PLANNING & BUILDING DEPARTMENT
PLANNING DIVISION

https://www.eldoradocounty.ca.gov/Land-Use/Planning-Services

PLACERVILLE OFFICE:
2850 Fairlane Court, Placerville, CA 95667
BUILDING
(530) 621-5315 / (530) 622-1708 Fax
bldgdept@edcgov.us
PLANNING
(530) 621-5355 / (530) 642-0508 Fax
planning@edcgov.us

LAKE TAHOE OFFICE:
924 B Emerald Bay Rd
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

TO: County of El Dorado Agricultural Commissioner/Commission

FROM: Bianca Dinkler, Senior Planner

DATE: October 30, 2024

RE: Request for Review - Conditional Use Permit CUP24-0011 (Kuhl)
Residence on Property Zoned Timber Production Zone (TPZ)
Assessor's Parcel Numbers (APNs) 011-030-055 and 011-030-058

Planning Request and Project Description:

The Planning Division is processing an application request for a Conditional Use Permit, CUP24-0011 (Kuhl) to allow a single-unit residence on property zoned Timber Production Zone (TPZ), and requests the project be scheduled for review and recommendation by the Agricultural Commissioner/Commission.

The subject parcels, APNs 011-030-055 (20.2-acres) and 011-030-058 (45.58-acres) (legal parcels, Admin by tax rate) totaling 65.78-acres, located on the south side of Wolf Creek Road, approximately five (5) miles east of the intersection with Ice House Road in the Pollock Pines area of El Dorado County, Supervisor District 4, zoned Timber Production Zone (TPZ), with a General Plan land use designation of Natural Resources (NR), and located within an Agricultural District.

Please see the included Attachments:

Application Packet, CUP24-0011 (Kuhl SFD on TPZ)

Union Valley Forest Management Plan

Zoning Ordinance 130.40.350 - Timber Production Zone: Criteria, Regulations, and Zone Change Requirements, (G.) Required Findings to Support Residential, Recreational and Other Non-Timber Uses: Certain uses within the TPZ may be compatible with growing and harvesting timber in certain circumstances and may be allowed by Conditional Use Permit. When approving a Conditional Use Permit, as allowed in Table 130.21.020 (Agriculture, Rural Lands and Resource Zone Districts Use Matrix) in Article 2 (Zones, Allowed Uses, and Zoning Standards) of this Title, for compatible, non-timber related uses, the review authority shall consider the recommendations of the Ag Commission and shall make the following findings:

1. The proposed use is compatible with and will not detract from the land's ability to produce timber;
2. Fire protection and public safety concerns have been adequately met, including the ability to provide adequate public access, emergency ingress and egress, and sufficient water supply and sewage disposal facilities;
3. The proposed use will not adversely impact the area's watershed, wildlife, and other natural resources.

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT

2850 Fairlane Court, Placerville, CA 95667
Phone: (530) 621-5355 www.edcgov.us/Planning/

APPLICATION FOR: **CONDITIONAL/MINOR USE PERMIT** **FILE #** CUP 24-0011

ASSESSOR'S PARCEL NO.(s) 011-030-055 &011-030-058

PROJECT NAME/REQUEST: (Describe proposed use) Kuhl Conditional Use Permit to placed residential house on Timber Preserve Zoned property.

APPLICANT/AGENT Nathaniel Willson
Mailing Address 3080 Cedar Ravine, Placerville, CA 95667
P.O. Box or Street City State & Zip
Phone ( ) 530-626-4300 EMAIL: nathaniel@willson.legal

PROPERTY OWNER Michael Kuhl
Mailing Address 155 Ridgewood Dr., San Rafael, CA 94901
P.O. Box or Street City State & Zip
Phone ( ) 415-233-1230 EMAIL: mkuhl@business-esolutions.com

LIST ADDITIONAL PROPERTY OWNERS ON SEPARATE SHEET IF APPLICABLE

ENGINEER/ARCHITECT Nathan Wheeler
Mailing Address 5137 Golden Foothill Pkwy #100, El Dorado Hills, CA 95762
P.O. Box or Street City State & Zip
Phone ( ) 530-672-1600 EMAIL:

LOCATION: The property is located on the South (N/E/W/S) side of Wolf Creek Road (street or road)
5 Miles feet/miles East (N/E/W/S) of the intersection with Ice House Road (major street or road)
in the Pollock Pines area. PROPERTY SIZE 65.78 Acres (acreage / square footage)

X [signature] Date SEPTEMBER August, 2024
signature of property owner or authorized agent

FOR OFFICE USE ONLY

Date Sept 9, 2024 Fee $ 4,632.11 Receipt # R55985 Rec'd by TS Census
Zoning TPZ GPD NR Supervisor Dist 4 Sec 16-21 Twn 12N Rng 14E

ACTION BY ____PLANNING COMMISSION ____ZONING ADMINISTRATOR

Hearing Date
Approved Denied
findings and/or conditions attached

Executive Secretary

ACTION BY BOARD OF SUPERVISORS

Hearing Date
Approved Denied
findings and/or conditions attached
APPEAL:
Approved Denied

Revised 11/2017

CUP24-0011

NW

NATHANIEL WILLSON, ATTORNEY

I, Michael Kuhl, am the owner of that certain real property located at 1 Bullard Place, Pollock Pines, CA 95726, APN: 011-030-055 and 011-030-058. I authorize Nathaniel Willson to be my agent regarding the Conditional Use Permit Application.

Date: 8/4/2024

M- G Kee

Michael Kuhl

Contact information of applicant Michael Kuhl:
155 Ridgewood Drive
San Rafael, CA 94901-1136
mkuhl@business-esolutions.com
415-233-1230

Contact information for Agent Nathaniel Willson:
3080 Cedar Ravine
Placerville, CA 95667
nathaniel@willson.legal
530-626-4300

RECEIVED

SEP - 9 2024

EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

COUNTY OF EL DORADO
CAMPAIGN CONTRIBUTION DISCLOSURE FORM

Application or Solicitation Number: _____

Application or Solicitation Title: _____

Was a campaign contribution, regardless of the dollar amount, made to any member of the El Dorado County Board of Supervisors or to any County Agency Officer on or after January 1, 2023, by the applicant, or, if applicable, any of the applicant's proposed subcontractors or the applicant's agent or lobbyist?

Yes ____ No XX

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EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

If no, please sign and date below.

If yes, please provide the following information:

Applicant's Name: _____

Contributor or Contributor Firm's Name: _____

Contributor or Contributor Firm's Address: _____

Is the Contributor:

- o The Applicant Yes____ No _
- o Subcontractor Yes____ No _
- o The Applicant's agent/ or lobbyist Yes____ No ___

Note: Under California law as implemented by the Fair Political Practices Commission, campaign contributions made by the Applicant and the Applicant's agent/lobbyist who is representing the Applicant in this application or solicitation must be aggregated together to determine the total campaign contribution made by the Applicant.

Identify the Board of Supervisors Member(s) and County Agency Officer(s) to whom you, your subcontractors, and/or agent/lobbyist made campaign contributions on or after January 1, 2023, the name of the contributor, the dates of contribution(s) and dollar amount of the contribution. Each date must include the exact month, day, and year of the contribution.

Name of Board of Supervisors Member or County Agency Officer: _____

Name of Contributor: _____

Date(s) of Contribution(s): _____

Amount(s): _____

(Please add an additional sheet(s) to identify additional Board Members or County Agency Officer to whom you, your subconsultants, and/or agent/lobbyist made campaign contributions)

By signing below, I certify that the statements made herein are true and correct. I also agree to disclose to the County any future contributions made to Board Members or County Agency Officers by the applicant, or, if applicable, any of the applicant's proposed subcontractors or the applicant's agent or lobbyist after the date of signing this disclosure form, and within 12 months following the approval, renewal, or extension of the requested license, permit, or entitlement to use.

9/9/2024
Date

Signature of Applicant

Print Firm Name if applicable

Michael Kuhl
Print Name of Applicant

CUP24-0011

EL DORADO COUNTY BOARD OF SUPERVISORS AND COUNTY AGENCY OFFICERS

Board of Supervisors

John Hidahl, District One

George Turnboo, District Two

Wendy Thomas, District Three

Lori Parlin, District Four

Brook Laine, District Five

County Agency Officers

Jon DeVille, Assessor

Joe Harn, Auditor-Controller

Vern Pierson, District Attorney

Janelle K. Horne, Recorder-Clerk

Jeff Leikauf, Sheriff-Coroner-Public Administrator

K.E. Coleman, Treasurer-Tax Collector

Attachment A

GOVERNMENT CODE SECTION 84308

(a) The definitions set forth in this subdivision shall govern the interpretation of this section.

(1) "Party" means any person who files an application for, or is the subject of, a proceeding involving a license, permit, or other entitlement for use.

(2) "Participant" means any person who is not a party but who actively supports or opposes a particular decision in a proceeding involving a license, permit, or other entitlement for use and who has a financial interest in the decision, as described in Article 1 (commencing with Section 87100) of Chapter 7. A person actively supports or opposes a particular decision in a proceeding if that person lobbies in person the officers or employees of the agency, testifies in person before the agency, or otherwise acts to influence officers of the agency.

(3) "Agency" means an agency as defined in Section 82003 except that it does not include the courts or any agency in the judicial branch of government, the Legislature, the Board of Equalization, or constitutional officers. However, this section applies to any person who is a member of an exempted agency but is acting as a voting member of another agency.

(4) "Officer" means any elected or appointed officer of an agency, any alternate to an elected or appointed officer of an agency, and any candidate for elective office in an agency.

(5) "License, permit, or other entitlement for use" means all business, professional, trade, and land use licenses and permits and all other entitlements for use, including all entitlements for land use, all contracts (other than competitively bid, labor, or personal employment contracts), and all franchises.

(6) "Contribution" includes contributions to candidates and committees in federal, state, or local elections.

(b) While a proceeding involving a license, permit, or other entitlement for use is pending, and for 12 months following the date a final decision is rendered in the proceeding, an officer of an agency shall not accept, solicit, or direct a contribution of more than two hundred fifty dollars ($250) from any party or a party's agent, or from any participant or a participant's agent if the officer knows or has reason to know that the participant has a financial interest, as that term is used in Article 1 (commencing with Section 87100) of Chapter 7. This prohibition shall apply regardless of whether the officer accepts, solicits, or directs the contribution on the officer's own behalf, or on behalf of any other officer, or on behalf of any candidate for office or on behalf of any committee.

(c) Prior to rendering any decision in a proceeding involving a license, permit, or other entitlement for use pending before an agency, each officer of the agency who received a contribution within the preceding 12 months in an amount of more than two hundred fifty dollars ($250) from a party or from any participant shall disclose that fact on the record of the proceeding. An officer of an agency shall not make, participate in making, or in any way attempt to use the officer's official position to influence the decision in a proceeding involving a license, permit, or other entitlement for use pending before the agency if the officer has willfully or knowingly received a contribution

in an amount of more than two hundred fifty dollars ($250) within the preceding 12 months from a party or a party's agent, or from any participant or a participant's agent if the officer knows or has reason to know that the participant has a financial interest in the decision, as that term is described with respect to public officials in Article 1 (commencing with Section 87100) of Chapter 7.

(d)(1) If an officer receives a contribution which would otherwise require disqualification under this section, and returns the contribution within 30 days from the time the officer knows, or should have known, about the contribution and the proceeding involving a license, permit, or other entitlement for use, the officer shall be permitted to participate in the proceeding.

(2)(A) Subject to subparagraph (B), if an officer accepts, solicits, or directs a contribution of more than two hundred fifty dollars ($250) during the 12 months after the date a final decision is rendered in the proceeding in violation of subdivision (b), the officer may cure the violation by returning the contribution, or the portion of the contribution in excess of two hundred fifty dollars ($250), within 14 days of accepting, soliciting, or directing the contribution, whichever comes latest.

(B) An officer may cure a violation as specified in subparagraph (A) only if the officer did not knowingly and willfully accept, solicit, or direct the prohibited contribution.

(C) An officer's controlled committee, or the officer if no controlled committee exists, shall maintain records of curing any violation pursuant to this paragraph.

(e)(1) A party to a proceeding before an agency involving a license, permit, or other entitlement for use shall disclose on the record of the proceeding any contribution in an amount of more than two hundred fifty dollars ($250) made within the preceding 12 months by the party or the party's agent.

(2) A party, or agent to a party, to a proceeding involving a license, permit, or other entitlement for use pending before any agency or a participant, or agent to a participant, in the proceeding shall not make a contribution of more than two hundred fifty dollars ($250) to any officer of that agency during the proceeding and for 12 months following the date a final decision is rendered by the agency in the proceeding.

(3) When a closed corporation is a party to, or a participant in, a proceeding involving a license, permit, or other entitlement for use pending before an agency, the majority shareholder is subject to the disclosure and prohibition requirements specified in this section.

(f) This section shall not be construed to imply that any contribution subject to being reported under this title shall not be so reported.

Attachment B

COUNTY OF EL DORADO
CAMPAIGN CONTRIBUTION DISCLOSURE INFORMATION

The attached Campaign Contribution Disclosure Form must be completed by applicants for, or persons who are the subject of, any proceeding involving a license, permit, or other entitlement for use, including most contracts and franchises, pending before the Board of Supervisors ("Board") of the County of El Dorado or any of its affiliated agencies.

IMPORTANT NOTICE

Government Code section 84308 (also known as the "Levine Act") contains requirements that are summarized generally as follows:

A. If you are an applicant for, or the subject of, any proceeding involving a license, permit, or other entitlement for use, you are prohibited from making a campaign contribution of more than $250 to any member of the Board of Supervisors or other County official who may participate in your proceeding. This prohibition begins on the date your application is filed or the proceeding is otherwise initiated, and the prohibition ends 12 months after a final decision is rendered by the Board of Supervisors or other County officer. In addition, no Board member or other County official who may participate in your proceeding alternate may solicit or accept a campaign contribution of more than $250 from you during this period.

B. These prohibitions also apply to your agents, and, if you are a closely held corporation, to your majority shareholder as well. These prohibitions also apply to your subcontractor(s), joint venturer(s), and partner(s) in this proceeding. Also included are parent companies and subsidiary companies directed and controlled by you, and political action committees directed and controlled by you.

C. You must file the attached disclosure form and disclose whether you or your agent(s) have in the aggregate contributed more than $250 to any Board member or other County officer who may participate in your proceeding during the 12-month period preceding the filing of the application or the initiation of the proceeding.

D. If you or your agent have in the aggregate contributed more than $250 to any individual Board member or other County officer who may participate in your proceeding during the 12 months preceding the decision on the application or proceeding, that Board member or other County officer must disqualify himself or herself from the decision. However, disqualification is not required if the Board member or other County official returns the campaign contribution within 30 days from the time the member or official knows, or should have known, about both the contribution and the fact that you are a party in the proceeding. The Campaign Contribution Disclosure Form should be completed and filed with your application or proposal, or with the first written document you file or submit after the proceeding commences.

1. A proceeding involving "a license, permit, or other entitlement for use" includes all business, professional, trade and land use licenses and permits, and all other entitlements for use, including all entitlements for land use, all contracts (other than competitively bid, labor or personal employment contracts), and all franchises.

2. Your "agent" is someone who represents you in connection with a proceeding involving a license, permit or other entitlement for use. If an individual acting as an agent is also acting in his or her capacity as an employee or member of a law, architectural, engineering, consulting firm, or similar business entity, both the business entity and the individual are "agents."

3. To determine whether a campaign contribution of more than $250 has been made by you, campaign contributions made by you within the preceding 12 months must be aggregated with those made by your agent within the preceding 12 months or the period of the agency relationship, whichever is shorter. Contributions made by your majority shareholder (if a closely held corporation), your subcontractor(s), your joint venturer(s), and your partner(s) in this proceeding must also be included as part of the aggregation. Campaign contributions made to different Board of Supervisors members or other County officer who may participate in your proceeding are not aggregated.

4. A list of the Board of Supervisors members and other County officials is attached.

This notice summarizes the major requirements of Government Code section 84308 of the Political Reform Act and California Code of Regulations, Title 2 sections 18438.1-18438.8.

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT

2850 Fairlane Court, Placerville, CA 95667
Phone: (530) 621-5355 www.edcgov.us/Planning/

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EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

Conditional/Minor Use Permit

REQUIRED SUBMITTAL INFORMATION

The following items 1 through 9 must be provided with all applications. The remaining items shall be required where applicable. **If all the required and applicable information is not provided, the application will be deemed incomplete and will not be accepted**. For your convenience, please use the check (√) column on the left to be sure you have all the required and applicable information. **All plans and maps MUST be folded to 8½" x 11"**.

FORMS AND MAPS REQUIRED

Check (√) Applicant	Check (√) County		
✓	✓	1)	Application form, completed and signed.
✓	✓	2)	Letter of authorization from all property owners authorizing agent to act as applicant, when applicable.
N/A		3)	Proof of ownership (Grant Deed), if the property has changed title since the last tax roll.
✓	✓	4)	A copy of official Assessor's map, showing the property outlined in red.
✓	✓	5)	An 8 ½ x 11" vicinity map showing the location of the project in relation to the distance to major roads, intersections, and town sites.
✓	✓	6)	Environmental Questionnaire form, completed and signed.
✓	✓	7)	Provide name, mailing address and phone number of all property owners and their agents.
✓	✓	8)	A record search for archaeological resources shall be conducted through the North Central Information Center located at CSU-Sacramento, 6000 J Street, Adams Bldg, #103, Sacramento, CA 95819-6100, phone number (916) 278-6217. If the record search identifies a need for a field survey, a survey shall be required. (A list of Archaeological Consultants and survey requirements is available at the Planning Department.) Archaeological surveys shall meet the "Guidelines for Cultural Resource Studies" approved by the Board of Supervisors, available at the Planning Department.
✓	✓	9)	A traffic impact determination shall be provided utilizing El Dorado County's "Transportation Impact Study (TIS) – Initial Determination Form, located on the Planning Services website under "Applications and Forms".
N/A		10)	If public sewer or water service is proposed, obtain and provide a Facilities Improvement Letter if the project is located within the EID service area, or a similar letter if located in another sewer/water district.

FORMS AND MAPS REQUIRED

Check (√)

Applicant	County		
N/A	N/A	11)	If off-site sewer or water facilities are proposed to serve the project, provide four (4) copies of a map showing location and size of proposed facilities. If ground water is to be used for domestic water, submit a report noting well production data for adjacent parcels, or submit a hydrological report prepared by a geologist noting the potential for water based on the nature of project site geology.
√	√	12)	In an accompanying report, provide the following data for area on each proposed parcel that is to be used for sewage disposal: a) Percolation rate and location of test on 4.5 acres or smaller b) Depth of soil and location of test c) Depth of groundwater and location of test d) Direction and percent of slope of the ground e) Location, if present, of rivers, streams, springs, areas subject to inundation, rock outcropping, lava caps, cuts, fills, and easements f) Identify the area to be used for sewage disposal g) Such additional data and information as may be required by the Division Director of Environmental Management to assess the source of potable water, the disposal of sewage and other liquid wastes, the disposal of solid wastes, drainage, and erosion control
√	√	13)	Preceding parcel map, final map, or record of survey, if any exists.
√	√	14)	Preliminary grading, drainage plan, and report. The plan should be of sufficient detail to identify the scope of grading, including quantities, depths of cut and fills (for roads and driveways where cuts/fills exceed 6 feet, and mass pad graded lots), location of existing drainage, proposed modifications, and impacts to downstream facilities. (See Section 110.14.240 of County Grading Ordinance for submittal detail)
√	√	15)	If located within one of the five Ecological Preserve - EP overlay zones (Mitigation Area 0), rare plants may exist on-site. The State Department of Fish & Wildlife will require an on-site biological plant survey to determine the extent and location of rare plants on the project site. Such a survey can only occur from March 15 through August 15 when plants are readily visible. Therefore, if the State Department of Fish & Wildlife requires the plant survey, a substantial delay in the processing of your application could result. To avoid potential delays, you may choose to provide this survey with application submittal. (A list of possible Botanical Consultants is available at Planning Services.)
N/A	N/A	16)	Name and address of Homeowner's Association, CSA 9 Zone of Benefit, or other road maintenance entity if it exists in the project area.
√	√	17)	A site-specific wetland investigation shall be required on projects with identified wetlands as delineated on the applicable U.S.G.S. Quadrangle and/or by site visit, when proposed improvements will directly impact the wetland (reduce the size of the wetland area) or lie near the wetlands. (Available from Planning Services are the U.S. Corps of Engineers requirements for a wetlands delineation study. A list of qualified consultants is also available.)

N/A N/K 18) An acoustical analysis shall be provided whenever a noise-sensitive land use (residences, hospitals, churches, libraries) are proposed adjacent to a major transportation source, or adjacent or near existing stationary noise sources. Such study shall define the existing and projected noise levels and define how the project will comply with standards set forth in the General Plan.

✓ ✓ 19) Where potential for special status plant and/or animal habitats are identified on the parcel(s), an on-site biological study shall be required to determine if the site contains special status plant or animal species or natural communities and habitats.

✓ ____ 20) An air quality impact analysis shall be provided utilizing the El Dorado County Air Pollution Control District's "Guide to Air Quality Assessment."

Email project Info to AQMD@EDCGOV.us

OAK TREE/OAK WOODLAND REMOVAL

The following supplemental information shall be required if any Oak Woodlands, Individual Native Oak Trees, or Heritage Trees, as defined in Section 130.39.030 (Definitions) will be impacted by the project (i.e. cut down) consistent with Section 130.39.070 (Oak Tree and Oak Woodland Removal Permits – Discretionary Development Projects).

Check (√) Applicant	County		
N/A	____	1)	Oak Resources Code Compliance Certificate.
____	____	2)	Oak Resources Technical Report prepared by a Qualified Professional consistent with Section 2.5 (Oak Resources Technical Reports) of the Oak Resources Management Plan.
____	____	3)	Completed Oak Resources Technical Report Checklist, including supplemental data for impacted Individual Native Oak Trees within Oak Woodlands, as applicable.
____	____	4)	Security deposit for on-site oak tree/oak woodland retention and/or replacement planting (if proposed as part of project mitigation) consistent with Section 130.39.070.F (Security Deposit for On-Site Oak Tree/Oak Woodland Retention and Section 130.30.070.G (Security Deposit for On-Site Oak Tree/Oak Woodland Replacement Planting).
____	____	5)	Reason and objective for impact to oak trees and/or oak woodlands.

SITE PLAN REQUIREMENTS

Five (5) copies plus an electronic copy (CD-ROM or other medium) of the site plan detailing what exists on the site at time of application shall be submitted on 24'" x 36" sheets or smaller, drawn to scale, and of sufficient size to clearly show all details and required data. **All plans MUST be folded to 8½" x 11", plus one 8½" x 11" reduction. NO ROLLED DRAWINGS WILL BE ACCEPTED.**

For your convenience, please check the Applicant column on the left to be sure you have all the required submittal information.

Check (√) Applicant	County		
✓	✓	1)	Project name (if applicable).
✓	✓	2)	Name, address of applicant and designer (if applicable).

✓ ✓ 3) Date, north arrow, and scale.

✓ ✓ 4) Entire parcel of land showing perimeter with dimensions.

✓ ___ 5) All roads, alleys, streets, and their names.

✓ ___ 6) Location of easements, their purpose and width.

✓ ___ 7) All existing and proposed uses (i.e. buildings, driveways, dwellings, utility transmission lines, etc.).

✓ ___ 8) Parking and loading stalls with dimensions (refer to Zoning Ordinance Chapter 130.35 and the Community Design Standards-Parking and Loading Standards).

✓ ___ 9) Trash and litter storage or collection areas, and propane tank location(s).

✓ ___ 10) Total gross square footage of proposed buildings.

✓ ___ 11) Proposed/existing fences or walls.

✓ ___ 12) Sign locations and sizes (if proposed) (refer to Zoning Ordinance Chapter 130.16).

✓ ___ 13) Pedestrian walkways, courtyards, etc. (if proposed).

✓ ___ 14) Exterior lighting plan (if proposed), along with a Photometric Study and fixture specifications (refer to Zoning Ordinance Chapter 130.34 and the Community Design Standards-Outdoor Lighting Standards) .

✓ ___ 15) Existing/proposed water, sewer, septic systems, and wells (if applicable).

✓ ___ 16) Existing/proposed fire hydrants.

✓ ___ 17) Tentative subdivision or parcel map (if applicable).

✓ ___ 18) Public uses (schools, parks, etc.)

✓ ___ 19) The location, if present, of rock outcropping, lava caps, drainage courses, lakes, canals, reservoirs, rivers, streams, spring areas subject to inundation and wetlands. (Show respective 100-foot and 50-foot septic system setbacks when a septic system is proposed).

✓ ___ 20) Identify areas subject to a 100-year flood on perennial streams or creeks, and show high water level (100-year) on map. Where this data is not readily available, January 1997 flood level can be shown if known. (Refer to the Federal Emergency Management Agency (FEMA) website).

✓ ___ 21) Note any proposed trails within the project; and where applicable, connection to existing or proposed trail systems.

PRELIMINARY LANDSCAPE PLAN REQUIREMENTS

Required when parking facilities are proposed or otherwise at planner's discretion. (Refer to Zoning Ordinance Chapter 130.33 and the Community Design Standards – Landscaping and Irrigation Standards).
(Five (5) copies plus an electronic copy (CD-ROM or other medium), **folded to 8½" x 11", plus one 11" x 17" reduction).**

Check (√) Applicant	County		
N/A	____	1)	Location, quantity, and a gallon size of proposed plant material (See Zoning Ordinance Chapter 130.33 and the Community Design Standards – Landscaping and Irrigation Standards).
____	____	2)	Note quantity/type of trees to be removed.
____	____	3)	Location, general type (pine, oak, etc.) and size of all existing trees, in those areas that are subject to grading or otherwise may be removed/affected by proposed improvements. Note quantity of trees to be removed.
____	____	4)	List of both common and botanical names of plant material (use of drought tolerant species is highly recommended). A recommended list of drought-tolerant species is available at Planning Services.
____	____	5)	Location of irrigation proposed. (NOTE: The final Landscape Plan will ultimately be required to meet the County's Water Conserving Landscape Standards. Copies are available at Planning Services).

PRELIMINARY GRADING AND DRAINAGE PLAN

Required whenever any grading is proposed.
(Five (5) copies plus an electronic copy (CD-ROM or other medium), **folded to 8½" x 11", plus one 8.5" x 11" reduction).**

Check (√) Applicant	County		
√	____	1)	Contours or slope data (pursuant to Chapter 110.14 of County Code Grading, Erosion, and Sediment Control Ordinance).
√	____	2)	Drainage improvements, culverts, drains, etc.
	____	3)	Limits of cut and fill.____

PLAN OF BUILDING ELEVATIONS

Required whenever a new structure or addition is proposed.
(Five (5) copies plus an electronic copy (CD-ROM or other medium), **folded to 8½" x 11", plus one 8.5" x 11" reduction).**

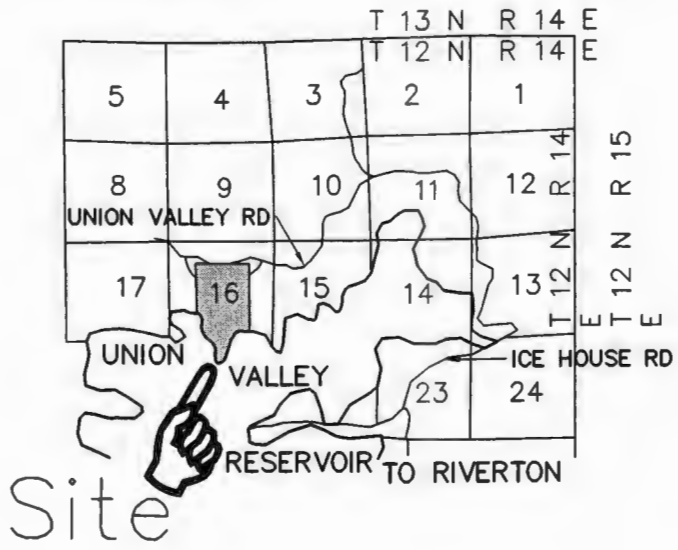
Check (√) Applicant	County		
√	____	1)	Building design, elevations of all sides.
√	____	2)	Exterior materials, finishes, and colors.
√	____	3)	Existing/proposed signs showing location, height and dimensions. Include sign plan for project with multiple businesses.

Planning Services reserves the right to require additional project information as provided by Section 15060 of the California Environment Quality Act, or as required by the General Plan development policies, when such is necessary to complete the environmental assessment.

NOTE: APPLICATION WILL BE ACCEPTED BY APPOINTMENT ONLY. MAKE YOUR APPOINTMENT IN ADVANCE BY CALLING (530) 621-5355.

VICINITY MAP

N.T.S.

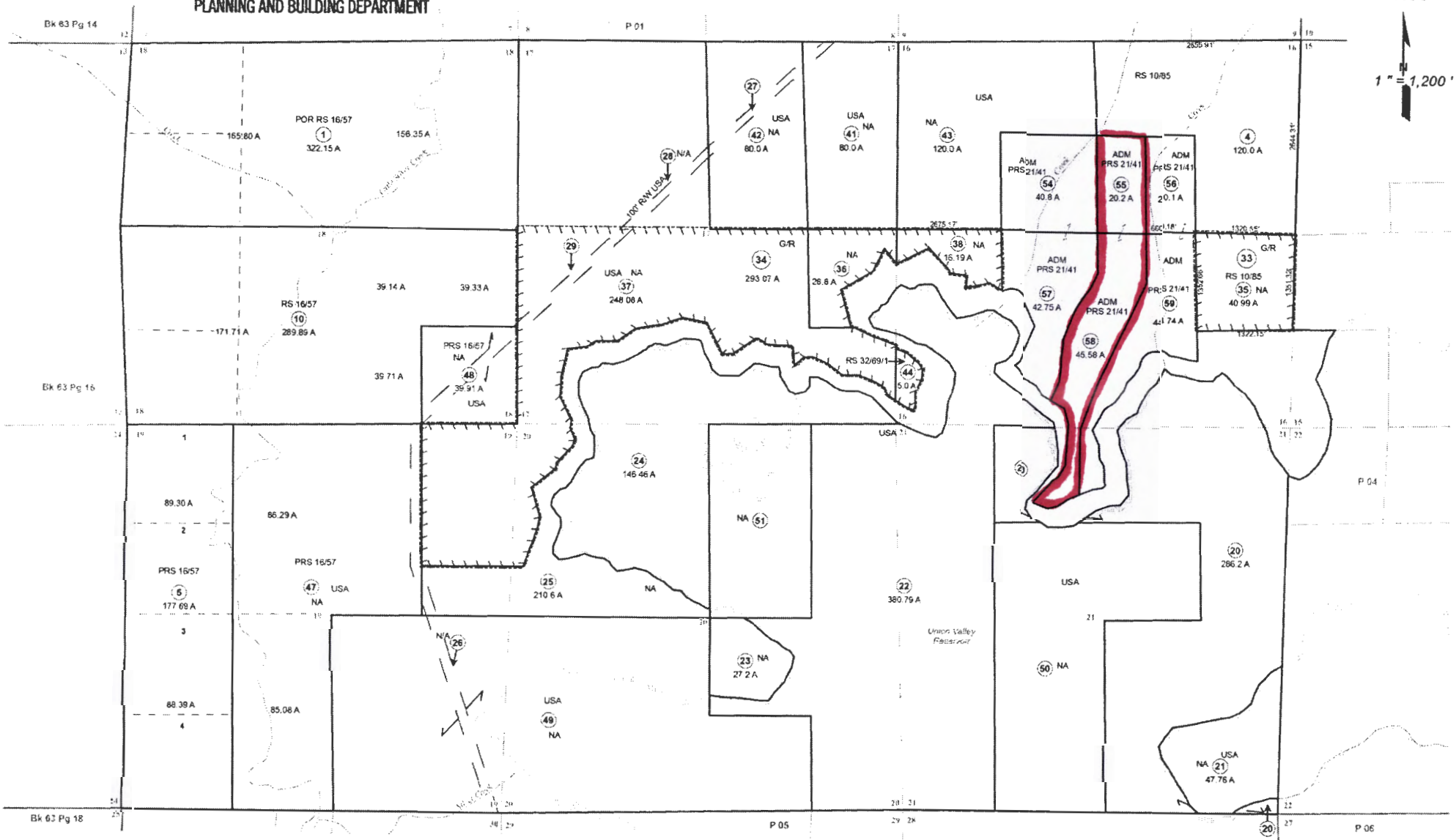


CUP24-0011

SECS. 16 THRU 21, T.12N, R.14E, M.D.M.

11:03

1 " = 1,200 '



THIS MAP IS NOT A SURVEY. It is prepared by the El Dorado Co. Assessor's office for assessment purposes only. Area calculations and characteristics are not guaranteed. Users should verify items such as dimensions and acreage.

Acreages Are Estimates

Adjacent Map Pages Shown in Grey Text
Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles

REV. SEP 4, 2015

Assessor's Map Bk. 011, Pg. 03
County of El Dorado, CA

CUP24-0011

DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PLANNING

2850 Fairlane Court, Placerville, CA 95667
Phone (530) 621-7580

Transportation Impact Study (TIS) – Initial Determination

The information provided with this form will be used by County staff to determine if the proposed project will be required to complete a Transportation Impact Study (TIS) or an On-Site Transportation Review (OSTR). If one or both are required, County staff will contact the applicant with more information about the required studies. Both studies are described in the TIS Guidelines, which can be found on the County's website. ***An OSTR is typically required for all projects.***

Complete and submit this form along with a detailed project description and a site plan by mail, fax or email.

Mail: DOT, Transportation Planning
Attn: Zach Oates
2850 Fairlane Court
Placerville, CA 95667

Phone: (530) 621-7580
Email: zach.oates@edcgov.us
valerie.brady@edcgov.us

Date Received by Transportation Planning: 8-20-24

Applicant Information:

Name: Nathaniel Willson
Phone #: 530-626-4300
Address: 3080 Cedar Ravine, Placerville, CA 95667
Email: nathaniel@willson.legal

Project Information:

Name of Project: Kuhl CUP
Planning Number:
Project Location: 1 Bullard PL, Pollock Pines, CA 95726
Bldg Size: 2538
APN(s): 011-030-055 and 058
Project Planner:
Number of units: One

Description of Project: (Use, Number of Units, Building Size, etc.)

Conditional use permit to place a single family residence on Timber Preserve Zoning.

PLEASE ATTACH A PROJECT SITE PLAN

If an OSTR is required, the following information shall be evaluated and the findings signed and stamped by a registered Traffic Engineer or Civil Engineer, and shall be included with the project submittal:

1. Existence of any current traffic problems in the local area such as a high-accident location, non-standard intersection or roadway, or an intersection in need of a traffic signal
2. Proximity of proposed site driveway(s) to other driveways or intersections
3. Adequacy of vehicle parking relative to both the anticipated demand and zoning code requirements
4. Adequacy of the project site design to fully satisfy truck circulation and loading demand on-site, when the anticipated number of deliveries and service calls may exceed 10 per day
5. Adequacy of the project site design to provide at least a 25 foot minimum required throat depth (MRTD) at project driveways, include calculation of the MRTD
6. Adequacy of the project site design to convey all vehicle types
7. Adequacy of sight distance on-site
8. Queuing analysis of "drive-through" facilities

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT

2850 Fairlane Court, Placerville, CA 95667
Phone: (530) 621-5355 www.edcgov.us/Planning/

EL DORADO COUNTY PLANNING SERVICES
ENVIRONMENTAL QUESTIONNAIRE

RECEIVED
SEP - 9 2024
EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

File Number _____
Date Filed _____

Project Title: KUHL Conditional Use Permit — Lead Agency: _____
Name of Owner: Michael Kuhl — Telephone: 415-233-1230
Address: 155 Ridgewood Drive, San Rafael, CA 94901
Name of Applicant: Nathaniel Willson — Telephone: 530-626-4300
Address: 3080 Cedar Ravine, Placerville, CA 95667
Project Location: 1 Bullard Place, Pollock Pines, CA 95726

Assessor's Parcel Number(s) 011-030-055 & 058 Acreage 65.78 Zoning TPZ

Please answer all of the following questions as completely as possible. Subdivisions and other major projects will require a Technical Supplement to be filed together with this form.

1. Type of project and description:
   Conditional use permit to place a house on Timber Preserve Zoned property.

2. What is the number of units/parcels proposed? One

GEOLOGY AND SOILS

3. Identify the percentage of land in the following slope categories:

☐ 0 to 10%	☐ 11 to 15%	☐ 16 to 20%	☐ 21 to 29%	☐ over 30%
31.34%	22.47 %	18.74%	20.18%	7.27%

4. Have you observed any building or soil settlement, landslides, rock falls or avalanches on this property or in the nearby surrounding area? no

5. Could the project affect any existing agriculture uses or result in the loss of agricultural land? no

CUP24-0011

DRAINAGE AND HYDROLOGY

6. Is the project located within the flood plain of any stream or river? no
   If so, which one? _____
7. What is the distance to the nearest body of water, river, stream or year-round drainage channel? 1/4 Mile Name of the water body? Union Valley Reservoir
8. Will the project result in the direct or indirect discharge of silt or any other particles in noticeable amount into any lakes, rivers or streams? no
9. Will the project result in the physical alteration of a natural body of water or drainage way? If so, in what way? no
10. Does the project area contain any wet meadows, marshes or other perennially wet areas? no

VEGETATION AND WILDLIFE

11. What is the predominant vegetative cover on the site (trees, brush, grass, etc.)? Estimate percentage of each:
    Sierra Mixed Conifer 90% and Wet Meadow 10%
12. How many trees of 6-inch diameter will be removed when this project is implemented? 10

FIRE PROTECTION

13. In what structural fire protection district (if any) is the project located? El Dorado County
14. What is the nearest emergency source of water for fire protection purposes (hydrant, pond, etc.)? Union Valley Reservoir 1/4 Mile away.
15. What is the distance to the nearest fire station? 26.7 Miles
16. Will the project create any dead-end roads greater than 500 feet in length? No
17. Will the project involve the burning of any material including brush, trees and construction materials? No

NOISE QUALITY

18. Is the project near an industrial area, freeway, major highway or airport? No
    If so, how far? _____
19. What types of noise would be created by the establishment of this land use, both during and after construction? No

AIR QUALITY

20. Would any noticeable amounts of air pollution, such as smoke, dust or odors, be produced by this project? No

WATER QUALITY

21. Is the proposed water source ☐ public or ☒ private, ☐ treated or ☐ untreated?

22. What is the water use (residential, agricultural, industrial or commercial)? Residential

AESTHETICS

23. Will the project obstruct scenic views from existing residential areas, public lands, and/or public bodies of water or roads? No

ARCHAEOLOGY/HISTORY

24. Do you know of any archaeological or historical areas within the boundaries or adjacent to the project? (e.g., Indian burial grounds, gold mines, etc.) Yes see Archeological Report

SEWAGE

25. What is the proposed method of sewage disposal? ☒ septic system ☐ sanitation district
Name of district:

26. Would the project require a change in sewage disposal methods from those currently used in the vicinity? No

TRANSPORTATION

27. Will the project create any traffic problems or change any existing roads, highways or existing traffic patterns? No

28. Will the project reduce or restrict access to public lands, parks or any public facilities?
No

GROWTH-INDUCING IMPACTS

29. Will the project result in the introduction of activities not currently found within the community?
No

30. Would the project serve to encourage development of presently undeveloped areas, or increases in development intensity of already developed areas (include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?
No

31. Will the project require the extension of existing public utility lines? No
If so, identify and give distances: _____

GENERAL

32. Does the project involve lands currently protected under the Williamson Act or an Open Space Agreement? No

33. Will the project involve the application, use or disposal of potentially hazardous materials, including pesticides, herbicides, other toxic substances or radioactive material?

No

34. Will the proposed project result in the removal of a natural resource for commercial purposes (including rock, sand, gravel, trees, minerals or top soil)? No

35. Could the project create new, or aggravate existing health problems (including, but not limited to, flies, mosquitoes, rodents and other disease vectors)? No

36. Will the project displace any community residents? No

DISCUSS ANY YES ANSWERS TO THE PREVIOUS QUESTIONS (attached additional sheets if necessary)

MITIGATION MEASURES (attached additional sheets if necessary)

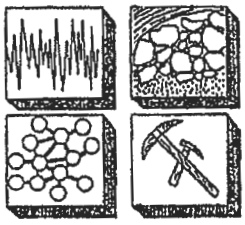
Proposed mitigation measures for any of the above questions where there will be an adverse impact:

Form Completed by: Nathaniel Willson Date: August 30, 2024

WHEELDON GEOLOGY

Consulting Geologists

7700 BAYNE ROAD • PLACERVILLE • CALIFORNIA • 95667
530-621-4482 • wheeldongeology@gmail.com



William T. Mitchell II
Professional Geologist #5445

REPORT OF PERCOLATION TEST

for

Michael Kuhl

APN: 011-030-058-000

SEP - 9 2024

EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

DIRECTIONS TO PROPERTY

HWY 50 EAST, NORTH ON ICE HOUSE RD, LEFT ON NF-31 TOWARD YELLOW JACKET CMPGD, CONTINUE ONTO 12N78 THEN ONTO 12N52 LEFT THROUGH GATE TO SITE

TEST DATE 10/31/2023 WEATHER CLEAR WARM

NUMBER OF HOLES TESTED 4

Test Holes shown on Location Map

Test Hole	Depth (ft.)	Stabilized Percolation Rate
1	2.0	5
2	1.5	13
3	3.5	7
4	5.0	7

Soil Profile from Backhoe Trench: 10/31/23

0 - 6.5 FT LIGHT BROWN SANY SOIL
6.5 - 9.0 FT YEL BROWN D.G. SOIL
9.0 - 10.5 FT YEL BROWN COBBLY SANDY SOIL
ON STR OX, STR WEATHERED DECOMPOSED GRANODIORITE
ROOTS OBSERVED TO 6 FT

REQUIRED BACKHOE TEST TRENCH ALSO INSPECTED BY COUNTY - YES

Average Percolation Rate 8 **Minutes per Inch**

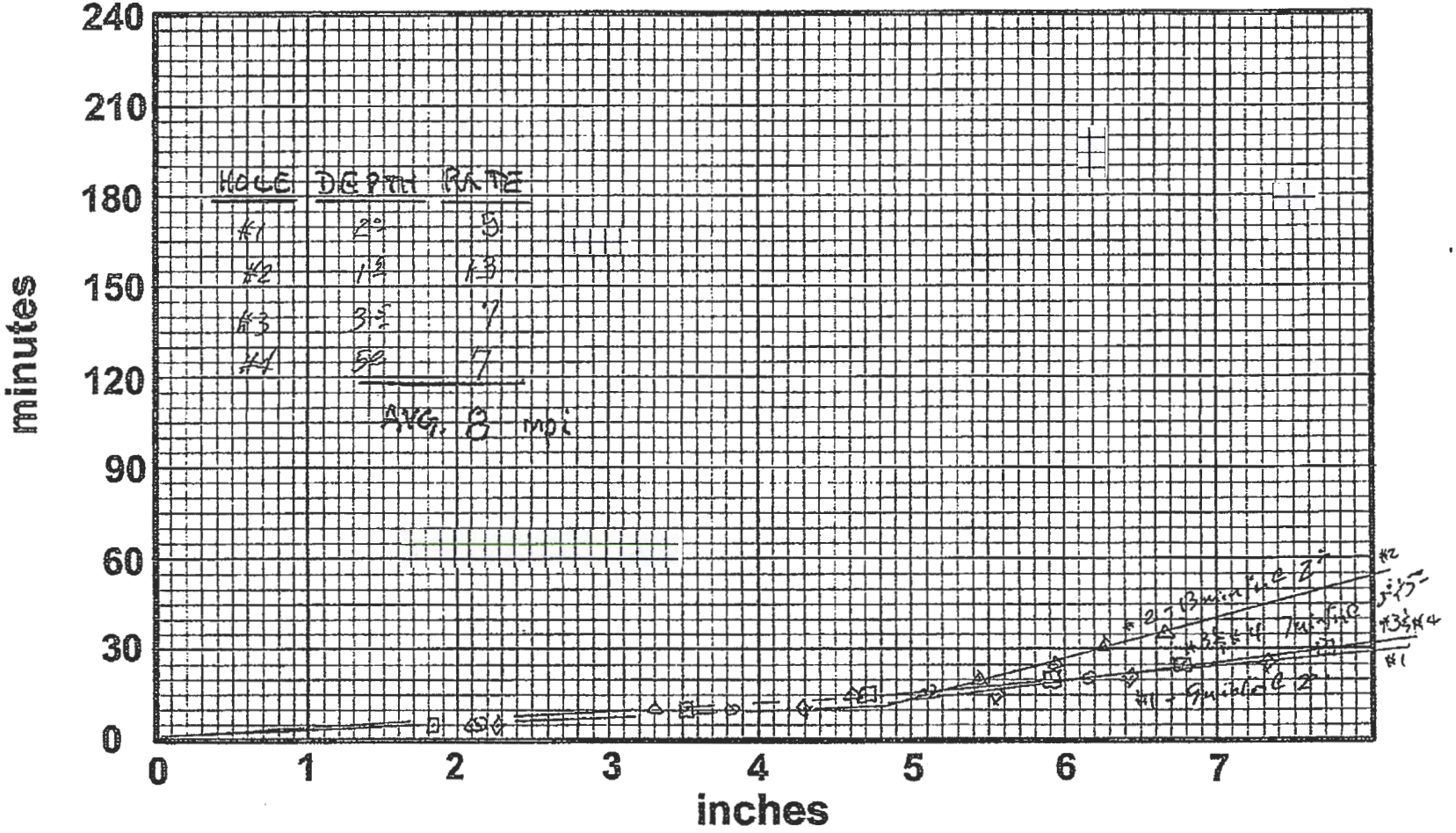
TEST MADE BY WHEELDON GEOLOGY JOB NUMBER - 23-83

WHEELDON GEOLOGY
Consulting Geologists
7700 BAYNE ROAD • PLACERVILLE • CALIFORNIA • 95667
530-621-4482 • WHEELDONGEOLOGY.COM

JOB MICHAEL KUHL JOB NO 23-83
APN 011-030-058-000
CALCULATED BY WTM DATE 11-1-23
CHECKED BY _____ DATE _____

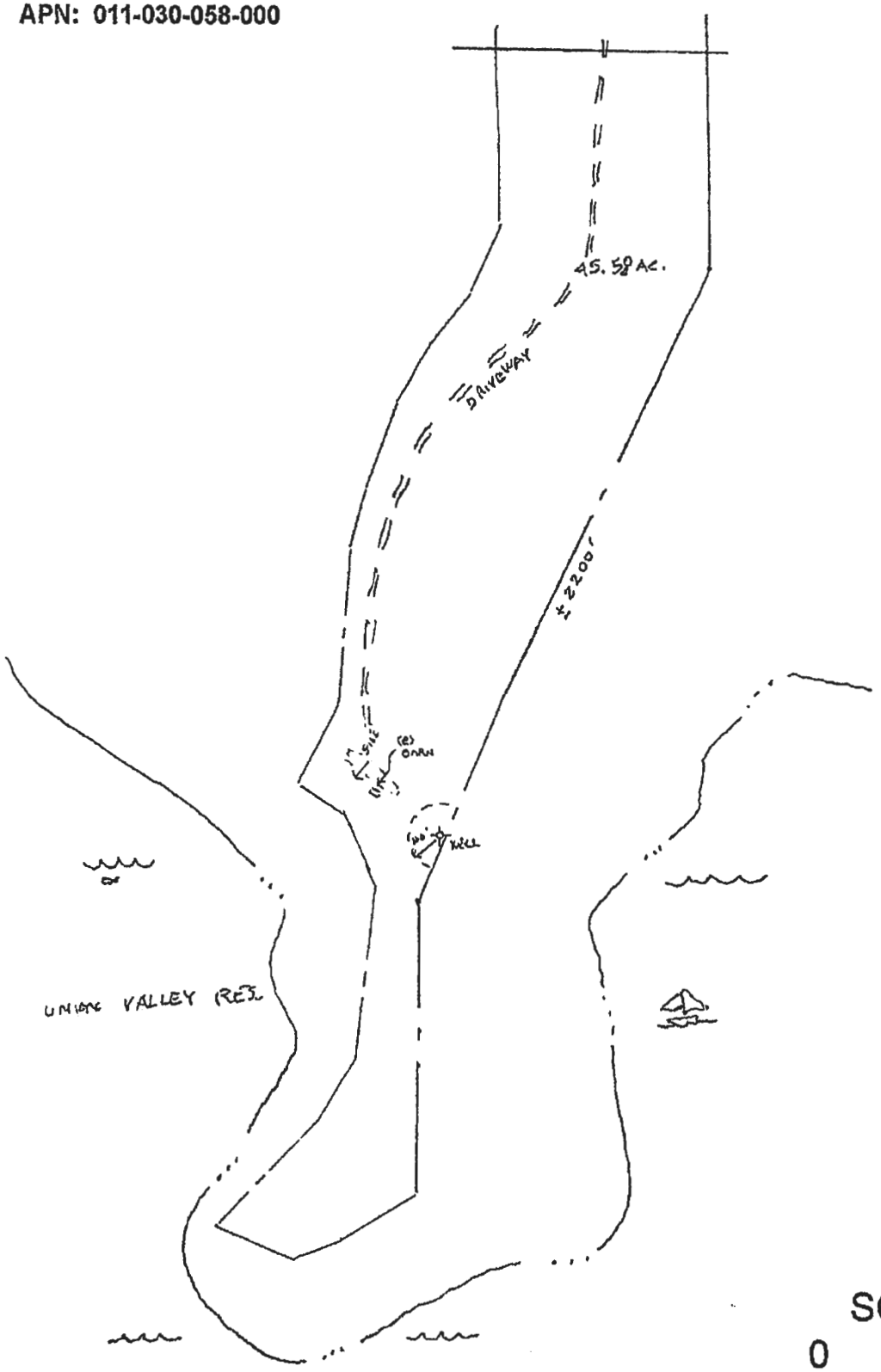
AVERAGE PERCOLATION RATE 8 **minutes / inch**

PERCOLATION TEST DATA PLOT



rev: 9/20, Form 4

SKETCH MAP
PERCOLATON TEST & TRENCH LOCATION
APN: 011-030-058-000



WHEELDON GEOLOGY
Consulting Geologists
7700 BAYNE ROAD • PLACERVILLE • CALIFORNIA • 95667
530-621-4482 • wheeldongeology.com

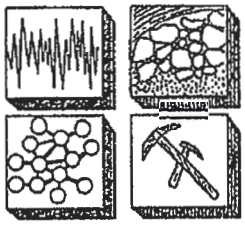
SITE MAP
MICHAEL KUHL
N. SHORE UNION VLY RES

APN 011-030-058-000
SCALE 1" = 500' JOB NO. 23-83
DRAWN BY WTM II DATE 11-2-23
CHECKED BY _____ DATE _____

WHEELDON GEOLOGY

Consulting Geologists

7700 BAYNE ROAD • PLACERVILLE • CALIFORNIA • 95667
530-621-4482 • wheeldongeology@gmail.com



William T. Mitchell II
Professional Geologist #5445

SPECIAL DESIGN
SEPTIC SYSTEM DESIGN CALCULATIONS
APN: 011-030-058-000

NAME: Michael Kuhl

LOCATION: North Shore Union Valley Res.; APN: 011-030-058-000

1. Percolation Rate = 8 Minutes per inch

2. Application Rate = 1.768 Gallons/sq.ft./day

3. Flow Rate = ~220 Gal./bedrm/day 5 bedrooms = 950 Gal./day

4. Absorption Area = 537 sq. ft.

5. Deep Trench Calculations = 2(W+L) (H-1.5)

TOTAL LENGTH: 60 ft. of 1.5 ft. wide x 5.5 ft. deep trench Ezflow

SOIL DEPTH AND NO GROUNDWATER OK TO... 10.5 ft
BACKHOE TEST TRENCH INSPECTED: 10/31/23
INSPECTED BY EL DORADO COUNTY ENVIRONMENTAL HEALTH DEPT. YES

N.B. Follow instructions for Ezflow system carefully.
See Detail Pages.

JOB NUMBER - 23-83

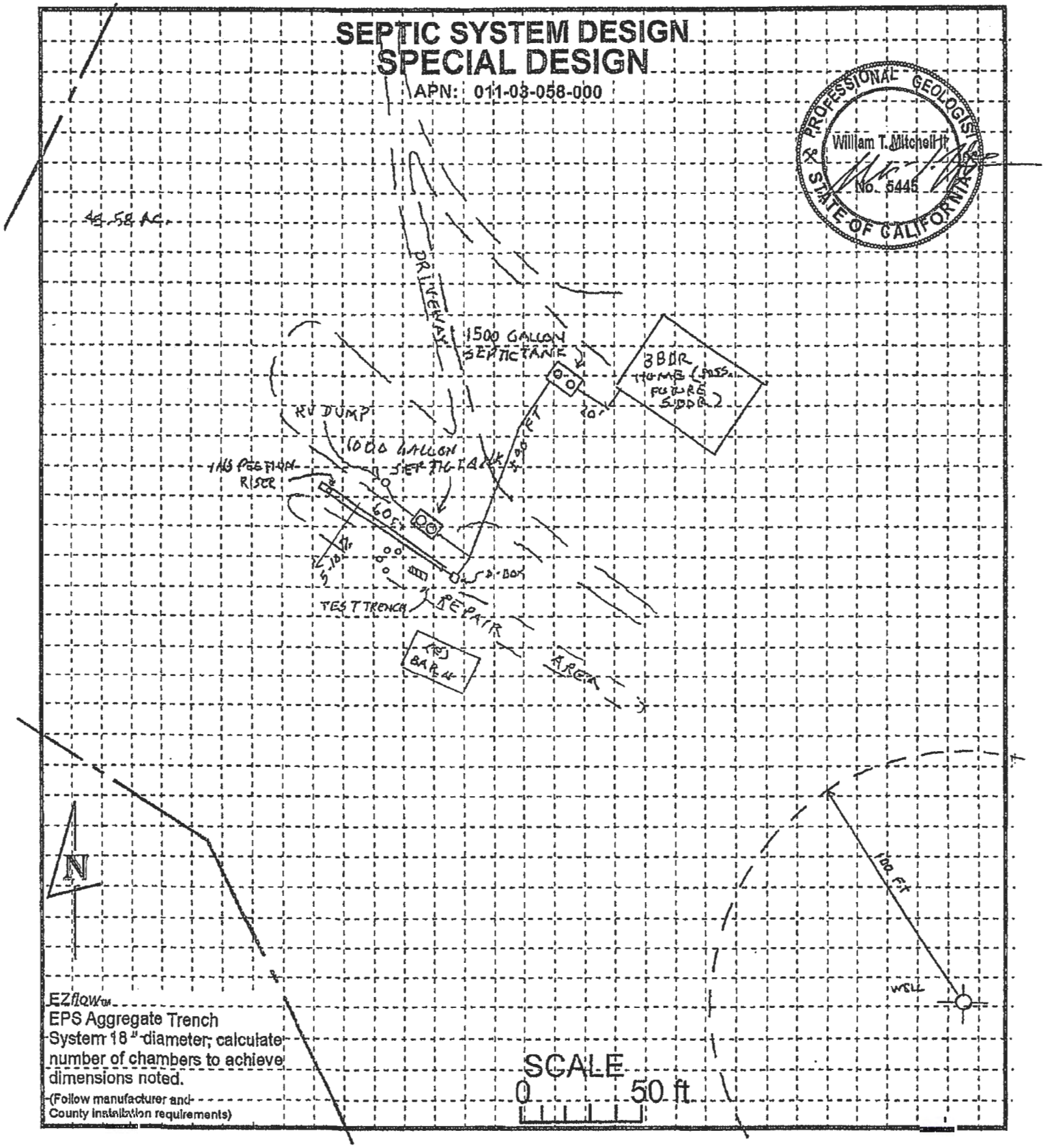
WHEELDON GEOLOGY
Geological Consultants
7700 Bayne Road
PLACERVILLE, CA 95667
(530) 621 - 4482

JOB Michael Kuhl JOB NO. 23-83
APN 011-030-058-000 SHEET NO. ___ OF ___
DRAWN BY WTM DATE 11-3-23
CHECKED BY ___ DATE ___
SCALE 1" = 50'

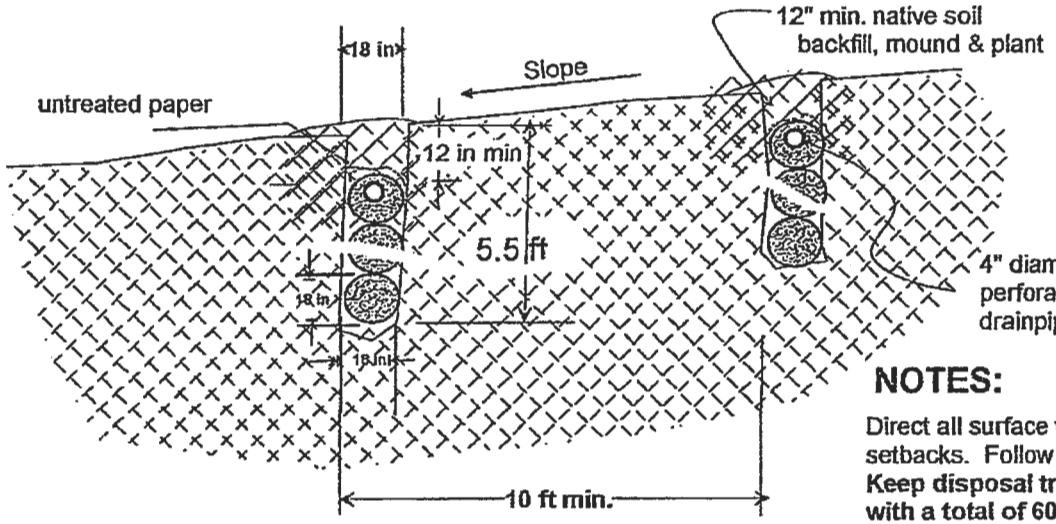
SEPTIC SYSTEM DESIGN
SPECIAL DESIGN

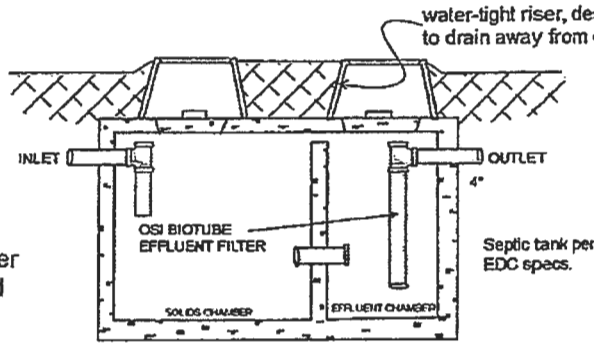
APN: 011-03-058-000

PROFESSIONAL GEOLOGIST
William T. Mitchell II
No. 5445
STATE OF CALIFORNIA



EZflow™
EPS Aggregate Trench
System 18" diameter; calculate number of chambers to achieve dimensions noted.
(Follow manufacturer and County installation requirements)





SEPTIC TANK 1500 GAL. for 3 BDR house
(WITH POSSIBLE FUTURE BUILDOUT TO 5 BDR)

NOTES:

Direct all surface water away from system. Layout system carefully and check all setbacks. Follow EZ- Flow installation instructions.

Keep disposal trench level. Adjust length of individual lines to fit, with a total of 60 linear feet. Add a 1000 gallon septic tank above leachline to ad temporary RV dump waste before loading into leach field.

Add a total of **60** linear feet of 18 in wide by **5.5** feet deep trench. For 100% repair. In fresh soil area.

Trenches are to be excavated along contour, spaced at least 10 ft on centers

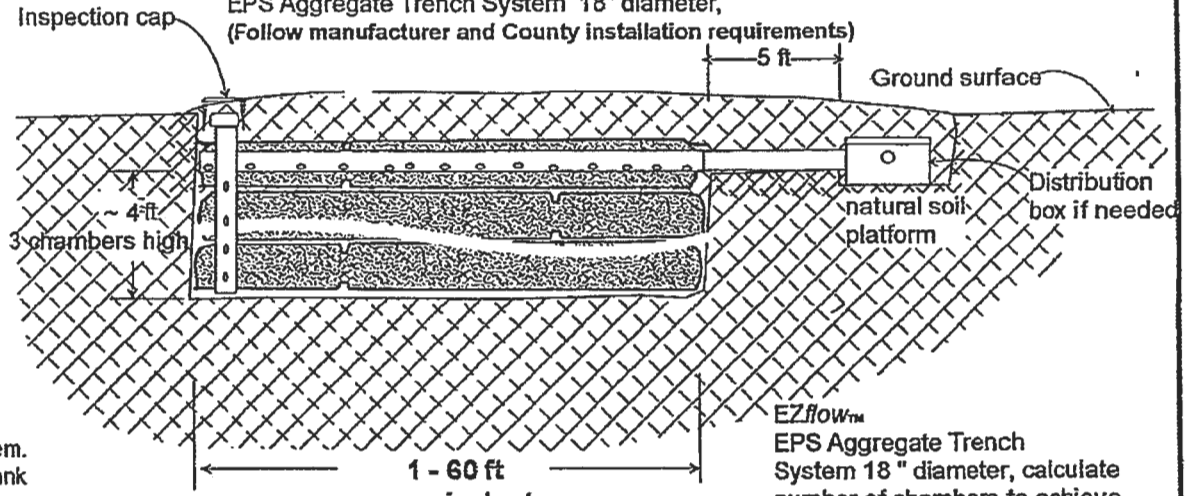
Leach lines to be constructed of approved perforated pipe. Prior to placing filter material, rake all smeared or compacted surfaces. use 18" diameter EZ*flow*™ EPS Aggregate Trench System as approved. Cover filter material with non treated building paper. Place backfill only after inspection and acceptance. Install distribution boxes to allow serial distribution to leach lines.

Tightline under driveways will be, Schedule 40 ABS pipe with at least 1 ft natural soil cover and 1/8 in/ft of slope. Tightline must have a cleanout every 100 ft on runs longer than 100 ft. Do not park or drive over system. No grading, cuts or fills allowed in disposal area. Septic tank needs to be brought to grade, risers with appropriate water tight gaskets. A filter must be fitted on effluent side of septic tank, (OSI biotube effluent filter or equivelent). Deviation from this plan will render this design invalid.

EZ*flow*™ ***Adjust layout to fit design dimensons***

EPS Aggregate Trench System 18" diameter,

(Follow manufacturer and County installation requirements)



EZ*flow*™
EPS Aggregate Trench System 18 " diameter, calculate number of chambers to achieve dimensions noted.
(Follow manufacturer and County installation requirements)

SPECIAL DESIGNS REQUIRE OPEN PIT INSPECTION BY DESIGNER

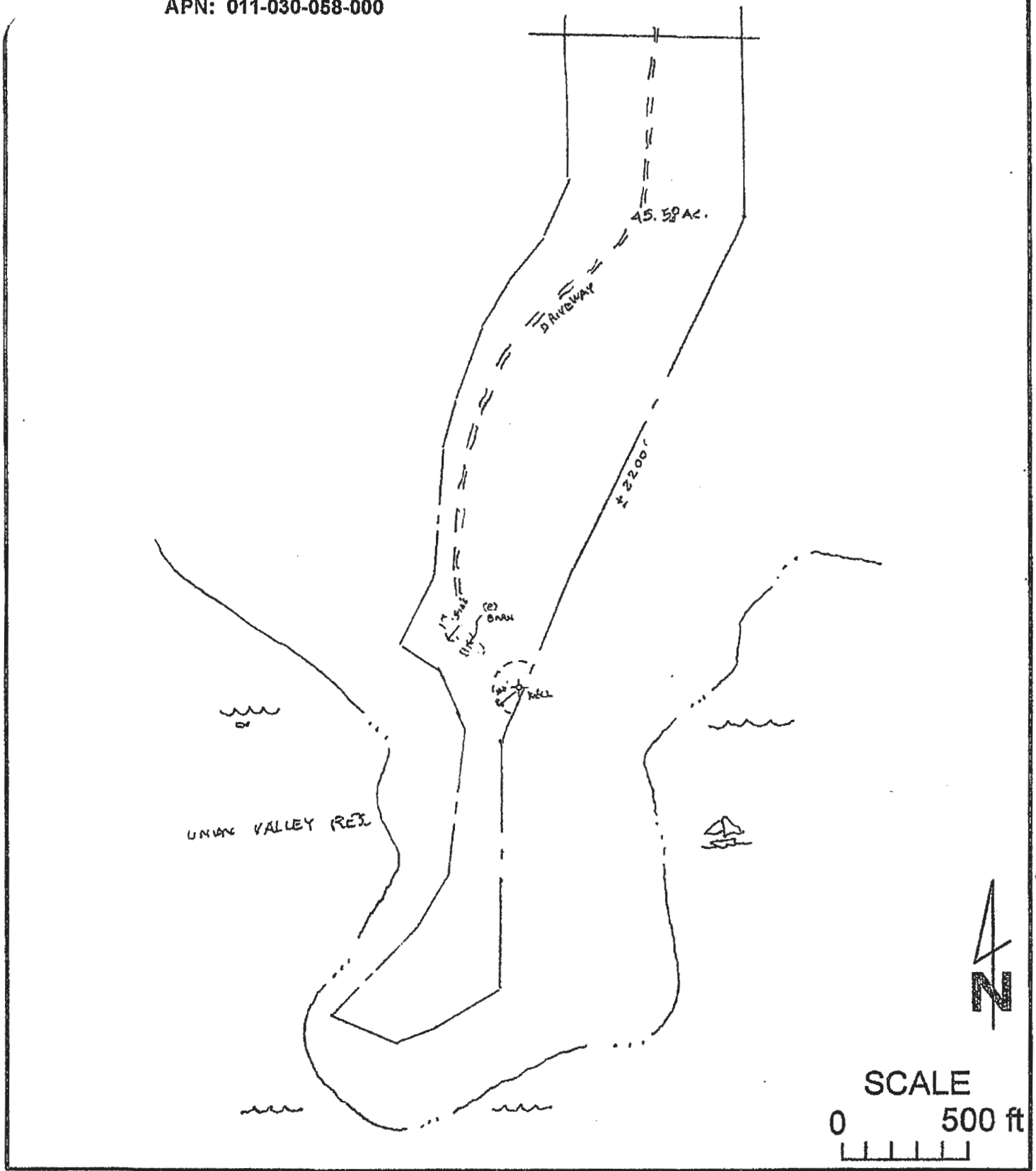
WHEELDON GEOLOGY
Consulting Geologists
7700 BAYNE ROAD • PLACERVILLE • CALIFORNIA • 95667
530-621-4482 • WHEELDONGEOLOGY.COM

SEPTIC SYSTEM DETAIL *typical*

MICHAEL KUHL
N. SHORE UNION VALLEY RESERVOIR
OFF YELLOW JACKET CAMPGROUND RD

APN 011-030-058-000
SCALE nts JOB NO. 23-83
DRAWN BY WTM II DATE 11-2-23
REVISED BY _____ DATE _____

SKETCH MAP
PERCOLATON TEST & TRENCH LOCATION
APN: 011-030-058-000



WHEELDON GEOLOGY
Consulting Geologists
7700 BAYNE ROAD • PLACERVILLE • CALIFORNIA • 95667
530-621-4462 • wheeldongeology.com

SITE MAP
MICHAEL KUHL
N. SHORE UNION VLY RES

APN 011-030-058-000
SCALE 1" = 500' JOB NO. 23-83
DRAWN BY WTM II DATE 11-2-23
CHECKED BY _____ DATE _____

WHEELDON GEOLOGY
Geological Consultants
7700 Bayne Road
PLACERVILLE, CA 95667
(630) 621 - 4482

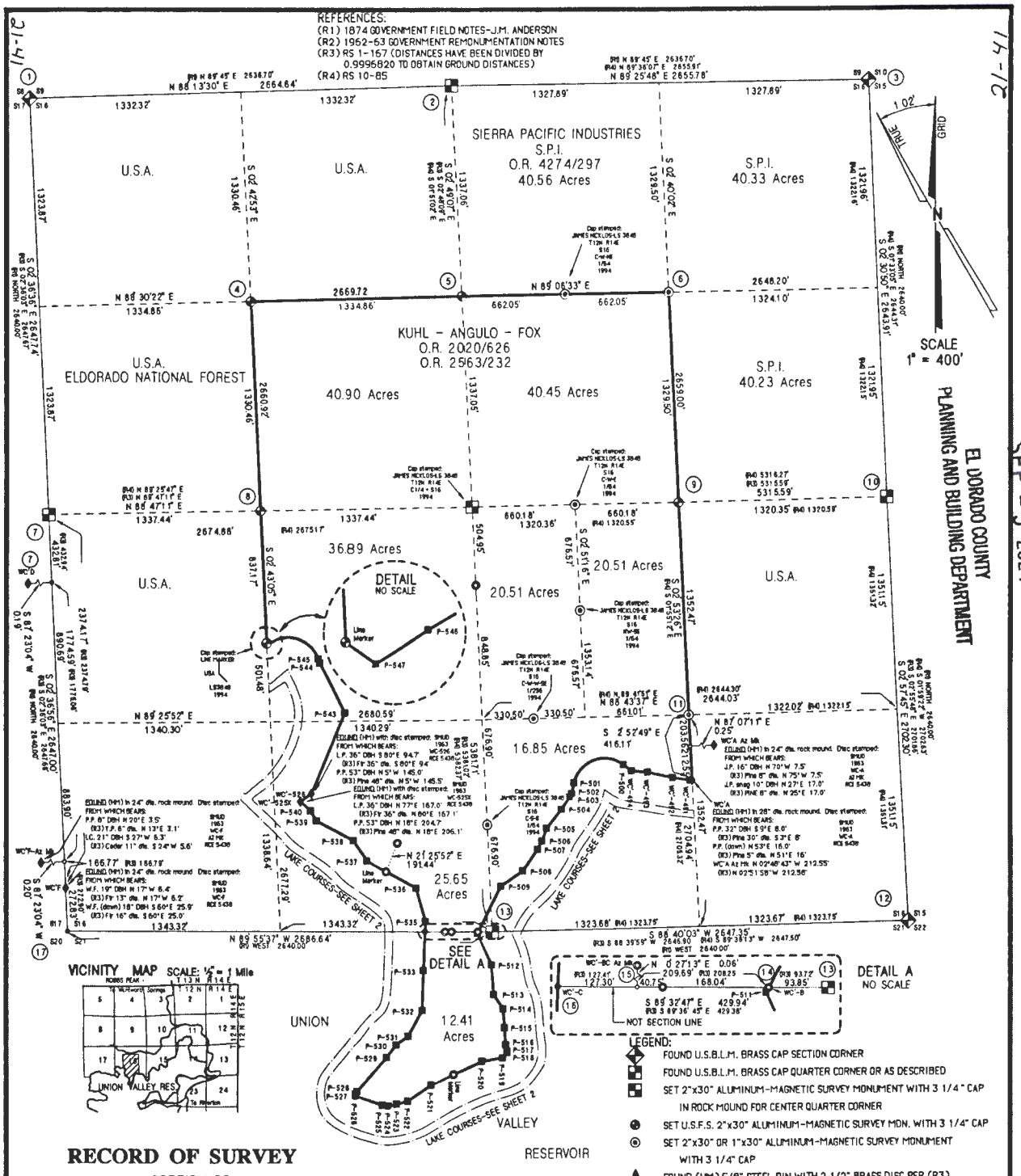
JOB Michael Kuhl JOB NO. 23-83
APN 011-030-058-000 SHEET NO. ____ OF ____
DRAWN BY WTM DATE 11-3-23
CHECKED BY ____ DATE ____
SCALE 1" = 50'

SEPTIC SYSTEM DESIGN
SPECIAL DESIGN

APN: 011-03-058-000

EZflow
EPS Aggregate Trench System 18" diameter; calculate number of chambers to achieve dimensions noted.
(Follow manufacturer and County installation requirements)

SCALE
0 50 ft



RECORD OF SURVEY

PORTION OF

Sections 16 and 21, T 12 N, R 14 E, MDM

COUNTY OF EL DORADO, CALIFORNIA

JAMES NICKLOS (LS 3848) & ASSOCIATES

OCTOBER 1994

BASIS OF BEARINGS:
THE MERIDIAN OF THIS SURVEY IS LAMBERT GRID ZONE 2 DETERMINED FROM RS 1-167 (R3) ALONG EAST-WEST CENTERLINE SECTION 16. SEE NOTE SHEET 2.

LEGEND:

- FOUND U.S.B.L.M. BRASS CAP SECTION CORNER
- FOUND U.S.B.L.M. BRASS CAP QUARTER CORNER OR AS DESCRIBED
- SET 2"x30" ALUMINUM-MAGNETIC SURVEY MONUMENT WITH 3 1/4" CAP IN ROCK MOUND FOR CENTER QUARTER CORNER
- SET U.S.F.S. 2"x30" ALUMINUM-MAGNETIC SURVEY MON. WITH 3 1/4" CAP
- SET 2"x30" OR 1"x30" ALUMINUM-MAGNETIC SURVEY MONUMENT WITH 3 1/4" CAP
- FOUND (HM) 5/8" STEEL PIN WITH 2 1/2" BRASS DISC PER (R3)
- SET 3/4" x 18" C.I.P. OR 1"x30" ALUMINUM PISTON MONUMENT (HEIGHT NO NUMBER) WITH 1 1/4" ALUMINUM-MAGNETIC CAP STAMPED: LS 3848 1994
- SET 1" I.P. WITH 1 1/2" BRASS CAP STAMPED LS 3848 1994
- FOUND MONUMENT AS DESCRIBED
- CALCULATED POINT (NOTHING FOUND OR SET)
- (1) REFERENCE NUMBER TO DESCRIPTION OF MONUMENTS

SURVEYDR'S STATEMENT:

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYORS' ACT AT THE REQUEST OF RUTH S. KUHL, ELEANOR S. ANGULO, AND GARY B. WILLIAMS, EXECUTOR FOR ESTATE OF PHYLLIS S. FOX, TENANTS IN COMMON FROM JUNE 1993 TO JUNE 1994.

LICENSED LAND SURVEYOR JAMES F. NICKLOS LS 3848 STATE OF CALIFORNIA

JAMES F. NICKLOS LS 3848
License expires June 30, 1996

COUNTY SURVEYOR'S STATEMENT:

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE LAND SURVEYORS' ACT THIS 14th DAY OF NOVEMBER, 1994.

LICENSED LAND SURVEYOR CHARLES E. BISHOP No. 5017 STATE OF CALIFORNIA

Daniel S Russell
DANIEL S. RUSSELL LS 5017
County Surveyor, County of El Dorado
License expires December 31, 1997

BY: _____
DEPUTY
CHARLES E. BISHOP LS 5638
License expires March 31, 1995

RECORDER'S STATEMENT:

FILED THIS 14th DAY OF NOVEMBER, 1994, AT 2:51 P.M. IN BOOK 21 OF RECORD SURVEYS AT PAGE 41, AT THE REQUEST OF JAMES F. NICKLOS.

DOCUMENT No. 63784

L Jean Bell
L. JEAN BELL
County Recorder, Clerk
County of El Dorado

BY: Linda Pinelli
DEPUTY

ASSESSOR'S PARCELS; 11-030-45 & 46

SHEET 1 OF 2

14-12

21-12

RECEIVED
SEP - 9 2024
EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

CUP24-0011

6/15-16

DESCRIPTION OF MONUMENTS

(1) FOUND STANDARD U.S. BLM BRASS CAP monument in 32" dia. rock mound. CAP STAMPED: T12N R14E S8 | S9 S17 | S16 1963
FROM WHICH BEARS:
W.F. Stumphole N 35° W 27', (R1) Flr 15" dia. N 35° W 27.1',
(R2) Flr 24" dia. Snag N 35° W 27.1'
W.F. Stumphole S 85° W 42.5', (R1) Flr 16" dia. S 85° W 42.2'
(R2) Flr Stump 12" dia. S 85° W 42.2'
I.C. 35" Stump 44" dia. N 65° E 56.8', (R1) Cedar 40" dia.
N 60° E 57.4'
Stumphole S 76° E 8', (R1) Flr 50" dia. S 88° E 11.2'
(R2) Snag 50" dia. S 88° E 4.6'
I.C. 13" DBH S 14° E 12.4', heeled scar, (R2) Cedar 4" dia.
S 14° E 12.9'
W.F. 17" DBH S 7° W 26.3', (R2) W.F. 6" dia. S 7° W 27.1'

(2) FOUND STANDARD U.S. BLM BRASS CAP monument in 18" dia. rock mound. CAP STAMPED: 1/4 S9 | S16 T12N R14E 1963
FROM WHICH BEARS:
P.P. Stump 66" dia. N 80° E 45.6', healed blaze
(R1) PINE 50" N 80° E 48.2', (R2) S.P. 64" dia. N 80° E 44.9'
P.P. Stump 34" dia. N 80° W 31.9', (R1) Pine 20" dia. N 80° W
31.7', (R2) S.P. 32" dia. N 80° W 31.0'
W.F. 21" DBH N 64° W 4.6', (R2) W.F. 10" dia. N 59 1/4° W 4.6'
W.F. 21" DBH S 15° E 21.2', (R2) W.F. 9" S 15° E 21.1'

(3) FOUND STANDARD U.S. BLM BRASS CAP monument in 36" dia. rock mound. CAP STAMPED: T12N R14E S9 | S10 S16 | S15 1963
FROM WHICH BEARS:
J.P. Stump 54" dia. N 2° E 39.9',
(R1) Pine 20" dia. N 2° E 39.6', (R2) S.P. Stump 54" dia. N 2° E 38.9'
W.F. Snag 40" DBH S 23° W 69.7', scribing visible, (R1) Flr 24" dia.
S 25° W 68.6', (R2) W.F. 42" dia. S 25° W 68.6'
J.P. Stump ±48" dia. N 4° W 44.8', (R1) Pine 20" dia. N 2° W 44.2'
(R2) S.P. 46" dia. N 4° W 44.2'
W.F. 24" DBH N 65° E 45.1', heeled scar, (R2) W.F. 16" dia.
N 65° E 45.5'
W.F. 12" DBH S 78° E 23.2', heeled scar, (R2) W.F. 6" dia.
S 78 1/2° E 23.8'
W.F. 14" DBH S 44° W 33.4', heeled scar, (R2) W.F. 8" dia.
S 43 1/2° W 34.0'
W.F. 16" DBH N 69° W 55.6', heeled scar, (R2) W.F. 8" dia.
N 68° W 56.1'

(4) SET U.S.F.S. monument 24" in ground. CAP STAMPED: T12N R14E NW1/16 • S16 LS 3848 1994
Placed disturbed 1 1/2" C.I.P. per RS 3-144 on
South side of monument. Raised 36" dia. rock mound.
FROM WHICH EXISTING BEARING TREES BEAR:
I.C. 11" DBH S 52° W 29.3', scribing visible
W.F. 11" DBH N 86° E 45.5', heeled face

(5) SET U.S.F.S. monument 25" in ground. CAP STAMPED: T12N R14E C N1/16 C S16 LS 3848 1994
Corner point falls in meadow area.
Raised 24 " dia. rock mound.
FROM WHICH BEARS:
1 1/2" C.I.P. per RS 3-144 S40°05'19" W 0.88'
L.P. 8" DBH S 63° E 30.6', scribing visible
W.F. 20" DBH S 85° W 63.9', scribing visible
W.F. 28" DBH N 4° W 86.8', heeled face

(6) SET 2" x 30" aluminum-magnetic survey monument with 3 1/4" cap stamped: JAMES NICKLOS - LS 3848 T12N R14E NE1/16 • S16 1994
Raised 36" dia. rock mound.
FROM WHICH BEARS:
1 1/2" C.I.P. per RS 3-144 N 68°40'49" W 1.30'

(7) FOUND 1 3/4" Copperweld in 18" dia. rock mound. Copperweld stamped: 1959 T12N R14E 1/4 S17 | S16 SMUD RCE 5438
FROM WHICH BEARS:
P.P. 49" DBH N 1° W 17.7', heeled scar, SMUD
(R3) Y.P. 33" dia. North 16.1' 1963
P.P. 39" DBH N 69° W 91.5', scribing visible, WCD
(R3) Y.P. 30" dia. N 65° W 90.0' RCE 5438
(HM1) in 24" dia. rock mound S 02°35'27" E 432.81'.
(R3) S 02°36'03" E 432.94' Disc stamped:

(8) SET U.S.F.S. monument 24" in ground. CAP STAMPED: T12N R14E W1/16 C S16 LS 3848 1994
Placed disturbed 1 1/2" C.I.P. per RS 3-144 on
South side of monument. Raised 24" dia. rock mound.
FROM WHICH BEARS:
W.F. 14" DBH S 46° W 29.0', scribing visible
W.F. 15" DBH N 56° W 30.3', scribing visible
1 1/2" C.I.P. per RS 3-144 S 32°20'42" W 0.84'

21-41 A

(9) SET U.S.F.S. monument 23" in ground. CAP STAMPED: T12N R14E E1/16 C S16 LS 3848 1994
Raised 36" dia. rock mound.
FROM WHICH BEARS:
1 1/2" C.I.P. per RS 3-144 S 86°48'47" W 0.67'

(10) FOUND STANDARD U.S.BLM BRASS CAP monument in 30" dia. rock mound with inverted 1" iron pipe on NW side. CAP STAMPED: 1/4 S16 | S15 T12N R14E 1963
FROM WHICH BEARS:
P.P. Stump ±70" dia. S 68° E 30.8',
(R1) Pine 60" dia. S 68° E 31.0', (R2) S.P. 65" dia. S 68° E 31.0'
P.P. Stump 60" dia. N 62° W 28.7', scribing visible, (R1) Pine
50" dia. N 62° W 27.1', (R2) S.P. 55" dia. N 62° W 27.1'
W.F. 30" DBH N 21° W 38.9', heeled scar, (R2) W.F. 15" dia.
N 21° W 38.9'
W.F. 34" DBH N 88° E 32.3', heeled scar, (R2) W.F. 20" dia.
N 87 1/2° E 32.3'

(11) FOUND 2" aluminum-magnetic survey monument in 30" dia rock mound. 3 1/4" CAP STAMPED: T12N R14E SE1/16 S16 • LS 4598 1980
FROM WHICH BEARS:
W.F. 21" DBH S 85° W 39.9', scribing visible
(R3) Flr 8" dia. WEST 40.8', (R4) Flr 15" dia. S 85° W 40.0'
J.P. 15" DBH N 52° E 25.2', scribing visible and unreadable tag
(R3) Pine 15" dia. N 55° E 24.0', (R4) Pine 14" dia. N 51° E 25.2'

(12) FOUND STANDARD U.S.BLM BRASS CAP monument in 30" dia. rock mound in large stumphole. CAP STAMPED: T12N R14E S16 | S15 S21 | S22 1963
FROM WHICH BEARS:
Stumphole S 41° E 71.8', (R1) Pine 24" dia. S 41° E
70.6', (R2) Pine 30" dia. stumphole S 41° E 70.6'
Stumphole S 25° W 47.4', (R1) Pine 40" dia. S 20° W 46.2'
W.F. 15" DBH N 54° E 17.8', heeled scar, (R2) W.F. 7" dia.
N 54° E 17.8', (R3) Flr 6" dia. N 56° E 18'
J.P. snag 13" DBH S 85° E 29.7', scribing visible, (R2) Y.P. 12" dia.
S 84 1/2° E 30.0', (R3) Y.P. 11" dia. S 80° E 29.7'
J.P. ±20" DBH S 76° W 23.3', heeled scar, (R2) Y.P. 16" dia.
S 77° W 24.1', (R3) Y.P. 11" dia. S 76° W 23'
J.P. 17" DBH N 46° W 18.9', heeled scar, (R2) Y.P. 8" dia.
N 48° W 19.1', (R3) Y.P. 6" dia. N 46° W 18.6'

(13) FOUND STANDARD U.S.BLM BRASS CAP monument. CAP STAMPED: 1/4 S16 S21 T12N R14E 1963
FROM WHICH BEARS:
Pine stump remnant S 74° E 14.0',
(R1) Pine 60" dia. S 70° E 11.9', (R2) Pine 68" dia. S 70° E 11.9'
Stumphole N 12° E 40.3', (R1) Pine 30" dia. N 10° E 40.3'
W.F. 27" DBH N 14° E 5.2', heeled scar, (R2) W.F. 16" dia. N 17°E 5.0'
W.F. 20" DBH N 89° W 11.1', heeled scar, (R2) W.F. 15" dia. S 89° E 11.2'

(14) Searched for WC-B and Bearing Trees. Nothing found.
SET 1" C.I.P. by single proportion between quarter corner and WC'-C per (R3). BRASS CAP STAMPED: WC-B LS 3848 1994
FROM WHICH BEARS:
WC-BC-Z N 89°31'46" W 208.79'
(R3) WC-BC-Z N 89°36'45" W 208.25'

(15) FOUND chiseled 'X' on 12" x 5"x3" granite rock for point WC-BC-Az.Mk.
FROM WHICH BEARS:
W.F. 27" DBH S 12° W 5.5', (R3) Pine 12" dia. South 5.8'
P.P. 37" DBH N 33° W 47.7', (R3) Flr 26" dia. N 35° W 47.7'

(16) FOUND (HM1) in 24" dia. rock mound. DISC STAMPED: SMUD 1963 WC-C
FROM WHICH BEARS:
J.P. 43" DBH S 52° W 43.8'
(R3) Pine 32" dia. S 50° W 43.5'
WC-BC-Z S 89°34'27" E 127.30'
(R3) WC-BC-Z S 89°36'45" E 127.41'

(17) Corner point falls in Union Valley Reservoir. Position for corner calculated by projected single proportion between 1/4 17|16 and WC'F.

NOTE: BEARING TREE REFERENCES ARE TRUE NORTH.

	MEASURED		RECORD PER(R3)	
WC'-A				
	S 89°57'52" W	15.22'	WEST	15.21'
WC'-491				
	N 81°58'34" W	109.20'	N 81°56'50" W	109.16'
WC'-492				
	N 77°43'08" W	163.71'	N 77°41'00" W	163.66'
WC'-493				
	N 84°38'28" W	102.71'	N 84°36'20" W	102.67'
WC'-494				
	N 52°51'56" W	65.34'	S 52°49'50" W	65.32'
P-500				
	S 69°53'40" W D=114°28'22"	336.57' R=200.12'	S 69°55'50" W D=114°28'40"	336.47' R=200'
P-501	S 12°39'14" W	71.15'	S 12°41'30" W	71.13'
P-502	S 29°34'50" W	24.88'	S 29°37'00" W	24.88'
P-503	S 32°44'26" W	98.31'	S 32°46'30" W	98.28'
P-504	S 38°09'32" W	154.17'	S 38°11'40" W	154.13'
P-505	S 19°59'49" W	86.02'	S 20°01'40" W	86.00'
P-506	S 27°54'04" W	60.93'	S 27°56'10" W	60.92'
P-507	S 35°21'26" W	163.82'	S 35°23'30" W	163.77'
P-508	S 54°49'08" W	170.57'	S 54°51'20" W	170.52'
P-509	S 27°13'55" W	322.82'	S 27°16'00" W	322.72'
WC'-B	S 27°19'59" W	8.51'	S 27°16'00" W	8.50'
P-511	S 24°25'29" E	223.88'	S 24°29'30" E	223.59'
P-512	S 03°54'07" E	192.65'	S 03°58'00" E	192.40'
P-513	S 34°24'51" E	108.97'	S 34°28'50" E	108.82'
P-514	S 04°23'36" E	120.32'	S 04°27'40" E	120.17'
P-515	S 04°10'15" E	107.64'	S 04°14'00" E	107.49'
P-516	S 14°10'02" E	40.25'	S 14°14'30" E	40.20'
P-517	S 02°17'33" W	9.28'	S 02°14'00" W	9.26'
P-518	S 39°44'44" W	45.98'	S 39°41'00" W	45.92'
P-519	S 80°41'02" W	134.68'	S 80°37'00" W	134.49'
P-520	S 65°40'08" W	200.00'	S 65°36'10" W	356.46'
Line Marker	S 65°40'08" W	156.91'		
P-521	S 55°16'18" W	180.79'	S 55°06'20" W	180.56'
P-522	S 75°18'20" W	73.20'	S 75°14'20" W	73.10'
P-523	S 78°30'52" W	51.67'	S 78°26'50" W	51.61'
P-524	N 82°07'47" W	40.57'	N 82°11'00" W	40.51'
P-525	N 71°03'27" W	179.25'	N 71°07'30" W	179.02'
P-526	N 04°21'03" W	12.10'	N 04°27'00" W	12.08'
P-527	N 34°41'02" E	18.71'	N 34°37'20" E	18.68'
P-528	N 41°07'29" E	285.30'	N 41°03'30" E	284.93'
P-529	N 36°57'25" E	99.16'	N 36°53'30" E	99.04'
P-530	N 55°06'44" E	93.06'	N 55°02'40" E	92.94'
P-531	N 28°25'55" E	186.87'	N 28°22'00" E	186.63'
P-532	N 01°54'08" E	254.79'	N 01°50'10" E	254.46'
P-533	N 02°22'20" E	250.77'	N 02°18'20" E	250.44'
WC'-C				

RECORD OF SURVEY

PORTION OF

Sections 16 and 21, T 12 N, R 14 E, MDM

COUNTY OF EL DORADO STATE OF CALIFORNIA

JAMES NICKLOS (LS 3848) & ASSOCIATES -- OCTOBER 1994

MONUMENT DESCRIPTION LEGEND

U.S.BLM	2 1/2" x 28" IRON POST, SET IN ROCK MOUND, WITH STANDARD U.S. BUREAU OF LAND MANAGEMENT BRASS CAP PER (R2)
(R1)	GOVERNMENT FIELD NOTES - J.M. ANDERSON, 1874
(R2)	GOVERNMENT REMONUMENTATION NOTES, 1962-64
(R3)	RS 1-167 (DISTANCES HAVE BEEN DIVIDED BY 0.9996820 TO OBTAIN GROUND DISTANCES)
(R4)	RS 10-85
DBH	DIAMETER BREAST HIGH (4.5' ABOVE GROUND LEVEL ON HIGH SIDE OF TREE)
BT	BEARING TREE
Y.P.	YELLOW PINE
P.P.	PONDEROSA PINE
J.P.	JEFFREY PINE
S.P.	SUGAR PINE
L.P.	LODGEPOLE PINE
W.F.	WHITE FIR
I.C.	INCENSE CEDAR
(HM1)	HILL MONUMENT: 5/8" STEEL PIN WITH 2 1/2" BRASS DISC PER (R3)

	MEASURED		RECORD PER (R3)	
WC'-C	N 02°19'29" E	64.51'	N 02°18'20" E	64.55'
P-535	N 16°20'00" W	218.65'	N 16°21'10" W	218.80'
P-536	N 61°02'55" W	215.31'	N 61°04'00" W	356.03'
Line Marker	N 61°02'55" W	140.48'		
P-537	N 34°24'48" W	154.82'	N 34°26'00" W	154.93'
P-538	N 61°31'22" W	262.75'	N 61°32'30" W	262.92'
P-539	N 30°29'00" W	74.03'	N 30°29'50" W	74.02'
P-540	N 47°00'55" W	86.04'	N 47°02'00" W	86.10'
WC'-525X	N 52°41'02" E	87.09'	N 52°41'00" E	87.10'
WC'-526	N 21°58'11" E	560.38'	N 21°59'20" E	560.05'
P-543	N 26°30'35" W	354.97'	N 26°29'30" W	354.75'
P-544	N 19°53'53" W	29.14'	N 19°52'10" W	29.13'
P-545	N 71°12'17" W D=102°38'05"	312.53' R=200.18'	N 71°11'10" W D=102°38'00"	312.34' R=200'
P-546	S 57°28'02" W	19.74'	S 57°29'50" W	19.73'
P-547	N 54°36'00" W	11.72'	N 54°35'00" W	
Line Marker				

REFERENCES:

(R1) GOVERNMENT FIELD NOTES - J.M. ANDERSON, 1874
(R2) GOVERNMENT REMONUMENTATION NOTES, 1962-63
(R3) RS 1-167 (DISTANCES HAVE BEEN DIVIDED BY 0.9996820 TO OBTAIN GROUND DISTANCES)
(R4) RS 10-85

BASIS OF BEARINGS:

THE MERIDIAN OF THIS SURVEY IS LAMBERT GRID ZONE 2 DETERMINED FROM RS 1-167 (R3) ALONG EAST-WEST CENTERLINE SECTION 16. SEE NOTE THIS SHEET.

21-41 A
SHEET 2 OF 2

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-9-2523-H
HRI #
Trinomial # CA-ELD-1667-H

Page 1 of 12 *Resource Name or # (Assigned by recorder) Palmer-Swift Cabin

*Recorded by: Dana E. Supernowicz *Date June 26, 2024 ☐ Continuation ☒ Update

This updated site record is intended to expand information and current conditions related to two previous DPR site records prepared on August 13, 1980 and later in August 7, 1996 by Krista Deal. According to Deal (1996) when she was employed by the Eldorado National Forest (Figure 1). Deal's observation of the property while she was employed by the Eldorado National Forest, included scant remains of what she described as hand-hewn and notched logs, barbwire, a stove pipe, and wooden fence posts. The cabin, which is the only standing building within the former Palmer Ranch, is best described as having post and beam construction, with a bump out or later addition along its west elevation, 36" rived shake exterior wall cladding, single-wall interior construction, wood floors, a mud-sill foundation, a second-story loft, and a corrugated metal roof. The front door to the cabin building of milled lumber appears to be original, although parts of the cabin have clearly been rebuilt, which is common given extreme winter weather and natural deterioration.

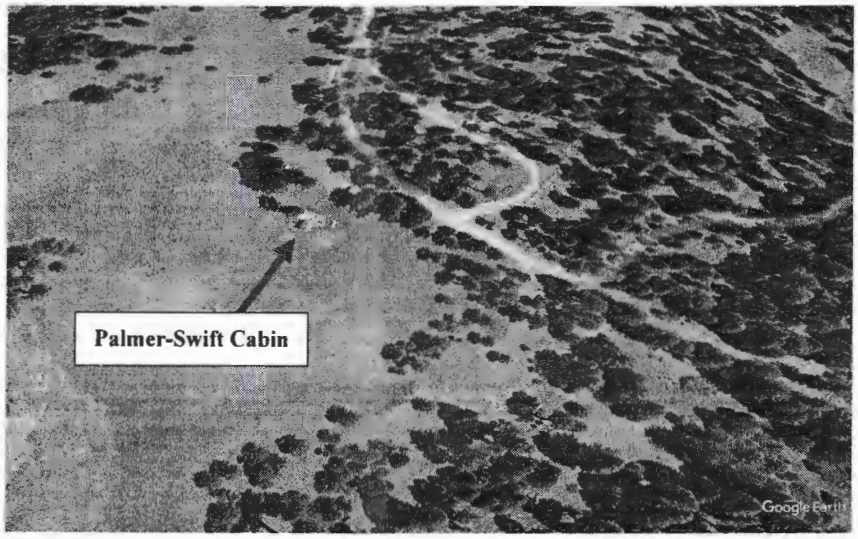


Figure 1: Aerial Photograph looking north at the Palmer-Swift Cabin.

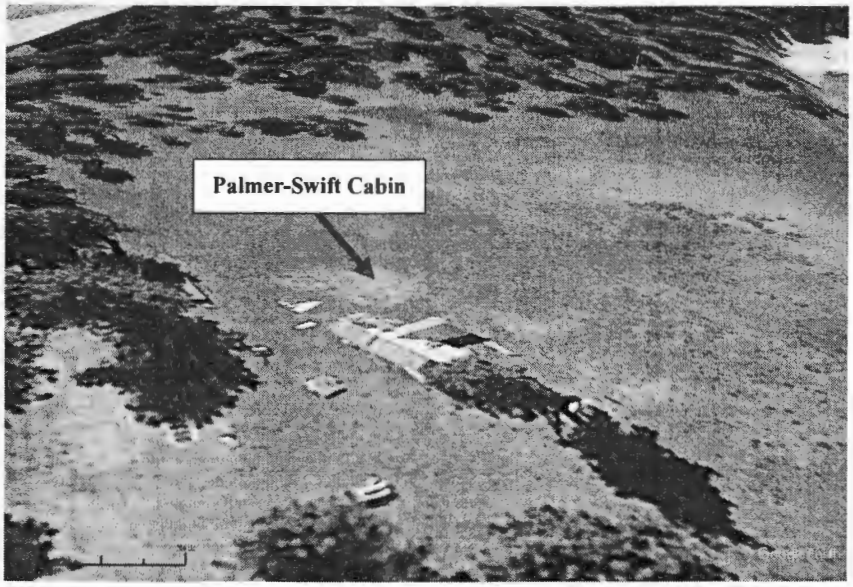


Figure 2: Aerial Photograph looking southeast at the Palmer-Swift Cabin.

The historic context of the project area is directly linked to the gold rush of the 1850s, as well movement of livestock from the valley floor into the Sierra Nevada Mountains beginning in the 1860s, in part as a result of prolonged drought. The Georgetown-Virginia City Emigrant-Wagon Road ran northwest to southeast near the project area (Figure 2). Historic records, including maps, suggest that William Madison Palmer (1821-1895) the individual who located and developed the project location, resided in the Georgetown Township by at least 1860, since he was appointed as the Township Officer the same year (Ancestry Website 2024; *Mountain Democrat*, Newspaper, November 14, 1860). Thus, it is reasonable to assume that during the 1860s, Palmer may have begun to make improvements on the subject property adjacent to present-day Union Valley Reservoir, and in 1889 he succeeded in getting preemption rights from the federal government. This was only the beginning of Palmer's land acquisitions that eventually totaled in the thousands of acres.

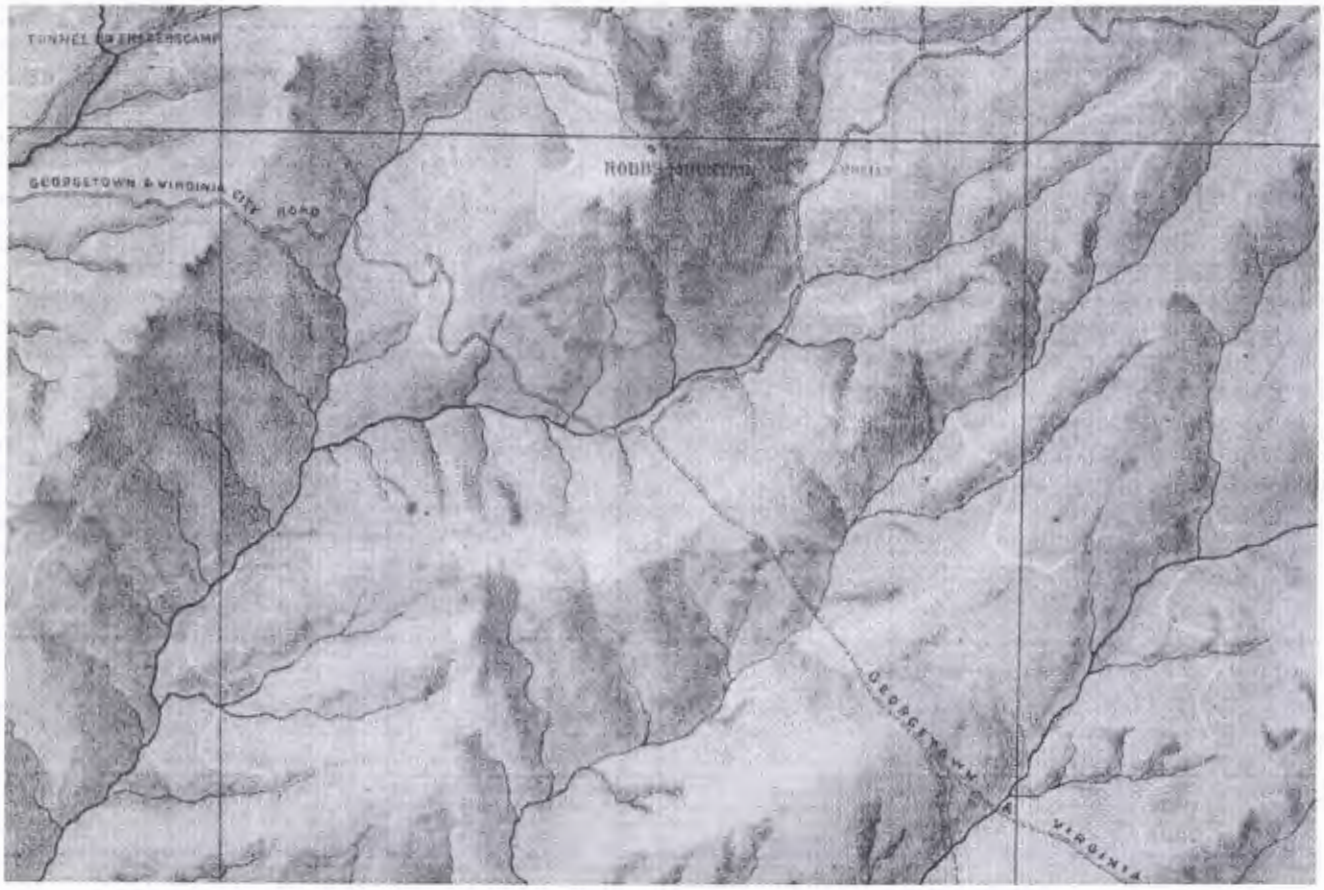


Figure 2: Map of the Georgetown Divide 1873 (Amos Bowman).

Prior to 1875, when the General Land Office prepared the Section map for the project township, William M. Palmer had already constructed a house, milk house, and barn in Section 16 (Figure 3). The exact location of the milk house and barn were not reidentified during the course of the field survey. As illustrated in Figure 3, Palmer also built several fences that kept livestock from escaping. The 1875 map in Figure 3 illustrates that a "meadow" lay to the northwest of his mountain ranch. According to the 1880 United States Federal Census and other data, William Madison Palmer appears to have emigrated from his home state of North Carolina to California during the gold rush (United States Federal Census, Mud Springs, El Dorado County, California 1880). By 1895, based upon the official map of El Dorado County, William M. Palmer, Serena B. Palmer, and Bullard, had acquired lands in Sections 16, 17, 20, and 21. William M. Palmer's ranch buildings were located within the south ½ of Section 16 (Figure 4).

Figure 3: 1875 General Land Office Survey Map of Palmers Ranch and the project area.

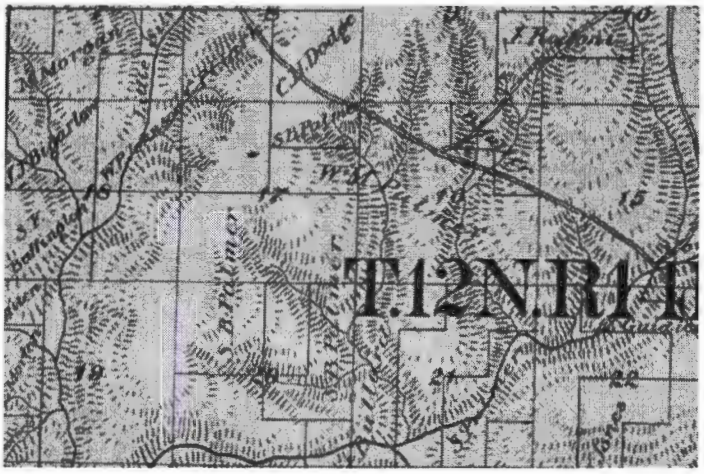
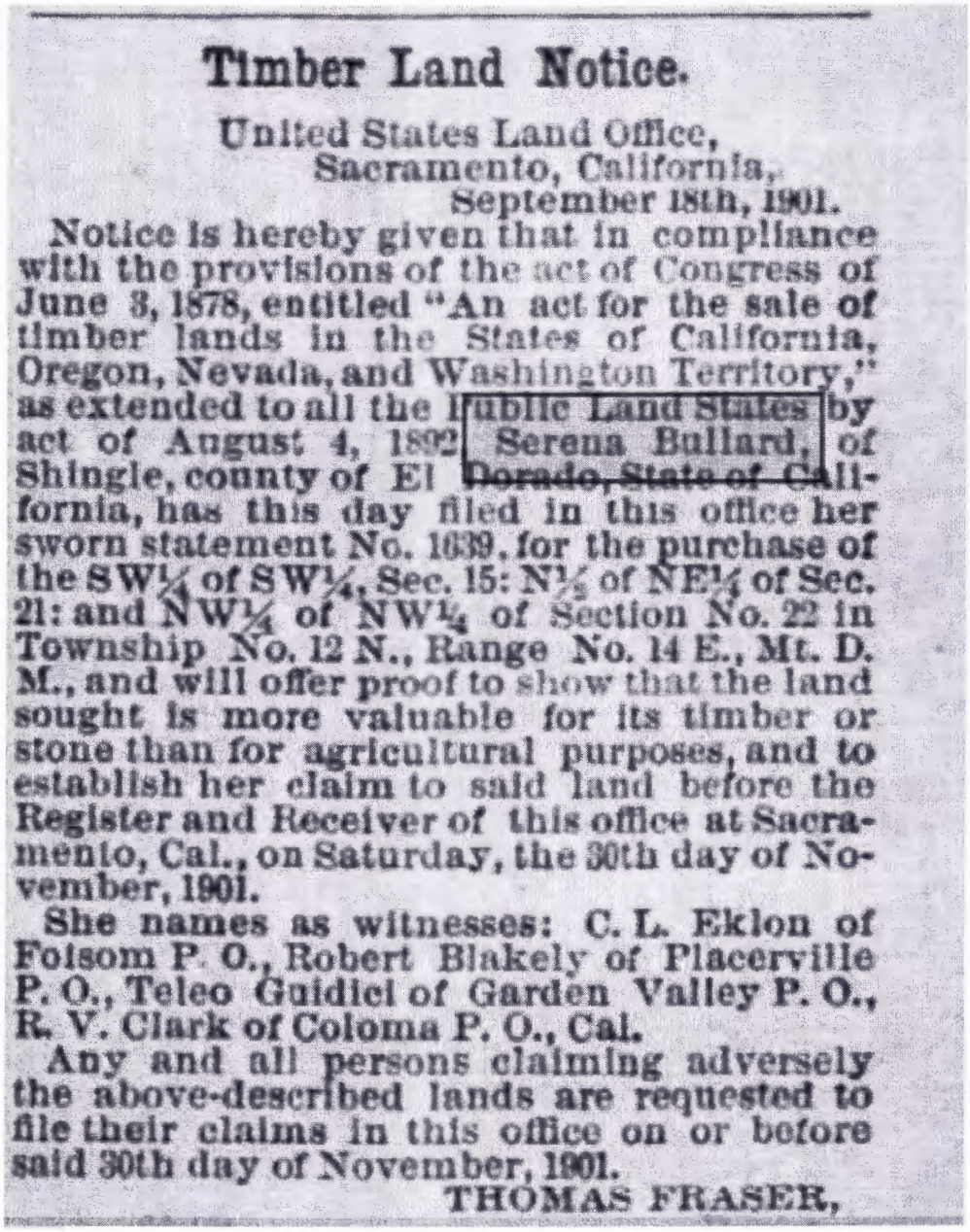


Figure 4: Official Map of El Dorado County 1895 showing lands owned by S.B. and W.M. Palmer (Library of Congress).

It seems reasonable to assume that William M. Palmer built all the improvements on the subject parcel in the 1860s-1880s. According to census data, in 1870, William M. Palmer married Eliza Rose Cowie (1827-1877), widow of Henry Calhoun Bullard (1825-1864). Eliza Cowie Bullard had emigrated from Scotland, married Henry Calhoun Bullard on December 20, 1854 in Mud Springs and had four children from her marriage to Bullard: George Monroe Bullard (1855-1905), Thomas Edward Bullard (1859-1945), Elizabeth Leah Bullard (1859-1870), and James Henry Bullard (1860-1939) (Ancestry Website 2024). After the death of Eliza Rose Cowie in 1877, Palmer married Serena Bullard (nee Elder). After Palmer's death on November 3, 1895, Serena married James Henry Bullard, the son of Henry Calhoun Bullard and Eliza Rose Bullard (nee Cowie). William Madison Palmer apparently had no children of his own and was buried near his ranch in Shingle Springs.

The 1900, the United States Federal Census enumerates Serena Bullard, aged 44 years, as having been born in Tennessee in July 1855, living in Mud Springs (El Dorado), and married to James H. Bullard, aged 45 years. The Bullards had three servants living with them on their ranch in Mud Springs: Kate, a cook, aged 60 years, born in Ireland; Leon, a farm laborer, aged 19 years; and Cela, a servant, aged 9 years, of Native American descent (United States Federal Census, Mud Springs, El Dorado County, California, 1900). Serena died in 1904 in her ranch in Mud Springs and was buried in Sacramento. She left her estate to her husband James Bullard.

Prior to Serena's death, she filed with the General Land Office and in the *Mountain Democrat* newspaper on October 10, 1901 for a portion of Section 21 (Figure 5), the newspaper noting that the land was codified as "Timber Land" as opposed to it being primarily suitable for agriculture. Based upon a review of General Land Office records, the southern tip of the project lying within Section 21, was formally acquired by Serena Bullard through a "cash sale entry" for 160 acres on July 26, 1904, three years after filing for a Timber Land Act purchase. Following Serena's death, the property was passed on to James Bullard, who sold the property to Alexander Felix "Alex" Forni who was born in El Dorado County in 1872. Alex's father was among a handful of Italian-Swiss immigrants from the Ticino region in the Italian-speaking part of Switzerland who came to California in the 1860s and settled in El Dorado County. On January 7, 1941, and following the death of Alex Forni in 1927, Alex's wife Nettie, sold the property around present-day Union Valley Reservoir to Rufus S. and Sarah Swift, including Section 16, where the Palmer Ranch building and proposed building site is located (Grant Deed, January 7, 1941, Courtesy of Michael Kuhl). The Palmer Ranch today is still owned by Swift family members, although other portions of the ranch have sense been sold (Personal communication: Michael Kuhl, June 2024). Throughout the following decades Swift family members made little or no major changes to the improvements within project location, the cabin built by Palmer in the circa 1860s still stands to this day.



Timber Land Notice.

United States Land Office,
Sacramento, California,
September 18th, 1901.

Notice is hereby given that in compliance with the provisions of the act of Congress of June 3, 1878, entitled "An act for the sale of timber lands in the States of California, Oregon, Nevada, and Washington Territory," as extended to all the Public Land States by act of August 4, 1892, Serena Bullard, of Shingle, county of El Dorado, State of California, has this day filed in this office her sworn statement No. 1639, for the purchase of the SW¼ of SW¼, Sec. 15: N½ of NE¼ of Sec. 21: and NW¼ of NW¼ of Section No. 22 in Township No. 12 N., Range No. 14 E., Mt. D. M., and will offer proof to show that the land sought is more valuable for its timber or stone than for agricultural purposes, and to establish her claim to said land before the Register and Receiver of this office at Sacramento, Cal., on Saturday, the 30th day of November, 1901.

She names as witnesses: C. L. Eklon of Folsom P. O., Robert Blakely of Placerville P. O., Teleo Guidici of Garden Valley P. O., R. V. Clark of Coloma P. O., Cal.

Any and all persons claiming adversely the above-described lands are requested to file their claims in this office on or before said 30th day of November, 1901.

THOMAS FRASER,

Figure 5: General Land Office filing by Serena Bullard (*Mountain Democrat*, Newspaper, October 10, 1901).

Photograph 1: Palmer-Swift Cabin, 1959 (Courtesy of Michael Kuhl).

Photograph 2: Cattle grazing in the meadow near the Palmer-Swift Cabin before the valley floor was inundated by the Union Valley Reservoir (Courtesy of Michael Kuhl).

Photograph 3: View looking west at the Palmer-Swift Cabin.

Photograph 4: View looking north east at the west elevation of the cabin.

Photograph 5: View looking north at the southeast elevation of the cabin.

Photograph 6: Another view looking north at the southeast elevation of the cabin.

Photograph 7: View looking west at the east elevation of the cabin.

Photograph 8: View looking southwest at the northeast elevation of the cabin.

Photograph 9: Close-up of the front door of the cabin.

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Sierra Ecosystem Associates

Mr. Michael Kuhl

July 31, 2024

Subject: Environmental Compliance Documentation for the Union Valley Residential Construction Project

Dear Mr. Kuhl:

Sierra Ecosystem Associates (SEA) is pleased to submit the following environmental compliance documentation for the Union Valley Residential Construction Project:

- Draft Biological Resources Report
- Draft Preliminary Wetland Delineation Report

Please review the attached documents and advise us as to any necessary changes or if you have any questions. If there are no changes to the enclosed or if you have suggested changes, we will finalize the reports for you to submit to El Dorado County.

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Sincerely,

Jeremy Waites

Attachments:

- Draft Biological Resource Report
- Draft Preliminary Wetland Delineation Report

CUP24-0011

1024 Simon Drive, Suite H P.O. Box 2260 Placerville, CA 95667 tel 530 622 8740 www.sierraecos.com

BIOLOGICAL REPORT
KUHL RESIDENTIAL STRUCTURE CONSTRUCTION PROJECT

Prepared by:

Sierra Ecosystem Associates

1024 Simon Drive, Suite H
Placerville, CA 95667

For:

Michael Kuhl
APN: 011-030-058, 011-030-055

DRAFT REPORT

JULY 31, 2024

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1.0 PROJECT DESCRIPTION

The residential structure construction Project (Project) involves building a proposed residential structure, septic area, fire hydrant, a turnout, and solar arrays. The property already has an existing shed, driveway, well, water tank, and roads. The Project area is shown in Figure 1.

1.1 Project Setting

The Project is located on the north shore of Union Valley Reservoir at approximately 5,000 feet elevation. The Project area consists of mostly upland mixed conifer with a meadow to the west and a meadow on the eastern boundary 2,000 feet to the north of the proposed construction site. The meadows are fed by snowmelt in the spring and groundwater throughout the summer and fall and flow into Union Valley Reservoir. The overstory consists of fir and pine species with a mix of incense cedar, black oak, and Douglas fir. A complete species list is shown in Appendix B.

Figure 1. Residential Project Site

2.0 METHODOLOGY

Development of this biological report involved: 1) a desktop evaluation, and 2) a field survey. The methodology for each is described below.

2.1 Desktop Research

Prior to the site visit, preparatory desktop research work was completed using Site Plans and parcel boundaries provided by El Dorado County and high-resolution imagery (dated June 2024). A review of current databases maintained by CDFW was also performed to identify special-status species that could occur on the Project site (CDFW 2024). The CNDDB search covered a 5-mile radius around the Project site and is shown in Figure 2. Table 1 summarizes the species identified in this focused query.

Figure 2. CNDDB Search

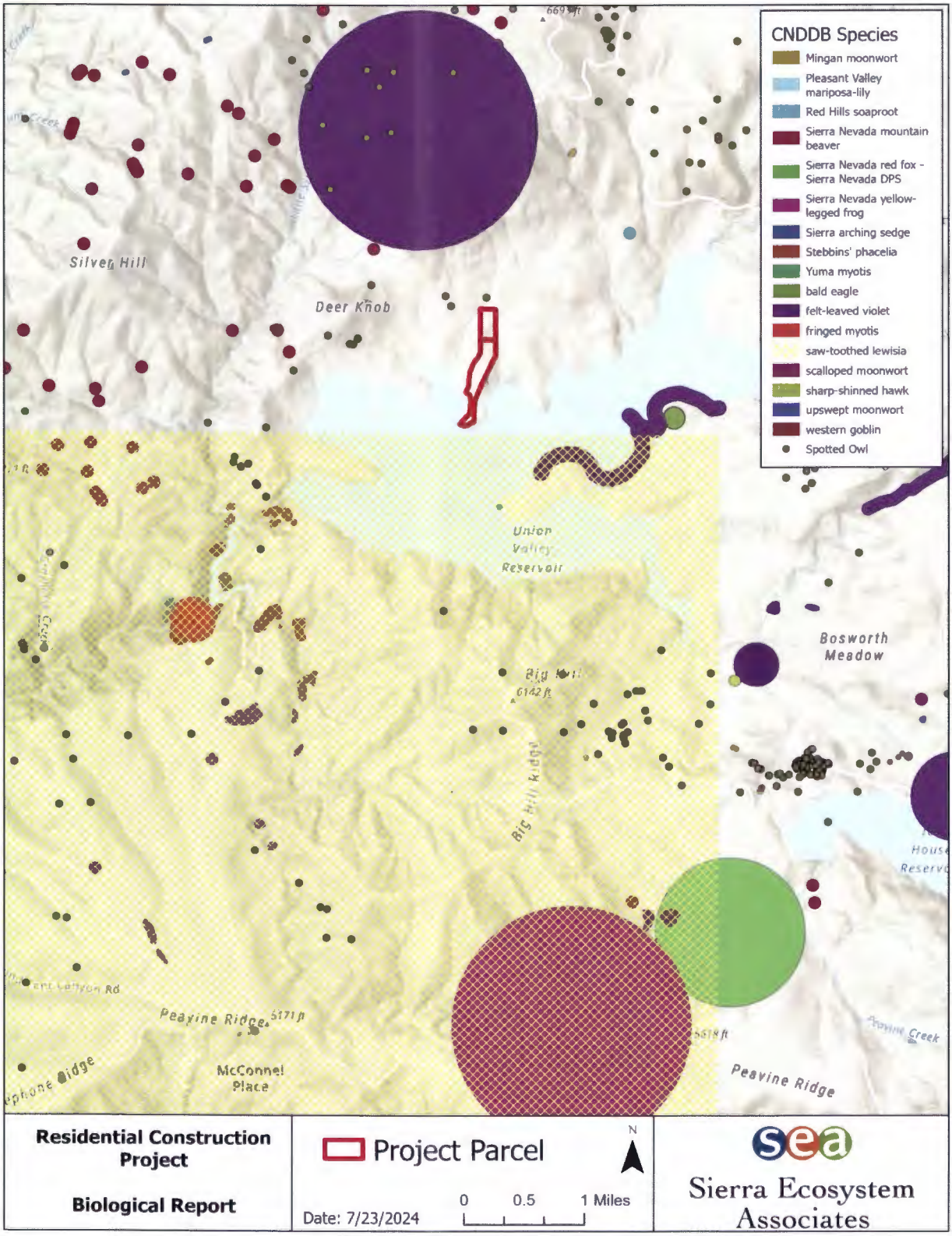


Table 1. CNDDB Species

Common Name	Scientific Name	Federal Listing	California Listing	Rare Plant Rank	CDFW Status
bald eagle	*Haliaeetus leucocephalus*	Delisted	Endangered		
Sierra Nevada yellow-legged frog	*Rana sierrae*	Endangered	Threatened		Watchlist species
Sierra Nevada mountain beaver	*Aplodontia rufa californica*	None	None		Species of special concern
Mingian moonwort	*Botrychium minganense*	None	None	4.2	
Pleasant Valley Mariposa lily	*Calochortus clavatus var. avius*	None	None	1B.2	
Red hills soaproot	*Chlorogalum grandiflorum*	None	None	1B.2	
Sierra Nevada Red Fox	*Vulpes vulpes necator pop. 2*	Endangered	Threatened		
Sierra arching sedge	*Carex cyrtostachya*	None	None	1B.2	
Stebbins phacelia	*Phacelia stebbinsii*	None	None	1B.2	
Yuma myotis	*Myotis yumanensis*	None	None		
Felt leaved violet	*Viola tomentosa*	None	None	4.2	
Saw toothed lewisa	*Lewisia serrata*	None	None	1B.1	
Scalloped moonwort	*Botrychium crenulatum*	None	None	2B.2	
Upswept moonwort	*Botrychium ascendens*	None	None	2B.3	
Western goblin	*Botrychium montanum*	None	None	2B.1	
Spotted owl	*Strix occidentalis*	None	None		
Fringed myotis	*Myotis thysanodes*	None	None		
sharp-shinned hawk	*Accipiter striatus*	None	None		Watchlist species

2.2 Pedestrian Field Survey

Sierra Ecosystem Associates, Inc. (SEA) staff Senior Ecologist, Jeremy Waites, Environmental Scientist Summer Abel, and Assistant Environmental Scientist Aria Pauling completed a pedestrian field survey on June 20, 2024 and June 21, 2024. The survey consisted of a floristic botanical survey, nesting raptor and migratory bird survey, and habitat analysis of the Project site. The focus of the survey was to analyze habitat characteristics and to assess if any threatened, endangered, or special status (TES) plants or animals would be affected by Project activities. The Project area including the proposed building location was surveyed and all plant and animal species observed were recorded. Pictures were taken of plant occurrences as well as the overview of the site and are included in Appendix A. A wetland delineation was also completed to map the existing wetlands within or near the Project site.

3.0 RESULTS BASED ON DESKTOP EVALUATION AND SURVEY

The following sections describe the information that was gathered from the desktop searches and the June 2024 field survey. These sections also provide details on Project impacts and the specific habitat characteristics for potential TES species that are present in the vicinity of the Project site. TES species, which are listed in Table 1, are plants and animals that historically occur in the surrounding area and those with potential habitat.

3.1 Wetland Features

The wetland and hydrological features from the National Wetland Inventory and the National Hydrology Dataset (USFWS 2024) are shown in Figure 3. Overland flow is generally from north to south. Two streams (ST-1, ST-2) shown in Figure 3 are on either side of the Project. Both flow through meadows and empty into Union Valley Reservoir.

Following completion of the field assessment, delineated features of the wetland differ from those defined by the NWI. NWI wetland data is presented in Figure 4. Specifically, based on the field survey data, the wetlands extend farther and the most southern wetland (W-1) is more complex. W-1 has many wetland plant species, but trends to more upland invasive plant species in the later drier season. The NWI dataset classifies the wetlands within the study area as: Emergent Wetland but also contains Forested Shrub Wetland and Riverine.

Figure 3. Wetlands and Hydrology

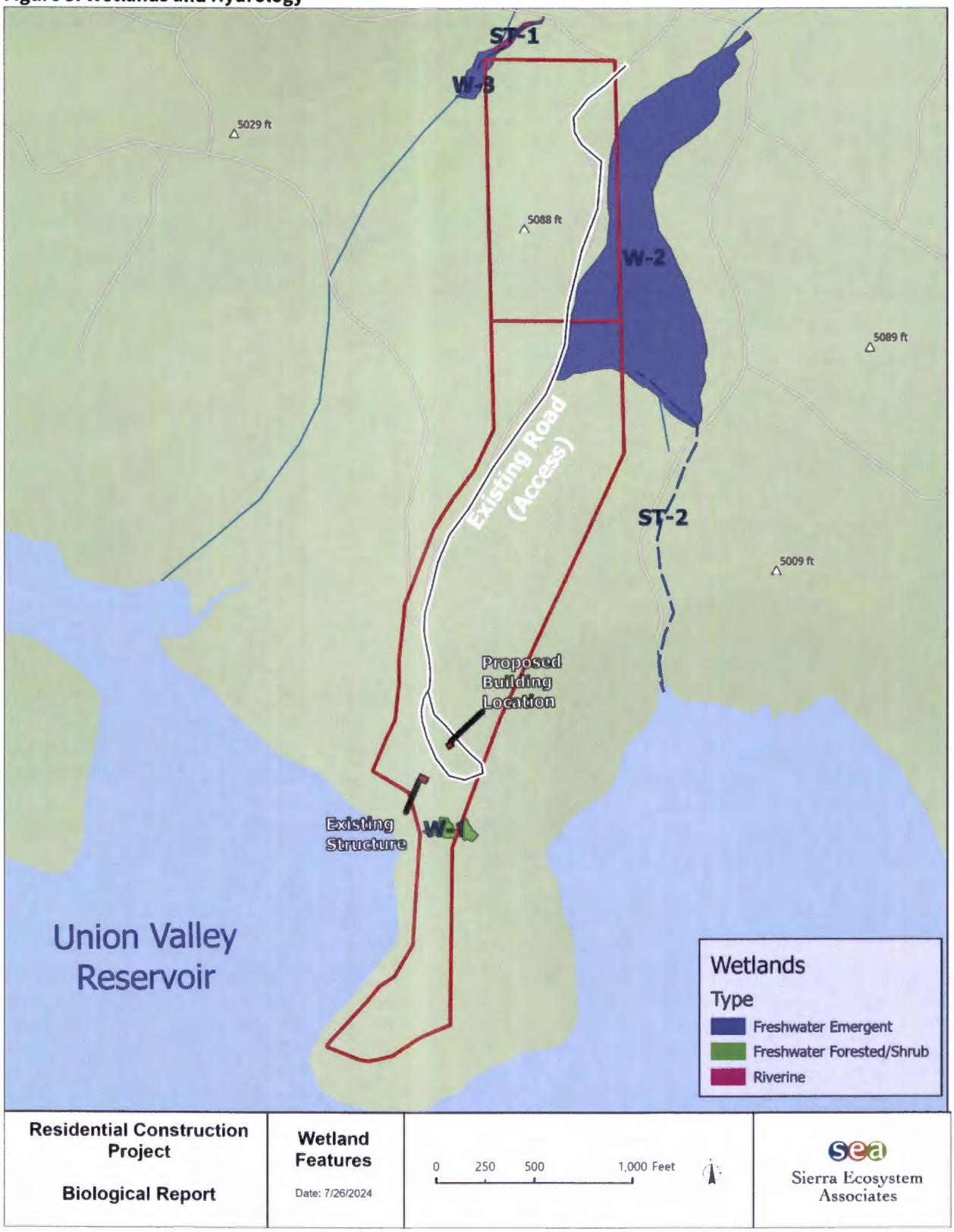
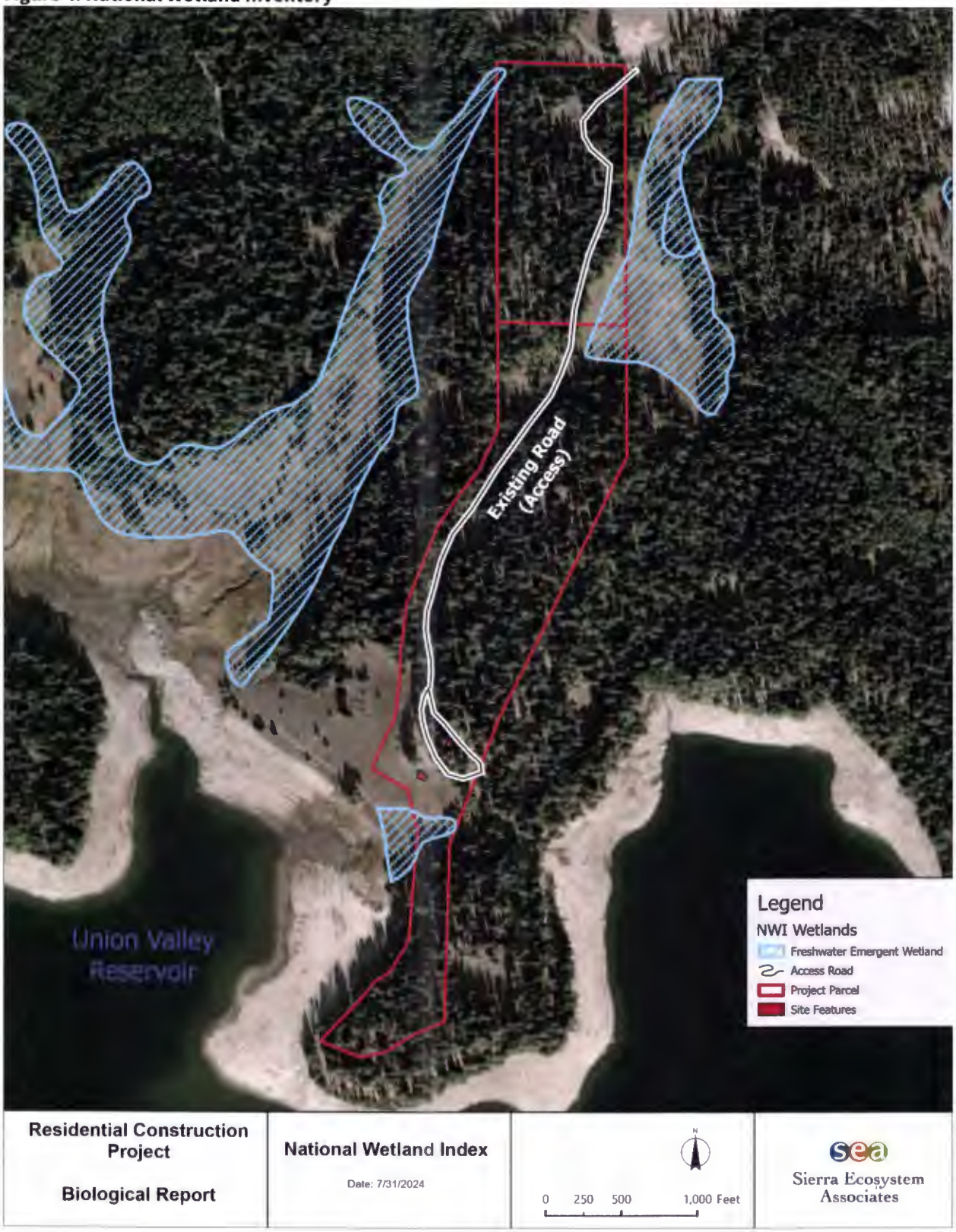


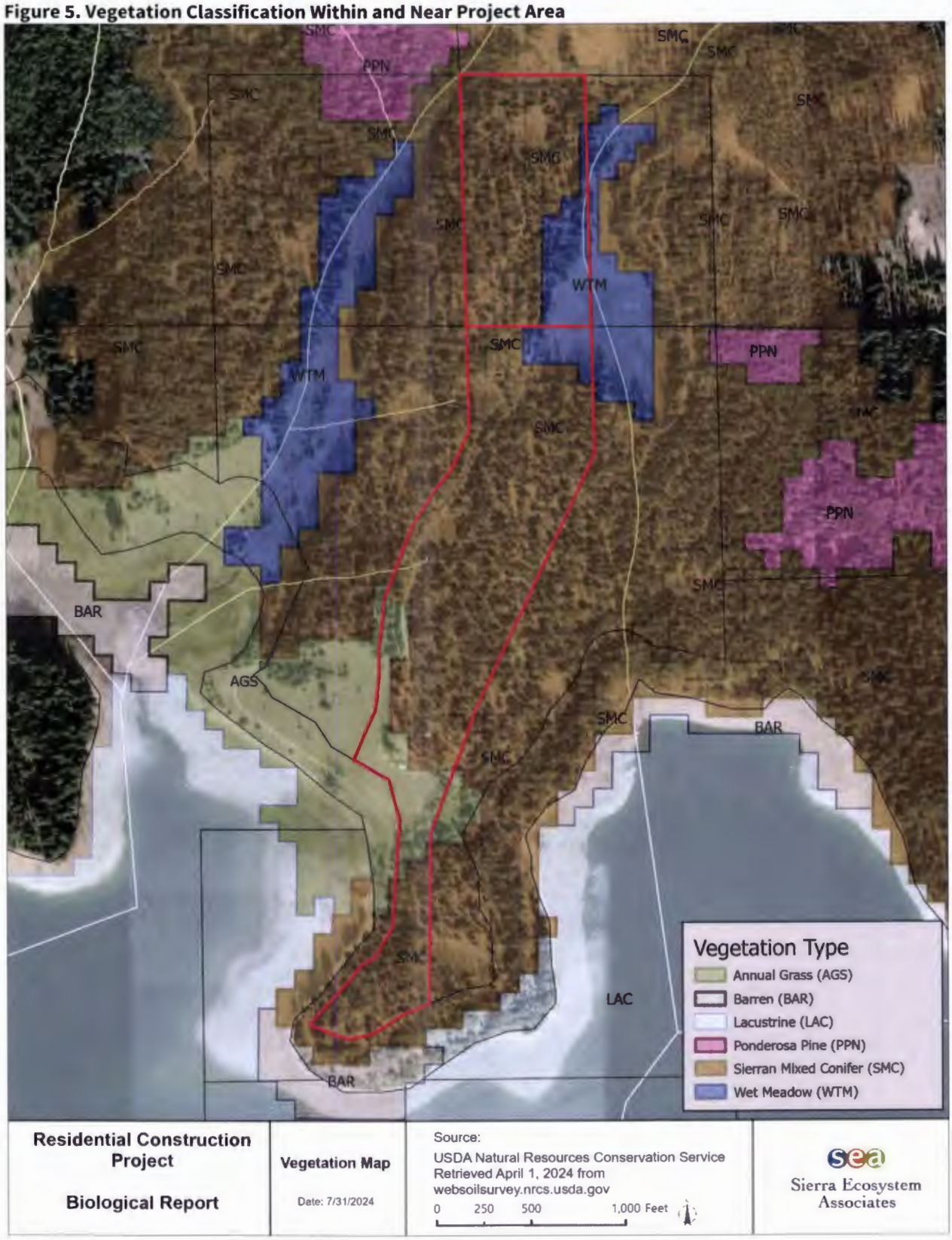
Figure 4. National Wetland Inventory



3.2 Vegetation Classification

There are numerous vegetation classification schemes for California, which have been developed by various agencies and ecologists for several user groups. The California Wildlife Habitat Relationship (CWHR) system was developed by CDFW to predict the habitat value for vertebrate animal species in California (CWHR 2024). Figure 5 shows the vegetation classification of the Project area according to the CWHR system. Although the data shown in Figure 5 is coarse, the vegetation types displayed are consistent with observations of vegetation types identified during the pedestrian field survey. The Project area mainly consists of Sierran mixed conifer with some wet meadow and annual grass classification.

Figure 5. Vegetation Classification Within and Near Project Area



3.3 Soils

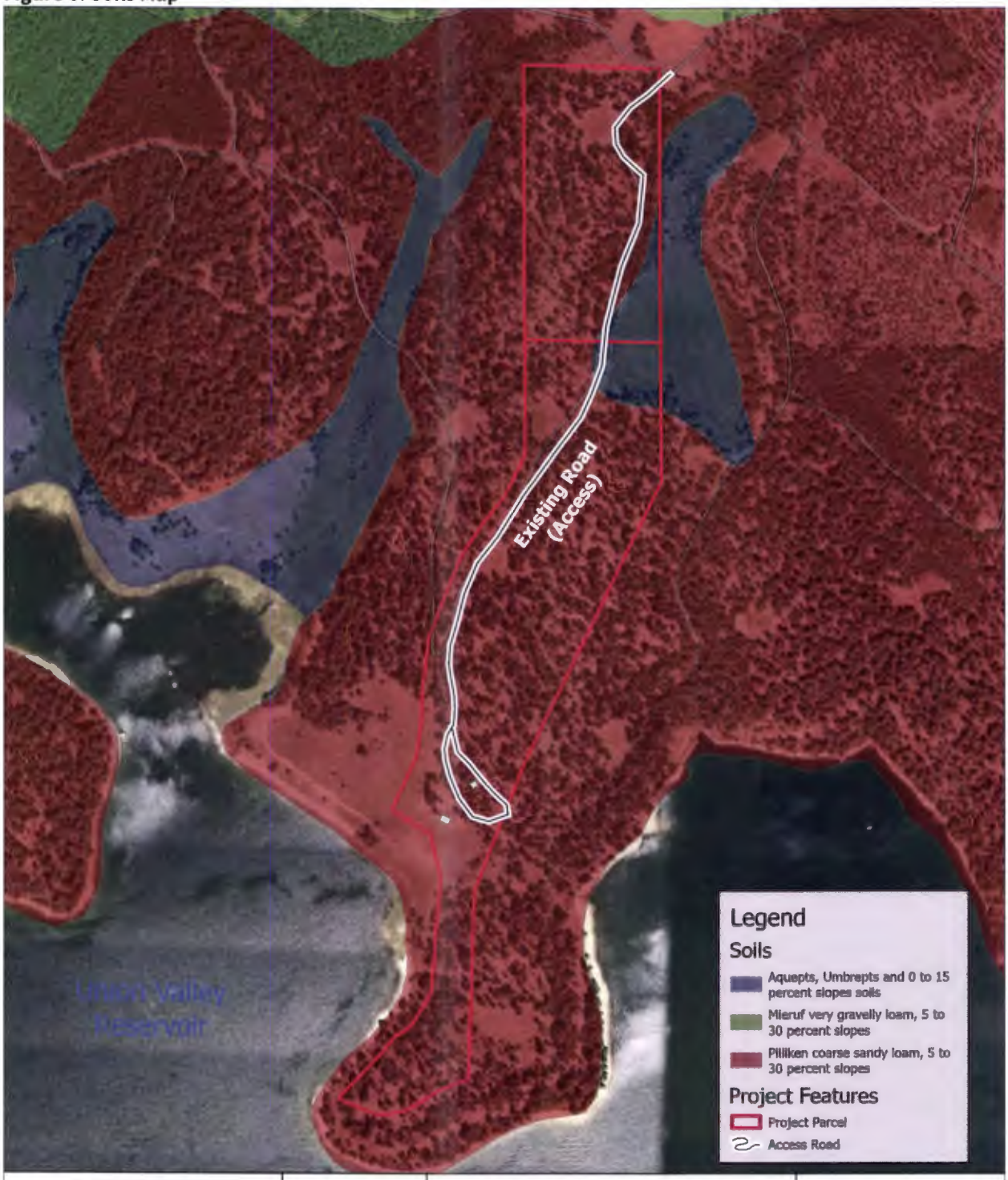
The Project is in the USDA Land Resource Region (LRR) 22A, Sierra Nevada Mountains, which is characterized by hilly to steep mountain relief and occasional mountain valleys.

The NRCS Soil Survey indicates that there are four soil series within the study area (see Figure 6). The following description is summarized from the USDA NRCS Custom Soil Resource Report (NRCS 2024).

Table 2. Soil Series in Study Area

Map Unit Name	Acres in Parcel	Percent of Parcel
Aquepts and Umbrepts 0 to 15 percent slopes	6.95	10.6%
Pilliken coarse sandy loam, 5 to 30 percent slopes	58.83	89.4%

Figure 6. Soils Map



4.0 DISCUSSION

The following section provides details on Project impacts and the specific habitat characteristics for potential TES species that are present in the vicinity of the CMT treatment sites. TES species, which are listed in Table 1, are plants and animals that historically occur in the surrounding area and those with potential habitat.

4.1 Plants

Mingan Moonwort (*Botrychium minganense*)
Mingian Moonwort typically grows in soils with high concentrations of lime. The species can be found in or near streambanks, open fields and meadows. Habitat exists in meadows nearby but not within the Project site. Project activities are not likely to cause impacts to this species.

Pleasant Valley mariposa-lily (*Calochortus clavatus var. avius*)
Endemic to Central California and found on dry, rocky slopes, chaparral, and open fields, typically in elevations less than 4,200 feet. Habitat is poor within the treatment areas with limited bare exposed areas, and at a higher elevation than the species are typically found. Project activities are not likely to cause impacts to this species.

Red Hills soaproot (*Chlorogalum grandiflorum*)
Red Hills soaproot is found in chapparal, woodland, and forested areas on gabbro and serpentine soils. This habitat is not present within the Project area. Project activities are not likely to cause impacts to this species.

Sierra arching sedge (*Carex cyrtostachya*)
Sierra arching sedge is found in wet meadows, marshes, seasonally wet outcrops, and riparian margins. Some habitat is present in meadows nearby, with little habitat present within the project area. Project activities are not likely to cause impacts to this species.

Stebbins' phacelia (*Phacelia stebbinsii*)
Stebbins' phacelia is endemic to Central and Northern California and found in rocky soils in forests and open meadows. Some habitat may be present nearby, but there are not many dry, rocky soils within the Project site to support this species. Project activities are not likely to cause impacts to this species.

felt-leaved violet (*Viola tomentosa*)
Felt-leaved violet is endemic to central Sierra Nevada and can be found in dry, open, coniferous forests with gravelly soils. Habitat is poor within the Project area with limited bare exposed areas and gravelly soils. Project activities are not likely to cause impacts to this species.

Saw-toothed lewisia (*Lewisia serrata)*
Saw-toothed Lewisia is found in shady, moist, rocky canyon and ravine walls. This habitat is not present within the Project area. Project activities are not likely to cause impacts to this species.

scalloped moonwort (*Botrychium crenulatum)*
Scalloped moonwort is found sporadically in wet environments, including meadows in coniferous forests and subalpine regions, and marshes. They are typically found in elevations between 3,800 and 9,200 ft. Some habitat may exists in nearby meadows, but habitat is poor within the Project area. Project activities are not likely to cause impacts to this species.

upswept moonwort (*Botrychium ascendens)*
Upswept moonwort is present in Northern California can usually be found in moist environments near riversides or in lowland meadows. Some habitat may exist in nearby meadows, but habitat is poor within the Project Area. Project activities are not likely to cause impacts to this species.

Western goblin (*Botrychium montanum)*
Western Goblin is found in California usually in moist, dark understories of coniferous forests in soils with a high organic matter content. Habitat is poor within the Project area but exists in nearby meadows. Project activities are not likely to cause impacts to this species.

4.2 Animals

Sierra Nevada mountain beaver (*Aplodontia rufa californica)*
The Sierra Nevada Mountain beaver is a CDFW Species of Special Concern. Sierra Nevada mountain beavers occur in dense riparian-deciduous and open, brushy stages of most forest types. Typical habitat in the Sierra Nevada is montane riparian with frequent open and intermediate-canopy coverage with a dense understory near water. Deep, friable soils are required for burrowing, along with a cool, moist microclimate (Beier 1989). This type of habitat is present adjacent to nearby meadows. Project activities would not occur near these habitat locations and are not likely to cause impacts to this species.

Sierra Nevada red fox (*Vulpes vulpes necator pop. 2)*
Sierra Nevad red foxes are found in alpine and barren areas, subalpine forests, red fir forests, lodgepole pine forests, and mixed conifer forest. They are usually found above 7,000 feet. There is little of this habitat present within the Project area, and red foxes are generally found at a higher elevation. Project activities are not likely to cause impacts to this species.

Sierra Nevada yellow-legged frog (*Rana sierrae)*
The Sierra Nevada yellow-legged frog is federally listed as endangered and listed as threatened

in California. This amphibian inhabits lakes, ponds, meadow streams, isolated pools, and sunny riverbanks in the Sierra Nevada Mountains. Waters that do not freeze to the bottom or dry up are required. It prefers open shorelines that gently slope up to shallows of a few inches (CalHerps 2017). Habitat for this species is very poor in the Project area and most water sources do not stay wet or unfrozen year-round. Project activities are not likely to cause impacts to this species.

Yuma myotis (*Myotis yumanensis*)
Yuma myotis are found in forests, riparian zones, grassland and deserts. This species also likes to be near rivers, streams, ponds, and lakes. Habitat like this is present in meadows and lakes outside of the Project area but not within the Project area boundaries. Project activities are not likely to cause impacts to this species.

fringed myotis (*Myotis thysanodes*)
Fringed myotis are typically found in dry environments throughout open grasslands and mature ponderosa, oak and pinyon-juniper forests. There is no habitat near or in the Project area to support this species. Project activities are not likely to cause impacts to this species.

Bald eagle (*Haliaeetus leucocephalus*)
The Bald eagle is listed as endangered in California. Bald eagles forage in large bodies of water. They typically nest in large trees adjacent to a body of water. Nesting occurrences are common nearby on Union Valley Reservoir as there are large trees and snags that may offer potential nesting sites. No nesting raptors were found during the field survey. Project activities are unlikely to adversely impact this species as no trees are being removed or disturbed.

Sharp-shinned hawk (*Accipiter striatus*)
Sharp-shinned hawk is a CDFW Watchlist Species. Sharp-shinned hawks can be found in mixed or coniferous forests, open deciduous woodlands, thickets, and edges. They usually nest in groves of coniferous or deciduous trees with brush or clearings nearby (Sulivan 1994). The adjacent Jeffrey pine and ponderosa forests surrounding may offer potential nesting sites, but Project activities are unlikely to adversely impact this species.

Spotted owl (*Strix occidentalis*)
Habitat includes old growth forests and, in California, oak woodlands and forested canyons. The adjacent Jeffrey pine and ponderosa forests surrounding may offer potential nesting sites, but treatment activities are unlikely to adversely impact this species.

5.0 CONCLUSION

No raptors or migratory birds were observed nesting during the field survey. No nests from previous years were observed. No occurrences of threatened, endangered, or other special status species were observed during the field survey.

The CNDDB database search found that most special status plants and animals prefer habitat within meadows or coniferous forests that exist within 5 miles of the Project. Based on the existing conditions of the Project area, there is very little wetland habitat or year-round water to support these species. Some meadow habitat is present nearby but is outside of the Project area. Species that are most likely to occur are nesting raptors and migratory birds. Because project activities do not include the removal of trees or shrubs that provide suitable nesting habitat, and because no evidence exists of current/past nesting in the Project vicinity, neither nesting raptors nor migratory birds are likely to be impacted.

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7.0 REPORT AUTHORS

The following individuals prepared the text presented in this analysis.

Sierra Ecosystem Associates

Rick A. Lind	Principal-In-Charge – Document Review
Jeremy Waites	Arborist/GIS Specialist – Co-author
Summer Abel	Environmental Scientist – Primary Author
Rayann La France	Administrative Services Manager – Editor and Document Production

Appendix A

Project Photos

Photograph 1. View from the bike trail facing the Project site showing the existing structure

Photograph 2. View from the Project site looking towards the lake

Photograph 3. View of existing road and septic tanks to be installed

Photograph 4. Proposed residential structure site

Photograph 5. Overview of the northeastern wetland

Photograph 6. The stream running through the northwestern part of the Project site

Appendix B

Species List

Scientific Name	Common Name
Abies concolor	White fir
Abies magnifica	California red fir
Achillea millefolium	Yarrow
Agrostis pallens	Diego bent grass
Agrostis scabra	Rough bentgrass
Alnus incana	Creek alder
Amelanchier utahensis	Pale leaved serviceberry
Anaphalis margaritacea	Pearly everlasting
Apocynum androsaemifolium	Spreading dogbane
Aquilegia formosa	Columbine
Arctostaphylos nevadensis	Pine mat manzanita
Arctostaphylos patula	Green leaf manzanita
Arctostaphylos patula	Green leaf manzanita
ArtemBistorta bistortoides	American bistortisia
Asarum lemmonii	Lemmon's wild ginger
Bromus tectorum	Downy chess
Calocedrus decurrens	Incense cedar
Carex fracta	Fragile sheathed sedge
Ceanothus cordulatus	Mountain whitethorn
Ceanothus integerrimus	Deer brush
Chamerion angustifolium	Fireweed
Chlorogalum pomeridianum	Amole
Cirsium vulgare	Bullthistle
Cirsium vulgare	Bullthistle
Collomia grandiflora	Large flowered collomia
Corallorhiza striata	Striped coral root
Cornus nuttallii	Mountain dogwood
Cornus sericea	Red osier dogwood
Elymus elymoides	Squirrel tail grass
Elymus glaucus	Blue wild rye
Equisetum arvense	Common horsetail

Erythranthe guttata	Seep monkey flower
Festuca rubra	Red fescue
Fragaria vesca	Wild strawberry
Galium bolanderi	Bolander's bedstraw
Goodyera oblongifolia	Rattlesnake plantain
Hackelia micrantha	Jessica's stickseed
Heracleum maximum	Common cow parsnip
Hieracium albiflorum	White flowered hawkweed
Hordeum brachyantherum	Meadow barley
Hosackia oblongifolia	Narrow leaved lotus
Hypericum perforatum	Klamathweed
Juncus balticus	Wire rush
Lactuca serriola	Prickly lettuce
Lonicera conjugialis	Purpleflower honeysuckle
Lupinus fulcratus	Green stipuled lupine
Madia elegans	Common madia
Monardella sheltonii	Shelton's coyote mint
Pedicularis semibarbata	Pine woods lousewort
Penstemon newberryi	Mountain pride
Pinus contorta	Lodgepole pine
Pinus jeffreyi	Jeffrey pine
Pinus lambertiana	Sugar pine
Pinus ponderosa	Yellow pine
Potentilla flabellifolia	Fan leaved cinquefoil
Pseudotsuga menziesii	Douglas fir
Pteridium aquilinum	Western bracken fern
Pterospora andromedea	Pine drops
Quercus kelloggii	California black oak
Rhododendron occidentale	Western azalea
Ribes nevadense	Mountain pink currant
Ribes roezlii	Sierra gooseberry
Rosa californica	California wild rose
Rumex acetosella	Sheep sorrel
Sambucus mexicana	Elderberry
Senecio integerrimus	Lambstongue groundsel
Senecio triangularis	Groundsel
Sidalcea glaucescens	Glaucous checker mallow
Sisyrinchium bellum	Blue eyed grass
Stipa occidentalis	Common western needle grass
Symphoricarpos albus	Common snowberry
Taraxacum officinale	Red seeded dandelion

Tragopogon dubius	Goat's beard
Veratrum californicum	California corn lily
Verbascum thapsus	Woolly mullein
Viola purpurea	Goosefoot violet

Sierra Ecosystem Associates

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Thank you for this opportunity to assist you with this Project. Please feel free to contact me if you have any questions on the above or enclosed.

Sincerely,

Jeremy Waites

Attachments:

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- Draft Preliminary Wetland Delineation Report

1024 Simon Drive, Suite H P.O. Box 2260 Placerville, CA 95667 tel 530 622 8740 www.sierraecos.com

DRAFT

PRELIMINARY WETLAND DELINEATION REPORT

KUHL RESIDENTIAL STRUCTURE CONSTRUCTION PROJECT

Prepared for:

Michael Kuhl
APN: 011-030-058,
011-030-055

Prepared by:

Sierra Ecosystem Associates

1024 Simon Drive
Placerville, CA 95667

JULY 31, 2024

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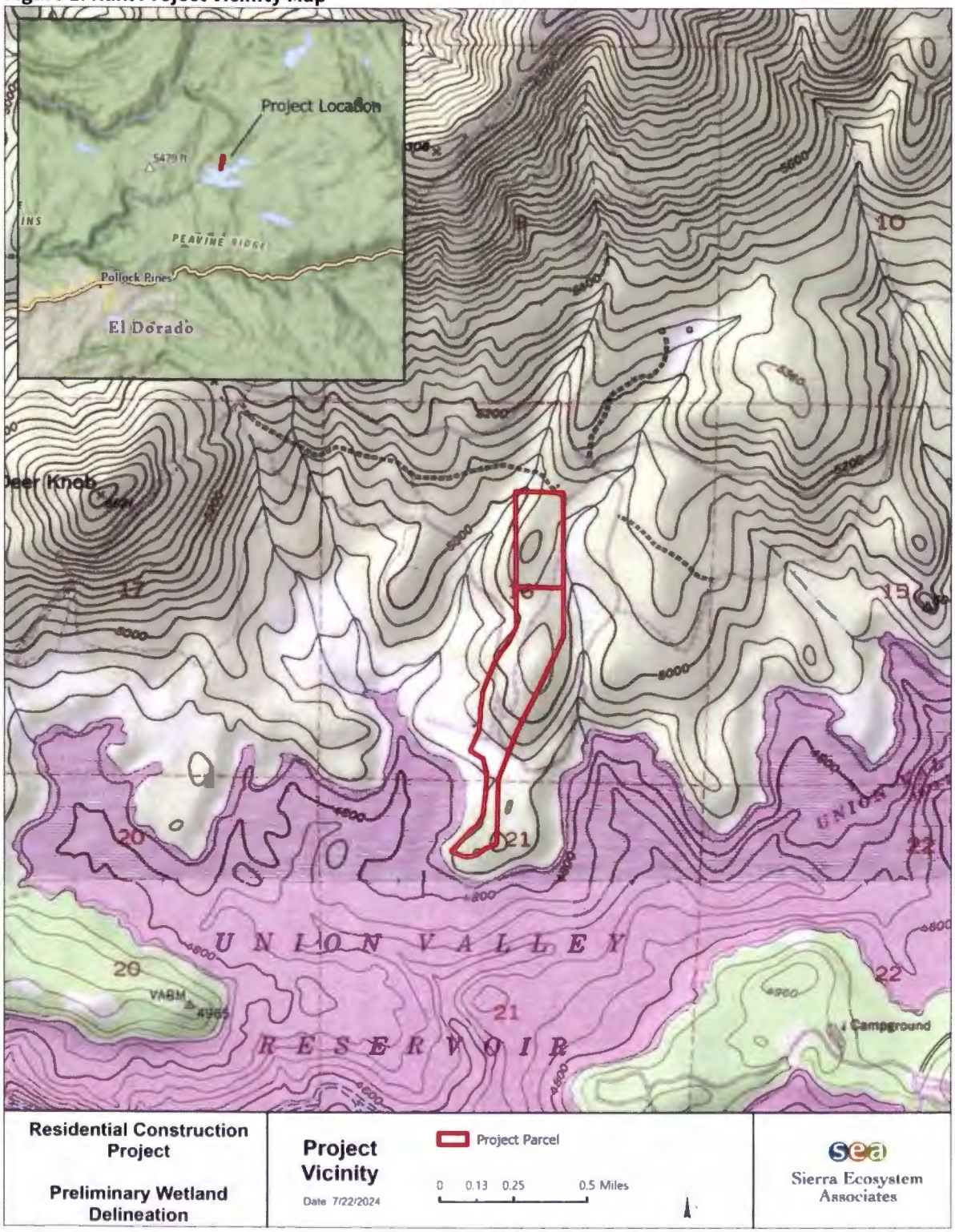
1.0 INTRODUCTION

This document represents a preliminary wetland determination and delineation subject to verification by the U.S. Army Corps of Engineers (USACE). The Preliminary Wetland Delineation (PWD) report describes the existing wetland resources within and near an area identified for a residential construction project on the north shore of Union Valley Reservoir. The PWD consisted of a desktop database review and field data collection in the Project area. The report presents determination of the location of wetland boundaries and includes several maps identifying wetland features of the area including streams and wetlands based on vegetation, soil, and hydrology characteristics.

1.1 Setting

The residential structure construction Project (Project) is located on the north shore of Union Valley Reservoir at approximately 5,000 feet elevation. The Project area consists of mostly upland mixed conifer with a meadow to the west (M-1) and a meadow (M-2) on the eastern boundary 2,000 feet to the north of the proposed construction site. The meadows are fed by snowmelt in the spring and groundwater throughout the summer and fall and flow into Union Valley Reservoir. The overstory consists of fir and pine species with a mix of incense cedar, black oak, and Douglas fir. Figure 1 shows the Project vicinity.

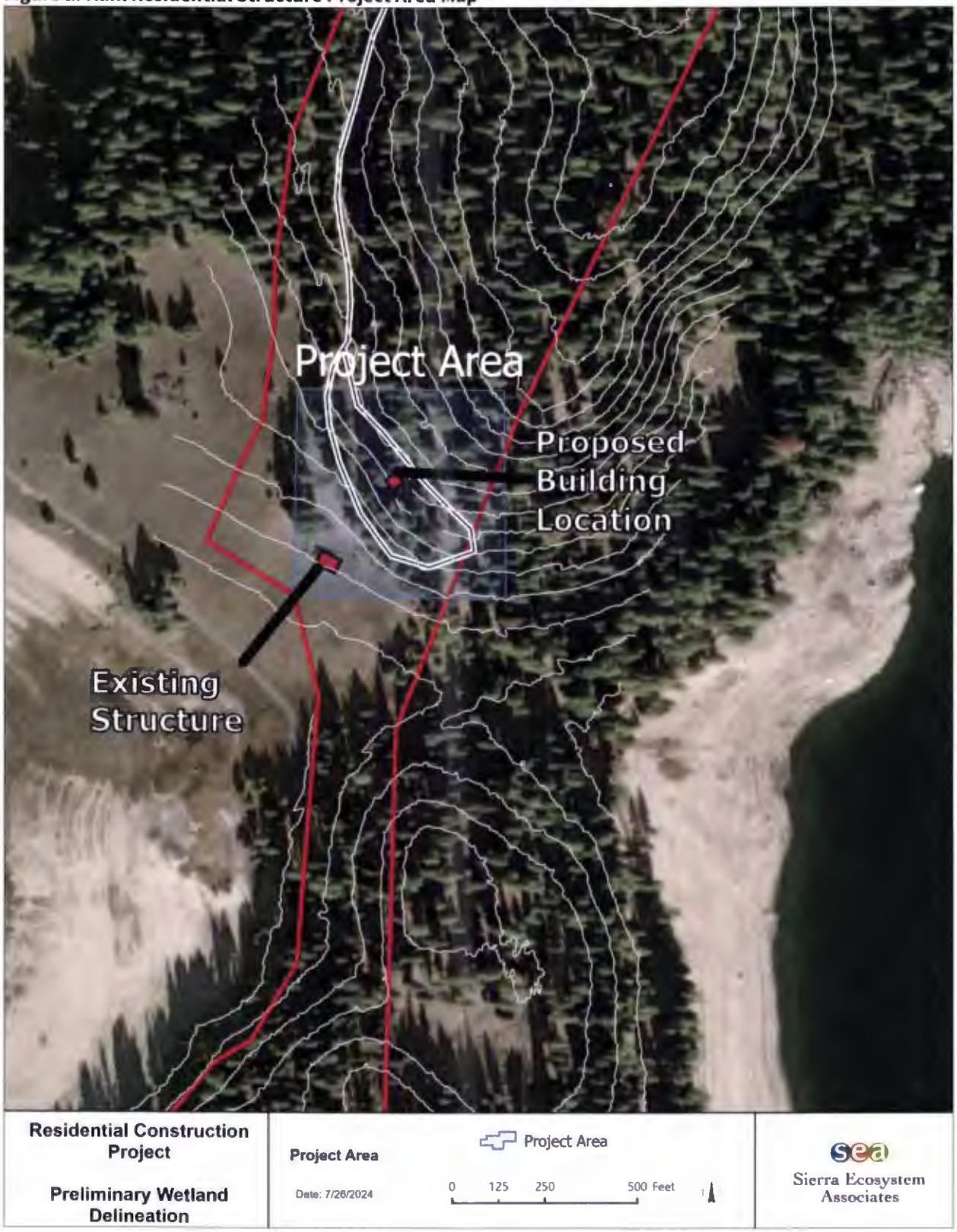
Figure 1. Kuhl Project Vicinity Map



1.2 Project Description

The Project is to construct a residential structure approximately 250 feet northwest of an existing structure and 50 feet higher in elevation. The locations of the existing structure and proposed structure are shown below in Figure 2. Staging areas will be located outside the Project area and access routes will be on existing roads.

Figure 2. Kuhl Residential Structure Project Area Map



2.0 METHODOLOGY

This PWD was prepared in accordance with the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Western Mountains Region (Version 2.0) (USACE 2008). The Study Area was surveyed on June 20, 2024 to gather the necessary soil, vegetation, and hydrology data to prepare the PWD report. Data was collected according to procedures of the above referenced documents for determination of the wetland boundaries and data was collected and entered into the Wetland Determination Data Forms (Appendix A). The Study Area where data collection and field surveys took place is shown on Figure 1 in the Project Parcel. The Project Area outline with the existing structure and proposed building location are defined and shown above in Figure 2.

- Wetland Delineation Study Area (Study Area): Total area of data collection that includes the Project Area and the entire parcel.
- Project Area: Total area where work is planned that is the approximate location of the residential structure construction site.

Sierra Ecosystem Associates (SEA) Senior Ecologist, Jeremy Waites, served as the principal author of the PWD report. Mr. Waites has over 18 years of professional experience completing a variety of biological studies and preparing associated reports and has completed numerous wetland delineations in the Sierra Nevada region.

Observation/data points were composed of paired data collection locations based on field conditions. Each pair of points was placed equidistant from the wetland boundary determined by the indicators at each data point. At each data point, the site was examined for hydrophytic vegetation, hydric soils, and wetland hydrology and recorded on the attached Data Forms (Appendix A). Wetland boundaries, data points and other waters, including streams, were mapped using a sub-meter accuracy GPS unit and are shown in Figure 5.

Vegetation was sampled and quantified at each point by each taxon's percent cover of the observation area and identified to species level wherever possible using the Jepson Manual: Higher Plants of California nomenclature (Hickman 1993) (Jepson eFlora 2024). The 2016 National Wetland Plant List and the U.S. Department of Agriculture (USDA) Plants database were consulted to determine the wetland indicator status for each plant [Upland (UPL), Facultative Upland (FACU), Facultative (FAC), Facultative Wetland (FACW), and Obligate (OBL)] (Lichvar et al. 2016, USDA NRCS 2024).

Soil pits were dug to a depth necessary to document evidence of hydric soils and examined at each potential wetland and adjacent upland. Each soil sample was moistened before determining texture and color. Soil texture was determined in the field by approximating the percentage of sand, silt, and clay using the USDA soil texture triangle. Soil colors were determined using the Munsell Soil Color Charts (2000). The soils were classified using the USDA soil texture nomenclature as described in the University of Florida Extension Fact Sheet SL-29

(Brown 2003). Hydric soil indicators described in the Supplemental Manual and the USDA Natural Resource Conservation Service (NRCS) publication of Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils were used to determine if hydric soils are present (USDA 2017).

Wetland hydrology indicators were evaluated at potential wetlands. Determination of the ordinary high-water mark (OHWM) was based on the definition provided in the USACE regulations under the Clean Water Act (CWA) 33 CFR 328.3(e) and the Regulatory Guidance Letter No. 05-05 (USACE 2005). All existing conditions are described in more detail in Section 3.2. Environmental Conditions, and OHWM determinations were based upon direct or indirect evidence as described in both the 1987 Manual and the Supplemental Manual and the Regulatory Guidance Letter No. 05-05.

The following data sources were collected prior to going to the field on June 20, 2024:

- Web Soil Survey (NRCS 2024): The web soil survey was reviewed to determine which soil series have been mapped on-site and whether any hydric soils are present. A Custom Soil Resource Report for El Dorado County California, Digital GIS shapefiles of the mapped soils obtained from the NRCS were downloaded and mapped for the Project.
- National Wetlands Inventory (NWI) [U.S. Fish and Wildlife Service (USFWS) 2024]: Digital geographic information system (GIS) shapefiles of existing, mapped NWI wetlands were downloaded from the USFWS Wetlands Geodatabase and mapped for the Project.
- National Hydrography Dataset (NHD) [U.S. Geological Survey (USGS) 2023]: Digital GIS shapefiles of the hydrographic data for the region were downloaded from the USGS NHD Geodatabase and mapped for the Project.
- The USGS 7.5-minute Robbs Peak SE topographic quadrangle map: The quad map was reviewed for existing waters and other potential wetland features or topography that indicated the potential for drainage or ponding.
- Habitat Classification: The habitat was classified by reviewing the Manual of California Vegetation classification scheme and based on knowledge of plant communities in the region (Sawyer and Keeler-Wolf 2009). These vegetation communities can be cross-walked with other vegetation classification schemes as necessary.
- Aerial Photography: National Agricultural Imagery Program (NAIP) 2024 El Dorado County, color, ortho-rectified 0.3-meter pixel resolution: Aerial photography was used to determine coarse locations of wetland boundaries and data collection points.

2.1 Site Assessment

After completing the database review, SEA staff Senior Ecologist, Jeremy Waites, Environmental Scientist, Summer Abel, and Assistant Environmental Scientist Aria Pauling visited the Project area and completed a pedestrian field survey on June 20, 2024. The purpose of the field survey was to collect data that would aid in determining the boundaries of all

wetlands in the Project area. Data collected during the field assessment and photos of collected samples can be found in Appendix A and Appendix B, respectively.

3.0 RESULTS AND DISCUSSION

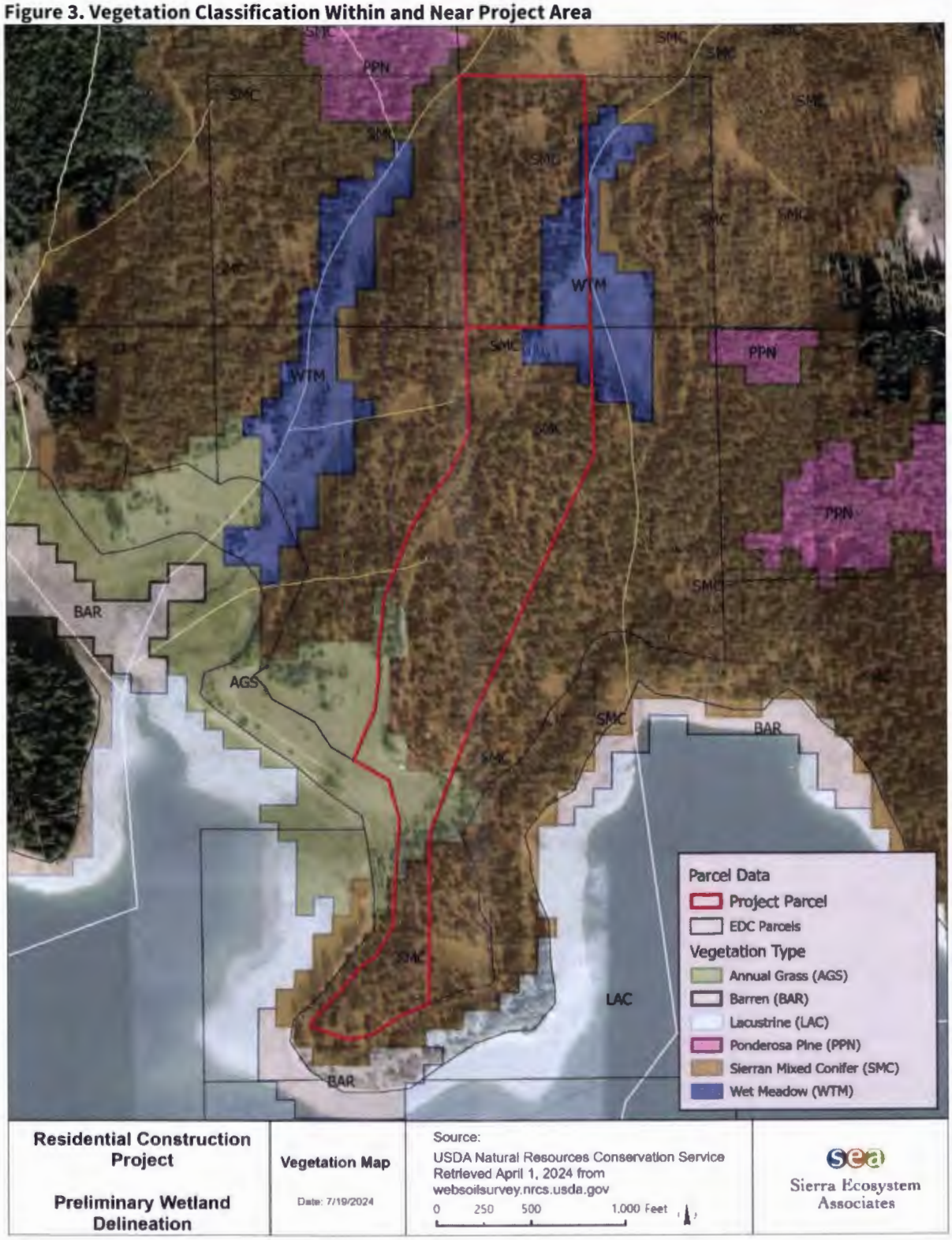
This section describes the existing environmental conditions including soils, vegetation, and wetland features.

3.1 Habitat Classification

There are numerous vegetation classification schemes for California, which have been developed by various agencies and ecologists for various user groups. The California Wildlife Habitat Relationship (CWHR) system was developed by CDFW to predict the habitat value for vertebrate animal species in California (CWHR 2024). Figure 3 shows the vegetation classification of the Project area according to the CWHR system. Although the data shown in Figure 3 are coarse, the vegetation types displayed are consistent with observations of vegetation types identified during the pedestrian field survey. The following descriptions characterize the four major vegetation types found within the Study area.

- Annual Grassland usually contains perennial bunch grasses such as squirrel tail (*Elymus*), mules ear (*Wyethia*), and sometimes sagebrush (*Artemisia*). Many of these species have been displaced by non-native annual grasses. This is more common at lower elevations.
- Wet Meadow is made up of a large variety of plant species. Those species most common to wet meadows in the north-central Sierra at this elevation include *Agrostis, Carex, Danthonia, Juncus, Salix, and Scirpus*. Important grass and grass-like species include thingrass, abruptbeak sedge, beaked sedge, Nebraska sedge, tufted hairgrass, needle spikerush, fewflowered spikerush, common spikerush, baltic rush, Nevada rush, iris-leaf rush, pullup muhly, and panicled bulrush.
- Sierran Mixed Conifer is defined by vegetation consisting of thinleaf alder, aspen, cottonwood, dogwood, wild azalea, willow, and water birch. Montane riparian is found associated with montane lakes, ponds, seeps, bogs and meadows as well as rivers, streams and springs. Within the Project Area, lodgepole and honeysuckle are common in the upper edges of the meadow.

Figure 3. Vegetation Classification Within and Near Project Area



3.2 Environmental Conditions

The Project is in the USDA Land Resource Region (LRR) 22A, Sierra Nevada Mountains, which is characterized by hilly to steep mountain relief and occasional mountain valleys.

Soils

The NRCS Soil Survey indicates that there are four soil series within the study area (see Figure 4). The following description is summarized from the USDA NRCS Custom Soil Resource Report (NRCS 2024).

Table 1. Soil Series in Study Area

Map Unit Name	Acres in Parcel	Percent of Parcel
Aquepts and Umbrepts 0 to 15 percent slopes	6.95	10.6%
Pilliken coarse sandy loam, 5 to 30 percent slopes	58.83	89.4%

Aquepts Series

Aquepts are poorly drained or very poorly drained soils that are formed in alluvial material on broad valley flats and along drainages. Slope ranges from 0 to 15 percent. Vegetation is the Sedge-Rush series.

- Aquepts and Umbrepts, 0 to 15 percent slopes soils

Pilliken Series

The Pilliken series consists of deep, well drained soils formed in material weathered from granitic rocks. They are on mountainsides with slopes of 5 to 75 percent. Mean annual precipitation is 53 inches and mean annual temperature is 49 degrees F.

- Pilliken coarse sandy loam, 5 to 30 percent slopes

Figure 4. Soils Map

Wetlands and Other Potential Army Corps of Engineers' Jurisdictional Waters

Wetlands are defined as, "those areas that are 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 soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (USACE 1987). Wetland habitats occur within the Project Area.

During the site assessment, potential jurisdictional wetlands and waters were mapped based on vegetation indicators, the presence of hydric soils and visible hydrology. Data corresponding to the wetland determination is included in Appendix A. Figure 5 shows the wetlands that exist within and nearby the Project Area.

Deepwater Aquatic Habitats

Deepwater aquatic habitat is defined as, "areas that are permanently inundated at mean annual water depths > 6.6 feet or permanently inundated areas ≤ 6.6 feet in depth that do not support rooted-emergent or woody plant species" (USACE 1987). There is one feature within the study area that meets this definition which is Union Valley Reservoir. Union Valley Reservoir is a Sacramento Municipal Utility District maintained reservoir that decreases in volume in the fall to early winter and is close to full pool in normal rain years following snowmelt periods. The ordinary high-water mark for this reservoir is approximately 770 feet from Project activities.

Figure 5. Wetlands and Hydrology

3.3 Aquatic Features and Potential Wetlands

The wetland and hydrological features from the National Wetland Inventory and the National Hydrology Dataset (USFWS 2024) are shown in Figure 6. Overland flow is generally from north to south. Two streams (ST-1, ST-2) shown in Figure 5 are on either side of the Project. Both flow through meadows and empty into Union Valley Reservoir.

Following completion of the field assessment, delineated features of the wetland differ from those defined by the NWI. NWI wetland data is presented in Figure 6. Specifically, based on the field survey data, the wetlands extend farther and the most southern wetland (W-1) is more complex. W-1 has many wetland plant species, but trends to more upland invasive plant species in the later drier season. The NWI dataset classifies the wetlands within the study area as: Emergent Wetland but also contains Forested Shrub Wetland and Riverine.

Figure 6. National Wetland Inventory

4.0 SUMMARY OF FINDINGS

Wetlands within the study area are localized to the three wetland areas W-1, W-2, and W-3. W-1 was a mix of wetland and upland species and its characteristics barely indicated it as a wetland. W-2 is part of a large meadow complex in which the overland flow converged into (ST-2) on the southeastern side into a culvert and road. W-3 forms from a stream (ST-1) and is a riverine wetland. The overland flow of ST-1 disperses and forms a large freshwater emergent wetland.

The annual grass area between the existing structure and the lake was examined closely for wetland indicators. This area had sandy and very well drained soils with no indicators of being a wetland.

0 acres of wetlands and other waters have been identified within the Project disturbance area as shown in Table 2, below. The disturbance area is based on the following Project features:

- Construction of new residential structure
- Access routes and staging areas

Table 2. Wetland Area Calculations

Location	Acres	Square Feet
Within Study Area and Outside Project Area	4.2	183,514
Within Project Construction Area	0	0

Based on this PWD, no impacts to wetlands will result from the Project.

5.0 REPORT AUTHORS

The following individuals prepared the text presented in this analysis.

Sierra Ecosystem Associates

Rick A. Lind	Principal-In-Charge – Document Review
Jeremy Waites	Arborist/GIS Specialist – Primary Author
Summer Abel	Environmental Scientist – Document Review
Rayann La France	Administrative Services Manager – Editor and Document Production

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U.S. Geological Survey, 2023, National Hydrography Dataset (NHD) - USGS National Map Downloadable Data Collection: USGS - National Geospatial Technical Operations Center (NGTOC).

Appendix A

Wetland Delineation Data Forms

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley City/County: El Dorado Sampling Date: 6/20/2024
Applicant/Owner: Michael Kuhl State: CA Sampling Point: WD-1
Investigator(s): Jeremy Waites, Summer Abel Section, Township, Range: Section 16, T12N, R14E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1
Subregion (LRR): D Latitude: 38.879483 Longitude: -120.4142 Datum: WGS84
Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	Is the Sampled Area within a Wetland?	Yes ___ No X
Hydric Soil Present?	Yes ___ No X		
Wetland Hydrology Present?	Yes ___ No X		

Remarks:

VEGETATION - Use scientific names of plants

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
	0	Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1.			-
2.			
3.			
4.			
5.			
	0	Total Cover	
Herb Stratum (Plot size: ___)			
1. *Rumex acetoselle*	30	Y	FACU
2. *Verbascum thapsus*	1		FACU
3. *Madia elegans*	1		-
4. *Juncus tenuis*	1		FAC
5. *Leptosiphon ciliatus*	1		-
6.			
7.			
8.			
	34	Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	Total Cover	

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust ___

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	0 x 1 =	0
FACW species	0 x 2 =	0
FAC species	1 x 3 =	3
FACU species	32 x 4 =	128
UPL species	x 5 =	0
Column Totals:	33 (A)	131 (B)

Prevalence Index = B/A = 3.97

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes ___ No X

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

SOIL Sampling Point: WD-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	LOC[2]	Texture	Remarks
12	7.5 YR 3/2	100					sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils[3]:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11
- ___ Thick Dark Surface (A12)
- ___ Depleted Below Dark Surface (A11
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral(F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___
- ___ 2 cm Muck (A10) (LRR B)
- ___ Very Shallow Dark Surface
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface
- ___ Algal Mat or Crust
- Iron Deposits
- ___ Salt Crust (B11)
- ___ Water Stained Leaves
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants
- ___ Other (Explain in Remarks)
- ___

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves
- ___ Raised Ant Mounds
- ___ Frost Heave Hummocks
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Geomorphic Position

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches) _____
Water Table Present? Yes ___ No X Depth (inches) _____
Saturation Present? Yes ___ No X Depth (inches) _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley City/County: El Dorado Sampling Date: 6/20/2024

Applicant/Owner: Michael Kuhl State: CA Sampling Point: WD-2

Investigator(s): Jeremy Waites, Summer Abel Section, Township, Range: Section 16, T12N, R14E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): D Latitude: 38.8793 Longitude: -120.4140 Datum: WGS84

Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes NWI classification: Freshwater Emergent Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x No ___	**Is the Sampled Area within a Wetland?** Yes X No ___
Hydric Soil Present?	Yes x No ___	
Wetland Hydrology Present?	Yes x No ___	

Remarks:

VEGETATION - Use scientific names of plants

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus jeffreyii*	5		
2. *Pinus contorta*	2		
3.			
4.			
	7	Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1.			-
2.			
3.			
4.			
5.			
	0	Total Cover	
Herb Stratum (Plot size: ___)			
1. *Carex inopa*	90	Y	OBL
2. *Poa pratensis*	5		FAC
3. *Lolium pratense*	5		-
4.			
5.			
6.			
7.			
8.			
	100	Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	Total Cover	

% Bare Ground in Herb Stratum 1 % Cover of Biotic Crust ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species		x 5 =	0
Column Totals:	95 (A)		105 (B)

Prevalence Index = B/A = 1.11

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes X No ___

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

SOIL Sampling Point: WD-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type	LOC[2]	Texture	Remarks
12	10 YR 3/4	100					sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils[3]:

___ Histosol (A1)	_X_ Sandy Redox (S5)	___	
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___	2 cm Muck (A10) (LRR B)
___ Black Histic (A3)	___ Loamy Mucky Mineral(F1)	___	Very Shallow Dark Surface
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	___	Red Parent Material (TF2)
___ Depleted Below Dark Surface (A11	___ Depleted Matrix (F3)	___	Other (Explain in Remarks)
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)		
___ Depleted Below Dark Surface (A11	___ Depleted Dark Surface (F7)		
___ Sandy Mucky Mineral (S1)	___ Redox Depressions (F8)		
___ Sandy Gleyed Matrix (S4)			

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _X_ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Salt Crust (B11)	___ Water Stained Leaves
___ High Water Table (A2)	___ Water Stained Leaves	___ Raised Ant Mounds
___ Saturation (A3)	___ Aquatic Invertebrates (B13)	___ Frost Heave Hummocks
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Drainage Patterns (B10)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres along Living Roots (C3)	___ Dry-Season Water Table (C2)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Crayfish Burrows (C8)
___ Surface Soil Cracks (B6)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Saturation Visible on Aerial Imagery (C2)
___ Inundation Visible on Aerial Imagery (B7)	___ Stunted or Stressed Plants	___ Shallow Aquitard (D3)
___ Sparsely Vegetated Concave Surface	___ Other (Explain in Remarks)	___ FAC-Neutral Test (D5)
___ Algal Mat or Crust	___	___ Geomorphic Position
___ Iron Deposits		

Field Observations:
Surface Water Present? Yes ___ No _X_ Depth (inches) _____
Water Table Present? Yes ___ No _X_ Depth (inches) _____
Saturation Present? Yes ___ No _X_ Depth (inches) _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No _X_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley City/County: El Dorado Sampling Date: 6/20/2024
Applicant/Owner: Michael Kuhl State: CA Sampling Point: WD-3
Investigator(s): Jeremy Waites, Summer Abel Section, Township, Range: Section 16, T12N, R14E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1
Subregion (LRR): D Latitude: 38.879073 Longitude: -120.4139 Datum: WGS84
Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes NWI classification: Freshwater Emergent Wetland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	Is the Sampled Area within a Wetland? Yes X No ___
Hydric Soil Present?	Yes X No ___	
Wetland Hydrology Present?	Yes ___ No X	

Remarks:

VEGETATION - Use scientific names of plants

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus jeffreyii*	5		-
2.			
3.			
4.			
	5 Total Cover		
Sapling/Shrub Stratum (Plot size: ___)			
1.			-
2.			
3.			
4.			
5.			
	0 Total Cover		
Herb Stratum (Plot size: ___)			
1. *Rumex acetoselle*	5		FACU
2. *Verbascum thapsus*	2		FACU
3. *Carex fracta*	80	Y	FAC
4. *Juncus tenuis*	1	5	FAC
5. *Leymus triticoides*	2		FAC
6.			
7.			
8.			
	90 Total Cover		
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0 Total Cover		

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust ___

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	83	x 3 =	249
FACU species	2	x 4 =	8
UPL species		x 5 =	0
Column Totals:	85 (A)		257 (B)

Prevalence Index = B/A = 3.02

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes X No ___

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

SOIL Sampling Point: WD-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	LOC[2]	Texture	Remarks
6	10 YR 3/3	100					sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils[3]:

___ Histosol (A1)	X Sandy Redox (S5)	___	
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___	2 cm Muck (A10) (LRR B)
___ Black Histic (A3)	___ Loamy Mucky Mineral(F1)	___	Very Shallow Dark Surface
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	___	Red Parent Material (TF2)
___ Depleted Below Dark Surface (A11	___ Depleted Matrix (F3)	___	Other (Explain in Remarks)
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)		
___ Depleted Below Dark Surface (A11	___ Depleted Dark Surface (F7)	[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
___ Sandy Mucky Mineral (S1)	___ Redox Depressions (F8)		
___ Sandy Gleyed Matrix (S4)	___		

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Salt Crust (B11)	___ Water Stained Leaves
___ High Water Table (A2)	___ Water Stained Leaves	___ Raised Ant Mounds
___ Saturation (A3)	___ Aquatic Invertebrates (B13)	___ Frost Heave Hummocks
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Drainage Patterns (B10)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres along Living Roots (C3)	___ Dry-Season Water Table (C2)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Crayfish Burrows (C8)
___ Surface Soil Cracks (B6)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Saturation Visible on Aerial Imagery (C2)
___ Inundation Visible on Aerial Imagery (B7)	___ Stunted or Stressed Plants	___ Shallow Aquitard (D3)
___ Sparsely Vegetated Concave Surface	___ Other (Explain in Remarks)	___ FAC-Neutral Test (D5)
___ Algal Mat or Crust	___	___ Geomorphic Position
___ Iron Deposits		

Field Observations:
Surface Water Present? Yes ___ No X Depth (inches) _____
Water Table Present? Yes ___ No X Depth (inches) _____
Saturation Present? Yes ___ No X Depth (inches) _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley City/County: El Dorado Sampling Date: 6/20/2024

Applicant/Owner: Michael Kuhl State: CA Sampling Point: WD-4

Investigator(s): Jeremy Waites, Summer Abel Section, Township, Range: Section 16, T12N, R14E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): D Latitude: 38.878934 Longitude: -120.4137 Datum: WGS84

Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	Is the Sampled Area within a Wetland? Yes ___ No X
Hydric Soil Present?	Yes ___ No X	
Wetland Hydrology Present?	Yes ___ No X	

Remarks:

VEGETATION - Use scientific names of plants

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus jeffreyii*	40	X	-
2. *Abies concolor*	20		-
3.			
4.			
	60	Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1.			-
2.			
3.			
4.			
5.			
	0	Total Cover	
Herb Stratum (Plot size: ___)			
1. *Lotus corniculatus*	1		FAC
2. *Verbascum thapsus*	1		FACU
3. *Achillea millefolium*	5		FACU
4. *Cynosurus echinatus*	1		-
5. *Leptosiphon ciliatus*	3		-
6.			
7.			
8.			
	11	Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	Total Cover	

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	1	x 3 =	3
FACU species	8	x 4 =	24
UPL species		x 5 =	0
Column Totals:	7 (A)		27 (B)

Prevalence Index = B/A = 3.86

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes ___ No X

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

SOIL Sampling Point: WD-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	LOC[2]	Texture	Remarks
8	10 YR 3/2	100					sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils[3]:

___ Histosol (A1)	___ Sandy Redox (S5)	___
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ 2 cm Muck (A10) (LRR B)
___ Black Histic (A3)	___ Loamy Mucky Mineral(F1)	___ Very Shallow Dark Surface
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	___ Red Parent Material (TF2)
___ Depleted Below Dark Surface (A11	___ Depleted Matrix (F3)	___ Other (Explain in Remarks)
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Depleted Below Dark Surface (A11	___ Depleted Dark Surface (F7)	[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
___ Sandy Mucky Mineral (S1)	___ Redox Depressions (F8)	
___ Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Salt Crust (B11)	___ Water Stained Leaves
___ High Water Table (A2)	___ Water Stained Leaves	___ Raised Ant Mounds
___ Saturation (A3)	___ Aquatic Invertebrates (B13)	___ Frost Heave Hummocks
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Drainage Patterns (B10)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres along Living Roots (C3)	___ Dry-Season Water Table (C2)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Crayfish Burrows (C8)
___ Surface Soil Cracks (B6)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Saturation Visible on Aerial Imagery (C2)
___ Inundation Visible on Aerial Imagery (B7)	___ Stunted or Stressed Plants	___ Shallow Aquitard (D3)
___ Sparsley Vegetated Concave Surface	___ Other (Explain in Remarks)	___ FAC-Neutral Test (D5)
___ Algal Mat or Crust	___	___ Geomorphic Position
___ Iron Deposits		

Field Observations:
Surface Water Present? Yes ___ No X Depth (inches) _____
Water Table Present? Yes ___ No X Depth (inches) _____
Saturation Present? Yes ___ No X Depth (inches) _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley City/County: El Dorado Sampling Date: 6/20/2024

Applicant/Owner: Michael Kuhl State: CA Sampling Point: WD-5

Investigator(s): Jeremy Waites, Summer Abel Section, Township, Range: Section 16, T12N, R14E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): D Latitude: 38.879061 Longitude: -120.4135 Datum: WGS84

Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	Is the Sampled Area within a Wetland? Yes X No ___
Hydric Soil Present?	X No X	
Wetland Hydrology Present?	Yes ___ No ___	
Remarks:		

VEGETATION - Use scientific names of plants

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus jeffreyii*	10		-
2. *Abies concolor*	5		-
3.			
4.			
	15	Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1.			-
2.			
3.			
4.			
5.			
	0	Total Cover	
Herb Stratum (Plot size: ___)			
1. *Rumex acetoselle*	5		FACU
2. *Bromus tectorum*	5		-
3. *Hypericum perforatum*	5		FACU
4. *Carex fracta*	30	X	FAC
5. *Leptosiphon ciliatus*	1		-
6.			
7. *Achillea millefolium*	5		FACU
8.			
	51	Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	Total Cover	

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	15	x 4 =	60
UPL species		x 5 =	0
Column Totals:	45 (A)		150 (B)

Prevalence Index = B/A = 3.33

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes X No ___

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

SOIL Sampling Point: WD-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	LOC[2]	Texture	Remarks
8	10YR 4/4	100					sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils[3]:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11
- ___ Thick Dark Surface (A12)
- ___ Depleted Below Dark Surface (A11
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral(F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Very Shallow Dark Surface
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface
- ___ Algal Mat or Crust
- ___ Iron Deposits
- ___ Salt Crust (B11)
- ___ Water Stained Leaves
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants
- ___ Other (Explain in Remarks)
- ___

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves
- ___ Raised Ant Mounds
- ___ Frost Heave Hummocks
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Geomorphic Position

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches) _____
Water Table Present? Yes ___ No X Depth (inches) _____
Saturation Present? Yes ___ No X Depth (inches) _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley City/County: El Dorado Sampling Date: 6/20/2024
Applicant/Owner: Michael Kuhl State: CA Sampling Point: WD-1
Investigator(s): Jeremy Waites, Summer Abel Section, Township, Range: Section 16, T12N, R14E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1
Subregion (LRR): D Latitude: 38.879483 Longitude: -120.4142 Datum: WGS84
Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	Is the Sampled Area within a Wetland? Yes ___ No X
Hydric Soil Present?	Yes ___ No X	
Wetland Hydrology Present?	Yes ___ No X	

Remarks:

VEGETATION - Use scientific names of plants

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus jeffreyii*	25		-
2.			
3.			
4.			
	25	Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1.			-
2.			
3.			
4.			
5.			
	0	Total Cover	
Herb Stratum (Plot size: ___)			
1. *Carex fracta*	5		FAC
2. *Stipa occidentalis*	15	Y	-
3. *Rumex acetosella*	15		FACU
4. *Madia elegans*	5		-
5. *Leptosiphon ciliatus*	1		-
6. *Lupinus fulcratus*	1		-
7.			
8.			
	42	Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	Total Cover	

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust ___

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	15	x 4 =	60
UPL species		x 5 =	0
Column Totals:	20 (A)		75 (B)

Prevalence Index = B/A = 3.75

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes ___ No X

US Army Corp of Engineers

Western Mountains, Valleys and Coast Region

SOIL Sampling Point: WD-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	LOC[2]	Texture	Remarks
12	10 YR 3/2	100					sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils[3]:

___ Histosol (A1)	___ Sandy Redox (S5)	___
___ Histic Epipedon (A2)	___ Stripped Matrix (S6)	___ 2 cm Muck (A10) (LRR B)
___ Black Histic (A3)	___ Loamy Mucky Mineral(F1)	___ Very Shallow Dark Surface
___ Hydrogen Sulfide (A4)	___ Loamy Gleyed Matrix (F2)	___ Red Parent Material (TF2)
___ Depleted Below Dark Surface (A11	___ Depleted Matrix (F3)	___ Other (Explain in Remarks)
___ Thick Dark Surface (A12)	___ Redox Dark Surface (F6)	
___ Depleted Below Dark Surface (A11	___ Depleted Dark Surface (F7)	[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
___ Sandy Mucky Mineral (S1)	___ Redox Depressions (F8)	
___ Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
___ Surface Water (A1)	___ Salt Crust (B11)	___ Water Stained Leaves
___ High Water Table (A2)	___ Water Stained Leaves	___ Raised Ant Mounds
___ Saturation (A3)	___ Aquatic Invertebrates (B13)	___ Frost Heave Hummocks
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Drainage Patterns (B10)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres along Living Roots (C3)	___ Dry-Season Water Table (C2)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Crayfish Burrows (C8)
___ Surface Soil Cracks (B6)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Saturation Visible on Aerial Imagery (C2)
___ Inundation Visible on Aerial Imagery (B7)	___ Stunted or Stressed Plants	___ Shallow Aquitard (D3)
___ Sparsely Vegetated Concave Surface	___ Other (Explain in Remarks)	___ FAC-Neutral Test (D5)
___ Algal Mat or Crust	___	___ Geomorphic Position
___ Iron Deposits		

Field Observations:
Surface Water Present? Yes ___ No X Depth (inches) _____
Water Table Present? Yes ___ No X Depth (inches) _____
Saturation Present? Yes ___ No X Depth (inches) _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley City/County: El Dorado Sampling Date: 6/20/2024

Applicant/Owner: Michael Kuhl State: CA Sampling Point: WD-1

Investigator(s): Jeremy Waites, Summer Abel Section, Township, Range: Section 16, T12N, R14E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): D Latitude: 38.879483 Longitude: -120.4142 Datum: WGS84

Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	Is the Sampled Area within a Wetland?	Yes ___ No X
Hydric Soil Present?	Yes ___ No X		
Wetland Hydrology Present?	Yes ___ No X		

Remarks:

VEGETATION - Use scientific names of plants

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Abies concolor*	50	X	-
2. *Calocedrus decurrens*	10		-
3.			
4.			
	60	Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1.			-
2.			
3.			
4.			
5.			
	0	Total Cover	
Herb Stratum (Plot size: ___)			
1. *Viola adunca*	1		FAC
2. *Adenocaulon bicolor*	5		-
3. *Fragaria virginiana*	5		FACU
4. *Sphagnum ssp.*	25		-
5.	1		
6.			
7.			
8.			
	37	Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	Total Cover	

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 0	x 2 =	0
FAC species 1	x 3 =	3
FACU species 6	x 4 =	20
UPL species ___	x 5 =	0
Column Totals: 6 (A)		23 (B)

Prevalence Index = B/A = 3.83

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes ___ No X

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

SOIL

Sampling Point: WD-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type	LOC[2]	Texture	Remarks
12	2.5 YR 3/2	100					sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils[3]:

____ Histosol (A1)	____ Sandy Redox (S5)	____
____ Histic Epipedon (A2)	____ Stripped Matrix (S6)	____ 2 cm Muck (A10) (LRR B)
____ Black Histic (A3)	____ Loamy Mucky Mineral(F1)	____ Very Shallow Dark Surface
____ Hydrogen Sulfide (A4)	____ Loamy Gleyed Matrix (F2)	____ Red Parent Material (TF2)
____ Depleted Below Dark Surface (A11	____ Depleted Matrix (F3)	____ Other (Explain in Remarks)
____ Thick Dark Surface (A12)	____ Redox Dark Surface (F6)	
____ Depleted Below Dark Surface (A11	____ Depleted Dark Surface (F7)	[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
____ Sandy Mucky Mineral (S1)	____ Redox Depressions (F8)	
____ Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
____ Surface Water (A1)	____ Salt Crust (B11)	____ Water Stained Leaves
____ High Water Table (A2)	____ Water Stained Leaves	____ Raised Ant Mounds
____ Saturation (A3)	____ Aquatic Invertebrates (B13)	____ Frost Heave Hummocks
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Drainage Patterns (B10)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres along Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Surface Soil Cracks (B6)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C2)
____ Inundation Visible on Aerial Imagery (B7)	____ Stunted or Stressed Plants	____ Shallow Aquitard (D3)
____ Sparsely Vegetated Concave Surface	____ Other (Explain in Remarks)	____ FAC-Neutral Test (D5)
____ Algal Mat or Crust	____	____ Geomorphic Position
____ Iron Deposits		

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches) _____

Water Table Present? Yes ___ No X Depth (inches) _____

Saturation Present? Yes ___ No X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley City/County: El Dorado Sampling Date: 6/20/2024

Applicant/Owner: Michael Kuhl State: CA Sampling Point: WD-8

Investigator(s): Jeremy Waites, Summer Abel Section, Township, Range: Section 16, T12N, R14E

Landform (hillslope, terrace, etc.): meadow Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): D Latitude: 38.879483 Longitude: -120.4142 Datum: WGS84

Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes NWI classification: Freshwater emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** Yes X No ___
Hydric Soil Present?	Yes X No ___	
Wetland Hydrology Present?	Yes X No ___	

Remarks:

VEGETATION - Use scientific names of plants

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
	0	Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1. *Alnus incana ssp. tenuifolia*	5		FACW
2.			
3.			
4.			
5.			
	5	Total Cover	
Herb Stratum (Plot size: ___)			
1. *Carex utriculata*	50	Y	OBL
2. *Scirpus microcarpus*	10		OBL
3. *Veratrum californicum*	5		FAC
4. *Erythranthe guttata*	1		OBL
5. *Epilobium angustifolium*	3		-
6. *Camassia leichtlinii ssp. suksdorfii*	1		FACW
7.			
8.			
	70	Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	61	x 1 =	61
FACW species	6	x 2 =	12
FAC species	5	x 3 =	15
FACU species	32	x 4 =	128
UPL species		x 5 =	0
Column Totals:	104 (A)		216 (B)

Prevalence Index = B/A = 2.08

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes X No ___

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

SOIL Sampling Point: WD-8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	LOC[2]	Texture	Remarks
8	7.5 YR 2.5/1	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils[3]:

	Histosol (A1)		Sandy Redox (S5)		
	Histic Epipedon (A2)	X	Stripped Matrix (S6)		2 cm Muck (A10) (LRR B)
X	Black Histic (A3)		Loamy Mucky Mineral(F1)		Very Shallow Dark Surface
	Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)		Red Parent Material (TF2)
	Depleted Below Dark Surface (A11		Depleted Matrix (F3)		Other (Explain in Remarks)
	Thick Dark Surface (A12)		Redox Dark Surface (F6)		
	Depleted Below Dark Surface (A11		Depleted Dark Surface (F7)		
	Sandy Mucky Mineral (S1)		Redox Depressions (F8)		
	Sandy Gleyed Matrix (S4)				

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type:
Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
Surface Water (A1)	Salt Crust (B11)	Water Stained Leaves
High Water Table (A2)	Water Stained Leaves	Raised Ant Mounds
Saturation (A3)	Aquatic Invertebrates (B13)	Frost Heave Hummocks
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C2)
Inundation Visible on Aerial Imagery (B7)	Stunted or Stressed Plants	Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Algal Mat or Crust		Geomorphic Position
Iron Deposits		

Field Observations:
Surface Water Present? Yes No X Depth (inches)
Water Table Present? Yes No X Depth (inches)
Saturation Present? Yes X No Depth (inches)
(includes capillary fringe)

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley City/County: El Dorado Sampling Date: 6/20/2024
Applicant/Owner: Michael Kuhl State: CA Sampling Point: WD-9
Investigator(s): Jeremy Waites, Summer Abel Section, Township, Range: Section 16, T12N, R14E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1
Subregion (LRR): D Latitude: 38.879483 Longitude: -120.4142 Datum: WGS84
Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	Is the Sampled Area within a Wetland? Yes X No ___
Hydric Soil Present?	Yes X No ___	
Wetland Hydrology Present?	Yes X No ___	
Remarks:		

VEGETATION - Use scientific names of plants

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus jeffreyii*	5		-
2.			
3.			
4.			
	5	Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1. *Rhododendron occidentale*			FAC
2.			
3.			
4.			
5.			
	0	Total Cover	
Herb Stratum (Plot size: ___)			
1. *Bistorta bistortoides*	10		FACW
2. *Scirpus microcarpus*	20	Y	OBL
3. *Veratrum californicum*	2		FAC
4. *Erythranthe guttata*	3		OBL
5. *Poa pratensis*	40	Y	FAC
6. *Camassia leichtlinii ssp. suksdorfii*	3		FACW
7.			
8.			
	78	Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	Total Cover	

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust ___

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	23	x 1 =	23
FACW species	13	x 2 =	26
FAC species	42	x 3 =	126
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	78 (A)		175 (B)

Prevalence Index = B/A = 2.24

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes X No ___

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

SOIL

Sampling Point: WD-9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	LOC[2]	Texture	Remarks
12	7.5 YR 3/2	100					Mucky loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils[3]:**

X Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10) (LRR B)
Histic Epipedon (A2)	Stripped Matrix (S6)	Very Shallow Dark Surface
Black Histic (A3)	X Loamy Mucky Mineral(F1)	Red Parent Material (TF2)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11	Depleted Dark Surface (F7)	
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	
Sandy Gleyed Matrix (S4)		

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
X Surface Water (A1)	Salt Crust (B11)	Water Stained Leaves
X High Water Table (A2)	Water Stained Leaves	Raised Ant Mounds
X Saturation (A3)	Aquatic Invertebrates (B13)	Frost Heave Hummocks
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C2)
Inundation Visible on Aerial Imagery (B7)	Stunted or Stressed Plants	Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Algal Mat or Crust		Geomorphic Position
Iron Deposits		

Field Observations:

Surface Water Present? Yes X No Depth (inches)

Water Table Present? Yes X No Depth (inches) 2

Saturation Present? Yes X No Depth (inches)
(includes capillary fringe)

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley City/County: El Dorado Sampling Date: 6/20/2024
Applicant/Owner: Michael Kuhl State: CA Sampling Point: WD-10
Investigator(s): Jeremy Waites, Summer Abel Section, Township, Range: Section 16, T12N, R14E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1
Subregion (LRR): D Latitude: 38.879483 Longitude: -120.4142 Datum: WGS84
Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___ No X	
Wetland Hydrology Present?	Yes ___ No X	
Remarks:		

VEGETATION - Use scientific names of plants

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ___)			
1. *Celocedrus decurrens*	10		-
2. *Pinus jeffreyii*	40		-
3. *Pinus ponderosa*	60	X	FACU
4. *Abies concolor*	2		-
	112	Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1. *Rhododendron occidentale*	3		FAC
2.			
3.			
4.			
5.			
	3	Total Cover	
Herb Stratum (Plot size: ___)			
1. *Taraxacum officinale*	2		FACU
2. *Chrysolepis sempervirens*	5		-
3. *Equisetum arvense*	2		FAC
4. *Hypericum perforatum*	5		FACU
5. *Collomia grandiflora*	3		-
6.			
7.			
8.			
	17	Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	Total Cover	

% Bare Ground in Herb Stratum 70 % Cover of Biotic Crust ___

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 0	x 1 =	0
FACW species 0	x 2 =	0
FAC species 5	x 3 =	15
FACU species 67	x 4 =	268
UPL species ___	x 5 =	0
Column Totals: 72 (A)		283 (B)

Prevalence Index = B/A = 3.93

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes ___ No X

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

SOIL Sampling Point: WD-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	LOC[2]	Texture	Remarks
12	5 YR 3/3	100					sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) **Indicators for Problematic Hydric Soils[3]:**

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Depleted Below Dark Surface (A11
- ____ Thick Dark Surface (A12)
- ____ Depleted Below Dark Surface (A11
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral(F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ 2 cm Muck (A10) (LRR B)
- ____ Very Shallow Dark Surface
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface
- ___ Algal Mat or Crust
- ___ Iron Deposits
- ___ Salt Crust (B11)
- ___ Water Stained Leaves
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants
- ___ Other (Explain in Remarks)
- ___

Secondary Indicators (2 or more required)

- ___ Water Stained Leaves
- ___ Raised Ant Mounds
- ___ Frost Heave Hummocks
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Geomorphic Position

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches) _____
Water Table Present? Yes ___ No X Depth (inches) _____
Saturation Present? Yes ___ No X Depth (inches) _____
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley | City/County: El Dorado | Sampling Date: 6/20/2024

Applicant/Owner: Michael Kuhl | State: CA | Sampling Point: WD-11

Investigator(s): Jeremy Waites, Summer Abel | Section, Township, Range: Section 16, T12N, R14E

Landform (hillslope, terrace, etc.): hillslope | Local relief (concave, convex, none): none | Slope (%): 5

Subregion (LRR): D | Latitude: 38.879483 | Longitude: -120.4142 | Datum: WGS84

Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___ No X	
Wetland Hydrology Present?	Yes ___ No X	

Remarks:

VEGETATION - Use scientific names of plants

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Calocedrus decurrens*	40		-
2.			
3. *Pinus ponderosa*	40	X	FACU
4. *Abies concolor*	10		-
	90	Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1.			-
2.			
3.			
4.			
5.			
	0	Total Cover	
Herb Stratum (Plot size: ___)			
1. *Adenocaulon bicolor*	5		-
2. *Ribes roezlii var. roezlii*	1		-
3. *Equisetum arvense*	20		FAC
4. *Goodyera oblongifolia*	1		FACU
5. *Galium triflorum*	1		FACU
6.			
7.			
8.			
	28	Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	Total Cover	

% Bare Ground in Herb Stratum 60 | % Cover of Biotic Crust ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	40	x 4 =	160
UPL species		x 5 =	0
Column Totals:	60 (A)		220 (B)

Prevalence Index = B/A = 3.67

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes ___ No X

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

SOIL

Sampling Point: WD-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	LOC[2]	Texture	Remarks
12	5 YR 3/3	100					sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils[3]:

____ Histosol (A1)	____ Sandy Redox (S5)	____
____ Histic Epipedon (A2)	____ Stripped Matrix (S6)	____ 2 cm Muck (A10) (LRR B)
____ Black Histic (A3)	____ Loamy Mucky Mineral(F1)	____ Very Shallow Dark Surface
____ Hydrogen Sulfide (A4)	____ Loamy Gleyed Matrix (F2)	____ Red Parent Material (TF2)
____ Depleted Below Dark Surface (A11	____ Depleted Matrix (F3)	____ Other (Explain in Remarks)
____ Thick Dark Surface (A12)	____ Redox Dark Surface (F6)	
____ Depleted Below Dark Surface (A11	____ Depleted Dark Surface (F7)	[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
____ Sandy Mucky Mineral (S1)	____ Redox Depressions (F8)	
____ Sandy Gleyed Matrix (S4)	____	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
____ Surface Water (A1)	____ Salt Crust (B11)	____ Water Stained Leaves
____ High Water Table (A2)	____ Water Stained Leaves	____ Raised Ant Mounds
____ Saturation (A3)	____ Aquatic Invertebrates (B13)	____ Frost Heave Hummocks
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Drainage Patterns (B10)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres along Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Surface Soil Cracks (B6)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C2)
____ Inundation Visible on Aerial Imagery (B7)	____ Stunted or Stressed Plants	____ Shallow Aquitard (D3)
____ Sparsely Vegetated Concave Surface	____ Other (Explain in Remarks)	____ FAC-Neutral Test (D5)
____ Algal Mat or Crust	____	____ Geomorphic Position
____ Iron Deposits		

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches) _____

Water Table Present? Yes ____ No X Depth (inches) _____

Saturation Present? Yes ____ No X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Union Valley City/County: El Dorado Sampling Date: 6/20/2024
Applicant/Owner: Michael Kuhl State: CA Sampling Point: WD-12
Investigator(s): Jeremy Waites, Summer Abel Section, Township, Range: Section 16, T12N, R14E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): D Latitude: 38.8998 Longitude: -120.4129 Datum: WGS84
Soil Map Unit Name: Pilliken coarse sandy loam, 5 to 30 percent slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes? X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** Yes X No ___
Hydric Soil Present?	Yes X No ___	
Wetland Hydrology Present?	Yes X No ___	
Remarks:		

VEGETATION - Use scientific names of plants

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
	0	Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1. *Alnus incana ssp. tenuifolia*	25		FACW
2.			
3.			
4.			
5.			
	25	Total Cover	
Herb Stratum (Plot size: ___)			
1. *Equisetum arvense*	50	X	FAC
2. *Artemisia douglasiana*	5		FACW
3. *Erythranthe guttata*	5		OBL
4. *Scirpus microcarpus*	5		OBL
5. *Pteridium aquilinum ver. pubescens*	1		FACU
6. *Poa pratensis*	20		FAC
7. *Senecio triangularis*	10		FACW
8.			
	96	Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	0	Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ___

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	40	x 2 =	80
FAC species	70	x 3 =	210
FACU species	1	x 4 =	4
UPL species		x 5 =	0
Column Totals:	121 (A)		304 (B)

Prevalence Index = B/A = 2.51

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

Hydrophytic Vegetation Present?
Yes X No ___

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

SOIL Sampling Point: WD-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	LOC[2]	Texture	Remarks
8	5 YR 3/2	100					Loamy muck	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils[3]:

___	Histosol (A1)	X	Sandy Redox (S5)	___	
___	Histic Epipedon (A2)	___	Stripped Matrix (S6)	___	2 cm Muck (A10) (LRR B)
___	Black Histic (A3)	___	Loamy Mucky Mineral(F1)	___	Very Shallow Dark Surface
___	Hydrogen Sulfide (A4)	___	Loamy Gleyed Matrix (F2)	___	Red Parent Material (TF2)
___	Depleted Below Dark Surface (A11	___	Depleted Matrix (F3)	___	Other (Explain in Remarks)
___	Thick Dark Surface (A12)	___	Redox Dark Surface (F6)		
___	Depleted Below Dark Surface (A11	___	Depleted Dark Surface (F7)	[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
X	Sandy Mucky Mineral (S1)	X	Redox Depressions (F8)		
___	Sandy Gleyed Matrix (S4)	___			

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)
___	Surface Water (A1)	___ Salt Crust (B11)	___ Water Stained Leaves
___	High Water Table (A2)	___ Water Stained Leaves	___ Raised Ant Mounds
X	Saturation (A3)	___ Aquatic Invertebrates (B13)	___ Frost Heave Hummocks
___	Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Drainage Patterns (B10)
___	Sediment Deposits (B2)	___ Oxidized Rhizospheres along Living Roots (C3)	___ Dry-Season Water Table (C2)
___	Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Crayfish Burrows (C8)
___	Surface Soil Cracks (B6)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Saturation Visible on Aerial Imagery (C2)
___	Inundation Visible on Aerial Imagery (B7)	___ Stunted or Stressed Plants	___ Shallow Aquitard (D3)
___	Sparsely Vegetated Concave Surface	___ Other (Explain in Remarks)	___ FAC-Neutral Test (D5)
___	Algal Mat or Crust	___	___ Geomorphic Position
___	Iron Deposits		

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches) ___

Water Table Present? Yes ___ No X Depth (inches) ___

Saturation Present? Yes X No ___ Depth (inches) ___

(includes capillary fringe)

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Western Mountains, Valleys and Coast Region

US Army Corp of Engineers

Appendix B

Photographs from Data Collection


WD1
06/20/24 10:32


WD2
06/20/24 10:42


WD3
06/20/24 11:14


WD4
06/20/24 11:15


WD5
06/20/24 11:15


WD6
06/20/24 11:25


WD7
06/20/24 13:03


WD8
06/20/24 13:10


WD9
06/20/24 13:18


WD10
06/20/24 13:35


WD11
06/20/24 14:06


WD12
06/20/24 14:07

El Dorado County
Air Quality Management District
Rania Serieh, Air Pollution Control Officer

330 Fair Lane, Placerville CA, 95667 • Tel. 530.621.7501 • Eldoradocounty.ca.gov/Land-Use/Air-Quality-Management

August 20, 2024

Nathaniel Willson
3080 Cedar Ravine Rd.
Placerville, CA 95667

Subject: Request for Waiver of Air Quality Impact Analysis - 1 Bullard Place, Pollock Pines

Dear Mr. Willson:

Thank you for your email dated August 6, 2024, regarding your Conditional Use Permit application to build a single-family home at 1 Bullard Place in Pollock Pines. The property currently has no existing structures and spans approximately 20 acres. The purpose of your email was to request a waiver from the El Dorado County Air Quality Management District (EDCAQMD) of the application requirement for an Air Quality Impact (AQI) analysis. EDCAQMD has determined that an AQI analysis is not required for the subject application.

This determination is based solely on the information provided above. If the project description changes or an Initial Study (IS) concludes that further air quality information is needed, you may be required to provide this information at your expense. Furthermore, the flowing standard conditions can apply to your project:

- Fugitive Dust: A Fugitive Dust Mitigation Plan (FDP) Application with appropriate fees shall be submitted to and approved by the EDCAQMD prior to start of project construction if during the course of the project a Grading Permit is required from the Building Department, Dust control measures shall comply with the requirements of AQMD Rule 223, Fugitive Dust – General Requirements and Rule 223.1 – Construction, Bulk Material Handling, Blasting, Other Earthmoving Activities and Trackout Prevention.

- Paving: Road construction shall adhere to AQMD Rule 224, Cutback and Emulsified Asphalt Paving Materials.

- Open Burning: Burning of wastes that result from "Land Development Clearing" must be permitted through the AQMD. Only dry vegetation originating from the property may be disposed of using an open outdoor fire and burning shall adhere to AQMD Rule 300, Open Burning.

- Portable Equipment: All portable combustion engine equipment with a rating of 50 horsepower or greater shall be registered with CARB. A copy of the current portable equipment registration shall be with said equipment. The applicant shall provide a complete list of heavy-duty diesel-fueled equipment to be used on this project, which includes the make, model, year of equipment, and daily hours of operations of each piece of equipment.

If you have any questions, please do not hesitate to contact me at (530) 621-7509. The complete list of District Rules can be viewed at: https://ww2.arb.ca.gov/current-air-district-rules.

Respectfully,

Rania Serieh

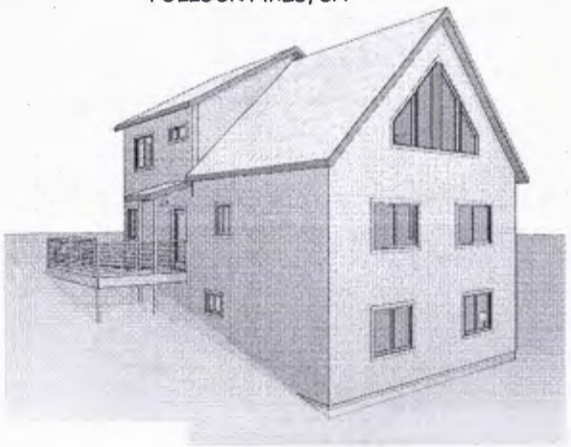
Air Quality Management District

\\AQData\AQ-Shared\CEQA or AQMD COMMENTS\AQ Analysis Waivers\2024\1 Bullard Place

Thank you for working with us to improve air quality!

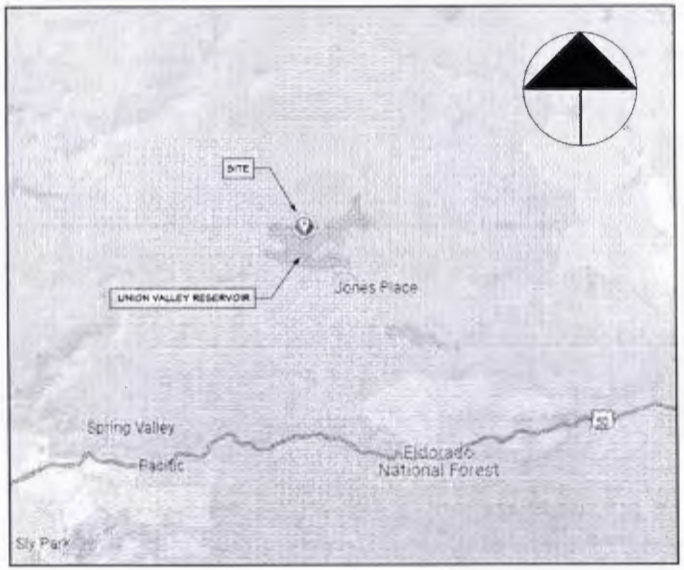
KUHL RESIDENCE

1 BULLARD PLACE (APN: 011-030-058)
POLLOCK PINES, CA



RECEIVED
SEP - 9 2024
EL DORADO COUNTY
PLANNING AND BUILDING DEPARTMENT

VICINITY MAP



SCOPE OF WORK

CONSTRUCT A NEW RESIDENCE.

SQUARE FOOTAGE SUMMARY

MAIN LEVEL	1120 ft²
LOWER LEVEL	785 ft²
UPPER LEVEL	655 ft²
	2559 ft²
ENTRY DECK	173 ft²
	173 ft²

PROJECT INFORMATION

CONSTRUCTION TYPE:	V-B
OCCUPANCY GROUP:	R3
SPRINKLERED:	YES
STORIES ABOVE GRADE:	3

2022 CALIFORNIA RESIDENTIAL CODE
2022 CALIFORNIA PLUMBING CODE
2022 CALIFORNIA MECHANICAL CODE
2022 CALIFORNIA ELECTRICAL CODE
2022 CALIFORNIA BUILDING CODE
2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

SHEET INDEX

BURNE ENGINEERING
(530) 672-1600

COVERSHEET
KUHL RESIDENCE
1 BULLARD PLACE (APN: 011-030-058)
POLLOCK PINES, CA

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
ALBERT GJONDRIC
No. 7252
CIVIL
STATE OF CALIFORNIA
09.03.2024

SHEET #
A0.0

CUP24-0011

Title-24 Energy Requirement Summary

Project: Kuhl Custom Home - 1 Bullard Place — Climate Zone: 16
This Project complies with the Residential 2022 Building Energy Efficiency Standards with the following minimum assemblies and efficiencies.

* HERS VERIFICATIONS REQUIRED (see below)

Envelope Assemblies:
Roofing = Radiant Barrier on Sheeting Not Required. Cool Roof Shingles Not Required.
Ceiling = R-38 batt or blown on Lid, Vented Attic, Metal or Comp Roof
Vaulted Ceiling = R-38 In Vault Cavity, Sheathing, Comp or Metal Roof
Walls = 2x6, R-21, Wood Siding or Stucco
Underground Walls = Min. 6" Concrete/Masonry, 2x6 Wood Frame, R-21, Gyp.
Floor = R-30 Raised Floor
Front Door Orientation: 315 degrees (on plot plan)

Glazing:
Average Weighted Total = Wood, Vinyl, or T.B. Metal, Argon, Low-E3 (U=.28 & shgc=.35)
Skylights / Solar Tubes = NA

H.V.A.C.:
Whole House Fan = Not Required
Total Zone = 80Kbtu Ducted Gas Furnace rated at a minimum 95% afue
NOTE: Pre-wire FAU Area for future Electrification, required per Mandatory Measures
Ducting = R-8.0 insulated ducts located in crawl space w/ min. 2" MERV 13 R/A & HRV Filters
HRV / ERV = Broan B130H65 (or equal) rated at 119cfm, SRE 58, ASRE .62, 69watts
HRV / ERV = All components (supply inlet, filter, cores) are accessible per RACM
Sizing of HVAC equipment is for reference only.
Mechanical Contractor responsible for properly sizing and installing the HVAC system.

Solar P.V.: Minimum 6.0 kWdc / 180 Azimuth / 22deg Array / 4.8 Tilt / 98% Inverter Eff
Battery Storage: Basic Control, 12kWh (90amp), 96% Charging/Discharging Efficiency, 5kW Rate

* HERS Verification / Testing Required:
* HERS Indoor Air Quality Balanced HRV (119cfm) Verification & HRV Requirements
* HERS Verification of Kitchen Exhaust Hood (per tables 150.0-G -H attached & per HVI or AHAM)
* HERS Duct Leakage Test (<9%)
* HERS Verification of R-7.2 Hot Water Pipe Insulation

Domestic Hot Water:
(1) Instant/Tankless Gas rated at a max. 199Kbtu input and a min. .95 UEF. R-7.2 pipe insulation required on all hot water pipes. No Recirc. Pre-wire for future Electrification required per Mandatory Measures

Appliances:
Oven/Stove top = Electric or Gas (Pre-wire for future Electrification required per Mandatory Measures)
Clothes Dryer = Electric or Gas (Pre-wire for future Electrification required per Mandatory Measures)

Table 150.0-E Demand-Controlled Local Ventilation Exhaust Airflow Rates and Capture Efficiency

Application	Compliance Criteria
Enclosed Kitchen or Unenclosed Kitchen Featured Kitchen	Vented range hood, including appliance-range hood combinations shall meet either the capture efficiency (CE) or the airflow rate specified in Table 150.0-G as applicable. Other kitchen exhaust fans, including downdraft: 300 cfm (500 L/s) or a capacity of 5 ACH
Unenclosed Kitchen Bathroom	Other kitchen exhaust fans, including downdraft: 300 cfm (500 L/s) 50 cfm (25 L/s)

Table 150.0-F Continuous Local Ventilation Exhaust Airflow Rates

Application	Airflow
Enclosed kitchen	5 ach, based on kitchen volume
Bathroom	20 cfm (10 L/s)

Table 150.0-G Kitchen Range Hood Airflow Rates (cfm) and ASTM E3087 Capture Efficiency (CE) Ratings
According to Dwelling Unit Floor Area and Kitchen Range Fuel Type

Dwelling Unit Floor Area (ft²)	Hood Over Electric Range	Hood Over Natural Gas Range
>1500	50% CE or 110 cfm	70% CE or 180 cfm
>1000 - 1500	50% CE or 130 cfm	80% CE or 250 cfm
750 - 1000	55% CE or 130 cfm	85% CE or 280 cfm
<750	60% CE or 140 cfm	85% CE or 280 cfm

Table 150.0-H Prescriptive Ventilation System Duct Sizing [ASHRAE 62.2 Table 5-3]

Fan Airflow Rating, cfm at minimum static pressure of 0.25 in. water (Pa) at minimum 62.5 Pa	≤50 (≤25)	≤80 (≤40)	≤100 (≤50)	≤125 (≤60)	≤150 (≤70)	≤175 (≤80)	≤200 (≤95)	≤250 (≤120)	≤300 (≤140)	≤350 (≤165)	≤400 (≤190)	≤450 (≤215)	≤500 (≤240)	≤600 (≤285)
Minimum Duct Diameter, in. (mm) [a] For Rigid duct	4 [a] (100)	5 (125)	5 (125)	6 (150)	6 (150)	7 (180)	7 (180)	8 (200)	9 (230)	10 (250)	10 (250)	11 (280)	12 (300)	12 [a] (300)
Minimum Duct Diameter, in. (mm) [a] For flex duct [c]	4 (100)	5 (125)	6 (150)	6 (150)	7 (180)	7 (180)	8 (200)	9 (230)	9 (230)	10 (250)	NP [b]	NP [b]	NP [b]	NP [b]

Footnotes for Table 150.0-H:
a. For rectangular ducts, calculate the diameter as four times the cross-sectional area divided by the perimeter.
b. NP = application of the prescriptive table is not permitted for this scenario.
c. Use of this table for verification of flex duct systems requires flex duct to be fully extended and any flex duct elbows to have a minimum bend radius to duct diameter ratio of 1.0.
d. For this scenario, use of elbows is not permitted
e. For this scenario, 4 in. (100 mm) oval duct shall be permitted, provided the minor axis of the oval is greater than or equal to 3 in. (75 mm)
f. Where a vented range hood utilizes a capture efficiency rating to demonstrate compliance with 150.0(o)2ii4Bii, a static pressure greater than or equal to 0.25 in. of water at the rating point shall not be required, and the airflow listed in the approved directory corresponding to the compliant capture efficiency rating point shall be applied to Table 150.0-H for determining compliance.

Note: Authority: Sections 25213, 25218, 25218.5, 25407 and 25493.1, Public Resources Code. References: Sections 25007, 25008, 25218.5, 25310, 25402, 25402.1, 25402.4, 25402.5, 25402.8, and 25943, Public Resources Code.

GREEN BUILDING CODE NOTES:

1. PLUMBING FIXTURES AND FITTINGS REQUIRED IN SECTION 4.303.1 SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE, AND SHALL MEET THE APPLICABLE REFERENCED STANDARDS. CGBSC 4.303.2
2. AUTOMATIC IRRIGATION SYSTEMS CONTROLLERS INSTALLED AT THE TIME OF FINAL INSPECTION SHALL BE PROVIDED WITH INTEGRAL RAIN SENSORS OR SOIL MOISTURE SENSORS THAT ADJUST IRRIGATION IN RESPONSE TO CHANGE IN PLANTS' NEEDS AS WEATHER CONDITIONS CHANGE. CGBSC 4.304.1
3. ANNUAL SPACERS AROUND PIPES, ELECTRICAL CABLES, CONDUITS OR OTHER OPENINGS IN PLATES AT EXTERIOR WALL SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENING WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR ACCEPTABLE METHODS. CGBSC 4.406
4. A MINIMUM OF 65 PERCENT OF THE CONSTRUCTION WASTE GENERATED AT THE SITE SHALL BE DIVERTED TO RECYCLE OR SALVAGE. CGBSC 4.408.1
5. AN OPERATION AND MAINTENANCE MANUAL SHALL BE PROVIDED PRIOR TO FINAL INSPECTION. CGBSC 4.410.1
6. GAS FIREPLACES SHALL BE A DIRECT-VENT SEALED COMBUSTION TYPE. WOODY/PELLET STOVES SHALL COMPLY WITH U.S. EPA NEW SOURCE PERFORMANCE STANDARDS (NSPS) EMISSIONS LIMITS. CGBSC 4.503.1
7. DUCT AND VENT OPENINGS SHALL BE COVERED DURING CONSTRUCTION. CGBSC 4.504.1
8. ADHESIVES, SEALANTS AND CAULK SHALL BE COMPLIANT WITH VOC AND OTHER TOXIC COMPOUND LIMITS. CGBSC 4.504.2.1
9. PAINTS, STAINS, AND OTHER COATINGS SHALL BE COMPLIANT WITH VOC LIMITS.
10. AEROSOL PAINTS AND COATING SHALL BE COMPLIANT WITH PRODUCTS WEIGHTED MIR LIMITS FOR ROC AND OTHER TOXIC COMPOUNDS. CGBSC 4.504.2.5
11. DOCUMENTATION SHALL BE PROVIDED TO VERIFY THAT COMPLIANT VOC LIMIT FINISH MATERIALS HAVE BEEN USED. CGBSC 4.504.2.4
12. CARPET AND CARPET SYSTEMS SHALL BE COMPLIANT WITH VOC LIMITS. CGBSC 4.504.3
13. 80 PERCENT OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH THE VOC-EMISSION LIMITS DEFINED IN THE COLLABORATIVE OF HIGH PERFORMANCE SCHOOLS (CHPS) HIGH PERFORMANCE PRODUCTS DATABASE OR COMPLIANT WITH CHPS CRITERIA CERTIFIED UNDER THE GREEN GUARD CHILDREN & SCHOOLS PROGRAM OR BE CERTIFIED UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI) FLOOR SCORE PROGRAM OR MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVACUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS." CGBSC 4.504.4
14. PARTICLEBOARD, MEDIUM DENSITY FIBERBOARD (MDF) AND HARDWOOD PLYWOOD USED IN INTERIOR FINISH SYSTEMS SHALL COMPLY WITH LOW FORMALDEHYDE EMISSION STANDARDS. CGBSC 4.504.5
15. MOISTURE CONTENT OF BUILDING MATERIALS USED IN ENCLOSED WALL AND FLOOR FRAMING IS CHECKED BEFORE ENCLOSURE AND CANNOT EXCEED 19%. CGBSC 4.505.3
16. DUCT SYSTEMS SHALL BE SIZED AND DESIGNED AND EQUIPMENT SHALL BE SELECTED USING THE FOLLOWING METHODS CGBSC 4.507.2
    A. ESTABLISH HEAT LOSS AND HEAT GAIN VALUES ACCORDING TO ANSI/ACCA MANUAL J-2014 OR EQUIVALENT
    B. SIZE DUCT SYSTEMS ACCORDING TO ANSI/ACCA 1 MANUAL D-2016 OR EQUIVALENT.
    C. SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ANSI/ACCA 3 MANUAL S-2014 OR EQUIVALENT.

PLUMBING FIXTURE REQUIREMENTS:

1. WATER CLOSETS: <= 1.28 gal/flush CGBSC 4.303.1
2. SINGLE SHOWERHEADS: <= 1.8 gpm @ 80 psi. CGBSC 4.303.1.3
3. MULTIPLE SHOWERHEAD: COMBINED FLOW RATE OF ALL SHOWERHEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 1.8 gpm @ 80 psi OR ONLY ONE SHOWER OUTLET IS TO BE IN OPERATION AT A TIME. CGBSC 4.303.1.3.2
4. RESIDENTIAL LAVATORY FAUCETS: <= 1.2 gpm @ 60 psi. CGBSC 4.303.1.4.1
5. KITCHEN FAUCETS: <= 1.8 gpm @ 60 psi; TEMPORARY INCREASE TO 2.2 gpm ALLOWED BUT SHALL DEFAULT TO 1.8 gpm 4.303.1.4.4

WATER HEATER NOTES:

1. WATER HEATER SHALL HAVE ISOLATION VALVES ON BOTH THE COLD WATER SUPPLY AND THE HOT WATER PIPE LEAVING THE WATER HEATER, AND HOSE BIBB, OTHER FITTINGS OR EACH VALVE FOR FLUSHING THE WATER HEATER WHEN THE VALVES ARE CLOSED
2. PROVIDE A WATER-TIGHT DRIP PAN OF CORROSION-RESISTANT MATERIALS BENEATH THE WATER HEATER w/ A 3/4" DRAIN TO AN APPROVED LOCATIO
3. A CONDENSATE DRAIN THAT IS A MAXIMUM OF 2" HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER THAT ALLOWS NATURAL DRAIN WITHOUT PUMP ASSISTANCE SHALL BE INSTALLED.
4. A CATEGORY III, IV OR A TYPE B VENT WITH A STRAIGHT PIPE BETWEEN THE OUTSIDE TERMINAL AND THE SPACE WHERE THE WATER HEATER IS LOCATED SHALL BE INSTALLED
5. TANK TYPE WATER HEATER REQUIRES 2 SEISMIC STRAPS. ONE TRAP WITHIN THE UPPER 1/3 AND THE OTHER WITHIN THE LOWER 1/3 OF THE WATER HEATER. THE LOWER STRAP SHALL NOT BE WITHIN 4" OF THE CONTROLS. CPC 507.2
6. STORAGE TYPE WATER HEATER SHALL BE PROVIDED WITHIN AN APPROVED, LISTED, ADEQUATELY SIZED COMBINATION PRESSURE AND TEMPERATURE RELIEF VALVE. WHERE A PRESSURE REGULATOR IS INSTALLED, AN APPROVED, LISTED EXPANSION TANK OR OTHER DEVISE SHALL INSTALLED TO CONTROL INTERMITTENT THERMAL EXPANSION. CPC 608.2 & 608.3
7. WATER HEATERS INSTALLED IN THE GARAGE SHALL BE INSTALLED SO THAT ALL BURNERS AND BURNER-IGNITION DEVICES ARE LOCATED NOT LESS THAN 18" ABOVE THE FLOOR UNLESS LISTED AS FLAMMABLE VAPOR IGNITION RESISTANT. SUCH APPLIANCES SHALL BE PROTECTED FROM AUTO IMPACT. CPC507.13 & 507.13.1
8. WATER HEATERS AND OTHER BURNER & BURNER-IGNITION APPLIANCES THAT ARE INSTALLED IN THE GARAGE AND ADJACENT SPACES THAT OPEN TO THE GARAGE SHALL NOT BE LOCATED NOT LESS THAN 18 INCHES ABOVE THE FLOOR AND SHALL CONFORM WITH ONE OF THE BELOW (PER CMC 309.1.1):
    A. SHALL BE GUARDED AGAINST DAMAGE BY A PROTECTIVE BARRIER
    B. SHALL BE ELEVATED
    C. SHALL BE LOCATED OUT OF THE NORMAL PATH OF VEHICLES.

WILDLAND URBAN INTERFACE NOTES:

THIS PROJECT IS SUBJECT TO THE WILDLAND URBAN INTERFACE REQUIREMENTS. THE FOLLOWING METHODS FOR EXTERIOR WILDFIRE EXPOSURE UNDER THE FOLLOWING CODE SECTIONS WILL APPLY:

1. EXTERIOR WALL FINISHES / SIDING REQUIREMENTS: THIS PROJECT IS CONSTRUCTED WITH NON-COMBUSTIBLE OR IGNITION RESISTANT *HARDI-BOARD CEMENT SIDING* THAT MEET THE PERFORMANCE CRITERIA IN ACCORDANCE WITH THE TEST PROCEDURES FOR A 10-MINUTE DIRECT FLAME CONTACT EXPOSURE TEST SET FORTH IN SFM STANDARD 12-7A-1.
2. VENTING-EVES & OVERHANGS: VENTILATION OPENINGS FOR ENCLOSED ATTICS, ENCLOSED EVE SOFFIT SPACES, ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, AND UNDERFLOOR VENTILATION OPENINGS WILL MEET THE FOLLOWING REQUIREMENTS: 1) THE DIMENSIONS OF THE OPENINGS WILL BE A MINIMUM OF 1/16 IN AND NOT TO EXCEED 1/8 IN. 2) THE MATERIALS USED WILL BE NON-COMBUSTIBLE. 3) THE MATERIALS WILL BE CORROSION RESISTANT. *VULCAN VENTS* WILL BE USED TO MEET THESE REQUIREMENTS.
5. WINDOW GLAZING & DOOR PROTECTION: ALL OF THE FOLLOWING WILL BE CONSTRUCTED OF DUAL GLAZED TEMPERED PANES MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING: 1) EXTERIOR WINDOWS. 2) EXTERIOR GLAZED DOORS. 3) GLAZED OPENINGS WITHIN EXTERIOR DOORS. 4) GLAZED OPENINGS WITHIN EXTERIOR GARAGE DOORS. 5) EXTERIOR STRUCTURAL GLASS VENEER.
4. EXTERIOR DOORS: WILL BE A SOLID-CORE, NON-COMBUSTIBLE OR IGNITION RESISTANT MATERIAL PER CRC 331.8.
5. VEGETATION MANAGEMENT COMPLIANCE: PRIOR TO BUILDING PERMIT FINAL APPROVAL THE PROPERTY WILL BE IN COMPLIANCE WITH THE VEGETATION MANAGEMENT REQUIREMENTS PRESCRIBED IN CALIFORNIA PUBLIC RESOURCES CODE 4291 OR CALIFORNIA GOVERNMENT CODE SECTION 51182. ACCEPTABLE METHODS OF COMPLIANCE INSPECTION AND DOCUMENTATION SHALL BE DETERMINED BY THE ENFORCING AGENCY AND MAY INCLUDE ANY OF THE FOLLOWING: 1) LOCAL, STATE OR FEDERAL FIRE AUTHORITY OR DESIGNER AUTHORIZED TO ENFORCE VEGETATION MANAGEMENT REQUIREMENTS. 2) ENFORCING AGENCY. 3) THIRD PARTY INSPECTION AND CERTIFICATION AUTHORIZED TO ENFORCE VEGETATION MANAGEMENT REQUIREMENTS. 4) PROPERTY OWNER CERTIFICATION AUTHORIZED BY THE ENFORCING AGENCY.
6. THE EXPOSED UNDERSIDE OF EXTERIOR PORCH CEILINGS AND SOFFITS WILL BE CLAD IN NON-COMBUSTIBLE AND / OR IGNITION *RESISTANT HARDIE BOARD*

DOOR NOTES:

ALL EXTERIOR DOORS SHALL BE SOLID CORE w/ STILES AND RAILS NOT LESS THAN 1-3/8" THICK WITH INTERIOR FIELD PANEL THICKNESS NO LESS THAN 1-1/4" OR SHALL HAVE A FIRE RATING OF 20 MINUTES. PER CRC R331.8.3

TEMPERED GLASS REQUIREMENTS:

1. GLAZING IN ENCLOSURES FOR OR WALLS FACING BATHTUBS OR SHOWERS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" A.F.F. AND LESS THAN 60" FROM THE TUB/SHOWER SHALL BE TEMPERED.
2. GLAZING ADJACENT TO THE STAIRWAY WITHIN 60" HORIZONTALLY OF THE BOTTOM TREAD OF A STAIRWAY IN ANY DIRECTION WHEN THE EXPOSED SURFACE OF THE GLAZING IS LESS THAN 36" ABOVE THE NOSE OF THE TREAD SHALL BE TEMPERED.
3. GLAZING ADJACENT TO A DOOR AND WHERE GLAZING IS LESS THAN 60" A.F.F., AND MEET THE BELOW REQUIREMENTS PER CRC R308.4.
    A. ALL WINDOWS ADJACENT TO AND WITHIN 24" OF EITHER EDGE OF A DOOR IN THE CLOSED POSITION
    B. GLAZING IS ON A WALL PERPENDICULAR TO THE PLANE OF THE DOOR IN A CLOSED POSITION AND WITHIN 24" OF THE HINGE SIDE OF AN IN-SWINGING DOOR.
4. TEMPERED GLASS IS REQUIRED IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
    A. THE EXPOSED AREA OF AN INDIVIDUAL PANE IS LARGER THAN 9 SQUARE FEET;
    B. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18 INCHES ABOVE THE FLOOR;
    C. THE TOP EDGE OF THE GLAZING IS MORE THAN 36 INCHES ABOVE THE FLOOR; AND
    D. ONE OR MORE WALKING SURFACES ARE WITHIN 36 INCHES, MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING.
5. GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING OR SLIDING DOORS.
6. GLAZING ADJACENT TO STAIRWAYS OR LANDINGS WHEN THE EXPOSED SURFACE OF THE GLAZING IS LESS THAN 36" ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE.

EGRESS WINDOW REQUIREMENTS:

1. CLEAR OPENING THAT IS A MINIMUM OF 24"HIGH AND 20"WIDE.
2. NET CLEAR OPENABLE AREA OF NOT LESS THAN 5.7 SQUARE FEET.
    A. EXCEPTION: GRADE FLOOR OPENINGS OR BELOW GRADE OPENINGS SHALL HAVE A NET CLEAR OPENING AREA OF NOT LESS THAN 5 SQUARE FEET.
3. SILL HEIGHT TO BE A MAXIMUM OF 44" ABOVE THE FLOOR.

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ARCHITECTURAL NOTES
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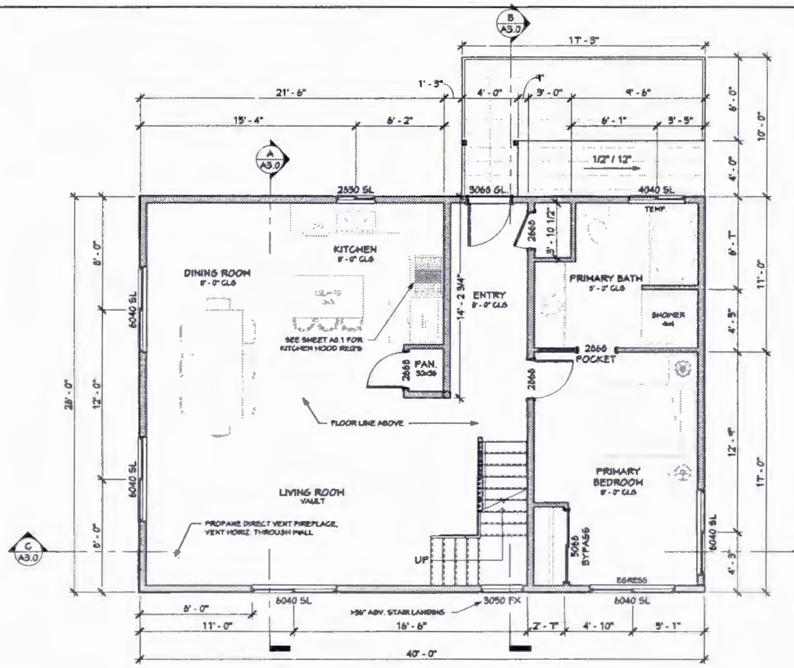
POLLOCK PINES, CA

REVISIONS

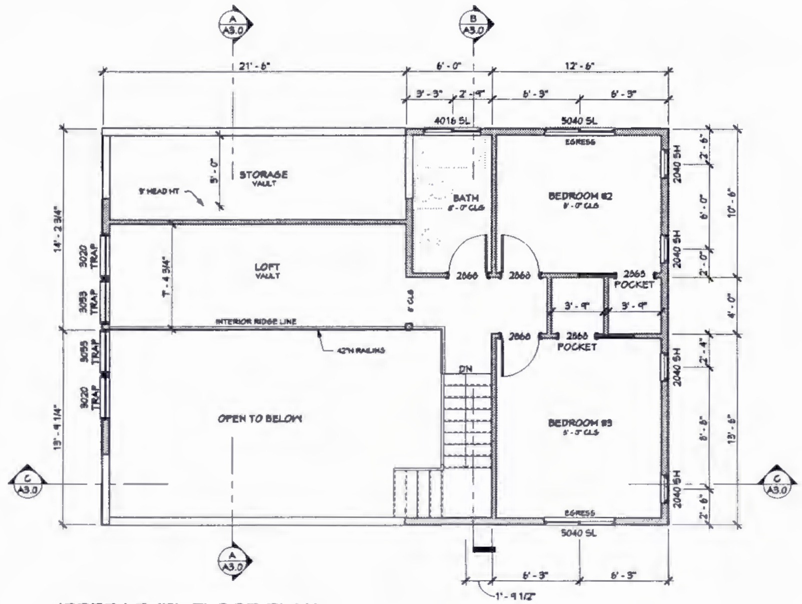
ALVIN OJONG
No. 7252
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
09.02.2024

SHEET #
A0.1

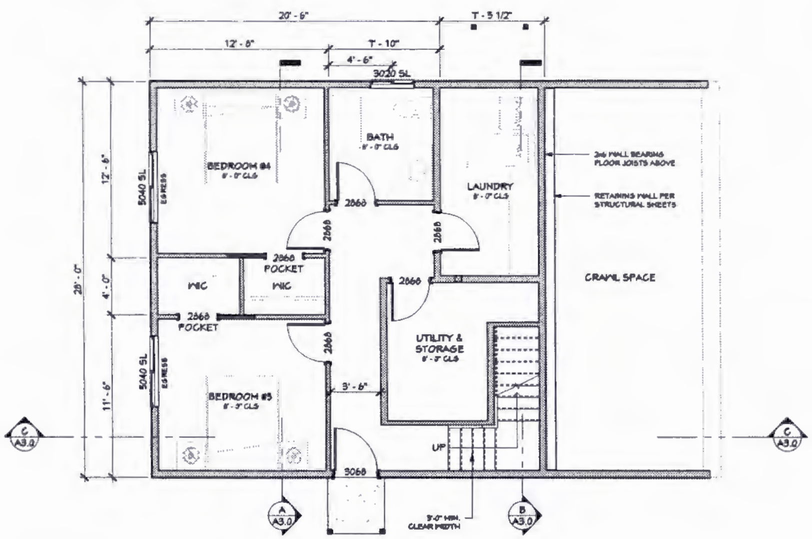
SEE ARCHITECTURAL NOTES ON SHEET A0.1 FOR INFORMATION NOT SHOWN.



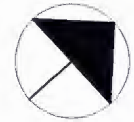
② MAIN LEVEL FLOOR PLAN
1/4" = 1'-0"



① UPPER LEVEL FLOOR PLAN
1/4" = 1'-0"



③ LOWER LEVEL FLOOR PLAN
1/4" = 1'-0"



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ARCHITECTURAL FLOOR PLANS
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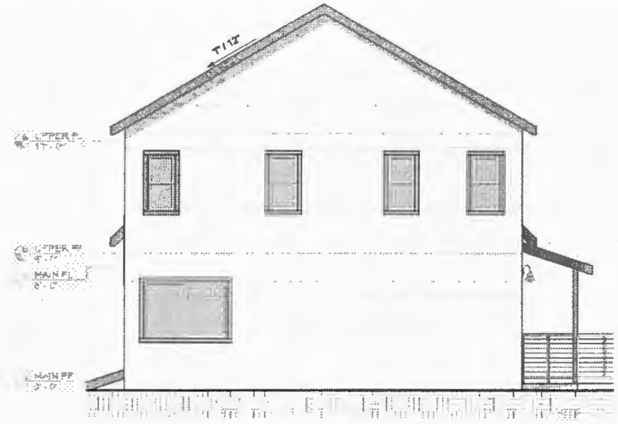
POLLOCK PINES, CA

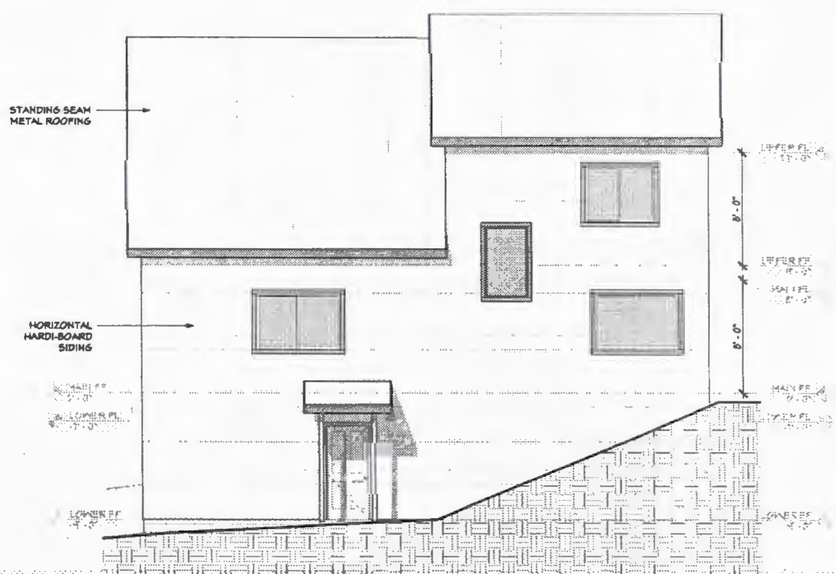
REVISIONS

SHEET #
A1.0

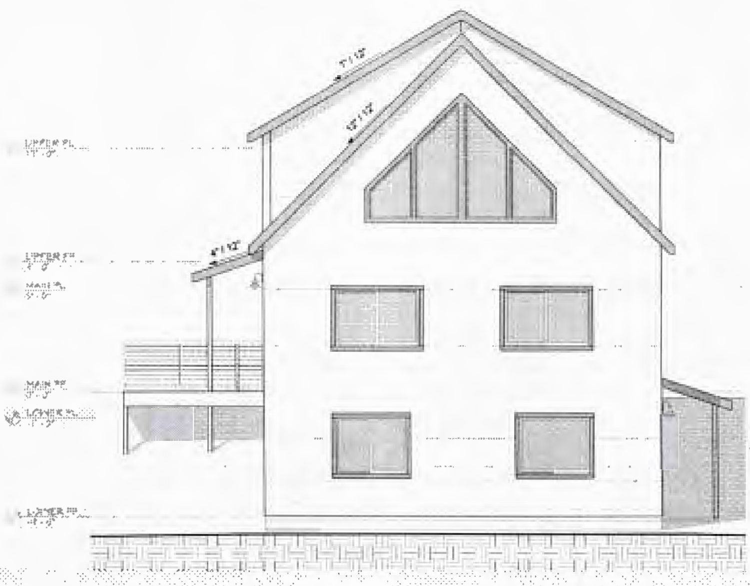
② FRONT ELEVATION
1/4" = 1'-0"



④ LEFT ELEVATION
1/4" = 1'-0"



① REAR ELEVATION
1/4" = 1'-0"



③ RIGHT ELEVATION
1/4" = 1'-0"

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ELEVATIONS
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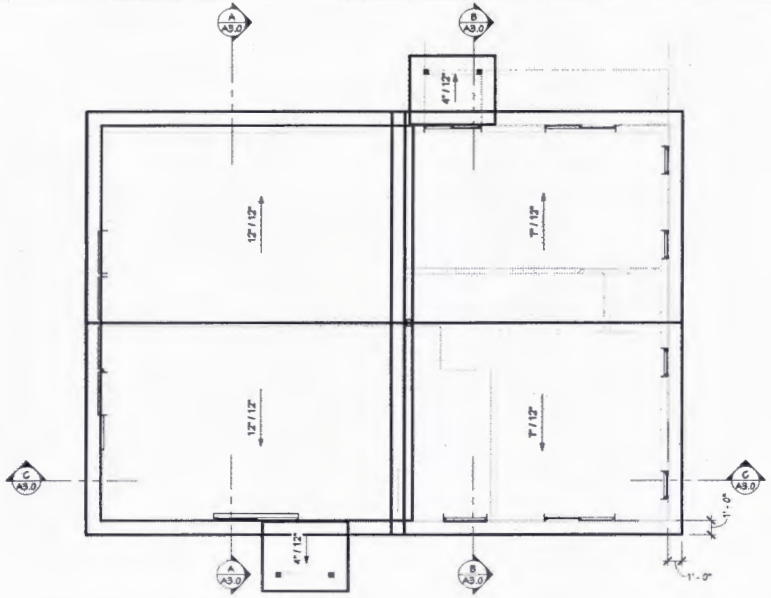
POLLOCK PINES, CA

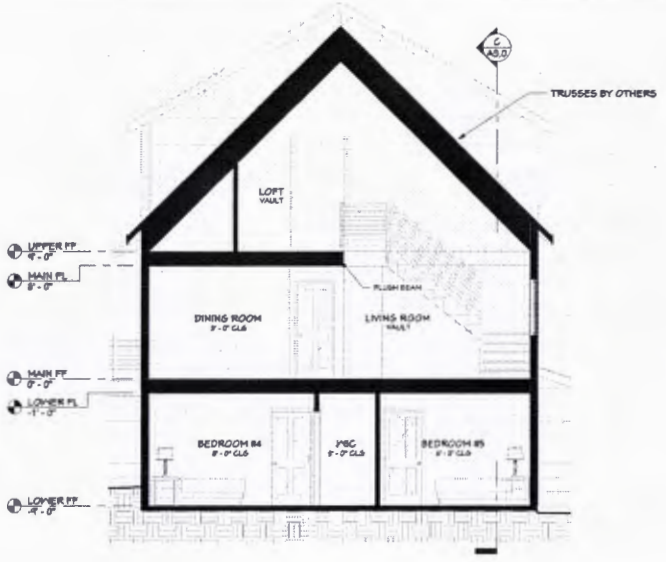
REVISIONS

SHEET #
A2.0



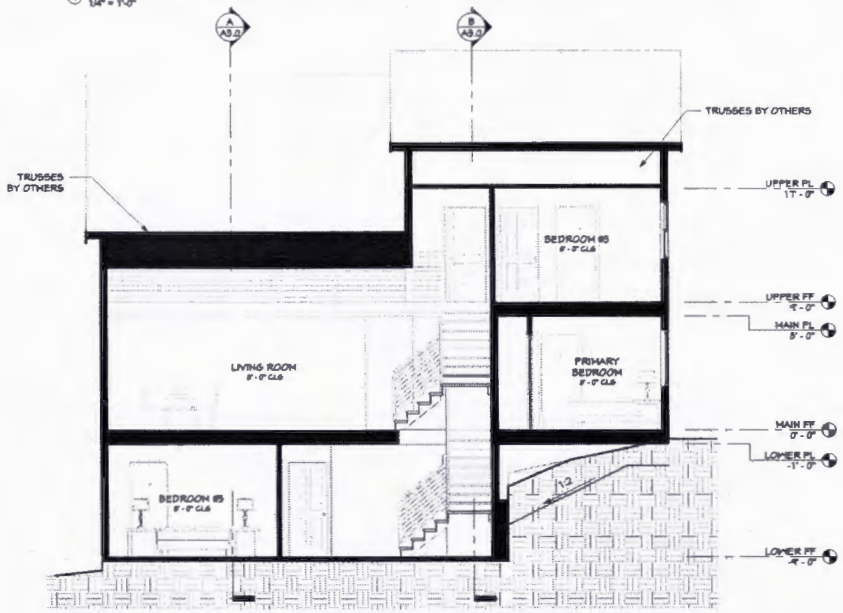
ARCHITECTURAL ROOF PLAN

1/4" = 1'-0"



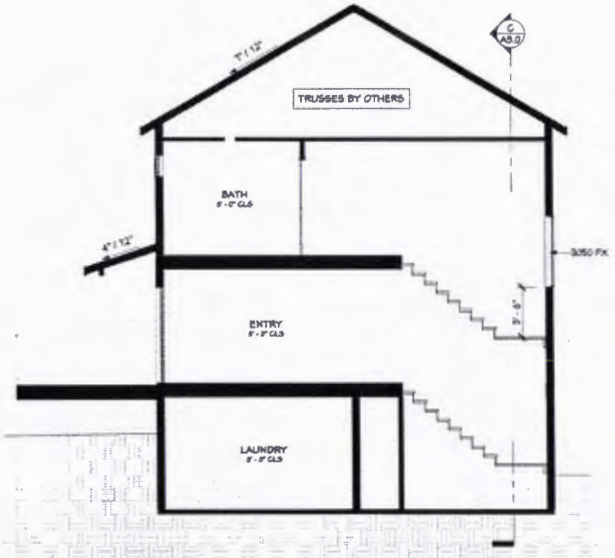
SECTION A-A

A 1/4" = 1'-0"



SECTION C-C

C 1/4" = 1'-0"



SECTION B-B

B 1/4" = 1'-0"

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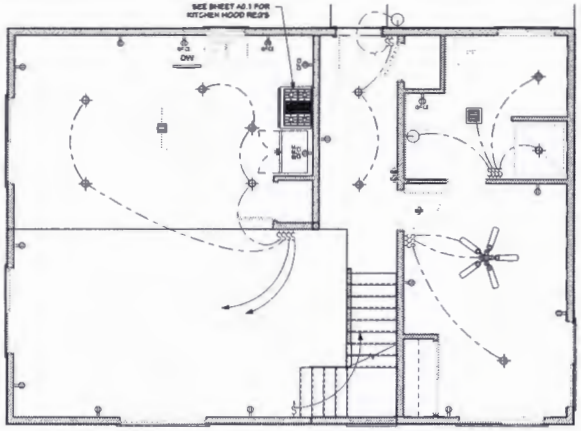
ARCHITECTURAL ROOF PLAN & SECTIONS
KUHL RESIDENCE
1 BULLARD PLACE (APN: 011-030-058)
POLLOCK PINES, CA

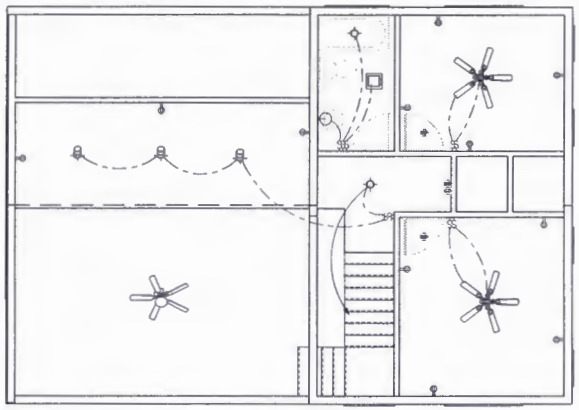
REVISIONS

REGISTERED PROFESSIONAL ENGINEER
ALBAN GJONGECAJ
No. 7252
STATE OF CALIFORNIA
25-02-2024

SHEET #
A3.0



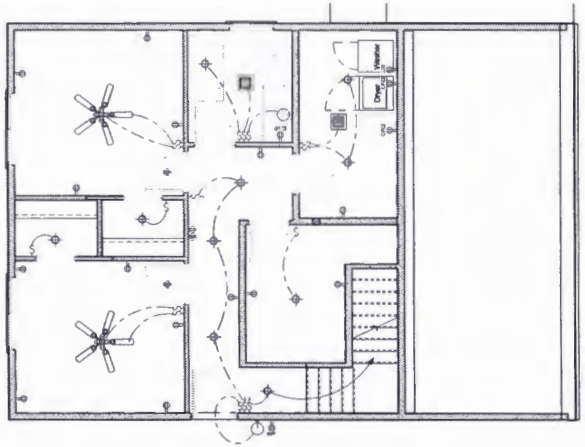
② MAIN LEVEL ELECTRICAL PLAN
1/4" = 1'-0"



③ UPPER LEVEL ELECTRICAL PLAN
1/4" = 1'-0"

ELECTRICAL LEGEND:

- DUPLEX RECEPTACLE
- WEATHERPROOF RECEPTACLE
- 220V RECEPTACLE
- GROUND FAULT CIRCUIT INTERRUPTER
- SWITCH
- 3-WAY SWITCH
- 4-WAY SWITCH
- CEILING MOUNTED LIGHT FIXTURE
- CEILING MOUNTED LIGHT FIXTURE
- CEILING MOUNTED FAN
- PENDANT LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- EXHAUST FAN
- SMOKE DETECTOR
- CARBON MONOXIDE DETECTOR



① LOWER LEVEL ELECTRICAL PLAN
1/4" = 1'-0"

LIGHTING REQUIREMENTS:

NOTE: ALL NEW LIGHTING TO BE LED, U.O.N.

1. ALL INSTALLED LUMINARIES SHALL BE HIGH-EFFICACY IN ACCORDANCE w/ TABLE 150.0-A.
2. ALL LUMINARIES REQUIRED TO HAVE LIGHT SOURCE COMPLIANT w/ REFERENCE JOINT APPENDIX JA8, EXCEPT HALLWAYS & CLOSETS OVER 70 sf, SHALL BE CONTROLLED BY DIMMERS OR VACANCY SENSORS. (THIS APPLIES TO ALL GU-24 LEDs AND RECESSED LUMINARIES.)
3. IN BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS, AT LEAST ONE LUMINARY IN EACH OF THESE SPACES SHALL BE CONTROLLED BY A VACANCY SENSOR.
4. OUTDOOR LIGHTING: ALL OUTDOOR LIGHTING SHALL BE CONTROLLED BY A MANUAL ON AND OFF SWITCH THAT DOES NOT OVERRIDE TO ON AND ONE OF THE FOLLOWING: CONTROLLED BY PHOTOCELL AND MOTION SENSOR, PHOTO CONTROL, AND AUTOMATIC SWITCH CONTROL, ASTRONOMICAL TIME CLOCK, OR ENERGY MANAGEMENT CONTROL SYSTEM. 150 (k)3.
5. LUMINARIES RECESSED INTO CEILING SHALL MEET ALL OF THE FOLLOWING PER 150.0 (k)1G: LISTED FOR ZERO CLEARANCE INSULATION, LABELED THAT CERTIFIES THE LUMINARY IS AIRTIGHT WITH A LEAKAGE LESS THAN 2.0CFM AT 75 PASCALS, SEALED WITH A GASKET OR CAULK, ALLOW REPLACEMENT AND MAINTENANCE TO BE READILY ACCESSIBLE FROM BELOW THE CEILING WITHOUT CUTTING HOLES IN THE CEILING, SHALL NOT CONTAIN SCREW BASE SOCKETS; AND SHALL CONTAIN LIGHT SOURCES THAT COMPLY WITH JA8.
6. UNDER CABINET LIGHTING SHALL BE SWITCHED SEPARATELY THAN FROM OTHER LIGHTING SYSTEM. 150.0(k)2L.

ELECTRICAL NOTES:

1. SMOKE DETECTORS / CARBON MONOXIDE DETECTORS PER R314 / R315 SHALL BE INTERCONNECTED, HARDWIRED AND WITH BATTERY BACK-UP. SMOKE DETECTORS TO BE LOCATED AT LEAST 24" FROM RETURN AIR REGISTERS AND AIR DUCTS. WALL MOUNTED UNITS TO BE WITHIN 12" OF CEILING AND LISTED BY THE STATE FIRE MARSHALL FOR WALL MOUNTING. PROVIDE ONE SMOKE DETECTOR IN EACH SLEEPING AREA.
2. CARBON MONOXIDE/SMOKE DETECTORS SHALL BE PROVIDED OUTSIDE EACH SLEEPING AREA AND AT EACH LEVEL OF DWELLING
3. PROVIDE SWITCHED LIGHT AND OUTLET AT ATTIC CRAWL
4. PROVIDE DISCONNECT FOR AC UNIT
5. ALL 120-VOLT, SINGLE PHASE, 15 - & 20-AMP BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT KITCHEN, DINING ROOM, FAMILY ROOM, LIVING ROOM, PARLORS, LIBRARIES, DENS, BEDROOM, SUNROOMS, REC ROOMS, CLOSETS, LAUNDRY ROOMS, HALLWAYS AND SIMILAR ROOMS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
6. AT LEAST ONE LUMINAIRE IN THE BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS SHALL BE CONTROLLED BY A VACANCY SENSOR.
7. CEILING FAN LOCATIONS USE ONLY CEC APPROVED ELECTRICAL BOXES RATED FOR SUPPORTING CEILING FANS.
8. PROVIDE 50 CFM FOR ALL BATHROOM FANS. FANS MUST BE 3 SONE OR LESS.
9. ALL NEW 125-VOLT, 15 AND 20 AMP RECEPTACLES IN THE DWELLING UNIT SHALL BE TAMPER RESISTANT.
10. ALL NEW HOT WATER SUPPLY PIPING FROM THE HEATING SOURCE TO THE KITCHEN FIXTURES SHALL BE INSULATED PER CEC SECTION 150.0 (j)2 vi.
11. ALL 15 OR 20 AMP, 125 OR 250 VOLT RECEPTACLES INSTALLED OUTDOORS IN WET LOCATIONS MUST BE LISTED WEATHERPROOF TYPE WHEN THE PLUG IS OR IS NOT INSERTED.
12. BRANCH CIRCUITS SERVICING GARAGE RECEPTACLES SHALL NOT SERVE OUTLETS OUTSIDE OF THE GARAGE.
13. AT THE AC EQUIPMENT, ELECTRICAL DISCONNECTS FOR EQUIPMENT SHALL BE WITHIN SIGHT OF THE EQUIPMENT AND NOT OVER 50' FROM THE UNIT.
14. A GROUND FAULT CIRCUIT INTERRUPTER (GFCI) IS REQUIRED FOR ALL 15 AND 20-AMP RECEPTACLES INSTALLED IN BATHROOMS, GARAGES, INCLUDING THE GARAGES, INCLUDING THE GARAGE DOOR OPENER RECEPTACLE, ACCESSORY BUILDINGS, OUTDOORS, IN UNFINISHED BASEMENTS, UNDER-FLOOR AREAS, LAUNDRY, UTILITY, AND KITCHEN COUNTER TOPS AND WITHIN 6' OF A BAR SINK.
15. RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6' FROM A RECEPTACLE OUTLET. WALL SPACES GREATER THAN 2' IN WIDTH AND UNBROKEN ALONG THE FLOOR LINE BY OPENINGS OR FIREPLACES SHALL BE PROVIDED WITH A RECEPTACLE. THESE RECEPTACLES SHALL BE PROVIDED IN KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, DENS, BEDROOMS, OR SIMILAR ROOMS.
16. AT LEAST ONE 120-VOLT, 20-AMPERE BRANCH CIRCUIT SHALL BE PROVIDED TO SUPPLY BATHROOMS & LAUNDRY ROOM OUTLETS WHICH SHALL HAVE NO OTHER OUTLETS.
17. KITCHEN EXHAUST HOOD MUST CONFORM TO 2022 TITLE-24 BUILDING ENERGY EFFICIENCY STANDARDS SECTION 150.0(O)1.G., INCLUDING TABLES 150.0-G & 150.0-H, AND HERS TESTED TO MEET 2022 REFERENCE APPENDICES RA3.7.

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ELECTRICAL PLANS
KUHL RESIDENCE
1 BULLARD PLACE (APN: 011-030-058)
POLLOCK PINES, CA

REVISIONS

SHEET #
E1.0

WATER HEATER NOTES:

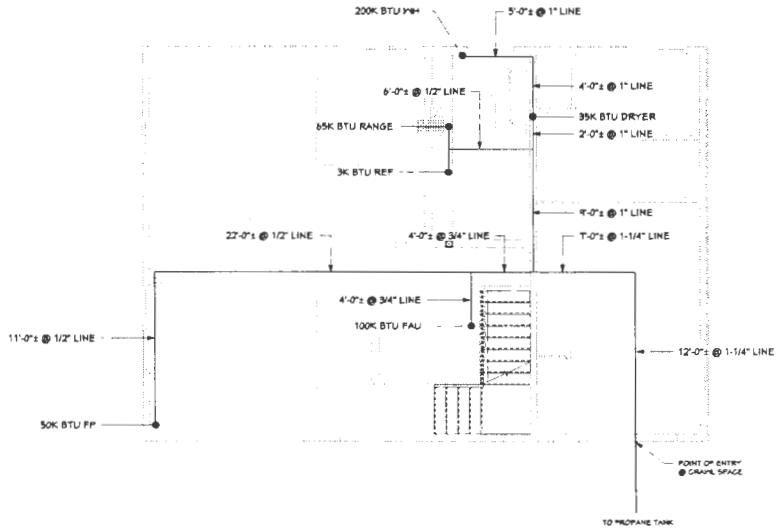
1. WATER HEATER SHALL HAVE ISOLATION VALVES ON BOTH THE COLD WATER SUPPLY AND THE HOT WATER PIPE LEAVING THE WATER HEATER, AND HOSE BIBS OR OTHER FITTINGS ON EACH VALVE FOR FLUSHING THE WATER HEATER WHEN THE VALVES ARE CLOSED.
2. PROVIDE A WATER-TIGHT DRIP PAN OF CORROSION-RESISTANT MATERIALS BENEATH THE WATER HEATER w/ A 3/4" DRAIN TO AN APPROVED LOCATIO
3. A CONDENSATE DRAIN THAT IS A MAXIMUM OF 2" HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER THAT ALLOWS NATURAL DRAIN WITHOUT PUMP ASSISTANCE SHALL BE INSTALLED.
4. A CATEGORY III, IV OR A TYPE B VENT WITH A STRAIGHT PIPE BETWEEN THE OUTSIDE TERMINAL AND THE SPACE WHERE THE WATER HEATER IS LOCATED SHALL BE INSTALLED.
5. TANK TYPE WATER HEATER REQUIRES 2 SEISMIC STRAPS. ONE TRAP WITHIN THE UPPER 1/3 AND THE OTHER WITHIN THE LOWER 1/3 OF THE WATER HEATER. THE LOWER STRAP SHALL NOT BE WITHIN 4" OF THE CONTROLS. CPC 507.2
6. STORAGE TYPE WATER HEATER SHALL BE PROVIDED WITHIN AN APPROVED, LISTED, ADEQUATELY SIZED COMBINATION PRESSURE AND TEMPERATURE RELIEF VALVE. WHERE A PRESSURE REGULATOR IS INSTALLED, AN APPROVED, LISTED EXPANSION TANK OR OTHER DEVISE SHALL INSTALLED TO CONTROL INTERMITTENT THERMAL EXPANSION. CPC 605.2 & 605.3
7. WATER HEATERS INSTALLED IN THE GARAGE SHALL BE INSTALLED SO THAT ALL BURNERS AND BURNER-IGNITION DEVICES ARE LOCATED NOT LESS THAN 18" ABOVE THE FLOOR UNLESS LISTED AS FLAMMABLE VAPOR IGNITION RESISTANT. SUCH APPLIANCES SHALL BE PROTECTED FROM AUTO IMPACT. CPC 507.13 & 507.13.1
8. WATER HEATERS AND OTHER BURNER & BURNER-IGNITION APPLIANCES THAT ARE INSTALLED IN THE GARAGE AND ADJACENT SPACES THAT OPEN TO THE GARAGE SHALL NOT BE LOCATED NOT LESS THAN 18 INCHES ABOVE THE FLOOR AND SHALL CONFORM WITH ONE OF THE BELOW (PER CMC 305.1.1):
   A. SHALL BE GUARDED AGAINST DAMAGE BY A PROTECTIVE BARRIER
   B. SHALL BE ELEVATED
   C. SHALL BE LOCATED OUT OF THE NORMAL PATH OF VEHICLES.

GAS PIPING NOTES:

TOTAL DEVELOPED LENGTH OF PIPE= ±86'-0"
MOST REMOTE OUTLET = ±56.0'
PIPING MATERIAL = SCHEDULE 40 METALLIC PIPE
TOTAL BTU= 493K BTU

MAXIMUM CAPACITY OF PIPE IN THOUSANDS OF BTU PER HOUR FOR GAS PRESSURE OF 11 INCHES WATER COLUMN AND A PRESSURE DROP OF 0.5 INCH WATER COLUMN
SIZING BETWEEN SINGLE OR SECOND STAGE (LOW PRESSURE REGULATOR) AND APPLIANCE
(BASED ON A 1.53 SPECIFIC GRAVITY GAS)

Pipe Length (Feet)	Nominal Pipe Size, Schedule 40								
	1/2" 0.622	3/4" 0.824	1" 1.049	1 1/4" 1.38	1 1/2" 1.61	2" 2.067	3" 3.068	3 1/2" 3.548	4" 4.026
10	291	608	1146	2352	3525	6789	19136	28936	39218
20	200	418	788	1617	2423	4666	13148	19250	26077
30	161	336	632	1299	1946	3747	10559	15458	21537
40	137	287	541	1111	1665	3207	9036	13230	18431
50	122	253	480	985	1478	2842	8009	11726	16335
60	110	231	435	892	1337	2573	7256	10625	14801
80	94	198	372	764	1144	2204	6211	9093	12668
100	84	175	330	677	1014	1954	5506	8059	11227
125	74	155	292	600	899	1731	4878	7141	9950
150	67	141	265	544	815	1569	4420	6472	9016
200	58	120	227	465	697	1343	3783	5539	7716
250	51	107	201	412	618	1190	3353	4908	6839
300	46	97	182	374	560	1078	3038	4448	6196
350	43	89	167	344	515	992	2795	4092	5701
400	40	83	156	320	479	923	2600	3807	5305



1 GAS PIPING PLAN
1/4" = 1'-0"

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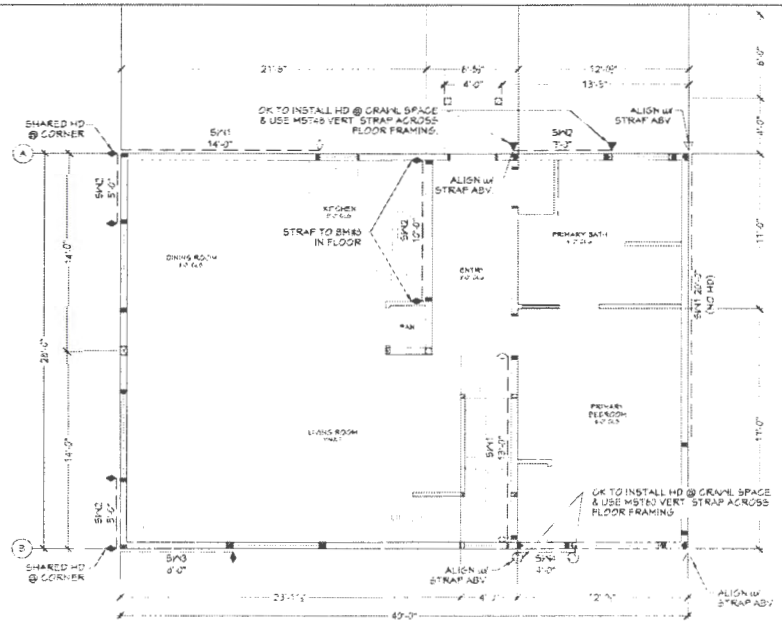
GAS PIPING PLAN
KUHL RESIDENCE
1 BULLARD PLACE (APN: 011-030-058)
POLLOCK PINES, CA

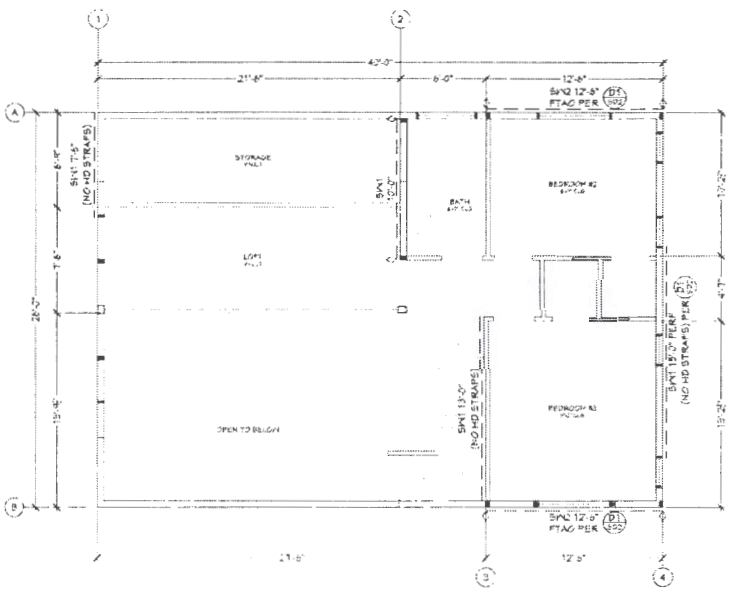
REVISIONS

SHEET #
G1.0



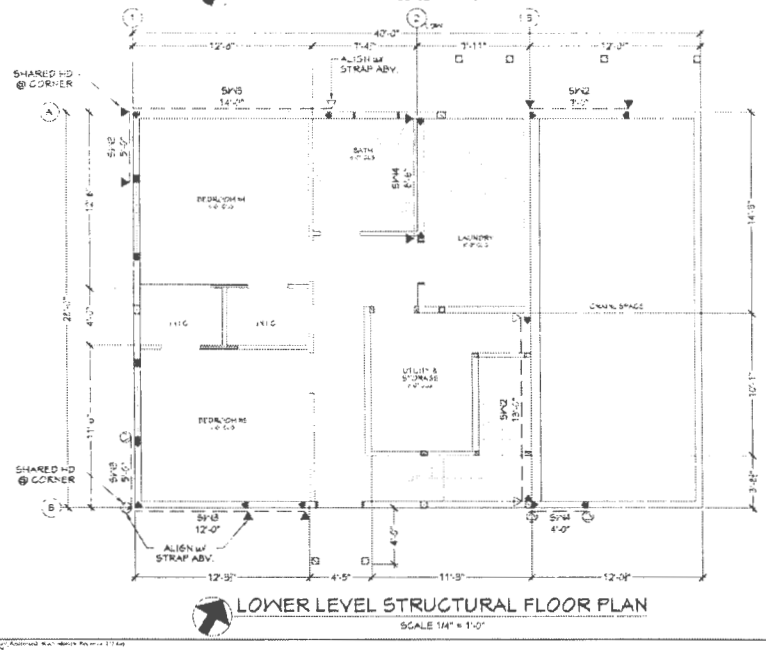
MAIN LEVEL STRUCTURAL FLOOR PLAN

SCALE 1/4" = 1'-0"



UPPER LEVEL STRUCTURAL FLOOR PLAN

SCALE 1/4" = 1'-0"



LOWER LEVEL STRUCTURAL FLOOR PLAN

SCALE 1/4" = 1'-0"

NOTE:
FOR HOLDOWN / SHEARWALLS THAT INTERFERE WITH TRIMMERS @ OPENING, SEE DETAIL (D2/S02)

CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING OR FABRICATING MATERIALS

SEE SHEET SN1 FOR SHEARWALL SCHEDULE, HOLDOWN LEGEND AND ALL OTHER STRUCTURAL SPECIFICATIONS

BURNE ENGINEERING
(530) 672-1600

STRUCTURAL FLOOR PLANS
KUHL RESIDENCE
1 BULLARD PLACE
POLLOCK PINES, CA

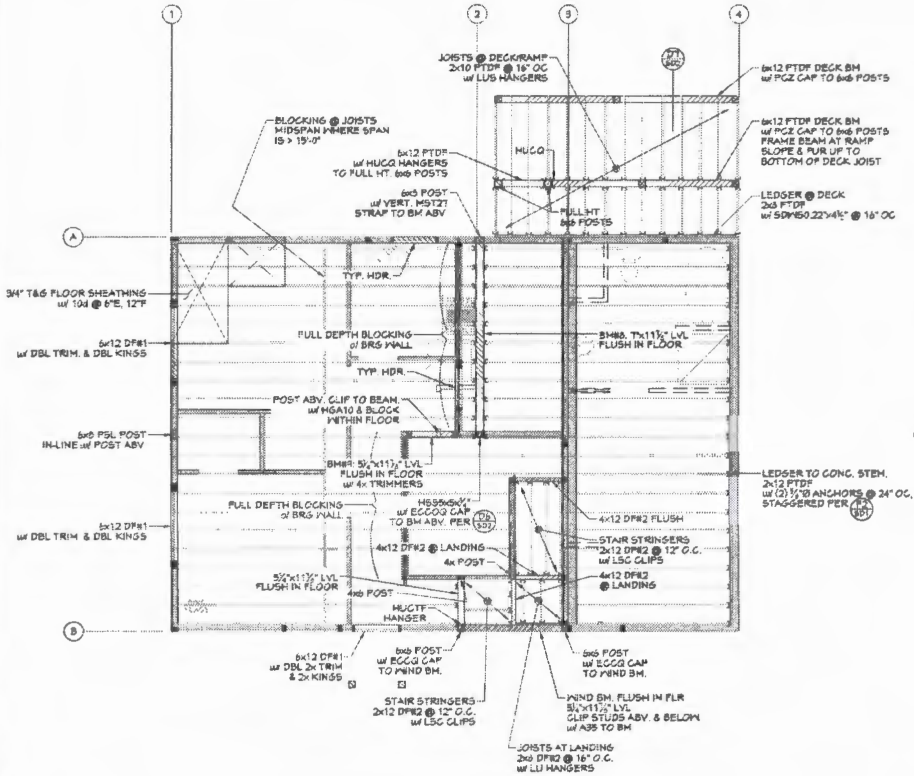
REVISIONS

REGISTERED PROFESSIONAL ENGINEER
BRIAN GIONGERCA
No. 7252
STRUCTURAL
STATE OF CALIFORNIA
09.13.24

SHEET #:
S1.0

SEE SHEET SN1 FOR SHEARWALL SCHEDULE, HOLDOWN LEGEND AND ALL OTHER STRUCTURAL SPECIFICATIONS

CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING OR FABRICATING MATERIALS



MAIN LEVEL FLOOR FRAMING PLAN

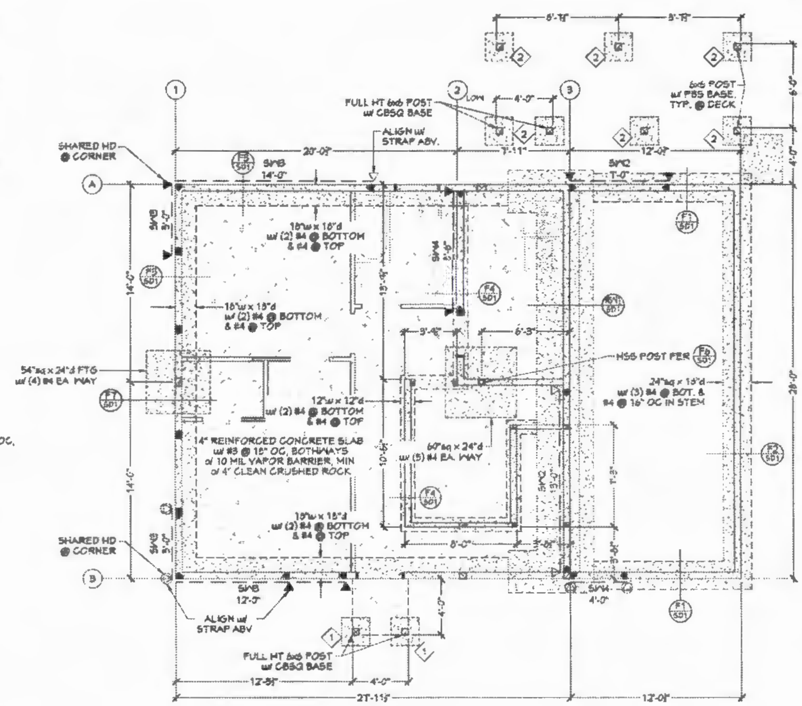
SCALE 1/4" = 1'-0"

WALL LEGEND

- MAIN LEVEL WALLS
- LOWER LEVEL WALLS

TYPICAL FLOOR JOISTS U.O.N.

11⅞" TJI560 @ 16" O.C.
w/ IUS HANGERS WHERE SHOWN.
OK TO USE TJI110s FOR SPANS < 15'-0"



FOUNDATION PLAN

SCALE 1/4" = 1'-0"

SPREAD FOOTING LEGEND

1. 24"sq x 18"d w/ (3) #4 EA. WAY (F5/S01)
2. 32"sq x 18"d w/ (3) #4 EA. WAY

TYPICAL HEADER U.O.N.

6x10 DF#1 w/ 2x TRIMMERS.
USE DBL 2x TRIMMERS EA SIDE FOR HEADERS SPANNING > 5'-0"

NOTE:
FOR HOLDOWN / SHEARWALLS THAT INTERFERE WITH TRIMMERS @ OPENING, SEE DETAIL

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FOUNDATION & MAIN FLOOR FRAMING PLANS
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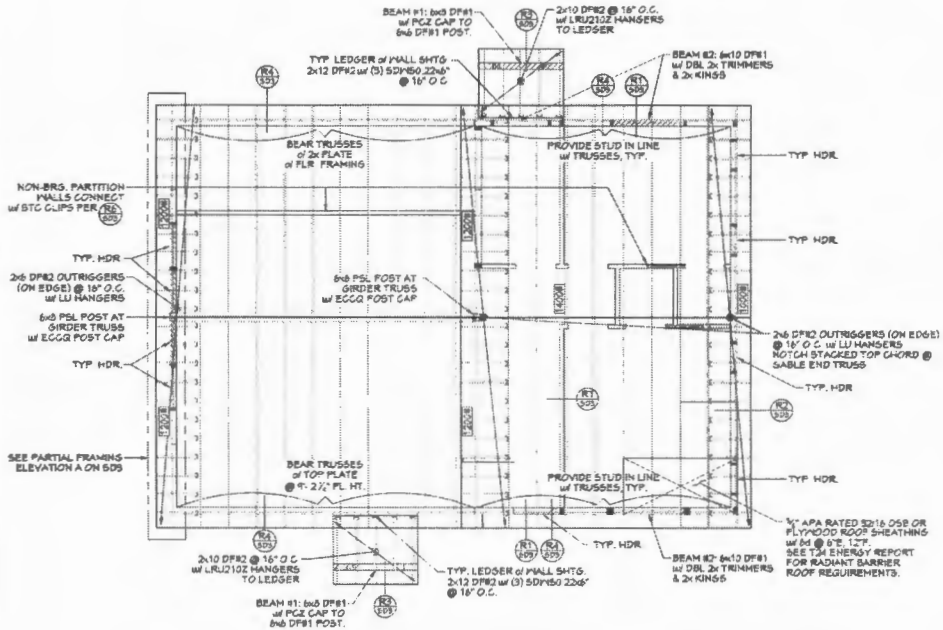
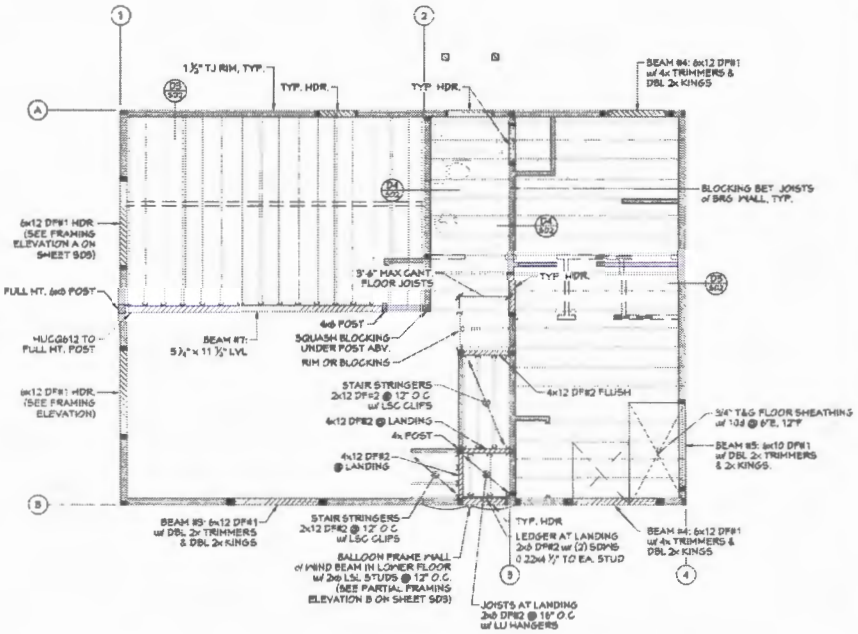
SHEET #:
S2.0

CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING OR FABRICATING MATERIALS



ROOF FRAMING PLAN

SCALE 1/4" = 1'-0"



UPPER LEVEL FLOOR FRAMING PLAN

SCALE 1/4" = 1'-0"

WALL LEGEND
- MAIN LEVEL WALLS
- UPPER LEVEL WALLS

ROOF FRAMING NOTES:

1. NAIL ROOF SHEATHING TO DRAG TRUSS w/ 8d @ 6" O.C.

TYPICAL ROOF FRAMING U.O.N.

MANUFACTURED TRUSSES DESIGNED BY OTHERS. SEE TRUSS SPECIFICATIONS FOR INFORMATION NOT SHOWN

TYPICAL HEADER U.O.N.

6x10 DF#1 w/ 2x TRIMMERS.
USE DBL 2x TRIMMERS EA SIDE FOR HEADERS SPANNING > 5'-0"

TYPICAL HDR @ MAIN LEVEL U.O.N.

6x10 DF#1 w/ 2x TRIMMERS & 2x KINGS
USE DBL 2x TRIMMERS EA SIDE FOR HEADERS SPANNING > 5'-0"

TYPICAL FLOOR JOISTS U.O.N.

11 7/8" TJI360 @ 16" O.C.
w/ IUS HANGERS WHERE SHOWN.
OK TO USE TJI110a FOR SPANS < 15'-0"

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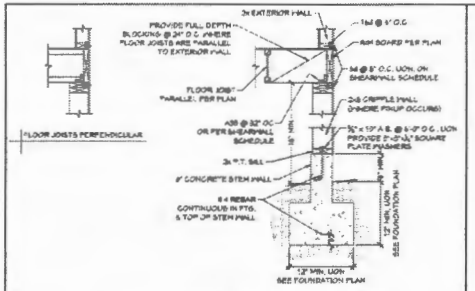
UPPER FLOOR & ROOF FRAMING PLANS
KUHL RESIDENCE
1 BULLARD PLACE
POLLOCK PINES, CA

REVISIONS

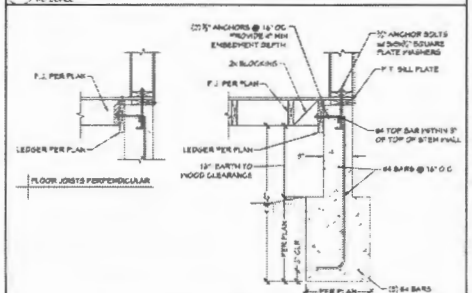
25.10.24

SHEET #:
S3.0



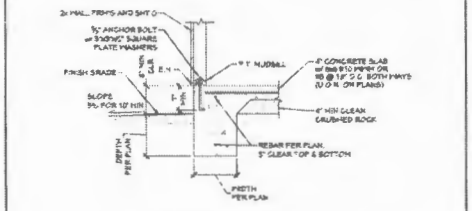
TYP. FOOTING @ RAISED FLOOR

F1 NO SCALE

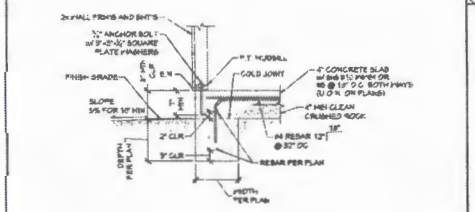


RAISED FLOOR TO SLAB TRANSITION

F2 NO SCALE



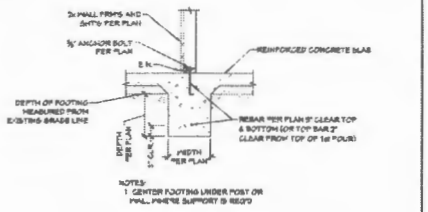
MONO-POUR OPTION



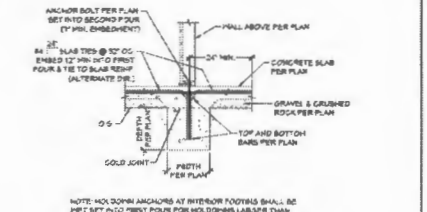
2-POUR OPTION

PERIMETER FOOTING DETAIL

F3 NO SCALE



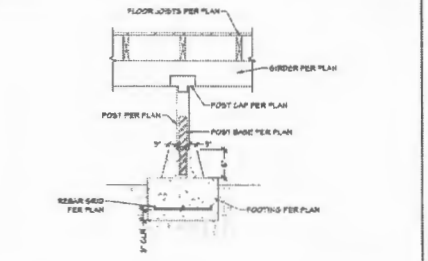
MONO-POUR OPTION



2-POUR OPTION

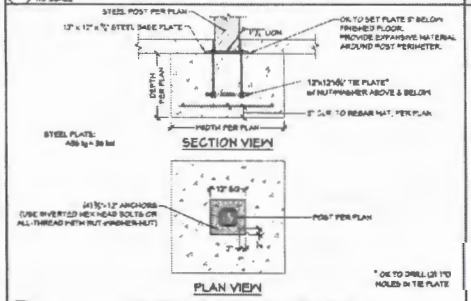
INTERIOR FOOTING DETAIL

F4 NO SCALE



PIER FOOTING DETAIL

F5 NO SCALE

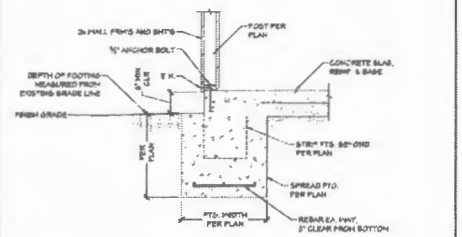


SECTION VIEW

PLAN VIEW

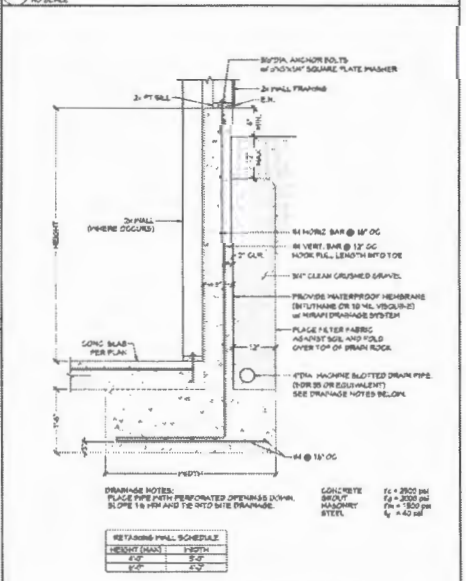
POST TO FOOTING DETAIL

F6 NO SCALE



SPREAD FOOTING AT GARAGE

F7 NO SCALE



CANTILEVERED RETAINING WALL
w/ SLAB @ BASE

RW1 NO SCALE

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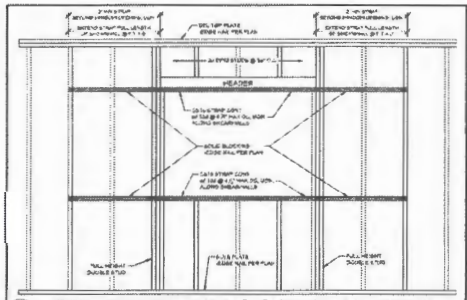
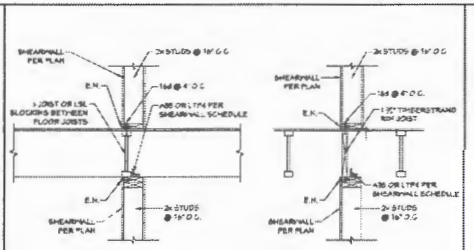
25.10.24

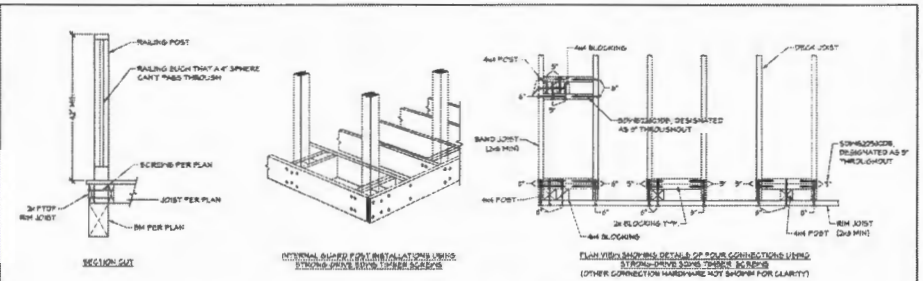
SHEET #:
SD1



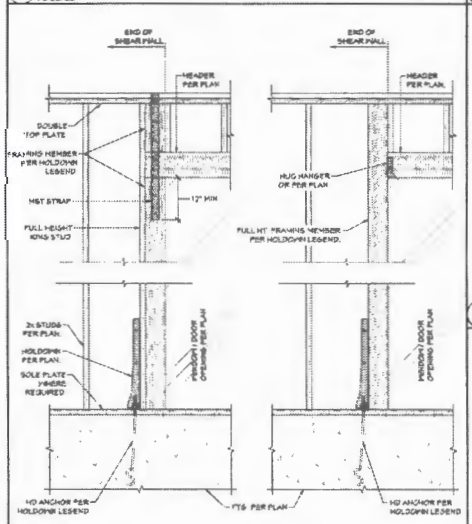
D1 PERFORATED / F.T.A.O. SHEAR WALL DETAIL
NO SCALE



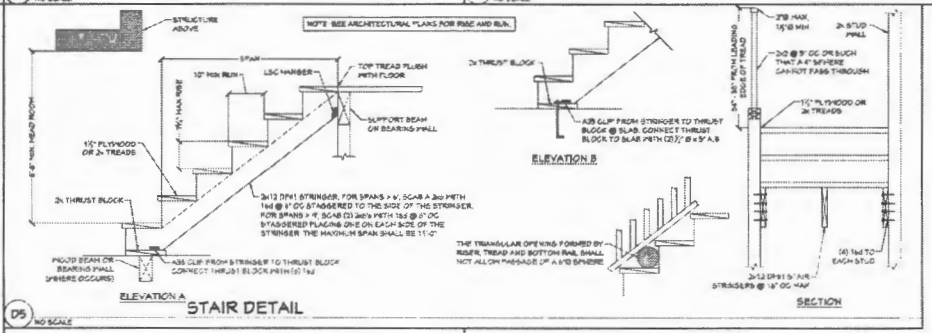
D4 FLOOR-TO-FLOOR SHEAR TRANSFER (INTERIOR, PERPENDICULAR & PARALLEL)
NO SCALE



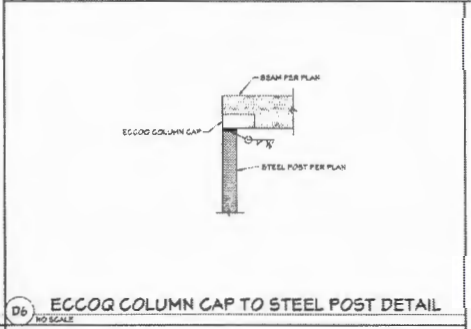
D6 RAILING POST DETAIL
NO SCALE



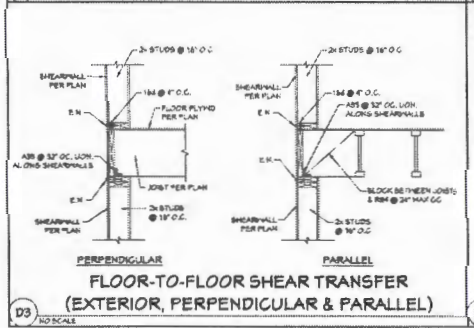
D2 SHEAR TRANSFER @ OPENINGS
NO SCALE



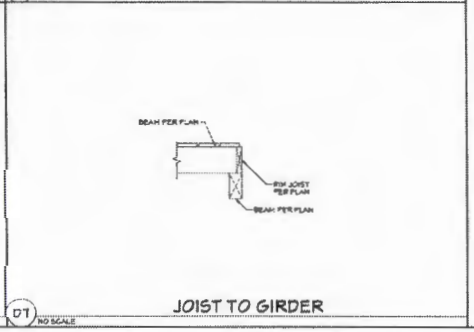
D5 STAIR DETAIL
NO SCALE



D6 ECCOQ COLUMN CAP TO STEEL POST DETAIL
NO SCALE



D3 FLOOR-TO-FLOOR SHEAR TRANSFER (EXTERIOR, PERPENDICULAR & PARALLEL)
NO SCALE



D7 JOIST TO GIRDER
NO SCALE

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STRUCTURAL DETAILS
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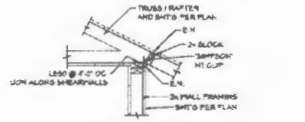
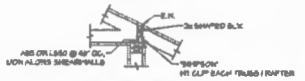
25.13.24

SHEET #:
SD2



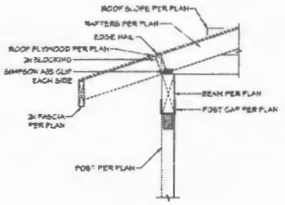
TYPICAL DETAIL



ALTERNATE OPTION

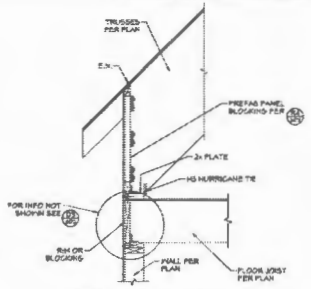
R1 NO SCALE

EAVE FRAMING AT TRUSS / RAFTER ROOF



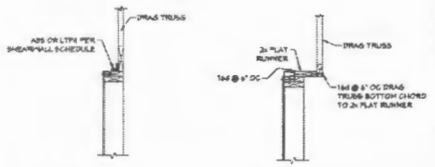
R3 NO SCALE

RAFTER TO BEAM CONNECTION



R5 NO SCALE

FRAMING AT ATTIC

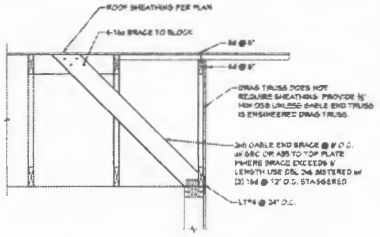


INTERIOR SHEAR TRANSFER

OFFSET SHEAR TRANSFER

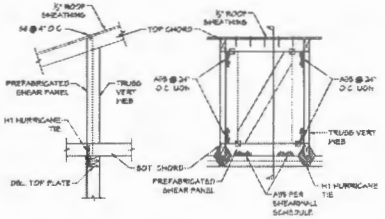
R7 NO SCALE

DRAG TRUSS DETAIL



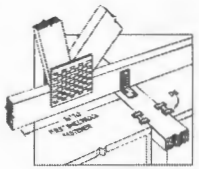
R2 NO SCALE

GABLE END FRAMING DETAIL



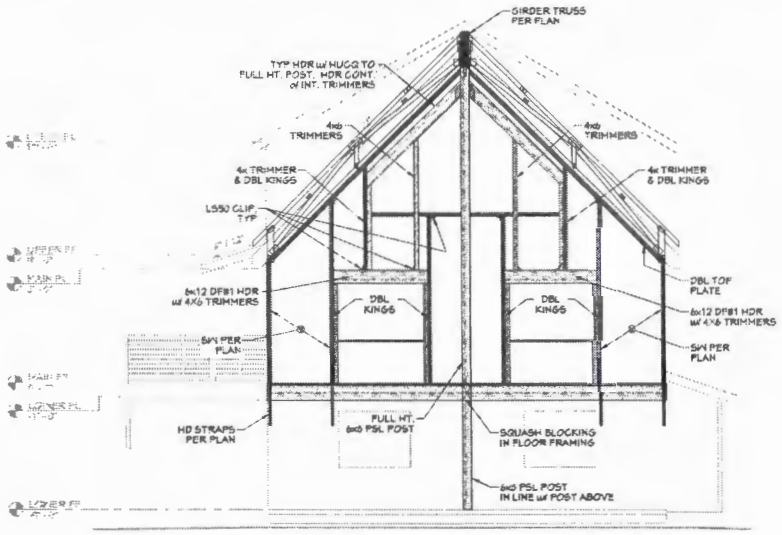
R4 NO SCALE

PREFABRICATED SHEAR PANEL BLOCKING DETAIL



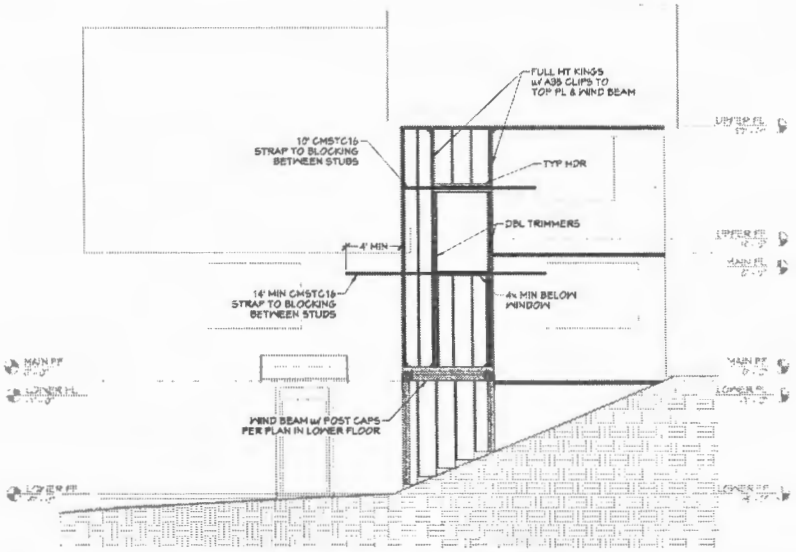
R6 NO SCALE

TYPICAL STC CLIP INSTALLATION



FRAMING ELEVATION A

SCALE 1/4" = 1'-0"



FRAMING ELEVATION B

SCALE 1/4" = 1'-0"

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09.10.24

SHEET #:
SD3

GENERAL

1. CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES AND REGULATIONS.
2. SHOP DRAWING NOTE:
   A) SHOP DRAWINGS SHALL BE SUBMITTED IN THE FORM OF ELECTRONIC OR HARD COPIES OF EACH SHEET.
   B) THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE STRUCTURAL ENGINEER THAT THEY UNDERSTAND THE DESIGN CONCEPT BY INDICATING WHICH MATERIALS THEY INTEND TO FURNISH AND INSTALL, AND BY DETAILING THE FABRICATION AND INSTALLATION METHODS THEY INTEND TO USE.
   C) PRIOR TO FABRICATION, SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW TO THE STRUCTURAL ENGINEER. SHOP DRAWING SUBMITTALS SHALL INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO STRUCTURAL STEEL, AND PRE-FABRICATED WOOD ROOF FRAMING ITEMS SUCH AS TRUSSES.
   D) PRIOR TO SUBMISSION THE CONTRACTOR SHALL REVIEW ALL SUBMITTALS FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND SHALL STAMP SUBMITTALS AS BEING "REVIEWED FOR CONFORMANCE."
   E) SHOP DRAWING SUBMITTALS PROCESSED BY THE STRUCTURAL ENGINEER ARE NOT CHANGE ORDERS.
   F) ANY DETAIL ON THE SHOP DRAWING THAT DEVIATES FROM THE CONTRACT DOCUMENTS SHALL CLEARLY BE MARKED WITH THE NOTE "THIS IS A CHANGE"
   G) SHOP DRAWINGS OR CALCULATIONS SUBMITTED FOR REVIEW THAT REQUIRE RESUBMITTAL FOR RE-REVIEW SHALL BE BILLED HOURLY FOR SUCH TIME TO THE GENERAL CONTRACTOR. RE-REVIEW WILL NOT PROCEED WITHOUT WRITTEN APPROVAL FROM THE GENERAL CONTRACTOR FOR ADDITIONAL ENGINEERING REVIEW SERVICES.
3. SAFETY NOTE:
   A) IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH THE PERTINENT SECTIONS, AS THEY APPLY TO THIS PROJECT, OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE STATE OF CALIFORNIA LATEST EDITION AND ALL OSHA REQUIREMENTS.
   B) THE OWNER AND THE STRUCTURAL ENGINEER DO NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO COMPLY WITH THESE REQUIREMENTS
   C) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE DESIGN AND CONSTRUCTION OF ALL FORMS AND SHORING REQUIRED.
4. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER WHERE A CONFLICT OR A DISCREPANCY OCCURS BETWEEN THE STRUCTURAL DRAWINGS AND ANY OTHER PORTION OF THE CONTRACT DOCUMENTS OR EXISTING FIELD CONDITIONS. SUCH NOTIFICATION SHALL BE GIVEN IN DUE TIME SO AS NOT TO AFFECT THE CONSTRUCTION SCHEDULE. IN CASE OF A CONFLICT BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS, THE MORE RESTRICTIVE SHALL GOVERN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO COMMENCING ANY WORK.
5. WHERE NO SPECIFIC DETAIL IS SHOWN, THE CONSTRUCTION SHALL BE IDENTICAL OR SIMILAR TO THAT INDICATED FOR LIKE CASES OF CONSTRUCTION ON THIS PROJECT. SHOULD THERE BE ANY QUESTION, CONTACT THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO PROCEEDING.
6. WHEN CONSTRUCTION ATTACHES TO AN EXISTING BUILDING, A COMPLETE SET OF DRAWINGS OF THE EXISTING BUILDING SHALL BE KEPT ON THE JOB SITE. CONTRACTOR TO OBTAIN THESE DRAWINGS FROM THE OWNER.
7. CONTRACTOR SHALL PROVIDE AN ALLOWANCE EQUAL TO 2% OF THE BID FOR STRUCTURAL STEEL, MISC IRON AND REINFORCING STEEL TO BE USED AT THE DISCRETION OF THE STRUCTURAL ENGINEER. UNUSED AMOUNT TO REVERT TO THE OWNER UPON COMPLETION OF THE JOB.
8. ANY SUBSTITUTIONS FOR STRUCTURAL MEMBERS, HARDWARE, OR DETAILS SHALL BE REVIEWED BY THE ARCHITECT AND STRUCTURAL ENGINEER. SUCH REVIEW WILL BE BILLED ON A TIME AND MATERIALS BASIS TO THE GENERAL CONTRACTOR WITH NO GUARANTEE THAT THE SUBSTITUTION WILL BE ALLOWED.
9. DO NOT SCALE DRAWINGS. CONTACT THE ARCHITECT OR STRUCTURAL ENGINEER FOR ANY DIMENSIONS NOT SHOWN.
10. THESE DRAWINGS ARE NOT COMPLETE UNTIL REVIEWED AND ACCEPTED BY LOCAL BUILDING OFFICIALS AND APPROVED BY THE OWNER.
11. ALL DRAWINGS AND WRITTEN MATERIAL APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF THE STRUCTURAL ENGINEER AND THE SAME MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT WRITTEN CONSENT OF THE STRUCTURAL ENGINEER.
12. THE STRUCTURE SHOWN ON THESE DRAWINGS IS STRUCTURALLY SOUND ONLY IN ITS COMPLETED FORM. THE STABILITY OF THIS STRUCTURE DEPENDS ON THE DIAPHRAGMS AND THE BRACING MEMBERS SHOWN. THE CONTRACTOR IS TO PROVIDE FOR THE DESIGN AND CONSTRUCTION OF SHORING FOR ALL EARTH FORMS, CONCRETE, STEEL, WOOD, AND MASONRY TO RESIST GRAVITY, EARTH, WIND, SEISMIC, AND CONSTRUCTION LOADS. SHORING SHALL REMAIN IN PLACE UNTIL ALL DIAPHRAGMS AND LATERAL RESISTING ELEMENTS ARE IN PLACE IN THE ENTIRETY.

DEMOLITION

1. SAFETY NOTES:
   A) IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PERTINENT SECTIONS, AS THEY APPLY TO THIS PROJECT, OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE STATE OF CALIFORNIA, LATEST EDITION AND ALL OSHA REQUIREMENTS.
   B) THE STRUCTURAL ENGINEER AND OWNER DO NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO COMPLY WITH THESE REQUIREMENTS.
2. SHORE OR BRACE TRUSSES, BEAMS COLUMNS AND WALL AS REQUIRED TO MAINTAIN THE STABLE INTEGRITY OF THE EXISTING STRUCTURE PRIOR TO DEMOLITION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DESIGN AND PROVIDE COMPETENT SHORING AND BRACING FOR ALL LOADS IMPOSED DURING AND AFTER DEMOLITION THROUGH COMPLETION OF NEW CONSTRUCTION.
3. ALL DIMENSIONS GIVEN TO AND OF THE EXISTING STRUCTURE ARE APPROXIMATE. VERIFY BY FIELD MEASUREMENTS THE DIMENSIONS OF THE EXISTING STRUCTURE. WHERE ACTUAL CONDITIONS DEVIATE FROM THE DETAILS SHOWN ON THE DRAWINGS, NOTIFY THE STRUCTURAL ENGINEER FOR INSTRUCTIONS PRIOR TO PROCEEDING WITH WORK.
4. DEMOLITION AND REMOVAL OF EXISTING CONSTRUCTION SHALL BE MADE IN SUCH A MANNER AS TO AVOID OR MINIMIZE DAMAGE TO ADJACENT CONSTRUCTION.
5. EXTENT OF DEMOLITION IS TO BE AS INDICATED ON PLANS, SECTIONS AND DETAILS. DEMOLITION IS TO INCLUDE REMOVAL AND DISPOSAL CONSTRUCTION.

FOUNDATIONS

1. FOUNDATION DESIGN IS BASED ON 2022 CBC TABLE 1806.2.
2. FOUNDATION DEPTHS INDICATED ON PLANS ARE MINIMUMS.
3. WHEN STRUCTURAL OBSERVATION IS REQUIRED, STRUCTURAL ENGINEER SHALL OBSERVE FOOTING REINFORCING STEEL PRIOR TO CONCRETE PLACEMENT. PROVIDE 48 HOURS NOTICE TO STRUCTURAL ENGINEER PRIOR TO CONCRETE PLACEMENT.
4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING BUT NOT LIMITED TO, LAGGING, SHORING AND PROTECTING OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH THE LOCAL BUILDING DEPARTMENT.
5. FOUNDATION TYPE: CONVENTIONAL SPREAD FOOTINGS
   DESIGN VALUES:

   ALLOWABLE BEARING PRESSURES
   DL + LL — 1000 psf (DEPTH < 18")
   DL + LL — 1500 psf (DEPTH ≥ 18")

   LATERAL RESISTANCE
   PASSIVE PRESSURE — 300 psf PER FOOT OF DEPTH
   COEFFICIENT OF FRICTION — 0.30

CONCRETE

1. STRUCTURAL CONCRETE SHALL ATTAIN 28 DAY COMPRESSIVE STRENGTH AS REQUIRED IN NOTE #16
2. ALL CONCRETE MIX SHALL BE READY-MIX IN ACCORDANCE WITH ASTM C94
3. CEMENT SHALL CONFORM TO ASTM C-150 TYPE I OR II.
4. WATER SHALL BE CLEAN AND FREE FROM OILS, ACIDS, ALKALIS, SALTS, ORGANIC MATERIALS OR OTHER SUBSTANCES DELETERIOUS TO CONCRETE OR REINFORCEMENT
5. CONCRETE AGGREGATES SHALL CONFORM TO ASTM C-33. AGGREGATES FOR LIGHTWEIGHT CONCRETE SHALL CONFORM TO ASTM C-330.
6. REINFORCING STEEL SHALL CONFORM TO ASTM A615-GRADE 60 FOR #5 AND LARGER, AND ASTM A615-GRADE 40 FOR #4 AND SMALLER, EXCEPT REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706
7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.
8. REINFORCING STEEL SHALL BE FABRICATED ACCORDING TO "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION"
9. ALL PREHEATING AND WELDING OF REINFORCING BARS SHALL BE DONE IN ACCORDANCE WITH AWS D1.4 LATEST EDITION AND SHALL BE CONTINUOUSLY INSPECTED BY A QUALIFIED TESTING LABORATORY. CONTRACTOR SHALL FURNISH REBAR MILL CERTIFICATES TO THE TESTING LABORATORY
10. MINIMUM CLEAR CONCRETE COVER FOR REINFORCING SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

    CAST AGAINST EARTH = 3"
    CAST IN FORMS AND
    EXPOSED TO EARTH OR WEATHER
    #6 & LARGER = 2"
    #5 & SMALLER = $1\frac{1}{2}$"
    NOT EXPOSED TO EARTH OR WEATHER
    SLAB, WALLS, JOISTS = $1\frac{1}{2}$"
    BEAMS, COLUMNS, GIRDERS = $1\frac{1}{2}$"

    TILT-UP PANELS CAST ON SLAB
    EXPOSED TO WEATHER
    #5 & SMALLER = $1\frac{1}{2}$"
    #6 & LARGER = 2"
11. ALL REINFORCEMENT SHALL BE CONTINUOUS. STAGGER SPLICES WHERE POSSIBLE. LAP SPLICES SHALL BE PER THE TYPICAL DETAILS, UNLESS NOTED OTHERWISE.
12. PROVIDE CONSTRUCTION JOINTS AS INDICATED ON THE DRAWINGS. CONCRETE SURFACE AT CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED AND LAITANCE REMOVED. WHERE INDICATED ON DRAWINGS ROUGHEN CONCRETE SURFACE TO $\frac{1}{4}$" AMPLITUDE
13. PIPES AND ELECTRICAL CONDUITS SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE OR CONCRETE FILL OVER METAL DECKING EXCEPT WHERE SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER
14. REINFORCING, DOWELS, BOLTS, ANCHORS, SLEEVES, ETC., TO BE EMBEDDED IN CONCRETE SHALL BE SECURELY POSITIONED IN FORMS BEFORE PLACING CONCRETE.
15. MAXIMUM FREE FALL OF CONCRETE SHALL BE 5'-0"
16. ALL CONCRETE AND "NON-METALLIC" GROUT SHALL BE THOROUGHLY CONSOLIDATED BY SUITABLE MEANS AND THOROUGHLY WORKED AROUND REINFORCEMENT, EMBEDDED ITEMS AND INTO CORNERS OF FORMS
17. PLACE NON-SHRINK GROUT UNDER BASE PLATES, SILL PLATES, ETC AS INDICATED ON THE DRAWINGS. NON-SHRINK GROUT SHALL BE MASTERFLOW 928 GROUT BY MASTER BUILDERS TECHNOLOGIES OR APPROVED EQUAL WITH A MINIMUM f'c OF 7500 psi @ 28 DAYS.
18. CONCRETE STRENGTHS:

CLASS	USE	f'c @ 28 DAYS	MAX AGGREGATE SIZE	WEIGHT	WATER TO CEMENT RATIO
A	FOUNDATIONS	2500 psi	$\frac{3}{4}$"	145	0.5-0.6

STRUCTURAL STEEL

1. FABRICATION, ERECTION AND MATERIALS SHALL CONFORM WITH THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDING, AND CALIFORNIA BUILDING CODE, LATEST EDITION
2. STRUCTURAL STEEL W AND WT SHAPES SHALL CONFORM WITH ASTM A992 STEEL. STRUCTURAL STEEL ANGLES, CHANNELS, MISCELLANEOUS CHANNELS, AND PLATES SHALL CONFORM WITH ASTM A36 STEEL UNLESS NOTED OTHERWISE.
3. STEEL PIPE SHALL CONFORM TO ASTM A-53, TYPES E OR S, GRADE B
4. STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A-500, GRADE C
5. WELDING SHALL BE DONE BY THE ELECTRIC ARC PROCESS IN ACCORDANCE WITH AMERICAN WELDING SOCIETY STANDARDS USING ONLY CERTIFIED WELDERS. ALL GROOVE WELDS SHALL BE GROUND. ALL WELDING TO BE DONE USING E70xx ELECTRODES. IN ADDITION, WELDING OF ASTM A572 GRADE 50 STEEL AND ASTM A992 STEEL SHALL BE DONE WITH ELECTRODES CAPABLE OF DEPOSITING WELD METAL WITH A MAXIMUM DIFFUSIBLE HYDROGEN CONTENT OF 16ml/100g (H16).
6. ALL STRUCTURAL STEEL SHALL BE ERECTED PLUMB AND TRUE TO LINE. TEMPORARY BRACING SHALL BE INSTALLED AND SHALL BE LEFT IN PLACE UNTIL OTHER MEANS ARE PROVIDED TO ADEQUATELY BRACE THE STRUCTURE.
7. PLACE NON-SHRINK GROUT UNDER ALL BASE PLATES BEFORE ADDING VERTICAL LOAD. FOR NON-SHRINK GROUT SEE CONCRETE NOTE #12
8. BOLTED CONNECTIONS SHALL CONSIST OF UNFINISHED BOLTS CONFORMING TO ASTM A307 UNLESS NOTED OTHERWISE. WHERE HIGH STRENGTH BOLTS ARE INDICATED BOLTS CONFORMING TO ASTM A325-N SHALL BE PROVIDED (PROVIDE A325-SC BOLTS WHERE INDICATED)
9. HOLES FOR UNFINISHED BOLTS SHALL BE OF THE SAME NOMINAL DIAMETER OF THE BOLT PLUS $\frac{1}{16}$". USE STANDARD AISC GAGE AND PITCH FOR BOLTS EXCEPT AS NOTED OTHERWISE
10. HOLES FOR ANCHOR BOLTS EMBEDDED IN CONCRETE SHALL BE OF THE SAME NOMINAL BOLT DIAMETER PLUS $\frac{1}{16}$" UNLESS NOTED OTHERWISE
11. PROVIDE $\frac{1}{2}$" DIAMETER STITCH BOLTS AND RING FILLS, SPACED AT NOT MORE THAN 24"oc FOR ALL DOUBLE ANGLE MEMBERS
12. AT WOOD TO STEEL PARALLEL CONTACT, BOLT WITH $\frac{1}{2}$" DIAMETER BOLTS AT MAXIMUM 24"oc, TYPICAL UNLESS NOTED OTHERWISE.
13. ALL STRUCTURAL STEEL SHALL RECEIVE MINIMUM OF ONE SHOP COAT OF RED PRIMER PAINT. DO NOT PAINT AREAS TO BE FIELD WELDED, TO RECEIVE FRICTION TYPE HIGH STRENGTH BOLTS, OR TO BE EMBEDDED IN CONCRETE.
14. STRUCTURAL STEEL BELOW GRADE SHALL HAVE 3" MINIMUM OF CONCRETE COVER.

SHEARWALL SCHEDULE

SHEARWALL TYPE	MAXIMUM SHEAR (plf)	EDGE NAILING (EN)[3]	FIELD NAILING (FN)[3]	PLYWOOD/OSB SHEATHING (WON)	$\frac{5}{8}$" ANCHOR BOLT SPACING[6,7,10]	SOLE PLATE TO FRAMING MEMBER BELOW[4,5]	TOP PLATE TO TRUSS/RAFTER OR BLOCK ABOVE	FRAMING MEMBER AT PANEL JOINTS[7]	SILL PLATE[7]
SW0[11]	150	5d @ 7"	5d @ 7"	$\frac{1}{2}$" GWB	12"	16d @ 15"	N/A	2x MIN	2x MIN
SW1	260	8d @ 6"	8d @ 12"	$\frac{3}{8}$"	48"	16d @ 6"	A35 @ 24"	2x MIN	2x MIN
SW2	350	8d @ 4"	8d @ 12"	$\frac{3}{8}$"	36"	16d @ 4"	A35 @ 16"	2x MIN	2x MIN
SW3	490	8d @ 3"	8d @ 12"	$\frac{3}{8}$"	16"	16d @ 4"	A35 @ 12"	3x MIN	2x MIN
SW4	600	8d @ 4"	8d @ 12"	$\frac{3}{8}$" BOTH SIDES	12"	SDWS 22x6" @ 6" OC	A35 @ 8"	3x MIN	3x MIN
SW5	760	8d @ 4"	8d @ 12"	$\frac{1}{2}$" BOTH SIDES	12"	SDWS 22x6" @ 6" OC	LS50 @ 12"	3x MIN	3x MIN
SW6	980	8d @ 3"	8d @ 12"	$\frac{1}{2}$" BOTH SIDES	12"	SDWS 22x6" @ 4" OC	LS50 @ 8"	3x MIN	3x MIN
SW7	1280	8d @ 2"	8d @ 12"	$\frac{1}{2}$" BOTH SIDES	6"	SDWS 22x6" @ 4" OC	LS50 @ 6"	4x MIN	3x MIN

NOTES
1. STUD SPACING IS 16" MAX O.C.
2. ALL NAILS INTO PRESSURE TREATED LUMBER SHALL BE HOT DIPPED, GALVANIZED
3. ALL NAILS INTO SHEATHING ARE COMMON NAILS AS FOLLOWS:
   8d = $2\frac{1}{2}$"x0.131" DIAMETER
   10d = 3"x0.148" DIAMETER
4. ALL NAILS INTO SOLE PLATE ARE BOX NAILS AS FOLLOWS:
   16d = $3\frac{1}{2}$"x0.135 DIAMETER
5. SOLE PLATE NAILING SHALL BE STAGGERED $\frac{1}{2}$" MIN ABOUT THE ℄ OF THE RIM WHERE SPACING IS LESS THAN 6"
6. HARDWARE SPECIFIED IS IN ADDITION TO H1 TIES EACH TRUSS/RAFTER TO TOP PLATE LOCATION
7. ALL FRAMING LUMBER IS D.F.
8. ANCHOR BOLTS SHALL BE INSTALLED WITH 3"x3"x0.229" SQUARE PLATE WASHERS
9. INSTALL WASHER WITHIN $\frac{1}{2}$" OF THE SHEATHED SIDE OF THE MUD SILL
10. ANCHOR BOLTS INTO EXISTING CONCRETE SHALL BE DRILLED AND EPOXIED 6" MIN WITH SET EPOXY
11. SW0 USES GYPSUM WALL BOARD ON 1 SIDE ONLY w/ 5 COOLER NAILS OR NO. 6x1¼" DRYWALL SCREWS @ 7" MAX O.C.

HOLDOWN LEGEND

SYMBOL	HOLDOWN ID	CAPACITY	MINIMUM FRAMING MEMBER[1]	ANCHOR BOLT AT NEW FOOTING[2,3,4]	MINIMUM EMBEDMENT[6,7]	ALL-THREAD ANCHOR BOLT AT EXISTING FOOTING[8] (Gr. A36)			
						DIAMETER	MIN FOOTING WIDTH & DEPTH[8,9]	EMBEDMENT	EPOXY[10]
▽	HDU2-8	3075	DBL 2x	SSTB20	13"	$\frac{5}{8}$"	9"x12"	5"	SET-XP
▼	HDU4-3	4565	DBL 2x	SSTB24	21"	$\frac{5}{8}$"	12"x24"	8"	SET-XP
⊖	HDU5-3	5645	DBL 2x	SSTB24	18"	$\frac{5}{8}$"	12"x24"	10"	SET-XP
✱	HDU5-5.5	6455	4x	SSTB24	25"	N/A			
⇟	HDU8-4.5	7870	TRIPLE 2x	SSTB36	29"				
⇟	HDU11-5.5	9535	6x6	SB1x30[5]	24"				
⇟	HDU14-5.5	14445	6x6	1" ATR[5]	12"[5]				

NOTES
1. STITCH NAIL OF STUDS WITH (2) ROWS OF 16d @ 12" O.C. (MIN 16 TOTAL), STAGGERED VERTICALLY
2. USE 1" VERSION OF SSTB ANCHORS FOR TWO-POUR FOUNDATIONS AND WHERE 3x SILL PLATE IS USED
3. PROVIDE HORIZONTAL REBAR WITHIN 3"-5" FROM TOP OF FOOTING AT ALL ANCHOR BOLT LOCATIONS
4. PROVIDE 3" MIN CLEARANCE AT THE BOTTOM OF ANCHOR, WIDEN FOOTING AS NEEDED
5. 1" ALL THREAD WITH NUT-WASHER-NUT ASSEMBLY EMBEDDED 12" MIN INTO 36"x4x 18" DEEP MIN FOOTING. USE 2-1/2" x $\frac{3}{8}$" THICK MIN PLATE
6. EMBEDMENT GIVEN IS INTO FIRST POUR FOR TWO-POUR CONDITION
7. AT CMU WALLS, ANCHORS SHALL BE EMBEDDED INTO THE FOOTINGS AND EXTENDED WITH ALL-THREAD BARS AND HIGH STRENGTH COUPLER NUT
8. FOOTING DEPTH INCLUDES 5" SLAB OR 8" STEM WALL
9. WHERE EXISTING FOOTING OR STEM WALL WIDTH IS NOT MET, OK TO WIDEN FROM ONE SIDE ONLY (6" MIN) AND DOWEL INTO EXISTING FOOTING
10. SUBSTITUTE WITH AT-XP EPOXY IF CURING TEMP IS BELOW 50°F DURING FIRST WEEK OF CURING

"SPECIAL INSPECTION IS REQUIRED PRIOR TO AND DURING INSTALLATION OF POST-INSTALLED TENSION ANCHORS. DRILL HOLE $\frac{1}{8}$" LARGER THAN ANCHOR DIAMETER. HOLE MUST BE CLEANED, BRUSHED, AND BLOWN PRIOR TO INSTALLATION.

STRAP LEGEND

SYMBOL	STRAP ID	MINIMUM FRAMING MEMBER[1]	CAPACITY (lbs) AND TOTAL NUMBER OF FASTENERS[2] AT VARIOUS FLOOR DEPTHS			
			12"	12"	16"	24"
◇	MST37	DBL 2x	2710 / 22-16d	2455 / 20-16d	1725 / 14-16d	N/A
◆	MST48	DBL 2x	4205 / 34-16d	3960 / 32-16d	3215 / 26-16d	N/A
○	MST60	DBL 2x	6295 / 46-16d	6295 / 46-16d	5247 / 40-16d	4605 / 34-16d
●	MST72	DBL 2x	6730 / 62-16d	6730 / 62-16d	6730 / 54-16d	5730 / 45-16d

NOTES
1. STITCH NAIL OF STUDS WITH (2) ROWS OF 16d @ 12" O.C. STAGGERED VERTICALLY
2. NAILS: 16d = 0.162" DIAMETER x $3\frac{1}{2}$" LONG
3. OK TO INSTALL STRAPS OVER SHEATHING

DESIGN CRITERIA

1. THESE CODES/STANDARDS APPLY
   2022 CBC | 2022 CRC | 2022 CPC
   2022 CMC | 2022 CEC | 2022 CEBC 2022
   ASCE | 2022 CALGREEN
   2022 CALGBC, EXCEPT PART 11, TITLE 24

   S_s = 0.648g S_{DS} = 0.582g
   S_1 = 0.241g S_{D1} = NULL
   SEISMIC DESIGN CATEGORY = D
   I_e = 1.0
   R = 6.5 (WOOD SHEATHED SHEAR WALLS)
2. DESIGN LIVE LOADS

AREA	LIVE LOAD
ROOF	152 psf (SLOPED ROOF SNOW)
FLOOR	40 psf
DECK	60 psf

3. EARTHQUAKE DESIGN LOADS:
   SIMPLIFIED EQUIVALENT LATERAL FORCE PROCEDURE
   RISK CATEGORY II, SITE CLASS "D"
4. WIND DESIGN LOAD:
   SIMPLIFIED PROCEDURE
   V = 100 MPH
   EXPOSURE = C
5. DESIGN SNOW LOADS: 300 psf (GROUND SNOW)

WOOD

1. ALL SAWN LUMBER SHALL BE DOUGLAS FIR-LARCH AS GRADED BY THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB) IN ACCORDANCE WITH STANDARD GRADING RULES NO. 17 TYPICAL UNLESS NOTED OTHERWISE. ALL MEMBERS SHALL HAVE A MINIMUM GRADE OF NO.1 EXCEPT 2x & 4x MEMBERS MAY BE NO. 2
2. ALL STRUCTURAL SHEATHING USED FOR SHEARWALLS AND ROOF SHEATHING SHALL BE MANUFACTURED IN ACCORDANCE WITH PRODUCT STANDARDS OF APA
3. ALL FOUNDATION PLATES OR SILLS ON CONCRETE SLAB WHICH ARE IN DIRECT CONTACT WITH EARTH, AND PLATES OR SILLS ON CONCRETE OR MASONRY FOUNDATIONS, SHALL BE PRESSURE TREATED
4. ALL FASTENERS INTO PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL
5. ALL WOOD SHALL HAVE A MOISTURE CONTENT OF NOT MORE THAN 19% WHEN SHEATHING IS APPLIED
6. 8" MINIMUM CLEARANCE SHALL BE MAINTAINED AT ALL EXTERIOR WALLS BETWEEN FINISH GRADE AND BOTTOM OF WOOD WALLS
7. BEARING AND SHEARWALLS SHALL HAVE DOUBLE TOP PLATES LAPPED AT WALL CORNERS AND INTERSECTIONS AND PLATES SHALL BE INTERNAILED WITH 3-16d AT SUCH LOCATIONS. FOR PLATE SPLICE DETAILS, SEE DRAWINGS.
8. SILL PLATE ANCHOR BOLTS SHALL BE INSTALLED WITH PLATE WASHERS 3x3x0.229" BETWEEN NUT AND PLATE.
9. PROVIDE SOLID BLOCKING BETWEEN JOISTS AND RAFTERS AT ALL SUPPORTS.
10. PROVIDE BLOCKING AT ALL CEILING LEVELS
11. JOISTS UNDER AND PARALLEL TO PARTITIONS SHALL BE DOUBLED AND NAILED TOGETHER
12. HOLES FOR BOLTS IN WOOD SHALL BE BORED WITH A BIT OF THE SAME NOMINAL DIAMETER AS THE BOLT PLUS $\frac{1}{16}$".
13. HOLES FOR LAG SCREWS SHALL BE BORED AS FOLLOWS:
    A) THE CLEARANCE HOLE FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK AND THE SAME DEPTH OF PENETRATION AS THE LENGTH OF UNTHREADED SHANK.
    B) THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 60% TO 75% OF THE SHANK DIAMETER AND A LENGTH EQUAL TO AT LEAST THE LENGTH OF THE THREADED PORTION
14. LAG SCREWS AND WOOD SCREWS SHALL BE SCREWED AND NOT DRIVEN INTO PLACE. SOAP MAY BE USED TO LUBRICATE THE SCREWS
15. ALL BOLTS AND LAG SCREWS SHALL BE PROVIDED WITH METAL WASHERS UNDER HEADS AND NUTS WHICH BEAR ON WOOD. APPLIES ALSO TO INSERTED EXPANDING FASTENERS, RED HEAD, ETC.

BOLT DIAMETER	MI WASHER	STEEL WASHER
$\frac{5}{8}$" Ø	$2\frac{1}{2}$" Ø x $\frac{5}{16}$"	$2\frac{1}{2}$" x $2\frac{1}{2}$" x $\frac{1}{4}$"
$\frac{3}{4}$" Ø	3" Ø x $\frac{3}{8}$"	3" x 3" x $\frac{5}{16}$"
$\frac{7}{8}$" Ø	$3\frac{1}{2}$" Ø x $\frac{3}{8}$"	$3\frac{1}{2}$" x $3\frac{1}{2}$" x $\frac{5}{16}$"
1" Ø	4" Ø x $\frac{1}{2}$"	$3\frac{1}{2}$" x $3\frac{1}{2}$" x $\frac{3}{8}$"

16. ALL BOLTS AND LAG SCREWS SHALL BE TIGHTENED AT INSTALLATION AND RETIGHTENED BEFORE CLOSING IN OR AT COMPLETION OF JOB
17. LAY ALL STRUCTURAL SHEATHING ON ROOF AND FLOORS WITH FACE GRAIN PERPENDICULAR TO SUPPORT TYPICAL UNLESS NOTED OTHERWISE. USE PLY-CLIPS AT UNSUPPORTED SHEATHING EDGES
18. CONNECTOR HARDWARE MODEL NUMBER ARE THOSE FOR SIMPSON STRONG-TIE COMPANY. ALL JOIST HANGERS SHALL BE SIMPSON U SERIES UNLESS NOTED OTHERWISE. EQUIVALENT CONNECTORS WITH ICC ACCEPTANCE MAY BE SUBMITTED FOR REVIEW AS AN ALTERNATE.
19. ANCHOR BOLTS SHALL BE EMBEDDED 7" MIN AND SPREAD AT 6' MAX OC, EXCEPT AS NOTED ALONG SHEARWALLS
20. EACH PIECE OF SILL PLATE REQUIRES A MINIMUM OF 2 BOLTS LOCATED 12" MAX AND 7 BOLT DIAMETERS MIN FROM EACH END OF THE SILL PLATE.

NAILING SCHEDULE

1. ALL NAILS FOR STRUCTURAL WORK SHALL BE COMMON WIRE NAILS CONFORMING TO THE FOLLOWING MINIMUM SIZES.
   8d — 0.131"Ø x $2\frac{1}{2}$"
   10d — 0.148"Ø x 3"
   10d SHORTS — 0.148"Ø x $1\frac{1}{2}$" PLUS THICKNESS OF SHTG
   16d — 0.162"Ø x $3\frac{1}{2}$"
   20d — 0.192"Ø x 4"
2. PROVIDE NAILS AT CONNECTIONS AS INDICATED ON THE STRUCTURAL DRAWINGS. WHERE NAILS AT CONNECTIONS ARE NOT INDICATED NAIL PER NAILING SCHEDULE IN NOTE 5.
3. NAILING NOT NOTED IN SCHEDULE OR ON PLANS SHALL BE A MINIMUM OF TWO NAILS AT EACH CONTACT. 8d NAILS FOR 1" MATERIAL AND 16d NAILS FOR 2" MATERIAL.
4. HOLES SHALL BE PRE-DRILLED WHERE NECESSARY TO PREVENT SPLITTING.
5. NAILING SCHEDULE

CONNECTION	NAILING
1. JOIST TO SILL OR GIRDER, TOENAIL	3-8d
2. BRIDGING TO JOIST, TOENAIL EACH END	2-8d
3. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2-8d
4. WIDER THAN 1" x 6" SUBFLOOR TO EA JOIST, FACE NAIL	2-16d
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16d
6. SOLE PLATE TO JOIST BLOCKING, TYPICAL FACE NAIL SOLE PLATE TO JOIST OR BLOCKING AT SHEAR WALL PANELS	16d AT 16" OC, 3-16d PER 16"
7. TOP PLATE TO STUD, END NAIL	2-16d
8. STUD TO SOLE PLATE	4-8d, TOENAIL OR 2-16d, END NAIL
9. DOUBLE STUDS, FACE NAIL	16d AT 24" OC
10. DOUBLE TOP PLATES, TYPICAL FACE NAIL DOUBLE TOP PLATES, LAP SPLICE	16d AT 16" OC 8-16d
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	3-8d
12. RIM JOIST TO TOP PLATE, TOENAIL	8d AT 6" OC
13. TOP PLATES, LAP AT INTERSECTIONS, FACE NAIL	2-16d
14. BUILT-UP HEADER, FACE NAIL	16d @ 16" O.C.
15. CEILING JOISTS TO PLATE, TOENAIL	3-8d
16. CONTINUOUS HEADER TO STUD, TOENAIL	4-8d
17. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16d
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d
19. RAFTER TO PLATE, TOENAIL	3-10d
20. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d
21. 1" x 8" SHEATHING TO EACH BEARING, FACE NAIL	2-8d
22. WIDER THAN 1" x 8" SHEATHING TO EACH BEARING, FACE NAIL	3-8d
23. BUILT-UP CORNER STUDS, FACE NAIL	16d AT 24" oc
24. BUILT-UP GIRDER AND BEAMS, FACE NAIL	20d AT 32"oc AT TOP & BOTTOM, STAGGERED 2-20d AT ENDS & AT EACH SPLICE

TEST AND SPECIAL INSPECTIONS

1. TESTS AND SPECIAL INSPECTIONS SHALL BE PROVIDED AS INDICATED ON THE TESTING & INSPECTION FORM APPROVED BY THE BUILDING DEPARTMENT WITH THE APPROVED CONSTRUCTION DOCUMENTS
2. ALL TEST AND SPECIAL INSPECTIONS SHALL BE PERFORMED BY A CERTIFIED SPECIAL INSPECTOR FROM AN ESTABLISHED TESTING & INSPECTION COMPANY, UNLESS NOTED OTHERWISE. JOBSITE VISITS BY THE STRUCTURAL ENGINEER DO NOT CONSTITUTE INSPECTIONS AND ARE NOT A SUBSTITUTE FOR SPECIAL INSPECTION
3. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK INDICATED FOR CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.
4. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OR ARCHITECT OF RECORD AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL
5. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE 2022 CBC
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO SEE THAT THESE TESTS AND SPECIAL INSPECTIONS ARE PERFORMED.
7. ITEMS REQUIRING TESTS AND/OR SPECIAL INSPECTIONS ARE IDENTIFIED BELOW. THE LIST BELOW IS INTENDED TO PROVIDE A QUICK GENERAL REFERENCE AS TO WHAT TESTS AND/OR INSPECTIONS ARE REQUIRED. FOR THE COMPLETE LISTING OF TESTS AND/OR INSPECTIONS REQUIRED SEE THE APPROVED TESTING AND INSPECTION FORM

TESTS
- ☐ A. FILL COMPACTION
- ☐ B. CONCRETE
- ☐ C. SAMPLING AND TESTING OF REINFORCING STEEL
- ☐ D. MILL CERTIFICATES FOR REINFORCING STEEL
- ☐ E. MASONRY
- ☐ F. GROUT & MORTAR
- ☐ G. ALL COMPLETE PENETRATION GROOVE WELDS BY ULTRASONIC TESTING OR RADIOGRAPHY
- ☐ H. SAMPLING & TESTING OF STRUCTURAL STEEL
- ☐ I. MILL CERTIFICATES FOR STRUCTURAL STEEL
- ☐ J. EXPANSION OR EPOXY ANCHORS

SPECIAL INSPECTIONS
- ☐ A. FOOTING EXCAVATION (BY GEOTECHNICAL ENGINEER)
- ☐ B. PILE / PIER INSTALLATION
- ☐ C. REINFORCEMENT PLACEMENT
- ☐ D. CONCRETE PLACEMENT
- ☐ E. PLACING & STRESSING TENDONS
- ☐ F. REBAR COUPLERS
- ☐ G. MASONRY PLACEMENT & GROUTING
- ☐ H. SHOP WELDING
- ☐ I. FIELD WELDING
- ☐ J. HIGH STRENGTH BOLTING
- ☐ K. EXPANSION OR EPOXY ANCHORS
- ☐ L. SHEAR STUD INSTALLATION
- ☐ M. STRONG WALL
- ☐ N. SHEARWALLS WHERE EDGE NAILING IS ≤ 4" O.C.

BURNE
ENGINEERING
(530) 672-1600

STRUCTURAL NOTES
KUHL RESIDENCE
1 BULLARD PLACE
POLLOCK PINES, CA

REVISIONS

REGISTERED PROFESSIONAL ENGINEER ALBAN GJONGECAJ No. 7252 STRUCTURAL STATE OF CALIFORNIA
05.10.24

SHEET #:
SN1

Site Plan

BEING A PORTION OF SECTION 16 AND A PORTION OF THE NORTH HALF OF SECTION 21, T. 12 N., R. 14 E., M.D.M., AS DELINEATED ON RECORD OF SURVEY 21-41

COUNTY of EL DORADO STATE of CALIFORNIA

FEBRUARY 2024 1"=200'

SHEET 1 of 4

1 inch = 200 ft.

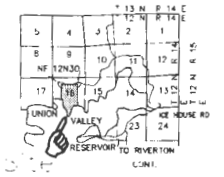
SITE LOCATION

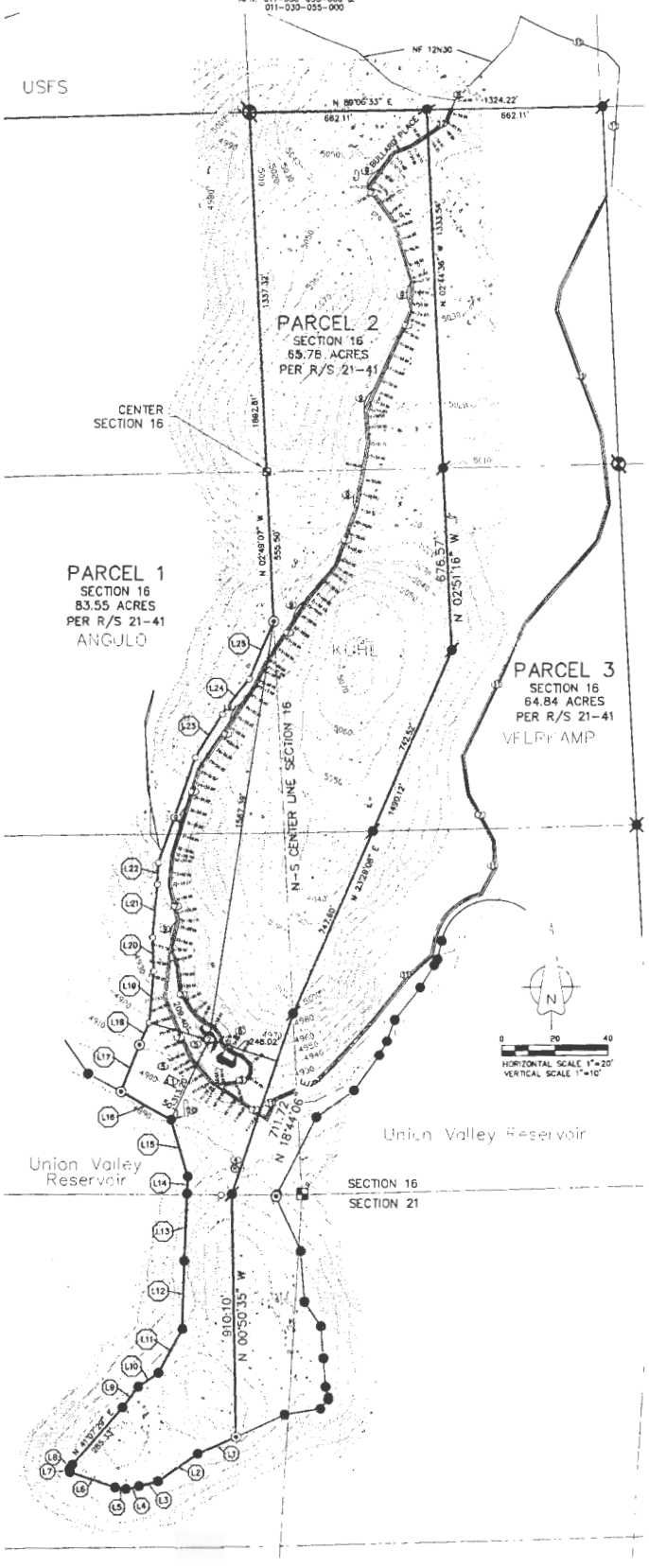
NF 12NNF 12N3030
1 BULLARD PLACE
POLLOCK PINES, CA
APN: 011-030-058-000 & 011-030-055-000

OWNER/APPLICANT

MICHAEL KUHL
155 RIDGEWOOD DR.
SAN RAFAEL, CA 94901-11361

VICINITY MAP N.T.S.





SURVEYOR'S STATEMENT

THIS SURVEY WAS BASED UPON THE RECORD OF SURVEY FILED IN BOOK 9 AT PAGE 48. THE ONLY EASEMENTS SHOWN ARE THOSE THAT ARE REFERENCED ON SAID RECORD OF SURVEY. THERE WAS NO TITLE REPORT SUPPLIED BY CLIENT; THEREFORE, OTHER EASEMENTS OF RECORD MAY EXIST.

JAMES C. WILSON, L.S. 4863 DATE 10-11-2023

BASIS OF BEARINGS

THE MERIDIAN OF THIS SURVEY IS THE SAME AS RECORD OF SURVEY FILED IN BOOK 21 OF RECORD OF SURVEYS AT PAGE 41, BASED UPON FOUND MONUMENTS.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE AT THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

BENCH MARK

THE ELEVATION FOR THIS SURVEY IS NGVD 88, UTILIZING GPS READINGS USING THE CALIFORNIA SURVEYING AND DRAFTING SUPPLY, INC., VIRTUAL SURVEY NETWORK

SITE NOTES

1. EXISTING SHED
2. PROPOSED HOUSE SEE SHEET 2 FOR DETAIL
3. EXISTING DRIVEWAY
4. EXISTING WELL
5. PROPOSED SEPTIC AREA
6. PROPOSED FIRE HYDRANT AND EXISTING WATER TANK
7. EXISTING ROADS AND 50' WIDE EMERGENCY ACCESS FOR VEERKAMP PARCEL
8. EXISTING ENCROACHMENT
9. PROPOSED TURNOUTS AT A MINIMUM OF 400' INTERVAL
10. PROPOSED SOLAR ARRAY LOCATION
11. EXISTING ROADS AND 50' WIDE EMERGENCY ACCESS FOR KUHL PARCEL
12. EXISTING ROAD EASEMENT FOR ACCESS ACROSS VEERKAMP PARCEL

1. APPROXIMATELY 800 YARDS WILL BE EXCAVATED AND PLACED ON SITE.
APPROXIMATELY 10,000 SQUARE FEET AREA WILL BE DISTURBED.

LEGEND

- CENTER OF SECTION PER R/S 21-41
- 3/4" CAPPED IRON PIPE (C.I.P.) OR 1" ALUMINUM PISTON
- MONUMENT W/ 1 1/4" CAP STAMPED "L.S. 3648" PER R/S 21-41
- 2" MONUMENT OR 1" MONUMENT WITH 3 1/4" CAP PER R/S 21-41
- 2" MONUMENT IN ROCK MOUND STAMPED "L.S. 4598" PER R/S 21-41
- U.S.F.S. 2" MONUMENT WITH 3 1/4" CAP PER R/S 21-41
- 1" IRON PIPE WITH 1 1/2" CAP STAMPED "L.S. 3848" PER R/S 21-41
- EXISTING DIRT ROADS (APPROXIMATE LOCATION)

NOTES

1) THE BOUNDARY SHOWN IS RECORD DATA FOUND ON R.S. 21-41. A FIELD SURVEY WAS COMPLETED TO LOCATE THE PROPOSED HOUSE ON THE SITE.

2) ROADS AND CREEKS SHOWN ARE BASED ON EXHIBIT B FOUND IN THE "FINAL JUDGMENT AFTER TRIAL" CASE #46916 FILED SEPTEMBER 3, 1993.

3) ROADS SHOWN VARY IN WIDTH FROM 20-25 FEET FOR THOSE ACCESSING THE SITE AND 15-20 FEET FOR THOSE ON THE SITE. THE ROAD IS PAVED AS FAR AS THE ENTRANCE TO THE PROPERTY

CUP24-0011

1. MINIMUM CONSTRUCTION SITE STORM WATER MANAGEMENT PRACTICES

THE STORM WATER MANAGEMENT PRACTICES DESCRIBED BELOW ARE THE MINIMUM, REQUIRED WATER QUALITY PROTECTION MEASURES APPLICABLE TO ALL CONSTRUCTION SITES WITHIN WESTERN EL DORADO COUNTY. THIS LISTING DOES NOT INCLUDE THE VARIOUS INSPECTION, RECORD KEEPING, TRAINING AND REPORTING REQUIREMENTS. ADDITIONALLY, THERE WILL BE INSTANCES WHERE PROJECT AND SITE CONDITIONS REQUIRE SUPPLEMENTING OR DEVIATING FROM THESE MINIMUM PROTECTION REQUIREMENTS. THE CONTRACTOR IS EXPECTED TO DEPLOY MEASURES SUFFICIENT TO ACHIEVE COMPLIANCE WITH THE COUNTY'S GRADING ORDINANCE; AND, AS APPLICABLE (PROJECTS WHICH INVOLVE ONE ACRE OR MORE OF DISTURBED SOIL OR ARE PART OF A LARGER COMMON PLAN OF DEVELOPMENT THAT ENCOMPASSES ONE ACRE OR MORE OF DISTURBED SOIL), WITH THE STATE WATER RESOURCES CONTROL BOARD'S (SWRCB) NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

A. SCHEDULING
CONSTRUCTION SHALL BE SCHEDULED TO MINIMIZE CONSTRUCTION ACTIVITIES IN "HIGH-RISK AREAS" AND THE AMOUNT OF ACTIVE DISTURBED SOIL AREAS, DURING THE RAINY SEASON (OCT. 15th TO MAY 1st). "HIGH-RISK AREAS" INCLUDE THOSE AREAS WITHIN 50 FEET OF USGS WATERCOURSES, 100-YEAR FLOOD PLAINS, REGULATED WETLANDS, AND WHERE SLOPES EXCEED 16%.

UNLESS SPECIFICALLY AUTHORIZED BY THE COUNTY'S ON-SITE REPRESENTATIVE, DURING THE RAINY SEASON THE CONTRACTOR SHALL NOT SCHEDULE CONSTRUCTION ACTIVITIES IN "HIGH RISK AREAS" OR SCHEDULE TO HAVE MORE THAN 5 ACRES OF ACTIVE DISTURBED SOIL AREA. WHERE PERMANENT STORM WATER TREATMENT DEVICES ARE TO BE CONSTRUCTED, THESE DEVICES SHOULD, WHENEVER FEASIBLE, BE CONSTRUCTED AS AN EARLY WORK ITEM.

B. PRESERVATION OF NATURAL FEATURES
PRIOR TO THE COMMENCEMENT OF SOIL-DISTURBING ACTIVITIES, AREAS OF EXISTING VEGETATION THAT ARE TO REMAIN AND ENVIRONMENTALLY SENSITIVE AREAS (I.E. WETLANDS, PROTECTED HABITATS, ETC) SHALL BE FENCED FOR PROTECTION. IN GENERAL, SITE DESIGNS SHALL PRESERVE EXISTING VEGETATION TO THE MAXIMUM EXTENT POSSIBLE; AND DURING CONSTRUCTION, EXISTING VEGETATION SHALL BE PRESERVED (AND PROTECTED BY FENCING) FOR AS LONG AS POSSIBLE TO MINIMIZE EROSION.

C. STORM WATER RUN-ON AND CONCENTRATED FLOWS
EXISTING WATERCOURSES SHALL BE PROTECTED; AND IF DIVERTED, HANDLED IN A NON-ERODING FASHION. TO THE EXTENT FEASIBLE, ALL CONCENTRATED WATER FLOWS SHALL BE CHANNELED AWAY FROM DISTURBED SOIL AREAS / STOCKPILES. CONCENTRATED WATER FLOWS SHALL BE CONVEYED IN A NON-ERODING FASHION.

D. STOCKPILE MANAGEMENT
STOCKPILES SHALL BE MANAGED AS FOLLOWS:
1. SOIL STOCKPILES
RAINY SEASON:
- COVERED, OR PROTECTED WITH SOIL STABILIZATION MEASURES & PERIMETER SEDIMENT BARRIERS.
NON-RAINY SEASON:
- COVERED OR PROTECTED WITH PERIMETER SEDIMENT BARRIERS.
2. CONCRETE / ASPHALT RUBBLE, ROCK AND AGGREGATE BASE / SUB-BASE
- COVERED OR PROTECTED WITH PERIMETER SEDIMENT BARRIERS
3. "COLD MIX" ASPHALT
- COVERED

E. SEDIMENT TRACKING CONTROL
APPROPRIATE MEASURES SHALL BE DEPLOYED TO MINIMIZE THE TRACKING OF SEDIMENT OFF-SITE BY VEHICLES AND/OR EQUIPMENT. THESE MEASURES INCLUDE STABILIZED CONSTRUCTION ENTRANCES/EXITS & ROADWAYS, AND TIRE WASHING. WHERE TRACKING OCCURS, STREETS SHALL BE SWEPT USING A PICKUP SWEEPER WITH WATER SUPPLY.

F. NON-STORM WATER MANAGEMENT
NON-STORM WATER DISCHARGES SHALL BE MINIMIZED TO THE EXTENT FEASIBLE. SEDIMENT-LADEN NON-STORM WATER IS REQUIRED TO BE FILTERED (OR EQUIVALENT TREATMENT) PRIOR TO DISCHARGING. MEASURES REQUIRED TO MANAGE NON-STORM WATER DISCHARGES INCLUDE: WATER CONSERVATION PRACTICES, DUST CONTROL, MATERIAL STORAGE PRACTICES, VEHICLE/EQUIPMENT OPERATION AND MAINTENANCE REQUIREMENTS, WASTE MANAGEMENT PRACTICES, AND SPILL PREVENTION / CONTROL MEASURES.

G. DISTURBED SOIL AREA MANAGEMENT
DISTURBED SOIL AREAS (DSA) SHALL BE PROTECTED WITH AN "EFFECTIVE COMBINATION" OF MEASURES INCLUDING SOIL STABILIZATION, SEDIMENT BARRIERS AND BASINS / TRAPS. THERE MAY BE SITUATIONS WHERE "SEDIMENT BASINS" OR "TREATMENT" ARE ABLE TO SUBSTITUTE AS ALTERNATIVE CONTROL MEASURES TO THE NORMALLY REQUIRED "EFFECTIVE COMBINATION" OF SOIL STABILIZATION, SEDIMENT BARRIERS AND BASINS / TRAPS. HOWEVER, WHEN SUBSTITUTING THESE MEASURES, THE CONTRACTOR MUST BE PREPARED TO DEMONSTRATE THAT THE SEDIMENT LOAD WITHIN STORM WATER DISCHARGES FROM THE CONSTRUCTION SITE DOES NOT EXCEED NATURAL OR PRE-CONSTRUCTION LEVELS.

1. SOIL STABILIZATION MEASURES INCLUDE:
- HYDRAULIC MULCH (REF. CASQA BMP # EC-3)
- HYDROSEEDING (REF. CASQA BMP # EC-4)
- SUITABLY STABILIZED, NON-POLLUTING STRAW / WOOD / ORGANIC MULCH (REF CASQA BMP #s EC-6 & EC-8)
- GEOTEXTILES, MATS, PLASTIC COVERS AND EROSION CONTROL BLANKETS (REF. CASQA BMP # EC-7)
- STABILIZED CONSTRUCTION ROADWAYS (REF. CASQA BMP # TC-2)

2. SEDIMENT BARRIERS INCLUDE:
- SILT FENCES (REF. CASQA BMP # SE-1)
- SAND / GRAVEL BAG BARRIERS (REF. CASQA BMP #'S SE-6 & SE-8)
- STRAW BALE BARRIERS (REF. CASQA BMP # SE-9)
- FIBER ROLLS (REF. CASQA BMP # SE-5)

3. BASIN / TRAPS INCLUDE:
- DESILTING BASINS (REF. CALTRANS BMPS)
- SEDIMENT TRAPS (REF. CALTRANS BMPS)

4. ON DSAs WITH SLOPE LENGTHS GREATER THAN 10 FEET, THE FOLLOWING MEASURES SHALL BE DEPLOYED:
a. RAINY SEASON (OCT. 15TH TO MAY 1ST):
- NON-ACTIVE AREAS (NO SOIL DISTURBING ACTIVITIES FOR 21 OR MORE DAYS)
• ON SLOPES EQUAL TO OR FLATTER THAN 1:20 (V/H), SOIL STABILIZATION
• ON SLOPES STEEPER THAN 1:20 (V/H), SOIL STABILIZATION AND SEDIMENT BARRIERS
- ACTIVE AREAS
• ON SLOPES STEEPER THAN 1:20 (V/H), SEDIMENT BARRIERS
• ON SLOPES STEEPER THAN 1:2 (V/H) WITH SLOPE LENGTHS GREATER THAN 50 FEET: SOIL STABILIZATION; SEDIMENT BARRIERS; AND WHERE FEASIBLE, BASINS / TRAPS
b. NON-RAINY SEASON:
- NON-ACTIVE AREAS (NO SOIL DISTURBING ACTIVITIES FOR 21 OR MORE DAYS)
• ON SLOPES STEEPER THAN 1:2 (V/H), SEDIMENT BARRIERS.

5. GENERAL:
PROTECTION SHALL BE DEPLOYED ON NON-ACTIVE DSAs WITHIN 14 DAYS FROM THE CESSATION OF SOIL-DISTURBING ACTIVITIES OR ONE DAY PRIOR TO THE PREDICTED (40% OR MORE CHANCE) ONSET OF SIGNIFICANT PRECIPITATION, WHICHEVER OCCURS FIRST. PROTECTION SHALL BE DEPLOYED ON ACTIVE DSAs PRIOR TO THE PREDICTED (40% OR MORE CHANCE) ONSET OF SIGNIFICANT PRECIPITATION.

"TERRACES." FOR CUT SLOPES UP TO 80 FEET IN HEIGHT, TERRACES AT LEAST 8 FEET (2.4 METERS) IN WIDTH SHALL BE ESTABLISHED AT NOT MORE THAN 30-FOOT (9.1 METERS) VERTICAL INTERVALS ON ALL CUT SLOPES TO CONTROL SURFACE DRAINAGE AND DEBRIS EXCEPT THAT WHERE ONLY ONE TERRACE IS REQUIRED, IT SHALL BE AT MIDHEIGHT. FOR CUT SLOPES GREATER THAN 80 FEET (18 METERS) AND UP TO 120 FEET (37 METERS) IN VERTICAL HEIGHT, ONE ADDITIONAL TERRACE AT APPROXIMATELY MIDHEIGHT SHALL BE 12 FEET (3.6 METERS) IN WIDTH. TERRACES SHALL SLOPE A MINIMUM OF 5 PERCENT GRADIENT TOWARD THE HILLSIDE. TERRACE WIDTHS AND SPACING FOR CUT SLOPES GREATER THAN 120 FEET (36 METERS) IN HEIGHT SHALL BE DESIGNED BY THE CIVIL ENGINEER AND APPROVED BY THE DIRECTOR. SUITABLE ACCESS SHALL BE PROVIDED TO PERMIT PROPER CLEANING AND MAINTENANCE.

"SEDIMENT BASIN." A BASIN WITH A CAPACITY EQUIVALENT TO AT LEAST 3600 CUBIC FEET OF STORAGE (AS MEASURED FROM THE BOTTOM OF THE BASIN TO THE PRINCIPAL OUTLET) PER ACRE DRAINING INTO THE BASIN. THE LENGTH OF THE BASIN SHALL BE MORE THAN TWICE THE BASIN'S WIDTH (LENGTH IS DETERMINED BY MEASURING THE DISTANCE BETWEEN THE INLET AND THE OUTLET). THE DEPTH OF THE BASIN MUST NOT BE LESS THAN THREE FEET NOR GREATER THAN FIVE FEET.

"TREATMENT": A COMBINATION OF BASIN AND TREATMENT ENGINEERED TO CAPTURE AND TREAT (TO REMOVE 0.01 MM SIZED PARTICLES AND LARGER) THE 10-YEAR, 6-HOUR RAIN EVENT USING Q=CdA WHERE C=0.5 AND I RANGES FROM 0.286 (EL DORADO HILLS) TO 0.500 (SLY PARK).

GENERAL REFERENCE: EL DORADO COUNTY "STORM WATER MANAGEMENT PLAN", OCTOBER 2004. AVAILABLE ON-LINE AT: HTTP://WWW.CO.EL-DORADO.CA.US/EMD/SOLIDWASTE/STORM.HTML

DETAILED REFERENCES:
1. CALIFORNIA STORM WATER QUALITY ASSOCIATION (CASQA) "CONSTRUCTION HANDBOOK", JANUARY 2003. ERRATA SEPTEMBER 2004. AVAILABLE ON-LINE AT: HTTP://WWW.CABMPHANDBOOKS.COM/
2. CALTRANS "STATEWIDE STORM WATER QUALITY PRACTICE GUIDELINES", APRIL 2003. AVAILABLE ON-LINE AT: HTTP://WWW.DOT.CA.GOV/HQ/ENV/STORMWATER/SPECIAL/NEWSETUP/INDEX.HTM
3. HIGH SIERRA RESOURCE CONSERVATION AND DEVELOPMENT COUNCIL "VEGETATION ESTABLISHMENT GUIDELINES FOR THE SIERRA NEVADA FOOTHILLS AND MOUNTAINS", AVAILABLE ON-LINE AT: HTTP://WWW.CO.EL-DORADO.CA.US/EMD/SOLIDWASTE/STORMWATER/HSRCD%20VEGETATION%20GUIDELINES%20FINAL%202005.PDF

CRITICAL AREA PLANTING CONSTRUCTION SPECIFICATIONS (JANUARY 2006)

A. SCOPE
ESTABLISHING VEGETATION ON SEVERELY ERODING AREAS OR AREAS WITH AN EROSION POTENTIAL. ITS PURPOSE IS TO STABILIZE THE SOIL, MINIMIZE OR PREVENT DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM AREAS, PROTECT WILDLIFE HABITAT, AND MAINTAIN AESTHETIC QUALITIES.

B. AREAS TO BE SEEDED, TIMING OF SEEDING
COMPLETE REVEGETATION AND STABILIZATION OF ALL DISTURBED SOILS, BOTH WITHIN AND OUTSIDE COUNTY RIGHT-OF-WAY, WILL BE ACCOMPLISHED WITH SPECIFIED AMOUNTS AND TYPES OF VEGETATIVE SPECIES, MULCH, AND FERTILIZER MATERIAL. SEE MAJOR LAND RESOURCE AREA EXHIBITS MLRA 18 OR 22.

ALL EROSION AND SEDIMENT CONTROL PRACTICES PERFORMED AFTER OCTOBER 15, SHALL FOLLOW "RAINY SEASON" SPECIFICATION CONTAINED IN THE STORM WATER MANAGEMENT PRACTICES.

C. MATERIAL

1. SEED - ALL SEED SHALL BE DELIVERED TO THE SITE TAGGED AND LABELED IN ACCORDANCE WITH THE CALIFORNIA AGRICULTURAL CODE AND SHALL BE ACCEPTABLE TO THE COUNTY AGRICULTURAL COMMISSIONER.

SEED SHALL BE OF A QUALITY WHICH HAS A MINIMUM PURE LIVE SEED CONTENT OF 80% (% PURITY X % GERMINATION) AND WEED SEED SHALL NOT EXCEED 0.5% OF THE AGGREGATE OF PURE LIVE SEED AND OTHER MATERIALS. LEGUME SEED SHALL BE INOCULATED WITH INOCULATE SPECIFIC TO ITS NEEDS WITHIN TWO HOURS PRIOR TO SEEDING. INOCULANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER OR AS OTHERWISE SPECIFIED. ALL INOCULATED SEED SHALL BE LABELED TO SHOW WEIGHT OF SEED, THE DATE OF INOCULATION, AND THE WEIGHT AND SOURCE OF INOCULANT MATERIALS.

2. FERTILIZER - A COMMERCIAL FERTILIZER SHALL BE AMMONIUM PHOSPHATE AND CONTAIN A MINIMUM OF 16% NITROGEN, 20% PHOSPHORUS, AND 0% POTASH, UNIFORM IN COMPOSITION, DRY AND FREE FLOWING, PELLETED OR GRANULAR.

ALL FERTILIZER SHALL BE DELIVERED IN UNBROKEN OR UNOPENED CONTAINERS, LABELED IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS AND BEARING THE WARRANTY OF THE PRODUCER FOR THE GRADE FURNISHED.

3. MULCH - MULCH SHALL BE ONE OF THE FOLLOWING MATERIALS AS APPROVED BY THE GOVERNMENT REPRESENTATIVE.

4. STRAW - STRAW SHALL BE NEW STRAW DERIVED FROM RICE, WHEAT, OATS, OR BARLEY, AND BE FREE OF MOLD AND NOXIOUS WEED SEED. STRAW SHALL BE FURNISHED IN AIR DRY BALES. EVIDENCE SHALL BE FURNISHED THAT CLEARANCE HAS BEEN OBTAINED FROM THE COUNTY AGRICULTURAL COMMISSIONER, AS REQUIRED BY LAW, BEFORE STRAW OBTAINED FROM OUTSIDE THE COUNTY IN WHICH IT IS TO BE USED IS DELIVERED TO THE SITE OF THE WORK.

5. WOOD FIBER MULCH - WOOD FIBER MULCH IS A WOOD CELLULOSE FIBER THAT CONTAINS NO GERMINATION OR GROWTH INHIBITING FACTORS. IT IS COLORED WITH A NON-TOXIC, WATER SOLUBLE, GREEN DYE TO PROVIDE A PROPER GAUGE FOR METERING OVER GROUND SURFACES. IT HAS THE PROPERTY TO BE EVENLY DISPERSED AND SUSPENDED WHEN AGITATED IN WATER.

D. SEEDING REQUIREMENTS

1. GENERAL - ALL SEEDING, FERTILIZER AND MULCHING OPERATIONS SHALL BEGIN WHEN APPROVAL IS GIVEN BY THE APPROPRIATE COUNTY ENGINEER OR CONSERVATION DISTRICT REPRESENTATIVE.

2. SEEDBED PREPARATION - THE ENTIRE AREA TO BE SEEDED SHALL BE REASONABLY SMOOTH AND CONFORM TO THE DESIRED SHAPE BEFORE ACTUAL SEEDBED PREPARATION IS BEGUN. ANY DEBRIS WHICH WOULD INTERFERE WITH SEEDING OPERATIONS GROWTH OR MAINTENANCE OF THE VEGETATIVE COVER WILL BE REMOVED. THE AREA TO BE SEEDED SHALL HAVE A FIRM SEEDBED WHICH HAS PREVIOUSLY BEEN ROUGHENED BY SCARIFYING, DISKING, HARROWING, CHISELING, OR OTHERWISE WORKED TO A DEPTH OF TWO TO FOUR INCHES (2" - 4"). NO IMPLEMENT SHALL BE USED THAT WILL CREATE AN EXCESSIVE AMOUNT OF DOWNWARD MOVEMENT OF SOIL OR CLODS OF SLOPING AREAS. SEEDBED MAY BE PREPARED AT TIME OF COMPLETION OF EARTH-MOVING WORK.

3. FERTILIZING - FERTILIZER SHALL BE DISTRIBUTED UNIFORMLY OVER THE SEEDBED AT THE RATE OF 300 POUNDS PER ACRE, AND SHALL BE IN SUCH PHYSICAL CONDITION TO INSURE UNIFORM APPLICATION OVER THE AREA TO BE FERTILIZED. FERTILIZER MAY BE APPLIED IN ANY WAY THAT WILL RESULT IN UNIFORM DISTRIBUTION. THE FERTILIZER SHALL BE INCORPORATED INTO THE SOIL.

4. SEEDING - SEED SHALL BE BROADCAST BY HAND, MECHANICAL HAND SEEDER, POWER OPERATED SEEDER, HYDROSEEDER OR OTHER APPROVED EQUIPMENT. SEED SHALL HAVE A SOIL COVER OF NOT MORE THAN ONE-HALF INCH. SEEDING WILL BE CARRIED OUT USING EITHER OF THE FOLLOWING METHODS:

METHOD 1 THE SEED MAY BE DRILLED, NOT TO EXCEED ONE-HALF (1/2) INCH DEEP AND CULTIPACKED OR ROLLED ONCE OVER WITH A CORRUGATED ROLLER ON ALL AREAS WHERE EQUIPMENT CAN BE OPERATED SAFELY. SEED OPERATIONS WILL BE ACROSS THE SLOPE.

METHOD 2 THE SEED MAY BE APPLIED IN A SLURRY MIX OF WOOD CELLULOSE FIBER DISTRIBUTED UNIFORMLY AT THE PRESCRIBED RATE. THE APPLICATION UNIT USED FOR "HYDRO MULCH" SHALL BE EQUIPPED WITH AN AGITATOR TO MAINTAIN THE SEED AND MULCH IN SUSPENSION WITHIN THE UNIT'S TANK PRIOR TO AND DURING APPLICATION.

METHOD 3 WHERE EMERGENCY TREATMENT OF EXPOSED SOILS EXTENDS BEYOND OCTOBER 15, EMERGENCY MULCHING WITHOUT SEED WILL BE PRESCRIBED IN ACCORDANCE WITH "SOIL STABILIZATION MEASURES" DESCRIBED PREVIOUSLY.

SPECIAL NOTE: A MINIMUM 70% SEED GERMINATION WITH AT LEAST 1" GROWTH MUST BE OBTAINED BY DECEMBER 1ST, OR AREA MUST BE COVERED WITH STRAW MULCH.

Fugitive Dust Prevention/Control and Asbestos Hazard Dust Mitigation Notes

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 10, "DUST CONTROL" OF THE STANDARD SPECIFICATIONS, COUNTY OF EL DORADO AIR POLLUTION CONTROL DISTRICT (APCD) RULE 223, AND COUNTY OF EL DORADO ORDINANCE 4548. COPIES OF APCD RULE 223 AND ORDINANCE 4548 MAY BE OBTAINED FROM THE COUNTY OF EL DORADO DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, 2850 FAIRLANE COURT, PLACERVILLE, CA 95667.

2. THE CONTRACTOR SHALL KEEP A COPY OF THE FUGITIVE DUST PLAN AND THE ASBESTOS MITIGATION PLAN (IF ISSUED) AT THE CONSTRUCTION SITE AT ALL TIMES DURING THE CONSTRUCTION PERIOD.

MLRA 22

FOR SEEDING PERFORMED BETWEEN SEPTEMBER 15 AND OCTOBER 15 KIND OF SEED AND AMOUNT (HYDROSEEDED OR BROADCASTED)		
POTOMAC ORCHARD GRASS	24 LBS/ACRE	0.55 LBS/1000 SqFt
OR LUNA PUBESCENT WHEAT GRASS	36 LBS/ACRE	0.80 LBS/1000 SqFt
OR TOPAR PUBESCENT WHEAT GRASS	36 LBS/ACRE	0.80 LBS/1000 SqFt
AND WIMMERA '62' RYE GRASS	6 LBS/ACRE	.15 LBS/1000 SqFt

A STRAW MULCH COVERING SHALL BE APPLIED OVER THE SURFACE OF THE SEEDED AREA. MULCHING SHALL FOLLOW IMMEDIATELY AFTER SEEDING UNLESS OTHERWISE DIRECTED. STRAW WILL BE REQUIRED FOR MULCH MATERIAL. IF PROJECT IS BROADCAST SEEDED, DRILL SEEDED, OR HYDROSEEDED, STRAW MULCH WILL STILL BE REQUIRED.

FOR SEEDING NOT PERFORMED BETWEEN SEPTEMBER 15 AND OCTOBER 15 HYDROSEEDED OR BROADCASTED		
POTOMAC ORCHARD GRASS	48 LBS/ACRE	1.10 LBS/1000 SqFt
OR LUNA PUBESCENT WHEAT GRASS	72 LBS/ACRE	1.60 LBS/1000 SqFt
OR TOPAR PUBESCENT WHEAT GRASS	72 LBS/ACRE	1.60 LBS/1000 SqFt
AND WIMMERA '62' RYE GRASS	12 LBS/ACRE	.3 LBS/1000 SqFt

A STRAW MULCH COVERING SHALL BE APPLIED OVER THE SURFACE OF THE SEEDED AREA. MULCHING SHALL FOLLOW IMMEDIATELY AFTER SEEDING UNLESS OTHERWISE DIRECTED. STRAW WILL BE REQUIRED FOR MULCH MATERIAL. IF PROJECT IS BROADCAST SEEDED, DRILL SEEDED, OR HYDROSEEDED, STRAW MULCH WILL STILL BE REQUIRED.

Notes-SITE CONSULTING, INC

1. THE CONTRACTOR SHALL PROCURE AT HIS OWN EXPENSE ALL PERMITS, LICENSES, INSURANCE POLICIES, ETC., NOT ALREADY OBTAINED BY THE OWNER AS MAY BE NECESSARY TO COMPLY WITH FEDERAL, STATE AND LOCAL LAWS ASSOCIATED WITH THE PERFORMANCE OF THE WORK.

2. EXISTING UTILITIES ARE INDICATED ON THE PLANS WHERE SUCH UTILITIES ARE KNOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, PROTECT AND MAINTAIN ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT, (USA) 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. (TELEPHONE 1-800-642-2444) ALSO NOTIFY THE EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION WORK.

3. PERIODIC INSPECTION AND REPAIR WILL BE REQUIRED BY THE OWNER TO KEEP DRAINAGE IMPROVEMENTS OPERABLE. REMOVAL OF SEDIMENT DEPOSITS AND VEGETATIVE MATERIALS IN PIPES, INLET STRUCTURES AND DRAINAGE INVERTS SHALL BE PERFORMED AT A REGULAR MAINTENANCE INTERVAL TO PREVENT ACCUMULATION AND OBSTRUCTION OF DRAINAGE IMPROVEMENT OPERATION.

4. THE CONTRACTOR SHALL NOTIFY THE SOILS ENGINEER, OWNER AND THE COUNTY OF EL DORADO AT LEAST 24 HOURS PRIOR TO ANY GRADING.

5. ALL GRADING IS TO BE DONE IN ACCORDANCE WITH THE COUNTY OF EL DORADO REQUIREMENTS AND THE SOILS ENGINEER:

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY EROSION CONTROL MEASURES SHOWN ON THE EROSION CONTROL PLAN. ALL SUCH MEASURES SHALL CONFORM TO THE COUNTY OF EL DORADO GRADING, EROSION AND SEDIMENT CONTROL ORDINANCE TO ENSURE THAT SEDIMENT LADEN RUNOFF DOES NOT LEAVE THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PERFORMANCE OF THE TEMPORARY EROSION CONTROL MEASURES THROUGH THE DURATION OF THE PROJECT. IF GRADING ACTIVITIES ARE NOT COMPLETED BY OCTOBER 15, THE OWNER SHALL IMPLEMENT THE TEMPORARY EROSION CONTROL MEASURES AS SHOWN ON THE EROSION CONTROL PLAN. ALL AREAS GRADED DURING THE RAINY SEASON (OCTOBER 15 - MAY 15) SHALL BE RE-VEGETATED WITHIN 15 DAYS UPON COMPLETION.

7. EARTHWORK ESTIMATES ARE TO BE USED FOR ESTIMATING PURPOSES ONLY AND NO GUARANTEE IS MADE AS TO THE ACCURACY OF THIS INFORMATION. THE CONTRACTOR ACKNOWLEDGES THAT HE IS SATISFIED AS TO THE CHARACTER, QUALITY, AND QUANTITY OF THE SURFACE AND SUBSURFACE MATERIALS TO BE ENCOUNTERED AND WILL BE RESPONSIBLE FOR PROPERLY ESTIMATING THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK.

CUBIC YARDS - EXCAVATION: 800± CUBIC YARDS - EXPORT: 0

CUBIC YARDS - EMBANKMENT: 800± CUBIC YARDS - IMPORT: 0

8. IT IS THE APPLICANT AND CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL THE STATE AND FEDERAL LAWS AND REGULATIONS INCLUDING THE FEDERAL AND STATE ENDANGERED SPECIES ACT AND THE CLEAN WATER ACT FOR ALL ON-SITE IMPACTS. THE COUNTY GRADING PERMIT DOES NOT AUTHORIZE THE CONTRACTOR TO CONDUCT ACTIVITIES NOT PERMITTED BY APPLICABLE STATE AND FEDERAL AGENCIES IN AREAS SUBJECT TO STATE AND FEDERAL JURISDICTION.

9. THE AREA OF DISTURBANCE IS APPROXIMATELY 0.4 ACRES.

Standard General Notes Grading and Drainage Notes

1 MATERIALS, CONSTRUCTION QUALITY, AND METHODS FOR THIS PROJECT ARE SUBJECT TO THE COUNTY OF EL DORADO DESIGN AND IMPROVEMENT STANDARD PLANS, AND THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND STANDARD SPECIFICATIONS.
2 ALL WORK SHALL BE ACCOMPLISHED TO THE SATISFACTION OF THE COUNTY OF EL DORADO, AUTHORIZED REPRESENTATIVE.
3. ALL REFERENCE TO COUNTY SHALL MEAN THE COUNTY OF EL DORADO OR AUTHORIZED REPRESENTATIVE.
4. ALL REFERENCE TO THE STANDARD SPECIFICATIONS SHALL MEAN THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED JULY 2006.
5. THE CONTRACTOR SHALL HAVE A RESPONSIBLE PARTY, WHO SHALL HAVE FULL AUTHORITY TO REPRESENT AND ACT FOR THE CONTRACTOR ON SITE AT ALL TIMES DURING WORKING HOURS.
6 THE CONTRACTOR SHALL NOTIFY COUNTY AND RCD 48 HOURS IN ADVANCE OF COMMENCING WORK TO SCHEDULE A PRE-CONSTRUCTION CONFERENCE AND INSPECTION WITH THE ENGINEER AND COUNTY. NO WORK SHALL BEGIN UNTIL AFTER THE PRE-CONSTRUCTION CONFERENCE AND INSPECTION HAVE BEEN COMPLETED.
7. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7, "LEGAL RELATIONS AND RESPONSIBILITY" OF THE STANDARD SPECIFICATIONS.
8. RIGHTS TO ENTER AND CONSTRUCT SHALL BE OBTAINED PRIOR TO CONSTRUCTING ANY OFF-SITE WORK SHOWN IN THESE PLANS. COPIES OF SUCH DOCUMENTS SHALL BE KEPT ON-SITE AT ALL TIMES DURING THE PERFORMANCE OF OFF-SITE WORK.
9. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) 811 OR 1-800-227-2600 PRIOR TO PERFORMING ANY EXCAVATION ON THE PROJECT SITE. THE OWNER(S) OF IDENTIFIED EXISTING UNDERGROUND FACILITIES SHALL ALSO BE CONTACTED PRIOR TO CONSTRUCTION.
10. STAKING MAY BE REQUIRED BY COUNTY DUE TO THE NATURE AND/OR COMPLEXITY OF THE WORK. LOST OR DAMAGED STAKES SHALL BE REPLACED TO THE SATISFACTION OF COUNTY WHETHER RESULTING FROM CONSTRUCTION PROCEDURES, VANDALISM, OR ANY OTHER CAUSE.
11. CONSTRUCTION HOURS SHALL BE LIMITED FROM MONDAY THROUGH SATURDAY, 7:00 A.M. TO 7:00 P.M. DURING WEEKDAYS AND 8 A.M. TO 5 P.M. ON SATURDAY. ALL HEAVY EQUIPMENT AND ANY INTERNAL COMBUSTION ENGINES SHALL BE FITTED WITH ADEQUATE MUFFLERS.
12. THE CONTRACTOR SHALL PROVIDE, PLACE AND MAINTAIN ALL LIGHTS, SIGNS, DELINEATORS, BARRICADES, TEMPORARY TRAFFIC STRIPING, FLAGMEN, DETOURS OR OTHER DEVICES NECESSARY TO PROVIDE FOR THE SAFE AND CONVENIENT PASSAGE OF PUBLIC VEHICLE AND PEDESTRIAN TRAFFIC THROUGH THE CONSTRUCTION SITE.
13. THE CONTRACTOR SHALL OBTAIN THE EXPRESS WRITTEN CONSENT OF COUNTY PRIOR TO IMPLEMENTING ANY LANE CLOSURE OR DETOUR ON A COUNTY MAINTAINED STREET OR HIGHWAY. ALL LANE CLOSURES OR DETOURS SHALL CONFORM TO CHAPTER 5, "TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES" OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION TRAFFIC MANUAL (LATEST EDITION).
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL DURING CONSTRUCTION. AT LEAST ONE WATER TRUCK SHALL BE ON SITE AT ALL TIMES. ADDITIONAL EQUIPMENT MAY BE REQUIRED AS DETERMINED BY COUNTY.
15. IF THE PRESENCE OF SERPENTINE ROCK (SAF) IS DISCOVERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, CITY AND THE EL DORADO COUNTY DEPARTMENT OF ENVIRONMENTAL MANAGEMENT THAT SERPENTINE ROCK IS PRESENT ON THE SITE.
16. UPON JOB COMPLETION, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE INFORMATION TO SITE CONSULTING, INC. (ENGINEER), REGARDING ANY MATERIAL CHANGES MADE DURING CONSTRUCTION AS WELL AS ANY OTHER INFORMATION REQUIRED TO BE SHOWN ON THE RECORD DRAWINGS BY COUNTY.
17. CLEARING AND GRUBBING SHALL CONFORM TO THE PROVISIONS OF SECTION 16, "CLEARING AND GRUBBING" OF THE STANDARD SPECIFICATIONS. ROOTS, STUMPS, TREES, ROCKS OR OTHER DELETERIOUS SUBSTANCES SHALL BE DISPOSED OF OFF-SITE AND IN A LAWFUL MANNER.
18. EARTHWORK SHALL CONFORM TO THE PROVISIONS OF SECTION 19, "EARTHWORK" OF THE STANDARD SPECIFICATIONS. WIDENING OF EMBANKMENTS AND FLATTENING OF SLOPES, WHICH RESULT IN AN INCREASED AREA OF GRADING, WILL NOT BE PERMITTED WITHOUT EXPRESS WRITTEN APPROVAL OF COUNTY.
19. AGGREGATE BASE SHALL CONFORM TO THE PROVISIONS OF SECTION 26, "AGGREGATE BASE" OF THE STANDARD SPECIFICATIONS FOR CLASS 2 AGGREGATE BASE, 3/4" MAXIMUM GRADATION. AGGREGATE BASE SHALL NOT BE PLACED UNTIL THE PRIOR GRADING PLANE HAS BEEN APPROVED BY COUNTY.
20. ASPHALT CONCRETE SHALL CONFORM TO THE PROVISIONS OF SECTION 39, "ASPHALT CONCRETE" OF THE STANDARD SPECIFICATIONS FOR TYPE B ASPHALT CONCRETE. ASPHALT BINDER SHALL BE PERFORMANCE GRADE 64-16. AGGREGATE FOR THE TOP LIFT SHALL BE 1/2" MAXIMUM, MEDIUM GRADATION. AGGREGATE FOR LOWER LIFTS SHALL BE 3/4" MAXIMUM, MEDIUM GRADATION. LIFT THICKNESS SHALL CONFORM TO THE PROVISIONS OF SECTION 39-6, "SPREADING AND COMPACTION" OF THE STANDARD SPECIFICATIONS. ASPHALT CONCRETE SHALL NOT BE PLACED UNTIL THE PRIOR GRADING PLANE HAS BEEN APPROVED BY CITY, AND ALL UTILITIES WITHIN THE PAVED AREA HAVE BEEN PLACED, TESTED, AND APPROVED.
21. PRECAST CONCRETE STRUCTURES SHALL CONFORM TO SECTION 70-1.02H "PRECAST CONCRETE STRUCTURES" OF THE STANDARD SPECIFICATIONS.
22. IF BLASTING ACTIVITIES ARE TO OCCUR IN CONJUNCTION WITH DEVELOPMENT, THE DEVELOPER SHALL ENSURE THAT SUCH BLASTING ACTIVITIES ARE CONDUCTED IN COMPLIANCE WITH STATE AND LOCAL REGULATIONS.
23. IF BURNING ACTIVITIES ARE TO OCCUR DURING CONSTRUCTION, THE DEVELOPER SHALL OBTAIN THE NECESSARY BURNING PERMITS FORM THE CALIFORNIA DEPARTMENT OF FORESTRY AND AIR POLLUTION PERMITS FROM THE COUNTY PRIOR TO SAID BURNING ACTIVITIES.
24. OMISSIONS AND ERRORS ON PLANS SHALL NOT BE VALID, AND ALL CODES AND LAWS MUST BE COMPLIED WITH BY THE OWNER, ENGINEER AND CONTRACTOR
25. IMPORT OR EXPORT OVER 250 CUBIC YARDS TO ANY OFF-SITE BORROW OR DISPOSAL SITE WILL REQUIRE A SEPARATE GRADING PERMIT FOR THE OFF-SITE LOCATION.
26. STORAGE: VEHICLE PARKING AND MATERIAL STORAGE DURING CONSTRUCTION SHALL NOT RESTRICT OR OBSTRUCT STREETS, ROADS, AND/OR ACCESS/EGRESS TO ANY STRUCTURE. A MINIMUM TWELVE (12) FEET TRAVEL LANE FOR EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED CLEAR AND UNOBSTRUCTED AT ALL TIMES INCLUDING DURING CONSTRUCTION.
27. RULE 300 OPEN BURNING: BURNING OF WASTES ON-SITE REQUIRES THE APPLICANT CONTACT THE DISTRICT PRIOR TO THE COMMENCEMENT OF ANY BURNING FOR NECESSARY BURN PERMIT REQUIREMENTS. ONLY VEGETATIVE WASTE MATERIALS ARE PERMITTED TO BE DISPOSED OF USING AN OPEN OUTDOOR FIRE. PROJECT CONSTRUCTION SHALL ADHERE TO DISTRICT RULE 300 OPEN BURNING.
28. CUTBACK AND EMULSIFIED ASPHALT: PROJECT CONSTRUCTION SHALL ADHERE TO DISTRICT RULE 224 CUTBACK AND EMULSIFIED ASPHALT PAVING MATERIALS.

JAMES C. WILLSON, PE

REGISTERED PROFESSIONAL ENGINEER
JAMES C. WILLSON
No. [illegible]
CIVIL
STATE OF CALIFORNIA

10/11/2025

Revisions			
SYM	DESCRIPTION	DATE	BY
△			
△			
△			
△			
△			
△			

JAMES WILLSON, PE, PLS
SITE CONSULTING, INC.
3460 ANGEL LANE
PLACERVILLE, CA 95667

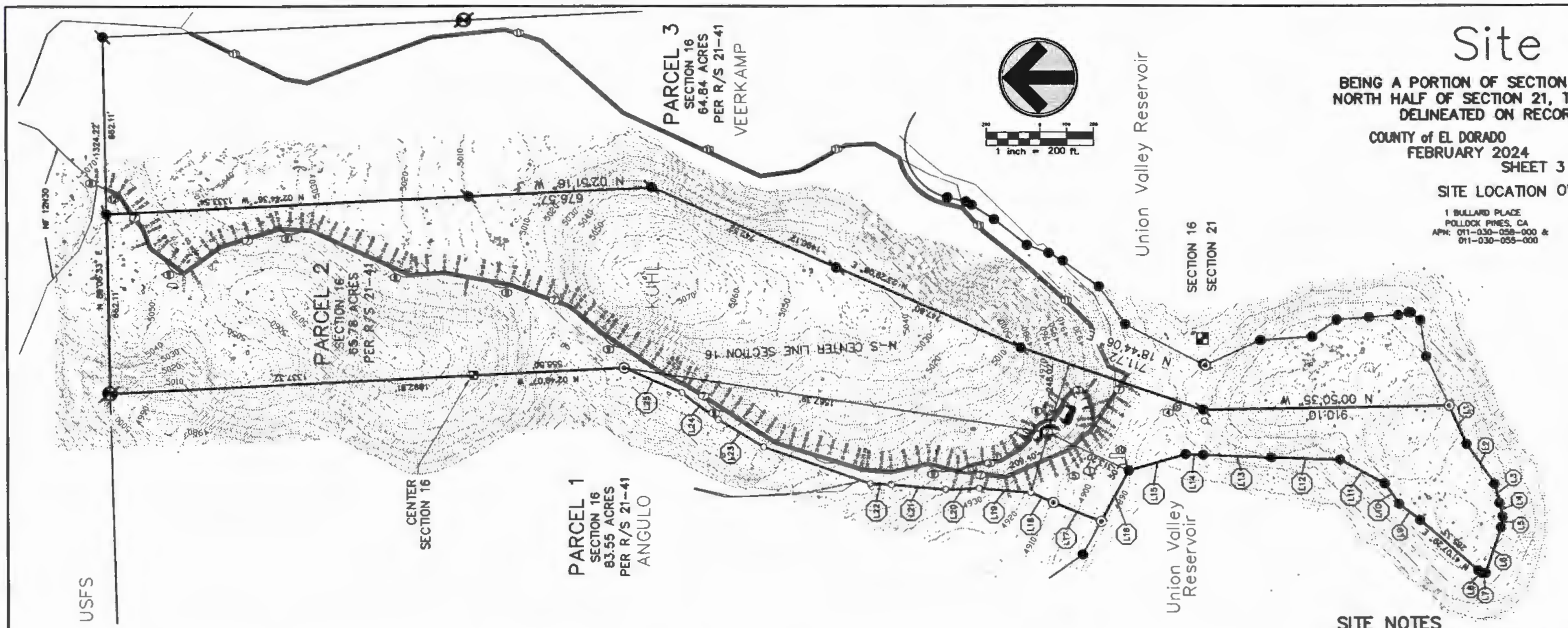
EROSION CONTROL
GRADING NOTES

Project Location:
NF 12N30
1 BULLARD PLACE
POLLOCK PINES, CA
APN: 011-030-058-000 &
011-030-059-000

Ownership Information:
MICHAEL KUHL
155 RIDGEWOOD DR.
SAN RAFAEL, CA 94901-11361

DESIGNED JW | DATE 2/8/2024
DRAWN JW | SCALE
JOB No.
SHEET

C4 OF 4



Site Plan

BEING A PORTION OF SECTION 16 AND A PORTION OF THE NORTH HALF OF SECTION 21, T. 12 N., R. 14 E., M.D.M., AS DELINEATED ON RECORD OF SURVEY 21-41

COUNTY of EL DORADO — STATE of CALIFORNIA

FEBRUARY 2024 — 1"=200'

SHEET 3 of 4

SITE LOCATION
1 BULLARD PLACE
POLLOCK PINES, CA
APN: 011-030-058-000 &
011-030-055-000

OWNER/APPLICANT
MICHAEL KUHL
155 RIDGEWOOD DR.
SAN RAFAEL, CA 94901-11381

LINE	BEARING	DISTANCE
L1	S 65°36'10" W	156.47'
L2	S 55°10'18" W	180.81'
L3	S 75°18'20" W	73.21'
L4	N 78°30'52" E	51.67'
L5	S 82°07'47" E	40.57'
L6	N 71°03'27" W	172.27'
L7	S 04°21'03" E	12.10'
L8	N 34°41'02" E	18.71'
L9	S 36°57'25" W	99.17'
L10	S 55°06'44" W	93.07'
L11	N 28°25'55" E	188.89'
L12	N 01°54'08" E	254.81'
L13	S 02°22'20" W	250.79'
L14	S 02°19'29" W	64.52'
L15	N 18°20'00" W	218.67'
L16	N 61°04'00" W	215.57'
L17	N 21°25'52" E	191.46'
L18	N 23°47'47" E	92.55'
L19	N 04°46'15" E	192.43'
L20	S 01°56'17" E	125.91'
L21	N 05°07'37" E	201.08'
L22	S 02°46'55" W	78.52'
L23	S 30°46'28" W	196.17'
L24	N 36°31'00" E	188.56'
L25	N 23°12'29" E	232.22'

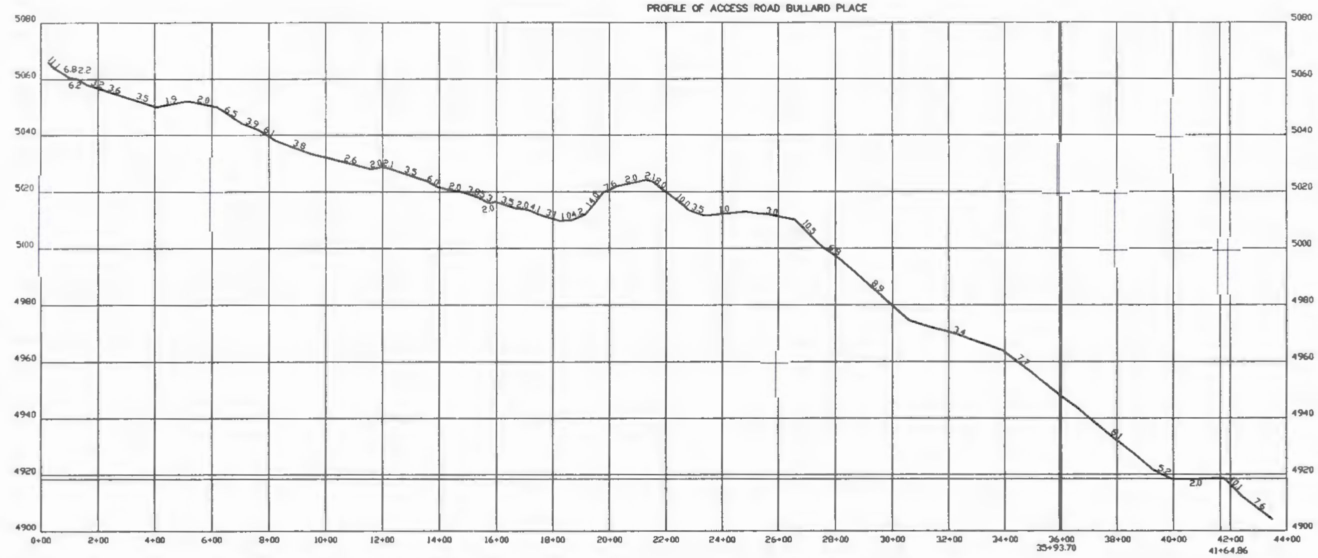
SITE NOTES

1. EXISTING SHED
2. PROPOSED HOUSE SEE SHEET 2 FOR DETAIL
3. EXISTING DRIVEWAY
4. EXISTING WELL
5. PROPOSED SEPTIC AREA
6. PROPOSED FIRE HYDRANT AND EXISTING WATER TANK
7. EXISTING ROADS AND 50' WIDE EMERGENCY ACCESS FOR VEERKAMP PARCEL
8. EXISTING ENCROACHMENT
9. PROPOSED TURNOUTS AT A MINIMUM OF 400' INTERVAL
10. PROPOSED SOLAR ARRAY LOCATION
11. EXISTING ROADS AND 50' WIDE EMERGENCY ACCESS FOR KUHL PARCEL
12. EXISTING ROAD EASEMENT FOR ACCESS ACROSS VEERKAMP PARCEL

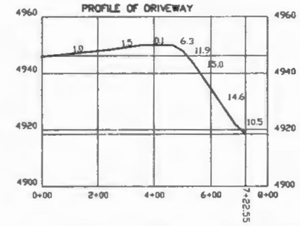
LEGEND

- CENTER OF SECTION PER R/S 21-41
- 3/4" CAPPED IRON PIPE (C.I.P.) OR 1" ALUMINUM PISTON MONUMENT W/ 1 1/4" CAP STAMPED "L.S. 3848" PER R/S 21-41
- 2" MONUMENT OR 1" MONUMENT WITH 3 1/4" CAP PER R/S 21-41
- 2" MONUMENT IN ROCK MOUND STAMPED "L.S. 4596" PER R/S 21-41
- U.S.F.S. 2" MONUMENT WITH 3 1/4" CAP PER R/S 21-41
- 1" IRON PIPE WITH 1 1/2" CAP STAMPED "L.S. 3848" PER R/S 21-41
- ==== EXISTING DIRT ROADS (APPROXIMATE LOCATION)
- OA OVERALL DISTANCE

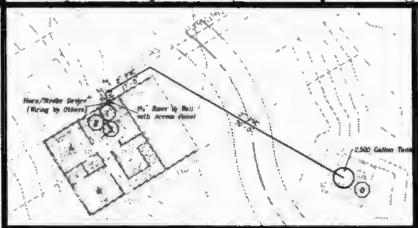
PROFILE OF ACCESS ROAD BULLARD PLACE



PROFILE OF DRIVEWAY

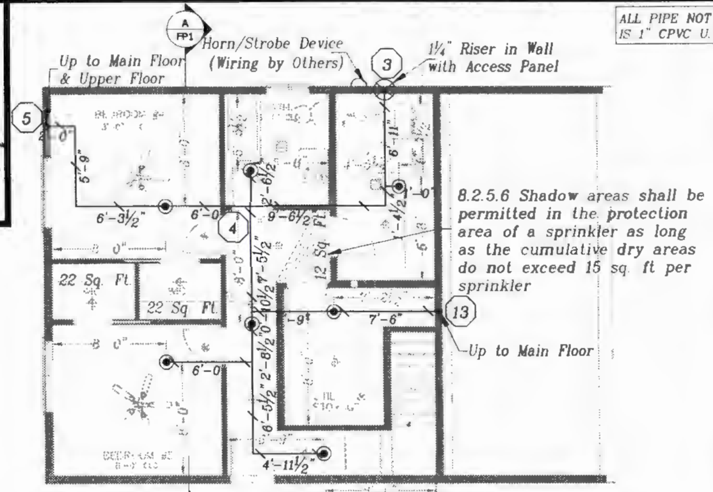


TURNOUT DETAIL

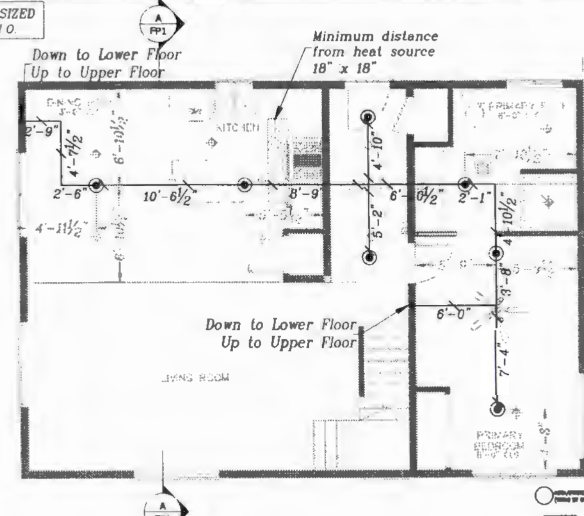


UTILITY PLAN
NTS HYDRAULIC REFERENCE ONLY

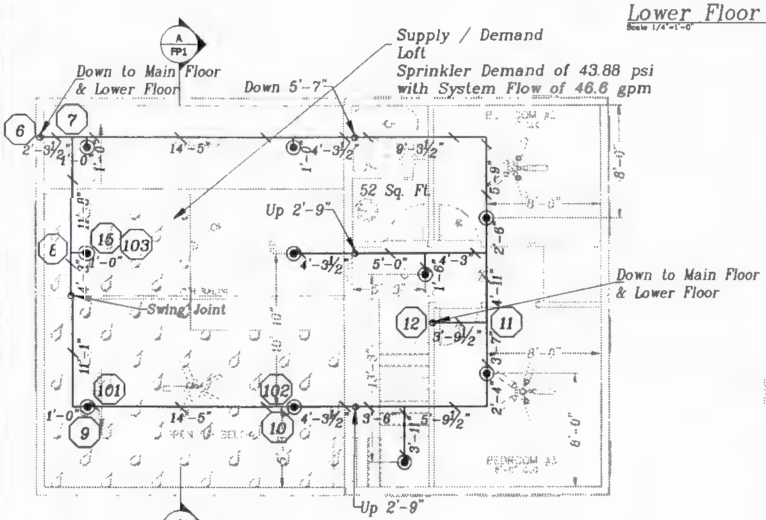
ALL PIPE NOT SIZED IS 1" CPVC U.N.O.



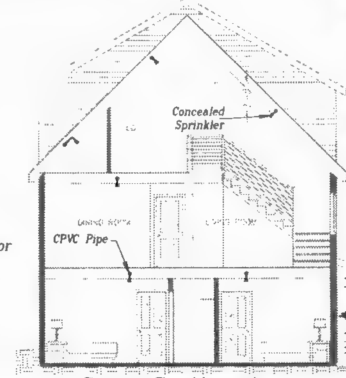
Lower Floor Piping Plan
Scale 1/4"=1'-0"



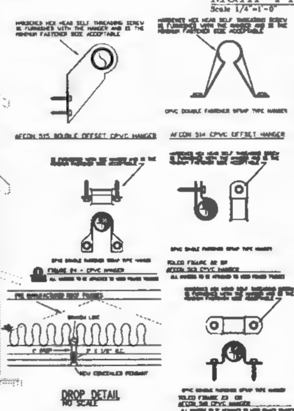
Main Floor Piping Plan
Scale 1/4"=1'-0"



Upper Floor Piping Plan
Scale 1/4"=1'-0"

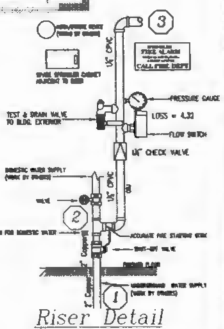


Cross Section A
Scale 3/16"=1'-0"

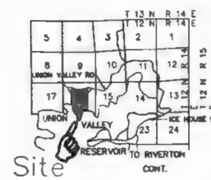


A warning sign, with minimum ½ in. letters, shall be affixed adjacent to the main shutoff valve and shall state the following:

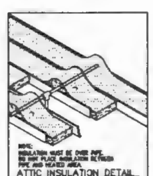
WARNING: The water system for this home supplies fire sprinklers that require certain flows and pressures to fight a fire. Devices that restrict the flow or decrease the pressure or automatically shut off the water to the fire sprinkler system, such as water softeners, filtration systems, and automatic shutoff valves, shall not be added to this system without a review of the fire sprinkler system by a fire protection specialist. Do not remove this sign.



Riser Detail
NTS
All smoke detectors to be wired on new riser flow switch



VICINITY MAP
NTS



NOTE:
NAIL PLATES SHALL BE PROVIDED WHERE SPRINKLER PIPE PASSES THROUGH FRAMING MEMBERS

NOTES

8.3.2 SPRINKLERS SHALL NOT BE REQUIRED IN BATHROOMS OF 55 SQ. FT AND LESS.
8.3.3 SPRINKLERS SHALL NOT BE REQUIRED IN CLOTHES CLOSETS, LINEN CLOSETS, AND PANTRIES THAT MEET ALL OF THE FOLLOWING CONDITIONS
1. THE AREA OF THE SPACE DOES NOT EXCEED 24 SQ. FT
2. THE WALLS AND CEILINGS ARE SURFACED WITH NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIALS AS DEFINED IN (NFPA 220)
8.3.5 SPRINKLERS SHALL NOT BE REQUIRED IN ATTICS, CRAWL SPACES, AND OTHER CONCEALED SPACES THAT ARE NOT USED OR INTENDED FOR LIVING PURPOSES
8.3.6 SPRINKLERS SHALL NOT BE REQUIRED IN COVERED UNHEATED PROJECTIONS OF THE BUILDING AT ENTRANCES / EXITS AS LONG AS THERE IS ANOTHER MEANS OF EGRESS FROM THE DWELLING UNIT
8.2.5.1.1 PENDENT SPRINKLERS SHALL BE LOCATED AT LEAST 3 FT AWAY FROM OBSTRUCTIONS SUCH AS CEILING FANS AND LIGHT FIXTURES
7.7 WHEN NONMETALLIC PIPING IS INSTALLED IN ATTICS, ADEQUATE INSULATION SHALL BE PROVIDED ON THE ATTIC SIDE OF THE PIPING TO AVOID EXPOSURE OF THE PIPING TO TEMPERATURES IN EXCESS OF THE PIPE'S RATED TEMPERATURE

RESIDENTIAL FIRE SPRINKLER NOTES

1. ALL MATERIAL AND METHODS SHALL CONFORM TO NFPA 13D (2022 EDITION), 2022 CALIFORNIA RESIDENTIAL CODE AND 2022 CALIFORNIA FIRE CODE
2. NOTE COMPLIANCE WITH EL DORADO HILLS FIRE DEPARTMENT FIRE PROTECTION STANDARD #C-002, INSTALLATION OF RESIDENTIAL FIRE SPRINKLER SYSTEMS
3. OCCUPANCY - SINGLE FAMILY DWELLING
4. SYSTEM TO BE INSTALLED, TESTED & BRACED IN ACCORDANCE WITH NFPA 13D (2022 EDITION)
5. ALL MATERIAL TO BE NEW & UL OR FM APPROVED
6. ALL PIPING AND FITTINGS SHALL BE UL LISTED CPVC PIPE SYSTEM
7. ACTUAL LOCATIONS OF PIPING MAY VARY DUE TO FIELD CONDITIONS
8. HANGER LOCATIONS ARE APPROXIMATE AND SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13D (2022 EDITION).
9. THIS CONTRACT DOES NOT INCLUDE ANY MATERIAL OR DEVICE TO IMPROVE THE STRUCTURAL INTEGRITY OF THE BUILDING AND IT'S ABILITY TO CARRY THE LOAD OF THE FIRE SPRINKLER SYSTEM.
10. PROTECTION OF SPRINKLERS FROM PAINT BY OTHERS (NIC).
11. SENJU SPRINKLERS WITH 4.9 K-FACTOR MAY BE LOCATED 8 FT FROM WALLS OR 16 FT APART AND 8 FT BETWEEN THE SPRINKLERS FOR FLAT AND SLOPED CEILINGS UP TO 8:12 PER HYDRAULIC CALCULATIONS.
12. THE SPRINKLER SYSTEM SHALL BE VISUALLY INSPECTED AND HYDROSTATICALLY TESTED AT 150 PSI FOR 30 MINUTES AND SYSTEM SHALL HAVE A FINAL INSPECTION PRIOR TO THE BUILDING DEPARTMENTS FINAL.
13. PENETRATIONS OF FIRE RATED WALLS TO BE SEALED TO MAINTAIN WALL RATING.
14. ALL ELECTRICAL WORK BY OTHERS (NIC).

Accurate Fire Protection
8980 Bradshaw Road
Elk Grove, Ca. 95624
Office Ph: (916) 381-4101
CA Lic. # C16-827055

Fire Sprinkler Piping Plan Details and Notes

Kuhl Residence
1 Bullard Place
Pollock Pines, CA.

REVISION | DESCRIPTION

FP1 OF 1

Robert W. Allen, Forester

6221 Sly Park Road
Placerville, CA 95667
USA

Phone 530 644-4838
Fax 530 644-4838

Forest Management Plan for Angulo, Kuhl and Fox Property

The following is a forest management plan for a portion of Section 16 and a small portion of Section 21 T12N R14E MDM. The El Dorado county assessor's Parcel Numbers are 011-030-45 and 46. This 214.17 acre ownership is located on the west slope of the Sierra Nevada, approximately 24 air miles northeast of Placerville, CA. Topographic map coverage is provided by the Robbs Peak, Calif. 7.5' Quadrangle. The elevation of the property ranges from approximately 4,880 feet to 5,080 feet. Soils in the area are mostly Pilliken coarse sandy loam with areas of Aquepts and Umbrepts. Pilliken soils are deep and well drained, formed from material weathered from granitic rock. This soil is moderate to high site quality. This soil is used mainly for timber production and also for summer range. The Aquepts and Umbrepts are very poor to poorly drained soils that formed in alluvial material located on broad valley flats and along drainages and the periphery of these areas. The Sedge-Rush series typically occurs on these soils, along with willows, alders and other riparian vegetation. These areas are well suited for intensive use as summer range. The property is located in the Union Valley Reservoir Watershed, Calwater ID v2.2 #5514.340301. There are two main watercourses that are tributaries to Union Valley reservoir. These watercourses are unnamed on the Robbs Peak 7.5' Quadrangle Map. The watercourse flowing through the Angulo parcel is named Jack's Creek by the family since it flows through Jack's Meadow and the watercourse flowing through the Fox and Kuhl parcel called Timothy Creek since it flows through Timothy Meadow.

Ownership History: Rufus and Sarah Swift purchased the full ranch on 1/7/1941. That interest passed to their heirs in an 11/21/1994 grant deed. The Angulo Dynasty Trust received their interest on 12/27/1995. The Phyllis Swift Fox Family Revocable Trust received theirs on 6/13/1995. Michael Kuhl received a 1/3 interest on 12/28/1994, and a 2/3 interest on 2/22/2005.

Timberland Preserve Zone (TPZ) Chapter 17.44.070 (Prior Code 9432) requires a plan for forest management to include a discussion and recommendations on at least the following items:

1. Commercial harvesting, a history of past operations and recommendations for the future.

The property being discussed in this report and the surrounding property has a long history of timber harvesting as well as homesteading and ranching dating back to the 1800's. The majority of the land in the immediate vicinity of the subject property is currently managed for timber production by Sierra Pacific Industries and the U.S. Forest Service for multiple use as well as smaller parcels which have been harvested for timber under approved Timber Harvest Plans approved by the California Department of Forestry and Fire Protection. Land owned and managed for timber production by Sierra Pacific Industries was once owned and managed by

Michigan-California Lumber Company from the late 1800's to the mid 1990's. Michigan-Cal exercised their timber rights on subject property in 1958. Family members remember Rufus and Sarah Swift harvesting more timber, sometime during the 1960s, but remember no details. The most recent timber harvests were in 1994 on the Fox portion and extending through 1997 for the Kuhl and Angulo portion. The Fox portion was harvested under THP #4-94-56 and the Kuhl/Angulo portion under THP #4-94-107/ELD-45. There has been no harvesting since then. A salvage operation was considered in 2008, when the bottom dropped out of the log market. Of the 214 acres, approximately 47 acres are in meadow/grassland. The remaining land is mixed conifer, site class I and II, with White Fir the predominate species. Current growth is estimated to be 600 to 800 bd. ft./acre/yr. This could potentially be improved to 1,000 to 1,200 bd. ft./acre/yr following a series of growth improvement harvest and achieving fully stocked stands.

Recommendations: Until an economically feasible log market returns, it is recommended that the landowners work with a portable sawmill owner-operator to salvage dead and dying trees before they become unmerchantable and either a safety hazard or become large fuel material. The rough lumber can be marketed through the internet or classified ads.
When the market rebounds, a commercial timber harvest including removal of recently dead, dying and diseased trees should be done every 20 to 25 years on the property. It should also include a light selection harvest of green trees of all ages, sizes and species to create a multiple aged stand consisting of mixture of species which can maximize the growth potential on the property. The residual trees in the mixed conifer stand should be left at 15 to 25 foot spacing depending on the age and size. Older snags that do not pose a safety hazard to the landowners or the improvements should be left for wildlife purposes, as they provide habitat for birds and cavity nesting animals. Intermediate harvests to remove dead dying or diseased trees should be done as needed.
The elevation of the property is ideal for white firs which can be grown and sold for Christmas trees. Existing White Fir thickets can be thinned and pruned with Christmas tree sales in mind. Fast growing well spaced trees can be retained for future timber crop trees where managing for Christmas trees.
The meadow/grasslands should not be planted to trees as they provide habitat for a diversity of wildlife species and acts as a filter buffer for water runoff retaining a high level of water quality. Small conifer trees encroaching on the meadows/grassland areas can be removed by weed eating or hand pulling. Advanced regeneration can be cut and piled for wildlife habitat.

2. Provisions for legal and physical access to the property so commercial operations can be carried out.

Physical access to the property is east from Placerville on Highway 50 to Ice House road, a surfaced county/SMUD/USFS maintained road. Ice House Road is approximately 8.4 miles east of the Sly Park Road exit at Pollock Pines. The route continues northeast up Ice House Road approximately 19 miles to Union Valley Road, formerly known as Wolfe Creek Road. Union Valley Road is a co-op road between Sierra Pacific Industries and the U.S. Forest Service heading in a westerly direction that is surfaced for approximately 0.7 miles, then rock and native surface road for approximately 1.4 miles. The route continues on road 12N30 approximately 0.2 miles to the northeast corner of the Kuhl property or on an unnamed road approximately 0.3 miles to the northeast corner of the Fox property.

Commercial use of Union Valley Road and the short spur roads require a road use permit from the U.S. Forest Service. The application for the permit should be submitted to the Pacific Ranger District of the El Dorado National Forest for their review and recommendations before it is passed along to the El Dorado National Forest Supervisors Office.

3. A reasonable attempt to locate the boundaries of the property and attempts to protect his property against trespass.

Landowner Michael Kuhl and RPF have located all survey monuments required to run boundary lines. The most recent check of the survey monuments surrounding the property was done in the fall of 2008. The boundary lines of the property have been identified at one time or another for previous harvest operations, including interior lines separating the three proposed parcels. The portion of the property boarding U.S. Forest Service managed land has been blazed with the blaze marks painted red, excluding the 200 foot strip of U.S. Forest Service managed land between the high water mark for Union Valley Reservoir and subject property. The survey corners that delineate the 200 foot buffer strip for Union Valley Reservoir have been flagged and are generally close enough to be seen from one to the next. The landowners have attempted to hide these survey monuments to prevent vandalism from lake users.

The two access roads are gated with fences extending to the sides to reduce access to Off Road Vehicles. U.S. Forest Service padlocks are used in addition to private locks in case emergency access is required. There are fences on three portions of the property. The oldest is the fence along two points of the northern edge of the Fox parcel. Next is a fence along much of the western most edge of the Angulo parcel. And then there is the fence started this summer along the western edge of the Angulo and Kuhl boundary of the lower meadow.

Besides the gates and fences that block illegal access to the property by vehicles, frequent visits to the property by the landowners and selected guests attempt to protect the property against trespass.

Private Property and No Trespassing signs have been posted near the gates. It is recommended to provide more signage to inform the public that this is private property. The use of signs is allowed for under chapter 17.44.030 J and K.

4. Disease and insect control work.

The property was surveyed for possible insect or disease problems during the summers of 2008 and 2009. No serious outbreaks were observed but some mortality was observed mostly in the White fir component. Bark beetles have killed some trees in the stand. To minimize the potential for tree loss, diseased trees and the weakest trees should be removed during timber harvest operations, and adequate tree spacing will minimize the competition for light, water and nutrients. There is a small amount of dwarf mistletoe in some of the pines and firs on the property. It does not occur in large enough concentrations to cause major problems but should be removed from the stand to minimize its spread during commercial timber harvest operations. An attempt to harvest the mortality was made in 2008, but the cost of road maintenance and logging costs prevented harvesting because of the lack of markets for the logs. The use of a portable sawmill to process this material is being considered if a market can be found for the lumber.

5. Thinning, slash disposal, pruning and other appropriate silvicultural work.

Thinning: Periodic thinning of seedling and sapling size trees should be done to promote the most rapid growth on the healthiest trees. Larger trees will be thinned during the commercial harvest, and future thinning should be timed with commercial harvest in order to get an economical return on those trees large enough to be merchantable.

Slash disposal: In areas of recreational use by the landowners and guests and near roads, slash and forest debris can be unsightly, hazardous and be a fire hazard. Annual maintenance will prevent the buildup of forest debris in high use areas. Any future THPs should include provisions for slash treatment. Logging slash can be piled and burned or physically moved to areas away from high use areas and used for erosion control. Logging slash spread out on skid trails or other areas of exposed soil can reduce erosion by reducing raindrop impact on granitic soils and by catching sediment that may be transported across the soil surface.

Pruning: Pruning for log quality is not appropriate for this timber stand and with the current economy would not be justified. Pruning is appropriate in the high use areas and along roads to improve aesthesis and to create a break in forest fuels for fire hazard reduction.

6. A fire protection plan including a fuels management program.

Purpose: to reduce the potential of wildfires starting on the property and to slow the rate of spread in case of a wildfire.

To reduce the potential of a wildfire, the landowners shall comply with all California Department of Forestry and Fire Protection and U.S. Forest Service fire rules and regulations and implement a fuels management plan. A fuels management plan to reduce fuels will also assist fire suppression efforts by slowing the rate of spread of a wildfire. Establishing a fire reporting system will also assist local fire authorities by improving reaction time.

Forest fuels management:

Ground fuels consist of natural limb pruning and needle cast, trees dying and falling over, logging slash and ground cover vegetation and brush. Ground fuels should be treated within 100 feet of roads and 150 feet of high use areas. Treatment could include removal, pile and burn or chip and scatter. During timber harvest operations, trees should be felled away from roads and high use areas. Logging slash should be removed from all areas within 100 feet of the edge of roads and 150 feet from high use areas and structures. This slash can be piled and burned or moved to areas away from the roads and high use areas. Treatment of logging slash should be discussed in harvest documents as part of hazard reduction.

Ladder fuels are smaller trees and lower dead and live limbs on larger trees which can provide a ladder for fire to climb from the ground to the crowns of trees. Ladder fuels can be reduced by limbing up the larger trees for 10 feet above the ground, but no more than 50% of the live crown for trees less than 20 feet in height. Small trees growing in the understory should be thinned so the spacing is such that the crowns do not touch and also leaving room for the residual tree crowns to grow without touching for a period of 5 to 10 years.

Crown fuels are the canopies of trees which can carry a fire in high winds and low moisture conditions. It usually occurs where there is a continuous layer of limbs and needles in interlocking tree crowns. Prevention of crown fires can be done by spacing out the larger trees so there is a minimum of 15 feet between crowns and removal of ladder fuels. The spacing of larger trees should be done by the RPF while marking harvest trees in preparation of a commercial logging operation.

Fuel breaks are gaps in the forest fuels where a fire can be stopped. The dirt roads and high use areas within the property that have been treated for fuel reduction as discussed above and the wet meadows provide adequate fuel breaks for this property.
Water sources for firefighting: The closest source for large trucks is a constructed water hole used for dust abatement during commercial harvesting operations. This water hole is located along Union Valley Road approximately 1.5 miles from the north side of the property. When Union Valley Reservoir is full, water trucks could draft from the reservoir in emergency situations. Union Valley Reservoir would also be the source of water for helicopter equipped with buckets. Water from the watercourse flowing along the eastern portion of the property has been diverted by a man made ditch to provide domestic water to all three parcels. This ditch feeds two 600 gallon water tanks on the Fox parcel and a 525 gallon water tank on the Kuhl parcel located near the high use areas. A 2,500 gallon water tank is planned to be functioning sometime during the summer of 2010 for the Kuhl parcel.
A water system has been developed at the high use areas and can be used for initial response to small fires. Fire reporting system: With the popularity of cell phones and the increase of coverage in remote areas, emergency phone numbers should be posted at the high use areas and on any structures. Guest visiting the property should be made aware of these numbers when first arriving.
Emergency vehicle access: U.S. Forest Service padlocks should remain on all gates providing access to the property. All roads within the property shall remain open and wide enough for fire trucks with occasional wide areas for turning around.

7. Erosion control on existing roads and skid trails and maintenance of existing roads.

Union Valley Road and the short spur roads from Union Valley Road to the property are under the control of the U.S. Forest Service.
The native surface roads within the property are located on flat or gentle slopes and had erosion control structures constructed following the most recent harvest. Landowners should conduct periodic inspections and maintain and repair any damage to the existing erosion control structures on the roads to insure proper drainage by cleaning out the throats of all water bars and drainage areas and make sure runoff is onto non erodible material or into native vegetation for filtration before entering a watercourse. Skid trails were water barred according to the Timber Harvest Plan specifications and Forest Practice Regulations following the last harvest and the trails have stabilized since then with native vegetation and forest litter.
Requirements for erosion control on skid trails and roads following future timber harvests will be specified in the harvest documents. Following the Forest Practice Regulations for any future timber harvest swill reduce to insignificant any impacts to soil or sediment movement.
Existing road crossings of watercourses have permanent culverts in place. These culverts have withstood 100+ year storm events. These culverts should be inspected and maintained to function properly each spring and fall and following any major storm event during the summer.
If equipment is used on the property in projects not related to timber harvesting, they should not be operated within 25 feet of seasonal watercourses, within the wet meadow area or within 75 feet of the class I watercourses. Where watercourses are crossed by equipment, and there is a potential for soil to be washed into the watercourses, exposed soils should be protected from erosion by spreading clean straw or forest litter on the soil surface to a depth of two inches.

8. Planting of a significant portion of the under stocked areas of the land.

The under stocked portions of this property are meadows and grassland and should be managed to remain meadows and grassland.

The timbered portion of the property is adequately stocked with mixed conifers. Small opening created by natural events or by harvesting insect and disease trees will fill in by local seed fall. Logging operations usually expose soft soils which create good seed beds for natural regeneration.

9. Structures

There is currently one structure on the Kuhl parcel. Chapter 17.44.050 allows for one owner or caretaker occupied single-family detached dwelling or a mobile home on an approved foundation. It is recommended that out buildings be constructed on the three parcels for the storage of equipment necessary for the management of the property as well as fire fighting tools and equipment.

Maps:

Exhibit A: Ownership map with roads prepared by James Nicklos, April 1994
Timber Type Map prepared by James Nicklos, March 1991
Aerial Photograph, July 1986

Management plan prepared by: **Robert W. Allen, RPF #2108**
December 2, 2009

I have read and agree with the above Forest Management Plan

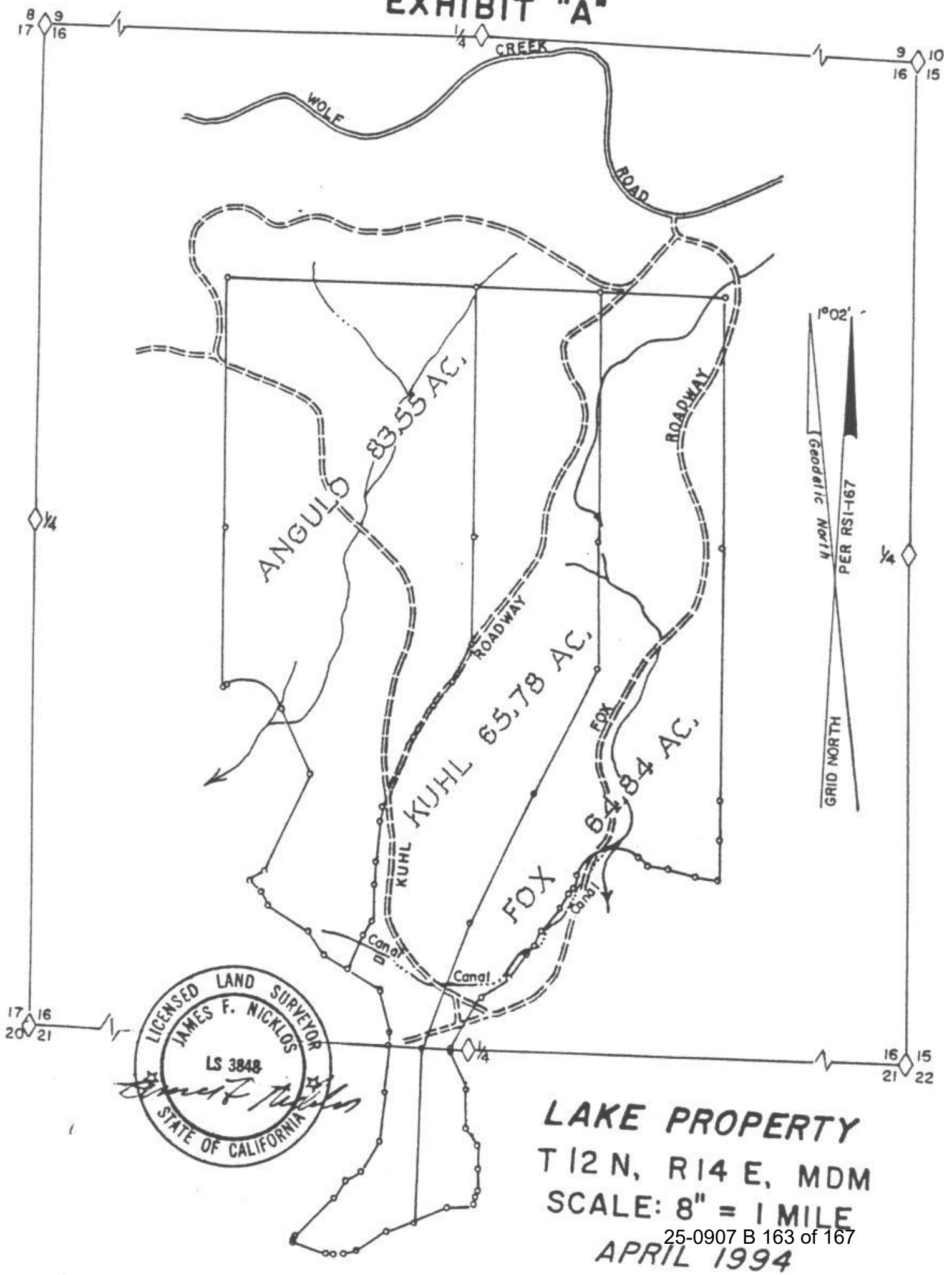
Penny Hocking

Penny Hocking

Michael J. Kuhl

Tony Angulo

EXHIBIT "A"



LAKE PROPERTY

T 12 N, R 14 E, MDM

SCALE: 8" = 1 MILE

APRIL 1994

SWIFT PROPERTY

T 12 N, R 14 E, MDM
El Dorado County, California

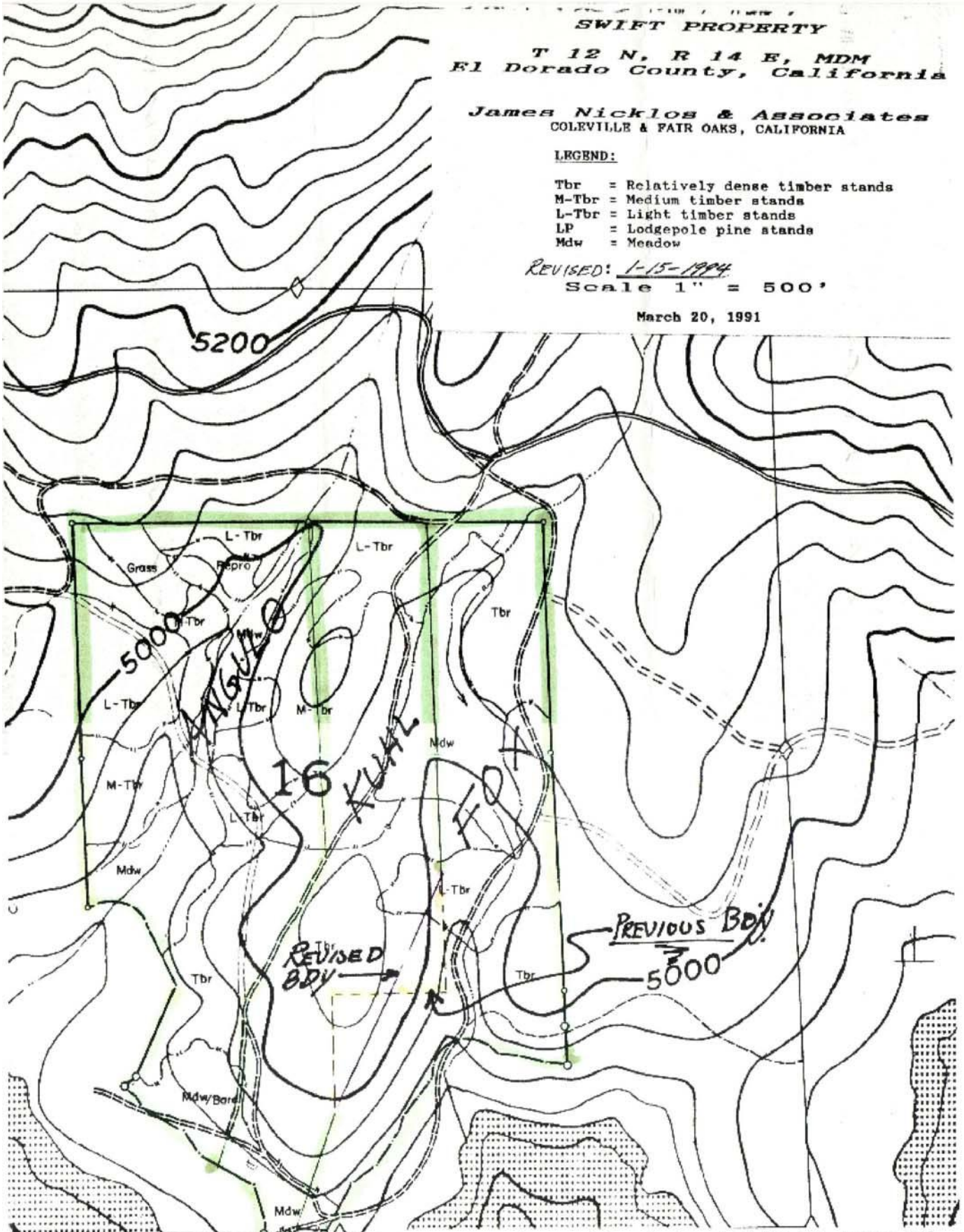
James Nicklos & Associates
COLEVILLE & FAIR OAKS, CALIFORNIA

LEGEND:

Tbr = Relatively dense timber stands
M-Tbr = Medium timber stands
L-Tbr = Light timber stands
LP = Lodgepole pine stands
Mdw = Meadow

REVISED: 1-15-1994
Scale 1" = 500'

March 20, 1991



MAP base is a photographic enlargement of U.S.G.S. Kyburz and Robbs Peak 7.5' quadrangles. Detail was transferred from 1986 aerial photos with a K.E.K. plotter and Kail reflecting projector. Land grid and ownership boundaries were developed from Record of Surveys filed in El Dorado County Official Records: 1RS166, 1RS167, 1RS171, 2RS141, 3RS144, 3RS155, 10RS85, and 13RS53.

7-3-86 USDA-F 12 615030 686- 62

Sec. 130.40.350 - Timber Production Zone: Criteria, Regulations, and Zone Change Requirements.

A. Content. This Section implements the provisions and intent of the Forest Taxation Reform Act of 1976 as amended.

B. Applicability. Lands subject to the following criteria and regulations are or shall be zoned Timber Production Zone (TPZ).

C. General Standards. In addition to the following regulations, lands within the TPZ shall be subject to the allowed uses and development standards under Chapter 130.21 (Agricultural, Rural Lands, and Resources Zones) in Article 2 (Zones, Allowed Uses, and Zoning Standards) of this Title.

D. TPZ Rezone Application Requirements. In addition to the requirements set forth in Chapter 130.63 (Amendments and Zone Changes) in Article 6 (Zoning Ordinance Administration) of this Title, the following is required as part of any zone change to TPZ:

1. Timber Production Assessment. Based on General Plan Policy 8.3.1.3, the Ag Commission shall assess property to determine its suitability for timber production. Their decision as to suitability shall be based, in part, on the following findings:
    a. Property is identified as meeting Timber Site Classifications I, II, or III, as defined in the *California Forest Handbook* and the *Soil Survey of El Dorado Area* issued April 1974 by the USDA Soil Conservation Service and the U.S. Forest Service;
    b. Property is being used for commercial forestry/timber production;
    c. Property possesses topographical and other features that makes it suitable for timber production; and
    d. No conflict exists with adjacent high density development.
2. Forest Management Plan. A forest management plan for the property shall be submitted that has been prepared or approved by a Registered Professional Forester, as defined in Article 8 (Glossary: see "Qualified Professional: Registered Professional Forester") of this Title. Prior to approval of the zone change application, the forest management plan shall be reviewed and approved by the Ag Commission. The forest management plan shall include, at a minimum, a discussion and recommendation on each of the following:
    a. Commercial harvesting, a history of past operations, and recommendations for the future;
    b. Provisions for legal and physical access to the property so commercial operations can be carried out;
    c. A reasonable attempt to locate the boundaries of the property and attempts to protect the property against trespass;
    d. Disease or insect control work;
    e. Thinning slash disposal, pruning, and other appropriate silvicultural work;
    f. A fire protection plan including a fuels management program;

g. Erosion control on existing roads and skid trails along with maintenance of existing roads; and

h. Planting of a significant portion of the understocked areas of the land.

3. The property shall currently meet the timber stocking standards as set forth in the California Public Resources Code Section 4561 and the forest practice rules adopted by the State Board of Forestry for the district in which the property is located. As an alternative, the owner shall sign an agreement with the Board to meet the timber stocking standards and forest practice rules by the fifth anniversary of the signing of said agreement. After the zone change to TPZ is approved, failure to meet the state's timber stocking standards and forest practice rules within the five year time period will provide the Board grounds for rescinding the zone change of the property.

E. Continued Eligibility. The property owner shall continuously comply with at least six of the criteria in the forest management plan required under Subsection D.2 (Forest Management Plan) above in this Section, in order to continue to be eligible for the TPZ classification.

F. Disclosure Notice of Rezone. Within 10 days of final action of a zone change application that either includes or deletes property from a TPZ, the Clerk of the Board shall cause to be recorded an instrument which will serve as constructive notice of the zone change action to prospective buyers of the subject property.

G. Required Findings to Support Residential, Recreational and Other Non-Timber Uses. Certain uses within the TPZ may be compatible with growing and harvesting timber in certain circumstances, and may be allowed by Conditional Use Permit. When approving a Conditional Use Permit, as allowed in Table 130.21.020 (Agriculture, Rural Lands and Resource Zone Districts Use Matrix) in Article 2 (Zones, Allowed Uses, and Zoning Standards) of this Title, for compatible, non-timber related uses, the review authority shall consider the recommendations of the Ag Commission and shall make the following findings:

1. The proposed use is compatible with and will not detract from the land's ability to produce timber;

2. Fire protection and public safety concerns have been adequately met, including the ability to provide adequate public access, emergency ingress and egress, and sufficient water supply and sewage disposal facilities;

3. The proposed use will not adversely impact the area's watershed, wildlife, and other natural resources.