches. Detailed descriptions of the soil, rock and groundwater conditions that were encountered in each subsurface exploratory locations are presented in the Trench logs in Appendix A.

The soil and/or rock units encountered in the subsurface exploration excavations were generally stratigraphically continuous across the site with little variations in gradations and thicknesses. The units encountered in general stratigraphic sequence during the subsurface investigation of the site are described below. In general, all exploration excavations were terminated at practical refusal on very dense soil or hardpan. Subsurface conditions may vary at other locations and times.

- **ML, Silt with Gravel/Cobbles:** This soil is considered to be topsoil consisting of the following field estimated particle size percentages: 60 percent low plasticity silt and clay (fines) and 40 percent gravel and cobbles. This soil was brown, dense, and dry at the time of the subsurface investigation and contained some roots. This soil was encountered in the upper 3 to 5 feet.
- **SP, Poorly Graded Sand:** This soil is considered to be a subsoil consisting of the following field estimated particle size percentages: 10 percent low plasticity silt and clay (fines) and 90 percent poorly graded sand. This soil was light brown to brown, dense, and dry at the time of the subsurface investigation. This soil was only encountered in trench T-1.
- **ML-CL, Sandy Silt/Clay (Hardpan):** This soil is considered to be a subsoil (hardpan) consisting of the following field estimated particle size percentages: 60 percent low plasticity silt and clay (fines) and 40 percent poorly graded sand. This soil was light brown to brown, very dense, highly cemented, and damp at the time of the subsurface investigation.

2.2.3 Groundwater Conditions

During our site investigation, we did not encounter groundwater seepage in our exploration trenches, nor did we observe onsite springs or seeps emanating from the ground surface. Surface water was observed in Cirby Creek which is directly adjacent to the project site suggesting groundwater may be encountered at deeper depths. There is a possibility that perched groundwater may be encountered due to hardpan in the subsurface.

Our observations of groundwater conditions were made in September 2024 following a period of dry weather. Although we did not observe groundwater in our exploratory trenches, our experience has shown that seepage may be encountered in excavations which reveal the soil/weathered rock transition, particularly during or after the rainy season.

3.0 LABORATORY TESTING

We performed laboratory tests on selected soil samples collected from our subsurface exploration trenches to determine their engineering material properties. These engineering material properties were used to develop geotechnical engineering design recommendations for earthwork and structural improvements. We performed the following laboratory tests:

- ASTM D2487 Soil Classification by the USCS
- ASTM D2488 Soil Classification by Visual-Manual Procedures
- ASTM D422 Particle Size Distribution
- ASTM D2216 Moisture Content
- ASTM D2937 In Place Density
- ASTM D2166 Unconfined Compression
- ASTM D3080 Direct Shear Strength
- ASTM D4318 Atterberg Indices (Dry Method)
- ASTM D4829 Expansion Index
- ASTM D2844 Resistance Value
- ASTM D516/CTM 417 Sulfate
- ASTM D512/CTM 422m Chloride
- ASTM D4972/CTM 643 pH
- ASTM G47/CTM 643 Minimum Soil Resistivity

In general, relatively undisturbed soil samples were collected for laboratory testing within the upper 5.0 feet of the trenches. Test results are summarized in the following tables. Laboratory reports are presented in Appendix B.

Table 3-1, Soil Classification, Gradation and Shear Strength

Trench ID	Sample ID	Depth bgs (feet)	ASTM							
			D2487/ D2488	D422A			D2216	D2937	D3080	D3080/ D2166
			USCS Symbol	Gravel Content (%)	Sand Content (%)	Clay/Silt Content (%)	Moisture Content (%)	Dry Density (pcf)	Friction Angle (deg)	Cohesion (psf)
T1	T1-L2	5	ML	--	--	--	8.1	102.3	--	--
T5	T5-B1	5	CL-ML	0	35.9	64.1	--	--	--	--
T2	T2-L1	2	CL-ML	--	--	--	--	--	--	3,581
T2	T2-L2	4	CL-ML	--	--	--	--	--	--	7,497
T1	T1-L1	2	CL-ML	--	--	--	--	--	31	454*

Notes:
* Due to cracks/granular material in the soil sample, cohesion value is low and regarded as a false result (ASTM D3080)
ASTM = ASTM International
bgs = below ground surface
deg. = degrees
pcf = pounds per cubic feet
% = Percent
psf = pounds per square foot
USCS = Unified Soil Classification System

NV5 performed Atterberg Limits and expansion index testing on a selected bulk soil sample. The Atterberg Limits determinations used sample portions passing the No. 40 sieve to calculate the Liquid Limit (LL), Plastic Limit (PL) and Plasticity Index (PI). Expansion index was determined by remolding in a 1.0-inch-high ring and submerging in water under an applied loading of 144 pounds per square foot (psf). Swell (or settlement) was measured with a dial micrometer over a 24-hour period. The sample was determined to be non-expansive. Results are presented in Table 3-2.

Table 3-2, Atterberg Limits and Expansion Index

Sample ID	Trench No.	T-3
	Sample No.	BK1
	Depth bgs (feet)	5
Atterberg Limits Determination (ASTM D4318)	Liquid Limit (LL)	22
	Plastic Limit (PL)	15
	Plasticity Index (PI)	7
Expansion Index Testing (ASTM D4829)	Expansion Index (Corrected)	4
	Expansion Potential	Very Low

Notes:
ASTM = ASTM International bgs = below ground surface

One Resistance Value (R-Value) test was performed by Pavement Engineering Inc. on a composite bulk sample obtained from exploratory trench T-5 at an approximate depth of 1.0 to 3.0 feet bgs. R-Value test results are summarized in Table 3-3.

Table 3-3, Resistance Value

Trench ID	T5
Sample ID	T5-R1
Depth bgs (feet)	1.0 – 3.0
R-Value (CTM 301)	18

Notes:
CTM = California Test Method bgs = feet below the ground surface

Sunland Analytical performed corrosion testing on a soil sample obtained from exploratory trench T-5 at 1.0 to 3.0 feet bgs. Corrosion testing included pH and minimum resistivity, sulfate content and chloride content. The sample was generally described as brown clay. Corrosion test results are presented in Table 3-4 and are further discussed in Section 5.5.12, “Soil Corrosion Potential.”

Table 3-4, Corrosion Testing

Sample ID	Depth bgs (feet)	CTM			
		643	643	422M	417
		pH	Minimum Resistivity (ohms-cm)	Chloride (ppm)	Sulfide (ppm)
T5-R1	1.0 – 3.0	6.58	1,720	5.6	106.2

Notes:
CTM = Caltrans Test Method ohms-cm = ohms-centimeter
ppm = parts per million

4.0 CONCLUSIONS

The following conclusions are based on our field observations, laboratory test results, and our experience in the area.

1. Our opinion is that the site is suitable for the proposed improvements, provided that the geotechnical engineering recommendations and design criteria presented in this report are incorporated into the project plans.

2. Our primary concerns are the location of the site in a flood plain and that the site is underlain by very stiff to hard fine-grained deposits within the location of the proposed improvements.

3. An existing concrete pipe was encountered in trench T-2 at approximately 4 feet bgs. We believe the pipe trends from southeast to northwest based on the small visible section of pipe, as noted on the preliminary plans.

4. Based on our site observations, the geology of the region, and our experience in the area, our opinion is that the risk of seismically induced hazards such as slope instability, liquefaction, and surface rupture are low at the project site.

5. During our site investigation, we did not encounter ultramafic rock, serpentinite, or NOA minerals. If ultramafic rock, serpentinite or NOA-containing minerals are encountered at the site, site grading would be regulated under Cal/EPA Air Resources Board Regulation 93105, Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations (ATCM) and Placer County Rule 228, Fugitive Dust.

6. Very stiff to hard fine-grained Hardpan deposits were encountered in our exploration trenches. Excavations may require ripping or hammering due to hardpan deposits.

7. We did not encounter existing fill in our exploration trenches. If existing fill or loose soils are encountered during construction, we should be retained to evaluate the condition of the fill, and to make recommendations to mitigate the presence of fill, if necessary. Existing fill, if encountered, should not be relied upon to support proposed improvements without testing and evaluation.

8. During our site investigation, we did not observe groundwater or seepage within our exploration trenches. However, we did observe evidence that surface water is seasonally transported through drainage channels on the property. We anticipate that moist to saturated soil conditions and groundwater may be encountered during grading, particularly during the rainy season. Preliminary recommendations regarding subsurface drainage and construction dewatering are presented in this report.

9. It is our opinion that the soils evaluated at the site may experience low water infiltration rates due to the nature of the soil and degree of compaction observed in units at depth. Highly compacted silts and clays (also referred to as hardpan) have the tendency to prevent water movement into the subsurface, increasing the saturation of surface soils and leading to greater surface water during wet events. Roots also tend to terminate at hardpan horizons and spread laterally. Providing infiltration rates and stormwater drainage calculations and designs were not included in the NV5's scope of services and are the responsibility of the designer.

10. Prior to grading and construction, we should be retained to review the proposed grading plan and structural improvements to confirm our recommendations.

5.0 RECOMMENDATIONS

The following geotechnical engineering recommendations are based on our understanding of the project as currently proposed, our field observations, the results of our laboratory testing program, engineering analysis, and our experience in the area.

5.1 GRADING

The following sections present our grading recommendations. The grading recommendations address clearing and grubbing, cut slope grading, soil preparation, fill placement, fill slope grading, underground utility trenches, erosion control, wet weather grading, surface water drainage, construction dewatering, soil corrosion potential, plan review, and construction monitoring.

5.1.1 Clearing and Grubbing

The areas to be graded should be cleared and grubbed to remove vegetation and other deleterious materials as described below.

1. Strip and remove debris from clearing operations, including the weak and porous soil containing shallow vegetation, roots and other deleterious materials. Trees and shrubs that will not be part of the proposed development should be removed and their primary root systems grubbed. We anticipate that the depth of grubbing and clearing would be between 3 and 6 inches, but the actual depth of stripping will vary across the site and may be greater in forested areas. Actual stripping depth should be determined by a representative of the geotechnical engineer in the field at the time of stripping. The organic topsoil can be stockpiled on-site and used in landscape areas but is not suitable for use as engineered fill. The project geotechnical engineer should approve any proposed use of the spoil generated from stripping prior to placement on the site.

2. Overexcavate any relatively loose debris and soil that is encountered down to underlying, competent material. Possible excavations include previous exploration trenches, soil test pits, holes resulting from tree stump or boulder removal, and mining relics.

3. Hardpan deposits were encountered between approximate depths of 3 to 5 feet. Excavations may require ripping or hammering due to the very stiff to hard fine-grained deposits, and excavation rates may be slowed.

4. Undocumented fill was not encountered in our exploration trenches. However, if loose undocumented fill or potential soil stockpiles are encountered during site development, overexcavate to competent native soil or weathered rock and replace with engineered fill in accordance with Section 5.1.4, “Fill Placement,” of this report. Relatively loose fill shall be removed to within and a minimum of 5 feet beyond proposed structure footprints.

5. Overexcavate any encountered stumps, oversized rocks, leach lines, abandoned sewer, water, and fuel lines, and loose soil in abandoned subsurface utility line trenches within the proposed improvement areas to underlying competent soil, as determined by a representative of NV5. Excavate remaining cavities or holes to a sufficient width so that an approved backfill soil can be placed and compacted in the cavities or holes. Enough backfill soil should be placed and compacted in order to match the surrounding elevations and grades.

6. Remove rocks greater than 8 inches in greatest dimension (oversized rock) from native soil by scarifying to a depth of 12 inches below finish grade in areas to support pavement, slabs-on-grade or other flatwork. Oversized rock may be used in landscape areas, rock landscape walls, or removed from the site. Oversized rock can be stockpiled onsite and used to construct fills, but must be placed at or near the bottom of deep fills and must be placed in windrows to avoid nesting. No oversized rock should be placed in the upper 3 feet of any

structural fill. Unless used as rip-rap, oversized rock placed in fill should not be located within 5 feet horizontally of the finished fill slope face. The project geotechnical engineer should approve the use of oversized rock prior to constructing fill.

7. NV5 did not encounter expansive soil during our field investigation, however, if fine grained, potentially expansive soil is encountered during grading, it should be mixed with granular soil or overexcavated and stockpiled for removal from the project site or for later use in landscape areas. A typical mixing ratio for granular to expansive soil is 4 to 1. The actual mixing ratio should be determined by NV5.

8. Vegetation, deleterious materials, structural debris, and oversized rocks not used in landscape areas, drainage channels, or other non-structural uses should be removed from the site.

5.1.2 Cut Slope Grading

Based on our understanding of the project at this time, we do not anticipate that permanent cut slopes will be created during grading of the proposed improvements. In general, permanent cut slopes should not be steeper than 2:1, horizontal to vertical (H:V). Steeper cut slopes may be feasible, depending on the soil/rock conditions encountered and should be reviewed on a case-by-case basis. The upper two feet of all cut slopes should be graded to an approximate 2:1, H:V, slope to reduce sloughing and erosion of looser surface soil.

5.1.3 Soil Preparation for Fill Placement

Where fill placement is proposed, the surface soil exposed by site clearing and grubbing should be prepared as described below.

1. The surface soil should be scarified to a minimum depth of 12 inches below the existing ground surface, or to resistant rock, whichever is shallower. Following scarification, the soil should be uniformly moisture conditioned to within approximately 3 percentage points of the ASTM D1557 optimum moisture content.

2. The scarified and moisture conditioned soil should then be compacted to achieve a minimum relative compaction of 90 percent based on ASTM D1557 maximum dry density. The moisture content, density, and relative percent compaction should be verified by a representative of NV5. The earthwork contractor should assist our representative by excavating test pads with onsite earth moving equipment.

3. The prepared native soil surface should be proof-rolled with a fully loaded, 4,000-gallon-capacity water truck with the rear of the truck supported on a double-axle, tandem-wheel undercarriage or approved equivalent. The proof-rolled surface should be visually observed by the project engineer or their field representative to be firm, competent and relatively unyielding. The project engineer or their field representative may also evaluate the surface material by hand probing with a ¼-inch-diameter steel probe, however, this evaluation method should not be performed in place of proof rolling as described above.

4. Construction Quality Assurance (CQA) tests should be performed using the minimum testing frequencies presented in Table 5-1 or as modified by the project engineer to better suit the site conditions and change in soil or construction methods.

Table 5-1, Minimum Testing Frequencies

ASTM No.	Test Description	Minimum Test Frequency(1)
D1557	Modified Proctor Compaction Curve	1 per 1,500 CY or Material Change(2)
D6938	Nuclear Density and Nuclear Moisture Content	1 per 250 CY

Notes: (1) These are minimum testing frequencies that may be increased or decreased at the project geotechnical engineer's discretion on the basis of the site conditions encountered during grading.
(2) Whichever criteria provides the greatest number of tests.
ASTM No. = ASTM International Number
CY = cubic yards

5. The native soil surface should be graded to minimize the ponding of water and to drain surface water away from the building foundations and associated structures. Where possible, surface water should be collected, conveyed and discharged into natural drainage courses, storm sewer inlet structures, permanent engineered stormwater runoff percolation/evaporation basins or engineered infiltration subdrain systems.

5.1.4 Fill Placement

All fill placed beneath structural improvements (e.g., foundation elements, pavements, slabs-on-grade and utility lines) and as part of a fill slope or retaining structures should be considered structural engineered fill. Material used for structural fill should consist of uncontaminated, predominantly granular, non-expansive native soil or approved import soil, as described in the following sections.

5.1.4.1 Import Fill Soil

Import fill soil should meet the geotechnical engineering material properties described in the following Section, "Engineered Fill Construction with Testable Earth Materials." Import soil should be predominantly granular, non-expansive and free of deleterious material. Prior to importation to the site, the source generator should document that the import fill meets the guidelines set forth by the California Environmental Protection Agency (CalEPA) Department of Toxic Substances Control (DTSC) in their 2001 "Information Advisory, Clean Imported Fill Material." This advisory represents the best practice for characterization of soil prior to import for use as engineered fill. Import material that is proposed for use on-site should be submitted to NV5 for approval and possible laboratory testing at least 72 hours prior to transport to the site.

5.1.4.2 Engineered Fill Construction with Testable Earth Materials

Testable earth materials are generally considered to be soils with gravel and larger particle sizes retained on the No. 4 mesh sieve that make up less than 30 percent by dry weight of the total mass. The relative percent compaction of testable earth materials can readily be determined by the following ASTM test procedures: laboratory compaction curve (D1557), field moisture and density (D6938). Construction of engineered fills with testable earth materials is described below.

1. Testable Soil used for fill should consist of uncontaminated, predominantly granular, non-expansive native soil or approved import soil. If encountered, rock used in fill should be broken into pieces no larger than 8 inches in diameter. Rocks larger than 8 inches are considered oversized material and should be stockpiled for off haul or use in landscape areas and drainage channels. No oversized rock should be placed in the upper 3 feet of any structural fill.

2. Cohesive, predominantly fine-grained, or potentially expansive soil encountered during grading should be stockpiled for removal, mixed as directed by NV5, or used in landscape areas. As an option, cohesive fine-grained or potentially expansive soil can often be placed in the deeper portions of proposed fill (e.g., depths greater than 3 feet below subgrade in building footprints). However, this option would have to be evaluated on a case-by-case basis with consideration of the fill depth and proposed loading.

3. Soil used to construct engineered fill should be uniformly moisture conditioned to within approximately 3 percentage points of the ASTM D1557 optimum moisture content. If site grading is performed during or following periods of wet weather, near-surface site soils may be significantly above its optimum moisture content. These conditions could hamper equipment maneuverability and efforts to compact fill materials to the recommended compaction criteria. Fill material may require drying to facilitate placement and compaction, particularly during or following the wet season. Suitable compaction results may be difficult to obtain without processing the soil (e.g., discing during favorable weather, covering stockpiles during periods of precipitation, etc.).

4. Fill should be constructed by placing uniformly moisture conditioned soil in maximum 12-inch-thick loose, horizontal lifts (layers) prior to compacting.

5. The earthwork contractor should compact each loose soil lift with a tamping foot compactor such as a Caterpillar (CAT) 815 Compactor or equivalent as approved by NV5's project engineer or their field representative. A smooth steel drum roller compactor should not be used to compact loose soil lifts for construction of engineered fills.

6. All fill should be compacted to a minimum relative compaction of 90 percent of the ASTM D1557 maximum dry density. The upper 12 inches of fill in paved areas, beneath proposed slabs-on-grade, and within the proposed building footprint should be compacted to a minimum of 95 percent relative compaction.

7. The moisture content, density and relative percent compaction of all engineered fills should be tested by a representative of NV5 during construction to evaluate whether the compacted soil meets or exceeds the minimum compaction and moisture content requirements. The field and laboratory CQA tests should be performed consistent with the testing frequencies presented in Table 5-2 or as modified by the project engineer to better suit the site conditions. The earthwork contractor shall assist the project engineer's field representative by excavating test pads with the on-site earth-moving equipment.

Table 5-2, Minimum Testing Frequencies for Non-Expansive Soil

ASTM No.	Test Description	Minimum Test Frequency[1]
D1557	Modified Proctor Compaction Curve	1 per 1,500 CY or Material Change [2]
D6983	Nuclear Moisture and Density	1 per 250 CY

Notes: (1) These are minimum testing frequencies that may be increased or decreased at the project engineer's discretion on the basis of the site conditions encountered during grading.
(2) Whichever criteria provides the greatest number of tests.
ASTM No. = ASTM International Number
CY = cubic yards

8. The prepared finished grade or finished subgrade soil surface should be proof-rolled with a fully loaded, 4,000-gallon-capacity water truck with the rear of the truck supported on a double-axle,

tandem-wheel undercarriage or approved equivalent. The proof-rolled surface should be visually observed by the project engineer or their field representative to be firm, competent and relatively unyielding.

5.1.4.3 Rock Fill Placement

Based on our observation of the rocky nature of the subsurface conditions revealed in some of our exploration trenches, we anticipate that fill material generated from the site may contain significant cobbles, and that compaction testing with conventional methods may be difficult or inappropriate. Typically, fill that consists primarily of soil can be tested for relative compaction by using a nuclear density gauge. Structural fill material with more than 30 percent rock material larger than ¾-inch cannot be reliably tested using conventional compaction testing equipment.

We recommend that quality assurance during rock material fill placement be based on a procedural approach, or method specification, rather than a specified relative compaction. The procedural requirements will depend on the equipment used, as well as the nature of the fill material, and will need to be determined by the geotechnical engineering firm on-site. Typically, procedural recommendations are based on the measured relative compaction of a test fill constructed on-site.

Based on our experience in the area, we anticipate that the procedural specification will require a minimum of six passes (back and forth equaling one pass) with a Cat 563 or similar, self-propelled, vibratory compactor to compact a maximum 12-inch thick, loose lift. Processing or screening of the fill material will be needed to remove rocks larger than approximately 12 inches in maximum dimension. Continuous or nearly continuous observation by a representative of NV5 would be required during fill placement to confirm that procedural specifications have been met.

5.1.5 Fill Slope Grading

Based on our understanding of the project, we do not anticipate fill slopes will be created as part of the proposed improvements. However, if permanent fill slopes are created onsite, they should be no steeper than 2:1, H:V. NV5 should review fill slope configurations greater than approximately 10 feet in height, if proposed, prior to fill placement. Compaction and fill slope grading must be confirmed by NV5 in the field.

5.1.6 Underground Utility Trenches

Underground utility trenches should be excavated and backfilled as described below for each trench zone shown in the figure below.

1. Trench Excavation Equipment: NV5 anticipates that the contractor will be able to excavate underground utility trenches to depths of 3 to 5 feet bgs with a Case 580 Backhoe or equivalent. Underground utility trenches greater than 5 feet bgs may require ripper teeth on an excavator to facilitate the removal of very stiff to hard fine-grained deposits.

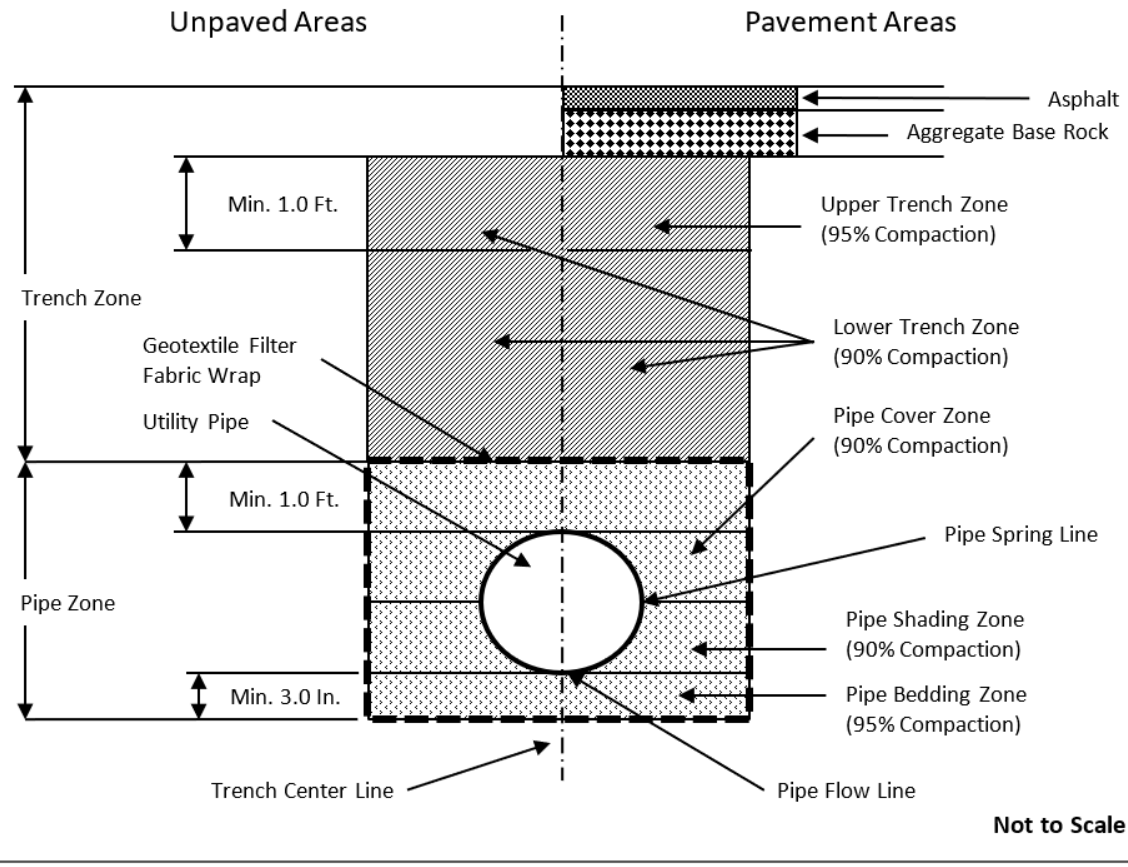
2. Trench Shoring: All utility trenches that are excavated deeper than 4 feet bgs are required by California OSHA to be shored with bracing equipment or sloped back to an appropriate slope gradient prior to being entered by any individuals.

3. Trench Dewatering: If the utility trenches are excavated during the winter rainy season, shallow or perched groundwater seepage will likely be encountered. The earthwork contractor may need to employ dewatering methods as discussed in Section 5.1.10,

"Construction Dewatering" in order to excavate, place and compact the trench backfill materials.

4. Pipe Zone Backfill Type and Compaction Requirements: The backfill material type and compaction requirements for the pipe zone, which includes the bedding zone, the shading zone and the cover zone, are described in detail below.

Detail 5-1 – Typical Utility Trench Backfill Zones



a. Pipe Zone Backfill Material Type: Trench backfill used within the pipe zone, which includes the bedding zone, the shading zone, and the cover zone, should consist of ¾-inch-minus, washed, crushed rock. The crushed rock particle size gradation should meet the following requirements (percentages are expressed as dry weights using ASTM D422 test method): 100 percent passing the ¾-inch sieve, 80 to 100 percent passing the ½-inch sieve, 60 to 100 percent passing the 3/8-inch sieve, 0 to 30 percent passing the No. 4 sieve, 0 to 10 percent passing the No. 8 sieve, and 0 to 3 percent passing the No. 200 sieve.

   If groundwater is encountered within the trench during construction, or if groundwater is expected to rise during the rainy season to an elevation that will infiltrate the pipe zone within the trench, then the pipe zone material should be wrapped with a minimum 6 ounce per square yard, non-woven geotextile filter fabric such as TenCate® Mirifi N140 or an approved equivalent. The geotextile seam should be located along the trench centerline and have a minimum 1-foot overlap. If the utility pipes are coated with a

corrosion protection material, then the pipes should be wrapped with a minimum 6 ounce per square yard, non-woven, geotextile cushion fabric such as TenCate® Mirifi N140 or an approved equivalent. The geotextile cushion fabric should have a minimum 6-inch seam overlap. The geotextile cushion fabric will protect the pipe from being scratched by the crushed rock backfill material.

b. Pipe Bedding Zone Compaction: Trench backfill soil placed in the pipe bedding zone (beneath the utilities) should be a minimum of 3 inches thick, moisture conditioned to within ± 3 percentage points of the ASTM D1557 optimum moisture content and compacted to achieve a minimum relative compaction of 95 percent of the ASTM D1557 maximum dry density. Crushed rock should be mechanically consolidated under the observation of NV5.

c. Pipe Shading Zone Compaction: Trench backfill soil placed within the pipe shading zone (above the bedding zone and to a height of one pipe radius above the pipe spring line) should be moisture conditioned to within ± 3 percentage points of the ASTM D1557 optimum moisture content and compacted to achieve a minimum relative compaction of 90 percent of the ASTM D1557 maximum dry density. Crushed rock should be mechanically consolidated under the observation of NV5. The pipe shading zone backfill material should be shovel-sliced to remove voids and to promote compaction.

d. Pipe Cover Zone Compaction: Trench backfill soil placed within the pipe cover zone (above the pipe shading zone to 1 foot over the pipe top surface) should be moisture conditioned to within ± 3 percentage points of the ASTM D1557 optimum moisture content and compacted to achieve a minimum relative compaction of 90 percent of the ASTM D1557 maximum dry density. Crushed rock should be mechanically consolidated under the observation of NV5.

e. Groundwater Migration through Utility Trenches: Trench backfill for utilities exceeding 3 percent slope should incorporate Clay or CLSM check dams every 200 feet within any trenches excavated into hardpan, or competent bedrock, to prevent sediment transportation along the trench alignment as a result of perched groundwater. Clay or CLSM check dams should be placed where utility trenches enter into a building footprint where internal improvements are sensitive to moisture.

5. Trench Zone Backfill and Compaction Requirements: The trench zone backfill materials consist of both lower and upper zones, as discussed below.

   a. Trench Zone Backfill Material Type: Soil used as trench backfill within the lower and upper intermediate zones, as shown on the preceding figure, should consist of non-expansive soil with a PI of less than or equal to 15 (based on ASTM D4318) and should not contain rocks greater than 3 inches in greatest dimension.

   b. Lower Trench Zone Compaction: Soil used to construct the lower trench zone backfills should be uniformly moisture conditioned to within 0 and 4 percentage points of the ASTM D1557 optimum moisture content, placed in maximum 12-inch-thick loose lifts prior to compacting and compacted to achieve a minimum relative compaction of 90 percent of the ASTM D1557 maximum dry density.

   c. Upper Trench Zone Compaction (Road and Parking Lot Areas): Soil used to construct the upper trench zone backfills should be uniformly moisture conditioned to within 0 and 4 percentage points greater than the ASTM D1557 optimum moisture content, placed in maximum 8-inch-thick loose lifts (layers) prior to compacting and compacted to achieve a minimum relative compaction of 95 percent of the ASTM D1557 maximum dry density.

d. Upper Trench Zone Compaction (Non-Road and Non-Parking Lot Areas): Soil used to construct the upper trench zone backfills should be uniformly moisture conditioned to within 0 and 2 percentage points greater than the ASTM D1557 optimum moisture content, placed in maximum 6-inch-thick loose lifts (layers) prior to compacting and compacted to achieve a minimum relative compaction of 90 percent of the ASTM D1557 maximum dry density.

6. CQA Testing and Observation Engineering Services: The moisture content, dry density and relative percent compaction of all engineered utility trench backfills should be tested by the project engineer's field representative during construction to evaluate whether the compacted trench backfill materials meet or exceed the minimum compaction and moisture content requirements presented in this report. The earthwork contractor shall assist the project engineer's field representative by excavating test pads with the on-site earth moving equipment.

   a. Compaction Testing Frequencies: The field and laboratory CQA tests should be performed consistent with the testing frequencies presented in Table 5-3 or as modified by the project engineer to better suit the site conditions.

Table 5-3, Minimum Testing Frequencies for Utility Trench Backfill

ASTM No.	Test Description	Minimum Test Frequency(1)
D1557	Modified Proctor Compaction Curve	1 per 500 CY (2) Or Material Change
D6983	Nuclear Moisture and Density	1 per 100 LF per 24-Inch-Thick Compacted Backfill Layer (2) The maximum loose lift thickness shall not exceed 12-inches prior to compacting.

Notes: (1) These are minimum testing frequencies that may be increased or decreased at the project engineer's discretion on the basis of the site conditions encountered during grading.
(2) Whichever criteria provide the greatest number of tests.
ASTM No. = ASTM International Number
CY = cubic yards

   b. Final Proof Rolling: The prepared finished grade AB rock surface and/or finished subgrade soil surface of utility trench backfills should be proof rolled, as mentioned above the "Fill Placement" section of this report.

5.1.7 Hardpan Deposits

Hardpan deposits (very stiff to hard fine-grained soils) were encountered in our exploration trenches. Excavations deeper than approximately 5 feet below existing ground surface may require ripping or hammering due to these compacted layers, resulting in slower excavation rates.

In addition, exposed hardpan in open excavations may become unstable during wet weather and severe sloughing and excavation failures can occur. All temporary excavations must comply with applicable local, state and federal safety regulations, including the current Occupational Safety and Hazards Administration (OSHA) excavation and trench safety standards.

5.1.8 Erosion Controls

Graded portions of the site should be seeded as soon as possible to allow vegetation to become established prior to and during the rainy season. In addition, grading that results in greater than one acre of soil disturbance or in sensitive areas may require the preparation of a site-specific storm

water pollution prevention plan. As a minimum, the following controls should be installed prior to and during grading to reduce erosion.

1. Prior to commencement of site work, fiber rolls should be installed down slope of the proposed area of disturbance to reduce migration of sediment from the site. Fiber rolls on slopes are intended to reduce sediment discharge from disturbed areas, reduce the velocity of water flow, and aid in the overall revegetation of slopes. The fiber rolls should remain in place until construction activity is complete and vegetation becomes established.

2. All soil exposed in permanent slope faces should be hydroseeded or hand seeded/strawed with an appropriate seed mixture compatible with the soil and climate conditions of the site as recommended by the local Resource Conservation District.

3. Following seeding, jute netting or erosion control blankets should be placed and secured over the slopes steeper than 2:1, H.V.

4. Surface water drainage ditches should be established as necessary to intercept and redirect concentrated surface water away from cut and fill slope faces. Under no circumstances should concentrated surface water be directed over slope faces. The intercepted water should be discharged into natural drainage courses or into other collection and disposal structures.

5.1.9 Wet Weather Grading

Generally, grading is performed more economically during the summer months when on-site soils are usually dry of optimum moisture content. Delays should be anticipated in site grading performed during the rainy season or early spring due to excessive moisture in on-site soils. Special and relatively expensive construction procedures, including dewatering of excavations and importing granular soils, should be anticipated if grading must be completed during the winter and early spring or if localized areas of soft saturated soils are found during grading in the summer and fall.

Open excavations also tend to be more unstable during wet weather as groundwater seeps towards the exposed cut or fill slopes. Severe sloughing and occasional slope failures should be anticipated. The occurrence of these events will require extensive clean up and the installation of slope protection measures, thus delaying projects. The general contractor is responsible for the performance, maintenance and repair of temporary cut slopes.

5.1.10 Construction Dewatering

Seepage may be encountered during grading, particularly in deeper excavations made during site preparation. The earthwork contractor should be prepared to dewater excavations if seepage is encountered during grading. Seepage may be encountered if grading is performed during or immediately after the rainy season. In addition, perched groundwater may be encountered on low permeability soil or weathered rock layers even during the summer months.

If subsurface seepage or groundwater conditions are encountered which prevent or restrict fill placement or construction of the proposed improvements, subdrains may be necessary. If groundwater or saturated soil conditions are encountered during grading, we should be retained to observe the conditions and provide site specific subsurface drainage recommendations. The following typical measures can be employed to mitigate the presence of seepage in excavations.

1. We anticipate that dewatering of utility trenches can be performed by constructing sumps to depths below the trench bottom and removing the water with sump pumps.

2. Additional sump excavations and pumps should be added as necessary to keep the excavation bottom free of standing water and relatively dry when placing and compacting the trench backfill material.

3. If groundwater enters the trench faster than it can be removed by the dewatering system, the underlying compacted soil may become unstable while compacting successive soil lifts. If this occurs, the unstable soil may need to be removed and replaced with free draining open graded drain rock. If drain rock is used, it should meet or exceed the following gradation specifications: 100 percent passing the ¾-inch sieve, 95 to 100 percent passing the ½-inch sieve, 70 to 100 percent passing the ⅜-inch sieve, 0 to 55 percent passing the No. 4 sieve, 0 to 10 percent passing the No. 8 sieve, and 0 to 3 percent passing the No. 200 sieve. Other approved backfill materials can again be used after placing the drain rock to an elevation that is higher than the groundwater.

4. We recommend that the utility trench excavations be performed as late in the summer months as possible to allow the groundwater table to reach its lowest seasonal elevation.

5.1.11 Surface Water Drainage

Proper surface water drainage is important to the successful development of the project. We recommend the following measures to help mitigate surface water drainage problems:

1. Slope final grades in structural areas so that surface water drains away from building pad finish subgrade at a minimum 2 percent slope for a minimum distance of 10 feet. For structures utilizing slab-on-grade interior floor systems we recommend increasing the slope to 4 percent.

2. To reduce surface water infiltration, compact and slope all soil placed adjacent to building foundations such that water is not allowed to pond. Backfill should be free of deleterious materials.

3. Direct downspouts to positive drainage or a closed collector pipe that discharges flow to positive drainage.

4. Construct V-ditches at the top of cut and fill slopes where necessary to reduce concentrated surface water flow over slope faces. Typically, V-ditches should be 3 feet wide and at least 6 inches deep. Surface water collected in V-ditches should be directed away and downslope from proposed building pads and driveways into a drainage channel.

5.1.12 Soil Corrosion Potential

We reviewed the NCRS Web Soil Survey Soil Conservation Service (*https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx*). Based on review of soil survey information, the native soil conditions onsite possess a low corrosion potential for concrete and a high corrosion potential for uncoated steel.

A select soil sample collected from the site was evaluated and tested for soil corrosion potential by Sunland Analytical. The soil sample tested was collected at a depth of approximately 1.0 to 3.0 feet bgs. The test results are summarized in Section 3.0, “Laboratory Testing,” Table 3-4.

Pursuant to *Caltrans Corrosion Guidelines* (2021), minimum soil resistivity less than 1,100 ohms-cm indicates the presence of high quantities of soluble salts and a higher propensity for corrosion. The guidelines state that "corrosive" conditions include:

- Chloride concentrations greater than 500 ppm,
- Sulfide concentrations greater than 1,500 ppm, or
- pH 5.5 or less.

The tested soil has a relatively high minimum resistivity (1,720 ohms-cm), low chloride and sulfide concentrations (5.6 ppm and 106.2 ppm, respectively), and neutral soil pH (6.58) indicating a non-corrosive environment pursuant to Caltrans guidelines.

Chloride and sulfate concentrations less than 110 ppm are not typically considered corrosive to reinforced concrete structures and cement mortar-coated steel. Typical concrete mix designs from this area contain Type II/V cement. Buried metallic piping should be properly protected against corrosion in accordance with the pipe manufacture recommendations.

To reduce the likelihood of corrosion problems, materials used for underground utilities, permanent subsurface drainage improvements, and foundation systems should be selected based on local experience and practice. If alternative or new construction methods or materials are being proposed, it may be appropriate to have the selected materials evaluated by a corrosion engineer for compatibility with the onsite soil and groundwater conditions.

5.1.13 Grading Plan Review and Construction Monitoring

Coordination between the design team and the geotechnical engineer is recommended to assure that the design is compatible with the geotechnical Site conditions encountered during NV5's geotechnical investigation. NV5's experience, and that of the geotechnical engineering profession, clearly indicates that risks of costly design, construction and maintenance problems can be significantly reduced by retaining the design geotechnical engineering firm to review the project plans and specifications prior to construction, and to provide geotechnical engineering consultation, observation and construction quality assurance (CQA) services during construction. CQA includes the review of plans and specifications and construction monitoring as described below.

1. NV5 should be retained to review the final earthwork grading plans prior to Site development to verify NV5's understanding of the proposed improvements, to determine whether NV5's recommendations have been incorporated in the project design, and if necessary to provide additional and/or modified recommendations.

2. NV5 should be retained to perform construction quality assurance (CQA) monitoring of all earthwork grading to verify that NV5's recommendations are implemented, to verify that Site conditions are similar to those encountered at the exploratory locations, and if necessary to provide additional and/or modified recommendations. NV5 cannot assume responsibility or liability for the project's geotechnical performance if NV5 is not retained to provide geotechnical CQA services during project development.

5.2 SUBSURFACE DRAINAGE

This section of the report presents general recommendations to reduce the possibility of near-surface groundwater entering below grade areas. We understand that an interior raised floor and crawlspace is currently proposed for the new building and that Stormtech Arch Chambers are

proposed for impervious surface drainage storage and infiltration. For the discussion of subsurface drainage related to grading, refer to Section 5.1.10, “Construction Dewatering.”

Based on our observations and past experience with geotechnical investigations in the project vicinity, there is a likely potential for seasonal saturation of near-surface soil and groundwater seepage into foundation areas. Depending on final site grades, rainfall, irrigation practices, and other factors beyond the scope of this study, perched groundwater will likely develop seasonally above on-site hardpan, rock, or fine-grained soil. Near-surface groundwater may enter under-floor crawlspaces, migrate through concrete floor slabs, degrade asphalt concrete pavements, increase frost heave, and contribute to other adverse conditions.

5.2.1 Perimeter Foundation Drains

Where interior crawl spaces are lower than adjacent exterior grade, exterior subdrains should be installed adjacent to perimeter foundations, except on the downhill side, to prevent surface runoff from entering the crawl space. Foundation drains should consist of trenches that are at least 12 inches below the crawl space surface and are sloped to drain by gravity. Four-inch diameter perforated pipe sloped to drain to outlets by gravity should be placed in the bottom of the trenches. The top of subdrain pipes should be at least 12 inches lower than the adjacent crawl space grade. The perimeter subdrain trenches should be backfilled to within 6 inches of the surface with Class 2 permeable material or ¾-inch drain rock wrapped in filter fabric. The upper 6 inches should be backfilled with compacted soil to exclude surface water. Where perimeter foundation drains are not used, water ponding in the crawl space should be anticipated. Where retaining walls are used for perimeter foundations, retaining wall backdrains may be used in lieu of foundation drains.

5.2.2 Crawl Space Drains

Crawl spaces are inherently damp and humid. In addition, groundwater seepage is unpredictable and difficult to control and, regardless of the care used in installing perimeter foundation drains, can find its way into crawl spaces. Care should be taken to reduce water and moisture introduced into the building interior, including crawlspaces, during construction.

We recommend that the elevation of the interior subgrade in the crawlspace be higher than the exterior ground surface. If the design of the building is such that the crawlspace must be lower than the surrounding grade, drains should be installed in the crawlspace area.

The subgrade should be sloped to collect and divert water to drains that exit under or through the foundation (positive crawlspace drainage). If site grades do not permit gravity draining, this water should be collected in a sump and pumped to an infiltration facility. All vegetation and highly organic soil should be removed from the crawlspace area. Adequate ventilation should be provided in all crawlspace areas to promote drying. The project architect and owner should consider the need for an automated mechanical ventilation system. Care should be taken during construction to reduce the amount of moisture that gets sealed into crawlspaces.

Drains should extend to a properly designed infiltration facility. Recommended subsurface drain locations can be provided at the time of construction and when foundation elevations and configuration are known. Due to the gentle topography of the Site, elevations of foundations and crawlspaces should be carefully planned so that it is possible to install gravity-fed drains that daylight a minimum of 10 feet from structures, or a nearby collection system. Subsurface and foundation drain locations should be included on the project plans.

The ground surface within the crawl space should be sloped to drain away from foundations and toward a 12-inch square drain trench that is excavated through the longitudinal axis of the crawl space. A 4-inch diameter perforated drainpipe (SDR 35 or better) should be embedded in Class 2 permeable materials, or ¾-inch drain rock wrapped in filter fabric near the bottom of the trench. The drain rock should extend to the surface of the crawl space. Piped outlets should be provided to allow drainage of the collected water through foundations and discharge into the storm drain system.

5.3 STRUCTURAL IMPROVEMENT DESIGN CRITERIA

The following sections present our structural improvement design criteria and recommendations. The recommendations address foundations, seismic parameters, concrete slabs-on-grade, isolated spread footings, retaining walls and pavement design.

5.3.1 Seismic Design Criteria

NV5 developed the code-based seismic design parameters in accordance with Section 1613 of the 2022 CBC and the Structural Engineers Association of California (SEAOC) and California Office of Statewide Health Planning and Development (OSHPD) “Seismic Design Maps” web application, formerly facilitated by the USGS. The internet-based application (https://seismicmaps.org/) is used for determining seismic design values from the 2016 ASCE-7 Standard, and the 2021 International Building Code (2021 IBC) in accordance with the 2022 CBC. The spectral acceleration, site class, site coefficients, adjusted maximum considered earthquake spectral response acceleration, and design spectral acceleration parameters are presented in Table 5-4. The Seismic Design Parameter detailed report from the SEAOC/OSHPD analysis is provided in Appendix C.

Our classification of on-site soil conditions is based on our field observations. The onsite soil appeared to generally consists of predominantly fine-grained and some granular soil; therefore, we classified the on-site soil as “stiff soil” (Site Class “D”) for design purposes.

Table 5-4, 2022 CBC Seismic Design Parameters

Description	Value	Reference
Latitude North (degree)	38.7356003	Google Earth
Longitude West (degree)	-121.2716226	Google Earth
Site Coefficient, F_A	1.452	2022 CBC, Table 1613.2.3(1), SEAOC/OSHPD Seismic Design Maps
Site Coefficient, F_V	2.200 [a]	2022 CBC, Table 1613.2.3(2) ASCE 7-16, Section 11.4.8
Site Class	D = Stiff Soil	ASCE 7-16 Chapter 20, Table 20.3-1
Short (0.2 sec) Spectral Response, S_S (g)	0.436	ASCE 7-16, Section 11.4.2, SEAOC/OSHPD Seismic Design Maps
Long (1.0 sec) Spectral Response, S_1 (g)	0.220	ASCE 7-16, Section 11.4.2
Short (0.2 sec) MCE Spectral Response, S_{MS} (g)	0.632	ASCE 7-16, Section 11.4.4, SEAOC/OSHPD Seismic Design Maps
Long (1.0 sec) MCE Spectral Response, S_{M1} (g)	0.484 [a]	2022 CBC, Section 1613.2.3 ASCE 7-16, Section 11.4.8
Short (0.2 sec) Design Spectral Response, S_{DS} (g)	0.422	ASCE 7-16, Section 11.4.5, SEAOC/OSHPD Seismic Design Maps
Long (1.0 sec) Design Spectral Response, S_{D1} (g)	0.323 [a]	2022 CBC, Section 1613.2.4 ASCE 7-16, Section 11.4.8
Risk Category (I, II, III or IV)	II	ASCE 7-16, Section 11.4.5
Seismic Design Category, SDC	D [a]	2022 CBC, Section 1613.2.5
Geometric Mean Peak Ground Acceleration (PGA_M) (g)	0.265	ASCE 7-16, Section 11.8.3, SEAOC/OSHPD Seismic Design Maps

Notes: a = Pursuant to CBC 2022, referenced sections 1613.2.3, 1613.2.4, and 1613.5 for applicable values. Requirements pertaining to site-specific ground motions are described in ASCE 7-16 Section 11.4.8 Exception 2 for Site Class D.
CBC = California Building Code
MCE = Maximum Considered Earthquake
g = gravitational acceleration (9.81 meters per second^2 = 32.2 feet per second^2)
sec = second

5.3.2 Shallow Foundations

Provided that the grading for the project is performed in accordance with the recommendations presented in this report, NV5's opinion is that the site will be suitable for the use of conventional lightly loaded shallow foundations including continuous and isolated spread foundations. The following recommendations apply to foundations constructed on compacted and tested fill (engineered fill) or competent native soil/rock.

5.3.2.1 Shallow Continuous and Isolated Spread Foundations

1. Footings for single story structures should be a minimum of 12 inches wide and trenched through any loose surface material, potentially expansive soil, or untested fill, and a minimum of 12 inches into competent native soil, weathered rock or compacted fill. Footings for two-story structures, if proposed, should be a minimum of 15 inches wide and trenched a minimum of 18 inches into competent native soil, weathered rock or compacted fill.

2. If expansive clay is encountered at the base of footing excavations, the footing should be deepened through the clay lens into underlying granular material or weathered rock, as determined in the field by NV5. Alternatively, footings could be designed on a case-by-case basis to mitigate expansive soil effects without deepening the footing through a clay lens.

3. In the event bedrock is encountered at a depth shallower than the depths specified above, a representative from NV5 may observe the excavation depth to determine if the rock is competent and capable of supporting the recommended bearing capacity without further excavation. Rock dowels can be used to dowel the footings to rock for lateral resistance. Dowels should be sized by a representative from our firm.

4. The base of the footing excavation should be approximately level. On sloping sites, it will be necessary to step the base of the footing excavation as necessary to maintain a slope of less than 10 percent at the base of the footing.

5. Footing trenches should be cleaned of all loose soil and construction debris prior to placing concrete. A representative from NV5 should observe the footing excavations prior to concrete placement.

6. As a minimum, the footings should be designed with two No. 4 rebar reinforcement, one near the top of the footing and one near the bottom. A minimum of 3 inches of concrete coverage should surround the bars.

7. Footing excavations should be saturated prior to placing concrete to reduce the risk of problems caused by wicking of moisture from curing concrete. However, concrete should not be placed through standing water in the footing excavations.

8. Bearing Capacity: In an effort to reduce the likelihood of settlement-induced distress to the proposed structures, we recommend that strip and isolated footings with a minimum embedment depth of 12 inches in competent soil be sized for an allowable bearing capacity of 3,000 pounds per square foot (psf) for dead plus live loads. This value can be increased by 300 psf for each additional foot of embedment up to a limiting value of 3,600 psf. Allowable bearing may be increased by 33 percent for additional transient loading, such as wind or seismic loads.

9. Lateral Resistance: A triangularly-distributed lateral resistance (passive soil resistance) of 300d psf, where “d” is footing depth, may be used for footings. This value may be increased by 33 percent for wind and seismic. As an alternate to the passive soil resistance described above, a coefficient of friction for resistance to sliding of 0.3 may be used. The higher of the two values should be reduced by 50 percent if both resisting values are to be used.

10. Total settlement of individual foundations will vary depending on the plan dimensions of the foundation and actual structural loading. Based on anticipated foundation dimensions and loads, we estimate that total post-construction settlement of footings designed and

constructed in accordance with our recommendations will be on the order of ½-inch. Differential settlement between similarly loaded, adjacent footings is expected to be less than ¼-inch, provided footings are founded on similar materials (e.g., all on structural fill, native soil, or rock). Differential settlement between adjacent footings founded on dissimilar materials (e.g., one footing on soil and an adjacent footing on rock) may approach the maximum anticipated total settlement. Settlement of foundations is expected to occur rapidly and should be essentially complete shortly after initial application of loads. Care should be taken to avoid constructing footings for the structures in varying material due to the presence of shallow bedrock to prevent differential settlement and point loading.

11. Prior to placing concrete in any foundation excavation, the project geotechnical engineer or their field representative should observe the excavations to document that the following requirements have been achieved: minimum foundation dimensions, minimum reinforcement steel placement and dimensions, removal of all loose soil, rock, wood debris or other deleterious materials, and that firm and competent native or engineered fill soil is exposed along the entire foundation excavation bottom and no expansive soil is observed. Strict adherence to these requirements is paramount to the satisfactory behavior of a building foundation. Minor deviations from these requirements can cause the foundations to undergo minor to severe amounts of settlement which can result in cracks developing in the foundation and adjacent structural members, such as concrete slab-on-grade floors.

5.3.3 Slab-on-Grade Floor Systems

NV5 understands exterior concrete sidewalks and a non-structural crawl space slab will likely be constructed for the proposed improvements. We also understand an elevated floor, used in conjunction with perimeter concrete foundations, is proposed for the new building, and asphalt pavements are proposed for parking and driveway areas. If interior concrete slab-on-grade building floors or exterior concrete pavements are alternately proposed, NV5 should review the project plans and provide additional slab-on-grade recommendations.

This section presents typical slab sidewalk sections and non-structural crawl space slabs used for construction in the region and construction recommendations. The concrete slab-on-grade components are described below from top to bottom. The concrete exterior sidewalk areas should be evaluated by a California-licensed civil engineer for expected live and dead loads to determine if the minimum slab thickness and steel reinforcement recommendations presented in this report should be increased or redesigned. If static or intermittent live floor loads greater than 250 pounds per square foot (psf) are anticipated, then a California-licensed structural engineer should design the necessary concrete slab-on-grade floor thickness and steel reinforcements.

1. Minimum 4-Inch-Thick Concrete Slab: The concrete sidewalk should be installed with a minimum 3,000 pounds per square inch (psi) compressive strength after 28 days of curing. NV5 recommends that the concrete design have a water/cement ratio no greater than 0.45 and should be placed with minimum and maximum slumps of 3 and 5 inches, respectively. Pozzolans or other additives may be added to increase workability. The concrete mix design is the responsibility of the concrete supplier. The slab-on-grade and sidewalk should be a minimum of 4 inches thick for areas without traffic loading, unless additional thickness is required by local agency standards.

2. Steel Reinforcement: Reinforcement should be used to improve the load-carrying capacity, to reduce cracking caused by shrinkage during curing and from both differential and repeated loadings. It should be understood that it is nearly impossible to prevent all cracks from

development in concrete slabs; in other words, it should be expected that some cracking will occur in all concrete slabs no matter how well they are reinforced. Concrete slabs that will be subjected to heavy loads should be designed with steel reinforcements by a California-licensed structural engineer.

3. Minimum 4-Inch-Thick Crushed Rock or Class II Aggregate Base Rock Layer: Exterior floors should use either crushed rock or Class II AB rock. Crushed rock should be mechanically consolidated under the observation of NV5. AB rock layers should be placed and compacted to a minimum of 95 percent of the ASTM D1557 dry density with a moisture content of ± 3 percentage points of the ASTM D1557 optimum moisture content. The crushed rock should be washed to produce a particle size distribution of 100 percent (by dry weight) passing the ¾ inch sieve and 5 percent passing the No. 4 sieve and 0 to 3 percent passing the No. 200 sieve.
   An alternative rock material for external slab-on-grade concrete surfaces would include AB rock meeting the specification of Caltrans Class II AB. Just prior to pouring the concrete slab, the rock layer should be moistened to a saturated surface dry (SSD) condition. This measure will reduce the potential for water to be withdrawn from the bottom of the concrete slab while it is curing and will help minimize the development of shrinkage cracks.

4. Concrete slabs impart a relatively small load on the subgrade (approximately 50 psf). Therefore, some vertical movement should be anticipated from possible expansion, freeze-thaw cycles, or differential loading. If the current property owner elects to eliminate the crushed rock or AB rock layer beneath the exterior concrete slabs-on-grade for economic reasons, then there will be an inherent greater risk assumed by the developer for the development of both shrinkage and bearing-related cracks in the associated slabs.

5. Subgrade Soil Preparation: The subgrade soil should be prepared and compacted consistent with the recommendations of Section 5.1, “Grading.” The top 12 inches of the non-expansive soil should be compacted to a minimum of 95 percent of the ASTM D1557 dry density with relatively uniform moisture content within ± 3 percentage points of the ASTM D1557 optimum moisture content. Prior to placing slab rock, subgrade soil must be moisture conditioned to between 75 and 90 percent saturation to a depth of 24 inches. Moisture conditioning should be performed for a minimum of 24 hours prior to concrete placement. Clayey soil may take up to 72 hours to reach this required degree of saturation. If the soil is not moisture conditioned prior to placing concrete, moisture will be wicked out of the concrete, possibly contributing to shrinkage cracks. Additionally, our opinion is that moisture conditioning the soil prior to placing concrete will reduce the likelihood of soil swell or heave following construction at locations where fine grained, potentially expansive soil is encountered. To facilitate slab-on-grade construction, we recommend that the slab subgrade soil be moisture conditioned following rock placement.

6. Crack Control Grooves: Crack control grooves should be installed during placement or deep tool cuts should be made in accordance with the ACI and Portland Cement Association (PCA) and City specifications. Generally, NV5 recommends that expansion joints be installed on 10-foot-centers in both directions (perpendicular).

7. Field Observations: Field observations of all concrete slab-on-grade surfaces and installed steel reinforcements should be made by an NV5 construction monitor prior to pouring concrete.

8. Concrete slabs should be moisture cured for at least seven days after placement. Excessive curling of the slab may occur if moisture conditioning is not performed. This is especially critical for slabs that are cast during the warm summer months.

5.3.4 Pavement Design

The following recommended asphalt concrete flexible pavement sections are based on a design R-value of 18 and preliminary traffic indices (TIs) of 4 and 5 for light-auto roadway and parking. Pavement design is presented in Table 5-5 below unless additional section is required by local agency standards. The TIs are being considered on a preliminary basis to facilitate planning of the proposed onsite roadways. Other TIs may need to be considered in design if heavy vehicle loads or offsite roadway improvements are proposed.

Table 5-5, Recommended Pavement Sections

Development Zone (Design R-Value)	Traffic Description	Traffic Index (TI)	Asphalt Concrete (inches)	Class 2 Baserock 95% Compaction (inches)	Subgrade Soil 95% Compaction (inches)
Native Site Soil (18)	Auto Parking	4	2.5	7.0	12.0
	Residential Streets, Light Traffic	5	2.5	9.0	12.0

We make the following recommendations regarding paving at the site.

1. Structural fill placed beneath pavement sections must be compacted to at least 90 percent of the maximum dry density per ASTM D1557. The upper 12 inches of subgrade in areas to be paved must be compacted to a minimum of 95 percent per ASTM D1557. Moisture content, dry density and relative compaction should be evaluated by NV5. In addition to density testing, the subgrade should be proof-rolled under the observation of a representative of NV5 prior to baserock placement. The prepared finished subgrade soil surface should be proof-rolled with a fully loaded, 4,000-gallon-capacity water truck with the rear of the truck supported on a double-axle, tandem-wheel undercarriage or approved equivalent. The proof-rolled surface should be visually observed by the project engineer or their field representative to be firm, competent and relatively unyielding.

2. Class II aggregate baserock (AB) should be placed and compacted to a minimum of 95 percent per ASTM D1557 and similarly proof-rolled under the observation of NV5.

3. The subgrade adjacent to paved areas should be sloped to drain away from the proposed road alignment.

4. Import soil, if used, should be predominantly granular, non-expansive and free of deleterious material. Proposed import should be submitted to NV5 for testing prior to transport to the site.

5. Steel reinforced concrete slabs should be considered for use in garbage facilities, and other areas where frequent, heavy vehicle loads are anticipated. The project structural engineer should determine slab thickness and steel reinforcement.

6. In areas where heavy construction storage and wheel loads are anticipated, the pavements should be designed to support these loads. Support could be provided by increasing pavement sections or by providing reinforced concrete slabs. Alternatively, paving can be deferred until heavy construction storage and wheel loads are no longer present. Loading areas for self-loading dumpster trucks should be provided with reinforced concrete slabs at least 6 inches thick and reinforced with No. 4 bars at 12-inch centers each way.

7. To improve pavement performance and lifespan, we recommend promoting drainage of the pavement subgrade. Drainage can be accomplished through roadway layout and design, subdrains, and/or roadside ditches. NV5 should evaluate pavement subgrade at the time of construction and provide location-specific recommendations for subdrains. Typical subdrains consist of a shallow trench with a minimum 4-inch diameter perforated pipe encased in open-graded gravel wrapped in filter fabric. Pavement subgrade should be graded and prepared such that water drains from beneath the pavement section to a properly designed infiltration facility. Subdrains may be used in conjunction with roadside ditches located on one or both sides of the roadway. Roadside ditches should be constructed to a depth greater than the proposed pavement and subdrain section. Ditches should be rock-lined or vegetated to help reduce erosion and convey water to a properly designed infiltration facility.

8. We recommend installing cut-off curbs where paved areas abut landscaped areas to reduce migration of irrigation water into subgrade soil or baserock, promoting asphalt failure. Cut-off curbs should be a minimum of 4-inches wide and extend through the aggregate base a minimum of four inches into subgrade soil.

9. These recommendations are intended to provide support for traffic represented by the indicated Traffic Indices. They are not intended to provide pavement sections for heavy concentrated construction storage or wheel loads such as forklifts, parked truck-trailers, and concrete trucks.

10. Depending on the subsurface conditions encountered and the sources of fill, the actual subgrade material may vary significantly from that tested during this investigation. Representative subgrade samples should be obtained, and additional R-value tests performed, if appropriate, to confirm the recommendations in this report. If the results of confirmation testing vary significantly from those used in design, the recommended pavement sections may need to be revised.

6.0 LIMITATIONS

The following limitations apply to the findings, conclusions and recommendations presented in this report:

1. Our professional services were performed consistent with the generally accepted geotechnical engineering principles and practices employed in northern California. No warranty is expressed or implied.

2. These services were performed consistent with our agreement with our client. We are not responsible for the impacts of any changes in standards, practices, or regulations subsequent to performance of our services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report. This report is solely for the use of our client unless noted otherwise. Any reliance on this report by a third party is at the party's sole risk.

3. If changes are made to the nature or design of the project as described in this report, then the conclusions and recommendations presented in this report should be considered invalid. Only our firm can determine the validity of the conclusions and recommendations presented in this report. Therefore, we should be retained to review all project changes and prepare written responses with regards to their impacts on our conclusions and recommendations. However, we may require additional fieldwork and laboratory testing to develop any modifications to our recommendations. Costs to review project changes and perform additional fieldwork and laboratory testing necessary to modify our recommendations are beyond the scope of services presented in this report. Any additional work will be performed only after receipt of an approved scope of services, budget, and written authorization to proceed.

4. The analyses, conclusions and recommendations presented in this report are based on site conditions as they existed at the time we performed our surface and subsurface field investigations. We have assumed that the subsurface soil and groundwater conditions encountered at the location of our exploration trenches are generally representative of the subsurface conditions throughout the entire project site. However, the actual subsurface conditions at locations between and beyond our exploratory trenches may differ. Therefore, if the subsurface conditions encountered during construction are different than those described in this report, then we should be notified immediately so that we can review these differences and, if necessary, modify our recommendations.

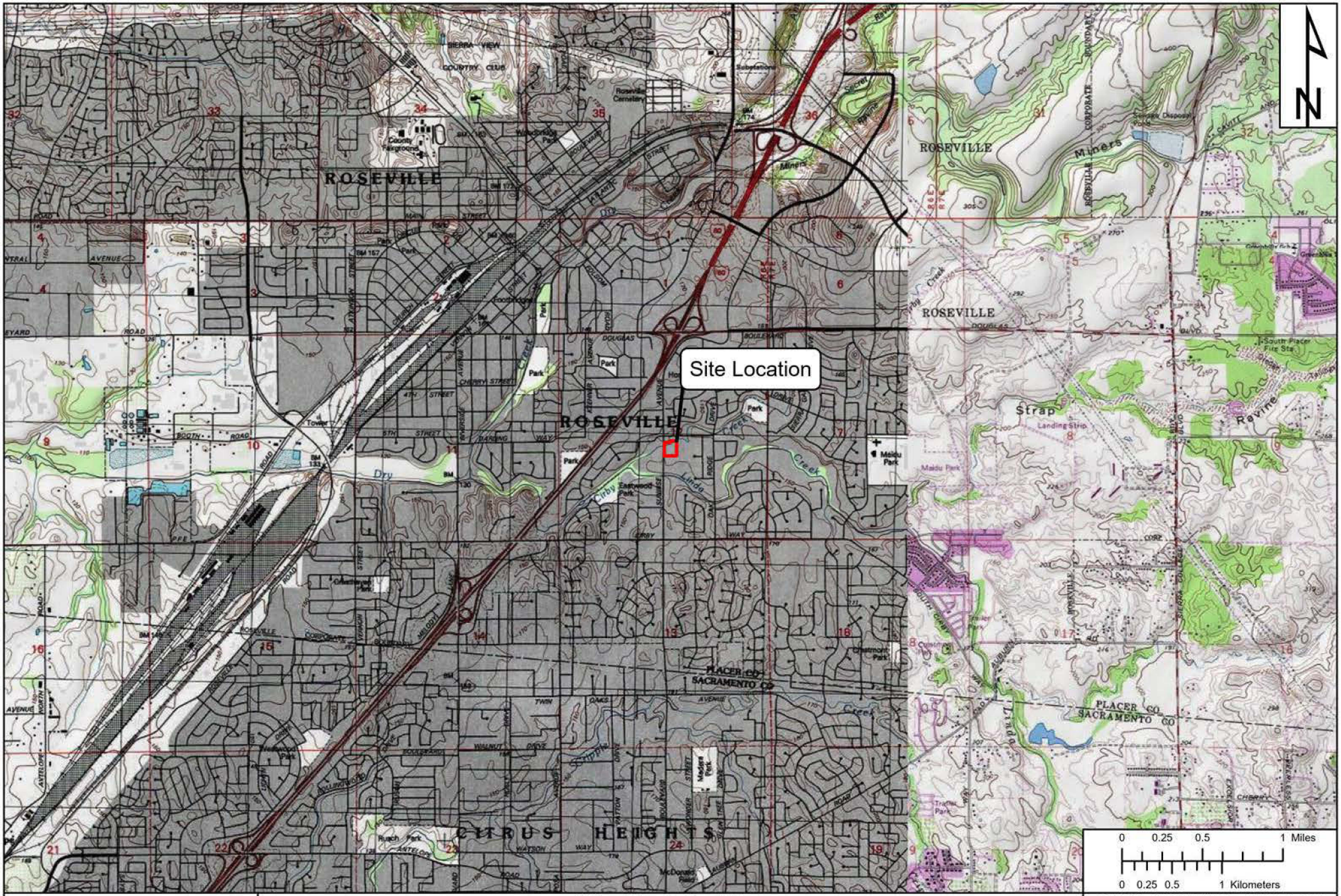
5. The elevation or depth to groundwater underlying the project site may differ with time and location.

6. The project site map shows approximate exploratory trench locations as determined by pacing distances from identifiable site features and/or handheld gps. Therefore, the trench locations should not be relied upon as being exact nor located with surveying methods.

7. Our geotechnical investigation scope of services did not include evaluating the project site for the presence of historic mining operations or hazardous materials. Although we did not observe evidence of historic mining activity or hazardous materials within the proposed building area at the time of our field investigation, all project personnel should be careful and take the necessary precautions should hazardous materials be encountered during construction. Possible historic mining excavation not detected during our investigation may impact the proposed improvements.

8. The findings of this report are valid as of the present date. However, changes in the conditions of the property can occur with the passage of time. The changes may be due to natural processes or to the works of man, on the project site or adjacent properties. In addition, changes in applicable or appropriate standards can occur, whether they result from legislation or the broadening of knowledge. Therefore, the recommendations presented in this report should not be relied upon after a period of two years from the issue date without our review.

FIGURES



NV5

Site Vicinity Map

Geotechnical Engineering Investigation – Sunrise Office Center
701 Sunrise Avenue
Roseville, CA

PROJECT NO. 5994.00

OCTOBER 2024

FIGURE 1

N|V|5

Trench

Location Map

Geotechnical Engineering Investigation – Sunrise Office Center
701 Sunrise Avenue
Roseville, CA

PROJECT NO. 5994.00

OCTOBER 2024

FIGURE 2

APPENDIX A

Exploratory Trench Logs

NV5

792 SEARLS AVENUE, NEVADA CITY, CA 95959

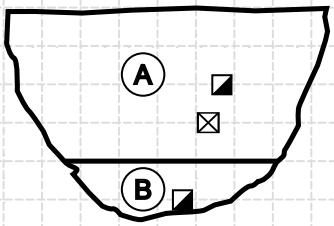
Exploratory Trench Log

Trench No.

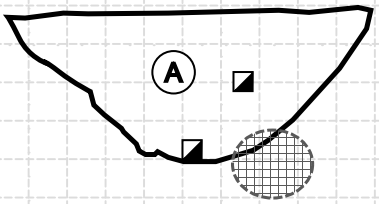
T-1 & T-2

Project Name: 701 Sunrise Avenue	Ground Water Information		DMO 17-0531
Project No.: 5994.00 Task No.: 00	Date:	NFWE	NFWE
Location: 701 Sunrise Avenue, Roseville, CA	Time (24 Hr. Clock):	10:00 (T-1)	11:00 (T-2)
Logged By: T. Kull Date Logged: 9-27-2024	Depth bgs (ft):	--	--
Backhoe Company: Hanson Brothers Enterprises (HBE)	Trench Elev.:	--	--
Backhoe Type: CAT 304, 24-inch Bucket	Trench Bearing:	--	--
Backfill Description: Loose Soil (Spoils) Backfill	Scale:	1 Grid Square = 1 Square Foot	

T-1



T-2



Concrete Pipe - Storm Drain

◪ Drive Sample, 2.5-inch ID Brass Liner

☒ Bulk Sample

Unit No.	Sample Depth(Ft)	Sample No.	Soil And/Or Rock Material Descriptions SOIL: USCS Symbol; Name; Particle Size Gradation %; Munsell Color; Density/Consistency; Moisture; Odor; Organics; Cementation; Texture; Refuse; Etc. ROCK: Unit Name; Lithology; Munsel Color; Cementation; Weathering; Competency; Bedding/Foliation; Fracture/Joint Spacing & Roughness; RQD; Moisture.
A	2.0 3.0 2.0 4.0	T1-L1 T1-BK1 T2-L1 T2-L2	(ML) Silt with gravel/cobbles; Field Est.: 60% fines, 40% gravel and cobbles (up to 8-inch diameter); Brown (7.5YR 4/2); Dense; Dry; Rootlets up to 1-inch diamter.
B	5.0	T1-L2	(SP) Poorly graded sand; Field Est.: 90% sand, 10% fines; Light brown (7.5YR 6/3) to Brown (7.5YR 5/3); Dense; Dry, Moderate Cementation.

NV5

792 SEARLS AVENUE, NEVADA CITY, CA 95959

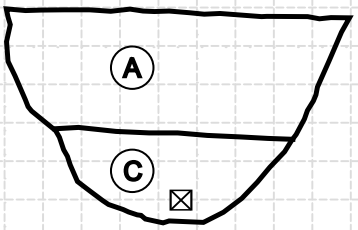
Exploratory Trench Log

Trench No.

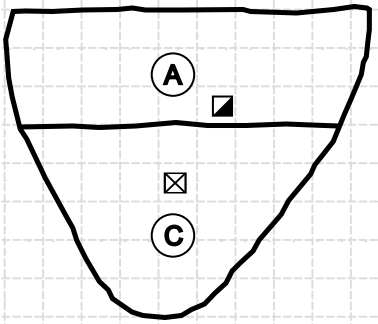
T-3 & T-4

Project Name: 701 Sunrise Avenue	Ground Water Information		DMO 17-0531
Project No.: 5994.00 Task No.: 00	Date:	NFWE	NFWE
Location: 701 Sunrise Avenue, Roseville, CA	Time (24 Hr. Clock):	12:00 (T-3)	13:00 (T-4)
Logged By: T. Kull Date Logged: 9-27-2024	Depth bgs (ft):	--	--
Backhoe Company: Hanson Brothers Enterprises (HBE)	Trench Elev.:	--	--
Backhoe Type: CAT 304, 24-inch Bucket	Trench Bearing:	--	--
Backfill Description: Loose Soil (Spoils) Backfill	Scale:	1 Grid Square = 1 Square Foot	

T-3



T-4



◪ Drive Sample, 2.5-inch ID Brass Liner

☒ Bulk Sample

Unit No.	Sample Depth(Ft)	Sample No.	Soil And/Or Rock Material Descriptions SOIL: USCS Symbol; Name; Particle Size Gradation %; Munsell Color; Density/Consistency; Moisture; Odor; Organics; Cementation; Texture; Refuse; Etc. ROCK: Unit Name; Lithology; Munsel Color; Cementation; Weathering; Competency; Bedding/Foliation; Fracture/Joint Spacing & Roughness; RQD; Moisture.
A	2.5	T4-L1	(ML) Silt with gravel/cobbles; Field Est.: 60% fines, 40% gravel and cobbles (up to 8-inch diameter); Brown (7.5YR 4/2); Dense; Dry; Rootlets.
C	5.0 4.5	T3-BK1 T4-BK1	(ML-CL) Sandy silt/clay; Field Est.: 60% fines, 40% poorly graded sand; Light brown (7.5YR 6/3) to Brown (7.5YR 5/3); Very dense; Damp; Highly cemented; Dry roots up to 1-inch diameter.

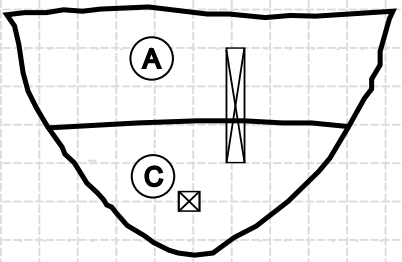
NV5
792 SEARLS AVENUE, NEVADA CITY, CA 95959

Exploratory Trench Log

Trench No. T-5

Project Name: 701 Sunrise Avenue	Ground Water Information	DMO 17-0531
Project No.: 5994.00 Task No.: 00	Date:	NFWE
Location: 701 Sunrise Avenue, Roseville, CA	Time (24 Hr. Clock):	14:00
Logged By: T. Kull Date Logged: 9-27-2024	Depth bgs (ft):	–
Backhoe Company: Hanson Brothers Enterprises (HBE)	Trench Elev.:	–
Backhoe Type: CAT 304, 24-inch Bucket	Trench Bearing:	–
Backfill Description: Loose Soil (Spoils) Backfill	Scale:	1 Grid Square = 1 Square Foot

T-5



◪ Drive Sample, 2.5-inch ID Brass Liner
☒ Bulk Sample

Unit No.	Sample Depth(Ft)	Sample No.	Soil And/Or Rock Material Descriptions SOIL: USCS Symbol; Name; Particle Size Gradation %; Munsell Color; Density/Consistency; Moisture; Odor; Organics; Cementation; Texture; Refuse; Etc. ROCK: Unit Name; Lithology; Munsel Color; Cementation; Weathering; Competency; Bedding/Foliation; Fracture/Joint Spacing & Roughness; RQD; Moisture.
A	1.0-3.0	T5-R1	(ML) Silt with gravel/cobbles; Field Est.: 60% fines, 40% gravel and cobbles (up to 8-inch diameter); Brown (7.5YR 4/2); Dense; Dry; Rootlets.
C	5.0	T5-BK1	(ML-CL) Sandy silt/clay; Field Est.: 60% fines, 40% poorly graded sand; Light brown (7.5YR 6/3) to Brown (7.5YR 5/3); Very dense; Damp; Highly cemented; Dry roots up to 1-inch diameter.

APPENDIX B

Laboratory Test Data

PARTICLE SIZE DISTRIBUTION

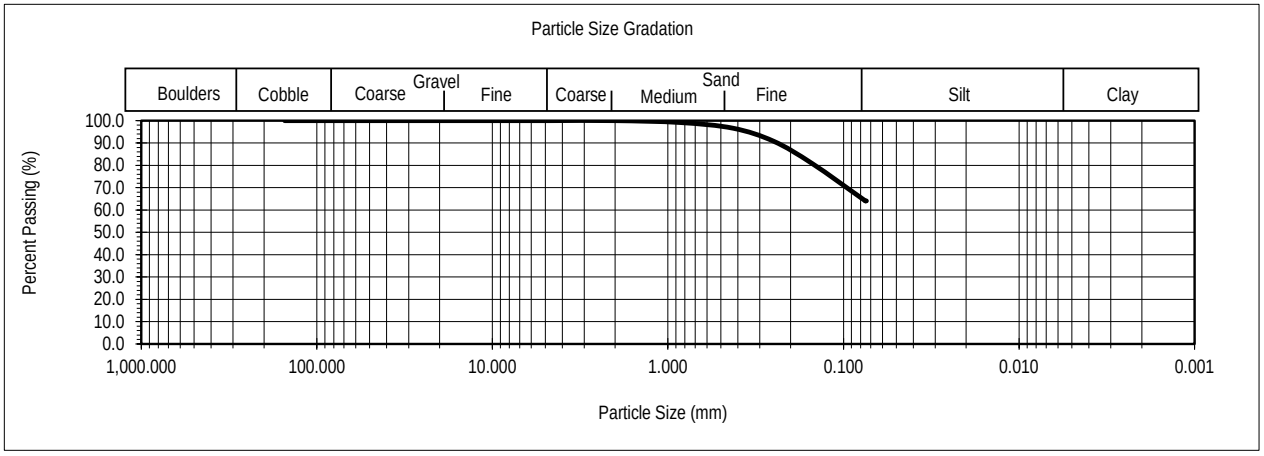
ASTM D422

DSA File #:

DSA Appl #:

Project No.:	**5994**	Project Name:	**701 Sunrise Ave.**	Date:	**10/25/2024**
Sample No.:	**T5-Bk1**	Boring/Trench:	**-** Depth, (ft.): **5'**	Tested By:	**CTV**
Description:	**Light Brown (7.5YR 6/4) Sandy Silty Clay (CL-ML)**			Checked By:	**RGK**
Sample Location:	**0**			Lab. No.:	**15-24-279**

Sieve Size	Particle Diameter		Dry Weight on Sieve			Percent
	Inches	Millimeter	Retained On Sieve	Accumulated On Sieve	Passing Sieve	Passing
(U.S. Standard)	(in.)	(mm)	(gm)	(gm)	(gm)	(%)
6 Inch	6.0000	152.4	0.00	0.0	2,103.0	100.0
3 Inch	3.0000	76.2	0.00	0.0	2,103.0	100.0
2 Inch	2.0000	50.8	0.00	0.0	2,103.0	100.0
1.5 Inch	1.5000	38.1	0.00	0.0	2,103.0	100.0
1.0 Inch	1.0000	25.4	0.00	0.0	2,103.0	100.0
3/4 Inch	0.7500	19.1	0.00	0.0	2,103.0	100.0
1/2 Inch	0.5000	12.7	0.00	0.0	2,103.0	100.0
3/8 Inch	0.3750	9.5	0.00	0.0	2,103.0	100.0
#4	0.1870	4.7500	0.00	0.0	2,103.0	100.0
#10	0.0787	2.0000	0.00	0.0	2,103.0	100.0
#20	0.0335	0.8500	17.77	17.8	2,085.2	99.2
#40	0.0167	0.4250	53.71	71.5	2,031.5	96.6
#60	0.0098	0.2500	122.35	193.8	1,909.2	90.8
#100	0.0059	0.1500	212.40	406.2	1,696.8	80.7
#200	0.0030	0.0750	349.69	755.9	1,347.1	64.1
Hydrometer						



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CQA – INFRASTRUCTURE – ENERGY – PROGRAM MANAGEMENT – ENVIRONMENTAL

UNCONFINED COMPRESSION

ASTM D2166

DSA File #:

DSA Appl #:

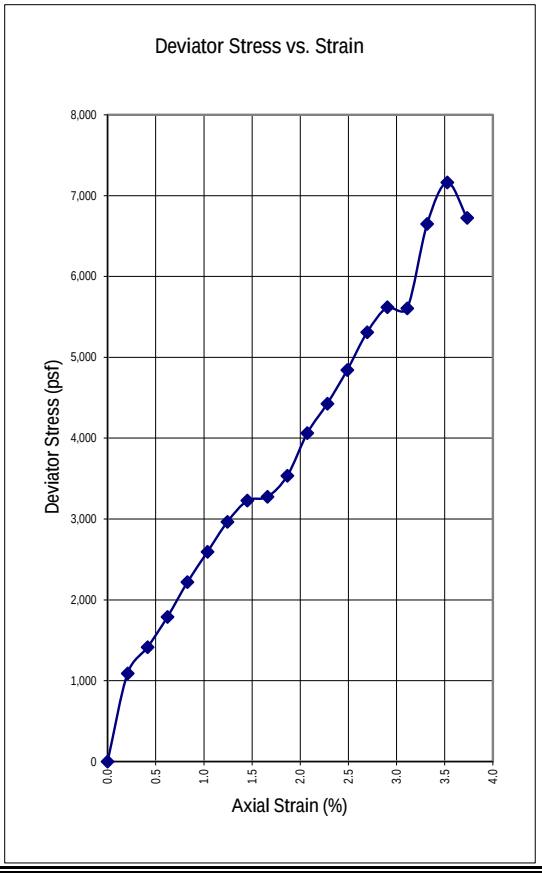
Project No.:	5994	Project Name:	107 Sunrise Ave.			Date:	10/28/2024
Sample No.:	T2-L1	Boring/Trench No.:	T-2	Depth (ft.)	2.0	Tested By:	CTV/ALA
Soil Description:	Brown (7.5YR 5/4) Sandy Silty Clay (CL-ML)					Check By:	RGK
Sample Location:						Lab No.:	15-24-279

Sample Data		
Tare Tube Number	I.D.	FML
Tare Weight	(gm)	373.96
Wet Soil + Tare	(gm)	830.64
Dry Soil + Tare	(gm)	794.79
Weight of Water	(gm)	35.85
Dry Soil Weight	(gm)	420.83
Moisture Content	(%)	8.52
Soil Height	(cm)	12.25
Sample Diameter	(cm)	4.90
Wet Unit Weight	(pcf)	123.43
Dry Unit Weight	(pcf)	113.74
Specific Gravity	(dim)	2.70
Saturation	(%)	47.79
Strain Rate	(%)	1.21
Proving Ring Constant	(lbs/unit)	1.108

Sample Sketch At Failure

Unconfined Shear Strength = 3,581.1 psf

Elapsed Time (Minutes)	Strain Units (0.001in/unit)	Strain Percent (%)	Area (cm^2)	Load Dial (units)	Load Force (lbs)	Deviator Stress (psf)
0:00:00	0	0.00	0.00	0	0.00	0.00
0:00:10	10	0.21	18.90	20	22.16	1089.47
0:00:20	20	0.41	18.94	26	28.81	1413.37
0:00:30	30	0.62	18.98	33	36.56	1790.16
0:00:40	40	0.83	19.02	41	45.43	2219.50
0:00:50	50	1.04	19.05	48	53.18	2593.00
0:01:00	60	1.24	19.09	55	60.94	2964.92
0:01:10	70	1.45	19.14	60	66.48	3227.67
0:01:20	80	1.66	19.18	61	67.59	3274.56
0:01:30	90	1.87	19.22	66	73.13	3535.50
0:01:40	100	2.07	19.26	76	84.21	4062.58
0:01:50	110	2.28	19.30	83	91.96	4427.37
0:02:00	120	2.49	19.34	91	100.83	4843.80
0:02:10	130	2.70	19.38	100	110.80	5311.54
0:02:20	140	2.90	19.42	106	117.45	5618.24
0:02:30	150	3.11	19.46	106	117.45	5606.24
0:02:40	160	3.32	19.50	126	139.61	6649.76
0:02:50	170	3.52	19.55	136	150.69	7162.12
0:03:00	180	3.73	19.59	128	141.82	6726.33
0:03:10					0.00	
0:03:20					0.00	
0:03:30					0.00	
0:03:40					0.00	
0:03:50					0.00	



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CQA – INFRASTRUCTURE – ENERGY – PROGRAM MANAGEMENT – ENVIRONMENTAL

UNCONFINED COMPRESSION

ASTM D2166

DSA File #:

DSA Appl #:

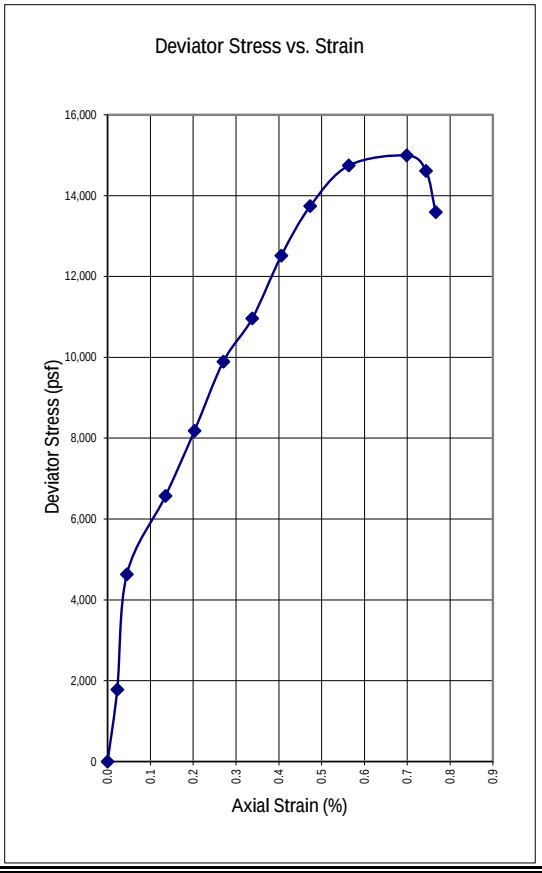
Project No.:	5994	Project Name:	107 Sunrise Ave.			Date:	10/30/2024
Sample No.:	T2-L2	Boring/Trench No.:	T-2	Depth (ft.)	4.0	Tested By:	RGK
Soil Description:	Brown (7.5YR 5/4) Sandy Silty Clay (CL-ML)					Check By:	KDW
Sample Location:						Lab No.:	15-24-279

Sample Data		
Tare Tube Number	I.D.	EJ
Tare Weight	(gm)	190.07
Wet Soil + Tare	(gm)	596.20
Dry Soil + Tare	(gm)	558.34
Weight of Water	(gm)	37.86
Dry Soil Weight	(gm)	368.27
Moisture Content	(%)	10.28
Soil Height	(cm)	11.27
Sample Diameter	(cm)	4.93
Wet Unit Weight	(pcf)	117.86
Dry Unit Weight	(pcf)	106.87
Specific Gravity	(dim)	2.70
Saturation	(%)	48.15
Strain Rate	(%)	0.77
Proving Ring Constant	(lbs/unit)	1.108

Sample Sketch At Failure

Unconfined Shear Strength = 7,496.7 psf

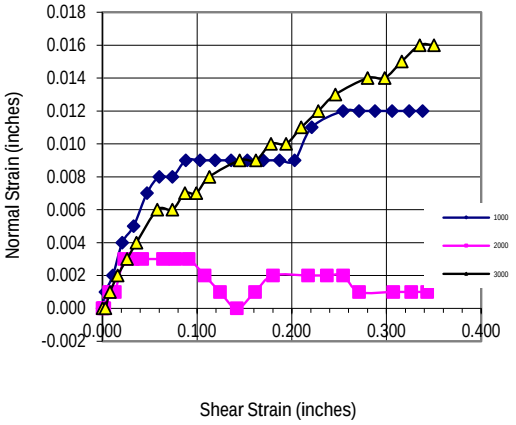
Elapsed Time (Minutes)	Strain Units (0.001in/unit)	Strain Percent (%)	Area (cm^2)	Load Dial (units)	Load Force (lbs)	Deviator Stress (psf)
0:00:00	0	0.00	0.00	0	0.00	0.00
0:00:05	1	0.02	19.09	33	36.56	1779.11
0:00:10	2	0.05	19.10	86	95.29	4635.41
0:00:15	6	0.14	19.11	122	135.18	6569.89
0:00:20	9	0.20	19.13	152	168.42	8179.90
0:00:25	12	0.27	19.14	184	203.87	9895.27
0:00:30	15	0.34	19.15	204	226.03	10963.40
0:00:35	18	0.41	19.17	233	258.16	12513.43
0:00:40	21	0.47	19.18	256	283.65	13739.33
0:00:45	25	0.56	19.20	275	304.70	14745.68
0:00:50	31	0.70	19.22	280	310.24	14993.36
0:00:55	33	0.74	19.23	273	302.48	14611.89
0:01:00	34	0.77	19.24	254	281.43	13591.86
0:02:10					0.00	
0:02:20					0.00	
0:02:30					0.00	
0:02:40					0.00	
0:02:50					0.00	
0:03:00					0.00	
0:03:10					0.00	
0:03:20					0.00	
0:03:30					0.00	
0:03:40					0.00	
0:03:50					0.00	



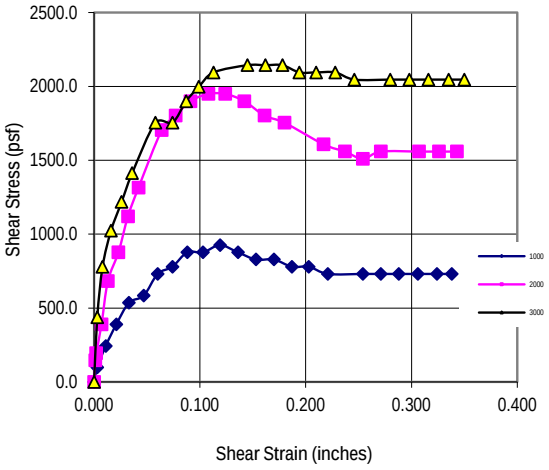
DIRECT SHEAR

ASTM D3080

Shear Strain vs. Normal Strain



Shear Strain vs. Shear Stress



Normal Load (psf)

y = 0.6089x + 454.68

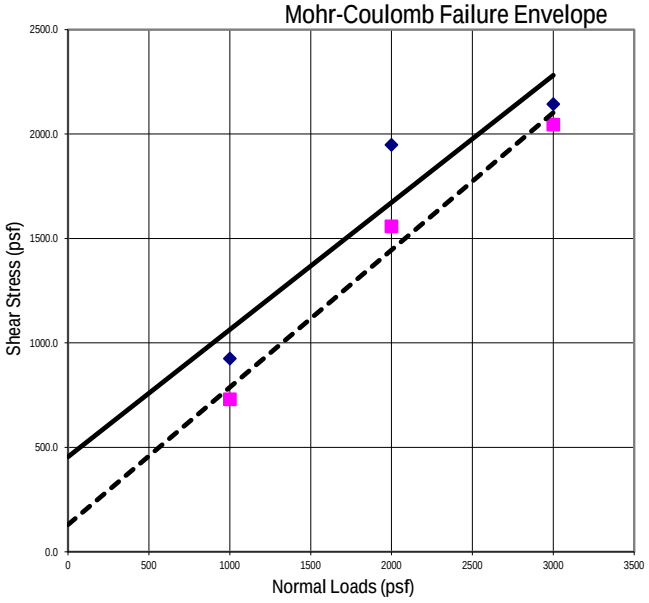
R^2 = 0.8665

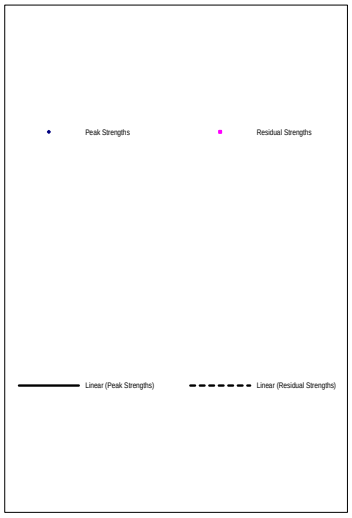
Normal Load (psf)

y = 0.6577x + 129.83

R^2 = 0.9781

Mohr-Coulomb Failure Envelope





SHEAR STRENGTH TEST RESULTS		
PARAMETERS	**PEAK STRENGTH:**	**RESIDUAL STRENGTH:**
FRICTION ANGLE, (Degree)	31.3	33.3
COHESION, (psf)	454.7	129.8

PROJECT NAME: 107 Sunrise Ave.

PROJECT NO.: 5994 DATE: 10/29/2024

BORING / TRENCH NO.: T-1 LAB NO.: 15-24-279

SAMPLE NO.: T1-L1 SAMPLE DEPTH (ft.): 2.0

DESCRIPTION: Pale Brown (10YR 6/3) Silty Sand (SM)

SAMPLE NOTES: Pale Brown (10YR 6/3) Silty Sand (SM)

MOISTURE & DENSITY

ASTM D2216 & D2937

DSA File #:

DSA Appl #:

Project No.:	5994.00		Project Name:	107 Sunrise Ave.				Date:	10/2/2024	
Lab No.:	15-24-279		Performed By:	ALA			Checked By:	RGK		
SAMPLE LOCATION DATA										
Boring/Trench No.	Units	T1								
Sample No.		T1-L2								
Depth Interval	(ft.)	5'								
Sample Description										
USCS Symbol										
SAMPLE DIMENSION AND WEIGHT DATA										
Sample Length	(in)	6.060								
Sample Diameter	(in)	1.920								
Sample Volume	(cf)	0.0102								
Wet Soil + Tube Wt.	(gr)	671.11								
Tube Wt.	(gr)	161.92								
Wet Soil Wt.	(gr)	509.19								
MOISTURE CONTENT DATA										
Tare No.		JB								
Tare Wt.	(gr)	193.39								
Wet Soil + Tare Wt.	(gr)	702.62								
Dry Soil + Tare Wt.	(gr)	664.64								
Water Wt.	(gr)	37.98								
Dry Soil Wt.	(gr)	471.25								
Moisture Content	(%)	8.1								
TEST RESULTS										
Wet Unit Wt.	(pcf)	110.6								
Moisture Content	(%)	8.1								
Dry Unit Wt.	(pcf)	102.3								
MOISTURE CORRECTION DATA										
Gauge Moisture	(%)									
K Value Correction Factor										
COMPACTION CURVE DATA (ASTM D698, ASTM D1557, or CAL216)										
Test Method										
Curve No.										
Max Wet Unit Wt.	(pcf)									
Max Dry Unit Wt.	(pcf)									
Optimum Moisture	(%)									
Wet Relative Comp.	(%)									
Dry Relative Comp.	(%)									

ATTERBERG INDICES

ASTM D4318

DSA File #:

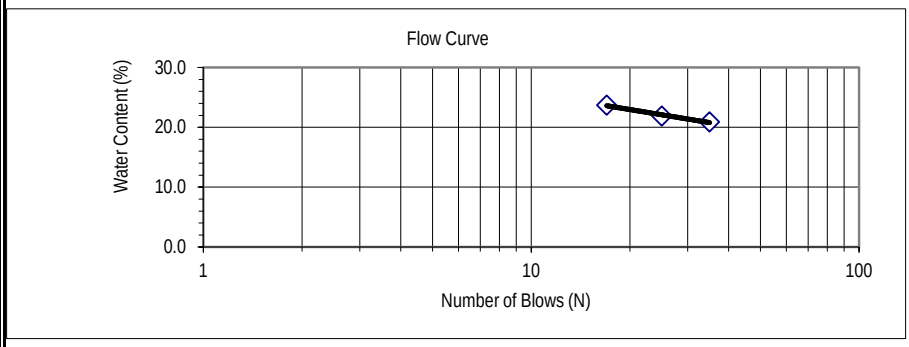
DSA Appl #:

Project No.:	**5994.00**	Project Name:	**107 Sunrise Ave.**	Date:	**10/2/2024**
Sample No.:	**T3-BK1**	Boring/Trench:	**T3** Depth, (ft.): **5'**	Tested By:	**ALA**
Description:	**Light Brown (7.5YR 6/4) Silty Clay with Sand (CL-ML)**			Checked By:	**RGK**
Sample Location:				Lab. No.:	**15-24-279**

Estimated % of Sample Retained on No. 40 Sieve: 35 Sample Air Dried: yes

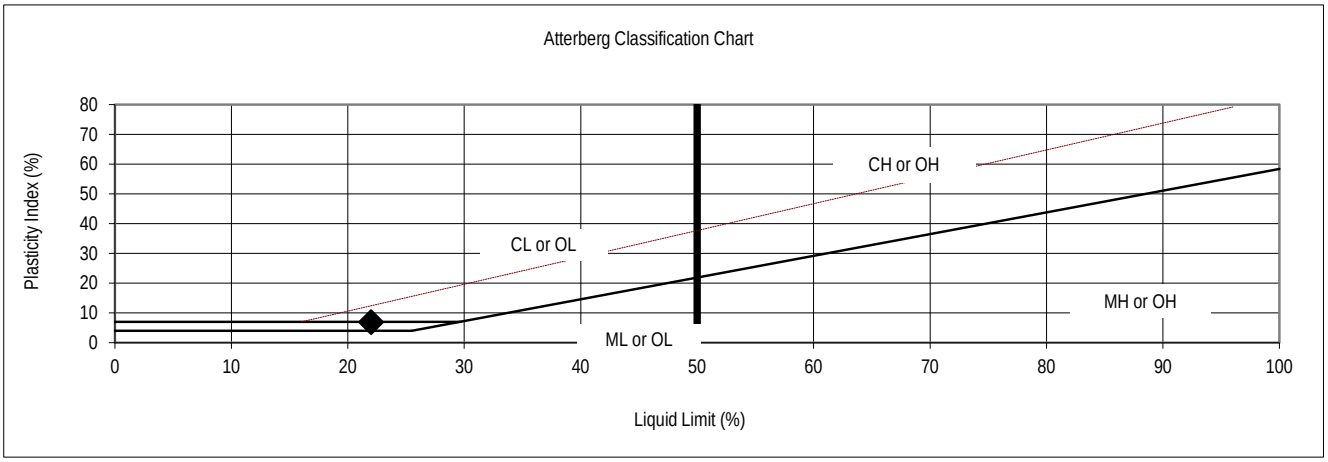
Test Method A or B: A

	LIQUID LIMIT:					PLASTIC LIMIT:		
Sample No.:	1	2	3	4	5	1	2	3
Pan ID:	TD	TG	PD			R	EE	
Wt. Pan (gr)	50.40	50.63	50.35			15.02	15.57	
Wt. Wet Soil + Pan (gr)	59.95	58.20	57.45			21.69	21.69	
Wt. Dry Soil + Pan (gr)	58.30	56.84	56.09			20.81	20.91	
Wt. Water (gr)	1.65	1.36	1.36			0.88	0.78	
Wt. Dry Soil (gr)	7.90	6.21	5.74			5.79	5.34	
Water Content (%)	20.9	21.9	23.7			15.2	14.6	
Number of Blows, N	35	25	17					
				LIQUID LIMIT =	22		PLASTIC LIMIT =	15



Plasticity Index = 7

Group Symbol ML



EXPANSION INDEX/SWELL

ASTM D4829

DSA File #:

DSA Appl #:

Project No.:	5994	Project Name:	107 Sunrise Ave.	Date:	10/2/2024
Sample No.:	T3-BK1	Boring/Trench No.:	T3	Depth (ft.) 5'	Tested By: RGK
Soil Description:	Light Brown (7.5YR 6/4) Silty Clay with Sand (CL-ML)				Checked By: KDW
Estimated % of sample retained on #4:		Notes:			Lab. No.: 15-24-279

Specimen Type:	Undisturbed:		Disturbed: X	Remolded to:	ASTM Guidelines
Tube Dia. (Inch) =		Ring Dia. (Inch) =	4	Ring Height (Inch) =	1.00

FIELD DATA Tube Sample Moisture & Density			LAB DATA	Test wt. Initial	144 Final	Test wt. Initial	Final	Test wt. Initial	Final
Tare Tube Number			Tare Number	CTP					
Tare Weight	(gr)		Tare Ring Weight (gr)	368.55	368.55				
Wet Soil + Tare	(gr)		Tare Pan Weight (gr)	0.00	408.53				
Dry Soil + Tare	(gr)		Wet Soil + Tare (gr)	733.26	1184.89				
Weight of Water	(gr)	0.00	Dry Soil + Tare (gr)	689.92	1098.45	0.00		0.00	
Dry Soil Weight	(gr)	0.00	Weight of Water (gr)	43.34	86.44	0.00	0.00	0.00	0.00
Moisture Content	(%)	0.00	Dry Soil Weight (gr)	321.37	321.37	0.00	0.00	0.00	0.00
Soil Height	(In.)		Moisture Content (%)	13.49	26.90	0.00	0.00	0.00	0.00
Wet Unit Weight	(pcf)		Wet Unit Weight (pcf)	110.58	123.21				
Dry Unit Weight	(pcf)		Dry Unit Weight (pcf)	97.44	97.10				
			Sample Height (Inches)	1.00	1.004				
Specific Gravity		2.7	Percent Saturation	49.94	98.78				

Expansion Index Number

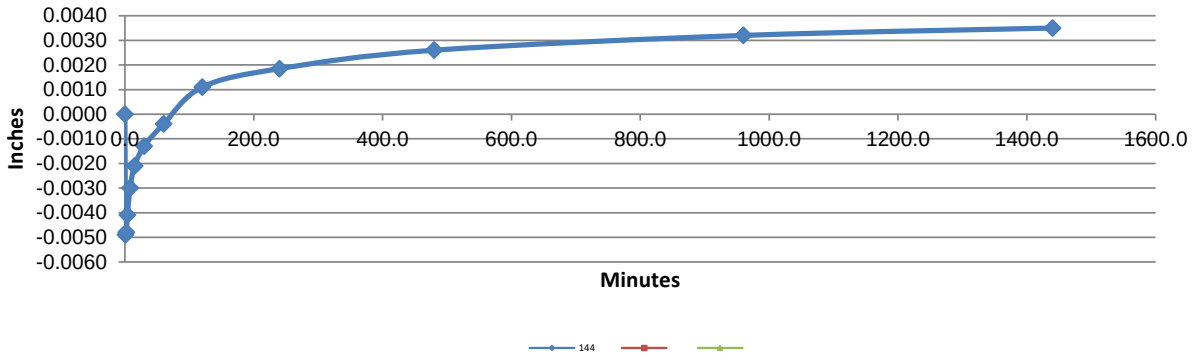
Surcharge (psf)	Uncorrected	Corrected to 50% Saturation
Test wt. 144	4	4
Test wt.		
Test wt.		

Elapsed Time (m:s)	Change in Height (Inches)	Elapsed Time (m:s)	Change in Height (Inches)	Elapsed Time (m:s)	Change in Height (Inches)
0.0	0.0000				
1.0	-0.0049				
2.0	-0.0048				
4.0	-0.0041				
8.0	-0.0030				
15.0	-0.0021				
30.0	-0.0013				
60.0	-0.0004				
120.0	0.0011				
240.0	0.0019				
480.0	0.0026				
960.0	0.0032				
1440.0	0.0035				

Expansion Index Values and Descriptions

Expansion Index	Potential Expansion
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
Above 130	Very High

Expansion Versus Time



Sunland Analytical

11419 Sunrise Gold Circle, #10
Rancho Cordova, CA 95742
(916) 852-8557

Date Reported 10/08/2024
Date Submitted 10/04/2024

To: Ted Bibby
Holdrege & kull/NV5
792 Searls Ave
Nevada city, CA 95959

From: Gene Oliphant, Ph.D. \ Ty Bui
General Manager \ Lab Manager

The reported analysis was requested for the following location:
Location : 5994 701 SUNRISE AVE Site ID : T5-R1@1-3FT.
Thank you for your business.

* For future reference to this analysis please use SUN # 93251-193011.

EVALUATION FOR SOIL CORROSION

Soil pH	6.58		
Minimum Resistivity	1.72 ohm-cm (xl000)		
Chloride	5.6 ppm	00.00056	%
Sulfate	106.2 ppm	00.01062	%

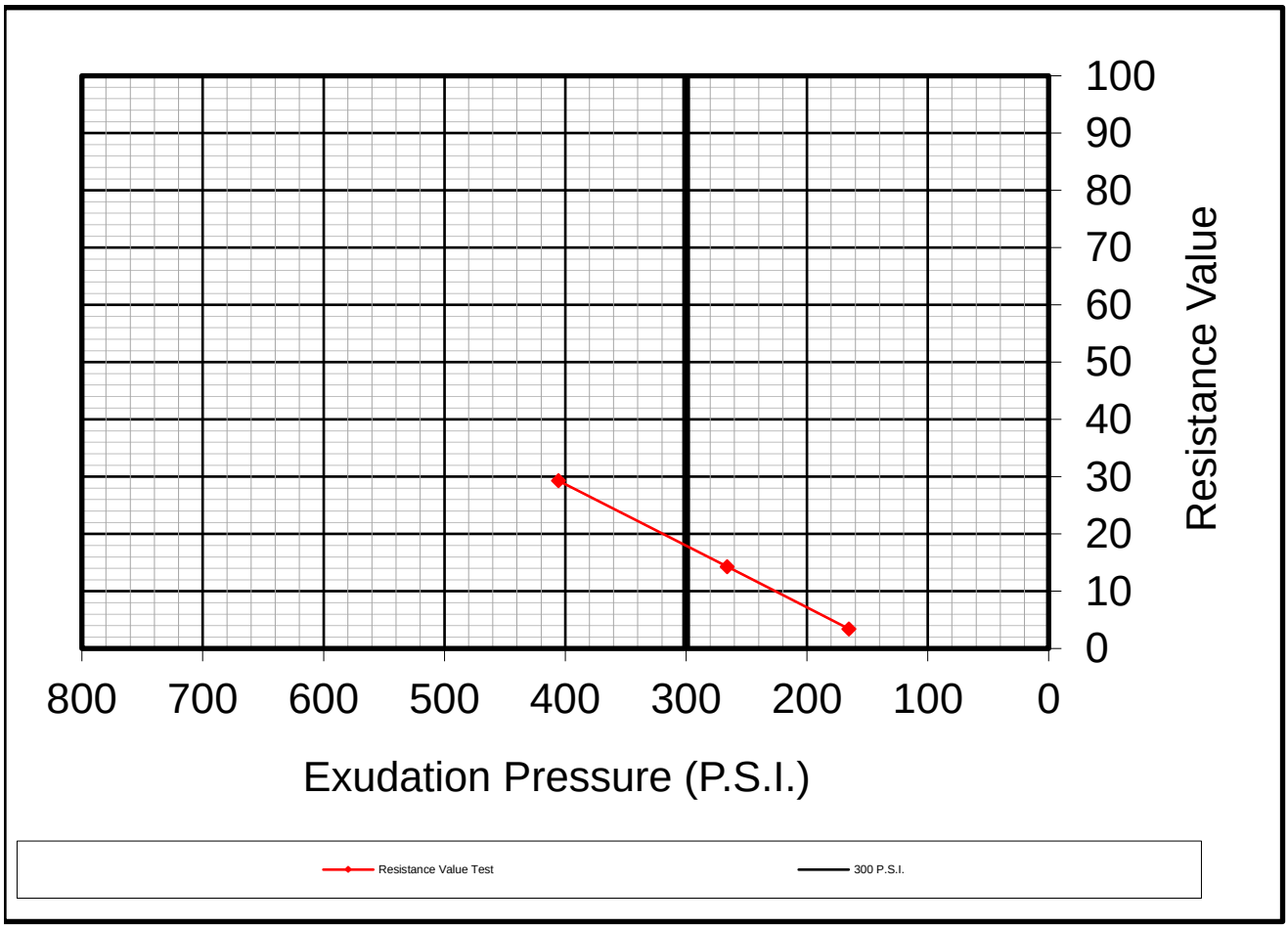
METHODS
pH and Min.Resistivity CA DOT Test #643
Sulfate CA DOT Test #417, Chloride CA DOT Test #422m

Pavement Engineering Inc.
Redding • Sacramento • San Luis Obispo
Concord • Santa Clarita

RESISTANCE (R) VALUE TEST

ASTM D2844

PEI Laboratory No.:	L243298	**NV5 Project Name:**	701 Sunrise Ave.
PEI Client:	NV5	**NV5 Project No.:**	5994
PEI Project Name:	2024 Laboratory Testing	**NV5 Date Sampled:**	
PEI Project No.:	240018-01	**NV5 Office:**	Nevada City
Report Date:	October 9, 2024	**NV5 Lab No.:**	15-24-279
Sample Description:	Brown Clay	**NV5 Sample ID:**	T5-R1 @ 1'-3'



Specimen No.	1	2	3
Moisture Content (%)	14.9	15.9	16.4
Dry Density (PCF)	119.1	116.8	115.9
Resistance Value (R)	29	14	3
Exudation Pressure (PSI)	406	266	165
Expansion Pressure	87	43	0
As Received Moisture Content (%)	14.9		

RESISTANCE VALUE AT 300 P.S.I. 18

AAR®
AASHTO R18

Reviewed By: _____

Brandon Rodebaugh
Materials Engineer

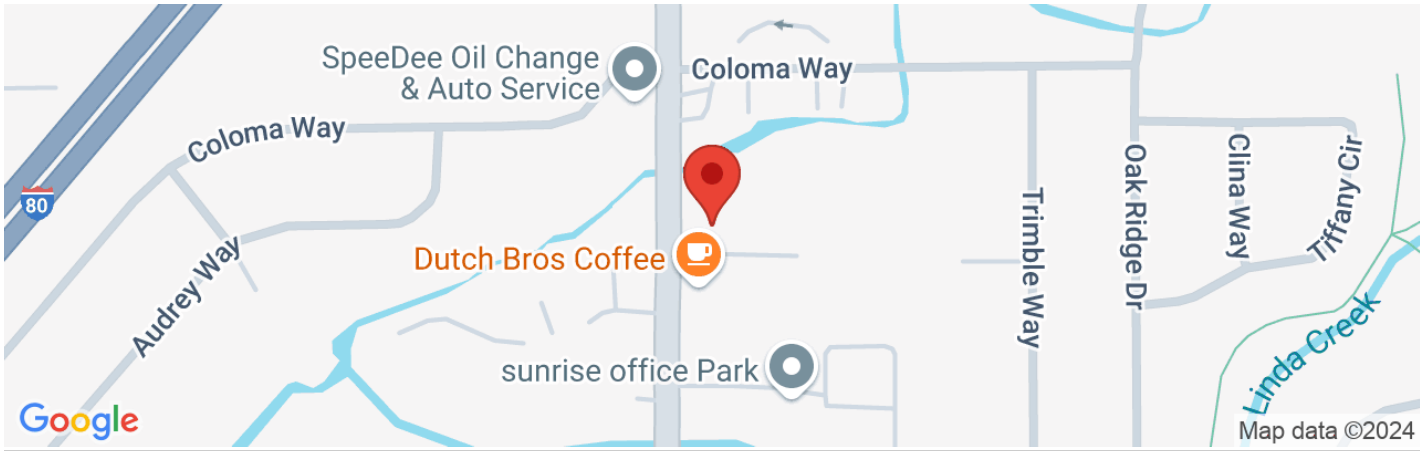
APPENDIX C

Seismic Design Criteria (SEAOC/OSHPD)

USGS web services were down for some period of time and as a result this tool wasn't operational, resulting in *timeout* error.
USGS web services are now operational so this tool should work as expected.

701 Sunrise Ave, Roseville, CA 95661, USA

Latitude, Longitude: 38.7356003, -121.2716226



Date	10/21/2024, 3:03:20 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	0.436	MCE_R ground motion. (for 0.2 second period)
S_1	0.22	MCE_R ground motion. (for 1.0s period)
S_{MS}	0.632	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	0.422	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1.452	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.185	MCE_G peak ground acceleration
F_{PGA}	1.43	Site amplification factor at PGA
PGA_M	0.265	Site modified peak ground acceleration
T_L	12	Long-period transition period in seconds
SsRT	0.436	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	0.457	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.22	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.233	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
PGA_{UH}	0.185	Uniform-hazard (2% probability of exceedance in 50 years) Peak Ground Acceleration
C_{RS}	0.953	Mapped value of the risk coefficient at short periods
C_{R1}	0.942	Mapped value of the risk coefficient at a period of 1 s
C_V	0.99	Vertical coefficient

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