



**CITY OF GRASS VALLEY
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION**

**NOTICE TO CONTRACTORS,
SPECIAL PROVISIONS, AND
CONSTRUCTION CONTRACT**

FOR

**JOYCE DRIVE SOIL REMEDIATION PROJECT
PROJECT NO. 26-03**

**JOYCE DRIVE SOIL REMEDIATION PROJECT
PROJECT NO. 26-03**

A handwritten signature in black ink, appearing to read 'Bjorn P. Jones', is written over a horizontal line.

Bjorn P. Jones, PE
City Engineer

7/9/2026

Date

**CITY OF GRASS VALLEY
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION**

NOTICE TO CONTRACTORS

Sealed proposals for the work shown on the plans entitled:

**JOYCE DRIVE SOIL REMEDIATION PROJECT
PROJECT NO. 26-03**

Bids will be received at the City of Grass Valley, Engineering Division, 125 East Main Street, Grass Valley, CA 95945 until **3:30 P.M. on July 30, 2026**, at which time they will be publicly opened and read aloud at said address. Any Protest regarding the award of the contract must be submitted pursuant to the instructions stated in the special provisions.

GENERAL WORK DESCRIPTION:

The scope of work, in general, includes; Excavation, stockpile, transport, and disposal of contaminated soil; import and placement of clean soil as engineered fill; and construction of a fence and gates. Other related items not mentioned above, that are required by the plans, specifications or these Special Provisions shall be performed, placed, constructed, or installed.

Project Location: Nevada County Assessor's Parcel Number 029-280-016, south side of Joyce Drive in Grass Valley, California.

The Engineer's estimate for this project is **\$1,600,000.00**

The time of completion shall consist of **50 Working Days**

BID INFORMATION:

Bids are required for the entire work described herein. The City of Grass Valley reserves the right to postpone the date and time for the opening of proposals at any time prior to the date and time announced in the advertisement in accordance with applicable law.

The City of Grass Valley reserves the right to reject any and all bids or to waive any minor defects or irregularity in bidding in accordance with applicable law. In accordance with California Public Contract Code Section 20103.8, if the City elects to award a contract for performance of the project, the contract will be awarded in accordance with California Public Contract Code Section 20162 and other applicable law to the responsible bidder submitting a responsive bid with the lowest total bid price for the base bid without consideration of the bid price for any additive or deductive items. All bids will remain valid for 90 days after the bid opening. Except as permitted by law and subject to all applicable remedies, including forfeiture of bidder's security, bidders may not withdraw their bid during the 90 day period after the bid opening.

This contract is subject to state contract nondiscrimination and compliance requirements pursuant to Government Code, Section 12990.

Attention is directed to the requirements specified in Section 3-1.06, "Contractor License", of the Standard Specifications. The Contractor shall possess a valid California Class "A" Contractor's License, or a combination of the following classes: C12 - Earthwork and Paving Contractors, C13 - Fencing Contractor, HAZ - Hazardous Substance Removal Certification Contractor and D-63 Construction Cleanup Contractor, and all other classes required by the categories and types of work included in the contract at the time of the bid award. All licenses shall remain in effect throughout the term of the contract.

Plans, specifications and proposal forms for bidding this project can be obtained directly from the City of Grass Valley, Engineering Division, 125 E. Main Street, Grass Valley, CA 95945, Telephone (530) 274-4373. A non-refundable fee of forty dollars (\$40.00) per bid set will be charged if picked up, or fifty (\$50.00) per bid set if mailed. Alternatively, bidders may download an electronic copy of the bid set free of charge from the City's website at <http://www.cityofgrassvalley.com/departments/engineering/rfpsrfqs-and-current-bids>

The City reserves the right, during the bid process and prior to the deadline for submitting bids, to issue one or more addenda, clarifications, or other communication concerning the bid process, including possible changes as to the time, place, and manner for submitting bids. The City will provide this information to any potential bidder who has obtained a bid package directly from the City. The City will also provide notice of the availability of revisions/addenda to any potential bidder who has obtained a bid package electronically from a contractor bid room or other source, if that bidder has provided a request for revisions, including the bidder's name, company, mailing address, phone number, email or fax number and the project name that the bidder is requesting notifications for. The request for revisions shall be submitted as soon as possible, but no later than five (5) business days prior to the date specified for opening bids in the manner described below:

- Emailed: To the attention of the Project Manager at: bjornj@grassvalleyca.gov
- Mailed: To the attention of the Project Manager, City of Grass Valley, Engineering Division, 125 East Main Street, Grass Valley, CA 95945

Bidders who do not purchase bid documents directly from the City of Grass Valley, but who have requested to receive revisions as described above, shall only receive email and/or fax notices of the availability of revisions/addenda. It shall be the bidder's responsibility to access the actual revisions/addenda as electronic copies from the City's website.

The City will also endeavor to provide such revisions/addenda to any contractor bid room which has requested copies of the bid documents. The City takes no responsibility for notifying a bidder who does not obtain bid documents from the City or does not provide the specified request for revisions to the City. Such bidder may be found non-responsive if that bidder fails to acknowledge, as set forth herein, any addenda or does not take into account any additional information provided by the City.

All questions concerning this project shall be provided in writing as soon as reasonably possible, but no later than five (5) working days before the date specified for opening bids. Questions received less than five (5) working days before the date specified for opening bids may not be answered. All questions must be received by the City, in the manner described below.

- Emailed: To the attention of the Project Manager at: bjornj@grassvalleyca.gov
- Mailed: To the attention of the Project Manager, City of Grass Valley, Engineering Division, 125 East Main Street, Grass Valley, CA 95945

Bidders are responsible to confirm receipt of written questions by the Engineering Division. Additionally, the City will answer a bidder's question only if the bidder provides the City a means for a response, including a telephone number, address, and fax number.

Bid Bonds shall be required for this project. The successful bidder shall be required to furnish a Payment Bond and a Performance Bond and certificates of liability and property damage insurance. The amounts of liability and property damage insurance will not be less than the amounts shown in the Contract and shall also include the endorsements specified.

Bidders are urged to obtain DBE participation on this project, although there are no specific goals for DBE participation.

The City of Grass Valley hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit

bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

Pursuant to Section 1773 of the Labor Code, the general prevailing rate of wages for Nevada County have been determined by the Director of the California Department of Industrial Relations (DIR). These wages are set forth in the General Prevailing Wage Rates for this project, may be examined at the office of the Engineering Division, City of Grass Valley and are available from the California Department of Industrial Relations' Internet web site at <http://www.dir.ca.gov/DLSR/PWD>. The Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished will apply to work done under this Contract.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5 . It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Labor Code Section 1725.5 at the time the contract is awarded.

Dated: July 9, 2026

BJORN P. JONES
CITY ENGINEER
CITY OF GRASS VALLEY
ENGINEERING DIVISION

TABLE OF CONTENTS

	<u>Page Number</u>
INSTRUCTIONS TO BIDDERS	1
SECTION 1 GENERAL SPECIFICATIONS AND PLANS.....	7
1-1.01 GENERAL	7
1-1.02 REVISED STANDARD SPECIFICATIONS AND STANDARD PLANS	7
1-1.03 DEFINITIONS AND TERMS	7
SECTION 2 BIDDING	8
2-1.01 GENERAL	8
2-1.02 REQUIRED LISTING OF PROPOSED PRODUCTS “OR EQUALS”	9
2-1.03 SUBCONTRACTOR LIST.....	9
2-1.04 BIDDER’S SECURITY.....	9
2-1.05 NON-COLLUSION AFFIDAVIT	9
2-1.06 DISADVANTAGE BUSINESS ENTERPRISES (DBE)	9
SECTION 3 CONTRACT AWARD AND EXECUTION.....	10
3-1.01 GENERAL	10
3-1.02 AWARD OF CONTRACT	10
3-1.03 CONTRACT BONDS.....	10
SECTION 4 BEGINNING OF WORK, TIME OF COMPLETION, AND LIQUIDATED DAMAGES.....	10
4-1.01 GENERAL	10
4-1.02 HOLIDAYS.....	11
4-1.03 WINTERIZATION	11
4-1.04 PRE-CONSTRUCTION CONFERENCE.....	11
4-1.05 ARCHAEOLOGICAL FINDS	12
4-1.06 EXTRA WORK	12
4-1.07 SCOPE OF WORK	12
4-1.08 ELIMINATION OF ITEMS OF WORK	12
SECTION 5 GENERAL	12
SECTION 5-1 MISCELLANEOUS	12
5-1.01 LABOR NONDISCRIMINATION	12
5-1.02 LABOR CODE REQUIREMENTS.....	12
5-1.03 PREVAILING WAGE	12
5-1.04 SUBCONTRACTING	13
5-1.05 PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS	13
5-1.06 PROMPT PAYMENT OF WITHHELD FUNDS TO SUBCONTRACTORS	13
5-1.07 PAYMENTS.....	13
5-1.08 INTEREST ON PAYMENTS.....	14
5-1.09 WITHHOLDS.....	14
5-1.10 PLANS AND WORKING DRAWINGS.....	14
5-1.11 EXAMINATION OF PLANS, SPECIFICATIONS, CONTRACT, AND SITE OF WORK	14
5-1.12 DIFFERING SITE CONDITIONS	14
5-1.13 VALUE ENGINEERING	15
5-1.14 PUBLIC SAFETY	15
5-1.15 TESTING	16
5-1.16 RESPONSIBILITY TO OTHER ENTITIES	16
5-1.17 AREAS FOR CONTRACTOR’S USE.....	16
5-1.18 SOUND CONTROL REQUIREMENTS	17
5-1.19 PROJECT APPEARANCE	17
5-1.20 RECORDS.....	17
5-1.21 RELATIONS WITH CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD	18
5-1.22 CONTRACTOR’S LICENSING LAWS	18
5-1.23 ARBITRATION.....	18

5-1.24	NOTICE OF POTENTIAL CLAIM.....	20
5-1.25	FINAL PAYMENT AND CLAIMS	20
5-1.26	SURFACE MINING AND RECLAMATION ACT	20
5-1.27	REMOVAL OF ASBESTOS AND HAZARDOUS SUBSTANCES	20
5-1.28	EXCAVATION SAFETY PLANS	21
5-1.29	AIR POLLUTION CONTROL.....	21
5-1.30	PERMITS.....	21
5-1.31	INSURANCE	21
5-1.31.1	WORKER'S COMPENSATION AND EMPLOYERS LIABILITY INSURANCE.....	21
5-1.31.2	GENERAL LIABILITY INSURANCE	22
5-1.31.3	CONFORMITY OF COVERAGES.....	22
5-1.31.4	ADDITIONAL REQUIREMENTS.....	22
5-1.31.5	ENDORSEMENTS.....	22
5-1.31.6	AUTOMOBILE LIABILITY INSURANCE	23
5-1.32	WARRANTY	23
SECTION 6 (BLANK).....		23
SECTION 7 (BLANK).....		23
SECTION 8 (BLANK).....		23
SECTION 9 (BLANK).....		23
SECTION 10	CONSTRUCTION DETAILS	23
SECTION 10-1	GENERAL	23
10-1.01	SCOPE OF WORK	23
10-1.02	GENERAL REQUIREMENTS.....	24
10-1.03	REQUEST FOR INFORMATION	24
10-1.04	WATER POLLUTION CONTROL	24
10-1.04.1	GENERAL	24
10-1.04.2	WATER POLLUTION CONTROL IMPLEMENTATION	25
10-1.04.3	PAYMENT	26
10-1.04.4	CONSTRUCTION SITE MANAGEMENT	26
10-1.05	PROPERTY AND FACILITY PRESERVATION.....	34
10-1.06	COOPERATION	34
10-1.07	PROGRESS SCHEDULE.....	35
10-1.08	OBSTRUCTIONS	35
10-1.09	MOBILIZATION	35
10-1.10	MAINTAINING TRAFFIC	36
10-1.11	FIELD ENGINEERING	36
10-1.11.1	LINES AND GRADES.....	36
10-1.12	CLEARING, GRUBBING AND REMOVAL.....	36
10-1.12.1	REMOVE ASPHALT CONCRETE.....	37
10-1.12.2	TREE REMOVAL	37
10-1.13	DUST CONTROL	37
10-1.13.1	WATERING	38
10-1.14	EARTHWORK.....	38
10-1.14.1	EXCAVATION	38
10-1.14.2	WASTE DISPOSAL.....	38
10-1.14.3	IMPORT FILL	38
10-1.15	EROSION CONTROL.....	39
10-1.15.1	FIBER ROLLS.....	39
10-1.16	CHAIN LINK FENCE AND GATE	39
10-1.16.1	POSTS.....	40
10-1.16.2	FABRIC	40
10-1.16.3	MISCELLANEOUS	40
10-1.16.4	CONSTRUCTION.....	40
10-1.16.5	PVC COATING.....	41
10-1.16.6	MEASUREMENT	41

10-1.16.7	PAYMENT	41
CONSTRUCTION CONTRACT.....		APPENDIX A
GRADING EXHIBIT.....		APPENDIX B
TECHNICAL SPECIFICATIONS.....		APPENDIX C
PROPOSAL AND BIDDER’S CERTIFICATE.....		SEPARATE ATTACHMENT

**CITY OF GRASS VALLEY
ENGINEERING DIVISION**

SPECIAL PROVISIONS

**JOYCE DRIVE SOIL REMEDIATION PROJECT
PROJECT NO. 26-03**

INSTRUCTIONS TO BIDDERS

1. BIDDER'S REPRESENTATIONS

Each bidder by submitting a bid represents that:

- 1.1. The bidder has read and understands the bid package and the bid is in accordance with all of the requirements of the bid package and applicable law.
- 1.2. Neither the bidder nor any subcontractor included on the list of proposed subcontractors submitted with the bid are ineligible to perform work on public works projects pursuant to California Labor Code Sections 1777.1 or 1777.7.
- 1.3. The bidder understands that quantities of unit price items may vary from the estimates provided in the Special Provisions, proposal, technical specifications, and construction contract.
- 1.4. Representatives of the bidder have visited the Project site and have familiarized themselves with the conditions under which the Project work is to be performed to ensure that the Project work may be performed for the amount bid.
- 1.5. The bidder has informed the City in writing no later than five (5) working days prior to the time specified for bid opening of any apparent conflicts, errors, or ambiguities contained in the bid package or between the contents of the bid package and the Project site.

2. PRE-BID COMMUNICATION AND INTERPRETATION OF THE BID PACKAGE

- 2.1. Any bidder that discovers any apparent conflicts, errors, or ambiguities contained in the bid package or between the contents of the bid package and the Project site, or that has questions or requires clarification concerning the bid package or its intent must inform the City in writing as soon as reasonably possible, but no later than five (5) working days before the date specified in the bid opening. Such notice shall be sent as specified in the Notice to Contractors for questions concerning the bid package. Questions received less than five (5) working days before the time specified for opening bids may not be answered.
- 2.2. Any interpretation, correction or change of the bid package prior to bid opening will be made by addendum signed by the City Engineer and transmitted to all bid package recipients. No other interpretation or information concerning the bid package issued prior to the date specified for opening bids will be binding. All addenda signed by the City Engineer and issued prior to the time and date specified for opening bids will form a part of the contract documents and must be acknowledged on the bid forms. Any changes, exceptions or conditions concerning the Project and/or the bid package submitted by any bidder as part of a bid may render that bid non-responsive.
- 2.3. The City takes no responsibility for notifying a bidder who does not obtain bid documents from the City or does not provide the specified Request for Revisions statement to the City. Such bidder may be found non-responsive if that bidder fails to acknowledge, as set forth herein, any addenda or does not take into account any additional information provided by the City.
- 2.4. No other interpretation or information concerning the bid package issued prior to the date specified for opening bids will be binding. All addenda signed by the City Engineer and issued prior to the time and date specified for opening bids will form a part of the contract documents and must be acknowledged on the bid forms. Any

changes, exceptions or conditions concerning the Project and/or the bid package submitted by any bidder as part of a bid may render that bid non-responsive.

3. PRE-BID ACCESS TO THE SITE

- 3.1. Prior to submitting a bid, it will be the sole responsibility of each bidder to conduct any additional examination, investigation, exploration, test, study or other inquiry and to obtain any additional information pertaining to the physical conditions (including surface, subsurface, and underground utilities) at or near the Project site that may affect the cost, progress, or performance of the Project, and that the bidder deems are necessary to prepare its bid for performance of the Project in accordance with the bid package and contract documents. Bidders seeking any such additional examination or other inquiries or information concerning the Project will do so at the bidder's sole expense.
- 3.2. Bidders seeking to conduct any additional examination or other inquiry at the Project site must request site access from the City at least two (2) working days in advance. The location of any excavation, boring or other invasive testing will be subject to approval on behalf of the City and any other agencies with jurisdiction over such testing. Bidders may not conduct tests at the Project site prior to obtaining City approval. The City may require bidders to execute an access agreement or encroachment permit prior to approving testing at the Project site. Once approved testing is complete, bidders shall fill all trenches or holes, restore all pavements to match the existing structural section, and otherwise clean up and restore the test site to its pre-test condition solely at the bidder's expense.
- 3.3. The Bidder's attention is directed to the requirements of Section 2-1.30, "Job Site and Documentation Examination," of the Standard Specifications and these Special Provisions.

4. BIDDING PROCEDURE

- 4.1. Bids shall be delivered to the City of Grass Valley, Engineering Division, 125 East Main Street, Grass Valley, CA 95945, no later than the time and date specified in the Notice to Contractors. Bids will be opened and read publicly at that time. Bids that are submitted late according to the time shown on the official bid clock located in City Hall will be returned unopened. Telephones for use by bidders are not available at the City offices.
- 4.2. In accordance with California Public Contract Code Section 20170, bids must be presented under sealed cover. Bids must be submitted using the proposal forms furnished with the bid package. Bids must include all documents provided in the Proposal. Bids must bear the bidder's legal name and be signed by a representative authorized to bind the bidder. Bids shall be typed or written in ink. Corrections may be made if initialed by the bidder. No oral or telegraphic modifications of bids, including facsimile modifications, will be considered. Bids that are incomplete or that are not presented on the proposal forms furnished with the bid package may be deemed non-responsive.
- 4.3. Each bid must give the full business address of the bidder. Bids of partnerships must furnish the full name of all partners and must be signed in the partnership name by one of the members of the partnership, or by an authorized representative, followed by the printed name and title of the person signing. Bids of corporations must be signed with the legal name of the corporation, followed by the name of the state of incorporation and by the signature and designation of the president, secretary or other person authorized to bind the corporation. The name of each person signing shall also be typed or printed below the signature. Upon request of the City, bidders will furnish satisfactory evidence of the authority of the person signing the bid. Bids of joint ventures must include a certified copy of the legal agreement constituting the joint venture.
- 4.4. No person, firm, corporation, partnership, or legal joint venture may submit more than one bid for the Project. However, a person, firm, corporation, partnership or legal joint venture that has submitted a subcontract proposal to a bidder, or that has quoted prices on materials to a bidder may submit a subcontract proposal, quote prices to other bidders and submit its own bid.
- 4.5. In accordance with California Public Contract Code Section 20171, all bids must include one of the forms of security specified in Caltrans Standard Specifications in an amount of at least ten (10) percent of the total of the bid prices. Bidders that elect to provide bidder's security in the form of a bid bond must execute a bid bond using the form provided in the bid forms. The bidder's security is tendered as a guarantee that the successful bidder, if awarded the Project contract, will execute and submit to the City all required bonds, certificates of insurance, and completed contract forms and enter into a contract with the City within ten (10) working days of receipt of the

Notice of Award. The bidder's security of any successful bidder that fails to do so will be forfeited to the City. All bidders' security not forfeited to the City will be returned once a successful bidder provides all required documents and enters a contract with the City in accordance with all applicable bid package requirements. Forfeiture of the bidder's security to the City will not waive or otherwise limit any other remedy available to the City under applicable law.

- 4.6. In accordance with California Business and Professions Code Section 7028.15, Public Contract Code Section 20103.5, and as specified in the Notice to Contractors, all Project work must be performed by properly licensed contractors and subcontractors with active licenses in good standing as of the date and time specified for bid opening, or, if the Project involves federal funds, no later than the time the Project contract is awarded. Bidders must verify their Contractor's license number and license expiration date on the proposal cover page under penalty of perjury. Bids that do not satisfy applicable licensing requirements will be considered non-responsive and rejected and may subject the bidder to criminal and/or civil penalties. In addition, all licenses shall remain in effect throughout the term of the contract.
- 4.7. Bids may be withdrawn prior to the time set for bid opening by a written request signed by an authorized representative of the bidder filed with the City Engineer. The bid security submitted with bids so withdrawn will be returned to the bidder. Bidders that have withdrawn their bid in accordance with this provision may submit a new bid prior to the time set for bid opening in accordance with all applicable bid package requirements. Bids may not be withdrawn during the ninety-day period after the time set for bid opening except as permitted by law pursuant to California Public Contract Code Section 5100 and following. Any other bid withdrawal will result in forfeiture of the bidder's bid security to the City.
- 4.8. In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professional Code), arising from purchases of goods, services or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment to the parties.

5. BID PROTESTS

Any protest of the proposed Project award must be submitted in writing to the City no later than 5:00 PM on the third business day following the date of the bid opening.

- 5.1. The initial protest must contain a complete statement of the basis for the protest.
- 5.2. The protest must state the facts and refer to the specific portion of the document or the specific statute that forms the basis for the protest. The protest must include the name, address, and telephone number of the person representing the protesting party.
- 5.3. The party filing the protest must concurrently transmit a copy of the initial protest to the apparent low bidder.
- 5.4. The party filing the protest must have actually submitted a bid for the Project. A subcontractor of a party filing a bid for the Project may not submit a bid protest. A party may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest.
- 5.5. The procedure and time limits set forth in these Instructions to Bidders are mandatory and are the bidders' sole and exclusive remedy in the event of a bid protest. Any bidder's failure to fully comply with these procedures shall constitute a waiver of any right to further pursue a bid protest, including filing of a challenge of the award pursuant to the California Public Contract Code, filing of a claim pursuant to the California Government Code, or filing of any other legal proceedings.
- 5.6. The City shall review all timely protests prior to award of the Project. The City shall not be required to hold an administrative hearing to consider any protests, but may do so at its option. At the time of the City Council's consideration of the Project award, the City Council shall also consider the merits of any timely protests. The City Council may either reject the protest and award to the lowest responsible bidder or accept the protest and award

the bid to the next lowest responsible bidder. Nothing in this section shall be construed as a waiver of the City Council's right to reject all bids.

6. AWARD

- 6.1. The bidder's attention is directed to the provisions in Section 3, "Contract Award and Execution", and Section 4, "Beginning of Work, Time of Completion and Liquidated Damages," of these Special Provisions.
- 6.2. In accordance with applicable law, the City reserves the right to reject any or all bids and to waive any informality in any bid. The City reserves the right to accept any portion of any bid, unless the bid package expressly provides that the award will be made as a whole. If the City elects to award a contract for performance of the Project, the contract will be awarded in accordance with California Public Contract Code Section 20162 and other applicable law to the responsible bidder submitting a responsive bid with the lowest total bid price for the base bid and those additive or deductive alternate items listed in the Proposal. In accordance with the contract documents and other applicable law, the City may add or deduct items of work from the Project after the lowest responsible bidder is determined.
- 6.3. The contract shall be awarded, if an award is made, to the lowest responsible bidder within 90 calendar days from the date bids are publicly opened and declared. If the award is not made within that period, all bids submitted are deemed rejected by the governing body.

A contract shall exist between the Contractor and the City when all of the following steps have been completed.

- (a) Award of the contract by the governing body.
- (b) Execution of a written contract by the Contractor within ten (10) working days of receipt of written notice of award.
- (c) Delivery by the Contractor to the City, the Faithful Performance and Labor and Materials bonds required herein, within ten (10) working days of receipt of written notice of award.
- (d) Delivery by the Contractor to the City, all City-approved Insurance Policies, on the appropriate forms, as required, within ten (10) working days of receipt of written notice of award.

Contractor shall execute a written agreement with the City using the form set forth hereafter.

- 6.4. The successful bidder and any subcontractors and others engaged in performance of the Project shall have valid local business licenses, as applicable, before commencing work on the Project.
- 6.5. Upon verifying that the successful bidder has provided complete, executed copies of all documents specified necessary to execute the contract and an authorized City representative has signed the contract, the Engineering Division will issue a Notice to Proceed in accordance with Section 4, "Beginning of Work, Time of Completion and Liquidated Damages," of these Special Provisions. The number of days within which the Project must be complete begins to run on the project commencement date.

7. PRICING

- 7.1. Inconsistency of bid unit items, item prices, and/or totals shall be resolved in accordance with the requirements specified in the Proposal.
- 7.2. Any federal, state, or local tax payable on articles to be furnished for the Project shall be included in the lump sum total bid price and paid by the Contractor under the contract.

8. QUANTITIES

- 8.1. Quantities, including but not limited to, material or labor quantities, that are provided in the bid package concerning the Project are estimates only and are provided solely as a general indication of the Project scope. The City does not warrant that such quantity estimates provided in the bid package represent the actual quantities required to perform the Project in accordance with the contract documents. Such quantity estimates do not bind the

City and bidders should not rely on them in preparing their bids. Each bidder is solely responsible for determining the quantities on which to base their bids in light of information contained in the bid package, bidder investigation and analysis of the Project and the Project site, and any other analysis or expertise of the bidder concerning the Project.

- 8.2. The City may amend, decrease or increase the Project work in accordance with the bidding package and the contract documents. If the City amends, decreases or increases the Project work prior to award of the Project, each bidder will be solely responsible for determining the revised quantities, if any, on which to base their bid in light of information contained in the bid package and any amendments or addenda to the bid package, bidder investigation and analysis of the Project as amended, decreased or increased, the Project site, and any other analysis or expertise of the bidder concerning the Project.

9. SUBSTITUTION OF "OR EQUAL" ITEMS

- 9.1. In accordance with California Public Contract Code Section 3400 concerning the submittal of an "or Equal" product, bidder's attention is directed to the requirements of Section 2-1.02, "Required Listing of Proposed Products "or Equals" with Bid Proposal" of these Special Provisions, and the Proposal.

10. SUBCONTRACTING

- 10.1. Bids must be in accordance with the requirements of the Subletting and Subcontracting Fair Practices Act, California Public Contract Code Section 4100 and the following. Bids must include a completed list of proposed subcontractors on the form included in the bid package. In accordance with California Public Contract Code Section 4104, completed lists of proposed subcontractors must include the name, business location, the portion (type or trade), and dollar amount of the Project work to be subcontracted for each subcontractor that will perform a portion of the Project work (including special fabrication and installation of a portion of the work) valued in excess of one half of one percent of the total Project bid price. If the Project work includes construction of streets or highways, the completed list of proposed subcontractors must include the subcontractor name, business location, type of work and dollar amount to be subcontracted for each subcontractor that will perform a portion of the Project work (including special fabrications and installation of a portion of the work) valued in excess of one half of one percent of the total Project bid price, or ten thousand dollars (\$10,000), whichever is greater.
- 10.2. In accordance with California Public Contract Code Section 4106, for any portion of the Project work with a value of more than one half of one percent of the total Project bid price for which no subcontractor is listed, or for which more than one subcontractor is listed, bidders certify by submitting their bids that they are qualified to perform that portion of the Project work and that they will perform that portion of the Project work with their own forces. Bidders may not substitute another subcontractor for a subcontractor listed in their bid except as permitted by the City in accordance with Section 4107 and following of the California Public Contract Code.
- 10.3. Bidder's attention is directed to the requirements specified in "Subcontracting," of these Special Provisions and the Proposal.

11. ASSIGNMENT

- 11.1. Bidders may not assign, sublet, sell, transfer, or otherwise dispose of their bid or any right, title or interest in their bid, or their obligations under their bid, without the written consent of the City Engineer. Any purported assignment, subletting, sale, transfer or other disposition of a bid or any interest in a bid, or of any obligations under a bid without such written consent will be void and of no effect.
- 11.2. Bidder's attention is directed to the requirements specified in Section 5-1.12, "Assignment," of the Construction Specifications.

12. BONDS

- 12.1. The successful bidder shall submit to the City a performance bond within ten (10) working days of receiving written notice of award. The successful bidder shall submit to the City a payment or labor and materials bond within ten (10) working days of receiving written notice of award. City shall retain the Performance Bond for a one-year guarantee period from the date of the City's acceptance of the work. All Project bonds shall be executed using the forms provided in the bid package.

- 12.2. The bonds shall be obtained from a California admitted surety that is licensed by the State of California to act as a surety upon bonds and undertakings and which maintains in this State at least one office for the conduct of its business. The surety shall furnish reports as to its financial condition from time to time upon request by City.
- 12.1. In accordance with California Civil Code Section 9550, labor and materials bond must be in the amount of one hundred percent of the total amount payable by the terms of the Project contract and guarantee payment to persons listed in California Civil Code Section 9100 for work performed and for charges for materials, supplies, and equipment provided under the Project contract (including amounts due under or subject to the Unemployment Insurance Code) in accordance with the requirements of California Civil Code Section 9554.
- 12.2. The performance bond must be in the amount of one hundred percent of the amount payable by the terms of the Project contract to guarantee the faithful performance of the Project work.
- 12.3. Bidder's attention is directed to the requirements specified in Section 3-1.05, "Contract Bonds," and "Warranty," of these Special Provisions, and the Contract.

13. LABOR LAWS

- 13.1. Bidders must comply with applicable provisions of the California Labor Code.
- 13.2. In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Project is to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in the California Labor Code shall be paid to all workers engaged in performing the Project.
- 13.3. In accordance with California Labor Code Section 1770 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for work in the locality in which the Project is to be performed. In accordance with California Labor Code Section 1773, the City has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the Project is to be performed for each craft, classification or type of worker needed to perform the Project. In accordance with California Labor Code Section 1773.2, copies of the prevailing rate of per diem wages for Nevada County are on file at the City offices, 125 E. Main Street, Grass Valley, California 95945. These wage rates are not included in the Special Provisions but will be made available on request.
- 13.4. In accordance with California Labor Code Section 1777.1, contractors and subcontractors that are found guilty of willfully violating Chapter 1 of Part 7 of Division 2 of the Labor Code (except for Section 1777.5), or that are found guilty of such violations with intent to defraud, and entities in which such contractors or subcontractors have any interest, may be ineligible to bid on, be awarded, or perform Project work as a subcontractor.
- 13.5. A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.
- 13.6. Bidder's attention is directed to the requirements specified in "Prevailing Wage," "Labor Nondiscrimination," and "Labor Code Requirements," of these Special Provisions, and Section 7-1.02K, "Labor Code", of the Standard Specifications.

SECTION 1 GENERAL SPECIFICATIONS AND PLANS

1-1.01 GENERAL

The work embraced herein shall be done in accordance with the Project Plans, Standard Specifications and Standard Plans dated 2018 of the Department of Transportation, and the City of Grass Valley's Improvement Standards and in accordance with the following Special Provisions.

Amendments to the Department of Transportation's Standard Specifications set forth in these Special Provisions shall be considered as part of the Standard Specifications for the purposes set forth in Section 5-1.02, "Contract Components" of the Standard Specifications and are included as Attachment A to these Special Provisions. Whenever either the term "Standard Specification is amended" or the term "Standard Specifications are amended" is used in the Special Provisions, the text following said term shall be considered an amendment to the Standard Specifications. In case of conflict between such amendments and the Standard Specifications, the amendments shall take precedence over and be used in lieu of the conflicting portions.

In case of conflict between the City of Grass Valley's Improvement Standards, and these Special Provisions, the Special Provisions shall govern, take precedence over, and be used in lieu of such conflicting portions. The Department of Transportation's Standard Specifications and Standard Plans shall govern over the City of Grass Valley's Improvement Standards.

Units in the United States Standard Measures shall apply to this contract.

1-1.02 REVISED STANDARD SPECIFICATIONS AND STANDARD PLANS

All references to the Department of Transportation's Standard Specifications and Standard Plans shall be considered to include any revisions issued by the Office of Construction Contract Standards in effect at the time of printing of these Special Provisions.

Revised Standard Specifications and Standard Plans can be found on the Caltrans website as provided in the following link: <http://www.dot.ca.gov/des/oe/construction-contract-standards.html>.

1-1.03 DEFINITIONS AND TERMS

As used herein, unless the context otherwise requires, the following terms have the following meaning:

City: City of Grass Valley.

City Engineer: The City Engineer of the City of Grass Valley, State of California.

City Hall: The City building located at 125 East Main Street, Grass Valley, California, 95945.

Contract Documents: All of the written matter describing the contemplated work, including the Plans, Special Provisions, Improvement Standards, Bonds, Agreement, and any approved Change Orders.

Department: The Engineering Department of the City of Grass Valley, State of California, except when referring to documents, laws or departments of the State of California. Any reference in question shall be as designated by the Engineer.

Department of Transportation: The Engineering Division of the City of Grass Valley, State of California, except when referring to documents, laws or departments of the State of California. Any reference in questions shall be as designated by the Engineer.

Director of Transportation: The City Engineer of the City of Grass Valley, State of California.

District Director of the District: The City Engineer of the City of Grass Valley, State of California.

Engineer: The City Engineer of the City of Grass Valley, State of California, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

Improvement Standards: The Design Standards, Construction Standards and Standard Details of the City of Grass Valley Public Works Department, Engineering Division

Laboratory: The established laboratory of the Materials and Research Department of the Department of Transportation of the State of California or laboratories authorized by the Engineer to test materials and work involved in the Contract, except

when referring to documents, laws or departments of the State of California. Any reference in question shall be as designated by the Engineer

Standard Plans: The latest edition of the Standard Plans of the State of California, Department of Transportation including any revisions to the Standard Plans issued by the Office of Construction Contract Standards in effect at the time of printing of these Special Provisions. Any reference therein to the State of California or a State agency, office, or officer shall be interpreted to refer to the City or its corresponding agency, office, or officer acting under this contract.

Standard Specifications: The latest edition of the Standard Specifications of the State of California, Department of Transportation including any revisions to the Standard Specifications issued by the Office of Construction Contract Standards in effect at the time of printing of these Special Provisions. Any reference therein to the State of California or a State agency, office, or officer shall be interpreted to refer to the City or its corresponding agency, office, or officer acting under this contract.

State: The City of Grass Valley, except when referring to documents, laws or departments of the State of California. Any reference in question shall be as designated by the Engineer.

State Highway Engineer: The City Engineer of the City of Grass Valley, State of California, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

Transportation Building, Sacramento: City Hall of the City of Grass Valley, State of California except when referring to documents, laws or departments of the State of California. Any reference in question shall be as designated by the Engineer.

Working Day: Monday through Friday, except holidays, from 7am to 7pm, or as further specified in these Special Provisions.

Contractor's attention is directed to the definitions and terms specified in Section 1, "Purpose and Definitions," of the Design Standards and Section 1, "Purpose and Definitions," of the Construction Standards.

SECTION 2 BIDDING

2-1.01 GENERAL

The bidder's attention is directed to the provisions in Section 2, "Bidding," of the Standard Specifications and these Special Provisions for the requirements and conditions which the bidder must observe in the preparation of the proposal form and the submission of the bid.

Each proposal shall include unit costs, and total costs for the base bid.

Bidders are required to specify a physical business street address to receive certified mail in accordance with the Proposal. The City shall be notified in writing a minimum of thirty (30) days in advance of any changes of address.

Section 2-1.06A, "General," of the Standard Specifications is replaced in its entirety with the following:

Improvement Standards may be viewed at the City of Grass Valley's website: http://www.cityofgrassvalley.com/services/departments/engineering/Standard_Specifications_and_Drawings

The Notice to Contractors, Special Provisions, and Construction Contract, Proposal and Bidder's Certificates and Improvement Plans may be viewed at the City of Grass Valley website, <http://www.cityofgrassvalley.com/services/departments/engineering/rfpsrfqs-and-current-bids>, or at City Hall at 125 East Main Street, Grass Valley, CA 95945. The Proposal form is bound separate from the Contract and the Special Provisions.

In addition to the subcontractors required to be listed in conformance with, "Subcontractor List," of these Special Provision, each proposal shall have listed therein the portion of work that will be done by each subcontractor listed. The listing subcontractor shall also set forth the portion of work that will be done by each subcontractor listed. A sheet for listing the subcontractors is included in the Proposal.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

In conformance with Public Contract Code Section 7106, a Noncollusion Affidavit is included in the Proposal. Signing the Proposal shall also constitute signature of the Noncollusion Affidavit.

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of Department of Transportation assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate. Each subcontract signed by the bidder must include this assurance.

Failure of the bidder to fulfill the requirements of the Special Provisions for submittals required to be furnished after bid opening, including but not limited to escrowed bid documents, where applicable, may subject the bidder to a determination of the bidder's responsibility in the event it is the apparent low bidder on any future public works contracts.

2-1.02 REQUIRED LISTING OF PROPOSED PRODUCTS "OR EQUALS"

On the sheet provided herein, to be submitted as part of the proposal, the bidder shall list each proposed substitution of an "equal" product. The bidder shall identify the proposed substitution by the section of the specifications that specifies the product, the name of the product proposed to be substituted out, and the name and manufacturer of the product proposed to be substituted. Prior to the award of the Contract and upon the request of the Engineer, the bidder shall submit the written request for substitution within three (3) days. The request shall be accompanied by evidence satisfactory to the Engineer that the materials and products proposed for use are equal to or better than the materials and products specified or detailed on the plans. The burden of proof as to the quality and suitability of substitutions shall be upon the bidder. Failure to submit the information as requested by the Engineer shall be deemed a voluntary withdrawal of the proposed substitution.

No requests for any substitution shall be allowed unless listed on the sheet provided. No requests for substitution shall be allowed after the opening of the bid. Requests for substitution shall be reviewed and considered by the Engineer promptly after the award of the contract to the lowest responsible Bidder. In its sole discretion, the Engineer may request additional information about the proposed substitution.

The decision by the Engineer as to whether a proposed substitution is an "Equal" product shall be made by the Engineer based upon the information submitted and will be final.

The Engineer will be the sole judge as to whether a proposed substitution is an "Equal" product. The Engineer's decision will be made based upon the information submitted and will be final.

A sheet for listing the proposed substitutions of an "Equal" product, as required herein, is included in the Proposal.

2-1.03 SUBCONTRACTOR LIST

Contractor's attention is directed to the requirements of "Subcontractor List" of the Standard Specifications, the Proposal, and these Special Provisions.

For each Subcontractor required to be listed, the Subcontractor List included in the proposal must show the **name and place of business, California contractor license number and Public Works contractor registration number** of each Subcontractor to whom the bidders proposes to directly subcontract portions of the work.

Additionally, if not otherwise included in the Subcontractor List submitted with the bid, the prime contractor shall submit a completed Subcontractor List within 24 hours of the bid opening setting forth the bid item number and percentage of the item work that will be done by each Subcontractor listed.

A sheet for listing the subcontractors, as required herein, is included in the Proposal.

2-1.04 BIDDER'S SECURITY

The form of Bidder's Bond mentioned in "Bidder's Security," of the Standard Specifications will be found following the signature page of the Proposal annexed hereto.

2-1.05 NON-COLLUSION AFFIDAVIT

In accordance with Public Contract Code 7106, a Non-Collusion Affidavit is included in the proposal.

2-1.06 DISADVANTAGE BUSINESS ENTERPRISES (DBE)

The City maintains a goal that Disadvantaged Business Enterprises (DBEs), as defined in Part 26, Title 49 CFR, shall be encouraged to participate in the performance of City contracts. The Contractor should ensure that DBEs, as defined in Part 26, Title 49 CFR, have the opportunity to participate in the performance of this contract and shall take all necessary and reasonable steps, as set forth in Part 26, Title 49 CFR, for this assurance. The Contractor shall not discriminate on the basis of race, color, national origin, or gender in the award and performance of subcontracts. Failure to carry out the requirements of this paragraph shall constitute a breach of contract and may result in termination of this contract or other remedy the City may deem appropriate.

Bidders shall be fully informed respecting the requirements of the Code of Federal Regulations and are urged to obtain DBE participation in this project.

Caltrans has engaged the services of a contractor to provide supportive services to contractors and subcontractors to assist in obtaining DBE participation on federally funded construction projects. Bidders and potential subcontractors should check the Caltrans website at <http://www.dot.ca.gov/hq/bep> to verify the current availability of this service.

SECTION 3 CONTRACT AWARD AND EXECUTION

3-1.01 GENERAL

The bidder's attention is directed to the provisions in Section 3, "Contract Award and Execution," of the Standard Specifications, "Award," of the Instruction To Bidders of these Special Provisions, and these Special Provisions for the requirements and conditions concerning submittal of DBE information, award, and execution of contract.

Bid protests are to be delivered to the following address: **Engineering Division, 125 East Main Street, Grass Valley, CA 95945.**

The award of the contract, if it be awarded, will be to the lowest responsible bidder whose bid complies with all the requirements prescribed.

No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The contract shall be executed by the successful bidder and shall be returned together with the contract bonds, to the Agency so that it is received within 10 days, not including Saturdays, Sundays and legal holidays, after the bidder has received the contract for execution. Failure to do so shall be just cause for forfeiture of the proposal guaranty. The executed contract documents shall be delivered to the following address: **Engineering Division, 125 East Main Street, Grass Valley, CA 95945.**

3-1.02 AWARD OF CONTRACT

The City of Grass Valley reserves the right to reject any and all bids or to waive any minor defects or irregularity in bidding in accordance with applicable law. In accordance with California Public Contract Code Section 20103.8, if the City elects to award a contract for performance of the project, the contract will be awarded in accordance with California Public Contract Code Section 20162 and other applicable law to the responsible bidder submitting a responsive bid with the lowest total bid price for the base bid without consideration of the bid price for any additive or deductive items. All bids will remain valid for 90 days after the bid opening. Except as permitted by law and subject to all applicable remedies, including forfeiture of bidder's security, bidders may not withdraw their bid during the 90 day period after the bid opening.

3-1.03 CONTRACT BONDS

Contractor shall provide, at the time of the execution of the agreement or contract for work, and at his own expense, a surety bond ("Performance Bond") in an amount equal to at least 100 percent (100%) of the contract price as security for the faithful performance of said agreement within the time prescribed, in a manner satisfactory to the Engineer, and that all materials and workmanship will be free from original or developed defects. This Performance Bond must remain in effect until the end of all warranty periods set forth in the Special Provisions. Contractor shall also provide, at the time of the execution of the agreement or contract for the work, and at his own expense, a separate surety bond ("Payment Bond") in an amount equal to at least 100 percent (100%) of the contract price as security for the payment of all persons performing labor and furnishing materials in connection with said agreement. This Payment Bond shall be maintained by the Contractor in full force and effect until the work is accepted by the City and until all claims for materials and labor are paid, and shall otherwise comply with Civil Code. Sureties on each of said bonds shall be satisfactory to the City Attorney.

Should any bond become insufficient, the Contractor shall renew the bond within ten (10) working days after receiving notice from the Engineer.

Should any Surety at any time be unsatisfactory to the City, notice will be given the Contractor to that effect. No further payments shall be deemed due or will be made under said agreement until a new Surety shall qualify and be accepted by the City.

Changes in said agreement of extensions of time, made pursuant to the agreement, shall in no way release the Contractor or Surety from its obligations. Notice of such changes or extensions shall be waived by the Surety.

SECTION 4 BEGINNING OF WORK, TIME OF COMPLETION, AND LIQUIDATED DAMAGES

4-1.01 GENERAL

Attention is directed to the provisions in Section 8-1.04, "Start of Job Site Activities," Section 8-1.05, "Time," and Section 8-1.10, "Liquidated Damages," of the Standard Specifications, and "General Requirements," of these Special Provisions.

The Contractor shall begin work by the date identified in writing in the Notice to Proceed by the City of Grass Valley and shall diligently prosecute the same before the expiration of

50 Working Days

Beginning on the first day of work or the date stated in the Notice to Proceed, whichever comes first.

Due to the funding expenditure deadlines and due to seasonal constraints, time is of the essence to complete the contract work.

The Contractor shall pay to City of Grass Valley the sum of \$1000 per day, as liquidated damages, for each and every calendar day delay in finishing the work in excess of the working days prescribed above. At the Engineer's option, said sum may be deducted from any payment due to or to become due the Contractor.

The 72 hours advance notice before beginning work specified in Section 8-1.04, "Start of Job Site Activities," of the Standard Specifications is changed to 5 days advance notice for this project.

4-1.02 HOLIDAYS

Designated legal holidays are: January 1st, the third Monday in January, the third Monday in February, the last Monday in May, July 4th, the first Monday in September, November 11th, Thanksgiving Day, the day after Thanksgiving day and December 24th, December 25th. When a designated legal holiday falls on a Sunday, the following Monday shall be a designated legal holiday. When a designated legal holiday falls on a Saturday, the preceding Friday shall be a designated legal holiday.

4-1.03 WINTERIZATION

The Contractor shall, at his sole expense, winterize the project if construction activities are not completed by October 15. The Contractor shall winterize the project in conformance with the requirements of "Water Pollution Control," of these Special Provisions for all construction activities that take place between October 15th and May 1st. An acceptable winterization plan shall be submitted to the Engineer no later than October 1st for his review and acceptance.

The Contractor's winterization plan is required for all construction activities that take place between October 15th and May 1st and shall be in conformance with the requirements of "Water Pollution Control," of these Special Provisions.

The intent of winterization is as follows:

1. To assure that erosion of earthen materials is prevented to greatest extent practicable.
2. To assure that storm waters are allowed to pass through the site without substantial damage to the project site.

After the acceptance of a winterization plan and the installation of all required temporary winterization measures, work may proceed after October 15th, if approval is obtained in writing from the California Regional Water Quality Control Board and the Engineer. All work done after October 15th must be able to be winterized within 24 hour notice.

Winter Suspension: The City may, at its option, suspend work between October 15th and May 1st of the following year. If this occurs, the entire site shall be winterized including areas not yet seeded or planted.

Full compensation for conforming to the provisions of this section, not otherwise provided for in other sections of these Special Provisions, shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

4-1.04 PRE-CONSTRUCTION CONFERENCE

A pre-construction conference will be held at the office of the City Engineer for the purpose of discussing with the Contractor the scope of work, contract drawings, specifications, existing conditions, materials to be ordered, equipment to be used, and all essential matters pertaining to the prosecution and the satisfactory completion of the project as required. The Contractor's representative at this conference shall include all major superintendents for the work and may include major subcontractors. A "Key Personnel and Emergency Phone Numbers" list (for which these key personnel could be contacted 24 hours per day, 7 days a week) shall be submitted to the City. Attendance by the Contractor or the Contractor's authorized representative is mandatory.

Full compensation for conforming to the provisions of this section, not otherwise provided for in other sections of these Special Provisions, shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

4-1.05 ARCHAEOLOGICAL FINDS

All articles of archaeological interest, which may be uncovered by the Contractor during the progress of the work, shall be reported immediately to the Engineer. The further operations of the Contractor, with respect to the find will be decided under the direction of the Engineer.

4-1.06 EXTRA WORK

Section 4-1.05, "Changes and Extra Work," of the Standard Specifications is amended by adding the following between the second and third paragraphs:

If in the opinion of the Engineer, such work cannot reasonably be performed concurrently with other items of work, and if a controlling item of work is delayed thereby, an adjustment of contract time will be made.

4-1.07 SCOPE OF WORK

Shall conform to the provisions of Section 4, "Scope of Work," of the Standard Specifications and these Special Provisions.

4-1.08 ELIMINATION OF ITEMS OF WORK

The Contractor's attention is directed to Section 4-1.05, "Changes and Extra Work," of the Standard Specifications concerning the elimination of items of work, and these Special Provisions.

SECTION 5 GENERAL

SECTION 5-1 MISCELLANEOUS

THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH CALIFORNIA LABOR CODE SECTIONS 1774 AND 1775, AND RELATED CODES.

5-1.01 LABOR NONDISCRIMINATION

Attention is directed to the following Notice that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

NOTICE OF REQUIREMENT FOR NONDISCRIMINATION PROGRAM (GOV. CODE, SECTION 12990)

Your attention is called to the "Nondiscrimination Clause", set forth in Section 7-1.02I(2), "Nondiscrimination," of the Standard Specifications, which is applicable to all nonexempt State contracts and subcontracts, and to the "Standard California Nondiscrimination Construction Contract Specifications" set forth therein. The specifications are applicable to all nonexempt State construction contracts and subcontracts of \$5,000 or more.

5-1.02 LABOR CODE REQUIREMENTS

For all new projects awarded on or after April 1, 2015, the contractors and subcontractors must furnish electronic certified payroll records to the Labor Commissioner. After January 1, 2015, the requirement to furnish electronic certified payroll records to the Labor Commissioner will apply to all public works projects, whether new or ongoing.

Attention is directed to the provisions in Section 7-1.02K(5), "Working Hours" and Section 7-1.02K(3), "Certified Payroll Records" of the Standard Specifications.

5-1.03 PREVAILING WAGE

Attention is directed to the provisions in Section 7-1.02K(2), "Wages" of the Standard Specifications.

The general prevailing wage rates and any applicable changes to these wage rates determined by the Director of Industrial Relations for Nevada County, may be examined at the City of Grass Valley Engineering Division Office and are available from the California Department of Industrial Relations' Internet web site at <http://www.dir.ca.gov/DLSR/PWD>. These wage rates are not included in the Proposal and Construction Contract for the project. Changes, if any, to the general prevailing wage rates will be available at the same location.

The general prevailing wage rates and any applicable changes to these wage rates determined by the United States Department of Labor, Branch of Construction Wage Determinations, for Nevada County, are available at the City of Grass

Valley Engineering Division Office located at 125 East Main Street, Grass Valley, CA 95945 [telephone (530) 274-4373]. Changes, if any, to the general prevailing wage rates will be available at the same location. General prevailing wage rates area also available on the California Department of Transportation website: <http://www.dot.ca.gov/hq/esc/oe/federal-wages/>.

The Contractor and any subcontractor shall pay each worker that is employed for any public work done under contract, not less than the higher of the prevailing wage rates as determined by the California Director of Industrial Relations and the United States Department of Labor, Branch of Construction Wage Determinations.

5-1.04 SUBCONTRACTING

Attention is directed to the provisions in Section 5-1.13, "Subcontracting," of the Standard Specifications and these Special Provisions.

All subcontractors doing work shall possess an appropriate valid California Contractor's License for the type of work the subcontractor will perform at the time of the bid submittal and the license shall remain in effect throughout the duration of employment on the job.

All applicable license designations and numbers for Subcontractors doing work in excess of \$10,000.00 shall be included on the LIST OF SUBCONTRACTORS within the Proposal.

No subcontract releases the Contractor from the contract or relieves the Contractor of their responsibility for a subcontractor's work.

If the Contractor violates Pub Cont Code § 4100 et seq., the City of Grass Valley may exercise the remedies provided under Pub Cont Code § 4110. The City of Grass Valley may refer the violation to the Contractors State License Board as provided under Pub Cont Code § 4111.

The Contractor shall perform work equaling at least 30 percent of the value of the original total bid with the Contractor's own employees and equipment, owned or rented, with or without operators.

Each subcontract must comply with the contract.

Submit copies of subcontracts upon request by the Engineer.

Before subcontracted work starts, submit a Subcontracting Request form.

Pursuant to the provisions in Section 1777.1 of the Labor Code, the Labor Commissioner publishes and distributes a list of contractors ineligible to perform work as a subcontractor on a public works project. This list of debarred contractors is available from the Department of Industrial Relations web site at: <http://www.dir.ca.gov/DLSE/Debar.html>

Upon request by the Engineer, immediately remove and not again use a subcontractor who fails to prosecute the work satisfactorily.

5-1.05 PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS

Attention is directed to the provisions in Sections 10262 and 10262.5 of the Public Contract Code concerning prompt payment to subcontractors. A prime contractor or subcontractor shall pay any subcontractor not later than 10 days of receipt of each progress payment in accordance with the provision in Section 7108.5 of the California Business and Professions Code concerning prompt payment to subcontractors. The 10 days is applicable unless a longer period is agreed to in writing. Any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of Section 7108.5 shall subject the violating contractor or subcontractor to the penalties, sanctions and other remedies of that section. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

5-1.06 PROMPT PAYMENT OF WITHHELD FUNDS TO SUBCONTRACTORS

No retainage will be held by the agency from progress payments due the prime contractor. Any retainage kept by the prime contractor or by a subcontractor must be paid in full to the earning subcontractor in 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment may take place only for good cause and with the agency's prior written approval. Any violation of these provisions shall subject the violating contractor or subcontractor to the penalties, sanctions, and remedies specified in Section 7108.5 of the California Business and Professions Code. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies, otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the contractor, deficient subcontractor performance.

5-1.07 PAYMENTS

Attention is directed to Sections 9-1.16, "Progress Payments," and 9-1.17, "Payment After Contract Acceptance," of the Standard Specifications and these Special Provisions.

5-1.08 INTEREST ON PAYMENTS

Interest shall be payable on progress payments, payments after acceptance, final payments, extra work payments, and claim payments shall be in accordance with Section 9-1.03, "Payment Scope," of the Standard Specifications, the Standard Specifications, and these Special Provisions.

The rate of interest payable on any award in arbitration shall be 6 percent per annum if allowed under the provisions of Civil Code Section 3289.

5-1.09 WITHHOLDS

Payment of withheld funds shall conform to Section 9-1.16E, "Withholds," of the Standard Specifications and these Special Provisions.

Funds withheld from progress payments to ensure performance of the contract that are eligible for payment into escrow or to an escrow agent pursuant to Section 10263 of the California Public Contract Code do not include funds withheld or deducted from payment due to failure of the Contractor to fulfill a contract requirement.

5-1.10 PLANS AND WORKING DRAWINGS

When the specifications require working drawings to be submitted to the Division of Structure Design, the drawings shall be submitted to the Engineer, unless otherwise specifically noted.

5-1.11 EXAMINATION OF PLANS, SPECIFICATIONS, CONTRACT, AND SITE OF WORK

The third through seventh paragraph of Section 2-1.06B, "Supplemental Project Information," of the Standard Specifications is amended to read:

Where the Department has made investigations of site conditions, including subsurface conditions in areas where work is to be performed under the contract, or in other areas, some of which may constitute possible local material sources, bidders or Contractors may, upon written request, inspect the records of the Department as to those investigations subject to and upon the conditions hereinafter set forth.

Attention is directed to "Differing Site Conditions" of these Special Provisions regarding physical conditions at the site which may differ from those indicated in the Contract Documents. Site conditions are described in the California Department of Toxic Substances Control (DTSC) approved cleanup plan: *Final Report of Findings and Response Plan, Joyce Drive Property, Grass Valley, California* (Geocon Consultants, Inc.; April 29, 2026; DTSC Site Code 102504; EnviroStor ID 60003507).

5-1.12 DIFFERING SITE CONDITIONS

Attention is directed to Section 4-1.06, "Differing Site Conditions," of the Standard Specifications.

During the progress of the work, if subsurface or latent conditions are encountered at the site differing materially from those indicated in the Contract Documents (including the approved cleanup plan) obtained by the Department's investigation of subsurface conditions, or an examination of the conditions above ground at the site, the party discovering those conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed.

The Contractor will be allowed 15 days from the notification of the Engineer's determination of whether or not an adjustment of the contract is warranted, in which to file a notice of potential claim in conformance with the provisions of Section 9-1.17D, "Final Payment and Claims," of the Standard Specifications and as specified herein; otherwise the decision of the Engineer shall be deemed to have been accepted by the Contractor as correct. The notice of potential claim shall set forth in what respects the Contractor's position differs from the Engineer's determination and provide any additional information obtained by the Contractor, including but not limited to additional geotechnical data. The notice of potential claim shall be accompanied by the Contractor's certification that the following were made in preparation of the bid: a review of the contract, Contract Documents, (including the approved cleanup plan) to the extent they were made available to bidders prior to the opening of bids, and an examination of the conditions above ground at the site.

A copy of the approved cleanup plan for this project will be made available for review at City of Grass Valley Engineering Division Office located at 125 East Main Street, Grass Valley, CA, and is also available on the DTSC EnviroStor website

(https://www.envirostor.dtsc.ca.gov/getfile?filename=/public%2Fdeliverable_documents%2F9141346573%2FJoyce%20Drive%20Final%20Response%20Plan_04292026.pdf). Supplementary information, obtained by the Contractor subsequent to the filing of the notice of potential claim, shall be submitted to the Engineer in an expeditious manner.

5-1.13 VALUE ENGINEERING

Attention is directed to Section 4-1.07, "Value Engineering," of the Standard Specifications.

Prior to preparing a written value engineering change proposal, the Contractor shall request a meeting with the Engineer to discuss the proposal in concept. Items of discussion will also include permit issues, impact on other projects, impact on the project schedule, peer reviews, overall merit of the proposal, and review times required by the City.

If a value engineering change proposal submitted by the Contractor, and subsequently approved by the Engineer, provides for a reduction in contract time, 50 percent of that contract time reduction shall be credited to the City by reducing the contract working days, not including plant establishment. Attention is directed to "Beginning of Work, Time of Completion and Liquidated Damages" of these Special Provisions regarding the working days.

If a value engineering change proposal submitted by the Contractor, and subsequently approved by the Engineer, provides for a reduction in traffic congestion or avoids traffic congestion during construction, 60 percent of the estimated net savings in construction costs attributable to the cost reduction proposal will be paid to the Contractor. In addition to the requirements in Section 4-1.07, "Value Engineering," of the Standard Specifications, the Contractor shall provide detailed comparisons of the traffic handling between the existing contract and the proposed change, and estimates of the traffic volumes and congestion.

5-1.14 PUBLIC SAFETY

The Contractor shall provide for the safety of traffic and the public in conformance with the provisions in Section 7-1.04, "Public Safety," of the Standard Specifications and these Special Provisions.

The Contractor shall install temporary railing (Type K) between a lane open to public traffic and an excavation, obstacle or storage area when the following conditions exist:

- A. Excavations – The near edge of the excavation is 12 feet or less from the edge of the lane, except:
 - 1. Excavations covered with sheet steel or concrete covers of adequate thickness to prevent accidental entry by traffic or the public.
 - 2. Excavations less than one foot deep.
 - 3. Trenches less than one foot wide for irrigation pipe or electrical conduit, or excavations less than one foot in diameter.
 - 4. Excavations parallel to the lane for the purpose of pavement widening or reconstruction.
 - 5. Excavations in side slopes, where the slope is steeper than 4:1 (horizontal: vertical).
 - 6. Excavations protected by existing barrier or railing.
- B. Temporarily Unprotected Permanent Obstacles – The work includes the installation of a fixed obstacle together with a protective system, such as a sign structure together with protective railing, and the Contractor elects to install the obstacle prior to installing the protective system; or the Contractor, for the Contractor's convenience and with permission of the Engineer, removes a portion of an existing protective railing at an obstacle and does not replace such railing complete in place during the same day.
- C. Storage Areas – Material or equipment is stored within 12 feet of the lane and the storage is not otherwise prohibited by the provisions of the Standard Specifications and these Special Provisions.

The approach end of temporary railing (Type K), installed in conformance with the provisions in this section "Public Safety" and in Section 7-1.04, "Public Safety," of the Standard Specifications, shall be offset a minimum of 15 feet from the edge of the traffic lane open to public traffic. The temporary railing shall be installed on a skew toward the edge of the traffic lane of not more than one foot transversely to 10 feet longitudinally with respect to the edge of the traffic lane. If the 15-foot minimum offset cannot be achieved, the temporary railing shall be installed on the 10 to 1 skew to obtain the maximum available offset between the approach end of the railing and the edge of the traffic lane, and an array of temporary crash cushion modules shall be installed at the approach end of the temporary railing.

Reflectors on temporary railing (Type K) shall conform to the provisions in "Pre-qualified and Tested Signing and Delineation Materials," of these Special Provisions.

Temporary crash cushion modules shall conform to the provisions in "Temporary Crash Cushion Module" of these Special Provisions.

Except for installing, maintaining and removing traffic control devices, whenever work is performed or equipment is operated in the following work areas, the Contractor shall close the adjacent traffic lane unless otherwise provided in the Standard Specifications and these Special Provisions:

Approach Speed of Public Traffic (Posted Limit) (Miles Per Hour)	Work Areas
Over 45	Within 6 feet of a traffic lane but not on a traffic lane
35 to 45	Within 3 feet of a traffic lane but not on a traffic lane

The lane closure provisions of this section shall not apply if the work area is protected by permanent or temporary railing or barrier.

When traffic cones or delineators are used to delineate a temporary edge of a traffic lane, the line of cones or delineators shall be considered to be the edge of the traffic lane, however, the Contractor shall not reduce the width of an existing lane to less than 10 feet without written approval from the Engineer.

When work is not in progress on a trench or other excavation that required closure of an adjacent lane, the traffic cones or portable delineators used for the lane closure shall be placed off of and adjacent to the edge of the traveled way. The spacing of the cones or delineators shall be not more than the spacing used for the lane closure.

Suspended loads or equipment shall not be moved nor positioned over public traffic or pedestrians facilities.

Special Requirements:

The Contractor attention is directed to "Notification and Scheduling," of these Special Provisions. The Contractor shall notify the Police Department, Fire Departments, Ambulance Service, Schools, CHP, Caltrans, and the Engineer forty-eight (48) hours prior to any lane closure. Notification may be in conjunction with the scheduling requirements of the "Scheduling" portion of the Standard Specifications and these Special Provisions. The Contractor shall coordinate traffic control with the Sheriff's Department with respect to any special events that may be affected by construction activities. Particular attention shall be given to the construction of adequate facilities on any street to permit the passing of emergency vehicles.

Full compensation for conforming to the provisions in this section "Public Safety," including furnishing and installing temporary railing (Type K) and temporary crash cushion modules, shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed.

5-1.15 TESTING

Testing of materials and work shall conform to the provisions in "Quality Assurance," of the Standard Specifications and these Special Provisions.

Whenever the provisions of "Quality Assurance" of the Standard Specifications refer to tests or testing, it shall mean tests to assure the quality and to determine the acceptability of the materials and work.

The Engineer will refer to the "Quality Assurance Program" for acceptance testing requirements as appropriate for the project's size and scope. Minor quantities of materials from a known, reliable source may be accepted without testing if: a visual inspection of the material is performed and the supplier certifies that the material complies with specification requirements.

For construction materials that have been accepted by a Certificate of Compliance, job site inspection of materials tags and delivery notices shall be performed to verify acceptability of the supplied materials. As directed by the Engineer, further acceptance sampling and testing may be performed at the locations and frequencies as given in the "Quality Assurance Program"

The Engineer will deduct the costs for testing of materials and work found to be unacceptable, as determined by the tests performed by the Department, and the costs for testing of material sources identified by the Contractor which are not used for the work, from moneys due or to become due to the Contractor. The amount deducted will be determined by the Engineer.

5-1.16 RESPONSIBILITY TO OTHER ENTITIES

The Contractor shall be responsible for any liability imposed by law and for injuries to or death of any person including, but not limited to, workers and the public or damage to property, and shall indemnify and save harmless any county, city or district, its officers and employees connected with the work, within the limits of which county, city or district the work is being performed, all in the same manner and to the same extent conforming to the provisions in Section 7-1.05, "Indemnification," and Section 7-1.06, "Insurance," of the Standard Specifications, for the protection of the State of California and all officers and employees thereof connected with the work.

5-1.17 AREAS FOR CONTRACTOR'S USE

Attention is directed to the provisions in Section 5-1.32, "Areas for Use," of the Standard Specifications and these Special Provisions.

The project area (contract limits) shall be used only for purposes that are necessary to perform the required work. The Contractor shall not occupy the right of way, or allow others to occupy the right of way, for purposes which are not necessary to perform the required work.

No area is available for the exclusive use of the Contractor within the contract limits. The Contractor shall secure, at the Contractor's own expense, areas required for plant sites, storage of equipment or materials, or for other purposes.

Residence trailers will not be allowed within the project site.

The Contractor shall remove equipment, materials, and rubbish from the work areas and other City-owned property which the Contractor occupies. The Contractor shall leave the areas in a presentable condition in conformance with the provisions in "Cleanup," of the Standard Specifications.

The Contractor shall secure, at the Contractor's own expense, areas required for plant sites, storage of equipment or materials or for other purposes, if sufficient area is not available to the Contractor within the contract limits, or at the sites designated on the plans outside the contract limits.

The Contractor shall take all necessary precautions to protect the staging area from chemical contamination due to oil or fuel spills or any other contaminants. If contamination occurs, the site shall be decontaminated to the satisfaction of the Engineer prior to further improvement to the contaminated area or to further construction activities in general, whichever is applicable as determined by the Engineer. Methods of decontamination shall include any method deemed appropriate by the Engineer including removal and disposition of the contaminated soils in conformance with CEQA and regulatory agency requirements.

Full compensation for conforming to the provisions of this section, including furnishing all labor, materials, grading, tools, equipment and incidentals, and for doing all work associated with this section shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

5-1.18 SOUND CONTROL REQUIREMENTS

The noise level from the Contractor's operations, between the hours of 7:00 p.m. and 7:00 a.m., shall not exceed 86 dBA at a distance of 50 feet, unless night work is otherwise permitted by the City Engineer. This requirement shall not relieve the Contractor from responsibility for complying with local ordinances regulating noise level.

All equipment shall have sound-control devices no less effective than those provided on the original equipment. No equipment shall have an unmuffled exhaust. As directed by the Engineer, the Contractor shall implement the appropriate additional noise mitigation measures including, but not limited to, shutting off idling equipment, or additional notifications of adjacent residents than already specified in these Special Provisions.

The noise level requirement shall apply to the equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed.

5-1.19 PROJECT APPEARANCE

The Contractor shall maintain a neat appearance to the work and shall cleanup all tracked material and debris on a daily basis.

In areas visible to the public, the following shall apply:

- A. Broken concrete and debris developed during clearing and grubbing shall be disposed of concurrently with its removal. If stockpiling is necessary, the material shall be removed or disposed of weekly.
- B. Mud, dirt, soil, and any debris resulted in trail from equipment and construction will be cleaned and cleared from the roadway and away from traffic daily.
- C. The Contractor shall furnish trash bins for all debris from construction. All debris shall be placed in trash bins daily. Forms or falsework that are to be reused shall be stacked neatly concurrently with their removal. Forms and falsework that are not to be reused are to be disposed of concurrently with their removal.

Full compensation for conforming to the provisions in this section, not otherwise provided for, shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed.

5-1.20 RECORDS

The Contractor shall maintain cost accounting records for the contract pertaining to, and in such a manner as to provide a clear distinction between, the following six categories of costs of work during the life of the contract:

- A. Direct costs of contract item work.

- B. Direct costs of changes in character in conformance with Section 4-1.05B, "Work-Character Changes," of the Standard Specifications.
- C. Direct costs of extra work in conformance with Section 4-1.05, "Changes and Extra Work," of the Standard Specifications.
- D. Direct costs of work not required by the contract and performed for others.
- E. Direct costs of work performed under a notice of potential claim in conformance with the provisions in Section 9-1.17D(2), "Claim Statement," of the Standard Specifications.
- F. Indirect costs of overhead.

Cost accounting records shall include the information specified for extra work in Section 4-1.05, "Changes and Extra Work," of the Standard Specifications. The requirements for furnishing the Engineer completed daily extra work reports shall only apply to work paid for on a force account basis.

The cost accounting records for the contract shall be maintained separately from other contracts, during the life of the contract, and for a period of not less than 3 years after the date of acceptance of the contract. If the Contractor intends to file claims against the Department, the Contractor shall keep the cost accounting records specified above until complete resolution of all claims has been reached.

5-1.21 RELATIONS WITH CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

The location of the project is within an area controlled by the Regional Water Quality Control Board. A Regional Water Quality Control Board WDID permit will be issued covering work to be performed under this contract. The Contractor shall be fully informed of rules, regulations, and conditions that may govern the Contractor's operations in the areas and shall conduct the work accordingly.

Copies of the order may be obtained at the City of Grass Valley Engineering Division Office located at 125 East Main Street, Grass Valley, CA 95945 [telephone (530) 274-4373].

Attention is directed to Section 5-1.36, "Property and Facility Preservation," and Section 7-1.05, "Indemnification," and Section 7-1.06, "Insurance," of the Standard Specifications.

5-1.22 CONTRACTOR'S LICENSING LAWS

Attention is directed to the requirements specified in Section 3-1.06, "Contractor License", of the Standard Specifications. The Contractor shall possess a valid California Class "A" Contractor's License, or a combination of the following classes: C12 - Earthwork and Paving Contractors, C13 - Fencing Contractor, HAZ - Hazardous Substance Removal Certification Contractor and D-63 Construction Cleanup Contractor, and all other classes required by the categories and types of work included in the contract at the time of the bid award. All licenses shall remain in effect throughout the term of the contract.

5-1.23 ARBITRATION

Section 9-1.22, "Arbitration," of the Standard Specifications is amended in its entirety to read as follows:

Section 9-1.22, "Dispute Resolution"

9-1.22 All claims filed with the City must be in writing and include the documents necessary to substantiate the claim. Claims must be filed within the time limits set forth in this contract. In no circumstances, however, may a claim be filed after the day of final payment. Nothing in this subsection is intended to extend the time limit or supersede notice requirements for the filing of claims as set forth elsewhere in this contract.

1) Claims of \$50,000.00 or Less

- (a) The City will respond in writing to all written claims less than or equal to fifty thousand dollars (\$50,000.00) within forty-five (45) days of receipt of the claim. Within thirty (30) days of receipt of the claim, the City may request any additional documentation supporting the claim or relating to defenses or claims the City may have against the claimant.
- (b) If additional information is thereafter required, it shall be requested and provided pursuant to this subsection, upon mutual agreement of the City and the claimant.
- (c) The City's written response to the claim, as further documented, shall be submitted to the claimant within fifteen (15) days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

2) Claims Between \$50,000.01 and \$375,000.00

- (a) The City will respond in writing to all written claims between fifty thousand dollars and one cent (\$50,000.01) and less than or equal to three hundred seventy-five thousand dollars (\$375,000.00), within sixty (60) days of receipt of the claim. Within thirty (30) days of receipt of the claim, the City may request, in writing, any additional documentation supporting the claim or relating to defense to the claim the City may have against the claimant.
- (b) If additional information is thereafter required, it shall be requested and provided pursuant to this Subdivision, upon mutual agreement of the City and the claimant.
- (c) The City's written response to the claim, as further documented, shall be submitted to the claimant within thirty (30) days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information or requested documents, whichever is greater.

3) Claims in Excess of \$375,000.00 The City shall, within a reasonable time after the presentation of any claim in excess of \$375,000.00, make a decision in writing on such claim.

4) Meet and Confer Conference

- (a) If the claimant disputes the City's written response, or the City fails to respond within the time prescribed, the claimant may so notify the City, in writing, either within fifteen (15) days of receipt of the City's response or within fifteen (15) days of the City's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the City shall schedule a meet and confer conference within thirty (30) days for settlement of the dispute.
- (b) If, following the meet and confer conference, the claim or any portion thereof remains in dispute, the claimant may file a claim pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the California Government Code. For the purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to this Section until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

5) Contractor's Duty During Claim Resolution: The Contractor shall proceed with the Work in accordance with the plans and specifications and determinations and instructions of the City Engineer during the resolution of any claims disputes.

6) Certification. The Contractor shall certify in writing, at the time of submission of any claim, as follows:

I certify under penalty of perjury under the laws of the State of California, that the claim is made in good faith, that the supporting data are accurate and complete, and that the amount requested accurately reflects the monies due for work performed under the Contract for which the City of Grass Valley is liable.

By: _____
(Contractor's signature)

7) City Remedies. In the event the Contractor refuses or neglects to make good any loss or damage for which the Contractor is responsible under this Contract, the City may itself, or by the employment of others, make good any such loss or damage, and the cost and expense of doing so, including any reasonable engineering, legal and other consultant fees, and any costs of administrative and managerial services, shall be charged to the Contractor. Such costs and expenses may be deducted by the City from claims for payment made by the Contractor for work completed or remaining to be completed.

8) Assignment. In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to this contract, the Contractor and all subcontractors shall offer and agree to assign to the City all rights,

title, and interest in and to all causes of action it may have under section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or subcontract. This assignment shall be made and become effective at the time the City tenders final payment to the Contractor, without further acknowledgment by the parties.

- 9) Contractor Waiver and Limitation. The Contractor agrees that it can be adequately compensated by money damages for any breach of this Contract which may be committed by the City and hereby agrees that no default, act, or omission of the City or the Engineer, shall constitute a material breach of the Contract entitling the Contractor to cancel or rescind the provisions of this Contract or (unless the City shall so consent or direct in writing) to suspend or abandon performance of all or any part of the work. The Contractor hereby waives any and all rights and remedies to which it might otherwise be or become entitled, save only its right to money damages.
- 10) Venue. Any litigation arising out of this Contract shall be brought in the Superior Court of Nevada County, and the Contractor hereby waives the removal provisions of Code of Civil Procedure Section 394.

5-1.24 NOTICE OF POTENTIAL CLAIM

Attention is directed to the requirements specified in Section 5-1.43, "Potential Claims And Dispute Resolution," of the Standard Specifications.

5-1.25 FINAL PAYMENT AND CLAIMS

Attention is directed to Section 9-1.17D, "Final Payment and Claims," of the Standard Specifications.

If the Contractor files a timely written statement of claims in response to the proposed final estimate, the City will submit a claim position letter to the Contractor by hand delivery or deposit in the U.S. mail. The claim position letter will delineate the City's position on the Contractor's claims. If the Contractor disagrees with the claim position letter, the Contractor shall submit a written notification of its disagreement to be received by the City not later than 15 days after the Contractor's receipt of the claim position letter. The written notification of disagreement shall set forth the basis for the Contractor's disagreement and be submitted to the office designated in the claim position letter. The Contractor's failure to provide a timely, written notification of disagreement shall constitute the Contractor's acceptance and agreement with the determinations provided in the claim position letter and with final payment pursuant to the claim position letter.

If the Contractor files a timely notification of disagreement with the City claim position letter, the City Engineer or a board of review appointed by the City Engineer shall review claims that remain in dispute and may meet with the Contractor within 45 days after receipt by the City of the notification of disagreement. Attendance by the Contractor at the City meeting concerning the notification of disagreement shall be mandatory.

If the City fails to submit a claim position letter to the Contractor within 135 days after the acceptance of the contract and the Contractor has claims that remain in dispute, the Contractor may request a meeting with the City Engineer or a board of review appointed by the City Engineer to review claims that remain in dispute. The Contractor's request for a meeting shall identify the claims that remain in dispute. If the Contractor files a request for a meeting, the City Engineer or a board of review appointed by the City Engineer will meet with the Contractor within 45 days after the City receives the request for the meeting. Attendance by the Contractor at this review meeting shall be mandatory.

Failure of the Contractor to file a timely written statement of claims in response to the proposed final estimate, or to file a timely notification of disagreement with the City's claim position letter, or to attend the City's review meeting shall constitute a failure to pursue diligently and exhaust the administrative remedies in the contract and shall be a bar to future legal proceedings by Contractor.

5-1.26 SURFACE MINING AND RECLAMATION ACT

Attention is directed to the Surface Mining and Reclamation Act of 1975, commencing in Public Resources Code, Mining and Geology, Section 2710, which establishes regulations pertinent to surface mining operations, and to California Public Contract Code Section 10295.5.

Material from mining operations furnished for this project shall only come from permitted sites in compliance with California Public Contract Code Section 10295.5.

5-1.27 REMOVAL OF ASBESTOS AND HAZARDOUS SUBSTANCES

When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe. The Contractor shall immediately cease work in the affected area and report the condition to the Engineer in writing.

In conformance with Section 25914.1 of the Health and Safety Code, removal of asbestos or hazardous substances including exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed by separate contract.

If delay of work in the area delays the current controlling operation, the delay will be considered a right of way delay and the Contractor will be compensated for the delay in conformance with the provisions in Section 8-1.07, "Delays," of the Standard Specifications.

5-1.28 EXCAVATION SAFETY PLANS

The Contractor's attention is directed to requirements of "Earthwork," of the Special Provisions concerning Temporary Shoring Plan and Section 7-1.02K(6)(b), "Excavation Safety," of the Standard Specifications.

The Contractor shall submit a Temporary Shoring Safety System Plan to the Engineer in accordance with "Earthwork," of these Special Provisions. The Contractor's attention is directed to the requirements specified in Section "Earthwork," of these Special Provisions.

Full compensation for conforming to the provisions of this section, not otherwise provided for in other sections of these Special Provisions, shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

5-1.29 AIR POLLUTION CONTROL

Air pollution control shall conform to the provisions of Section 14-9, "Air Quality," of the Standard Specifications and these Special Provisions.

No burning of materials to be disposed of will be permitted for this project.

Full compensation for conforming to the provisions of this section including, but not limited to, obtaining permits and performing work in accordance with any permit requirements, not otherwise provided for, shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

5-1.30 PERMITS

Attention is directed to the provisions in Sections 5-1.20B, "Permits, Licenses, Agreements, and Certifications," of the Standard Specifications and these Special Provisions.

Full compensation for conforming to the provisions in this Section and to the requirements in the permit, not otherwise provided for in other sections of these Special Provisions, shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

5-1.31 INSURANCE

Throughout the period of this agreement, the CONTRACTOR shall provide the following minimum insurance coverage as listed below. CONTRACTOR shall file with CITY certificate(s) of Insurance and endorsements, in a form acceptable to CITY, and consistent with this agreement at the time of execution of this agreement. The insurance company must be acceptable to CITY, with a Best's Rating of no less than A:VII. Documentation of such rating acceptable to the CITY shall be provided at the same time Insurance Certificates are submitted.

Any deductibles must be declared to, and approved by, the City.

In the event any of the required policies are canceled prior to the completion of the project and the CONTRACTOR does not furnish a new certificate(s) of insurance prior to cancellation, the CITY may obtain the required insurance and deduct the premium(s) from Contract monies due the CONTRACTOR.

5-1.31.1 WORKER'S COMPENSATION AND EMPLOYERS LIABILITY INSURANCE

The CONTRACTOR shall maintain adequate Workers' Compensation Insurance under the Laws of the State of California. CONTRACTOR shall fully comply with the provisions of Section 3700 of the Labor Code, which requires every employer to be insured against liability for Workers' Compensation or to undertake self insurance in accordance with the provisions of that Code, before commencing the performance of the work. CONTRACTOR shall require all subcontractors to maintain adequate Workers' Compensation Insurance. Certificates of such Workers' Compensation shall be filed forthwith with the CITY upon demand.

By CONTRACTOR'S signature hereunder, CONTRACTOR certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and he/she will comply with such provisions before commencing the performance of this Contract. If such insurance is underwritten by any agency other than State Compensation Fund, such agency shall be a company authorized to do business in the State of California.

Worker's Compensation Insurance shall be provided as required by any applicable law or regulation. Employer's liability insurance shall be provided in amounts not less than the following:

One Million dollars (\$1,000,000) each accident for bodily injury by accident
One Million dollars (\$1,000,000) policy limit for bodily injury by disease
One Million dollars (\$1,000,000) each employee for bodily injury by disease

If there is an exposure of injury to CONTRACTOR'S employees under the U.S. Longshoremen's and Harbor Worker's Compensation Act, the Jones Act, or under laws, regulations, or statutes applicable to maritime employees, coverage shall be included for such injuries or claims.

Each Worker's Compensation policy shall be endorsed with the following specific language:

Cancellation Notice: "This policy shall not be canceled or materially changed without first giving thirty (30) days prior written notice to the City of Grass Valley."

Waiver of Subrogation: "The Insurance Company agrees to waive all rights of subrogation against the City of Grass Valley, its elected or appointed officials, agents, employees and volunteers for losses paid under the terms of this policy which arise from the work performed by the Named Insured for the City of Grass Valley."

5-1.31.2 GENERAL LIABILITY INSURANCE

Commercial General Liability insurance covering all operations by or on behalf of CONTRACTOR, providing insurance for bodily injury liability and property damage liability for the limits of liability indicated below and including coverage for: premises; operations; products and completed operations; contractual liability insuring the obligations assumed by CONTRACTOR in this Agreement; broad form property damage (including completed operations); explosion, collapse, and underground hazards; personal injury liability.

Except with respect to bodily injury and property damage included within the products and completed operations hazards, the aggregate limits, where applicable, shall apply separately to CONTRACTOR'S work under the Contract.

One of the following forms is required: Commercial General Liability (Occurrence); or Commercial General Liability (Claims Made).

If CONTRACTOR carries a Commercial General Liability (Occurrence) policy:

1. The limits of liability shall not be less than:

➤ One Million dollars (\$1,000,000) each occurrence (combined single limit for bodily injury and property damage)

➤ One Million dollars (\$1,000,000) Personal Injury Liability

➤ Two Million dollars (\$2,000,000) Products-Completed Operations

➤ Two Million dollars (\$2,000,000) General Aggregate

2. If the policy does not have an endorsement providing that the General Aggregate Limit applies separately, or if defense costs are included in the aggregate limits, then the required aggregate limits shall be Two Million dollars (\$2,000,000).

5-1.31.3 CONFORMITY OF COVERAGES

If more than one policy is used to meet the required coverages, such as a separate umbrella policy, such policies shall be consistent with all other applicable policies used to meet these minimum requirements. For example, all policies shall be Occurrence Liability policies, or all shall be Claims Made Liability policies if approved by the CITY as noted above. In no case shall the types of coverages be different.

5-1.31.4 ADDITIONAL REQUIREMENTS

Premium Payments: The insurance companies shall have no recourse against the CITY and funding agencies, its officers and employees or any of them for payment of any premiums or assessments under any policy issued by a mutual insurance company.

Policy Deductibles: The CONTRACTOR shall be responsible for all deductibles in all of CONTRACTOR'S insurance policies. The amount of deductibles for insurance coverage required herein should be reasonable and subject to CITY'S approval.

CONTRACTOR'S Obligations: CONTRACTOR'S indemnity and other obligations shall not be limited by the foregoing insurance requirements and shall survive the expiration of this agreement.

Material Breach: Failure of the CONTRACTOR to maintain the insurance required by this agreement, or to comply with any of the requirements of this section, shall constitute a material breach of the entire agreement.

Duration of Coverage: City must be an additional insured for completed operations for a period of one (1) year after completion of the work.

Project Reference: The Certificate of Insurance must reference the project specifically by project title

5-1.31.5 ENDORSEMENTS

Each Commercial General Liability policy shall be endorsed with the following specific language:

Cancellation Notice: "This policy shall not be canceled, material reduced, or materially changed without first giving thirty (30) days prior written notice to the City of Grass Valley."

"Provisions Regarding the Insured's Duties: Any failure to comply with reporting provisions of the policy or breaches or violations of warranties shall not affect coverage provided to the City of Grass Valley, its elected or appointed officers, officials, employees or volunteers."

"Except as stated above, nothing herein shall be held to waive, alter or extend any of the limits, conditions, agreements or exclusions of the policy to which this endorsement is attached."

"The City of Grass Valley, and additional insureds, and all insureds officers, agents, outside parties hired to inspect and/or design the work, employees, and volunteers are to be covered as insured for all liability arising out of the operations by or on behalf of the named insured in the performance of this Agreement."

The City of Grass Valley's policy of insurance shall be excess and noncontributing. "The insurance provided by the Contractor, including any excess liability or umbrella form coverage, is primary coverage to the City of Grass Valley and additional insureds, with respect to any insurance or self-insurance programs maintained by the City of Grass Valley and additional insureds, and no insurance held or owned by the City of Grass Valley and additional insureds shall be called upon to contribute to a loss."

5-1.31.6 AUTOMOBILE LIABILITY INSURANCE

CONTRACTOR shall provide Automobile Liability insurance covering bodily injury and property damage in an amount no less than One Million dollars (\$1,000,000) combined single limit for each occurrence.

Covered vehicles shall include owned, non-owned, and hired automobiles/trucks.

Endorsements: The endorsements listed above for General Liability shall also apply to the Automobile Liability Policy.

5-1.32 WARRANTY

Should any failure of the work occur within a period of one year from the acceptance of the project by the Grass Valley City Council due to faulty materials, poor workmanship, or defective equipment, the Contractor shall promptly make the needed repairs at his or her expense in accordance with the Special Provisions and to the satisfaction of the Engineer.

Security for this warranty shall be in the form of the Performance Bond, required elsewhere in these specifications, which shall remain in effect for a period of one (1) year after acceptance of the project by the Grass Valley City Council. The Performance Bond will not be reduced to an amount less than the bid amount of the project prior to the expiration of the one (1) year warranty period.

The City is hereby authorized to make such repairs, or to have such repairs made by others, if the Contractor fails to make such repairs, or to have such repairs made by others, if the Contractor fails to make or undertake with due diligence the aforesaid repairs within ten (10) days after receiving written notice of such failure or within a time specified in the notice if different; provided, however, that in case of an emergency where, in the opinion of the Engineer, that delay would cause serious loss or damages, or a serious hazard to the public, and a reasonable attempt has been made to notify the Contractor, the repairs may be made without prior notice to the Contractor; and the Contractor's sureties shall be liable for the entire cost thereof.

SECTION 6 (BLANK)

SECTION 7 (BLANK)

SECTION 8 (BLANK)

SECTION 9 (BLANK)

SECTION 10 CONSTRUCTION DETAILS

SECTION 10-1 GENERAL

10-1.01 SCOPE OF WORK

The scope of work, in general, includes; Excavation, stockpile, transport, and disposal of contaminated soil; import and placement of clean soil as engineered fill; and construction of a fence and gates. Other related items not mentioned above, that are required by the plans, specifications or these Special Provisions shall be performed, placed, constructed, or installed.

10-1.02 GENERAL REQUIREMENTS

The order of work shall conform to the provisions in the Technical Specifications, Standard Specifications and these Special Provisions.

The Contractor's attention is directed to the requirements of "Cooperation" and "Mobilization" of these Special Provisions, the Project Plans, and the Standard Specifications.

Weekend hours of work, which do not significantly change the cost of the work may be permitted upon the written request of the Contractor if, in the opinion of the Engineer, public traffic will be adequately served and the work expedited. These deviations shall not be adopted by the Contractor until the Engineer has approved them in writing. All other modifications will be made by contract change order.

The Contractor shall provide the Engineer all required submittals within the time frame specified by the Special Provisions, the Project Plans, and/or the Standard Specifications.

The Contractor shall submit to the Engineer a progress schedule in accordance with Section 8-1.02, "Schedule," of the Standard Specifications and these Special Provisions. Attention is directed to the requirements of these sections for scheduling a pre-construction scheduling conference within 10 working days of the approval of the contract and submitting a baseline schedule to the Engineer within 20 days of the contract approval.

The Contractor is responsible for verifying the location of all existing underground facilities, within the project area, that may have potential to conflict with the location of proposed improvements, and other work as shown on the Plans. The City has made every effort to show locations of any and all existing surface and subsurface structures. However, actual field conditions and locations can vary considerably from the plan locations. Therefore, the City cannot, and does not, assume responsibility for the existence or location of any structure such as, but not limited to, utilities and pipelines. The contractor is responsible for contacting all agencies and/or owners to verify this information prior to and during construction of any of the proposed improvements. If any existing utilities are found in conflict with the proposed location of the improvements shown on the plans, the Contractor shall contact the Engineer. The Engineer shall provide the Contractor with new grades to eliminate such conflict or shall arrange to have the utilities relocated to avoid the conflict. The Contractor shall work with the Engineer to schedule surveyors to be onsite during pot-holing of conflicts for utility elevation verification. Any delays, which may result from failure of the Contractor to pothole potential utility conflicts, shall be at the Contractor's expense.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in the provisions of this section, including, but not limited to, coordination with the applicable utility companies, pot-holing, excavation and backfill as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer shall be considered as included in prices paid for the various Contract Items of work involved and no additional compensation will be allowed.

10-1.03 REQUEST FOR INFORMATION

All Requests for Information (RFI's) from the Contractor shall be submitted in writing to the Engineer, and shall be numbered sequentially as they are generated. The Engineer will have 5 working days from the date of receipt of each RFI to provide a response to the Contractor. All requests must come from the prime Contractor, the Engineer will not respond to RFI's received directly from subcontractors.

If the response provided by the Engineer is not satisfactory for the Contractor, the RFI may be re-submitted with more detailed requests noting the particular areas that have not been addressed. The Engineer will have three (3) working days to respond to the second request from the Contractor. If the second response is still not satisfactory to the Contractor, a meeting will be scheduled to resolve any outstanding items that have not been properly addressed.

A Request for Information shall only be used for obtaining information or clarification on project documents. The RFI process is not the proper media for notification of potential claims, writing letters, requesting a change order, etc... If the Contractor wishes to file a Notice of Potential Claim, it shall be filed in accordance with Section 5-1.43, "Potential Claims and Dispute Resolution," of the Standard Specifications.

10-1.04 WATER POLLUTION CONTROL

10-1.04.1 GENERAL

Water pollution control work shall conform to the provisions in Section 13, "Water Pollution Control," of the Standard Specifications, section of these Special Provisions entitled "Relations With California Regional Water Quality Control Board," and these Special Provisions.

The City shall contract for the preparation of a site specific Storm Water Pollution Prevention Plan (SWPPP) and obtain a Waste Discharger Identification number for the project in advance of the start of contract work. The contractor shall implement the site-specific Storm Water Pollution Prevention Plan (SWPPP) to comply with the State of California, Environmental Protection Agency, State Water Resources Control Board (SWRCB), National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with

Construction and Land Disturbance Activities Order WQ 2022-0057-DWQ, NPDES No. CAS00002 (the Construction General Permit, or CGP).

The Contractor shall perform water pollution control work in conformance with the requirements in the "Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual" and addenda in effect on the day the Notice to Contractors is dated. This manual is referred to as the "Preparation Manual." Copies of the Preparation Manual may be obtained from:

State of California
Department of Transportation
Publication Distribution Unit
1900 Royal Oaks Drive
Sacramento, California 95815
Telephone: (916) 445-3520

The Preparation Manual and other references for performing water pollution control work are available from the Department's Construction Storm Water and Water Pollution Control web site at: <https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control>.

The Contractor shall know and fully comply with applicable provisions of the Manuals, and Federal, State, and local regulations and requirements that govern the Contractor's operations and storm water and non-storm water discharges from both the project site and areas of disturbance outside the project limits during construction. Attention is directed to Section 7, "Legal Relations and Responsibility to the Public," of the Standard Specifications and these Special Provisions.

Water pollution control requirements shall apply to storm water and non-storm water discharges from areas outside the project site that are directly related to construction activities for this contract including, but not limited to, asphalt batch plants, material borrow areas, concrete plants, staging areas, storage yards and access roads. The Contractor shall comply with the Manuals for those areas and shall implement, inspect and maintain the required water pollution control practices. Installing, inspecting and maintaining water pollution control practices on areas outside the highway right of way not specifically arranged and provided for by the Department for the execution of this contract, will not be paid for.

The Contractor shall be responsible for penalties assessed or levied on the Contractor or the City as a result of the Contractor's failure to comply with the provisions in this section "Water Pollution Control" including, but not limited to, compliance with the applicable provisions of the Manuals, and Federal, State and local regulations and requirements as set forth therein.

Penalties as used in this section shall include fines, penalties and damages, whether proposed, assessed, or levied against the Department or the Contractor, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Control Act, by governmental agencies or as a result of citizen suits. Penalties shall also include payments made or costs incurred in settlement for alleged violations of the Manuals, or applicable laws, regulations, or requirements. Costs incurred could include sums spent instead of penalties, in mitigation or to remediate or correct violations.

The Contractor shall notify the Engineer immediately upon request from the regulatory agencies to enter, inspect, sample, monitor, or otherwise access the project site or the Contractor's records pertaining to water pollution control work. The Contractor and the Department shall provide copies of correspondence, notices of violations, enforcement actions or proposed fines by regulatory agencies to the requesting regulatory agency.

10-1.04.2 WATER POLLUTION CONTROL IMPLEMENTATION

Unless otherwise specified, the Contractor shall be responsible throughout the duration of the project for installing, constructing, inspecting, maintaining, removing, and disposing of the water pollution control practices. Unless otherwise directed by the Engineer, the Contractor's responsibility for "Water Pollution Control" implementation shall continue throughout any temporary suspension of work ordered in conformance with the provisions in Section 8-1.06, "Suspensions," of the Standard Specifications. Requirements for installation, construction, inspection, maintenance, removal, and disposal of water pollution control practices shall conform to the requirements in the Manuals and these Special Provisions.

If the Contractor or the Engineer identifies a deficiency in the implementation of the "Water Pollution Control" practices, the deficiency shall be corrected immediately. The deficiency may be corrected at a later date and time if requested by the Contractor and approved by the Engineer in writing, but shall be corrected prior to the onset of precipitation. If the Contractor fails to correct the identified deficiency by the date agreed or prior to the onset of precipitation, the project shall be in nonconformance with this section. Attention is directed to Section 5-1.03,

"Engineer's Authority," of the Standard Specifications, and to "Retention of Funds" of this section for possible nonconformance penalties.

If the Contractor fails to conform to the provisions of this section, "Water Pollution Control," the Engineer may order the suspension of construction operations until the project complies with the requirements of this section.

10-1.04.3 PAYMENT

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in "Water Pollution Control" including, but not limited to installing, constructing, inspecting, maintaining, removing, and disposing of the water pollution control practices including non-storm water management, waste management and materials pollution water pollution control practices, as shown on the plans, as specified in the site-specific SWPPP, the Standard Specifications and these special provisions, and as directed by the Engineer shall be considered as included in the various items of work requiring these activities, and no additional compensation will be allowed therefore.

10-1.04.4 CONSTRUCTION SITE MANAGEMENT

Construction site management shall consist of controlling potential sources of water pollution before they come in contact with storm water systems or watercourses. The Contractor shall control material pollution and manage waste and non-storm water existing at the construction site by implementing effective handling, storage, use, and disposal practices.

The Contractor shall train all employees and subcontractors regarding:

- A. Material pollution prevention and control;
- B. Waste management;
- C. Non-storm water management;
- D. Identifying and handling hazardous substances; and
- E. Potential dangers to humans and the environment from spills and leaks or exposure to toxic or hazardous substances.

Training shall take place before starting work on this project. New employees shall receive the complete training before starting work on this project. The Contractor shall have regular meetings to discuss and reinforce spill prevention and control; material delivery, storage, use, and disposal; waste management; and non-storm water management procedures.

Instructions for material and waste handling, storage, and spill reporting and cleanup shall be posted at all times in an open, conspicuous, and accessible location at the construction site.

Non-hazardous construction site waste and excess material shall be recycled when practical or disposed of in accordance with the provisions in Section 5-1.20B(4), "Contractor-Property Owner Agreement," of the Standard Specifications, unless otherwise specified.

Vehicles and equipment at the construction site shall be inspected on a frequent, predetermined schedule, and by the operator each day of use. Leaks shall be repaired immediately, or the vehicle or equipment shall be removed from the construction site.

10-1.04.4.1 SPILL PREVENTION AND CONTROL

The Contractor shall implement spill and leak prevention procedures when chemicals or hazardous substances are stored. Spills of petroleum products; substances listed under CFR Title 40, Parts 110, 117, and 302; and sanitary and septic waste shall be contained and cleaned up as soon as is safe.

Minor spills involve small quantities of oil, gasoline, paint, or other material that can be controlled by the first responder upon discovery of the spill. Cleanup of minor spills includes:

- A. Containing the spread of the spill,
- B. Recovering the spilled material using absorption,
- C. Cleaning the contaminated area, and
- D. Disposing of contaminated material promptly and properly.

Semi-significant spills are those that can be controlled by the first responder with the help of other personnel. Cleanup of semi-significant spills shall be immediate. Cleanup of semi-significant spills includes:

- A. Containing the spread of the spill;

- B. Recovering the spilled material using absorption if the spill occurs on paved or an impermeable surface;
- C. Containing the spill with an earthen dike and digging up contaminated soil for disposal if the spill occurs on dirt;
- D. Covering the spill with plastic or other material to prevent contaminating runoff if the spill occurs during precipitation; and
- E. Disposing of contaminated material promptly and properly.

Significant or hazardous spills are those that cannot be controlled by construction personnel. Notifications of these spills shall be immediate. The following steps shall be taken:

- A. Construction personnel shall not attempt to cleanup the spill until qualified staff have arrived;
- B. Notify the Engineer and follow up with a written report;
- C. Obtain the services of a spills contractor or hazardous material team immediately;
- D. Notify the local emergency response team by dialing 911 and county officials at the emergency phone numbers kept on the construction site;
- E. Notify the Governor's Office of Emergency Services Warning Center at (805) 852-7550;
- F. Notify the National Response Center at (800) 424-8802 regarding spills of Federal reportable quantities in conformance with CFR Title 40, Parts 110, 119, and 302;
- G. Notify other agencies as appropriate, including:
 - 1. Fire Department,
 - 2. Public Works Department,
 - 3. Highway Patrol,
 - 4. City Police or County Sheriff Department,
 - 5. Department of Toxic Substances,
 - 6. California Division of Oil and Gas,
 - 7. Cal OSHA, or
 - 8. Regional Water Resources Control Board.

The contractor shall oversee and enforce proper spill prevention and control measures. Minor, semi-significant, and significant spills shall be reported to the contractor who shall notify the Engineer immediately.

The Contractor shall prevent spills from entering storm water runoff before and during cleanup. Spills shall not be buried or washed with water.

The Contractor shall keep material or waste storage areas clean, well organized, and equipped with enough cleanup supplies for the material being stored. Plastic shall be placed under paving equipment when not in use to catch drips.

10-1.04.4.2 MATERIAL MANAGEMENT

Material shall be delivered, used, and stored for this contract in a manner that minimizes or eliminates discharge of material into the air, storm drain systems, or watercourses.

The Contractor shall implement the practices described in this section when taking delivery of, using, or storing the following materials:

- A. Hazardous chemicals including:
 - 1. Acids,
 - 2. Lime,
 - 3. Glues,
 - 4. Adhesives,
 - 5. Paints,
 - 6. Solvents, and
 - 7. Curing compounds;
- B. Soil stabilizers and binders;
- C. Fertilizers;
- D. Detergents;

- E. Plaster;
- F. Petroleum products including:
 - 1. Fuel,
 - 2. Oil, and
 - 3. Grease;
- G. Asphalt components and concrete components; and
- H. Pesticides and herbicides.

The Contractor shall supply the Material Safety Data Sheet to the Engineer for material used or stored. The Contractor shall keep an accurate inventory of material delivered and stored at the construction site.

Employees trained in emergency spill cleanup procedures shall be present when hazardous materials or chemicals are unloaded.

The Contractor shall use recycled or less hazardous products when practical.

Application of herbicides and pesticides shall be performed by a licensed applicator. The Contractor shall complete the Report of Chemical Spray forms when spraying herbicides or pesticides, and shall submit a copy to the Engineer before application.

Material Storage

The Contractor shall store liquids, petroleum products, and substances listed in CFR Title 40, Parts 110, 117, and 302 in containers or drums approved by the United States Environmental Protection Agency, and place them in secondary containment facilities.

Secondary containment facilities shall be impervious to the materials stored there for a minimum contact time of 72 hours.

Throughout the rainy season secondary containment facilities shall be covered during non-working days and when precipitation is predicted. Secondary containment facilities shall be adequately ventilated.

The Contractor shall keep the secondary containment facility free of accumulated rainwater or spills. After precipitation, or in the event of spills or leaks, accumulated liquid shall be collected and placed into drums within 24 hours. These liquids shall be handled as hazardous waste in accordance with the provisions in "Hazardous Waste" of these Special Provisions, unless testing determines them to be non-hazardous.

Incompatible materials, such as chlorine and ammonia, shall not be stored in the same secondary containment facility.

Materials shall be stored in the original containers with the original product labels maintained in legible condition. Damaged or illegible labels shall be replaced immediately.

The secondary containment facility shall have the capacity to contain precipitation from a 24-hour-long, 25-year storm; and 10 percent of the aggregate volume of all containers, or all of the volume of the largest container within the facility, whichever is greater.

The Contractor shall store bagged or boxed material on pallets. Throughout the rainy season, bagged or boxed material shall be protected from wind and rain during non-working days and when precipitation is predicted.

The Contractor shall provide sufficient separation between stored containers to allow for spill cleanup or emergency response access. Storage areas shall be kept clean, well-organized, and equipped with cleanup supplies appropriate for the materials being stored.

The Contractor shall repair or replace perimeter controls, containment structures, covers, and liners as needed. Storage areas shall be inspected before and after precipitation, and at least weekly during other times.

Stockpile Management

The Contractor shall reduce or eliminate potential air and water pollution from stockpiled material including soil, paving material, or pressure treated wood. Stockpiles shall be located out of floodplains when possible, and at least 50 feet from concentrated flows of storm water, drainage courses, or inlets unless written approval is obtained from the Engineer.

The Contractor may discontinue adding or removing material for up to 21 days and a stockpile will still be considered active.

The Contractor shall protect active stockpiles with plastic or geotextile cover, soil stabilization measures, or with linear sediment barrier when precipitation is predicted. Active stockpiles of cold mix

asphalt concrete shall be placed on an impervious surface and covered with plastic when precipitation is predicted.

The Contractor shall protect inactive soil stockpiles with a plastic or geotextile cover, or with soil stabilization measures at all times during the rainy season. A linear sediment barrier around the perimeter of the stockpile shall also be used. During the non-rainy season soil stockpiles shall be covered and protected with a linear sediment barrier when precipitation is predicted. The Contractor shall control wind erosion during dry weather as provided in "Dust Control," of the Standard Specifications.

Stockpiles of Portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, or aggregate sub-base shall be covered with plastic or geotextile, or protected with a linear sediment barrier at all times during the rainy season, and when precipitation is predicted during the non-rainy season.

Stockpiles of cold mix asphalt concrete shall be placed on and covered with impermeable material at all times during the rainy season, and when precipitation is predicted during the non-rainy season.

Stockpiles of pressure treated wood shall be covered with impermeable material and placed on pallets at all times during the rainy season, and when precipitation is predicted during the non-rainy season.

The Contractor shall repair or replace linear sediment barriers and covers as needed or as directed by the Engineer to keep them functioning properly. Sediment shall be removed when it accumulates to 1/3 of the linear sediment barrier height.

10-1.04.4.3 WASTE MANAGEMENT

Solid Waste

The Contractor shall not allow litter or debris to accumulate anywhere on the construction site, including storm drain grates, trash racks, and ditch lines. The Contractor shall pick up and remove trash and debris from the construction site at least once a week. The contractor shall monitor solid waste storage and disposal procedures on the construction site. The Contractor shall provide enough dumpsters of sufficient size to contain the solid waste generated by the project. Dumpsters shall be emptied when refuse reaches the fill line. Dumpsters shall be watertight. The Contractor shall not wash out dumpsters on the construction site. The Contractor shall provide additional containers and more frequent pickup during the demolition phase of construction

Solid waste includes:

- A. Brick,
- B. Mortar,
- C. Timber,
- D. Metal scraps,
- E. Sawdust,
- F. Pipe,
- G. Electrical cuttings,
- H. Non-hazardous equipment parts,
- I. Styrofoam and other packaging materials,
- J. Vegetative material and plant containers from highway planting, and
- K. Litter and smoking material, including litter generated randomly by the public.

Trash receptacles shall be provided and used in the Contractor's yard, field trailers, and locations where workers gather for lunch and breaks.

Hazardous Waste

The Contractor shall implement hazardous waste management practices when waste is generated on the construction site from the following substances:

- A. Petroleum products,
- B. Asphalt products,
- C. Concrete curing compound,
- D. Pesticides,
- E. Acids,
- F. Paints,
- G. Stains,
- H. Solvents,
- I. Wood preservatives,
- J. Roofing tar, and

K. Materials classified as hazardous by California Code of Regulations, Title 22, Division 4.5; or listed in CFR Title 40, Parts 110, 117, 261, or 302.

Nothing in these Special Provisions shall relieve the Contractor of the responsibility for compliance with Federal, State, and local laws regarding storage, handling, transportation, and disposal of hazardous wastes.

The CONTRACTOR shall oversee and enforce hazardous waste management practices. Production of hazardous materials and hazardous waste on the construction site shall be kept to a minimum. Perimeter controls, containment structures, covers, and liners shall be repaired or replaced when damaged.

The Contractor shall have a laboratory certified by the California Department of Public Health (CDPH) sample and test waste when hazardous material levels are unknown to determine safe methods for storage and disposal.

The Contractor shall segregate potentially hazardous waste from non-hazardous waste at the construction site. Hazardous waste shall be handled, stored, and disposed of as required in California Code of Regulations, Title 22, Division 4.5, Section 66262.34; and in CFR Title 49, Parts 261, 262, and 263.

The Contractor shall store hazardous waste in sealed containers constructed and labeled with the contents and date accumulated as required in California Code of Regulations, Title 22, Division 4.5; and in CFR Title 49, Parts 172, 173, 178, and 179. Hazardous waste containers shall be kept in temporary containment facilities conforming to the provisions in "Material Storage" of these Special Provisions.

There shall be adequate storage volume and containers shall be conveniently located for hazardous waste collection. Containers of hazardous waste shall not be overfilled and hazardous wastes shall not be mixed. Containers of dry waste that are not watertight shall be stored on pallets. The Contractor shall not allow potentially hazardous waste to accumulate on the ground. Hazardous waste shall be stored away from storm drains, watercourses, moving vehicles, and equipment.

The Contractor shall clean water based or oil based paint from brushes or equipment within a contained area and shall not contaminate soil, watercourses, or storm drain systems. Paints, thinners, solvents, residues, and sludges that cannot be recycled or reused shall be disposed of as hazardous waste. When thoroughly dry, latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths shall be disposed of as solid waste.

The Contractor shall dispose of hazardous waste within 90 days of being generated. Hazardous waste shall be disposed of by a licensed hazardous waste transporter using uniform hazardous waste manifest forms and taken to a Class I Disposal Site. A copy of the manifest shall be provided to the Engineer.

Contaminated Soil

The Contractor shall identify contaminated soil from spills or leaks by noticing discoloration, odors, or differences in soil properties. Soil with evidence of contamination shall be sampled and tested by a laboratory certified by CDPH. If levels of contamination are found to be hazardous, the soil shall be handled and disposed of as hazardous waste.

The Contractor shall prevent the flow of water, including ground water, from mixing with contaminated soil by using one or a combination of the following measures:

- A. Berms,
- B. Cofferdams,
- C. Grout curtains,
- D. Freeze walls, or
- E. Concrete seal course.

If water mixes with contaminated soil and becomes contaminated, the water shall be sampled and tested by a laboratory certified by the CDPH. If levels of contamination are found to be hazardous, the water shall be handled and disposed of as hazardous waste.

Concrete Waste

The Contractor shall implement practices to prevent the discharge of Portland cement concrete or asphalt concrete waste into storm drain systems or watercourses.

Portland cement concrete or asphalt concrete waste shall be collected at the following locations and disposed of:

- A. Where concrete material, including grout, is used;
- B. Where concrete dust and debris result from demolition;
- C. Where sawcutting, coring, grinding, grooving, or hydro-concrete demolition of Portland cement concrete or asphalt concrete creates a residue or slurry; or
- D. Where concrete trucks or other concrete-coated equipment is cleaned at the construction site.

Sanitary and Septic Waste

Wastewater from sanitary or septic systems shall not be discharged or buried within the Department right of way. The CONTRACTOR shall inspect sanitary or septic waste storage and monitor disposal procedures at least weekly. Sanitary facilities that discharge to the sanitary sewer system shall be properly connected and free from leaks.

The Contractor shall obtain written approval from the local health agency, city, county, and sewer district before discharging from a sanitary or septic system directly into a sanitary sewer system, and provide a copy to the Engineer. The Contractor shall comply with local health agency requirements when using an on-site disposal system.

Liquid Waste

The Contractor shall not allow construction site liquid waste, including the following, to enter storm drain systems or watercourses:

- A. Drilling slurries or fluids,
- B. Grease-free or oil-free wastewater or rinse water,
- C. Dredgings,
- D. Liquid waste running off a surface including wash or rinse water, or
- E. Other non-storm water liquids not covered by separate permits.

The Contractor shall hold liquid waste in structurally sound, leak proof containers such as:

- A. Sediment traps,
- B. Roll-off bins, or
- C. Portable tanks.

Liquid waste containers shall be of sufficient quantity and volume to prevent spills and leaks. The containers shall be stored at least 50 feet from storm drains, watercourses, moving vehicles, and equipment.

The Contractor shall remove and dispose of deposited solids from sediment traps as provided in "Solid Waste" of these Special Provisions, unless determined infeasible by the Engineer.

Liquid waste may require testing to determine hazardous material content before disposal.

Drilling fluids and residue shall be disposed of outside the highway right of way. If the Engineer determines that an appropriate location is available, fluids and residue exempt under California Code of Regulations, Title 23, Section 2511(g) may be dried by infiltration and evaporation in a leak proof container. The remaining solid waste may be disposed of as provided in "Solid Waste" of these Special Provisions.

10-1.04.4.4 NON-STORM WATER MANAGEMENT

Water Control and Conservation

The Contractor shall prevent erosion or the discharge of pollutants into storm drain systems or watercourses by managing the water used for construction operations. The Contractor shall obtain the Engineer's approval before washing anything on the construction site with water that could discharge into a storm drain system or watercourse. Discharges shall be reported to the Engineer immediately.

The Contractor shall implement water conservation practices when water is used on the construction site. Irrigation areas shall be inspected and watering schedules shall be adjusted to prevent erosion, excess watering, or runoff. The Contractor shall shut off the water source to broken lines, sprinklers, or valves, and they shall be repaired as soon as possible. When possible, water from

waterline flushing shall be reused for landscape irrigation. Paved areas shall be swept and vacuumed, not washed with water.

Construction water runoff, including water from water line repair, shall be directed to areas to infiltrate into the ground and shall not be allowed to enter storm drain systems or watercourses. Spilled water shall not be allowed to escape water truck filling areas. When possible, the Contractor shall direct water from off-site sources around the construction site, or shall minimize contact with the construction site.

Illegal Connection and Discharge Detection and Reporting

The Contractor shall inspect the construction site and the site perimeter before beginning work for evidence of illegal connections, discharges, or dumping. Subsequently, the construction site and perimeter shall be inspected on a frequent, predetermined schedule.

The Contractor shall immediately notify the Engineer when illegal connections, discharges, or dumping are discovered. The Contractor shall take no further action unless directed by the Engineer. Unlabeled or unidentifiable material shall be assumed to be hazardous.

The Contractor shall look for the following evidence of illegal connections, discharges, or dumping:

- A. Debris or trash piles,
- B. Staining or discoloration on pavement or soils,
- C. Pungent odors coming from drainage systems,
- D. Discoloration or oily sheen on water,
- E. Stains or residue in ditches, channels or drain boxes,
- F. Abnormal water flow during dry weather,
- G. Excessive sediment deposits,
- H. Nonstandard drainage junction structures, or
- I. Broken concrete or other disturbances near junction structures.

Vehicle and Equipment Cleaning

The Contractor shall limit vehicle and equipment cleaning or washing on the construction site to that necessary to control vehicle tracking or hazardous waste. Vehicles and equipment shall not be cleaned on the construction site with soap, solvents, or steam until the Engineer has been notified. The resulting waste shall be contained and recycled, or disposed of as provided in "Liquid Waste" or "Hazardous Waste" of these Special Provisions, whichever is applicable. The Contractor shall not use diesel to clean vehicles or equipment, and shall minimize the use of solvents.

The Contractor shall clean or wash vehicles and equipment in a structure equipped with disposal facilities. If using a structure is not possible, vehicles and equipment shall be cleaned or washed in an outside area with the following characteristics:

- A. Located at least 50 feet from storm drainage systems or watercourses,
- B. Paved with asphalt concrete or Portland cement concrete,
- C. Surrounded by a containment berm, and
- D. Equipped with a sump to collect and dispose of wash water.

When washing vehicles or equipment with water, the Contractor shall use as little water as possible. Hoses shall be equipped with a positive shutoff valve.

Wash racks shall discharge to a recycle system or to another system approved by the Engineer. Sumps shall be inspected regularly, and liquids and sediments shall be removed as needed.

Vehicle and Equipment Fueling and Maintenance

The Contractor shall fuel or perform maintenance on vehicles and equipment off the construction site whenever practical. When fueling or maintenance must be done at the construction site, the Contractor shall designate a site, or sites, and obtain approval from the Engineer before using. The fueling or maintenance site shall be protected from storm water, shall be on level ground, and shall be located at least 50 feet from drainage inlets or watercourses. The CONTRACTOR shall inspect the fueling or maintenance site regularly. Mobile fueling or maintenance shall be kept to a minimum.

The Contractor shall use containment berms or dikes around the fueling and maintenance area. Adequate amounts of absorbent spill cleanup material and spill kits shall be kept in the fueling and maintenance area and on fueling trucks. Spill cleanup material and kits shall be disposed of

immediately after use. Drip pans or absorbent pads shall be used during fueling or maintenance unless performed over an impermeable surface.

Fueling or maintenance operations shall not be left unattended. Fueling nozzles shall be equipped with an automatic shutoff control. Vapor recovery fueling nozzles shall be used where required by the Air Quality Management District. Nozzles shall be secured upright when not in use. Fuel tanks shall not be topped-off.

The Contractor shall recycle or properly dispose of used batteries and tires.

Material and Equipment Used Over Water

Drip pans and absorbent pads shall be placed under vehicles or equipment used over water, and an adequate supply of spill cleanup material shall be kept with the vehicle or equipment. Drip pans or plastic sheeting shall be placed under vehicles or equipment on docks, barges, or other surfaces over water when the vehicle or equipment will be idle for more than one hour.

The Contractor shall provide watertight curbs or toe boards on barges, platforms, docks, or other surfaces over water to contain material, debris, and tools. Material shall be secured to prevent spills or discharge into water due to wind.

Paving, Sealing, Sawcutting, and Grinding Operations

The Contractor shall prevent the following material from entering storm drain systems or water courses:

- A. Cementitious material,
- B. Asphaltic material,
- C. Aggregate or screenings,
- D. Grinding or sawcutting residue,
- E. Pavement chunks, or
- F. Shoulder backing.

The Contractor shall cover drainage inlets and use linear sediment barriers to protect downhill watercourses until paving, sealing, sawcutting, or grinding operations are completed and excess material has been removed. Drainage inlets and manholes shall be covered during the application of seal coat, tack coat, slurry seal, or fog seal.

During the rainy season or when precipitation is predicted, paving, sawcutting, and grinding operations shall be limited to places where runoff can be captured. Seal coat, tack coat, slurry seal, or fog seal operations shall not begin if precipitation is predicted for the application or the curing period. The Contractor shall not excavate material from existing roadways during precipitation.

The Contractor shall vacuum up slurry from sawcutting operations immediately after the slurry is produced. Slurry shall not be allowed to run onto lanes open to public traffic or off the pavement.

The Contractor shall collect residue from Portland cement concrete grinding operations with a vacuum attachment on the grinding machine. The residue shall not be left on the pavement or allowed to flow across the pavement.

Material excavated from existing roadways may be stockpiled as provided in "Stockpile Management" of these Special Provisions if approved by the Engineer. Asphalt concrete chunks used in embankment shall be placed above the water table and covered by at least one foot of material.

Substances used to coat asphalt trucks and equipment shall not contain soap, foaming agents, or toxic chemicals.

10-1.04.4.5 PAYMENT

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in spill prevention and control, material management, waste management, non-storm water management, and dewatering and identifying, sampling, testing, handling, and disposing of hazardous waste, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer shall be considered as included in the contract prices paid for the items of work that require construction site management and no additional compensation will be allowed.

10-1.05 PROPERTY AND FACILITY PRESERVATION

Attention is directed to Section 5-1.36 "Property and Facility Preservation," of the Standard Specifications and these Special Provisions.

Existing utilities and facilities shall be preserved and protected from damage by the Contractor. An effort has been made to show existing surface and underground structures on the plans, however not all infrastructure may be shown and infrastructure locations may be in different locations from those described. The Contractor is responsible for contacting all agencies and utility owners to verify the location of underground infrastructure prior to and during construction.

Before starting any work that could damage or interfere with underground infrastructure, the Contractor shall pothole and locate existing infrastructure, including laterals and appurtenances, and shall determine the presence of other underground infrastructure inferred from visible facilities such as buildings, meters and junction boxes. Existing infrastructure damaged due to negligence of the Contractor shall be completely repaired at the Contractor's expense and in coordination with the effected utility owner.

Existing trees, shrubs and other plants, that are not to be removed as shown on the plans or specified in these Special Provisions, and are injured or damaged by reason of the Contractor's operations, shall be replaced by the Contractor. The minimum size of tree replacement shall be 24 inch box and the minimum size of shrub replacement shall be No. 15 container {15-gallon}. Replacement ground cover plants shall be from flats and shall be planted 12 inches on center. Replacement of Carpobrotus ground cover plants shall be from cuttings and shall be planted 12 inches on center. Replacement planting shall conform to the requirements in "Replacement Plants," of the Standard Specifications. The Contractor shall water replacement plants in conformance with the provisions in "Watering," of the Standard Specifications.

Damaged or injured plants shall be removed and disposed of outside the highway right of way in conformance with the provisions in 5-1.20B(4), "Contractor-Property Owner Agreement," of the Standard Specifications. At the option of the Contractor, removed trees and shrubs may be reduced to chips. The chipped material shall be spread within the highway right of way at locations designated by the Engineer.

Replacement planting of injured or damaged trees, shrubs, and other plants shall be completed prior to the start of the plant establishment period. Replacement planting shall conform to the provisions in Section 20-7, "Highway Planting," of the Standard Specifications.

Replacement planting of injured or damaged trees, shrubs and other plants shall be completed not less than 20 working days prior to acceptance of the contract. Replacement plants shall be watered as necessary to maintain the plants in a healthy condition.

Survey monuments and markers shown on the plans or encountered within the project limits shall be protected from damage by the Contractor. The Contractor shall notify the Engineer of monuments encountered and shall not remove or disturb said monument until the monument can be cross-referenced and tied out by a licensed surveyor. The Contractor shall allow a minimum of one working day for such referencing to be accomplished. When notified by the Engineer that the ties have been completed, the monument or marker can then be removed. The Contractor is not responsible for the replacement of any monument or marker of which the removal is necessitated by the work performed and which has been referenced and tied. If through negligence or carelessness on the part of the Contractor, notification is not made as provided above, markers are removed, or disturbed which are not in direct conflict with the construction, the Contractor shall be responsible for the cost of referencing, resurveying, and replacement of the monument or marker. Such sums for the replacement shall be deducted from the final contract payment.

Full compensation for conforming to the provisions of this section shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

10-1.06 COOPERATION

Attention is directed to Section 5-1.09, "Partnering," and Section 5-1.20, "Coordination with Other Entities," of the Standard Specifications and these Special Provisions. Attention is also directed to "General Requirements" of these Special Provisions.

Following is a list of some, but not necessarily all, of the utility companies that may have facilities in the project area:

<u>Utility Company</u>	<u>Contact Person</u>	<u>Telephone Number</u>
Pacific Gas & Electric	Lee Wells	530-477-3260
AT&T	Astrid Willard	916-484-2388
Comcast Cable	Justin Haggin	530-790-3369
City of Grass Valley – Sewer/Water/Storm Drain	Public Works Department	530-274-4350

The Contractor shall coordinate with Pacific Gas and Electric Company for the removal, relocation, repair, or disturbance of any gas or electric facilities caused by project work.

The Contractor shall coordinate with the AT&T for the removal, relocation, repair, or disturbance of any telecommunications facilities caused by project work.

The Contractor shall coordinate with the Comcast Cable for the removal, relocation, repair, or disturbance of any cable television facilities caused by project work.

The Contractor shall coordinate with the City of Grass Valley for the removal, relocation, repair, or disturbance of any water, sewer storm drain facilities caused by project work.

Any utilities not listed above or damaged by the Contractor during the course of project work shall be repaired or replaced in cooperation with the affected utility company.

The Contractor shall provide sufficient notification to the affected utility company to allow time for scheduling and completion of the required work. Any delays resulting from the Contractor's failure to properly notify or schedule utility company work shall be at the Contractor's expense.

Full compensation for conforming to the provisions of this section shall be considered as included in prices paid for the various Contract items of work involved and no additional compensation will be allowed.

10-1.07 PROGRESS SCHEDULE

Progress schedules are required for this contract and shall be submitted in conformance with the provisions in Section 8-1.02, "Schedule," of the Standard Specifications and these Special Provisions. The Contractor shall notify the Engineer on a daily basis of the areas of work scheduled for the following day.

The Contractor shall submit to the Engineer a practicable "Critical Path Method" progress schedule within 10 working days of approval of the contract, and within 10 working days of the Engineer's written request at any other time.

The progress schedule shall follow the general order of work detailed in "General Requirements," of these Special Provisions, and shall meet the milestones listed in "Beginning of Work, Time of Completion, and Liquidated Damages," of these Special Provisions.

Full compensation for conforming to the provisions of this section shall be considered as included in prices paid for the various Contract items of work involved and no additional compensation will be allowed.

10-1.08 OBSTRUCTIONS

Attention is directed to Section 5-1.20, "Coordination with Other Entities," of the Standard Specifications and of these Special Provisions.

Attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workers and of the public. Facilities requiring special precautions include, but are not limited to: natural gas in pipelines underground electric supply system conductors or cables, with potential to ground of more than 300 V, either directly buried or in a duct or conduit which do not have concentric grounded or other effectively grounded metal shields or sheaths, water mains, gravity sanitary sewer lines, and telephone conduits.

The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include, but are not limited to, the following:

Notification Center	Telephone Number
Underground Service Alert – Northern California (USA)	1-800-227-2600

The Contractor is hereby notified that prior to commencing construction, he is responsible for contacting all utility companies for verification at the construction site of the locations of all underground facilities that may conflict with the placement of the improvements shown on the plans. Where potential conflict exists, the Contractor shall pothole existing utilities to determine their elevation. Call "Underground Service Alert" at 800-227-2600 forty-eight (48) hours before any excavation is started.

Full compensation for conforming to the provisions of this section, including exposing existing utilities, and any potholing, not otherwise provided for, shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

10-1.09 MOBILIZATION

Mobilization shall conform to the provisions in the Standard Specifications and these Special Provisions.

The Contractor's attention is directed to the provisions of "Site Work" of the Technical Specifications for further mobilization details and requirements.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all work involved in "Mobilization," including but not limited to the movement of personnel, equipment, supplies and incidentals to the project site shall be included in the contract lump sum price paid for "Mobilization," and no additional compensation will be allowed.

10-1.10 MAINTAINING TRAFFIC

Attention is directed to Sections 7-1.03, "Public Convenience," 7-1.04, "Public Safety," and 12, "Temporary Traffic Control," of the Standard Specifications and these Special Provisions. Nothing in these Special Provisions shall be construed as relieving the Contractor from the responsibilities specified in Section 7-1.04, "Public Safety."

Five days advance notice shall be given to all residents, businesses and local authorities prior to beginning work involving street closures. The Contractor shall accommodate any special needs that arise that may require ingress and egress to a property.

The Contractor may request night and/or weekend hours of work, which do not significantly change the cost of the work may be permitted upon the written request of the Contractor if, in the opinion of the Engineer, public traffic will be better served and the work expedited. These deviations shall not be adopted by the Contractor until the Engineer has approved them in writing. All other modifications will be made by contract change order.

The Contractor shall provide access to parking lots, driveways, residences and businesses at all times unless otherwise specified in these Special Provisions or approved by the City Engineer. Access to parking lots, driveways, and businesses within the project area shall be detailed in the Contractor's Traffic Control Plan for review and acceptance by the Engineer. Five days advance notice shall be given to all residents, businesses and local authorities prior to beginning work involving temporary closures to driveways or parking lots.

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders, including any section closed to public traffic.

Minor deviations from the requirements of this section concerning hours of work which do not significantly change the cost of the work may be permitted upon the written request of the Contractor if, in the opinion of the Engineer, public traffic will be better served and the work expedited. These deviations shall not be adopted by the Contractor until the Engineer has approved them in writing. All other modifications will be made by contract change order.

Full compensation for furnishing all signs, pedestrian and bicycle access facilities, posting signs, detours, lane closures, materials, tools, equipment, and incidentals and for doing all work involved in "Maintaining Traffic" complete in place as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

10-1.11 FIELD ENGINEERING

Field Engineering shall consist of surveying and layout of all grading work to establish and maintain lines and grades and as necessary to achieve the proposed finish contours shown on the plans and as adjusted in the field based on the Contractor's recommendation as approved by the Engineer.

Full compensation for conforming to the provisions of this section shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

10-1.11.1 LINES AND GRADES

Attention is directed to "Lines and Grades," of the Standard Specifications.

The Contractor shall be responsible for setting stakes or marks that the Contractor determines to be necessary to establish the lines and grades required for the completion of the work specified. The Engineer reserves the right to check, correct or require layout work to be revised in order to construct the improvements as shown on the plans and as directed by the Engineer. If any stakes or marks are destroyed or damaged, it is the Contractor's responsibility to reestablish the stakes or marks.

If the Contractor determines that conditions in the field would cause a conflict with the lines and grades shown on the plans or otherwise feels that there are errors in the lines and grades to be established he shall immediately notify the Engineer for clarification. Attention is directed to "Requests for Information" of these provisions.

10-1.12 CLEARING, GRUBBING AND REMOVAL

This work shall consist of clearing, grubbing and removing existing vegetation, gravel, dirt, sod and other objectionable material, as necessary to prepare the work area for further excavation, grading or resurfacing.

Clearing and grubbing work shall conform to the provisions in "Clearing and Grubbing," of the Standard Specifications and these Special Provisions. Clearing and grubbing shall be performed only within the excavation limits and embankment slope lines. Existing vegetation, outside the areas to be cleared and grubbed, shall be protected from the Contractor's operations unless specifically shown on the plans to be removed.

Only those trees noted on the plans to be removed or so designated by the Engineer shall be removed.

Attention is directed to "Existing Facilities" of these Special Provisions regarding removal of existing surfacing, obstructions and objects.

Nothing herein shall be construed as relieving the Contractor of his responsibility for final cleanup of the highway as provided in "Cleanup," of the Standard Specifications.

This work shall consist of removing objectionable material, including existing miscellaneous concrete and asphalt areas, gravel, dirt, sod and planter materials, from within the limits of the project as specified. The limits of clearing and grubbing shall be of sufficient area and depth to complete the work as shown on the plans or described in these Special Provisions, and may include excavation and grading as necessary to complete the work.

Work shall also include removal and disposal of existing weeds, brush and other unsuitable material within and along the edge of pavement, and trimming of trees as needed for operation of equipment. Contractor shall allow seven (7) days after spray of weeds within or at edges of pavement to ensure successful eradication prior to chip, scrub and/or cape scrub seal operations. If unsuccessful, Contractor shall respray.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in clearing and removal, including, but not limited to, cutting, uprooting, sawcutting, excavation, disposal and backfill as shown on the plans, as specified in the Standard Specifications and these Special Provisions and as directed by the Engineer, shall be included in the contract lump sum paid for "Clearing, Grubbing and Removal" and no additional compensation will be allowed.

10-1.12.1 REMOVE ASPHALT CONCRETE

Existing asphalt concrete surfacing, and underlying base material shall be removed as needed, as shown on the plans and in conformance with these Special Provisions.

Attention is directed to the provisions in "Clearing and Grubbing," and "Buried Man-Made Objects," of the Standard Specifications and these Special Provisions.

That portion of the asphalt concrete area to be removed abutting asphalt concrete to remain in place shall be cut on neat lines with a power-driven saw before removing the surfacing, unless approved by the Engineer.

Surfacing and base shall be removed without damage to surfacing that is to remain in place. Damage to pavement which is to remain in place shall be repaired to a condition satisfactory to the Engineer or the damaged pavement shall be removed and replaced with new asphalt concrete if ordered by the Engineer. Repairing or removing and replacing pavement damaged outside the limits of pavement to be replaced shall be at the Contractor's expense and will not be measured nor paid for.

Removed materials shall be disposed of outside the highway right of way.

The material remaining in place, after removing surfacing and base to the required depth, shall be graded to a plane, watered, and compacted as deemed necessary by the Engineer.

Areas of the base material which are low as a result of over excavation shall be filled, at the Contractor's expense, with asphalt concrete.

The exact limits of asphalt concrete surfacing to be removed and replaced, as shown on the plans, will be determined by the Engineer.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in removing asphalt concrete, including, but not limited to, sawcutting, disposal, excavation and backfill as shown on the plans, as specified in the Standard Specifications and these Special Provisions and as directed by the Engineer, shall be included in the contract lump sum paid for "Clearing, Grubbing and Removal" and no additional compensation will be allowed.

10-1.12.2 TREE REMOVAL

Existing trees removed shall be completely removed and disposed of outside the highway right of way. Attention is directed to the provisions in "Clearing and Grubbing," of the Standard Specifications and these Special Provisions.

Tree trunks, stumps and roots shall be removed by sawing, grinding and excavating as necessary to completely remove all objectionable vegetative material to a minimum depth of 18" below the top of the finished surfacing.

Branches and suitable brush material may be reduced to chips with a maximum thickness of ½ inch and evenly spread in landscape areas at park locations as directed by the Engineer.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in tree removal, including, but not limited to, pruning cutting, sawing, uprooting, grinding, chipping, excavation, disposal and backfill as shown on the plans, as specified in the Standard Specifications and these Special Provisions and as directed by the Engineer, shall be included in the contract lump sum paid for "Clearing, Grubbing and Removal" and no additional compensation will be allowed.

10-1.13 DUST CONTROL

Dust control shall conform to the provisions in "Dust Control," of the Standard Specifications and these Special Provisions.

The Contractor's attention is directed to the provisions of the Technical Specifications for further dust control details and requirements including a "Dust Mitigation Plan" prepared for the project. .

Full compensation for conforming to the provisions of this section shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

10-1.13.1 WATERING

Watering shall conform to the provisions in Section 17, "Watering," of the Standard Specifications and these Special Provisions.

Full compensation for conforming to the provisions of this section shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed.

10-1.14 EARTHWORK

Earthwork shall conform to the provisions in Section 19, "Earthwork," of the Standard Specifications and these Special Provisions.

Surplus excavated material shall become the property of the Contractor and shall be disposed of in conformance with the provisions in "Contractor-Property Owner Agreement," of the Standard Specifications.

The Contractor's attention is directed to "Surplus Material," and "Deficiency Material," of the Standard Specifications.

Graded areas shall be watered and compacted in accordance with the Standard Specifications, City Improvement Standards and as directed by the Engineer.

10-1.14.1 EXCAVATION

Excavation shall conform to the provisions in Section 19-2, "Roadway Excavation," of the Standard Specifications and shall include all work associated with grading for finish pads and to provide smooth contours for conform areas as shown on the project plans.

Relative compaction of subgrade shall conform to all the provisions in Section 19-5 "Compaction" of the Standard Specifications. Payment for compaction of earthwork shall be considered as included in the various items of work requiring compaction and no additional compensation will be allowed.

If the Contractor elects to excavate and replace subgrade/base material to facilitate compaction, full compensation for that work will be considered as included in the contract item of work requiring the compaction of earthwork and no separate payment will be made.

Removed materials shall be properly disposed of outside the highway right of way unless otherwise designated on the plans or approved by the Engineer.

10-1.14.2 WASTE DISPOSAL

This work consists of all excavation, dewatering, soil segregation, temporary stockpiling and off-site disposal of contaminated soil.

The Contractor's attention is directed to the provisions of "Excavation and Grading" of the Technical Specifications for further waste disposal details and requirements.

Quantities of waste to be paid for will be determined by the ton as measured by certified landfill weigh tickets and waste disposal manifests.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in removing contaminated soils, including, but not limited to excavation, stockpiling, loading, transporting, disposal and backfill as shown on the plans, as specified in the Technical Specifications and these Special Provisions and as directed by the Engineer, shall be included in the contract price paid per ton for "Waste Disposal (Class)" and no additional compensation will be allowed.

10-1.14.3 IMPORT FILL

This work consists of the import of clean fill material, including subgrade preparation, fill placement, watering, grading, and compaction.

The Contractor's attention is directed to the provisions of "Excavation and Grading" of the Technical Specifications for further import fill details and requirements. A grading exhibit is attached in Appendix B of these Special Provisions for fine lot grading of the northeast quadrant of the project area. Remaining site grading will be as shown in the Technical Specifications site plan and as directed by the Engineer.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in placing clean fill, including, but not limited to transporting, placing, grading, watering and compacting as shown on the plans, as specified in the Technical Specifications and these Special Provisions and as directed by the Engineer, shall be included in the contract price paid per cubic yard for "Import Fill" and no additional compensation will be allowed.

10-1.15 EROSION CONTROL

This work consists of the installation of temporary and permanent erosion control measures as necessary to prevent erosion and reduce the potential for sediment discharges.

The Contractor's attention is directed to the provisions of "Erosion Control" of the Technical Specifications for further erosion control details and requirements.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in placing erosion control devices (silt fences, fiber rolls, blankets etc) and covering, protecting, repairing and seeding disturbed areas, as specified in the SWPPP, the Technical Specifications and these Special Provisions and as directed by the Engineer, shall be included in the contract lump sum price paid for "Erosion Control" and no additional compensation will be allowed.

10-1.15.1 FIBER ROLLS

Fiber rolls shall be furnished and installed in conformance with details shown on the plans and these special provisions and as directed by the Engineer.

Fiber rolls shall be installed on excavation and embankment slopes and other disturbed soil areas.

Fiber roll shall be a premanufactured roll of rice or wheat straw, wood excelsior, or coconut fiber encapsulated within a photodegradable plastic or biodegradable jute, sisal, or coir fiber netting. The netting shall have a minimum durability of one year after installation. The netting shall be secured tightly at each end of the roll. Rolls shall be between 8 inches and 12 inches in diameter. Rolls between 8 inches and 10 inches in diameter shall have a minimum weight of 1 pound per linear foot and a minimum length of 20 feet. Rolls between 10 inches and 12 inches in diameter shall have a minimum weight of 3 pounds per linear foot and a minimum length of 10 feet.

Wood stakes shall be used to secure fiber rolls as shown on the plans. Stake shall be a minimum of 1" x 1" x 24" untreated fir, redwood, cedar, or pine and cut from sound timber. They shall be straight and free of loose or unsound knots and other defects which would render them unfit for the purpose intended. Metal stakes shall not be used.

Fiber rolls shall be installed as follows:

1. Fiber rolls (Type 1): Furrows shall be constructed to a depth between 2 inches and 4 inches, and to a sufficient width to hold the fiber roll. Stakes shall be installed 24 inches apart along the length of the fiber rolls and stopped at 12 inches from each end of the rolls. Stakes shall be driven to a maximum of 2 inches above, or flush with the top of the roll.
2. Fiber rolls shall be placed 10 feet apart along the slope for slope inclination (horizontal:vertical) of 2:1 and steeper, 15 feet apart along the slope for slope inclination between 2:1 and 4:1, 20 feet apart along the slope for slope inclination between 4:1 and 10:1, and a maximum of 50 feet apart along the slope for slope inclination of 10:1 and flatter.
4. The bedding area for the fiber rolls shall be cleared of obstructions including rocks, clods, and debris greater than one inch in diameter before installation.
5. Fiber rolls shall be installed approximately parallel to the slope contour.
6. Fiber rolls shall be installed before the application of erosion control (Type D) or soil stabilization materials in the same area. Fiber rolls shall be installed after Compost Incorporate is installed.

If the intended function of the fiber rolls to disperse concentrated water runoff and to reduce runoff velocities is impaired, the Contractor shall take action to repair or replace the fiber rolls. Split, torn, or unraveling rolls shall be repaired or replaced. Broken or split stakes shall be replaced. Sagging or slumping fiber rolls shall be repaired with additional stakes or replaced. Locations where rills and other evidence of concentrated runoff have occurred beneath the rolls shall be corrected. Fiber rolls shall be repaired or replaced within 24 hours of identifying the deficiency.

Quantities of fiber rolls to be paid for will be determined by the linear foot measured along the centerline of the installed roll. Where fiber rolls are joined and overlapped, the overlap will be measured as a single installed roll.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing, removing and maintaining "Fiber Roll", as shown on the plans and as specified in the Standard Specifications and these special provisions, and as directed by the Engineer shall be considered as included in the contract linear foot price for "Fiber Roll" and no additional compensation will be allowed.

10-1.16 CHAIN LINK FENCE AND GATE

Installation of chain link fence and gate shall conform to the provisions in Section 80, "Fences," of the Standard Specifications and these Special Provisions. All ferrous materials shall be protected by galvanizing or other specified coatings. Imperfectly galvanized or coated material or material with serious abrasions shall not be used.

10-1.16.1 POSTS

The base metal for the manufacture of posts and braces shall be commercial quality, or better, weldable steel. Posts and braces shall be galvanized in conformance with the provisions in Section 75-1.05, "Galvanizing," of the Standard Specifications.

The material of which posts and braces are fabricated shall have a nominal thickness, before galvanizing, of not less than 0.105-inch for posts and 0.075-inch for braces.

Gate posts shall be fabricated from schedule 40 pipe conforming to the requirements shown on the plans.

The length of posts, exclusive of fitted top fixtures or other methods of supporting the top tension wire which are integral with the post, shall not be less than the depth of the concrete footings shown on the plans plus the height of the fabric as shown on the plans or specified in the special provisions, less 4 inches.

All posts shall be fitted with rainproof tops.

Post tops, extension arms, stretcher bars and other required fittings and hardware shall be steel or malleable iron or wrought iron and shall be galvanized after fabrication. All required fittings and hardware shall be fastened to the posts in the proper manner.

10-1.16.2 FABRIC

Chain link fabric shall conform to the requirements in AASHTO Designation: M 181 for Type I zinc coated fabric with a Class C coating. The wire used in the manufacture of the fabric shall be 9-gage.

Chain link fence fabric shall be woven into approximately 2-inch mesh such that there shall be at least 7 meshes in a vertical dimension of 23 inches along the diagonals of the openings. Chain link fence fabric shall have knuckled finish on top and bottom edges.

10-1.16.3 MISCELLANEOUS

Between posts, chain link fabric shall be fastened to a top and bottom tension wire or horizontal rails as shown on the plans. Tension wire shall be at least 7-gage (0.177-inch dia.) coil spring steel of good commercial quality and shall be galvanized in conformance with the requirements in ASTM Designation: A 116, Coating Class 3.

Tie wires and hog rings shall be at least 9-gage (0.148-inch dia.) steel and post clips shall be at least 6-gage (0.192-inch dia.) steel; all tie wires, hog rings and post clips shall be galvanized in conformance with the requirements in ASTM Designation: A 116, Coating Class 3.

Turnbuckles and truss tighteners shall be fabricated of commercial quality steel, malleable iron or wrought iron and shall be galvanized as provided in Section 75-1.05, "Galvanizing." The truss tighteners shall have a strap thickness of not less than 1/4 inch.

Portland cement concrete for metal post footings and for deadmen shall be produced from commercial quality aggregates and cement and shall contain not less than 470 pounds of cement per cubic yard.

10-1.16.4 CONSTRUCTION

Line posts shall be spaced at intervals as shown on the plans, measured from center to center of posts. In general, in determining the post spacing, measurement will be made parallel to the slope of the natural ground, and posts shall be placed in a vertical position, except in unusual locations where directed by the Engineer the posts shall be set perpendicular to the ground surface.

Posts shall be set in concrete footings conforming to the details shown on the plans and crowned at the top to shed water.

End, latch and corner posts shall be braced to the nearest line post. At the Contractor's option bracing shall be accomplished either with diagonal braces used as compression members or with horizontal braces used as compression members and steel truss rods having minimum diameters of 3/8 inch used as tension members. Each steel truss rod shall be equipped with a turnbuckle or truss tightener with tensile strength equal to the truss rod.

Chain link fabric shall be fastened on the side of the posts designated on the plans. The fabric shall be stretched and securely fastened to the posts, and horizontal rails.

The fabric shall be fastened to end, latch, corner and gate posts with stretcher bars having dimensions of not less than 1/4" x 3/4" and stretcher bar bands having dimensions of not less than 1/8" x 3/4" spaced at one foot intervals. The fabric shall be fastened to line posts with tie wires or post clips and to tension wires with tie wires or hog rings. The fasteners shall be spaced at approximately 12 inches on line posts and at approximately 18 inches on rails or tension wires. Wire ties shall be given at least one complete turn. Hog rings shall be closed with ends overlapping. The tension wires shall be wrapped around terminal posts. The distance from the top of the fabric to the top tension wire shall be 2 inches maximum.

In lieu of using stretcher bars and bar bands, the fabric may be fastened to the end and corner posts by threading through loops formed on the posts.

Surplus excavated material remaining after the fence has been constructed shall become the property of the Contractor and shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

10-1.16.5 PVC COATING

Chain link fence, posts, gate, wire and fittings shall be polymer coated with a black PVC coating, fused and adhered to the exterior zinc coating of the galvanized pipe in accordance with ASTM F1043.

10-1.16.6 MEASUREMENT

Quantities of chain link fence to be paid for will be determined by the linear foot from actual measurements, the measurements to be made parallel to the ground slope along the line of the completed fence, deducting the widths of openings.

Quantities of chain link gates to be paid for will be determined from actual unit count. A gate unit complete in place shall include one gate with all necessary fittings, hardware, and gate and latch posts with braces.

10-1.16.7 PAYMENT

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in constructing a chain link fence, complete in place, including, but not limited to clearing the line of the fence and disposing of the resulting material, excavating high points in the existing ground between posts, excavating holes, disposing of surplus excavated material, furnishing and placing portland cement concrete footings, installing fence posts, rails and fabric and connecting new fences to existing cross fences, shall be considered as included in the contract price paid per linear foot or per unit count for "Chain Link (Height, Type)" and no additional compensation will be allowed.

APPENDIX A – CONSTRUCTION CONTRACT

CONTRACT NO. _____

**CITY OF GRASS VALLEY
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION**

CONSTRUCTION CONTRACT

THIS CONTRACT is made on the date set forth below, by and between the CITY OF GRASS VALLEY, a municipal corporation within the State of California (hereinafter "CITY"), and _____, a type in business form and state of license i.e. California Corporation, (hereinafter "CONTRACTOR"). The CITY and CONTRACTOR for the consideration hereinafter mentioned agree as follows:

ARTICLE 1: SCOPE OF WORK

- 1.1. CONTRACTOR agrees to furnish all work, labor, tools, materials, transportation, equipment, services, and other means of construction necessary to perform and complete in a good and workmanlike manner, those certain improvements as called for, and in the manner designated in, and in strict conformity with Contract No. _____ entitled: JOYCE DRIVE SOIL REMEDIATION PROJECT, PROJECT NO. 26-03, hereafter "PROJECT", in compliance with the Contract Documents as described in Article 3.
- 1.2. CONTRACTOR understands and agrees that the work, labor, tools, materials, transportation, equipment, incidentals, services and other means of construction for the Project shall be furnished and the work performed as required in the Contract Documents under the sole direction and control of CONTRACTOR, and subject to the inspection and approval of the CITY, or its representatives.

ARTICLE 2: CONTRACT PRICE

- 2.1. The CITY agrees to pay and the CONTRACTOR agrees to accept, in full payment for the work above agreed to be done, the sum of _____ (\$ _____) subject to additions and deductions as provided in the Contract Documents.

ARTICLE 3: CONTRACT DOCUMENTS

- 3.1. The complete Contract consists of the following documents, to wit:
Notice to Contractors
Executed Proposal, including the Bidder's Bond and Non-Collusion Affidavit
Construction Contract
Project Plans for this Project
Special Provisions for this Project
City of Grass Valley Improvement Standards
Executed Performance Bond
Executed Labor and Materials Bond
Labor Code Section 1861 Certification
List of Subcontractors
- 3.2. Any and all obligations of the CITY and the CONTRACTOR are fully set forth and described in the above documents. All of the above documents are intended to be interpreted so that any work called for in one and not mentioned in another or vice versa is to be executed as if mentioned in all said documents. The documents comprising the complete Contract are sometimes collectively referred to as the Contract Documents.

ARTICLE 4: TIME FOR PERFORMANCE - LIQUIDATED DAMAGES

- 4.1. The Commencement date for determination of the time for completion shall be the date the City

engineer directs the CONTRACTOR to proceed, as stated in the Notice to Proceed. The CONTRACTOR shall complete all work required by the Contract within **50 working days** after said commencement date, as adjusted and provided for in the Contract Documents.

- 4.2. In the event CONTRACTOR does not complete all work required by the Contract within the time specified above, liquidated damages shall be imposed upon the CONTRACTOR. CONTRACTOR agrees that if all the work called for under this Contract in all parts and requirements is not completed within the performance time period set forth above, the CITY will be damaged. As it is and will be impracticable to ascertain and determine the actual damage the CITY will sustain, CONTRACTOR agrees to pay to CITY five hundred dollars (\$1000.00) per calendar day for each and every day(s) delay in finishing the work in excess of the working days described. Time is of the essence in this contract. CONTRACTOR further agrees that CITY may deduct the amount of these damages from any moneys due or that may become due the CONTRACTOR under this Contract. To the extent appropriate, as determined by CITY in its sole discretion, CITY shall administer this Article in accordance with the California Department of Transportation Standard Specifications Section 8-1.10 Liquidated Damages, latest edition.

ARTICLE 5: INDEMNITY & HOLD HARMLESS

- 5.1. The CITY, and all its officers, agents, employees, outside parties hired to inspect and/or design the work, and volunteers thereof connected with the work, including but not limited to, the City Engineer and the Engineer, shall not be answerable or accountable in any manner for the loss or damage to any of the materials or other things used or employed in performing the work; for injury to or death of any person, either worker or the public; or damage to property from any cause which may have been prevented by CONTRACTOR or his or her workers or anyone employed by him/her.
- 5.2. CONTRACTOR shall be responsible for any liability imposed by law and for injuries to or death of any person including, but not limited to, workers and the public, or damage to property resulting from defects or obstructions or from any cause whatsoever during the progress of the work or at any time before its acceptance.
- 5.3. The CONTRACTOR shall indemnify and save harmless the CITY, and its officials, officers, agents, employees, or consultants and volunteers thereof connected with the work, including but not limited to, the City Engineer and the Engineer, from all claims, suits, or actions of every name, kind, and description brought forth on or on account of injuries to or death of any person, including but not limited to, workers or the public or damage to property resulting from the performance of the contract except as otherwise provided by statute or section 5.6 below. CONTRACTOR's duty to indemnify and save harmless include the duties to defend as set forth in Civil Code Section 2778.
- 5.4. With respect to third party claims against the CONTRACTOR, the CONTRACTOR waives any and all rights to any type of express or implied indemnity against the CITY, its officials, officers, employees, agents, consultants, or volunteers.
- 5.5. It is the intent of the parties that the CONTRACTOR will indemnify and hold harmless the CITY, its officers, employees, agents and volunteers, from any and all claims, suits, or actions as set forth above, regardless of the existence or degree of fault or negligence on the part of the CITY, the CONTRACTOR, the subcontractors or employees of any of these, other than the sole or gross negligence of the CITY, its officials, officers, employees, agents, consultants, or volunteers.
- 5.6. In compliance with and pursuant to Government Code § 4215, CITY shall assume the responsibility, between the parties to the contract, for the timely removal, relocation, or protection of existing main- or trunk-line utility facilities located on the site of any construction project that is a subject of the contract, if such utilities are not identified by CITY in the plans and specifications made a part of the invitation for bids. CITY shall compensate CONTRACTOR for its reasonable and actual costs of locating, repairing damage not due to the failure of the CONTRACTOR to exercise reasonable care, and removing or relocating such utility facilities not indicated in the plans and specifications with reasonable accuracy, and for equipment on the project necessarily idled during such work. CONTRACTOR shall not be assessed liquidated damages for delay in completion of the project when such delay was caused by the failure of CITY or the owner of the

utility to provide for removal or relocation of such utility facilities.

ARTICLE 6: INSURANCE

6.1. Throughout the period of this agreement, the CONTRACTOR shall provide the following minimum insurance coverage as listed below. CONTRACTOR shall file with CITY certificate(s) of Insurance and endorsements, in a form acceptable to CITY, and consistent with this agreement at the time of execution of this agreement. The insurance company must be acceptable to CITY, with a Best's Rating of no less than A:VII. Documentation of such rating acceptable to the CITY shall be provided at the same time Insurance Certificates are submitted. The Current evidence of coverage provided to the City shall be for the entire required period of insurance, including the one (1) year warranty period.

6.1.1 Any deductibles must be declared to, and approved by, the City.

6.2. In the event any of the required policies are canceled or expire before the completion of the project and the CONTRACTOR does not furnish a new certificate(s) of insurance before cancellation or expiration, the CITY may obtain the required insurance and deduct the premium(s) from Contract monies due the CONTRACTOR.

6.3. WORKER'S COMPENSATION AND EMPLOYERS LIABILITY INSURANCE:

6.3.a. The CONTRACTOR shall maintain adequate Workers' Compensation Insurance under the Laws of the State of California. CONTRACTOR shall fully comply with the provisions of Section 3700 of the Labor Code, which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, before commencing the performance of the work.

6.3.b. By CONTRACTOR'S signature hereunder, CONTRACTOR certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and he/she will comply with such provisions before commencing the performance of this Contract.

6.3.c. If such insurance is underwritten by any agency other than State Compensation Fund, such agency shall be a company authorized to do business in the State of California.

6.3.d. CONTRACTOR shall require all subcontractors to maintain adequate Workers' Compensation Insurance. Certificates of such Workers' Compensation shall be filed forthwith with the CITY upon demand.

6.3.e. Worker's Compensation Insurance shall be provided as required by any applicable law or regulation. Employer's liability insurance shall be provided in amounts not less than the following:

- One Million dollars (\$1,000,000) each accident for bodily injury by accident
- One Million dollars (\$1,000,000) policy limit for bodily injury by disease
- One Million dollars (\$1,000,000) each employee for bodily injury by disease

6.3.f. If there is an exposure of injury to CONTRACTOR'S employees under the U.S. Longshoremen's and Harbor Worker's Compensation Act, the Jones Act, or under laws, regulations, or statutes applicable to maritime employees, coverage shall be included for such injuries or claims.

6.3.g. Each Worker's Compensation policy shall be endorsed with the following specific language:

Cancellation Notice: "This policy shall not be canceled or materially changed without first giving thirty (30) days prior written notice to the City of Grass Valley."

Waiver of Subrogation: "The Insurance Company agrees to waive all rights of subrogation against the Entity, its elected or appointed officials, agents, employees and volunteers for losses paid under the terms of this policy which arise from the work performed by the Named Insured for the Entity."

6.4. GENERAL LIABILITY INSURANCE:

- 6.4.a. Comprehensive General Liability or Commercial General Liability insurance no less broad than ISO form CG 00 01, covering all operations by or on behalf of CONTRACTOR, providing insurance for bodily injury liability and property damage liability for the limits of liability indicated below and including coverage for: premises, operations; products and completed operations; contractual liability insuring the obligations assumed by CONTRACTOR in this Agreement; broad form property damage (including completed operations); explosion, collapse, and underground hazards; personal injury liability.
- 6.4.b. Except with respect to bodily injury and property damage included within the products and completed operations hazards, the aggregate limits, where applicable, shall apply separately to CONTRACTOR'S work under the Contract. One of the following forms is required: Commercial General Liability (Occurrence); or Commercial General Liability (Claims Made).
- 6.4.c. If CONTRACTOR carries a Commercial General Liability (Occurrence) policy:
 - 1. The limits of liability shall not be less than:
 - One Million dollars (\$1,000,000) each occurrence (combined single limit for bodily injury and property damage)
 - One Million dollars (\$1,000,000) for Personal Injury Liability
 - Two Million dollars (\$2,000,000) for Products-Completed Operations
 - Two Million dollars (\$2,000,000) General Aggregate
 - 2. If the policy does not have an endorsement providing that the General Aggregate Limit applies separately, or if defense costs are included in the aggregate limits, then the required aggregate limits shall be Two Million dollars (\$2,000,000).
- 6.4.d. Special Claims Made Policy Form Provisions:

CONTRACTOR shall not provide a Commercial General Liability (Claims Made) policy without the prior written consent of CITY, which consent, if given, shall be subject to the following conditions:

 - 1. The limits of liability shall not be less than:
 - One Million dollars (\$1,000,000) each Occurrence (combined single limit for bodily injury and property damage)
 - One Million dollars (\$1,000,000) for Personal Injury Liability
 - Two Million dollars (\$2,000,000) Aggregate for Products Completed Operations
 - Two Million dollars (\$2,000,000) General Aggregate
 - 2. The insurance coverage provided by CONTRACTOR shall contain language providing coverage up to one (1) year following the completion of the Contract to provide insurance coverage for the hold harmless provisions herein if the policy is a Claims Made Policy.

6.5. CONFORMITY OF COVERAGES:

- 6.5.a. If more than one policy is used to meet the required coverages, such as a separate umbrella policy, such policies shall be consistent with all other applicable policies used to meet these

minimum requirements. For example, all policies shall be Occurrence Liability policies, or all shall be Claims Made Liability policies if approved by the CITY as noted above. In no case shall the types of coverages be different.

6.6. ADDITIONAL REQUIREMENTS:

- 6.6.a. Premium Payments: Insurers shall have no recourse against the CITY, its funding agencies, its officers and employees, or any of them for payment of any premiums or assessments under any policy.
- 6.6.b. Policy Deductibles: The CONTRACTOR shall be responsible for all deductibles in all of CONTRACTOR'S insurance policies. The amount of deductibles for insurance coverage required herein should be reasonable and subject to CITY'S approval.
- 6.6.c. CONTRACTOR'S Obligations: CONTRACTOR'S indemnity and other obligations shall not be limited by the foregoing insurance requirements and shall survive the expiration of this agreement.
- 6.6.d. Material Breach: Failure of the CONTRACTOR to maintain the insurance required by this agreement, or to comply with any of the requirements of this section, shall constitute a material breach of the entire agreement.
- 6.6.e. Duration of Coverage: City must be an additional insured for completed operations for a period of one (1) year after completion of the work.
- 6.6.f. Project Reference: The Comprehensive or Commercial General Certificate of Insurance must reference the project specifically by project title.

6.7. ENDORSEMENTS:

- 6.7.a. Each Comprehensive or Commercial General Liability policy shall be endorsed with the following specific language:

Cancellation Notice: "This policy shall not be canceled, materially reduced, or materially changed without first giving thirty (30) days prior written notice to the City of Grass Valley."

Waiver of Subrogation: "The Insurance Company agrees to waive all rights of subrogation against the City of Grass Valley, its elected or appointed officials, agents, employees and volunteers for losses paid under the terms of this policy which arise from the work performed by the Named Insured for the City of Grass Valley."

"Provisions Regarding the Insured's Duties: " Any failure to comply with reporting provisions of the policy or breaches or violations of warranties shall not affect coverage provided to the Entity, its elected or appointed officers, officials, employees or volunteers."

"Except as stated above, nothing herein shall be held to waive, alter or extend any of the limits, conditions, agreements or exclusions of the policy to which this endorsement is attached."

"The City of Grass Valley, and additional insureds, and all insureds officers, agents, outside parties hired to inspect and/or design the work, employees, and volunteers are to be covered as insured for all liability arising out of the operations by or on behalf of the named insured in the performance of this Agreement."

The City of Grass Valley's policy of insurance shall be excess and noncontributing: "The insurance provided by the Contractor, including any excess liability or umbrella form coverage, is primary coverage to the City of Grass Valley and additional insureds, with respect to any insurance or self-insurance programs maintained by the City of Grass Valley and additional insureds, and no insurance held or owned by the City of Grass Valley and additional insureds shall be called upon to contribute to a loss."

6.8. AUTOMOBILE LIABILITY INSURANCE:

- 6.8.a. CONTRACTOR shall provide Automobile Liability insurance covering bodily injury and property damage in an amount no less than One Million dollars (\$1,000,000) combined single limit for each occurrence.
- 6.8.b. Covered vehicles shall include owned, non-owned, and hired automobiles/trucks.
- 6.8 c. Endorsements: The endorsements listed above for each Comprehensive or General Liability Policy shall also apply to the Automobile Liability Policy.
- 6.8 d. Required Evidence of Coverage: Properly completed Certificate of Insurance.

ARTICLE 7: PRECEDENCE IN CONFLICTING DOCUMENTS

- 7.1. It is further expressly agreed by and between the parties hereto that should there be any conflict between the terms of this instrument and the bid or proposal of said CONTRACTOR, then this instrument shall control and nothing herein shall be considered as acceptance of any terms of that proposal conflicting herewith.

ARTICLE 8: BOND REQUIREMENTS

- 8.1. CONTRACTOR shall furnish both a Faithful Performance Bond and a Payment Bond (hereinafter collectively "Bonds") in the full amount of the Contract on the forms provided by the CITY. CITY shall retain the Performance Bond for a one-year guarantee period from the date of the CITY'S acceptance of the work.
- 8.2. The bonds shall be obtained from a California admitted surety licensed by the State of California to act as surety upon bonds and undertakings and which maintains in this State at least one office for the conduct of its business. The surety shall furnish reports as to its financial condition from time to time upon request by CITY.
- 8.3. In case of any conflict between the terms of the Contract and the terms of the Bonds, the terms of the Contract shall control and the Bonds shall be deemed to be amended thereby.
- 8.4. CONTRACTOR agrees to obtain the consent of the surety, if required, to any change, extension of time, alteration, or addition to any of the terms of the Contract Documents.

ARTICLE 9: COMPLIANCE WITH LAWS

- 9.1. CONTRACTOR is an independent contractor and shall, at its sole cost and expense comply with all laws, rules, ordinances and regulations of all governing bodies having jurisdiction over the work, obtain all necessary permits (unless the Contract Documents specifically state elsewhere that CITY shall obtain a particular permit) and licenses therefore, pay all manufacturers' taxes, sales taxes, use taxes, processing taxes, and all Federal and State taxes, insurance and contributions for social security and unemployment which are measured by wages, salaries or any remuneration paid to CONTRACTOR'S employees, whether levied under existing or subsequently enacted laws, rules or regulations. CONTRACTOR shall also pay all property tax assessments on materials or equipment used until acceptance by CITY. If any discrepancy or inconsistency is discovered in any of the Contract Documents in relation to any such law, rule, ordinance, regulation, order, or decree, the CONTRACTOR shall forthwith report the same to the CITY in writing.
- 9.2. Without limitation, materials furnished and performance by CONTRACTOR hereunder shall comply with Safety Orders of the Division of Industrial Safety, State of California, Federal Safety regulations of the Bureau of Labor, Department of Labor; and any other applicable state or federal regulations.
- 9.3. CONTRACTOR, upon request, shall furnish evidence satisfactory to CITY that any or all of the foregoing obligations have been or are being fulfilled. CONTRACTOR warrants to CITY that it is

licensed by all applicable governmental bodies to perform this Contract and will remain so licensed throughout the progress of the work, and that it has, or will have, throughout the progress of the work, the necessary experience, skill, and financial resources to perform this Contract.

- 9.4.** CONTRACTOR is required to ensure that material safety data sheets (MSDS's) for any material requiring a MSDS pursuant to any federal or state law are available in a readily accessible place on the Project premises. CONTRACTOR is also required to ensure (a) the proper labeling of any substance brought onto the Project premises by CONTRACTOR or any subcontractors or material suppliers, and (b) that the person(s) working with the material, or within the general area of the material, are appropriately informed about the hazards of the substance and follow proper handling and protection procedures.
- 9.5.** CONTRACTOR is required to comply with Health & Safety Sections 25249.5 et seq. (Prop. 65), which requires the posting and giving of notice to persons who may be exposed to any chemical known to the State of California to cause cancer.
- 9.6.** CONTRACTOR shall comply with Title VI of the Civil Rights Act of 1964 (PL 88-352) and all regulations or other requirements issued pursuant to that Act, including, without limitation, United States Department of Agriculture nondiscrimination regulations found at 7 CFR Part 15.
- 9.7.** CONTRACTOR shall give notice of hazardous materials and certain changed conditions in jobs involving trenching more than four feet deep, in accordance with Public Contract Code § 7104.
- 9.8.** CONTRACTOR and CITY shall comply with the following provisions
- Public Contract Code § 6109 prohibits a contractor from performing work with a subcontractor who is debarred pursuant to Labor Code §§ 1777.1 or 1777.7.
 - Public Contract Code §§ 9204, 20104 requires the City and contractors to follow a claims resolution process for public works contract disputes
 - Article 1.5 (commencing at Section 20104) of Division 2, Part 3 of the Public Contract Code regarding the resolution of public works claims of less than \$375,000. Article 1.5 mandates certain procedures for the filing of claims and supporting documentation by Contractor, for the response to such claims by the Agency, for a mandatory meet and confer conference upon the request of Contractor, for mandatory nonbinding mediation in the event litigation is commenced, and for mandatory judicial arbitration upon the parties' failure to resolve the dispute through mediation. This AGREEMENT hereby incorporates the provisions of Article 1.5 as though fully set forth herein.
 - Public Contract Code §§ 10263, 22300 which allow CONTRACTOR to substitute securities for any monies withheld by the AGENCY to ensure performance under the Contract.
 - Pursuant to Labor Code § 1776 each contractor and subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. The payroll records enumerated here shall be verified and shall be available for inspection at all reasonable hours as required by Labor Code § 1776.
 - Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:
 - The information contained in the payroll record is true and correct.
 - The employer has complied with the requirements of Labor Code §§ 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.
 - CONTRACTOR shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services

or expenditures and disbursements charged to CITY under this Agreement for a minimum of three years, or for any longer period required by law, from the date of final payment to CONTRACTOR under this Agreement. All such documents shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of CITY. In addition, pursuant to Government Code Section 8546.7, all such documents and this Agreement shall be subject to the examination and audit of the State Auditor, at the request of CITY or as part of any audit of CITY, for a period of three years after final payment under the Agreement.

- Public Contract Code § 10198.2 requires CONTRACTOR to provide an enforceable commitment that it and its subcontractors at every tier will use a skilled and trained workforce to perform all work on the project or contract that falls within an apprenticeable occupation in the building and construction trades, in accordance with Chapter 2.9 (commencing with Section 2600) of Part 1 of that Code.
- California Labor Code § 1725.5 requires CONTRACTOR be registered with the Department of Industrial Relations; possess applicable licenses in accordance with Chapter 9 of Division 3 of the Business and Professions Code; not have any delinquent liability for any assessment of back wages or related damages; not currently be debarred from public works; and be lawfully registered with no outstanding renewal fees.
- CONTRACTOR must comply with statutory requirements relating to certified copies of payroll, pursuant to California Labor Code § 1776.
- CONTRACTOR must comply with the statutory requirements relating to the employment of apprentices, including the payment of prevailing wages for required pre-employment training or testing, pursuant to California Labor Code § 1777.5, for contracts of \$30,000 or more.
- CONTRACTOR shall strictly adhere to the provisions of the Labor Code regarding the 8-hour day and the 40-hour week, overtime, Saturday, Sunday and holiday work and nondiscrimination because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex or sexual orientation, except as provided in Section 12940 of the Government Code. Pursuant to the provisions of the Labor Code, eight hours' labor shall constitute a legal day's work. Work performed by the Contractor's employees in excess of eight hours per day, and 40 hours during any one week, must include compensation for all hours worked in excess of eight hours per day, or 40 hours during any one week, at not less than one and one-half times the basic rate of pay. The CONTRACTOR shall forfeit as a penalty to CITY \$25.00 or any greater penalty set forth in the Labor Code for each worker employed in the execution of the work by the CONTRACTOR or by any Subcontractor of the CONTRACTOR, for each Calendar Day during which such worker is required or permitted to the work more than eight hours in one Calendar Day or more than 40 hours in any one calendar week in violation of the provisions of said Labor Code.
- Contractor and any subcontractor(s) of Contractor shall comply with the provisions of Labor Code section 1771 and Labor Code section 1725.5 requiring registration with the Department of Industrial Relations (DIR). Contractors shall be registered through the Department of Industrial Relations (DIR) Public Works Program for state and local public works contracts, for maintenance work valued at more than \$15,000.

ARTICLE 10: PROGRESS SCHEDULE

- 10.1.** The CONTRACTOR shall submit within 10 days (or as specified in the Special Provisions for this Project) after execution of the Contract a detailed work schedule or schedules that details the actions of the CONTRACTOR and Subcontractors working at the Site in accordance with the requirements specified in Special Provisions. This schedule(s) shall show the dates at which the CONTRACTOR will start and complete the several parts of the work and shall conform to the completion time specified in the Contract. The CITY may comment on the work schedule. Acceptance of the schedule by CITY shall not constitute approval of the Plan by CONTRACTOR for completion of the work

- 10.2.** The CONTRACTOR shall review and, if necessary, revise the progress schedule at least once a month or as specified in the Special Provisions for this Project. In any event, the CONTRACTOR shall submit a current schedule to the Engineer at the Engineer's request at any time during the Contract period.
- 10.3.** No progress payments will be made for any work performed until a satisfactory schedule has been submitted and approved by the Engineer. An updated schedule shall be required from the CONTRACTOR if the project falls 10 working days behind schedule. For delays or portions of delays for which the CONTRACTOR is responsible, no payment will be made or time extension allowed for increase in work force, equipment, and working hours needed to put the Project on schedule.

ARTICLE 11: PROMPT PAYMENT PROVISIONS

- 11.1.** Prompt payment provisions in accordance with Section 20104.50 of the Public Contract Code shall apply to this agreement.
- 11.2.** If CITY fails to make a progress payment within 30 days after receipt of an undisputed and properly submitted payment request from CONTRACTOR, CITY shall pay interest to CONTRACTOR equivalent to 0.833% per month (10% per annum).
- 11.3.** CITY shall review each payment request as soon as practicable after receipt to determine whether the payment request is proper. The CITY shall return any payment request determined to be improper to CONTRACTOR as soon as practicable, but not later than seven days after receipt. A request returned pursuant to this paragraph shall be accompanied by a writing setting forth why the payment request is improper.

ARTICLE 12: ANTITRUST CLAIM ASSIGNMENT

- 12.1.** CONTRACTOR and all subcontractors offer and agree to assign to CITY all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Contract or any subcontract. This assignment shall be made and become effective when the CITY tenders final payment to CONTRACTOR, without further acknowledgment by the parties.

ARTICLE 13: PREVAILING WAGES

- 13.1.** CONTRACTOR acknowledges that it has examined the prevailing rate of per diem wages as established by the California Director of Industrial Relations. The CONTRACTOR agrees to pay workers not less than the applicable prevailing rate of per diem wages, as set forth in these requirements and Labor Code section 1770 et seq. CONTRACTOR agrees specifically to comply with the provisions of Labor Code sections 1720, 1773.3, 1776, and 1777.5, as well as Section 7 of the Department of Transportation Standard Specifications and these Contract Documents.
- 13.2.** Contractor acknowledges that this contract is subject to prevailing wage law, including, but not limited to, California Labor Code Sections 1773.2 and 1775 as follows:

The Contractor shall pay the prevailing wage rates for all work performed under the Contract. When any craft or classification is omitted from the general prevailing wage determinations, the Contractor shall pay the wage rate of the craft or classification most closely related to the omitted classification. The Contractor shall forfeit as a penalty to City \$200.00, or any greater penalty provided in the Labor Code for each Calendar Day, or portion thereof, for each worker paid less than the prevailing wage rates for any work done under the Contract employed in the execution of the work by Contractor or by any Subcontract under Contractor in violation of the provisions of the Labor Code. In addition, the difference between such prevailing wage rates and the amount paid to each worker for each Calendar Day, or portion thereof, for which each worker was paid less than the

prevailing wage rate shall be paid to each worker by the Contractor.

ARTICLE 14: SEVERABILITY.

- 14.1. Nothing contained in the Contract Documents shall be construed to require the commission of any act contrary to law. Should a conflict arise between any provisions contained herein and any present or future statute, law, ordinance, or regulation contrary to which the parties have no legal right to contract or act, the latter shall be curtailed and limited but only to the extent necessary to bring it within the requirements of the law. If such curtailment or limitation is not possible, the affected provision shall be of no force and effect. Except as previously mentioned, such illegality shall not affect the validity of this Contract.

ARTICLE 15: COMPLETE AGREEMENT

- 15.1. These Contract Documents supersede any and all agreements, either oral or in writing, between the parties with respect to the subject matter herein. Each party to this Contract acknowledges that no representation by any party, which is not embodied herein, or any other agreement, statement, or promise not contained in these Contract Documents shall be valid and binding.

ARTICLE 16: INTERPRETATION

- 16.1. The parties hereto acknowledge and agree that each has been given the opportunity to independently review this Contract with legal counsel, and/or has the requisite experience and sophistication to understand, interpret and agree to the particular language of the provisions of the Contract.
- 16.2. In case of a controversy or dispute between the parties concerning the provisions herein, this document shall be interpreted according to the provisions herein and no presumption shall arise concerning the draftsmanship of such provision.

ARTICLE 17: GOVERNING LAW

- 17.1. This Contract is subject to the laws and jurisdiction of the State of California. Venue for any legal proceeding brought in conjunction with this Contract shall be the Superior Court of the County of Nevada, State of California. Contractor waives any federal court removal rights it may have pursuant to any applicable law.

ARTICLE 18: BID ITEMS

ITEM NO.	DESCRIPTION	UNIT OF MEAS.	EST. QTY.	UNIT PRICE	TOTAL COST
1	Mobilization	LS	1		
2	Clearing, Grubbing and Removal	LS	1		
3	Waste Disposal (Class II Non Hazardous)	TON	14250		
4	Waste Disposal (Class I Non-RCRA Hazardous)	TON	750		
5	Import Fill	CY	10500		
6	Erosion Control	LS	1		
7	Chain Link (6' Fence)	LF	450		
8	Chain Link (6' Gate)	EA	2		

TOTAL COST: \$ _____

Name of Contractor/Company

WITNESS WHEREOF, the parties have hereunto set their hands the year and date first above written.

“CITY”

CITY OF GRASS VALLEY

By: _____
Hillary Hodge, Mayor

Date: _____

Award of Contract No. _____

By the City Council On:

Date: _____

APPROVED AS TO PROCEDURE

By: _____
Bjorn P. Jones, PE
City Engineer

Date: _____

APPROVED AS TO FORM

By: _____
David J. Ruderman
City Attorney

Date: _____

ATTEST:

By: _____
Taylor Whittingslow
City Clerk

Date: _____

“CONTRACTOR”

(Type full legal name of contractor, entity
type, state of organization here)

By: _____
Officer Signature # 1
(Signature Notarized)

By: _____
Print Name and Title

Date: _____

By: _____
Officer Signature # 2
(Signature Notarized)

By: _____
Print Name and Title

Date: _____

**Licensed in accordance with an act
providing for the registration of
Contractors,**

Contractor's License Number: _____

"If Contractor is a corporation, contract must be signed by the following two corporate officers, one from each category: (1) Chairman of the Board, President or any Vice President, and (2), Corporate Secretary, any Assistant Corporate Secretary, Chief Financial Officer or any Treasurer or Assistant Treasurer, unless an authenticated copy of a resolution of the corporation which delegates to a single officer the authority to bind the corporation is attached to this contract.

If Contractor is another type of business entity, such as a partnership or limited liability company, contract must be signed by officer(s) possessing legal authority to bind the entity. An authenticated copy of a resolution, partnership agreement, operating agreement or other legal evidence of signature authority must be attached to this contract."

ATTACHMENTS

1. Labor Code Section 1861 Certification
2. Labor & Materials Bond
3. Faithful Performance Bond
4. List of Subcontractors
5. Campaign Contribution Disclosure Form

CERTIFICATION
LABOR CODE SECTION 1861

STATE OF CALIFORNIA
CITY OF GRASS VALLEY

I, the undersigned, do hereby certify:

That I am aware of the provisions of Section 3700 of the Labor Code of the State of California, which requires every employer to be insured against liability for Workers' Compensation or to undertake self insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

Executed at : _____

On: _____

I certify under the penalty of perjury that the foregoing is true and correct.

CONTRACTOR - EMPLOYER

BY: _____

PRINT NAME: _____

TITLE: _____

BOND FOR LABOR AND MATERIALS

KNOW ALL MEN BY THESE PRESENTS THAT WHEREAS, CITY OF GRASS VALLEY, STATE OF CALIFORNIA, hereinafter called the "Owner" has awarded to _____, as Principal, hereinafter designated as the "Contractor," a contract for the work described as follows:
JOYCE DRIVE SOIL REMEDIATION PROJECT, PROJECT NO. 26-03

AND, WHEREAS, the Contractor is required to furnish a bond in connection with said contract, to secure the payment of claims of laborers, mechanics, materialmen, and other persons as provided by law;

NOW, THEREFORE, we, the undersigned Contractor and _____ Surety, are held and firmly bound unto the Owner in the amount required by law, in the sum of _____ Dollars (\$_____) for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION of this obligation is such, that if the Contractor, his or its heirs, executors, administrators, successors or assigns, or subcontractors shall fail to pay any of the persons referred to in Civil Code 9100, amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant, or amount due the Franchise Tax Board as provided in Civil Code 9554, that the surety or sureties herein will pay for the same, in amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought in this bond, the said surety will pay reasonable attorneys' fee to be fixed by the court.

This bond shall inure to the benefit of any of the persons referred to in Civil Code 9100 so as to give a right of action to such persons or their assigns in any suit brought upon this bond. Any such right of action shall be subject to the provisions of Civil Code 8608 and 9566.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

PROVIDED, FURTHER, that surety covenants that it is an Admitted Surety Insurer in the State of California as defined by California Code of Civil Procedures, Section 995.120. .

*SURETY Attorney-In-Fact
(Signature must be notarized)
Date: _____

CONTRACTOR
(Signature must be notarized)
Date: _____

Address of Surety: _____

*** ATTORNEY-IN-FACT MUST HAVE POWER OF ATTORNEY ON FILE WITH CITY CLERK OF CITY OF GRASS VALLEY OR INCLUDE A COPY OF POWER OF ATTORNEY WITH THIS BOND.**

BOND OF FAITHFUL PERFORMANCE

KNOW ALL MEN BY THESE PRESENTS THAT WE _____, the Contractor in the Contract hereto annexed, as principal, and _____ as Surety are held and firmly bound unto the City of Grass Valley in the sum of _____ Dollars (\$_____) lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, jointly and severally, firmly by these presents

THE CONDITION of the above obligation is that if said principal as Contractor in the contract hereto annexed shall faithfully perform each and all of the conditions of said contract to be performed by him, and shall furnish all tools, equipment, apparatus, facilities, transportation, labor, and material, other than material, if any, agreed to be furnished by the CITY, necessary to perform and complete, and to perform and complete in a good workmanlike manner, and to guarantee acceptable performance of the work for a period of one year following the acceptance of the project, the work of **JOYCE DRIVE SOIL REMEDIATION PROJECT, PROJECT NO. 26-03** in strict conformity with the terms and conditions set forth in the contract hereto annexed, and after a period of one year following the acceptance of the project, then this obligation shall be null and void, otherwise to remain in full force and effect; and the said surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall, in any wise, affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

Surety further agrees in case suit is brought upon this bond that it will pay, in addition to the basic obligation herein, all court costs, expenses, and all reasonable attorney's fees to be awarded and fixed by the Court, and to be taxed as costs, and to be included in the judgment therein rendered.

*SURETY Attorney-In-Fact
(Signature must be notarized)
Date: _____

CONTRACTOR
(Signature must be notarized)
Date: _____

Address of Surety: _____

***ATTORNEY-IN-FACT MUST HAVE POWER OF ATTORNEY ON FILE WITH CITY CLERK OF CITY OF GRASS VALLEY OR INCLUDE A COPY OF POWER OF ATTORNEY WITH THIS BOND.**

LIST OF SUBCONTRACTORS

The Contractor shall list the name, address, and contractor's license classification and number of each Subcontractor required to be listed by Section 2-1.054, "Required Listing of Proposed Subcontractors," of the Standard Specifications, and the Special Provisions, and designate the portion and percentage of the work to be performed by the Subcontractor, to whom the Contractor proposes to subcontract portions of the work. ***The California contractor license designation and number shall be included for all subcontractors doing work in excess of 0.5 percent of the total Project Contract price, or \$10,000.00, whichever is greater.***

Subcontractor Name, Address & Email	License Designation Number	Description of Portion of Work Contracted With Applicable Item(s) #	% of Work per Bid Item	Dollar Amount of Work

CAMPAIGN CONTRIBUTION DISCLOSURE PROVISIONS

Cities are subject to the campaign disclosure provisions detailed in Government Code Section 84308.

Please carefully read the following information to determine if the provisions apply to you. If you determine that the provisions are applicable, the Campaign Disclosure Form must be completed and returned to the City with your application.

1. No City councilmember or commissioner shall accept, solicit, or direct a contribution of more than \$500 from any party,¹ financially interested participant,² or agent³ while a proceeding is pending or for 12 months after the City makes a final decision. This prohibition commences when your application has been filed, or the proceeding is otherwise initiated.

2. A party to a City proceeding shall disclose on the record of the proceeding any contribution of more than \$500 made to any councilmember or commissioner by the party, or agent, in the past 12 months. No party to or participant in a City proceeding shall make a contribution of more than \$500 to a councilmember or commissioner during the proceeding and for 12 months after the City makes a final decision. No agent to a party or participant shall make a contribution in any amount to a councilmember or commissioner during the proceeding and for 12 months after the City makes a final decision.

3. Before the City makes a decision as to a proceeding, any councilmember or commissioner who received contributions of more than \$500 in the past 12 months from any party to a proceeding, or agent, shall disclose that fact on the record of the proceeding, and shall be disqualified from participating in the proceeding. However, if any councilmember or commissioner receives a contribution that otherwise would require disqualification, and returns the contribution within 30 days of: (a) making the decision, or (b) knowing about the contribution and the relevant proceeding, whichever comes last, that councilmember or commissioner may participate in the proceeding.

¹ "Party" is defined as any person who files an application for, or is the subject of, a proceeding.² "Participant" is defined as any person who actively supports or opposes a particular decision in a proceeding.

³ "Agent" is defined as a person who represents a party in connection with a proceeding for compensation who appears before or otherwise communicates with the City for the purpose of influencing the proceeding. If an individual acting as an agent also is acting as an employee or member of a law, architectural, engineering, or consulting firm, or a similar entity or corporation, both the individual and the entity or corporation are agents. When a closely held corporation is a party to a proceeding, the majority shareholder is subject to these provisions.

To determine whether you or your agent have made a campaign contribution of more than \$500 to a councilmember or commissioner in the past 12 months, all contributions made by you or your agent in that period must be aggregated.

Names of current City councilmembers and commissioners are available on the City's website. If you have questions about Government Code Section 84308, FPPC regulations, or the Campaign Disclosure Form, please contact the City Clerk.

CAMPAIGN CONTRIBUTION DISCLOSURE FORM

(a) Document:

- ☐ License
- ☐ Lease
- ☐ Permit
- ☐ Franchise
- ☐ Other Contract
- ☐ Other Entitlement

Name and address of any party, participant, or agent who contributed more than \$500 to any councilmember or commissioner within the preceding 12 months:

1. _____
2. _____
3. _____

(b) Date and amount of contribution:

Date _____ Amount \$ _____

Date _____ Amount \$ _____

Date _____ Amount \$ _____

(c) Name of councilmember or commissioner to whom contribution was made:

1. _____
2. _____
3. _____

(d) I certify that the above information is provided to the best of my knowledge.

Printed Name _____

Signature _____

Date _____ Phone _____

To be completed by City:

Document No: _____

APPENDIX B – GRADING EXHIBT

GRADING NOTES

- G1 "FUTURE" - CONSTRUCT VERTICAL CURB (COGV DETAIL ST-7)
G2 "FUTURE" - CONSTRUCT VERTICAL CURB AND GUTTER (COGV DETAIL ST-7)
G3 "FUTURE" - CONSTRUCT VERTICAL CURB, GUTTER, AND SIDEWALK (COGV DETAIL ST-3)
G4 "FUTURE" - INSTALL ASPHALT PAVEMENT. (3" ASPHALT OVER 8" CLASS II AGG. BASE)
G5 "FUTURE" - INSTALL CURB CUT FOR DRIVEWAY SEE DETAIL ST-9
G6 "FUTURE" - PROVIDE CURB CUTS TO ALLOW FOR 20' WIDE DRIVEWAY PER DETAIL ST-9
G7 "FUTURE" - ADA RAMP, SEE DETAIL ST-6

CONSTRUCTION NOTES

- C1 "FUTURE" - KEYSTONE WALL TO ELEVATION INDICATED. FOR GRADING, THIS PHASE, GRADE 2:1 MAX. SLOPE FROM TOP OF WALL DOWN TO ADJACENT PAD ELEVATION.
C2 "FUTURE" - 1.5:1 SLOPE WITH ROCK SLOPE PROTECTION 2' ROCK AT BOTTOM 1' ROCK AT TOP. (WHERE REQUIRED TO KEEP SLOPE OUT OF FLOODPLAIN). FOR GRADING, THIS PHASE, GRADE FROM TOE OF SLOPE AT 2:1 MAX. SLOPE TO PAD GRADE.

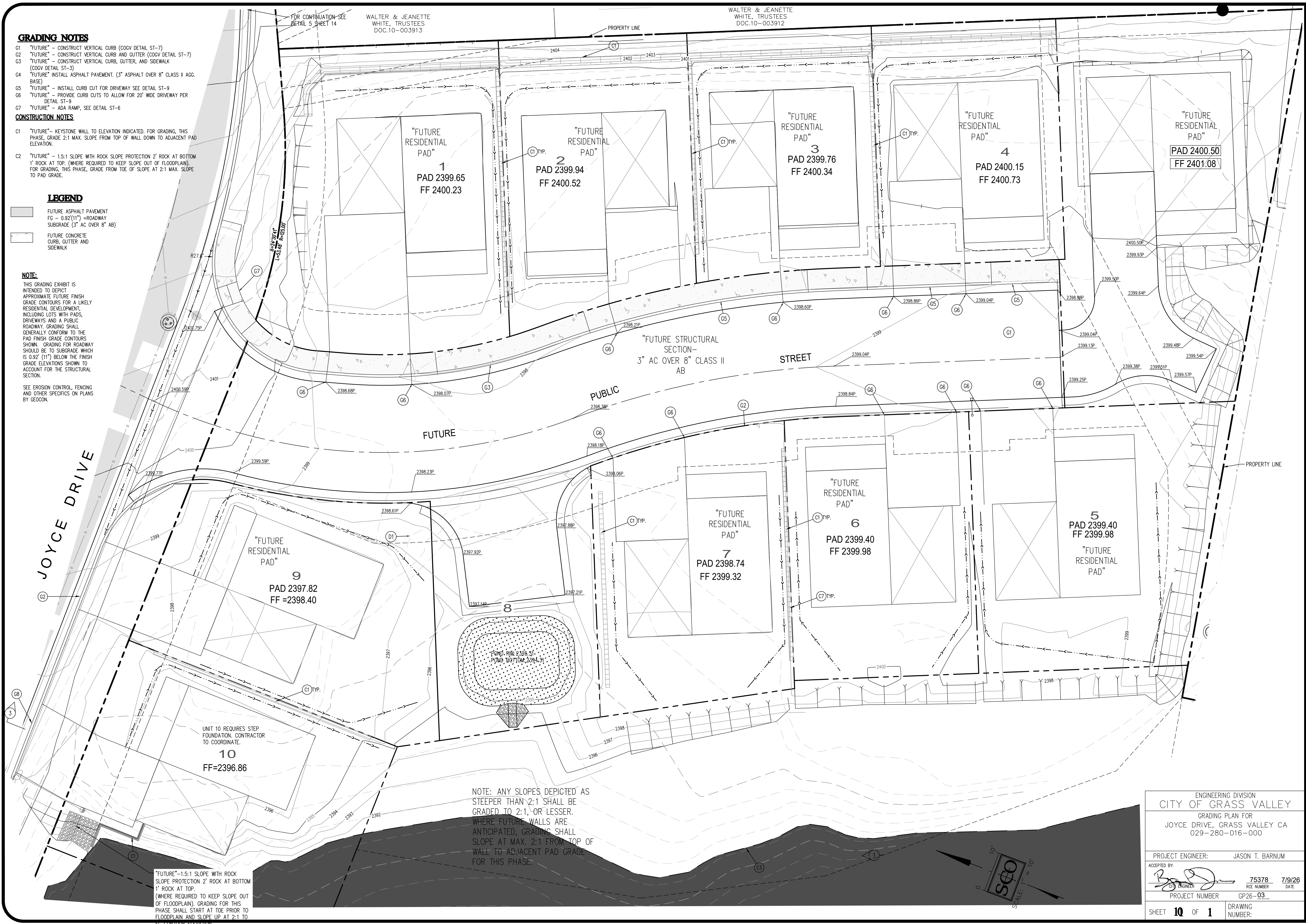
LEGEND

- FUTURE ASPHALT PAVEMENT
FG - 0.92'(11") =ROADWAY
SUBGRADE (3" AC OVER 8" AB)
FUTURE CONCRETE
CURB, GUTTER AND
SIDEWALK

NOTE:

THIS GRADING EXHIBIT IS INTENDED TO DEPICT APPROXIMATE FUTURE FINISH GRADE CONTOURS FOR A LIKELY RESIDENTIAL DEVELOPMENT, INCLUDING LOTS WITH PADS, DRIVEWAYS AND A PUBLIC ROADWAY. GRADING SHALL GENERALLY CONFORM TO THE PAD FINISH GRADE CONTOURS SHOWN. GRADING FOR ROADWAY SHOULD BE TO SUBGRADE WHICH IS 0.92' (11") BELOW THE FINISH GRADE ELEVATIONS SHOWN TO ACCOUNT FOR THE STRUCTURAL SECTION.

SEE EROSION CONTROL, FENCING AND OTHER SPECIFICS ON PLANS BY GEOTECH.



NOTE: ANY SLOPES DEPICTED AS STEEPER THAN 2:1 SHALL BE GRADED TO 2:1, OR LESSER. WHERE FUTURE WALLS ARE ANTICIPATED, GRADING SHALL SLOPE AT MAX. 2:1 FROM TOP OF WALL TO ADJACENT PAD GRADE FOR THIS PHASE.

"FUTURE"-1.5:1 SLOPE WITH ROCK SLOPE PROTECTION 2' ROCK AT BOTTOM 1' ROCK AT TOP. (WHERE REQUIRED TO KEEP SLOPE OUT OF FLOODPLAIN). GRADING FOR THIS PHASE SHALL START AT TOE PRIOR TO FLOODPLAIN AND SLOPE UP AT 2:1 TO FG CONTOUR ELEVATION.

DESIGNED: JTB	JTB
DRAWN: MDW	JTB
PROJ. NO:	201808
DATE:	JULY 2026
DWG:	SEE DAY STAMP

JOYCE DRIVE
OVERALL GRADING EXHIBIT
NEVADA COUNTY, GRASS VALLEY

SCS
PLANNING • ENGINEERING • SURVEYING

GRASS VALLEY
(530) 272-5841
TRUCKEE
(530) 582-4043

ENGINEERING DIVISION
CITY OF GRASS VALLEY
GRADING PLAN FOR
JOYCE DRIVE, GRASS VALLEY CA
029-280-016-000

PROJECT ENGINEER: JASON T. BARNUM
ACCEPTED BY: [Signature]
CITY ENGINEER: 75378 RCE NUMBER 7/9/26 DATE
PROJECT NUMBER GP26-03
SHEET 10 OF 1 DRAWING NUMBER:

PROFESSIONAL SEAL
JASON T. BARNUM
CIVIL
01/12/2022

APPENDIX C – TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS
JOYCE DRIVE SOIL REMEDIATION PROJECT
Grass Valley, California

July 2026

Prepared for:

City of Grass Valley
125 East Main Street
Grass Valley, California 95945
(530) 274-4350

Prepared by:

Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800
Rancho Cordova, California 95742
(916) 852-9118

TABLE OF CONTENTS

DIVISION 1 – GENERAL REQUIREMENTS	1
SECTION 01010 – SUMMARY OF WORK	1
SECTION 01020 – SITE SAFETY	5
SECTION 01039 - COORDINATION AND MEETINGS	7
SECTION 01050 – FIELD ENGINEERING	9
SECTION 01300 – SUBMITTALS	11
SECTION 01400 – QUALITY CONTROL	14
SECTION 01700 – CONTRACT CLOSEOUT	17
DIVISION 2 – SITE WORK	18
SECTION 02010 – MOBILIZATION	18
SECTION 02220 – EXCAVATION AND GRADING	20
SECTION 323113 – CHAIN LINK FENCES AND GATES	26
SECTION 02270 – EROSION CONTROL	31

ATTACHMENTS

Civil Plans

Figures

Figure 1, Site Location Map

Figure 2, Site Plan

Figure 3, Cross Sections

Cleanup Plan Appendices

Appendix I, Dust Mitigation Plan (DMP)

Appendix K, Health and Safety Plan (HSP)

Appendix L, Community Air Monitoring Plan (CAMP)

Appendix O, Transportation Plan and Spil Contingency Plan

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 01010 – SUMMARY OF WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Summary of work
- B. Contractor use of site and premises
- C. Work sequence

1.02 RELATED SECTIONS

- A. General Conditions
- B. Special Conditions

1.03 SUMMARY OF WORK

- A. The Joyce Drive Property (the site) is south of the 200 block of Joyce Drive in Grass Valley, California (Figure 1). The undeveloped, 3.74-acre site is east of the Golden Center Freeway (State Route 20/49), west of Whiting Street, and south of Joyce Drive and Green Mountain Loop. The Nevada County Assessor's Parcel Number is 029-280-016-000.
- B. Fill soil that was previously placed at the site is contaminated with metals, including arsenic, cobalt, lead, and mercury (Figure 2). Diesel fuel was also detected in soil at the ground surface in an isolated location near the site entrance. The contaminated soil is to be excavated and disposed of at a licensed landfill, and clean soil is to be transported to the site and placed as engineered fill after the contaminated soil is removed. A fence is to be constructed at the edge of the soil removal area to restrict access to a floodplain where contaminated sediment is to remain in place.
- C. The Owner is the City of Grass Valley. The Owner will contract for Construction Quality Assurance (CQA) services, and the CQA Monitor will perform compliance monitoring, soil sampling, real-time dust monitoring, field density testing during fill placement, and laboratory testing on behalf of the Owner.
- D. All work is to be performed in accordance with the California Department of Toxic Substances Control (DTSC) approved cleanup plan and its appendices: *Final Report of Findings and Response Plan, Joyce Drive Property, Grass Valley, California*

(Geocon Consultants, Inc.; April 29, 2026; DTSC Site Code 102504; EnviroStor ID 60003507). The DTSC-approved cleanup plan is available on the DTSC EnviroStor website:

https://www.envirostor.dtsc.ca.gov/getfile?filename=/public%2Fdeliverable_documents%2F9141346573%2FJoyce%20Drive_%20Final%20Response%20Plan_04292026.pdf

- E. Existing site conditions: The Contractor shall make a thorough examination of the site to determine all existing conditions affecting the work.
- F. The work to be performed by the Contractor shall conform to the requirements of the General Conditions, these technical specifications, project plans, and other related documents, and shall include the furnishing of all labor, materials, tools, equipment and services necessary therefore incidental to complete the project. The work shall consist of, but not be limited to, the following:
 - 1. Contractor shall prepare submittals including but not limited to Health and Safety Plan (HSP). The attached HSP describes potential health hazards that may be encountered during the work and includes provisions that should be followed as a minimum.
 - 2. Contractor shall perform the necessary site preparation and controls:
 - (a) Pre-mark the excavation areas and notify Underground Service Alert (USA) North 811 as required by law for the entire work area.
 - (b) Remove vegetation from the proposed work area.
 - (c) Secure the site to prevent public access to hazardous conditions related to contaminated soil and open excavations.
 - 3. Contractor shall excavate, temporarily stockpile for landfill acceptance testing, load, transport, and dispose at a licensed landfill approximately 15,000 tons of soil impacted by elevated concentrations of arsenic, cobalt, lead, mercury and/or diesel fuel.
 - (a) The excavation depth will be up to approximately 12 feet below ground surface (bgs). As described below, additional excavation and soil removal may be required if the results of soil confirmation sampling and laboratory analysis indicate that contamination is still present at the base or side walls of the excavation.
 - (b) CQA Monitor will be responsible for confirmation soil sampling and laboratory analysis during and after excavation activities. The results of

laboratory analysis will be used to determine whether additional excavation is required.

- (c) Contractor will be responsible for additional excavation if one or more laboratory results (arsenic, cadmium, lead, mercury, or diesel) fail to meet the cleanup goals.
 - (d) Upon CQA Monitor's determination that cleanup goals have been achieved, Contractor may backfill the excavation with clean, imported, compacted fill in accordance with these specifications.
4. Contractor shall temporarily stockpile the excavated soil at the site.
- (a) CQA Monitor will obtain soil samples from the stockpiles for waste characterization purposes, and will conduct laboratory analysis for total arsenic, lead, and mercury using United States Environmental Protection Agency (USEPA) Methods 6020/6010/7471 and diesel using USEPA Method 8015. If total metals concentrations exceed 10 times their respective Soluble Threshold Limit Concentration (STLC), then extraction testing will be performed using the Title 22 Waste Extraction Test (WET) and Toxicity Characterization Leaching Procedure (TCLP). CQA Monitor will provide the laboratory test results to Contractor so that Contractor can use the results for landfill selection.
 - (b) Contractor shall submit all required documents and forms to the landfill for waste acceptance, and obtain landfill waste acceptance prior to transport.
5. Once the waste has been characterized and Contractor has obtained landfill acceptance, Contractor shall load-out and transport the contaminated soil to an appropriately licensed landfill facility for disposal.
6. Contractor shall procure and import approximately 10,500 cubic yards of clean soil from an approved off-site borrow source, and place the clean soil as engineered fill in accordance with these specifications to the lines and grades shown on the project plans. Soil may be borrowed from clean onsite cut areas per to the grading plans, after contaminated soil has been removed.
- (a) Prior to soil import, the soil must be sampled and tested by the CQA Monitor, and the test results must meet the project's soil import criteria.
7. Contractor shall install fencing along the edge of the soil removal area to restrict access to the adjacent floodplain where contaminated sediment is to remain in place.

8. Contractor shall restore the disturbed areas, including finish grading, installation of erosion and sediment control best management practices (BMPs), and application of seed, mulch, and fertilizer.

1.04 CONTRACTOR USE OF SITE AND PREMISES

- A. Contractor is responsible for site security and safety during the duration of the project and is responsible for securing the work site so that it does not present a safety hazard.
- B. Haul trucks shall be loaded adjacent to the active work area so that truck tires do not contact contaminated soil and do not track-out contaminated soil from the active work area.
- C. Contractor shall install rumble plates or appropriately sized rock aprons at construction entrances/exits from Joyce Drive to prevent soil track out.
- D. Temporary power, if needed, is the responsibility of the Contractor.
- E. The Contractor shall control fugitive dust using wet methods (water application) accordance with the Dust Mitigation Plan and CAMP. The Contractor may obtain a permit and construction meter from City of Grass Valley to connect to a nearby fire hydrant to obtain water for dust suppression.

1.05 WORK SEQUENCE

- A. Contractor shall submit a work schedule indicating sequence and dates for phases of work.
- B. Contractor shall notify CQA Monitor of any changes in schedule as soon as changes are anticipated.

END OF SECTION

SECTION 01020 – SITE SAFETY

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Health and Safety Plan
- B. Prescriptive Standards
- C. Submittals

1.02 RELATED SECTIONS

- A. Section 02220 Excavation and Grading

1.03 REFERENCES

- A. Occupational Safety and Health (OSHA) Standards
- B. A Health and Safety Plan was prepared for Geocon employees as part of the cleanup plan and is attached for the Contractor's reference. The HSP describes potential health hazards that may be encountered during the work and includes provisions that should be followed as a minimum.

1.04 HEALTH AND SAFETY PLAN

- A. Contractor shall prepare a site-specific health and safety plan (HSP) describing the methods Contractor will implement to ensure the safety of Contractor employees and neighbors. Safety topics include but are not limited to:
 - 1. Protection from health risks associated with arsenic, cobalt, lead, and mercury in soil.
 - 2. Protection from hazards associated with excavations and earthwork.
 - 3. Protection from accident and injury related to equipment operations, heat stress, earthwork and other work related to construction activities.
- B. The HSP shall include emergency response plans for fire and injury, including emergency telephone numbers and a map and directions to the nearest hospital.

1.05 PRESCRIPTIVE STANDARDS

- A. Conduct a safety orientation prior to beginning work, and for all new employees, and conduct daily tailgate safety meetings.

- B. Maintain a copy of the site safety plan and material safety data sheets for chemicals, fuels or lubricants used at the site, in an unlocked location available to all employees, visitors, Owner, and CQA Monitor.
- C. Conform to all applicable OSHA standards.
- D. These prescriptive standards are intended as minimum requirements, and do not relieve Contractor of responsibility to assure safety of Contractor employees and site visitors.

1.06 SUBMITTALS

- A. Keep a copy of the safety plan on site at all times during the work, and submit a copy of the site safety plan to the Local Enforcement Agency (LEA; Nevada County Department of Environmental Health) upon request.

END OF SECTION

SECTION 01039 - COORDINATION AND MEETINGS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Coordination
- B. Field Engineering
- C. Preconstruction meeting
- D. Progress meetings

1.02 RELATED SECTIONS

- A. Section 01050 – Field Engineering
- B. Section 01700 - Contract Closeout

1.03 COORDINATION

- A. Coordinate scheduling, submittals, and work of the various sections of specifications to assure efficient and orderly sequence of installation of interdependent construction elements.

1.04 FIELD ENGINEERING

- A. Set and verify finish subgrade for engineered fill placement after removal of contaminated soil.

1.05 PRECONSTRUCTION MEETING

- A. After notice of award, Owner will schedule a meeting at the site prior to or during mobilization.
- B. Attendance required: Contractor, Owner, Engineer, CQA Monitor
- C. Agenda
 - 1. Designation of personnel representing the parties in contract, responsibilities, authority and lines of communication
 - 2. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, requests for information and contract closeout procedures
 - 3. Schedule
 - 4. Owner's requirements

5. Construction water source
6. Security and housekeeping procedures
7. Testing and recordkeeping procedures, correcting and documenting construction deficiencies
8. Work area security and safety
9. Definition of storage areas, work areas, stockpile areas, laydown areas, haul routes, and related items.

1.06 PROGRESS MEETINGS

- A. Contractor or Owner may schedule progress meetings as required to address construction progress and schedule.

END OF SECTION

SECTION 01050 – FIELD ENGINEERING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Surveying, field engineering and layout of all work.
- B. Establishing and maintaining all lines and grades.
- C. Project record documents.

1.02 RELATED SECTIONS

- A. Proposed finish subgrade contours are shown on the project plans.
- B. Finish subgrade contours shall match surrounding contours and maintain a minimum slope of 2% to drain.
- C. Information regarding survey monumentation is available to bidders.
- D. Basic site engineering requirements may also be described in other sections of these specifications.

1.03 QUALITY ASSURANCE

- A. Contractor shall employ a Land Surveyor or person acceptable to the Engineer, to perform survey work of this section.

1.04 PROJECT RECORD DOCUMENTS

- A. Maintain a complete and accurate log of control and survey work.

1.05 SURVEY REFERENCE POINTS

- A. Contractor to locate and protect survey control and reference points.
- B. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to and approval from the Engineer.

PART 2 - PRODUCTS

2.01 GRADE SHEETS

- A. Provide copies of grade sheets to Engineer.

2.02 TOLERANCES

- A. Finish subgrade soil:
 - 1. Finish subgrade shall be constructed to within +/- 0.1 foot for grades and +/- 1 foot for lines.

2. A minimum slope of 2 percent shall be maintained in at least one direction from any given point.

END OF SECTION

SECTION 01300 – SUBMITTALS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Submittal procedures
- B. Construction progress schedules

1.02 RELATED SECTIONS

- A. Section 01400 Quality Control

1.03 REFERENCES

- A. DTSC-Approved Cleanup Plan

1. All work is to be performed in accordance with the California Department of Toxic Substances Control (DTSC) approved cleanup plan and its appendices: *Final Report of Findings and Response Plan, Joyce Drive Property, Grass Valley, California* (Geocon Consultants, Inc.; April 29, 2026; DTSC Site Code 102504; EnviroStor ID 60003507).
 2. The DTSC-approved cleanup plan is available on the DTSC EnviroStor website: https://www.envirostor.dtsc.ca.gov/getfile?filename=/public%2Fdeliverable_documents%2F9141346573%2FJoyce%20Drive_%20Final%20Response%20Plan_04292026.pdf
 3. The following appendices are attached to these specifications:
 - (a) Appendix I, Dust Mitigation Plan (DMP)
 - (b) Appendix K, Health and Safety Plan (HSP)
 - (c) Appendix L, Community Air Monitoring Plan (CAMP)
 - (d) Appendix O, Transportation Plan and Spill Contingency Plan
- B. Publications listed below form a part of this specification to the extent applicable.
 1. CODE OF FEDERAL REGULATIONS (CFR)
 - (a) 29 CFR 1910 Occupational Safety and Health Standards
 - (b) 29 CFR 1926 Safety and Health Regulations for Construction
 - (c) 40 CFR 302 Designation, Reportable Quantities, and Notification
 - (d) 40 CFR 260-265 Hazardous Waste Regulations

2. CALIFORNIA CODE OF REGULATIONS (CCR)

- (a) California Division of Occupational Safety (Cal/OSHA) General Industry Safety Orders, Title 8
- (b) California Construction Safety Orders, Title 8
- (c) Hazardous Waste Requirements, Title 22

1.04 SUBMITTAL PROCEDURES

- A. Owner approval is required for all submittals.
- B. Transmit each submittal with a transmittal form approved by Owner.
- C. Sequentially number the transmittal forms.
- D. For revisions and resubmittals, identify all changes made since previous submission.
- E. Contractor shall submit the following within 14 calendar days after notice to proceed. No work at the site, with the exception of site inspections and surveys, shall be performed until the submittals are approved. No adjustment for time or money will be made if resubmittals are required due to deficiencies.
 - 1. Schedule
 - 2.
 - 3. Health and Safety Plan (HSP)
 - 4. List of subcontractors
 - 5. Method of excavation and equipment to be used
 - 6. Storage methods (stockpile control) and staging locations of stockpiles and equipment
 - 7. Decontamination procedures
 - 8. Proposed clean soil borrow source and representative soil samples
 - 9. Fencing and weatherproof metal sign materials, and a scale drawing of the sign indicating the sign dimensions and font size.

1.05 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedule within 10 days after notice to proceed, and prior to start of work.
- B. Revise and resubmit as required.

- C. Notify CQA Monitor as soon as schedule changes are anticipated.

END OF SECTION

SECTION 01400 – QUALITY CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Quality control
- B. Quality assurance

1.02 RELATED SECTIONS

- A. Section 01300 Submittals

1.03 REFERENCES

- A. Conform to referenced standards by date of issue current upon date of contract.
- B. Should specified reference standards conflict with contract documents, request clarification from the Engineer before proceeding.
- C. Contractual relationships of the parties to the contract shall not be altered from those set forth in the contract documents by mention or inference otherwise in any reference document.

1.04 QUALITY CONTROL

- A. Contractor shall monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- C. Perform work by persons qualified to produce workmanship of specified quality.

1.05 QUALITY ASSURANCE

- A. Owner is to retain Engineer and QA Monitor to perform compliance monitoring, soil sampling, real-time dust monitoring, field density testing during fill placement, and laboratory testing on behalf of the Owner.
- B. The Contractor shall cooperate with the CQA Monitor, prepare earthwork testing areas using earthwork equipment, furnish samples of material.
- C. Notify CQA Monitor promptly when changes in schedule are anticipated, and no less than 24 hours prior to expected time for operations requiring services.

1.06 REGULATORY COMPLIANCE

A. Permits and Licenses

1. Contractor shall adhere to applicable federal, state, and local standards, ordinances, and guidelines. Contractor shall maintain the required licenses to perform the work and shall obtain a Grading Permit from the City of Grass Valley as well as any required federal, state, and local permits for excavation activities, on-site storage of excavated soil and/or equipment, and transport and disposal of contaminated material.
2. Owner will reimburse Contractor for direct cost of the grading permit and associated inspection fees by change order. Other permits will be obtained by Contractor at no additional cost to the Owner.

B. Control of Fugitive Dust

1. Contractor shall use wet methods (water application) to control dust emissions in accordance with the Dust Mitigation Plan and Community Air Monitoring Plan (CAMP), Appendices I and L of the DTSC-approved cleanup plan. The CQA Monitor will perform real-time perimeter dust monitoring during the work to evaluate the Contractor's compliance.
2. Contractor shall control dust emissions in accordance with the Northern Sierra Air Quality Management District (NSAQMD) Rule 226. The NSAQMD will monitor and enforce NSAQMD Rule 226 standards and requirements. Contractor will maintain active dust control throughout all phases of work, including but not limited to excavation, stockpiling, loading, and transport of contaminated waste. At no time shall visible dust cross the property line.

C. Worker Health and Safety

1. If required by Contractor's Health and Safety Plan for worker protection and OSHA compliance, Contractor is responsible for negative exposure assessment monitoring at the work area.

D. Control of Vehicle and Equipment Emissions

1. Equipment (including but not limited to excavators, backhoes, loaders, and water trucks) shall meet or exceed USEPA emissions requirements. Contractor shall be responsible for ensuring that all equipment has proper and functioning emissions control systems. All equipment shall have mufflers and will be free of excessive noise and smoke emissions.

2. If Contractor's equipment emits excessive noise or smoke, the equipment shall be removed from the work area and repaired, or a substitute piece of equipment shall be brought to the site.
3. Vehicles shall be turned off during staging times to reduce emissions.

END OF SECTION

SECTION 01700 – CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Closeout procedures
- B. Project record documents

1.02 CLOSEOUT PROCEDURES

- A. Clean work site, remove waste and surplus materials.
- B. Submit written certification that contract documents have been reviewed, work has been inspected and work is complete in accordance with contract documents and ready for the Engineer's review.
- C. Provide submittals to the Engineer that are required by governing or other authorities.
- D. Submit final application for payment identifying total adjusted contract sum, previous payments, and sum remaining due.

1.03 PROJECT RECORD DOCUMENTS

- A. Submit grade sheets for rough subgrade.

END OF SECTION

DIVISION 2 – SITE WORK

SECTION 02010 – MOBILIZATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Mobilization procedures
- B. Site Preparation and Controls

1.02 MOBILIZATION PROCEDURES

- A. This work shall consist of preparatory work and operations necessary for the movement of personnel, equipment, materials, supplies, and incidentals to the site, and all other work and operations that must be performed or that cause costs to be incurred prior to beginning work on the various items under this contract (Bonds, initial schedules, submittals, site safety, site control, etc.).

1.03 SITE PREPARATION AND CONTROLS

- A. Storm Water Pollution Prevention
 - 1. Contractor shall implement the Storm Water Pollution Prevention Plan (SWPPP; see Section 02270, Erosion Control).
- B. Field Sanitation
 - 1. Contractor shall comply with the Department of Industrial Relations regulations outlined in Cal/OSHA Title 8, Section 1526, Toilets at Construction Jobsites.
- C. Vegetation Removal
 - 1. The remedial action involves the removal of fill soil that is generally vegetated by grasses and weeds, and small trees and brush along the existing fill slope. Before soil excavation, vegetation shall be cut off at the ground surface, segregated, and removed from the work area. Removal of vegetation is to be performed using equipment that does not disturb contaminated soil prior to excavation.
- D. Limits Of Excavation
 - 1. Prior to excavation, Contractor shall stake the excavation limits in the field by survey, and shall install orange fencing to delineate the boundaries of the excavation adjacent to the Little Wolf Creek floodplain, which is not to be disturbed.

E. Track-Out Prevention and Control

1. Haul trucks and passenger vehicles are to remain outside of active excavation areas, and the wheels are not to contact contaminated soil. All vehicles shall enter and exit the site at the construction entrance/exit, where Contractor installs and maintains rumble plates or appropriately sized rock apron for track-out prevention. To minimize track-out material onto the public roadways, Contractor shall inspect all tires for accumulated dirt and brush clean prior to leaving the site.
2. All vehicles operating on the site will adhere to a maximum speed of 15 miles per hour or less.
3. All visible track-out materials shall be removed from paved public roadways using a regenerative air (vacuum) sweeper prior to being spread by passing traffic.

F. Preservation of Utilities

1. Contractor shall notify Underground Service Alert (USA) North 811 as required by law for the entire area of the site prior to excavation. Contractor is responsible for preservation of existing utilities.

END OF SECTION

SECTION 02220 – EXCAVATION AND GRADING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Excavation
- B. Dewatering
- C. Soil Segregation and Temporary Stockpiling
- D. Soil Verification Sampling and Analysis
- E. Waste Characterization Sampling and Analysis
- F. Off-Site Disposal
- G. Proposed Import Soil Sampling and Analysis
- H. Import and Placement of Clean Fill

1.02 RELATED SECTIONS

- A. Section 01050 Field Engineering
- B. Section 01400 Quality Control
- C. Section 02270 Erosion Control

1.03 REFERENCES

- A. ASTM D422 – Standard Test Method for Particle-Size Analysis of Soils
- B. ASTM D1557 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort
- C. ASTM D6938 – Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
- D. ASTM D2488 – Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)

1.04 QUALITY CONTROL

- A. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. See Section 01050 Field Engineering for tolerances for line and grade.

- C. A qualified testing laboratory will be retained by the Owner to perform QA tests for soil compaction and for observation of the earthwork. Owner's QA testing does not relieve Contractor from QC responsibilities and contract responsibilities.
- D. Samples of all imported fill material shall be delivered to Engineer at least twenty-one (21) days prior to import of soil to allow for laboratory analysis and regulatory review. Written approval of material must be obtained prior to import.

1.05 SUBMITTALS

- A. Submit representative soil samples to Engineer at least twenty-one (21) days prior to import of soil material. Obtain written approval of material prior to import. Comply with General Conditions and pertinent provisions of Section 01300.

PART 2 - PRODUCTS

2.01 CLEAN IMPORT SOIL

- A. The contractor shall submit representative samples of the proposed import soil to the CQA Monitor for geotechnical analysis and testing for contamination. Contractor must obtain Engineer's written approval prior to transport of clean import soil to the site.
- B. Clean import soil shall be uncontaminated, predominantly granular, non-expansive and free of organic matter and deleterious material. No rocks greater than 6 inches in any dimension shall be placed in the upper five feet of fill.
- C. Soil shall not be borrowed from properties with suspected contamination. Undesirable borrow sites include former commercial and industrial uses such as gasoline stations, dry cleaners, photographic processing facilities, paint stores, auto repair and painting facilities, metal processing shops, manufacturing facilities, aerospace facilities, oil refineries, and waste treatment plants.
- D. The CQA Monitor will submit soil samples to a California-certified laboratory for analysis of metals, asbestos, and petroleum hydrocarbons, at a minimum. Additional testing may be required depending upon the past use of the proposed borrow property.
- E. Screening levels are listed below:

Analyte	Screening Level (SL) mg/kg	Basis for SL
Antimony	31	RSL
Arsenic	26 / 9.84	BTV / UCL
Barium	15,000	RSL

Beryllium	16	DTSC-SL
Cadmium	7.1	DTSC-SL
Chromium	120,000	RSL
Cobalt	23	RSL
Copper	3,100	RSL
Lead	80	DTSC-SL
Mercury	0.67	DTSC-SL
Molybdenum	390	RSL
Nickel	820	DTSC-SL
Selenium	390	RSL
Silver	390	RSL
Thallium	0.78	RSL
Vanadium	390	RSL
Zinc	23,000	RSL
Asbestos	<0.25%	CARB
GRO	100	Tier 1 ESL
DRO	100	Tier 1 ESL
ORO	1,600	Tier 1 ESL

Notes: BTV = background threshold value, CARB = California Air Resources Board, DTSC-SL = DTSC Screening Level, ESL = RWQCB Environmental Screening Level, mg/kg = milligram per kilogram, RSL = USEPA Regional Screening Level, SL = screening level for residential soil, UCL = 95% upper confidence limit on arithmetic mean site background concentration

PART 3 - EXECUTION

3.01 EXCAVATION

- A. Apply water to soil prior to and during excavation to perform fugitive dust control per the Dust Mitigation Plan and Community Air Monitoring Plan (CAMP). CQA Monitor will perform real-time particulate monitoring to verify compliance with the Dust Mitigation Plan and CAMP.
- B. Perform track-out prevention and control per Section 02010 1.03(E). CQA Monitor will observe and verify track-out prevention and control.
- C. Excavation includes mechanical excavation of fill soil and underlying alluvium using a rubber-tired or track-mounted excavator, backhoe, or other mechanical means. Excavation shall be performed in accordance with the Dust Mitigation Plan and to the depths indicated by the CQA Monitor as a result of verification sampling and analysis. The approximate vertical and horizontal limits of excavation are depicted on Figures 2 and 3.

3.02 DEWATERING

- A. Divert surface water runoff to prevent entry into any portion of the excavation.
- B. Although groundwater may be encountered at the base of the deepest excavation, dewatering during excavation activities is not anticipated.

3.03 SOIL SEGREGATION AND TEMPORARY STOCKPILING

- A. Segregate fill soil from underlying gray sand, which is suspected mine waste and may classify as Class I waste, requiring disposal at a hazardous waste landfill.
- B. Stockpile excavated soil away from the excavation to allow for soil sampling and laboratory analysis.
- C. Protect stockpiles from wind and water erosion.

3.04 SOIL VERIFICATION SAMPLING AND ANALYSIS

- A. CQA Monitor will obtain soil samples from the base and side walls of the excavations for chemical analysis. Contractor may need to perform additional excavation of contaminated soil if it is detected in the base or side walls of the excavation.

3.05 WASTE CHARACTERIZATION SAMPLING AND ANALYSIS

- A. CQA Monitor will obtain soil samples from the excavated soil stockpiles for waste characterization. Waste to be removed from the site for off-site disposal will be classified by sampling and laboratory analysis (total, WET, and TCLP) for arsenic, lead, and mercury to determine whether it will be disposed at a Class II (non-hazardous) or Class I (hazardous) solid waste disposal facility. Sampling will be performed at a minimum frequency of one 4-point composite sample per 500 cubic yards of soil.
- B. The fill soil (the majority of the soil to be off-hauled) is generally expected to classify as non-hazardous waste. The western edge of the fill is underlain by floodplain sediment that is expected to be classified predominantly as hazardous waste based on its soluble arsenic concentrations.

3.06 OFF-SITE DISPOSAL

- A. Material to be removed from the site shall be loaded into closed-top or tarped trucks and transported to a licensed Class I or Class II solid waste facility (depending upon waste characteristics) for disposal in accordance with applicable federal, state and local laws and regulations.

- B. Waste loading and transport shall be performed in accordance with the attached Transportation Plan, which includes transportation route maps and a contingency plan/spill response plan.
- C. The contractor is responsible for obtaining approval from a licensed solid waste facility prior to transport.
- D. Weight tickets and waste manifests shall be provided to the CQA Monitor for all off-site waste disposal.

3.07 PROPOSED IMPORT SOIL SAMPLING AND ANALYSIS

- A. Prior to the import of clean soil, Contractor must obtain written approval for import from the CQA Monitor. The CQA Monitor will coordinate laboratory analysis, work with the DTSC for review of chemical analysis, and work with the Engineer for geotechnical review.

3.08 IMPORT AND PLACEMENT OF CLEAN FILL

A. Subgrade Preparation

1. Subgrade shall be prepared prior to soil transport and fill placement. The subgrade surface is to be scarified to a depth of 8 inches, moisture conditioned at or near optimum moisture content, and recompact to a minimum of 90% of the ASTM D1557 maximum dry density.
2. For areas to receive fill that are steeper than 5 horizontal to 1 vertical (5H:1V), a keyway is to be constructed at the base of the fill at least two feet deep and an equipment-width wide, as confirmed by the CQA Monitor in the field. The base of the keyway shall be in competent material as determined by the CQA Monitor in the field.

B. Fill Placement and Compaction

1. Maintain moisture content in soil to minimize the generation of visible dust during preparation, placement and compaction.
2. Soil shall be uniformly moisture conditioned to the ASTM D1557 optimum moisture content or within approximately 3 percentage points above optimum moisture content.
3. Fill shall be constructed by placing uniformly moisture conditioned soil in maximum 8-inch-thick loose lifts (layers) prior to compacting.
4. Fill shall be compacted to a minimum relative compaction of 90% of the ASTM D1557 maximum dry density.

5. The moisture content, density, and relative percent compaction of fill must be verified by the CQA Monitor during construction. The contractor shall assist the CQA Monitor by excavating test pads with the on-site earth moving equipment.

C. Fill slope construction

1. Fill slopes shall be 2 horizontal to 1 vertical (2H:1V) or flatter, unless otherwise specified by the civil plans.
2. For areas to receive fill that are steeper than 5H:1V, a keyway is to be constructed at the base of the fill at least two feet deep and an equipment-width wide, as confirmed by the CQA Monitor. The base of the keyway shall be in competent material as determined by the CQA Monitor.
3. Fill is to be benched into the existing slope. Benches are to extend into competent material, as determined by the CQA Monitor.
4. The top of the fill is to be graded to drain away from the fill slope as specified on the plans. Stormwater runoff is to be conveyed into natural drainage courses as specified on the plans.
5. Place fill in horizontal lifts (layers) not exceeding eight inches in thickness. Overbuild the slope face and cut back to the desired slope gradient.

3.09 QUALITY CONTROL / QUALITY ASSURANCE

- A. Field testing will be provided by the Engineer and CQA Monitor.
- B. Secure Engineer's approval of subgrade prior to fill placement.
- C. Failed field density tests shall result in additional compaction effort or removal, re-processing and recompaction of clean import soil fill materials.

END OF SECTION

SECTION 323113 – CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. References
- B. Submittals
- C. Quality Control
- D. Delivery, Storage and Handling

1.02 REFERENCES

- A. Installation of chain link fence and gate shall conform to the provisions in Section 80, "Fences," of the Standard Specifications and Section 10-1.16 of the Special Provisions. All ferrous materials shall be protected by galvanizing or other specified coatings. Imperfectly galvanized or coated material or material with serious abrasions shall not be used.

B.

1.03 SUBMITTALS

- A. Product Data: Submit 5 days prior to shipment to the site.
- B. Shop Drawings: Submit drawings showing location of gates (one on southern fence line and one on northern fence line), corner, end, and pull posts.

C.

1.04 QUALITY CONTROL

- A. Submit certificates of compliance in accordance with the applicable reference standards.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in an undamaged condition. Store materials off the ground to provide protection against oxidation caused by ground contact.

PART 2 - PRODUCTS

2.01 POSTS

- A. The base metal for the manufacture of posts and braces shall be commercial quality, or better, weldable steel. Posts and braces shall be galvanized in

conformance with the provisions in Section 75 1.05, "Galvanizing," of the Standard Specifications.

- B. The material of which posts and braces are fabricated shall have a nominal thickness, before galvanizing, of not less than 0.105 inch for posts and 0.075 inch for braces.
- C. Gate posts shall be fabricated from schedule 40 pipe conforming to the requirements shown on the plans.
- D. The length of posts, exclusive of fitted top fixtures or other methods of supporting the top tension wire which are integral with the post, shall not be less than the depth of the concrete footings shown on the plans plus the height of the fabric as shown on the plans or specified in the special provisions, less 4 inches.
- E. All posts shall be fitted with rainproof tops.
- F. Post tops, extension arms, stretcher bars and other required fittings and hardware shall be steel or malleable iron or wrought iron and shall be galvanized after fabrication. All required fittings and hardware shall be fastened to the posts in the proper manner.

2.02 FABRIC

- A. Chain link fabric shall conform to the requirements in AASHTO Designation: M 181 for Type I zinc coated fabric with a Class C coating. The wire used in the manufacture of the fabric shall be 9 gage.
- B. Chain link fence fabric shall be woven into approximately 2 inch mesh such that there shall be at least 7 meshes in a vertical dimension of 23 inches along the diagonals of the openings. Chain link fence fabric shall have knuckled finish on top and bottom edges.

2.03 PVC COATING

- A. Chain link fence, posts, gate, wire and fittings shall be polymer coated with a black PVC coating, fused and adhered to the exterior zinc coating of the galvanized pipe in accordance with ASTM F1043.

2.04 MISCELLANEOUS

- A. Between posts, chain link fabric shall be fastened to a top and bottom tension wire or horizontal rails as shown on the plans. Tension wire shall be at least 7 gage (0.177 inch dia.) coil spring steel of good commercial quality and shall be galvanized in conformance with the requirements in ASTM Designation: A 116, Coating Class 3.

- B. Tie wires and hog rings shall be at least 9 gage (0.148 inch dia.) steel and post clips shall be at least 6 gage (0.192 inch dia.) steel; all tie wires, hog rings and post clips shall be galvanized in conformance with the requirements in ASTM Designation: A 116, Coating Class 3.
- C. Turnbuckles and truss tighteners shall be fabricated of commercial quality steel, malleable iron or wrought iron and shall be galvanized as provided in Section 75 1.05, "Galvanizing." The truss tighteners shall have a strap thickness of not less than 1/4 inch.
- D. Portland cement concrete for metal post footings and for deadmen shall be produced from commercial quality aggregates and cement and shall contain not less than 470 pounds of cement per cubic yard.

2.05 GATES

- A. Provide two gates (one north, one south), Type II, double swing, total width 12 feet, round framing and bracing members of zinc-coated steel, rigid construction, free from sag or twist.
- B. Gate Posts: Provide gate posts for supporting each gate leaf in material class, grade and finish to match other fence posts.
- C. Gate Fabric: As specified for fencing fabric. Attach gate fabric to gate frame in accordance with manufacturer's standards, except that welding is not permitted.
- D. Gate Frame: Provide gate frame assembly that is welded or assembled with special malleable or pressed-steel fittings and rivets to provide rigid connections. Install fabric with stretcher bars at vertical edges; stretcher bars may also be used at top and bottom edges. Attach stretcher bars and fabric to gate frames on all sides at intervals not exceeding 15 inches. Attach hardware with rivets or by other means which provides equal security against breakage or removal.
- E.

2.06 PADLOCKS

- A. Provide padlocks conforming to ASTM F883, with chain.
- B.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Ensure final grading and established elevations are complete prior to commencing fence installation.
- B. Provide excavations for post footings which are in virgin or compacted soil.

3.02 INSTALLATION

- A. Line posts shall be spaced at intervals as shown on the plans, measured from center to center of posts. In general, in determining the post spacing, measurement will be made parallel to the slope of the natural ground, and posts shall be placed in a vertical position, except in unusual locations where directed by the Engineer the posts shall be set perpendicular to the ground surface.
- B. Posts shall be set in concrete footings conforming to the details shown on the plans and crowned at the top to shed water.
- C. End, latch and corner posts shall be braced to the nearest line post. At the Contractor's option bracing shall be accomplished either with diagonal braces used as compression members or with horizontal braces used as compression members and steel truss rods having minimum diameters of 3/8 inch used as tension members. Each steel truss rod shall be equipped with a turnbuckle or truss tightener with tensile strength equal to the truss rod.
- D. Chain link fabric shall be fastened on the side of the posts designated on the plans. The fabric shall be stretched and securely fastened to the posts, and horizontal rails.
- E. The fabric shall be fastened to end, latch, corner and gate posts with stretcher bars having dimensions of not less than 1/4" x 3/4" and stretcher bar bands having dimensions of not less than 1/8" x 3/4" spaced at one foot intervals. The fabric shall be fastened to line posts with tie wires or post clips and to tension wires with tie wires or hog rings. The fasteners shall be spaced at approximately 12 inches on line posts and at approximately 18 inches on rails or tension wires. Wire ties shall be given at least one complete turn. Hog rings shall be closed with ends overlapping. The tension wires shall be wrapped around terminal posts. The distance from the top of the fabric to the top tension wire shall be 2 inches maximum.
- F. In lieu of using stretcher bars and bar bands, the fabric may be fastened to the end and corner posts by threading through loops formed on the posts.
- G. Surplus excavated material remaining after the fence has been constructed shall become the property of the Contractor and shall be disposed of in conformance

with the provisions in Section 7 1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

H.

I. Install gates plumb, level, and secure, with full opening without interference. Adjust hardware for smooth operation and lubricated where necessary.

J. Provide padlocks for gate openings and provide chains that are securely attached to gate or gate posts. Provide padlocks keyed alike, and provide two keys for each padlock.

END OF SECTION

SECTION 02270 – EROSION CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Storm Water Pollution Prevention Plan
- B. Best Management Practices
- C. Site Restoration

1.02 STORM WATER POLLUTION PREVENTION PLAN

- A. The contractor shall implement the site-specific Storm Water Pollution Prevention Plan (SWPPP) to comply with the State of California, Environmental Protection Agency, State Water Resources Control Board (SWRCB), National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order WQ 2022-0057-DWQ, NPDES No. CAS00002 (the Construction General Permit, or CGP).

1.

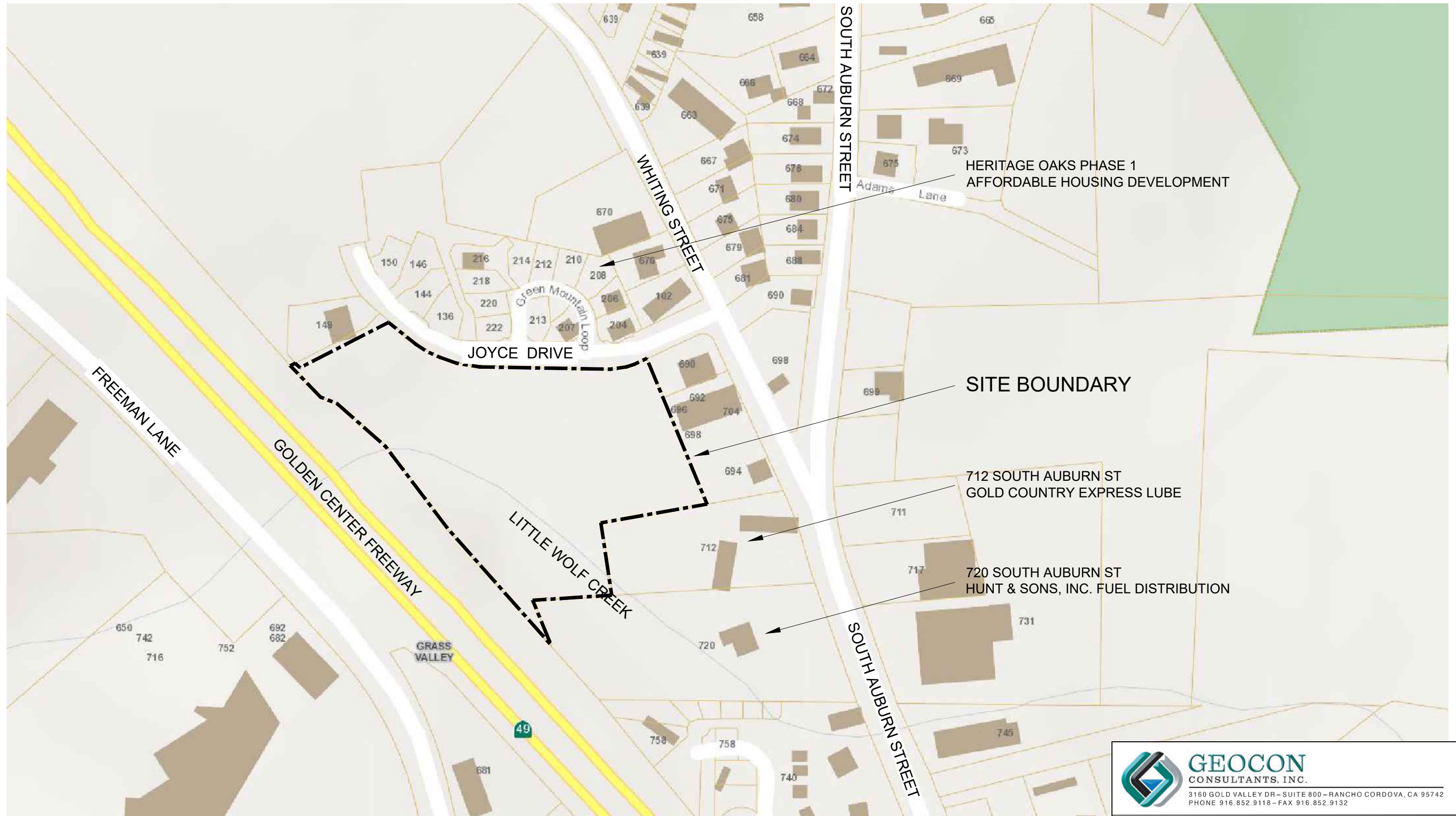
1.03 BEST MANAGEMENT PRACTICES

- A. Contractor shall install and maintain erosion and sediment controls per the SWPPP. Best management practices (BMPs) shall be implemented to prevent erosion and reduce the potential for sediment discharges.
 - 1. Exposed fill surfaces and areas disturbed by construction activity shall be hydroseeded or hand seeded/strawed with an appropriate seed mixture compatible with the soil and climate conditions of the site as recommended by the local Resource Conservation District.
 - 2. Silt fences shall be installed at the down slope perimeter of disturbed areas.
 - 3. Fiber rolls (straw wattles) shall be installed at the toe of slope and on contour within the placement area pursuant to the SWPPP.
 - 4. The Contractor shall maintain and protect exposed soil from wind and water erosion.
 - 5. If a storm is forecasted for the area, exposed fill areas shall be sloped to drain and compacted to facilitate runoff. Plastic sheeting shall be secured over exposed soil prior to storm events if the soil is in danger of eroding.

6. All existing surface drainage facilities must be kept free of soil and debris during construction.
 7. The Contractor shall provide siltation control and management during construction.
 8. Damaged or worn BMPs shall be repaired or replaced. BMPs shall be observed for damage when rain is forecasted, following rain events, and periodically as needed during prolonged rainfall.
 9. Fiber rolls manufactured with natural fibers typically do not require removal and can be abandoned in place once permanent erosion control (vegetation) is established. Fiber rolls that do not degrade must be removed once permanent erosion control is established.
- B. The Contractor shall provide the services of a Qualified Stormwater Practitioner (QSP) to ensure oversight of stormwater monitoring, sampling (if required), and best management practices (BMPs) as outlined in the site-specific SWPPP.
 - C. Contractor shall install all soil erosion, sediment control, and sediment track-out BMPs, and shall perform all materials handling, stockpile management, maintenance, and housekeeping practices as outlined in the SWPPP and in accordance with the regulations. Contractor shall immediately repair or correct any BMPs that are damaged or require corrective actions.
 - D. Contractor shall be responsible for keeping the construction site in a clean and workmanlike manner and implementing all required erosion and sediment control measures and other control measures required by the SWPPP and regulations.
 - E. Contractor shall furnish all materials, qualified trained personnel, and equipment necessary to control stormwater and sediment runoff in accordance with the CGP. The Contractor will maintain active stormwater and sediment control throughout all phases of work, including but not limited to excavation, stockpiling, soil load-out, transport of contaminated waste, and import and placement of clean soil.
 - F. Contractor shall provide copies of the SWPPP records and logs during construction activities to the Owner on a weekly basis. Contractor shall maintain copies of these records and logs, and a copy of the NOI and SWPPP, at the construction site at all times for viewing by the California Regional Water Quality Control Board (RWQCB).

END OF SECTION

ATTACHMENTS



Base map from Nevada County Geographic Information System (<https://gis.nevcounty.net/MyNeighborhood/>)

0 150
Scale in Feet

Note: Boundary and feature locations were not determined by survey and should be considered approximate.



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

Joyce Drive Property

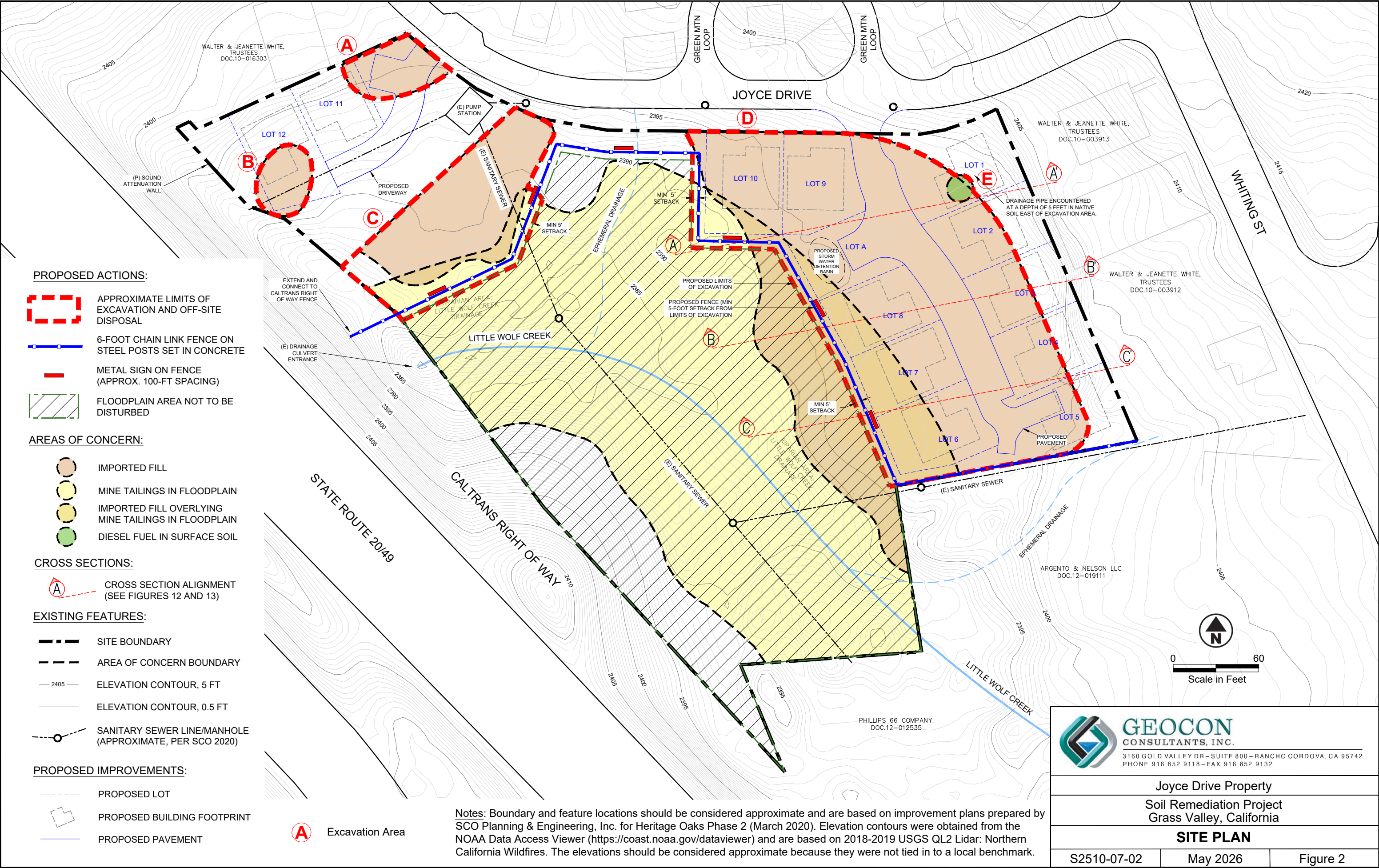
Soil Remediation Project
Grass Valley, California

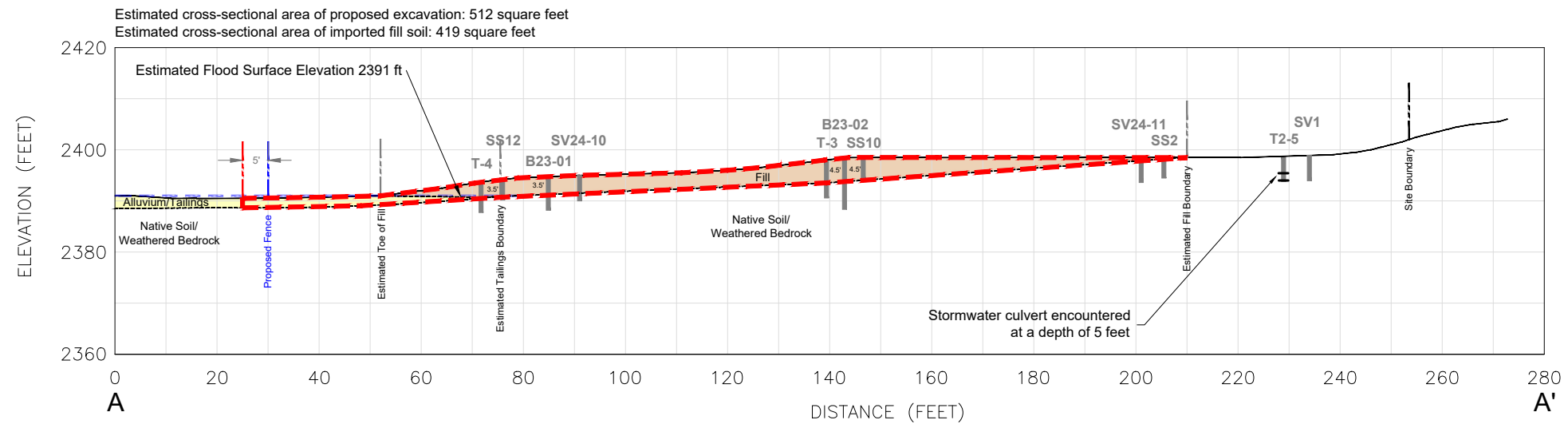
SITE LOCATION MAP

S2510-07-02

May 2026

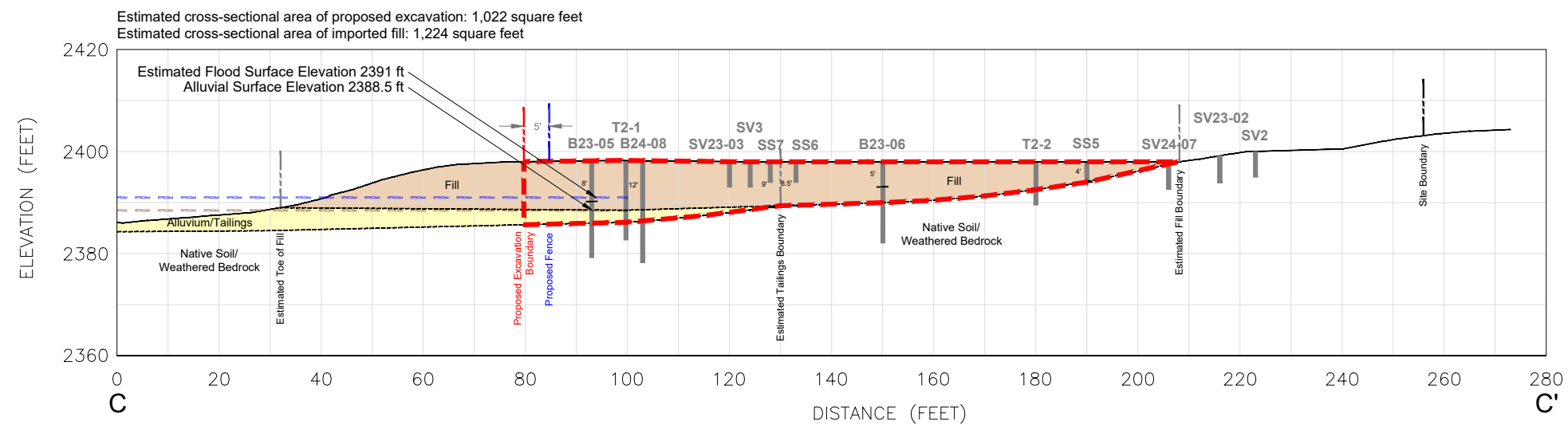
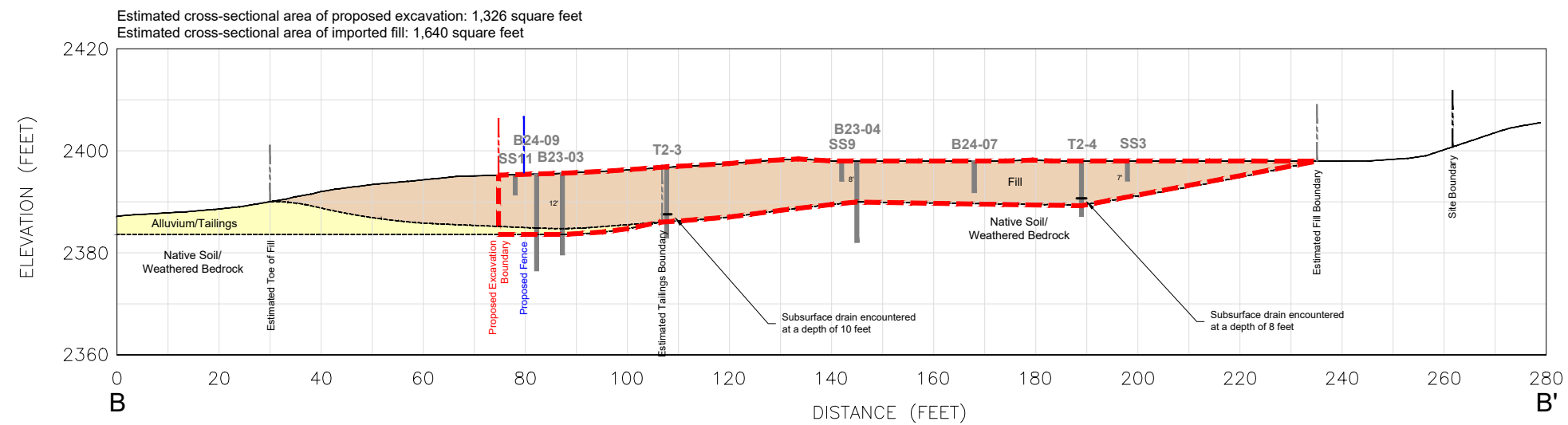
Figure 1





LEGEND:

- IMPORTED FILL
- ALLUVIUM/TAILINGS
- EXISTING GROUND SURFACE
- ESTIMATED BOUNDARY OF AREA OF CONCERN
- PROPOSED BOUNDARY OF EXCAVATION



Notes: Cross section alignments are depicted on Figure 11. Boundary and feature locations should be considered approximate and are based on improvement plans prepared by SCO Planning & Engineering, Inc. for Heritage Oaks Phase 2 (March 2020). Elevation contours were obtained from the NOAA Data Access Viewer (<https://coast.noaa.gov/dataviewer>) and are based on 2018-2019 USGS QL2 Lidar: Northern California Wildfires. The elevations should be considered approximate because they were not tied in to a local benchmark.



Joyce Drive Property

Soil Remediation Project
Grass Valley, California

CROSS SECTIONS

S2510-07-02

May 2026

Figure 3



GEOCON
CONSULTANTS, INC.

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

DUST MITIGATION PLAN

FOR

REMEDIAL ACTION

JOYCE DRIVE PROPERTY

GRASS VALLEY, CALIFORNIA

APRIL 2026

PREPARED ON BEHALF OF:

CITY OF GRASS VALLEY

125 E. MAIN STREET

GRASS VALLEY, CALIFORNIA 95945

PREPARED BY:

GEOCON CONSULTANTS, INC.

3160 GOLD VALLEY DRIVE, SUITE 800

RANCHO CORDOVA, CALIFORNIA 95742

GEOCON PROJECT NO. S2510-07-01



GEOCON

DUST MITIGATION PLAN

This Dust Mitigation Plan (DMP) describes material handling protocols to reduce the release of metals into the atmosphere during remedial action activities that involve soil disturbance. The DMP is an element of the Response Plan for the Joyce Drive Property in Grass Valley, California. The remedial action involves soil-disturbing activities including excavation and off-site disposal of approximately 10,526 cubic yards of contaminated soil and sediment.

PURPOSE

The purpose of this DMP is to:

- outline engineering controls to be implemented during the remedial action including fugitive dust prevention, track-out prevention, surface protection, vehicle movement, exploratory trench excavation, sample collection, and trench backfill; and
- outline protocol for confirming that engineering controls, as designed, are implemented during the soil-disturbing activities.

NOTIFICATION PRIOR TO SOIL DISTURBANCE

The California Department of Toxic Substances Control (DTSC) shall be notified at least one week in advance of soil-disturbing activities. Contact information is provided below:

Sarah Larese, Project Manager
California Department of Toxic Substances Control
Site Mitigation and Restoration Program
5796 Corporate Avenue
Cypress, California 90630
sarah.larese@dtsc.ca.gov
(714) 484-5321

ENGINEERING CONTROLS

Engineering controls and dust control measures apply to all mechanical soil disturbances in contaminated areas at the site, including areas with contaminated fill and contaminated sediment. Soil-disturbing activities are defined in this document as any mechanical soil disturbance in the contaminated areas. Mechanical soil disturbance may result from activities such as movement of equipment and vehicles, excavation and transport, and sample collection.

The engineering controls described below shall be implemented during any mechanical disturbance of contaminated materials associated with the remedial action. If alternate engineering controls are proposed, the alternate controls must be approved by the DTSC prior to soil disturbance.

Traffic Control

Maximum speed for any vehicle or equipment on the site shall be 10 miles per hour. Slower vehicle speeds may be necessary to reduce soil disturbance or dust generation. Vehicular and equipment travel should be limited to designated areas. Only vehicles and equipment directly involved with the site investigation shall be allowed in the contaminated work areas. All other vehicles and equipment shall remain parked in a designated clean area on-site.

Track Out Prevention

No soil is allowed to leave the contaminated work areas through vehicle or equipment track-out. Vehicles and equipment shall be visually inspected for soil or mud accumulation, and shall be washed down as necessary at the contaminated area ingress/egress location before leaving the contaminated area.

Soil Excavation and Transport

If the ambient soil moisture is not sufficient to prevent fugitive dust generation, water shall be sprayed to sufficiently wet areas of disturbance and stockpiled soil. Soil and sediment shall be adequately wetted such that no visible dust emissions occur. Excavation transport operations shall be suspended when, despite application of dust mitigation measures, wind speeds are high enough to result in fugitive dust emissions.

Soil Stockpiles

Contaminated soil and sediment may be temporary stockpiled for waste classification and loading onto trucks. Active stockpiles are to be adequately wetted or covered with waterproof tarps. Inactive stockpiles must be covered with waterproof tarps that are secured from wind and rain, and surrounded by BMPs for erosion and sediment control, such as straw wattles and silt fence.

Field Determination of Moisture

Field testing for determination of sufficient moisture content will be conducted as follows.

- A one-quart soil sample shall be taken from the top 3 inches of the disturbed area.
- The sample shall be poured from a height of 4 feet above a clean hard surface.
- The material will be considered adequately wetted if no observable dust is emitted when the material is dropped.

Air Particulate Monitoring

Air particulate monitoring is to be performed during disturbance of contaminated soil and sediment. Results of air particulate monitoring shall be reported to the DTSC within 48 hours of collection.

ADMINISTRATIVE CONTROLS

Occupational Safety and Health Act

Field investigation personnel shall maintain current Occupational Safety and Health Administration (OSHA) certification. Personal air monitoring equipment may be required by the lead agency or local enforcement agency.

DMP Compliance Monitoring

The Construction Quality Assurance (CQA) Monitor shall conduct the following DMP compliance monitoring during any mechanical disturbance of contaminated soil or sediment:

- confirm implementation of track-out controls;
- confirm that sufficient water is applied so that no visual fugitive dust is observed;
- confirm that on-site travel speeds are followed;
- confirm that contaminated soil is placed back into the exploratory excavations; and
- confirm that investigation activities are in compliance with the guidelines of the DMP.

Air Particulate Monitoring Protocol

Real-time dust monitoring may be required to verify that the engineering controls are effective in controlling dust emissions. When required, airborne dust levels are to be monitored using active, real-time, data-logging aerosol monitors (e.g., a MIE pDR1200 with PM-10 inlet attached to a sampling pump).

As set forth in CCR Title 17 Section 70200, the action level for fence-line suspended particulate matter (airborne dust) is 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), which is equal to 0.05 milligrams per cubic meter (mg/m^3). This value is based on a 24-hour sample obtained using a PM10 sampler, determined by real-time air monitoring as the difference between upwind and downwind measurements. CCR Title 17 Section 70200 states that the PM10 sampler is intended to collect a range of particulates reflecting the characteristics of lung deposition, collecting approximately 50% of all particles of 10 microns (μm) aerodynamic diameter, collecting a declining fraction of particles as their diameter increases, and increasing fraction of particles as their diameter decreases.

Dust monitoring instruments will be calibrated daily, will be set to log dust levels over 5-minute periods, and will be visually read every 15 minutes. Dust monitoring instruments are typically placed at the following locations:

- Upwind to monitor background airborne dust conditions;
- On the backhoe operator to provide worst case dust concentrations; and
- At two locations on the downwind property line.

If airborne dust monitoring results exceed the action level for dust in air ($0.05 \text{ mg}/\text{m}^3$), additional water is to be applied to the soil, and additional engineering controls for dust suppression are to be performed as required to maintain dust concentrations below the action level. In addition to the monitoring requirements described above, no visible dust is to cross the property line.

The lead agency or local enforcement agency may require dust monitoring and may also require air sampling and analysis. If conditions arise that require monitoring or air sampling, the monitoring shall be conducted in accordance with these guidelines. Air sampling and analysis, if required, is to be performed in accordance with NIOSH Method 7082, with analysis by flame atomic absorption spectroscopy (FAAS). All results of air monitoring shall be reported to the DTSC within 48 hours.

Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP; Appendix L of the Response Plan) is required for remedial action involving significant soil disturbance. Guidelines are set forth in the DTSC *Community Air Monitoring Plan Guidance* (CAMP Guidance, 2020). The CAMP Guidance emphasizes the role of the DTSC to ensure that public health and safety are protected, long-term environmental risks are properly managed and the appropriate regulations are followed.

As set forth in CCR Title 17 Section 70200, the action level (AL) for fence-line suspended particulate matter (airborne dust) is 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), which is equal to 0.05 milligrams per cubic meter (mg/m^3). Site-specific fence-line ALs are developed in the CAMP.

The CAMP focuses on air monitoring at the perimeter of the site to verify the protection of the surrounding community and does not pertain to worker protection within the site, which is to be addressed by the site-specific HSPs prepared by each contractor at the site to protect their employees.

Exposure Monitoring

Although the CCR Title 17 Section 70200 fence line action level described above is generally lower (more protective) than benchmarks for worker protection, each employer involved in the remedial action must determine that the employer's workers are adequately protected at the work area. Benchmarks for worker protection include but are not limited to:

- The Cal-OSHA Permissible Exposure Limit (PEL; $10 \text{ mg}/\text{m}^3$) for airborne dust.
- An action level based on the OEHHA 1-hour acute REL for arsenic ($0.2 \text{ }\mu\text{g}/\text{m}^3$). The 1-hour acute REL is considered as a not-to-exceed value and may be appropriate for use as a level of concern (LOC) in the Marlowe Equation [$\text{AL } (\mu\text{g}/\text{m}^3) = \text{LOC } (\mu\text{g}/\text{m}^3) \times 1,000,000 / \text{Concentration in soil } (\text{mg}/\text{kg})$] to calculate a dust action level (AL). Arsenic values detected in soil and sediment to be excavated range up to 260 mg/kg. The mean detected value is 43.8 mg/kg, and the 95% UCL on the mean concentration is 52 mg/kg. Using the central-tendency EPC for arsenic in soil/dust (52 mg/kg), an AL of $3,800 \text{ }\mu\text{g}/\text{m}^3$ ($3.8 \text{ mg}/\text{m}^3$) can be calculated. The maximum soil arsenic detection (260 mg/kg) yields in an AL equal to $760 \text{ }\mu\text{g}/\text{m}^3$ ($0.76 \text{ mg}/\text{m}^3$).
- An AL based on the Cal-OSHA AL for arsenic in air ($5 \text{ }\mu\text{g}/\text{m}^3$): Dividing the Cal-OSHA AL for arsenic in air ($5 \text{ }\mu\text{g}$ arsenic / m^3 dust) by the central-tendency value for arsenic in soil and dust (52 mg arsenic / kg soil and dust) yields a suspended particulate AL of $96 \text{ mg}/\text{m}^3$. Using the maximum detected soil arsenic concentration (260 mg/kg) yields an AL equal to $19 \text{ mg}/\text{m}^3$.

Employers are to perform exposure monitoring as required by 8 CCR 5214 (arsenic) and 1532.1 (lead) to document the effectiveness of engineering controls (wet methods to allay dust) and to confirm negative exposure assessment. "Negative exposure assessment" means conducting industrial hygiene (IH) exposure monitoring for arsenic and lead while performing sampling tasks using the controls set forth in the HSP and documenting airborne concentrations below the respective ALs. Representative (worst case) IH monitoring for arsenic would typically be performed in areas where the highest arsenic concentrations are expected, such as at the location of excavation or loading of contaminated soil.

If air sampling is required, it should be performed using an MIE pDR1200 active air sampler coupled with an 0.8-micrometer mixed-cellulose-ester filter (MCEF) using NIOSH Method 7300-Mass Spectrometry (MS) for analysis of the filters (to achieve a lower detection limit). No significant elemental mercury has been reported at the site; therefore, no air monitoring for mercury vapors is proposed. If proposed, air monitoring for mercury would typically be performed using a Jerome J405 mercury vapor monitor or equivalent instrument with a lower detection limit of 0.5 $\mu\text{g}/\text{m}^3$.

HEALTH AND SAFETY PLAN

FOR

REMEDIAL ACTION

JOYCE DRIVE PROPERTY

GRASS VALLEY, CALIFORNIA

APRIL 2026



GEOCON
CONSULTANTS, INC.

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

PREPARED ON BEHALF OF:

CITY OF GRASS VALLEY

125 E. MAIN STREET

GRASS VALLEY, CALIFORNIA 95945

PREPARED BY:

GEOCON CONSULTANTS, INC.

3160 GOLD VALLEY DRIVE, SUITE 800

RANCHO CORDOVA, CALIFORNIA 95742

GEOCON PROJECT NO. S2510-07-01



**HEALTH AND SAFETY PLAN
FOR
REMEDIAL ACTION**

**JOYCE DRIVE PROPERTY
GRASS VALLEY, CALIFORNIA**

April 2026

TABLE OF CONTENTS

HEALTH AND SAFETY PLAN	Page
HEALTH AND SAFETY PLAN SUMMARY	i
1.0 INTRODUCTION	3
1.1 Project Location and Description	4
1.2 Background	4
1.3 Project Objectives	4
1.4 Planned Scope of Services.....	4
1.5 Schedule	5
2.0 ADMINISTRATIVE REQUIREMENTS/CONTROLS	6
2.1 Personnel	6
2.1.1 Project Manager (PM)	6
2.1.2 Project Safety Officer (PSO).....	6
2.1.3 Certified Industrial Hygienist (CIH)	7
2.1.4 Project Field Staff.....	7
2.2 Personnel Training	8
2.2.1 General Site Employees	8
2.2.2 Tailgate Meetings	8
2.3 Medical Surveillance	8
3.0 HAZARD AND CONTROL ANALYSIS.....	9
3.1 Safe Driving	9
3.2 Mechanical Hazards	9
3.2.1 Material Handling/Back Injury.....	10
3.2.2 "Striking" Injuries.....	11
3.2.3 Trauma Injuries – Struck by Vehicles or Heavy Equipment.....	11
3.3 Earthwork Excavation – Trenching Hazards.....	11
3.4 Underground – Overhead Utility Hazards.....	12
3.4.1 Underground Utilities	12
3.4.2 Overhead Utilities.....	13
3.5 Occupational Noise Hazards	13
3.6 Biological Hazards	14
3.7 Chemical Hazards.....	16
3.7.1 Toxic Metals including Arsenic and Lead.....	16
3.7.2 Petroleum Hydrocarbons	18
4.0 GENERAL HEALTH AND SAFETY REQUIREMENTS.....	20
4.1 Air Monitoring.....	20
4.2 Personal Hygiene.....	20
4.3 Buddy System.....	20
4.4 Work Zone Controls	21
4.5 Code of Safe Practices.....	21
5.0 PERSONAL PROTECTIVE EQUIPMENT	23
5.1 Respiratory Protection	24
5.2 PPE – Level D Protection	24
5.3 PPE – Level “C” Protection	24
5.4 Miscellaneous Safety Equipment.....	25

TABLE OF CONTENTS (Continued)

HEALTH AND SAFETY PLAN	Page
6.0 DECONTAMINATION	26
6.1 Construction Materials and Equipment	26
6.2 Sampling Equipment Decontamination	26
6.3 PPE Decontamination	26
7.0 EMERGENCY RESPONSE PROCEDURES	28
7.1 Physical Injury	28
7.2 Catastrophic Event	28
7.3 Emergency Telephone Numbers	28
7.4 Project Site Address	29
7.5 Hospital Address and Route	29
8.0 PLAN APPROVAL	30

Attachment A: NIOSH Guides – Heavy Metals

Attachment B: T8 CCR §5214 Arsenic - Appendix A

Attachment C: T8 CCR §1532.1 Lead - Appendix A

Attachment D: NIOSH Guides – Petroleum Hydrocarbons

Figure 1 – Site Location Map

Hospital Route Map

HEALTH AND SAFETY PLAN SUMMARY

Site Name: Joyce Drive Property

Site Location: The site is located south of Joyce Drive, east of State Highway 20/49, and west of Whiting Street in Grass Valley, California. Access is from the west via South Auburn Street to Whiting Street to Joyce Drive.

Project Representatives:

- | | | |
|---------------------------|-------------------------------|----------------------------------|
| • Project Manager: | Jason Muir | 530-913-5996 - Cell No. |
| • Project Safety Officer: | Nicole Hastings-Bethel | 805-801-4998 - Cell No. |
| | Geocon Office No.: | 916-852-9118 |
| • Geocon Consulting CIH: | Pamela Murcell | 916-712-4547 - Cell No. |
| • Client Project Manager: | Amy Kesler-Wolfson | 530-274-4711 – Office No. |
| | City of Grass Valley | |

Scope:

- | | |
|--|--|
| • Quality Assurance (QA) monitoring during excavation and off-site transport of approximately 10,000 cubic yards of contaminated soil and sediment | • Compaction testing of clean fill material imported to the site for replacement of the contaminated soil and sediment |
| • Verification soil sample collection at the base and perimeter of the excavations | • General QA observation and recordkeeping |

Hazard Summary:

- Mechanical – material handling, slip/trip, struck-by injuries, steep slopes;
- Earthwork – excavation, loading, hauling, placement, and compaction of soil
- Underground and Overhead Utilities
- Occupational Noise
- Biological – bites or stings; poison oak; COVID-19 pathogen
- Thermal Extremes – Heat Stress
- Chemical – heavy metals

Control Summary:

- PPE: Safety vests, hard hats, safety glasses, steel-toed boots
- Site Control – utility location/identification
- Hearing protection – ear plugs or muffs
- Site inspection and awareness; repellent; safe work practices
- Appropriate dress, shaded rest breaks, fluids
- Engineering Controls/Isolation/PPE – safe (wet) sampling methods & work practices; protective gloves; sanitation.

Hospital Reference: Sierra Nevada Memorial Hospital (530) 274-6000
155 Glasson Way, Grass Valley, CA 95945

Directions: **From the Site:** Head east on Joyce Drive towards Whiting Street and turn left on Whiting Street. In 0.4 miles, turn left on West Empire Street, and then turn right onto CA 20/49 towards Nevada City. In 1.4 miles, take exit 183A for Dorsey Drive. Turn left onto Dorsey Drive. In 0.2 miles turn left onto Catherine Lane. In 0.1 miles turn left onto Glasson Way. Then turn right, and the destination is on the right. (See Figure 1.)

Emergency Assistance: Fire/Police/Medical Assistance: **911**
Grass Valley Police Department: (530) 477-4600–Non-Emergency
Poison Control: **800-222-1222**

1.0 INTRODUCTION

This Health and Safety Plan (HSP) is a compilation of health and safety guidelines, policies and/or performance protocols that, when exercised, are intended to reduce or eliminate the potential for injury and exposure during the performance of the activities at the site described below. Conformance with its contents does not warrant that injuries or exposures will not occur.

This HSP is not a training tool and does not contain the degree of detail necessary to train an employee on the appropriate performance, approach and/or equipment-use protocols referenced herein. Persons working on this project and referring to this HSP shall meet the minimum training requirements described in Section 2.2.

This HSP has been prepared to specifically support the field activities described herein. The provisions described herein apply to employees of Geocon Consultants, Inc. (Geocon) and its subcontractors only. Representatives of the Client, Client-retained subcontractors, and representatives of state or local government agencies are expected to observe the safety rules and requirements established by their respective organizations, provided they do not conflict with this HSP. However, Geocon will not be responsible for enforcing the conditions of this HSP on these representatives.

The contents of this HSP are based on factors and conditions understood prior to the start of the field activities. If those factors and conditions change during performance of the activities or if conditions exist that were not considered in the preparation of this HSP, then they shall be brought to the immediate attention of the person approving this HSP, and the HSP shall be modified accordingly. The date indicated in Section 8.0 of this document indicates the latest version of this HSP.

All project personnel will review and become familiar with the elements of the Plan prior to site work. A copy of the Plan will be provided to all subcontractors and the Project Manager or designee involved with project activities.

A pre-job conference will be held to delineate roles and responsibilities, discuss key elements of the HSP, and coordinate activities. This HSP is a "working document" to be used by Geocon personnel. The HSP may be modified at any time in accordance with Section 1.4 to adequately address changing conditions or previously unrecognized exposure hazards which may be encountered during the project. An updated, current copy of the HSP will be maintained at the project site and be available to all affected personnel.

1.1 Project Location and Description

Site Location: The site is located south of Joyce Drive, east of State Highway 20/49, and west of Whiting Street in Grass Valley, California. Access is from the west via South Auburn Street and Whiting Street.

1.2 Background

The vacant, 3.7-acre Site is proposed for affordable housing development. It is in the historical Grass Valley Mining District, and elevated concentrations of heavy metals in soil pose a potential health risk and are to be cleaned up prior to development.

Single-family residential development adjoins the Site to the northwest, north (across Joyce Drive) and east. Most of these homes are associated with the Nevada County Habitat for Humanity "Heritage Oaks Phase 1" affordable housing development, and the Site is intended to support Phase 2 of the affordable housing development.

Nevada County Habitat for Humanity purchased the site from Walter and Jeanette White in October 2018 for affordable housing development. The City of Grass Valley is purchasing the Site from Habitat for Humanity to facilitate its cleanup and revitalization. Twelve affordable housing units are proposed: ten on the eastern third of the Site and two on its northwestern corner.

The proposed remedial action includes excavation and off-site transport of approximately 10,000 cubic yards of contaminated soil and sediment; verification sampling and laboratory analysis; import of an approximately equal amount of soil; placement and compaction of the clean soil; and site restoration.

1.3 Project Objectives

The objective of the remedial action is to reduce the risk to human and ecological receptors by removing contaminated soil and sediment.

1.4 Planned Scope of Services

Geocon will perform QA monitoring during the remedial action, which includes soil sampling, compaction testing, and general observation and recordkeeping.

1.5 Schedule

Anticipated Period of Performance: August – October 2026

Anticipated Weather/Temperature: Weather conditions are expected to be warm to hot. Geocon's Heat Illness Prevention Plan will be implemented as needed. Field work will not be conducted during inclement wet weather.

2.0 ADMINISTRATIVE REQUIREMENTS/CONTROLS

2.1 Personnel

Personnel responsible for project safety include the Project Manager (PM), the Project Safety Officer (PSO), and participating project personnel.

2.1.1 Project Manager (PM)

The Project Manager has ultimate authority and responsibility for project Health and Safety. Accordingly, she has the responsibility to: develop and approve the HSP (or assign its development); audit compliance with the provisions of this HSP; suspend project activities or modify service practices for health and safety reasons; and, to dismiss from a project site, individuals whose onsite conduct either endangers the health and/or safety of others or is judged not to comply with the provisions of the HSP.

The PM is also responsible for sharing/distributing the HSP to participating field personnel. The PM is responsible for implementing all provisions of the HSP and any applicable addenda. Implementation includes:

- Reviewing and approving the HSP requirements (if prepared by another project member);
- Presenting an overview of the provisions of the HSP with project participants;
- Providing the safety equipment specified herein;
- Collecting and submitting the requisite health and safety documentation (training rosters/certificates, air monitoring records (exposure assessments); site personnel logs, medical approvals), and copying them to the PSO, if appropriate; and
- Designating/identifying a qualified project member as the PSO.

2.1.2 Project Safety Officer (PSO)

The designated PSO is responsible for onsite implementation of the HSP. The PSO's responsibilities include:

- Maintaining project safety equipment supplies;
- Performing air monitoring, if and as specified herein;

- Directing decontamination procedures, as appropriate;
- Enforcing the provisions of this HSP for Geocon personnel;
- Directing emergency response operations until public emergency personnel arrive;
- Setting up Site Controls, if needed and as specified herein; and
- Reporting all incidents and infractions to the PM.

The PSO has the authority to suspend project activities any time he/she determines that the provisions of the HSP are inadequate to provide a service/project environment conducive to employee safety. Further, the PSO is to inform the PM of any individuals whose onsite actions jeopardize either their health and safety or the health and safety of others.

2.1.3 Certified Industrial Hygienist (CIH)

The Certified Industrial Hygienist (CIH) provides industrial hygiene and safety technical support to the PM and PSO. In this capacity she:

- Reviews and approves project HSP;
- Provides training, as requested;
- Approves or recommends airborne sampling strategies and monitoring equipment;
- Provides technical support for the selection and use of Personal Protective Equipment (PPE); and,
- Provides arbitration on project health and safety issues.

2.1.4 Project Field Staff

All project personnel are responsible for:

- Complying with the provisions of this HSP;
- Performing services in a manner that is consistent with good health and safety practice; and
- Reading and being knowledgeable of the contents of this HSP.

2.2 Personnel Training

2.2.1 General Site Employees

Site employees will attend a project orientation prior to starting the project. The orientation will review all elements of the HSP, including: 1) the location of potential health and safety hazards on the site and 2) requirements of the HSP. The training will also address other Cal/OSHA requirements such as the Geocon Hazard Communication Program (T8 CCR §5194), including the potential hazards of exposure to heavy metals and petroleum hydrocarbons, and the Injury and Illness Prevention Program (T8 CCR §§3203 and 1509).

2.2.2 Tailgate Meetings

During the active field components of the project PSO will conduct regular (i.e., weekly or daily, as appropriate) “tailgate” safety meetings. These meetings will include information on the following subjects, as applicable:

- Changes to project scope;
- Recognized changes to site conditions;
- Review of safe work practices;
- On or off the project safety practices;
- Feedback from employees on hazards, safety suggestions, or concerns; and
- Recognition for compliance, good safety performance or attitude.

Attendance at the tailgate meetings is considered a part of each employee’s job responsibilities.

2.3 Medical Surveillance

Substance-specific medical surveillance is not required for personnel assigned to this project.

Geocon and subcontractor employees, if required to wear respiratory protection shall have a current medical evaluation and approval by a physician or other licensed health care professional (PLHCP). Medical evaluations for Geocon staff will be provided in accordance with the Geocon Respiratory Protective Equipment Program (ref. T8 CCR §5144(e) “Medical Evaluation”).

Project personnel are to arrive at the jobsite well rested and physically prepared to perform assigned tasks.

3.0 HAZARD AND CONTROL ANALYSIS

The following hazards were assessed to either exist, or have the potential to develop, during the performance of the project activities:

TASKS	HAZARDS							
	MECHANICAL	UNDERGROUND UTILITIES	NOISE	BIOLOGICAL	RADIOLOGICAL	THERMAL	CHEMICAL	OTHER
Work-Related Driving, Equipment Operation	X							
Soil sampling/compaction	X		X	X		X	X	
Excavating – Soil Investigation	X	X	X	X		X	X	

3.1 Safe Driving

Hundreds of workers are injured or die in job-related motor vehicle accidents annually. Motor vehicle accidents are one of the number-one causes of employee injuries and deaths. Most accidents can be avoided by practicing defensive driving. Geocon policies mandate that employees:

- Prepare themselves and their vehicle for the road before travel;
- Drive according to posted speed limits unless adverse conditions necessitate slower speeds;
- Never tailgate, employ the three (3) second rule in following vehicles;
- Fully comply with California Vehicle Code and other local laws and regulations regarding the use of cellular phones for communication while driving – talking on a cell phone and/or texting while driving is not only a significant hazard to yourself and others, but also violates Geocon H&S policy; and;
- Use practical driving procedures in cities, on the freeway, and in rural areas.

3.2 Mechanical Hazards

Type(s)/Source:

- Material Handling/Back Injury;
- Striking (slips, trips); and

- Struck-by injuries.

Qualified Exposure Risk: Moderate

Hazard Control(s):

- Safe Lifting;
- Isolation - shoulder closure traffic control/work methods/no work during inclement weather or darkness; and
- PPE – safety shoes/boots, ANSI approved Class III safety vests, hardhats, safety glasses.

3.2.1 Material Handling/Back Injury

Hazard: It is expected that field personnel will be required to lift heavy equipment and supplies and/or perform arduous tasks during this project. Accordingly, back injuries or physical strain may be caused by: routine lifting or one-time-only lifting; the weight of a lifted object; the frequency of lifting; bending, twisting, or rotating during lifting; prolonged sitting; exposure to vibrations; poor arch support in shoes; and not stretching prior to physical activity. If the following “control” mechanisms are not exercised, debilitating back injury may occur.

Control(s): Before attempting to lift and carry an object, always test its weight first. If it is too heavy, get help. If possible, use mechanical lifting aids. If manageable, the proper method for lifting is:

- Get a good footing;
- Place feet about shoulder width apart;
- Bend knees to pick up load. Never bend from the waist;
- Keep back straight;
- Get a firm hold. Grasp opposite corners of the load, if possible;
- Keep the back as upright as possible;
- Lift gradually by straightening the legs - don't jerk the load;
- Keep the weight as close to the body as possible; and

- When changing directions, turn the entire body, including the feet. Don't twist the body.

If devices are used for handling materials manually (e.g., two-handed lifters, barrel ring clamps, hand trucks, wheelbarrows, etc.), wear protective equipment like gloves and safety shoes to minimize the potential of appendages becoming pinched or smashed between the load and stationary features. Also, avoid overloading the device.

3.2.2 "Striking" Injuries

Hazard: Injuries can, and often, result when a person (a kinetic mass) unexpectedly instigates contact with another kinetic mass. These occurrences typically result from inadvertent slips, trips and falls.

Control(s): To minimize risks of "slip/trip" hazards, personnel shall maintain a constant program of good housekeeping, keeping areas clear of trip hazards and wet and slippery surfaces. All hand tools shall be regularly secured and care shall be taken when entering areas where work is being performed above eye level.

3.2.3 Trauma Injuries – Struck by Vehicles or Heavy Equipment

Hazard: Injuries can, and often, result when workers are the unexpected receptor of contact with another kinetic mass. These occurrences typically result from the worker being struck by a dropped or collapsed mass, a moving piece of equipment, or more likely a moving vehicle.

Control(s): Engage the vehicle's warning light bar whenever planning to pull off or exit the roadway. When stopped or parked, continue use of the light bar. Employees/workers shall not exit the vehicle until they have successfully pulled off of the roadway. In those instances where it is not possible to clear the shoulder or median, workers shall exit the vehicle on the side opposite the adjacent traffic flow; turn front wheels towards the roadway. Geocon employees will be required to wear hard hats, safety glasses and ANSI safety vests, and place safety cones at 10-yard intervals for a minimum of 30 yards (if achievable) from the left rear corner of the vehicle so they may be seen by adjacent traffic.

If, based on field observations, the PSO determines soil sampling at specific sites cannot be performed safely, the location will be identified on the Site Map and revisited when the sampling location can be rendered safe.

3.3 Earthwork Excavation – Trenching Hazards

Hazard: Cave-in hazards may be created if excavations exceed 4 feet in depth.

Controls: Soil excavation work will be conducted in accordance with T8 CCR Construction Safety Orders, Article 6, §§1540, 1541, and 1541.1 Appendices A through F.

The PM will identify the “Competent Person” responsible for excavation safety. The Competent Person will inspect the site prior to the start of work and as needed throughout the project. In addition, daily inspections of excavations, the adjacent areas, and protective systems will also be conducted for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions; e.g., excavation sidewall slopes will not be steeper than 45 degrees beneath the edges of the footings of load bearing members to reduce the potential for structural distress.

The Competent Person, as directed by the PSO will attempt to minimize cave-in hazards by restricting all entry into and around an excavation deemed greater in depth than 5 feet, unstable and/or unsafe. OSHA requires that each employee in an excavation be protected from cave-ins during an excavation by an adequate protective system designed in accordance with Cal/OSHA standards. Protective system options include proper sloping or benching of the sides of the excavation; supporting the sides of the excavation with timber shoring or aluminum hydraulic shoring; or placing a shield between the side of the excavation and work area. The excavation contractor will choose the most practical design approach for any particular circumstance. Once an approach has been selected, however, the required performance criteria must be met by that system.

3.4 Underground – Overhead Utility Hazards

Type(s)/Source: Electric powerlines, water, sewer, and gas (propane) utilities

Qualified Exposure Risk: Moderate

Primary “Control”: Isolation (contact USA, independent Utility Locator, Ground Penetrating Radar)

3.4.1 Underground Utilities

Type(s)/Source: Electrical, water, sewer, etc.

Qualified Exposure Risk: Moderate to high – soil excavation, sampling

Hazard Control: Isolation - contact USA, independent Utility Locator

Hazard: Contact with electrical current can cause shock, electrical burns, and/or be instantly fatal. If digging equipment makes contact with electrical wires, it may or may not be insulated from the ground by the tires of the carrier. Under either circumstance, the human body, if it simultaneously comes in contact with the digging equipment and the ground, will provide a conductor of the electricity to the ground.

Control(s): Demarcate all digging locations, first. Contact Underground Service Alert (USA) (1-800-227-2600) and review as-built plans before performing any excavation/drilling/coring activity. It is advised that a private utility locator be contacted to supplement USA's demarcations, especially when the project is on private property. Soil intrusive work shall not proceed until all locating activities have been completed and fully documented in the site records. The initial site safety orientation meeting for all personnel onsite shall include a review of the underground utility locations and the location of the site map, showing the position of any underground utility lines. The site safety orientation shall include a site walkover of each marked utility or line.

Should a subsurface condition be encountered that creates suspicion that there may be an unidentified underground line or utility, immediately cease work and secure the equipment. Work will not proceed until the potential risk or condition is resolved.

3.4.2 Overhead Utilities

Prior to site work involving hoisting or lifting operations using heavy equipment, a site inspection will be conducted to identify potential overhead hazards such as power lines. A clearance of at least 10 feet will be maintained between overhead power lines and equipment booms (and hoists).

3.5 Occupational Noise Hazards

Vehicle traffic or equipment operated at the project site may present a noise hazard to employees. In all cases where the sound pressure levels may exceed a time-weighted average noise dose of 85 decibels (the Action Level), the PSO will evaluate exposures according to the Geocon Hearing Conservation Program (ref. T8 CCR §§5095-5100). Selection of hearing protection will be made in accordance with the Geocon Safety Equipment Guide. Only hearing protectors (ear plugs or muffs) with a Noise Reduction Rating of 20 dB, or higher, will be used. When worn, earmuffs will be donned in the "over the head" position with the hair pulled back from the sealing surface.

Note: In general, noise levels in excess of 85 dBA interfere with communication between two individuals speaking in a normal tone of voice at a distance of 3 feet from one another.

3.6 Biological Hazards

Type(s)/Source: Biting insects (mosquitoes, wasps, bees & ticks), animals, poison oak, and COVID-19 virus

Qualified Exposure Risk: Moderate

Primary Control(s):

- Site inspection & isolation/avoidance;
- PPE (Gloves/boots/long-sleeve shirts);
- Wet sampling methods in dry soils; and
- Insect repellent, barrier crèmes, wasp spray.

Hazard: Contact with plants, insects, and animals likely to be present at the site should be avoided. Plants (such as poison oak) can cause an allergic reaction and skin rash in some individuals. Stinging and biting insects, including bees, spiders, and ticks, can cause extreme discomfort and/or serious allergic responses. Insect bites are generally not dangerous, unless they are from a poisonous insect or mosquitoes potentially carrying West Nile and/or Zika virus.

The primary concern with animal bites and scratches is the potential for infection and/or rabies. Snake or scorpion bites can also be dangerous, but more from infection or trauma than the toxins injected by the snake or scorpion.

Control(s) – Poison Oak: Contact with poison oak leaves or stems at any time of the year can cause an allergic response. Once a reaction occurs, repeated exposures further increase sensitivity. Conversely, long periods with no exposure will reduce an individual's susceptibility. In addition to direct contact with the plant, transmission of the allergen can occur by touching contaminated clothing, gloves, or tools. When poison oak is burned, the oils can disperse via the smoke particles. Breathing this smoke can cause severe respiratory irritation. Over the counter topical barriers such as Tecnu® can be applied to exposed skin for protection against poison oak.

After coming in contact with the allergen, the best way to prevent skin irritation is to pour a mild solvent such as isopropyl (rubbing) alcohol over the exposed area then wash with plenty of mild soap and/or Tecnu® and cold water; avoid using warm water, since it enhances the penetration of the oil. If isopropyl alcohol and soap is not available, use cold water by itself to help dilute the oil, to help minimize the harmful effects of the resin.

Perform these steps within five minutes of exposure. Even if it's too late to prevent the rash, washing the skin to remove excess plant oil/resin will keep the rash from spreading. Be sure to thoroughly wash your hands, since they serve as the major route for transferring the allergen to other parts of the body, especially the face.

Using only a small amount of water or disposable hand wipes is more likely to spread the toxin than remove it. You can use soap and/or Tecnu[®] but only if you also use copious amounts of water.

Control(s) – Biting Insects: Before beginning fieldwork each day, inspect the work area for the presence of standing water and inhabitant reptiles and take measures necessary to minimize the potential for contact. Specially prepared topical barriers and insect repellent containing approximately 50% DEET, or picaridin, IR3535, oil of lemon eucalyptus, or para-menthane-diol for long lasting protection can be useful for protecting exposed skin from biting insects. These products are commercially available and may minimize the potential for development of skin rashes and/or irritations due to such exposures; apply insect repellent sparingly to exposed skin.

Note: Avoid contacting plastic zippers or other plastic closure mechanisms on clothing, equipment bags, etc., with DEET containing crème which will cause these materials to degrade.

If you are allergic to bee or wasp stings, be sure to have the appropriate first aid available (e.g., an epi-pen) on the project. If you are stung, administer first aid and seek immediate medical attention. Be sure a reptile or animal bite victim obtains medical attention quickly if a bite or scratch occurs, especially if there is a potential that it was poisonous. In the meantime, administer First Aid by scrubbing the wound with soap and water, and rinsing thoroughly under running water. Dry off and place a clean bandage on the wound. Victims of these bites should lie down and remain calm and motionless; cold packs should be applied and medical attention sought immediately.

Hazard: The COVID-19 virus can be transmitted from infected individuals (who may or may not be experiencing symptoms). Project/worksite locations and surrounding communities as well as coworkers and community members represent a potential source of exposure for personnel. The virus is spread primarily through *inhalation* of airborne respiratory droplets and aerosols containing the virus, and through *direct contact to the mucous membranes (eyes, nose)* with unwashed hands after contacting virus-contaminated surfaces. Our risk reduction guidelines are based on the core strategies of *physical distancing (a.k.a. social distancing)*, *rigorous personal hygiene (especially the hands)* and *workspace sanitation*, and in certain high-risk situations *personal protective equipment (in particular, N-95 respirator)*.

Control(s) – COVID-19: Practice physical distancing, personal hygiene, and workspace sanitation to minimize exposure to COVID-19 virus. For all activities, maintain a minimum distance of 6 feet from other staff, visitors, client representatives, and the general public.

The use of a nose/mouth covering (face mask) provides a means for capturing potentially infectious droplets/aerosols produced by the wearer. This reduces the risk of others subsequently becoming exposed/infected by reducing airborne aerosols available to be inhaled or to settle onto surfaces. For this reason, State and local agencies are encouraging the use of nose/mouth coverings for all persons engaging in public activities. Therefore, sampling staff are authorized to wear an acceptable nose/mouth covering as an emission barrier for COVID-19 exposure risk reduction.

3.7 Chemical Hazards

The source of chemical hazards at this site is due to soil contamination from historical mining operations. Diesel impact was encountered on the ground surface in one isolated area near the northeastern corner of the Site. The risk of significant airborne exposure to soil contaminants is considered to be low while performing backhoe soil excavation, soil sampling, and other tasks required on this project. Dust control, soil sampling methods (wet) and safe work practices to be employed will significantly reduce the potential for airborne exposures. These controls will significantly reduce the potential for airborne exposures above the 2 $\mu\text{g}/\text{m}^3$ Action Level for lead which is representative of exposure risks to other toxic metals such as arsenic.

Detailed information regarding the physical description of arsenic, lead, and mercury, including health hazards, routes of entry into the body, signs and symptoms of exposure and target organs, and chemical and physical properties are available in Attachments A, B, and C. Attachment A for Heavy Metals is from the NIOSH Pocket Guide to Chemical Hazards. Attachments B and C for Arsenic and Lead are Appendix A of T8 CCR §§5214 and 1532.1, respectively. Chemical hazard information for mercury is on Page 5 of Attachment A.

3.7.1 Toxic Metals including Arsenic and Lead

Type(s)/Source: Soil impacted due to past uses of the property

Exposure Route: Inhalation and ingestion; ref. Attachments A, B and C

Exposure signs/symptoms: See Attachments A, B and C

Qualified Exposure Risk: Low

Exposure Controls:

- Isolation – site control
- Avoid contact with, and inhalation of, airborne contaminated dust.
- Dust control – wet methods; adherence to specific sampling methods and procedures

Negative Exposure Assessment: Results of industrial hygiene monitoring of representative soil sampling procedures for lead, which is representative of potential exposure to toxic metals, using these controls, document exposures below the 2 µg/m³ Action Level for airborne lead [ref. T8 CCR §1532.1(d)(5)(A)].

- PPE – eye (safety glasses or goggles) and hand protection (leather and/or chemical-resistant gloves)
- Sanitation – follow sanitation and personal hygiene procedures outlined in Section 4.2.

3.7.1.1 Arsenic

T8 CCR GISO §5214

CHEMICAL NAME & CAS #	ROUTES OF ENTRY	PUBLISHED EXPOSURE LIMITS		
		CATEGORY	CONCENTRATION	SOURCE
Arsenic 7440-38-2	Inhalation, Ingestion	PEL-TWA Action Level	10 µg/m ³ 5 µg/m ³	Cal/OSHA

3.7.1.2 Inorganic Lead

T8 CCR CSO §1532.1

CHEMICAL NAME CAS #	ROUTES OF ENTRY	PUBLISHED EXPOSURE LIMITS		
		CATEGORY	CONCENTRATION	SOURCE
Lead, Elemental & Inorganic Compounds 7439-92-1	Inhalation Ingestion	PEL-TWA [†] Action Level	10 µg/m ³ 2	Cal/OSHA µg/m ³
Lead Chromate	Inhalation Ingestion	PEL-TWA as Pb PEL-TWA as Cr	0.01 0.005 mg/m ³	mg/m ³

[†]PEL – Cal/OSHA Permissible Exposure Limit; TWA – 8-hour time-weighted average concentration

3.7.2 Petroleum Hydrocarbons

Types/Source: Fuel and lubricants

- TPH: Total petroleum hydrocarbons and
- BTEX: Benzene, toluene, ethylbenzene, xylenes, ethanol and other aromatic hydrocarbons

Exposure Route: See Attachment D – NIOSH Guides Petroleum Hydrocarbons

Exposure signs/symptoms: ref. Attachment D

Qualified Exposure Risk: Low; hydrocarbon impacted soil – diesel was encountered on the ground surface in one isolated area near the northeastern corner of the Site.

Hazard Control(s):

- Isolation – site control.
- Engineering Controls – work practices and safe sampling procedures: avoid contact with potentially contaminated soil and water; follow sanitation and personal hygiene procedures outlined in Section 4.2. In open work areas, unless there are weather conditions of a stagnant high-pressure system, ambient breezes are usually adequate to minimize potential exposure to hydrocarbon vapors.
- PPE – eye (safety glasses or goggles) and, hand protection (nitrile gloves).
- Sanitation – good personal hygiene.

3.7.2.1 Gasoline

CHEMICAL NAME & CAS#	ROUTE OF ENTRY	PUBLISHED EXPOSURE LIMITS		
		CATEGORY	CONCENTRATION	SOURCE
Gasoline (8006-61-9)	Inhalation	PEL-TWA	300 ppm	Cal/OSHA
	Dermal	PEL-STEL	500 ppm	

3.7.2.2 Diesel Fuel

CHEMICAL NAME & CAS#	ROUTES OF ENTRY	PUBLISHED EXPOSURE LIMITS		
		CATEGORY	CONCENTRATION	SOURCE
Diesel fuel 68476-31-3	Inhalation	TLV-TWA	100 mg/m ³	ACGIH
	Skin Absorption		(Vapor & Aerosol)	

3.7.2.3 Aromatic Petroleum Distillates

CHEMICAL NAME AND CAS#	ROUTES OF ENTRY	PUBLISHED EXPOSURE LIMITS		
		CATEGORY	CONCENTRATION	SOURCE
Ethylbenzene 100-41-4	Inhalation	PEL-TWA STEL	100 ppm 125 ppm	Cal/OSHA
Ethanol; Ethyl alcohol 64-17-5	Inhalation	PEL-TWA	1000 ppm	Cal/OSHA
Methyl tert-butyl ether (MTBE) 1634-04-4	Inhalation	PEL-TWA	40 ppm	Cal/OSHA
Naphthalene 91-20-3	Inhalation Skin Absorption	PEL-TWA TLV-TWA [†]	0.1 ppm 10 ppm	Cal/OSHA ACGIH [†]
Toluene 108-88-3	Inhalation Skin Absorption	PEL-TWA	50 ppm	Cal/OSHA
Xylenes 1330-20-7	Inhalation	PEL-TWA STEL	100 ppm 150 ppm	Cal/OSHA

[†]ACGIH –American Conference of Governmental Industrial Hygienist; TLV – Threshold Limit Values for Chemical Substances

4.0 GENERAL HEALTH AND SAFETY REQUIREMENTS

4.1 Air Monitoring

Industrial hygiene monitoring will not be performed for inorganic lead for the tasks being carried out for this project. Previous Negative Exposure Assessments for representative tasks and characterization activities, using similar controls, document exposures below the 2 µg/m³ Action Level for inorganic lead [ref. T8 CCR §1532.1(d)(5)(A)]. The concentrations of arsenic, lead and mercury are not sufficient in impacted soil to create dust exposures with high enough concentrations of the metals to exceed current exposure limits.

4.2 Personal Hygiene

The PSO will establish on-site sanitation procedures which may, depending on site tasks and conditions involve: hand-wash facilities including clean water and hand soap; waterless hand cleaner; sanitary wipes and clean towels at the project site.

All Geocon personnel, subcontractor employees, and Clients and their designees leaving the project site (work zones) will clean potential impacted soils from their footwear and follow personal hygiene procedures prior to leaving the project site. In addition, the following procedures will be followed to ensure worker protection against potential exposure through ingestion:

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand-in-mouth transfer and ingestion of material is prohibited in any area designated as being potentially impacted.
- Hands and face must be thoroughly washed upon leaving the work area, and before eating, drinking, or other non-project activities.
- Avoid unnecessary kneeling, sitting, leaning, or general contact with potentially impacted surfaces or with surfaces suspected of being potentially impacted by hazardous materials (i.e., puddles, mud, leachate, etc.).

4.3 Buddy System

Project personnel are to work with another person when performing sampling tasks; the client or a subcontractor's representative can serve as the second person while the work is being conducted in

the field. Under no circumstances, other than completion of paper work at the end of the day, are field personnel to work alone at the site. If Geocon personnel are left alone at the site, he/she will check in with their PM via telephone to advise that they are safe.

4.4 Work Zone Controls

Although formal work zones will not be required for this project, work areas will be isolated using traffic cones; ref. to sub-section 3.2.3 above.

4.5 Code of Safe Practices

General safe work practices to be utilized by all project personnel are summarized below:

- All nonessential personnel will be kept clear of work areas.
- The use of entertainment and personal communication devices in the work zone shall not be allowed.
- Adequate signs and safety devices will be installed on equipment.
- All site employees will wear assigned personal protective equipment and level of protection as designated by the PSO.
- Eating, drinking, smoking, chewing gum or tobacco, or application of cosmetics is allowed in designated areas only.
- At a minimum, all personnel will wash with soap and water before lunch, using the restroom, and at the end of work. The face and hands shall be washed before eating, drinking, smoking, chewing gum, applying cosmetics, etc.
- Over-the-counter drugs and prescription medications must be reported to the PSO for clearance before an employee is allowed to work near drill rig or other heavy equipment.
- When portable electric tools and equipment are used, three-wire extension cords are required.
- Employees will advise their supervisors of any malfunctioning equipment immediately.
- An ongoing safety maintenance program for tools and equipment will be instituted. Inspections will occur on a regular basis to ensure parts are secure and intact. Defective equipment will be repaired or replaced.
- Appropriate engineering controls and equipment guards will be installed on tools and equipment. This includes seat belts & backup warning lights and signals.

- A list of names of personnel who are trained in CPR and first aid shall be available.
- Labels shall be placed on containers of hazardous materials.
- No one will work alone; the "buddy system" shall be implemented for all field work.
- Employees shall be trained to identify effects and symptoms of toxic exposure and report them immediately.
- Under no circumstances are Geocon personnel authorized to enter a Permit-Required Confined Space or an excavation or trench greater than 4 feet in depth.

5.0 PERSONAL PROTECTIVE EQUIPMENT

The employment of the aforementioned engineering controls is the preferred method of providing personal protection from hazards identified at this and any site. PPE provides acceptable secondary recourse, but only when engineering controls fail or cannot adequately eliminate exposure to the hazard. The use of PPE is intended to provide protection for onsite personnel from operational hazards that cannot be controlled through other safety procedures or work practices. PPE required to be onsite for each worker during this project will include:

- | | |
|--|---|
| ☒ Hard Hat (without face Shield) | ☒ Safety Glasses |
| ☒ Synthetic/Leather Safety Boots/Shoes | ☒ Disposable inner gloves (for sample handling) |
| ☐ Chem. Resistant Boots | ☒ Chem. Resistant gloves |
| ☒ Synthetic/Leather Gloves | ☐ Air-Purifying Respirator |
| ☒ Hearing Protection - Ear Plugs/Muffs | ☐ APR Cartridges |
| ☒ ANSI Class II/III Safety Vest | ☐ Tyvek coveralls |
| ☐ Other: _____ | |

Only ANSI approved PPE and NIOSH approved respirators will be assigned for use. The use applications for this equipment are summarized in the following matrix. Specific procedures are further described below.

TASKS	PPE												
	Hard Hat	Safety Glasses	Synthetic/Leather Boots	Chemical Resistant Boots	Disposable Inner Gloves	Chemical Resistant Gloves	Synthetic/Leather Gloves	Hearing Protection Plugs/Muffs	Air-Purifying Respirator (Half-/Full Face)	APR Cartridges	ANSI Class II/III Vest	Tyvek Coveralls	Other
Exploratory excavation	X	X	X				X	X			X		
Soil sampling/compaction	X	X	X		X	X		X			X		

5.1 Respiratory Protection

Respiratory protection will not be required during the planned site activities. However, the PSO, in consultation with the PM, will determine the need for upgrading the level of protection from “D” to “C”. If it is determined that respiratory protection is required, personnel shall don a full facepiece or half-mask air-purifying respirator fitted with a combination organic vapor (Black), or organic vapor-acid gas (Yellow) cartridges and HEPA (P100, Magenta) filters.

5.2 PPE – Level D Protection

The protective equipment to be donned by personnel working in the sampling areas (Exclusion Zones) includes:

- Body Protection: Body protection shall include the use of "work clothing," including long pants and long- or short-sleeved shirts, and Class II/III ANSI-approved safety vest.
- Head Protection: Non-metallic hard hats shall be worn by all personnel; ref. T8 CCR §§1514 & 3381 Head Protection.
- Hearing Protection: Hearing protection shall include the use of foam ear inserts or muffs; ref. T8 CCR §5098.
- Face & Eye Protection: Protective eye wear (i.e., safety glasses) shall be worn by personnel working in direct proximity to operating heavy equipment and highway traffic; ref. T8 CCR §§1514 & 3382 Eye Protection.
- Hand Protection: Appropriate hand protection shall be required for employees whose work involves unusual and excessive exposure of hands to cuts capable of causing injury or impairments; ref. T8 CCR §§1514 & 3384 Hand Protection.
- Foot Protection: Foot protection, such as steel toed shoes or boots shall be required for employees who are exposed to foot injuries from electrical hazards, falling objects, or crushing or penetrating actions; ref. T8 CCR §§1514 & 3385 Foot Protection.

5.3 PPE – Level “C” Protection

Back-Up Respiratory Protection: Level C respiratory protection shall be available as back-up and will include NIOSH approved half-face or full-face, air-purifying respirators outlined in Section 5.1.

These levels may be up-graded by anyone, with prior notification to management personnel, but shall only be downgraded upon approval by either the PSO or the PM.

5.4 Miscellaneous Safety Equipment

Additional protective equipment to be available to personnel working at the site is listed as follows:

- Communication: Portable radios/walkie talkies or cell phones shall accompany all personnel.
- A minimum 20-pound (B. C. Rated) fire extinguisher will be located onsite.
- An emergency first aid kit will be available at the support zone at all times.
- Emergency Response Spill Kit consisting of absorbents, plastic liners, rags, shovels, push brooms, Tyvek™ suits, gloves, half-face respirators and cartridges.
- Self-contained Portable Eyewash Equipment (ref. Sections 5, 7, or 9 of ANSI Z358.1-1981)
- Copious amounts of potable water - Shall be readily available for both drinking purposes and for personal hygiene purposes (e.g., washing, rinsing, and cooling of face and body, etc.). A minimum of 2 gallons of drinking water per onsite worker shall be available before work begins, or a drinking water source must be immediately available at the project site; ref. Section 3.7.
- Water source necessary for suppressing airborne (fugitive) dust emissions.

6.0 DECONTAMINATION

Decontamination procedures will be tailored to the specific hazards of the site and may vary in complexity and number of steps, depending on the level of hazard and employee exposure to potential hazards. Decontamination procedures and PPE decontamination methods will vary depending upon the extent of potentially impacted soils required to be handled. Decontamination methods and procedures will be routinely evaluated, as necessary, to assure that employees are not exposed to hazards by reusing PPE.

The primary principle in consideration of decontamination procedures is: Avoid unnecessary contamination of PPE and Sampling Equipment. The following decontamination guide for construction materials, equipment, and PPE have been developed with the intent of reducing the potential for the transfer of hazardous chemicals outside the Exclusion Zone.

6.1 Construction Materials and Equipment

The PM or designee will control site access to ensure only authorized personnel and equipment and materials necessary for work handling impacted soils will be allowed in the exclusion zone. The exterior surfaces of excavation equipment, including buckets, tires and/or tracks will be scraped with shovels to remove substantial deposits of potentially contaminated soil prior to being rinsed with water.

Shovels, hand tools, and other equipment will also undergo gross decontamination to remove any potentially contaminated soils. Soil, dust, debris, water and decontamination rinseate will be controlled to prevent entering nearby storm drains, creeks, or streams.

6.2 Sampling Equipment Decontamination

Decontamination of soil sampling equipment shall include washing with a solution of TSP, Alconox®, or Liquinox® and water followed by a double rinse of deionized water between samples and before vacating the work area.

6.3 PPE Decontamination

The PSO will determine the necessity for and level of decontamination appropriate to this project. Decontamination of PPE may be accomplished by personnel passing through separate stations or stages to reduce and remove contaminated clothing and equipment. Decontamination stations may include the following procedures listed sequentially below.

Stage No. 1: Segregated Equipment Drop - Equipment and consumables that require either disposal or special handling (e.g., special and/or equipment decontamination) shall remain in this area and be decontaminated, if appropriate, or disposed of with the excavated materials or other potentially impacted materials.

Stage No. 2: PPE Decontamination – Disposable PPE that has been potentially impacted will be placed in 55-gallon steel drums or plastic liners and disposed of with the other solid wastes generated.

Stage No. 3: General Field Wash - Personnel shall wash and rinse face and hands with soap and water before leaving the site and/or eating. If changing of clothing is necessary, it shall be done at this time. Respirator decontamination, if required, shall include a wash with soap and water followed by a clean water rinse.

7.0 EMERGENCY RESPONSE PROCEDURES

7.1 Physical Injury

In the event of an accident resulting in physical injury, call emergency service personnel immediately and perform first aid commensurate with training and seriousness of the injury. Severely injured personnel are to be transported only by emergency service personnel and/or by ambulance personnel, unless a life-threatening condition is judged to exist that must be addressed immediately. At the hospital, a physician's attention is mandatory regardless of how serious the injury appears. The PM is to be notified by the PSO, as soon after the injury as practical, regarding the nature of the accident. A written report is also to be prepared and submitted by the PSO to the PM within 24 hours of the accident. If the PSO is unable to make the report (due to injury) an individual designated by the PM shall make the report.

7.2 Catastrophic Event

In the event of a catastrophic event (e.g., severe personal injury, fire, explosion, and/or property damage), notify the fire/safety and rescue department immediately by dialing 911. Any accident involving serious injury will require suspension of site activities until the PM (or designee) has completed a review of the events and site conditions and authorized work to resume. The PM (or designee) will notify the nearest Cal/OSHA District Office immediately (within 8 hours) by phone or fax upon learning of a death or serious injury:

Sacramento District Office
1750 Howe Ave. Suite 430
Sacramento, CA 95825
phone: (916) 263-2800
email: DOSHSAC@dir.ca.gov

7.3 Emergency Telephone Numbers

Fire/Police/Medical Assistance:	911	
Grass Valley Police Department:	530-477-4600	– Non-Emergency
Poison Control:	800-222-1222	

Other phone numbers may be available or required for emergency response at specific sites. Check with onsite representatives before mobilizing to the job site.

7.4 Project Site Address

Site Location: The site is located south of Joyce Drive, east of State Highway 20/49, and west of Whiting Street in Grass Valley, California. Access is from the west via South Auburn Street to Whiting Street to Joyce Drive.

7.5 Hospital Address and Route

Hospital Reference: Sierra Nevada Memorial Hospital (530) 274-6000
155 Glasson Way, Grass Valley, CA 95945

From the Site: Head east on Joyce Drive towards Whiting Street and turn left on Whiting Street. In 0.4 miles, turn left on West Empire Street, and then turn right onto CA 20/49 towards Nevada City. In 1.4 miles, take exit 183A for Dorsey Drive. Turn left onto Dorsey Drive. In 0.2 miles turn left onto Catherine Lane. In 0.1 miles turn left onto Glasson Way. Then turn right, and the destination is on the right. (See Figure 1.)

8.0 PLAN APPROVAL

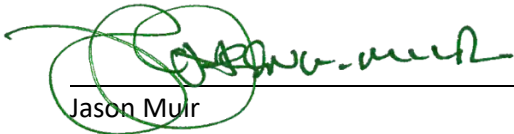
The undersigned has reviewed and approved this Health and Safety Plan prepared for the Joyce Drive Property south of Joyce Drive and east of Whiting Street in Grass Valley, California, as described herein.



Pamela Murcell, CIH
Project Certified Industrial Hygienist
ABIH Certification No. 3237, Exp. December 1, 2028

April 29, 2026

Date



Jason Muir
Site Project Manager

April 29, 2026

Date

The following personnel, including subcontractors involved with the project activities have reviewed, or received a copy of this Plan and Attachments A, B, C, and D, and agree to follow the health and safety procedures described herein.

Print Name	Title	Signature	Date

ATTACHMENT

A

Antimony		Formula: Sb	CAS#: 7440-36-0	RTECS#: CC4025000	IDLH: 50 mg/m ³ (as Sb)
Conversion:		DOT: 1549 157 (inorganic compounds, n.o.s.); 2871 170 (powder); 3141 157 (inorganic liquid compounds, n.o.s.)			
Synonyms/Trade Names: Antimony metal, Antimony powder, Stibium					
Exposure Limits: NIOSH REL*: TWA 0.5 mg/m ³ OSHA PEL*: TWA 0.5 mg/m ³ [*Note: The REL and PEL also apply to other antimony compounds (as Sb).]				Measurement Methods (see Table 1): NIOSH 7301, 7303, P&CAM 261 (II-4) OSHA ID121, ID125G, ID206	
Physical Description: Silver-white, lustrous, hard, brittle solid; scale-like crystals; or a dark-gray, lustrous powder.					
Chemical & Physical Properties: MW: 121.8 BP: 2975°F Sol: Insoluble F.I.P: NA IP: NA Sp.Gr: 6.69 VP: 0 mmHg (approx) MLT: 1166°F UEL: NA LEL: NA		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: Daily		Respirator Recommendations (see Tables 3 and 4): NIOSH/OSHA 5 mg/m³: 95XQ/Sa 12.5 mg/m³: Sa:Cf/PapRHi 25 mg/m³: 100F/SaT:Cf/PapRTHie/ScbaF/SaF 50 mg/m³: Sa:Pd,Pp §: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: 100F/ScbaE	
Noncombustible Solid in bulk form, but a moderate explosion hazard in the form of dust when exposed to flame.					
Incompatibilities and Reactivities: Strong oxidizers, acids, halogenated acids [Note: Stibine is formed when antimony is exposed to nascent (freshly formed) hydrogen.]					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit eyes, skin, nose, throat, mouth; cough; dizz; head; nau, vomit, diarr; stomach cramps; insom; anor; unable to smell properly TO: Eyes, skin, resp sys, CVS				First Aid (see Table 6): Eye: Irr immed Skin: Soap wash immed Breath: Resp support Swallow: Medical attention immed	

Arsenic (inorganic compounds, as As)		Formula: As (metal)	CAS#: 7440-38-2 (metal)	RTECS#: CG0525000 (metal)	IDLH: Ca [5 mg/m ³ (as As)]
Conversion:		DOT: 1558 152 (metal); 1562 152 (dust)			
Synonyms/Trade Names: Arsenic metal: Arsenia Other synonyms vary depending upon the specific As compound. [Note: OSHA considers "Inorganic Arsenic" to mean copper acetoarsenite & all inorganic compounds containing arsenic except ARSINE.]					
Exposure Limits: NIOSH REL: Ca C 0.002 mg/m ³ [15-minute] See Appendix A OSHA PEL: [1910.1018] TWA 0.010 mg/m ³				Measurement Methods (see Table 1): NIOSH 7300, 7301, 7303, 9102, 7900 OSHA ID105	
Physical Description: Metal: Silver-gray or tin-white, brittle, odorless solid.					
Chemical & Physical Properties: MW: 74.9 BP: Sublimes Sol: Insoluble F.I.P: NA IP: NA Sp.Gr: 5.73 (metal) VP: 0 mmHg (approx) MLT: 1135°F (Sublimes) UEL: NA LEL: NA		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam/Daily Remove: When wet or contam Change: Daily Provide: Eyewash Quick drench		Respirator Recommendations (see Tables 3 and 4): NIOSH ¥: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: GmFAG100/ScbaE See Appendix E (page 351)	
Metal: Noncombustible Solid in bulk form, but a slight explosion hazard in the form of dust when exposed to flame.					
Incompatibilities and Reactivities: Strong oxidizers, bromine azide [Note: Hydrogen gas can react with inorganic arsenic to form the highly toxic gas arsine.]					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Abs, Con, Ing SY: Ulceration of nasal septum, derm, GI disturbances, peri neur, resp irrit, hyperpig of skin, [carc] TO: Liver, kidneys, skin, lungs, lymphatic sys [lung & lymphatic cancer]				First Aid (see Table 6): Eye: Irr immed Skin: Soap wash immed Breath: Resp support Swallow: Medical attention immed	

Barium chloride (as Ba)		Formula: BaCl ₂	CAS#: 10361-37-2	RTECS#: CQ8750000	IDLH: 50 mg/m ³ (as Ba)
Conversion:		DOT: 1564 154 (barium compound, n.o.s.)			
Synonyms/Trade Names: Barium dichloride					
Exposure Limits: NIOSH REL*: TWA 0.5 mg/m ³ OSHA PEL*: TWA 0.5 mg/m ³ [*Note: The REL and PEL also apply to other soluble barium compounds (as Ba) except Barium sulfate.]				Measurement Methods (see Table 1): NIOSH 7056, 7303 OSHA ID121	
Physical Description: White, odorless solid.					
Chemical & Physical Properties: MW: 208.2 BP: 2840°F Sol: 38% F.I.P: NA IP: ? Sp.Gr: 3.86 VP: Low MLT: 1765°F UEL: NA LEL: NA Noncombustible Solid		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: Daily		Respirator Recommendations (see Tables 3 and 4): NIOSH/OSHA 5 mg/m³: 95XQ/Sa 12.5 mg/m³: Sa:Cf/Paprhie 25 mg/m³: 100F/SaT:Cf/Paprhie/ ScbaF/SaF 50 mg/m³: SaF:Pd,Pp §: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: 100F/ScbaE	
Incompatibilities and Reactivities: Acids, oxidizers					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit eyes, skin, upper resp sys; skin burns; gastroenteritis; musc spasm; slow pulse, extrasystoles; hypokalemia TO: Eyes, skin, resp sys, heart, CNS			First Aid (see Table 6): Eye: Irr immed Skin: Water flush immed Breath: Resp support Swallow: Medical attention immed		

Beryllium & beryllium compounds (as Be)	Formula: Be (metal)	CAS#: 7440-41-7 (metal)	RTECS#: DS1750000 (metal)	IDLH: Ca [4 mg/m ³ (as Be)]
Conversion:		DOT: 1566 154 (compounds); 1567 134 (powder)		
Synonyms/Trade Names: Beryllium metal: Beryllium Other synonyms vary depending upon the specific beryllium compound.				
Exposure Limits: NIOSH REL: Ca Not to exceed 0.0005 mg/m ³ See Appendix A OSHA PEL: TWA 0.002 mg/m ³ C 0.005 mg/m ³ 0.025 mg/m ³ [30-minute maximum peak]			Measurement Methods (see Table 1): NIOSH 7102, 7300, 7301, 7303, 9102 OSHA ID125G, ID206	
Physical Description: Metal: A hard, brittle, gray-white solid.				
Chemical & Physical Properties: MW: 9.0 BP: 4532°F Sol: Insoluble F.I.P: NA IP: NA Sp.Gr: 1.85 (metal) VP: 0 mmHg (approx) MLT: 2349°F UEL: NA LEL: NA	Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: Daily Remove: When wet or contam Change: Daily Provide: Eyewash		Respirator Recommendations (see Tables 3 and 4): NIOSH ¥: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: 100F/ScbaE	
Metal: Noncombustible Solid in bulk form, but a slight explosion hazard in the form of a powder or dust.				
Incompatibilities and Reactivities: Acids, caustics, chlorinated hydrocarbons, oxidizers, molten lithium				
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Con SY: Berylliosis (chronic exposure): anor, low-wgt, lass, chest pain, cough, clubbing of fingers, cyan, pulm insufficiency; irrit eyes; derm; [carc] TO: Eyes, skin, resp sys [lung cancer]			First Aid (see Table 6): Eye: Irr immed Breath: Fresh air	

Cadmium dust (as Cd)	Formula: Cd (metal)	CAS#: 7440-43-9 (metal)	RTECS#: EU9800000 (metal)	IDLH: Ca [9 mg/m ³ (as Cd)]
Conversion:	DOT: 2570 154 (cadmium compound)			
Synonyms/Trade Names: Cadmium metal: Cadmium Other synonyms vary depending upon the specific cadmium compound.				
Exposure Limits: NIOSH REL*: Ca See Appendix A OSHA PEL*: [1910.1027] TWA 0.005 mg/m ³ [*Note: The REL and PEL apply to all Cadmium compounds (as Cd).]			Measurement Methods (see Table 1): NIOSH 7048, 7300, 7301, 7303, 9102 OSHA ID121, ID125G, ID189, ID206	
Physical Description: Metal: Silver-white, blue-tinged lustrous, odorless solid.				
Chemical & Physical Properties: MW: 112.4 BP: 1409°F Sol: Insoluble F.L.P: NA IP: NA Sp.Gr: 8.65 (metal) VP: 0 mmHg (approx) MLT: 610°F UEL: NA LEL: NA Metal: Noncombustible Solid in bulk form, but will burn in powder form.		Personal Protection/Sanitation (see Table 2): Skin: N.R. Eyes: N.R. Wash skin: Daily Remove: N.R. Change: Daily		Respirator Recommendations (see Tables 3 and 4): NIOSH §: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: 100F/ScbaE See Appendix E (page 351)
		Incompatibilities and Reactivities: Strong oxidizers; elemental sulfur, selenium & tellurium		
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing SY: Pulm edema, dysp, cough, chest tight, subs pain; head; chills, musc aches; nau, vomit, diarr; anos, emphy, prot, mild anemia; [carc] TO: Resp sys, kidneys, prostate, blood [prostatic & lung cancer]			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash Breath: Resp support Swallow: Medical attention immed	

Chromium metal		Formula: Cr	CAS#: 7440-47-3	RTECS#: GB4200000	IDLH: 250 mg/m ³ (as Cr)
Conversion:		DOT:			
Synonyms/Trade Names: Chrome, Chromium					
Exposure Limits: NIOSH REL: TWA 0.5 mg/m ³ See Appendix C OSHA PEL*: TWA 1 mg/m ³ See Appendix C [*Note: The PEL also applies to insoluble chromium salts.]				Measurement Methods (see Table 1): NIOSH 7024, 7300, 7301, 7303, 9102 OSHA ID121, ID125G	
Physical Description: Blue-white to steel-gray, lustrous, brittle, hard, odorless solid.					
Chemical & Physical Properties: MW: 52.0 BP: 4788°F Sol: Insoluble F.L.P: NA IP: NA Sp.Gr: 7.14 VP: 0 mmHg (approx) MLT: 3452°F UEL: NA LEL: NA Noncombustible Solid in bulk form, but finely divided dust burns rapidly if heated in a flame.		Personal Protection/Sanitation (see Table 2): Skin: N.R. Eyes: N.R. Wash skin: N.R. Remove: N.R. Change: N.R.		Respirator Recommendations (see Tables 3 and 4): NIOSH 2.5 mg/m ³ : Qm* 5 mg/m ³ : 95XQ*/Sa* 12.5 mg/m ³ : Sa:Cf*/Paprhie* 25 mg/m ³ : 100F/Paprhie*/ ScbaF/SaF 250 mg/m ³ : SaF: Pd, Pp §: ScbaF: Pd, Pp/SaF: Pd, Pp: AScba Escape: 100F/ScbaE	
		Incompatibilities and Reactivities: Strong oxidizers (such as hydrogen peroxide), alkalis			
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit eyes, skin; lung fib (histologic) TO: Eyes, skin, resp sys			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash Breath: Resp support Swallow: Medical attention immed		

Cobalt metal dust and fume (as Co)		Formula: Co	CAS#: 7440-48-4	RTECS#: GF8750000	IDLH: 20 mg/m ³ (as Co)
Conversion:		DOT:			
Synonyms/Trade Names: Cobalt metal dust, Cobalt metal fume					
Exposure Limits: NIOSH REL: TWA 0.05 mg/m ³ OSHA PEL†: TWA 0.1 mg/m ³			Measurement Methods (see Table 1): NIOSH 7027, 7300, 7301, 7303, 9102 OSHA ID121, ID125G, ID213		
Physical Description: Odorless, silver-gray to black solid.					
Chemical & Physical Properties: MW: 58.9 BP: 5612°F Sol: Insoluble F.L.P: NA IP: NA Sp.Gr: 8.92 VP: 0 mmHg (approx) MLT: 2719°F UEL: NA LEL: NA Noncombustible Solid in bulk form, but finely divided dust will burn at high temperatures.	Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: N.R. Wash skin: When contam Remove: When wet or contam Change: Daily	Respirator Recommendations (see Tables 3 and 4): NIOSH 0.25 mg/m ³ : Qm 0.5 mg/m ³ : 95XQ*/Sa* 1.25 mg/m ³ : Sa:CF*/PaprHie* 2.5 mg/m ³ : 100F/ScbaF/SaF 20 mg/m ³ : SaF:Pd,Pp §: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: 100F/ScbaE			
Incompatibilities and Reactivities: Strong oxidizers, ammonium nitrate					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Cough, dysp, wheez, decr pulm func; low-wgt; dermat; diffuse nodular fib; resp hypersensitivity, asthma TO: Skin, resp sys			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash Breath: Resp support Swallow: Medical attention immed		

Copper (dusts and mists, as Cu)	Formula: Cu	CAS#: 7440-50-8	RTECS#: GL5325000	IDLH: 100 mg/m ³ (as Cu)
Conversion:	DOT:			
Synonyms/Trade Names: Copper metal dusts, Copper metal fumes				
Exposure Limits: NIOSH REL*: TWA 1 mg/m ³ OSHA PEL*: TWA 1 mg/m ³ [*Note: The REL and PEL also apply to other copper compounds (as Cu) except copper fume.]			Measurement Methods (see Table 1): NIOSH 7029, 7300, 7301, 7303, 9102 OSHA ID121, ID125G	
Physical Description: Reddish, lustrous, malleable, odorless solid.				
Chemical & Physical Properties: MW: 63.5 BP: 4703°F Sol: Insoluble F.L.P: NA IP: NA Sp.Gr: 8.94 VP: 0 mmHg (approx) MLT: 1981°F UEL: NA LEL: NA Noncombustible Solid in bulk form, but powdered form may ignite.	Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: Daily		Respirator Recommendations (see Tables 3 and 4): NIOSH/OSHA 5 mg/m ³ : Qm* 10 mg/m ³ : 95XQ*/Sa* 25 mg/m ³ : Sa:Cf*/PaprHie* 50 mg/m ³ : 100F/PaprTHie*/ScbaF/SaF 100 mg/m ³ : SaF:Pd,Pp §: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: 100F/ScbaE	
Incompatibilities and Reactivities: Oxidizers, alkalis, sodium azide, acetylene				
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit eyes, nose, pharynx; nasal septum perf; metallic taste; dermat; in animals: lung, liver, kidney damage; anemia TO: Eyes, skin, resp sys, liver, kidneys (incr risk with Wilson's disease)			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash prompt Breath: Resp support Swallow: Medical attention immed	

Chromic acid and chromates		Formula: CrO ₃ (acid)	CAS#: 1333-82-0 (CrO ₃)	RTECS#: GB6650000 (CrO ₃)	IDLH: Ca [15 mg/m ³ {as Cr(VI)}]
Conversion:		DOT: 1755 154 (acid solution); 1463 141 (acid, solid)			
Synonyms/Trade Names: Chromic acid (CrO ₃): Chromic anhydride, Chromic oxide, Chromium(VI) oxide (1:3), Chromium trioxide. Synonyms of chromates (i.e., chromium(VI) compounds) such as zinc chromate vary depending upon the specific compound.					
Exposure Limits: NIOSH REL (as Cr): Ca TWA 0.001 mg/m ³ See Appendix A See Appendix C OSHA PEL (as CrO ₃): C 0.1 mg/m ³ See Appendix C				Measurement Methods (see Table 1): NIOSH 7600, 7604, 7605 OSHA ID103, ID215, W4001	
Physical Description: CrO ₃ : Dark-red, odorless flakes or powder. [Note: Often used in an aqueous solution (H ₂ CrO ₄).]					
Chemical & Physical Properties: MW: 100.0 BP: 482°F (Decomposes) Sol: 63% F.L.P: NA IP: NA Sp.Gr: 2.70 (CrO ₃) VP: Very low MLT: 387°F (Decomposes) UEL: NA LEL: NA CrO ₃ : Noncombustible Solid, but will accelerate the burning of combustible materials.		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: Daily Provide: Eyewash Quick drench		Respirator Recommendations (see Tables 3 and 4): NIOSH ¥: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: 100F/ScbaE	
		Incompatibilities and Reactivities: Combustible, organic, or other readily oxidizable materials (paper, wood, sulfur, aluminum, plastics, etc.); corrosive to metals			
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit resp sys; nasal septum perf; liver, kidney damage; leucyt, leupen, eosin; eye inj, conj; skin ulcer, sens derm; [carc] TO: Blood, resp sys, liver, kidneys, eyes, skin [lung cancer]				First Aid (see Table 6): Eye: Irr immed Skin: Soap flush immed Breath: Resp support Swallow: Medical attention immed	

Mercury compounds [except (organo) alkyls] (as Hg)		Formula: Hg (metal)	CAS#: 7439-97-6 (metal)	RTECS#: OV4550000 (metal)	IDLH: 10 mg/m ³ (as Hg)
Conversion:		DOT: 2809 172 (metal)			
Synonyms/Trade Names: Mercury metal: Colloidal mercury, Metallic mercury, Quicksilver Synonyms of "other" Hg compounds vary depending upon the specific compound.					
Exposure Limits: NIOSH REL: Hg Vapor: TWA 0.05 mg/m ³ [skin] Other: C 0.1 mg/m ³ [skin]				Measurement Methods (see Table 1): NIOSH 6009 OSHA ID140	
Physical Description: Metal: Silver-white, heavy, odorless liquid. [Note: "Other" Hg compounds include all inorganic & aryl Hg compounds except (organo) alkyls.]					
Chemical & Physical Properties: MW: 200.6 BP: 674°F Sol: Insoluble F.L.P: NA IP: ? Sp.Gr: 13.6 (metal) VP: 0.0012 mmHg FRZ: -38°F UEL: NA LEL: NA Metal: Noncombustible Liquid		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: N.R. Wash skin: When contam Remove: When wet or contam Change: Daily		Respirator Recommendations (see Tables 3 and 4): Mercury vapor: NIOSH 0.5 mg/m³: CcrSt+/Sa 1.25 mg/m³: Sa:Cf/PapRSt+(canister) 2.5 mg/m³: CcrFS+/GmFS+/SaT:Cf/PapRSt+(canister)/ScbaF/SaF 10 mg/m³: Sa: Pd, Pp §: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: GmFS/ScbaE Other mercury compounds: NIOSH/OSHA 1 mg/m³: CcrSt+/Sa 2.5 mg/m³: Sa:Cf/PapRSt+(canister) 5 mg/m³: CcrFS+/GmFS+/SaT:Cf/PapRSt+(canister)/ScbaF/SaF 10 mg/m³: Sa: Pd, Pp §: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: GmFS/ScbaE	
Incompatibilities and Reactivities: Acetylene, ammonia, chlorine dioxide, azides, calcium (amalgam formation), sodium carbide, lithium, rubidium, copper					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Abs, Ing, Con SY: Irrit eyes, skin; cough, chest pain, dysp, bron, pneu; tremor, insom, irrit, indecision, head, lass; stomatitis, salv; GI dist, anor, low-wgt; prot TO: Eyes, skin, resp sys, CNS, kidneys				First Aid (see Table 6): Eye: Irr immed Skin: Soap wash prompt Breath: Resp support Swallow: Medical attention immed	

Molybdenum (soluble compounds, as Mo)		Formula:	CAS#:	RTECS#:	IDLH: 1000 mg/m ³ (as Mo)
Conversion:			DOT:		
Synonyms/Trade Names: Synonyms vary depending upon the specific soluble molybdenum compound.					
Exposure Limits: NIOSH REL: See Appendix D OSHA PEL: TWA 5 mg/m ³				Measurement Methods (see Table 1): NIOSH 7300, 7301, 7303, 9102 OSHA ID121, ID125G	
Physical Description: Appearance and odor vary depending upon the specific soluble molybdenum compound.					
Chemical & Physical Properties: Properties vary depending upon the specific soluble molybdenum compound.		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: N.R.		Respirator Recommendations (see Tables 3 and 4): OSHA 25 mg/m ³ : Qm* 50 mg/m ³ : 95XQ*/Sa* 125 mg/m ³ : Sa:Cf*/PaprHie* 250 mg/m ³ : 100F/SaT:Cf*/PaprTHie*/ScbaF/SaF 1000 mg/m ³ : SaF:Pd,Pp §: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: 100F/ScbaE	
Incompatibilities and Reactivities: Varies					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: In animals: irrit eyes, nose, throat; anor; inco; dysp; anemia TO: Eyes, resp sys, kidneys, blood			First Aid (see Table 6): Eye: Irr immed Skin: Water flush Breath: Resp support Swallow: Medical attention immed		

Nickel metal and other compounds (as Ni)		Formula: Ni (metal)	CAS#: 7440-02-0 (metal)	RTECS#: QR5950000 (metal)	IDLH: Ca [10 mg/m ³ (as Ni)]
Conversion:		DOT:			
Synonyms/Trade Names: Nickel metal: Elemental nickel, Nickel catalyst Synonyms of other nickel compounds vary depending upon the specific compound.					
Exposure Limits: NIOSH REL*: Ca TWA 0.015 mg/m ³ See Appendix A OSHA PEL*†: TWA 1 mg/m ³ [*Note: The REL and PEL do not apply to Nickel carbonyl.]				Measurement Methods (see Table 1): NIOSH 7300, 7301, 7303, 9102 OSHA ID121, ID125G	
Physical Description: Metal: Lustrous, silvery, odorless solid.					
Chemical & Physical Properties: MW: 58.7 BP: 5139°F Sol: Insoluble F.L.P: NA IP: NA Sp.Gr: 8.90 (Metal) VP: 0 mmHg (approx) MLT: 2831°F UEL: NA LEL: NA Metal: Combustible Solid; nickel sponge catalyst may ignite SPONTANEOUSLY in air.		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: N.R. Wash skin: When contam/Daily Remove: When wet or contam Change: Daily		Respirator Recommendations (see Tables 3 and 4): NIOSH ¥: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: 100F/ScbaE	
		Incompatibilities and Reactivities: Strong acids, sulfur, selenium, wood & other combustibles, nickel nitrate			
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Sens derm, allergic asthma, pneu; [carc] TO: Nasal cavities, lungs, skin [lung and nasal cancer]			First Aid (see Table 6): Skin: Water flush immed Breath: Resp support Swallow: Medical attention immed		

Selenium		Formula: Se	CAS#: 7782-49-2	RTECS#: VS7700000	IDLH: 1 mg/m ³ (as Se)
Conversion:		DOT: 2658 152 (powder)			
Synonyms/Trade Names: Elemental selenium, Selenium alloy					
Exposure Limits: NIOSH REL*: TWA 0.2 mg/m ³ OSHA PEL*: TWA 0.2 mg/m ³ [*Note: The REL and PEL also apply to other selenium compounds (as Se) except Selenium hexafluoride.]				Measurement Methods (see Table 1): NIOSH 7300, 7301, 7303, 9102, S190 (II-7) OSHA ID121	
Physical Description: Amorphous or crystalline, red to gray solid. [Note: Occurs as an impurity in most sulfide ores.]					
Chemical & Physical Properties: MW: 79.0 BP: 1265°F Sol: Insoluble F.I.P: NA IP: NA Sp.Gr: 4.28 VP: 0 mmHg (approx) MLT: 392°F UEL: NA LEL: NA Combustible Solid		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: N.R. Wash skin: When contam Remove: When wet or contam Change: N.R. Provide: Quick drench		Respirator Recommendations (see Tables 3 and 4): NIOSH/OSHA 1 mg/m³: Qm*/95XQ*/100F/Pap/Hie*/Pap/Hie*/Sa*/ScbaF §: ScbaF: Pd, Pp/SaF: Pd, Pp: AScba Escape: 100F/ScbaE	
Incompatibilities and Reactivities: Acids, strong oxidizers, chromium trioxide, potassium bromate, cadmium					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit eyes, skin, nose, throat; vis dist; head; chills, fever; dysp, bron; metallic taste, garlic breath, GI dist; derm; eye, skin burns; in animals: anemia; liver nec, cirr; kidney, spleen damage TO: Eyes, skin, resp sys, liver, kidneys, blood, spleen				First Aid (see Table 6): Eye: Irr immed Skin: Soap wash immed Breath: Resp support Swallow: Medical attention immed	

Silver (metal dust and soluble compounds, as Ag)		Formula: Ag (metal)	CAS#: 7440-22-4 (metal)	RTECS#: VW3500000 (metal)	IDLH: 10 mg/m ³ (as Ag)
Conversion:		DOT:			
Synonyms/Trade Names: Silver metal: Argentum Synonyms of soluble silver compounds such as Silver nitrate (AgNO ₃) vary depending upon the specific compound.					
Exposure Limits: NIOSH REL: TWA 0.01 mg/m ³ OSHA PEL: TWA 0.01 mg/m ³				Measurement Methods (see Table 1): NIOSH 7300, 7301, 9102 OSHA ID121	
Physical Description: Metal: White, lustrous solid.					
Chemical & Physical Properties: MW: 107.9 BP: 3632°F Sol: Insoluble F.I.P: NA IP: NA Sp.Gr: 10.49 (metal) VP: 0 mmHg (approx) MLT: 1761°F UEL: NA LEL: NA Metal: Noncombustible Solid, but flammable in form of dust or powder.		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam (AgNO ₃) Change: Daily Provide: Eyewash		Respirator Recommendations (see Tables 3 and 4): NIOSH/OSHA 0.25 mg/m³: Sa:CfE/Pap/HieE 0.5 mg/m³: 100F/ScbaF/SaF 10 mg/m³: SaF: Pd, Pp §: ScbaF: Pd, Pp/SaF: Pd, Pp: AScba Escape: 100F/ScbaE	
		Incompatibilities and Reactivities: Acetylene, ammonia, hydrogen peroxide, bromoazide, chlorine trifluoride, ethyleneimine, oxalic acid, tartaric acid			
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Blue-gray eyes, nasal septum, throat, skin; irrit, ulceration skin; GI dist TO: Nasal septum, skin, eyes			First Aid (see Table 6): Eye: Irr immed Skin: Water flush Breath: Resp support Swallow: Medical attention immed		

Vanadium dust	Formula: V ₂ O ₅	CAS#: 1314-62-1	RTECS#: YW2450000	IDLH: 35 mg/m ³ (as V)
Conversion:		DOT: 2862 151		
Synonyms/Trade Names: Divanadium pentoxide dust, Vanadic anhydride dust, Vanadium oxide dust, Vanadium pentaoxide dust. Other synonyms vary depending upon the specific vanadium compound.				
Exposure Limits: NIOSH REL*: C 0.05 mg V/m ³ [15-minute] [*Note: The REL applies to all vanadium compounds except Vanadium metal and Vanadium carbide (see Ferrovandium dust).] OSHA PEL†: C 0.5 mg V ₂ O ₅ /m ³ (resp)			Measurement Methods (see Table 1): NIOSH 7300, 7301, 7303, 7504, 9102 OSHA ID185	
Physical Description: Yellow-orange powder or dark-gray, odorless flakes dispersed in air.				
Chemical & Physical Properties: MW: 181.9 BP: 3182°F (Decomposes) Sol: 0.8% F.I.P: NA IP: NA Sp.Gr: 3.36 VP: 0 mmHg (approx) MLT: 1274°F UEL: NA LEL: NA Noncombustible Solid, but may increase intensity of fire when in contact with combustible materials.	Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: N.R.	Respirator Recommendations (see Tables 3 and 4): NIOSH (as V) 0.5 mg/m³: 100XQ*/Sa* 1.25 mg/m³: Sa:Cf*/Paprhie* 2.5 mg/m³: 100F/Paprhie*/ScbaF/SaF 35 mg/m³: SaF: Pd, Pp §: ScbaF: Pd, Pp/SaF: Pd, Pp: AScba Escape: 100F/ScbaE		
Incompatibilities and Reactivities: Lithium, chlorine trifluoride				
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit eyes, skin, throat; green tongue, metallic taste, eczema; cough; fine rales, wheez, bron, dysp TO: Eyes, skin, resp sys		First Aid (see Table 6): Eye: Irr immed Skin: Soap wash prompt Breath: Resp support Swallow: Medical attention immed		

Zinc oxide	Formula: ZnO	CAS#: 1314-13-2	RTECS#: ZH4810000	IDLH: 500 mg/m ³
Conversion:		DOT: 1516 143		
Synonyms/Trade Names: Zinc peroxide				
Exposure Limits: NIOSH REL: Dust: TWA 5 mg/m ³ C 15 mg/m ³ Fume: TWA 5 mg/m ³ ST 10 mg/m ³ OSHA PEL†: TWA 5 mg/m ³ (fume) TWA 15 mg/m ³ (total dust) TWA 5 mg/m ³ (resp dust)			Measurement Methods (see Table 1): NIOSH 7303, 7502 OSHA ID121, ID143	
Physical Description: White, odorless solid.				
Chemical & Physical Properties: MW: 81.4 BP: ? Sol(64°F): 0.0004% F.I.P: NA IP: NA Sp.Gr: 5.61 VP: 0 mmHg (approx) MLT: 3587°F UEL: NA LEL: NA Noncombustible Solid	Personal Protection/Sanitation (see Table 2): Skin: N.R. Eyes: N.R. Wash skin: N.R. Remove: N.R. Change: N.R.	Respirator Recommendations (see Tables 3 and 4): NIOSH/OSHA 50 mg/m³: 95XQ/Sa 125 mg/m³: Sa:Cf/Paprhie 250 mg/m³: 100F/SaT:Cf/Paprhie/ScbaF/SaF 500 mg/m³: Sa: Pd, Pp §: ScbaF: Pd, Pp/SaF: Pd, Pp: AScba Escape: 100F/ScbaE		
	Incompatibilities and Reactivities: Chlorinated rubber (at 419°F), water [Note: Slowly decomposed by water.]			
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh SY: Metal fume fever: chills, musc ache, nau, fever, dry throat, cough; lass; metallic taste; head; blurred vision; low back pain; vomit; mal; chest tight; dysp, rales, decr pulm func TO: Resp sys		First Aid (see Table 6): Breath: Resp support		

ATTACHMENT

B

I. SUBSTANCE IDENTIFICATION

- A. Substance. Inorganic Arsenic.
- B. Definition. Copper acetoarsenite, arsenic and all inorganic compounds containing arsenic except arsine, measured as arsenic (As).
- C. Permissible Exposure Limit. 0.01 milligrams per cubic meter of air (same as 10 micrograms per cubic meter of air) as determined as an average over an 8-hour period. No employee may be exposed to any skin or eye contact with arsenic trichloride or to skin or eye contact likely to cause skin or eye irritation.
- D. Action Level. 0.005 milligrams per cubic meter of air (same as 5 micrograms per cubic meter of air) determined as an average over an 8-hour period.
- E. Regulated Areas. Only employees authorized by your employer should enter a regulated area.

II. HEALTH HAZARD DATA

- A. Comments. The health hazard of inorganic arsenic is high.
- B. Ways In Which Inorganic Arsenic Affects Your Body. Exposure to airborne inorganic arsenic may cause lung cancer, and it can be a skin irritant. Inorganic arsenic may also affect your body if swallowed. One compound in particular, arsenic trichloride, is especially dangerous because it is highly corrosive and it can be absorbed readily through the skin. Because inorganic arsenic is a poison, you should wash your hands thoroughly prior to eating or smoking.

III. PROTECTIVE CLOTHING AND EQUIPMENT

- A. Respirators. Respirators will be provided by your employer at no cost to you for routine use if your employer is in the process of implementing engineering and work practice controls or where engineering and work practice controls are not feasible or insufficient. You must wear respirators for non-routine activities or in emergency situations where you are likely to be exposed to levels of inorganic arsenic in excess of the permissible exposure limit. Since how well your respirator fits your face is very important, your employer is required to conduct fit tests to make sure the respirator seals properly when you wear it. These tests are simple and rapid and will be explained to you during training sessions.
- B. Protective clothing. If you work in a regulated area, your employer is required to provide at no cost to you, and you must wear, appropriate, clean, protective clothing and equipment. The purpose of this equipment is to prevent you from bringing to your home arsenic-contaminated dust and to protect your body from repeated skin contact with inorganic arsenic likely to cause skin irritation. This clothing should include such items as coveralls or similar full-body clothing, gloves, shoes or coverlets, and aprons. Protective equipment should include face shields or vented goggles where eye injury may occur.

IV. HYGIENE FACILITIES AND PRACTICES

You must not eat, drink, smoke, chew gum or tobacco, or apply cosmetics in the regulated area, except that drinking water is permitted. If you work in a regulated area your employer is required to provide lunch rooms and other areas for these purposes.

If you work in a regulated area, your employer is required to provide showers, washing facilities, and change rooms. You must wash your face and hands before eating and must shower at the end of the work shift. Do not take used protective clothing out of change rooms without your employer's permission. Your employer is required to provide for laundering or cleaning of your protective clothing.

V. SIGNS AND LABELS

Your employer is required to post warning signs and labels for your protection. Signs must be posted in regulated areas. The signs must warn that a cancer hazard is present, that only authorized employees may enter the area, and that no smoking or eating is allowed, and that respirators must be worn.

VI. MEDICAL EXAMINATIONS

If your exposure to arsenic is over the action level at least 30 days per year, or you have been exposed to arsenic for more than 10 years over the action level, your employer is required to provide you with a medical examination. The examination shall be every 6 months for employees over 45 years old or with more than 10 years exposure over the action level and annually for other covered employees. The initial medical examination must include a medical history; a chest X-ray; skin examination; nasal examination and sputum cytology examination for the early detection of lung cancer. In subsequent medical examinations, the chest X-ray is not required unless recommended by the physician. The cytology exams are only included in the initial examination and examinations given after you are either 45 years or older or have 10 or more years employment over the action level. The examining physician will provide a written opinion to your employer interpreting the results of the medical exams. You should also receive a copy of this opinion. The physician must not tell your employer any conditions he or she detects unrelated to occupational exposure to arsenic but must tell you those conditions.

VII. OBSERVATION OF MONITORING

Your employer is required to monitor your exposure to arsenic and you or your representatives are entitled to observe the monitoring procedure. You are entitled to receive an explanation of the measurement procedure, and to record the results obtained. When the monitoring procedure is taking place in an area where respirators or personal protective clothing and equipment are required to be worn, you must also be provided with and must wear the protective clothing and equipment.

VIII. ACCESS TO RECORDS

You or your representative are entitled to records of your exposure to inorganic arsenic upon request to your employer. Your medical examination records can be furnished to you, your physician, or any other individual or organization that you designate if you request your employer to provide them.

IX. TRAINING AND NOTIFICATION

Additional information on all of these items plus training as to hazards of exposure to inorganic arsenic and the engineering and work practice controls associated with your job will also be provided by your employer. If you are exposed over the permissible exposure limit, your employer must inform you of that fact and the actions he or she is taking to reduce your exposures.

ATTACHMENT

C

I. SUBSTANCE IDENTIFICATION INORGANIC LEAD

- A Substance: Pure lead (Pb) is a heavy metal at room temperature and pressure and is a basic chemical element. It can combine with various other substances to form numerous lead compounds.
- B Compounds covered by the standard: The word “lead” when used in this standard means elemental lead, all inorganic lead compounds and a class of organic lead compounds called lead soaps. This standard does not apply to other organic lead compounds.
- C Uses: Exposure to lead occurs in several different occupations in the construction industry, including demolition or salvage of structures where lead or lead-containing materials are present; removal or encapsulation of lead-containing materials; new construction, alteration, repair, or renovation of structures that contain lead or materials containing lead; and installation of products containing lead. In addition, there are construction-related activities where exposure to lead may occur, including transportation, disposal, storage, or containment of lead or materials containing lead on construction sites, and maintenance operations associated with construction activities.
- D Permissible exposure: The permissible exposure limit (PEL) set by the standard is 10 micrograms of lead per cubic meter of air ($10 \mu\text{g}/\text{m}^3$) calculated as an 8-hour time-weighted average (TWA). As an exception, until January 1, 2030, no employee conducting abrasive blasting shall be exposed to lead at concentrations greater than $25 \mu\text{g}/\text{m}^3$, calculated as an 8-hour TWA.
- E Action level: The standard establishes an action level of 2 micrograms of lead per cubic meter of air ($2 \mu\text{g}/\text{m}^3$) calculated as an 8-hour TWA. The action level refers to employee exposure, without regard to the use of respirators. The action level triggers several additional provisions of the standard such as exposure monitoring, medical surveillance, training program, and signs.

II. HEALTH HAZARD DATA

- A Ways in which lead enters your body. When absorbed into your body, lead is a toxic substance. The object of the lead standard is to prevent absorption of harmful quantities of lead. The standard is intended to protect you not only from the immediate toxic effects of lead, but also from the serious toxic effects that may not become apparent until years of exposure have passed. Lead can be absorbed into your body by inhalation (breathing) and ingestion (swallowing). Lead (except for certain organic lead compounds not covered by the standard, such as tetraethyl lead) is not significantly absorbed through your skin. When lead is scattered in the air as a dust, fume or mist, it can be inhaled and absorbed through your lungs and upper respiratory tract. Inhalation of airborne lead is generally the most important source of occupational lead absorption. You can also absorb lead through your digestive system if lead gets into your mouth and is swallowed. If you handle food, beverages, cigarettes, chewing tobacco, or make-up, which have lead on them or handle them with hands contaminated with lead, this will contribute to ingestion. Lead that is absorbed into your body by inhalation (breathing) and ingestion (swallowing) gets into your bloodstream. Once in your blood stream, lead is circulated throughout your body and stored in various organs and body tissues. Some of this lead is quickly filtered out of your body and excreted, but some remains in the blood and other tissues. As exposure to lead continues, the amount stored in your body will increase if

you are absorbing more lead than your body is excreting. Even though you may not be aware of any immediate symptoms of disease, this lead stored in your tissues can be slowly causing damage, first to individual cells, then to your organs and whole body systems.

B Effects of overexposure to lead.

1. Short term (acute) overexposure. Lead is a potent, systemic poison that serves no known useful function once absorbed by your body. With large enough doses, lead can kill you in a matter of days. A condition affecting the brain called acute encephalopathy may arise which develops quickly to seizures, coma, and death from cardiopulmonary arrest. A very high, short-term dose of lead can lead to acute encephalopathy. Short-term occupational exposures of this magnitude are highly unusual, but not impossible. Similar forms of encephalopathy may, however, arise from extended, chronic exposure to lower doses of lead. The most severe, often fatal, form of encephalopathy may be preceded by vomiting, a feeling of dullness progressing to drowsiness and stupor, poor memory, restlessness, irritability, tremor, and convulsions. There is no sharp dividing line between rapidly developing acute effects of lead, and chronic effects which take longer to develop. Lead adversely affects numerous body systems, and causes forms of health impairment and disease which arise after periods of exposure as short as days or as long as several years. For example, short-term reproductive effects may include miscarriage and reduced birth weight of children exposed to lead during pregnancy. Both high and lower level lead exposures have been associated with these outcomes. Sperm abnormalities may develop at relatively high blood lead levels (at or above 20 micrograms of lead per deciliter of whole blood ($\mu\text{g}/\text{dl}$)).
2. Long-term (chronic) overexposure. Chronic overexposure to lead may result in severe damage to your cardiovascular, blood-forming, nervous, urinary and reproductive systems. Damage to multiple organs may occur at blood lead levels previously thought to be without recognized harm. At higher lead levels, some symptoms of chronic overexposure include loss of appetite, metallic taste in the mouth, anxiety, constipation, nausea, pallor, excessive tiredness, weakness, insomnia, headache, nervous irritability, muscle and joint pain or soreness, fine tremors, numbness, dizziness, hyperactivity and lead colic. In lead colic there may be severe abdominal pain. Some people may not experience any symptoms even though lead is causing toxic effects in their bodies. It is important to note that for some people, permanent damage may occur even in the absence of symptoms. *Cardiovascular system (heart and blood circulation)*. Exposure to lead may cause increased blood pressure, heart disease, and stroke. *Neurologic system (brain and nervous system)*. Exposure to lead may cause declines in brain (cognitive) function, slowing of nerve conduction velocity, brain damage (encephalopathy), and nerve damage resulting in weakness or paralysis. *Renal system (kidneys)*. Exposure to lead may cause declines in kidney function that can progress to kidney failure requiring dialysis and to death. *Reproductive system*. Chronic overexposure to lead impairs the reproductive systems of both females and males. The course of pregnancy may be adversely affected by exposure to lead since lead crosses the placental barrier and poses risks to developing fetuses. Reduced birth weight of children exposed to lead during pregnancy has been documented. Biological parents' lead exposure can harm the physical and mental development of a baby before birth. Lead exposure also

may result in decreased fertility and abnormal menstrual cycles in females. Exposure to lead may result in decreased sex drive, impotence, and sterility in males. Lead can alter the structure of sperm cells raising the risk of birth defects. There is evidence of miscarriage and stillbirth in pregnant people whose reproductive partners were exposed to lead or who were exposed to lead themselves. *Blood-forming system.* Exposure to lead also disrupts the blood-forming system resulting in decreased hemoglobin (the substance in the blood that carries oxygen to the cells) and ultimately anemia. Anemia is characterized by weakness, pallor and fatigue as a result of decreased oxygen-carrying capacity in the blood.

3. Health protection goals of the standard. Prevention of health damage for most employees from exposure to lead throughout a working lifetime requires that an employee's blood lead level (BLL) be maintained as low as possible. The BLL of employees who intend to have children should be maintained below 3.5 µg/dl to minimize adverse reproductive health effects. The measurement of your BLL is the most useful indicator of the amount of lead being absorbed by your body.

Your BLL is a measure of the amount of lead in your blood. This reflects both recent exposure as well as how much lead is stored in your bones. Past research into lead-related diseases has focused heavily on associations between BLLs and various diseases. As a result, your BLLs over time provide an important indicator of the likelihood that you will gradually develop a lead-related health impairment or disease.

As your BLL increases, your risk of disease increases. There is a wide variability of individual response to lead, thus, it is difficult to say that a particular BLL in a given person will cause a particular effect. Health damage has been found at chronic BLLs of 5 µg/dl and greater, including high blood pressure, reduced birth weight, and kidney dysfunction. At the other extreme, studies have associated fatal encephalopathy with BLLs of 150 µg/dl, but encephalopathy may occur at BLLs of 80 µg/dl.

Your BLL is a crucial indicator of the risks to your health, but one other factor is also extremely important. This factor is the length of time you have had elevated BLLs. The longer you have an elevated BLL, the greater the risk that large quantities of lead are being gradually stored in your organs and tissues (body burden). The greater your overall body burden, the greater the chances of substantial permanent damage.

The best way to prevent all forms of lead-related health impairments and diseases (both short-term and long-term) is to maintain your BLL as low as possible. The standard is designed to detect BLL increases early and take action to control exposures.

Your employer has prime responsibility to ensure that the provisions of the standard are complied with both by the company and by individual employees. You, as an employee, however, also have a responsibility to assist your employer in complying with the standard. You can play a key role in protecting your own health by learning about the lead hazards and their control, learning what the standard requires, following the standard where it governs your own actions, and seeing that your employer complies with provisions governing their actions.

4. Reporting signs and symptoms of health problems. You should immediately notify your employer if you develop signs or symptoms associated with lead poisoning or if you desire medical advice concerning the effects of current or past exposure to lead or your ability to have a healthy child. You should also notify your employer if you have difficulty breathing during a respirator fit test or while wearing a respirator. In each of these cases, your employer must make available to you appropriate medical examinations or consultations. These must be provided at no cost to you and at a reasonable time and place. The standard contains a procedure whereby you can obtain a second opinion by a physician or other licensed health care professional (PLHCP) of your choice if your employer selected the initial PLHCP.

ATTACHMENT

D

Gasoline	Formula:	CAS#: 8006-61-9	RTECS#: LX3300000	IDLH: Ca [N.D.]
Conversion: 1 ppm = 4.5 mg/m ³ (approx)		DOT: 1203 128		
Synonyms/Trade Names: Motor fuel, Motor spirits, Natural gasoline, Petrol [Note: A complex mixture of volatile hydrocarbons (paraffins, cycloparaffins & aromatics).]				
Exposure Limits: NIOSH REL: Ca See Appendix A OSHA PEL†: none			Measurement Methods (see Table 1): OSHA PV2028	
Physical Description: Clear liquid with a characteristic odor.				
Chemical & Physical Properties: MW: 110 (approx) BP: 102°F Sol: Insoluble F.L.P: -45°F IP: ? Sp.Gr(60°F): 0.72-0.76 VP: 38-300 mmHg FRZ: ? UEL: 7.6% LEL: 1.4% Class IB Flammable Liquid	Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet (flamm) Change: N.R. Provide: Eyewash Quick drench	Respirator Recommendations (see Tables 3 and 4): NIOSH ¥: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: GmFOv/ScbaE		
Incompatibilities and Reactivities: Strong oxidizers such as peroxides, nitric acid & perchlorates				
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Abs, Ing, Con SY: Irrit eyes, skin, muc memb; derm; head, lass, blurred vision, dizz, slurred speech, conf, convuls; chemical pneu (aspir liquid); possible liver, kidney damage; [carc] TO: Eyes, skin, resp sys, CNS, liver, kidneys [in animals: liver & kidney cancer]		First Aid (see Table 6): Eye: Irr immed Skin: Soap flush immed Breath: Resp support Swallow: Medical attention immed		

Ethyl benzene	Formula: CH ₃ CH ₂ C ₆ H ₅	CAS#: 100-41-4	RTECS#: DA0700000	IDLH: 800 ppm [10%LEL]
Conversion: 1 ppm = 4.34 mg/m ³	DOT: 1175 130			
Synonyms/Trade Names: Ethylbenzol, Phenylethane				
Exposure Limits: NIOSH REL: TWA 100 ppm (435 mg/m ³) ST 125 ppm (545 mg/m ³) OSHA PEL†: TWA 100 ppm (435 mg/m ³)			Measurement Methods (see Table 1): NIOSH 1501 OSHA 7, 1002	
Physical Description: Colorless liquid with an aromatic odor.				
Chemical & Physical Properties: MW: 106.2 BP: 277°F Sol: 0.01% F.L.P: 55°F IP: 8.76 eV Sp.Gr: 0.87 VP: 7 mmHg FRZ: -139°F UEL: 6.7% LEL: 0.8% Class IB Flammable Liquid	Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet (flamm) Change: N.R.		Respirator Recommendations (see Tables 3 and 4): NIOSH/OSHA 800 ppm: CcrOv*/GmFOv/PapOv*/ Sa*/ScbaF §: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: GmFOv/ScbaE	
Incompatibilities and Reactivities: Strong oxidizers				
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit eyes, skin, muc memb; head; derm; narco, coma TO: Eyes, skin, resp sys, CNS			First Aid (see Table 6): Eye: Irr immed Skin: Water flush prompt Breath: Resp support Swallow: Medical attention immed	

Stoddard solvent		Formula:	CAS#:	RTECS#:	IDLH:
			8052-41-3	WJ8925000	20,000 mg/m ³
Conversion:		DOT: 1268 128 (petroleum distillates, n.o.s.)			
Synonyms/Trade Names: Dry cleaning safety solvent, Mineral spirits, Petroleum solvent, Spotting naphtha [Note: A refined petroleum solvent with a flash point of 102-110°F, boiling point of 309-396°F, and containing >65% C ₁₀ or higher hydrocarbons.]					
Exposure Limits: NIOSH REL: TWA 350 mg/m ³ C 1800 mg/m ³ [15-minute] OSHA PEL†: TWA 500 ppm (2900 mg/m ³)				Measurement Methods (see Table 1): NIOSH 1550	
Physical Description: Colorless liquid with a kerosene-like odor.					
Chemical & Physical Properties: MW: Varies BP: 309-396°F Sol: Insoluble FLP: 102-110°F IP: ? Sp.Gr: 0.78 VP: ? FRZ: ? UEL: ? LEL: ? Class II Combustible Liquid		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: N.R.		Respirator Recommendations (see Tables 3 and 4): NIOSH 3500 mg/m ³ : CcrOv*/Sa* 8750 mg/m ³ : Sa:Cf*/PapOv* 17,500 mg/m ³ : CcrFOv/GmFOv/PapTOv*/ ScbaF/SaF 20,000 mg/m ³ : SaF:Pd,Pp §: ScbaF:Pd,Pp/SaF:Pd,Pp:AScba Escape: GmFOv/ScbaE	
Incompatibilities and Reactivities: Strong oxidizers					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit eyes, nose, throat; dizz; derm; chemical pneu (aspir liquid); in animals: kidney damage TO: Eyes, skin, resp sys, CNS, kidneys			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash prompt Breath: Resp support Swallow: Medical attention immed		

Toluene		Formula: C ₆ H ₅ CH ₃	CAS#: 108-88-3	RTECS#: XS5250000	IDLH: 500 ppm
Conversion: 1 ppm = 3.77 mg/m ³		DOT: 1294 130			
Synonyms/Trade Names: Methyl benzene, Methyl benzol, Phenyl methane, Toluol					
Exposure Limits: NIOSH REL: TWA 100 ppm (375 mg/m ³) ST 150 ppm (560 mg/m ³) OSHA PEL†: TWA 200 ppm C 300 ppm 500 ppm (10-minute maximum peak)			Measurement Methods (see Table 1): NIOSH 1500, 1501, 3800, 4000 OSHA 111		
Physical Description: Colorless liquid with a sweet, pungent, benzene-like odor.					
Chemical & Physical Properties: MW: 92.1 BP: 232°F Sol(74°F): 0.07% FLP: 40°F IP: 8.82 eV Sp.Gr: 0.87 VP: 21 mmHg FRZ: -139°F UEL: 7.1% LEL: 1.1% Class IB Flammable Liquid		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet (flamm) Change: N.R.		Respirator Recommendations (see Tables 3 and 4): NIOSH 500 ppm: CcrOv*/PapOv*/ GmFOv/Sa*/ScbaF §: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: GmFOv/ScbaE	
Incompatibilities and Reactivities: Strong oxidizers					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Abs, Ing, Con SY: Irrit eyes, nose; lass, conf, euph, dizz, head; dilated pupils, lac; anxi, musc ftg, insom; pares; derm; liver, kidney damage TO: Eyes, skin, resp sys, CNS, liver, kidneys			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash prompt Breath: Resp support Swallow: Medical attention immed		

VM & P Naphtha		Formula:	CAS#:	RTECS#:	IDLH:
			8032-32-4	OI6180000	N.D.
Conversion:		DOT: 1268 128 (petroleum distillates, n.o.s.)			
Synonyms/Trade Names: Ligroin, Painters naphtha, Petroleum ether, Petroleum spirit, Refined solvent naphtha, Varnish makers' & painters' naphtha					
Exposure Limits: NIOSH REL: TWA 350 mg/m ³ C 1800 mg/m ³ [15-minute] OSHA PEL†: none				Measurement Methods (see Table 1): NIOSH 1550 OSHA 48	
Physical Description: Clear to yellowish liquid with a pleasant, aromatic odor.					
Chemical & Physical Properties: MW: 87-114 (approx) BP: 203-320°F Sol: Insoluble F.L.P: 20-55°F IP: ? Sp.Gr(60°F): 0.73-0.76 VP: 2-20 mmHg FRZ: ? UEL: 6.0% LEL: 1.2% Class IB Flammable Liquid	Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet (flamm) Change: N.R.		Respirator Recommendations (see Tables 3 and 4): NIOSH 3500 mg/m ³ : CcrOv/Sa 8750 mg/m ³ : Sa:Cf/PapOv 17,500 mg/m ³ : CcrFOv/GmFOv/PaprTOv/ ScbaF/SaF §: ScbaF: Pd, Pp/SaF: Pd, Pp: AScba Escape: GmFOv/ScbaE		
Incompatibilities and Reactivities: None reported [Note: VM&P Naphtha is a refined petroleum solvent predominantly C ₇ -C ₁₁ which is typically 55% paraffins, 30% monocycloparaffins, 2% dicycloparaffins & 12% alkylbenzenes.]					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Ing, Con SY: Irrit eyes, upper resp sys; derm; CNS depres; chemical pneu (aspir liquid) TO: Eyes, skin, resp sys, CNS			First Aid (see Table 6): Eye: Irr immed Skin: Soap wash prompt Breath: Resp support Swallow: Medical attention immed		

m-Xylene		Formula: C ₆ H ₄ (CH ₃) ₂	CAS#: 108-38-3	RTECS#: ZE2275000	IDLH: 900 ppm
Conversion: 1 ppm = 4.34 mg/m ³		DOT: 1307 130			
Synonyms/Trade Names: 1,3-Dimethylbenzene; meta-Xylene; m-Xylol					
Exposure Limits: NIOSH REL: TWA 100 ppm (435 mg/m ³) ST 150 ppm (655 mg/m ³) OSHA PEL†: TWA 100 ppm (435 mg/m ³)				Measurement Methods (see Table 1): NIOSH 1501, 3800 OSHA 1002	
Physical Description: Colorless liquid with an aromatic odor.					
Chemical & Physical Properties: MW: 106.2 BP: 282°F Sol: Slight F.L.P: 82°F IP: 8.56 eV Sp.Gr: 0.86 VP: 9 mmHg FRZ: -54°F UEL: 7.0% LEL: 1.1% Class IC Flammable Liquid		Personal Protection/Sanitation (see Table 2): Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet (flamm) Change: N.R.		Respirator Recommendations (see Tables 3 and 4): NIOSH/OSHA 900 ppm: CcrOv*/PapOv*/ Sa*/ScbaF §: ScbaF: Pd, Pp/ SaF: Pd, Pp: AScba Escape: GmFOv/ScbaE	
Incompatibilities and Reactivities: Strong oxidizers, strong acids					
Exposure Routes, Symptoms, Target Organs (see Table 5): ER: Inh, Abs, Ing, Con SY: Irrit eyes, skin, nose, throat; dizz, excitement, drow, inco, staggering gait; corn vacuolization; anor, nau, vomit, abdom pain; derm TO: Eyes, skin, resp sys, CNS, GI tract, blood, liver, kidneys				First Aid (see Table 6): Eye: Irr immed Skin: Soap wash prompt Breath: Resp support Swallow: Medical attention immed	

tert-Butyl Methyl Ether**General Description**

- **Synonyms:** Methyl-t-Butyl Ether; Methyl-tert-Butyl Ether; Methoxy-2-Methyl Propane; MTBE
- **Chemical Abstracts Service (CAS) Registry Number:** 1634-04-4
- **NIOSH Registry of Toxic Effects of Chemical Substances (RTECS) Identification Number:** KN5250000
- **Chemical Description and Physical Properties:**
 - **molecular formula:** C₅H₁₂O
 - **molecular weight:** 88.17
 - **boiling point:** 55.2°C
 - **vapor pressure:** kPa at 20°C: 27
 - **melting point:** -109°C

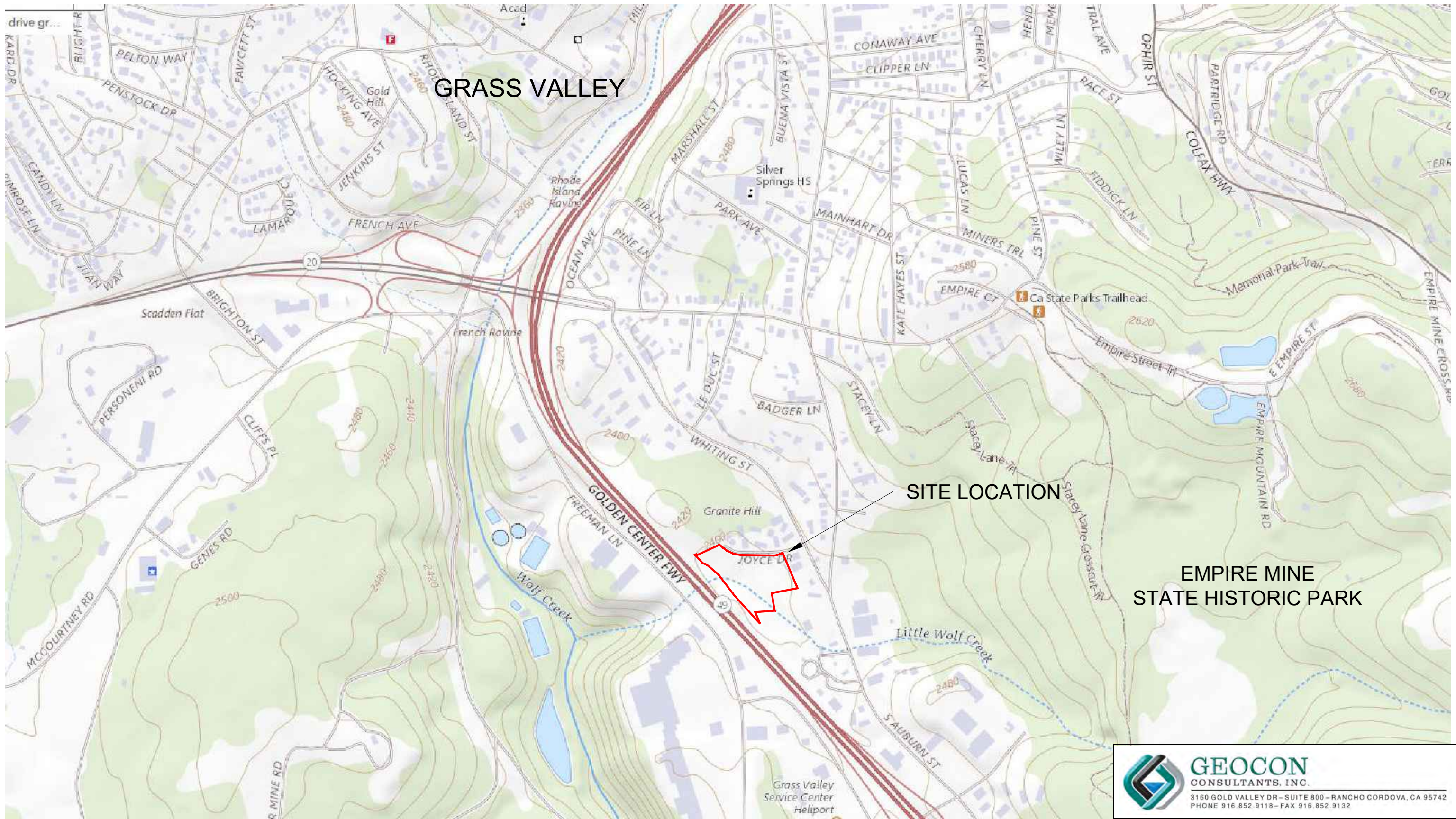
Exposure Limits

- **American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV):** 50 ppm TWA; Appendix A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Health Factors

- **Potential Symptoms:** Drowsiness, dizziness, headache, weakness, unconsciousness; redness of skin and eyes; Acute ingestion: Nausea, vomiting, abdominal pain; chemical pneumonitis (by aspiration).
- **Health Effects:** Irritation-Eyes, skin---mild (HE16); Nervous system disturbances (HE7); Explosive, flammable (HE18)
- **Affected Organs:** Central nervous system, skin, eyes
- **Notes:**
 1. MTBE is used as a major gasoline additive (up to 15%) and experimentally for dissolving cholesterol gall stones.
 2. Metabolism of MTBE by hepatic CYP2A6 (which also metabolizes coumarin and nicotine) is strongly inhibited by the drugs, methoxsalen and tranylepromine.
 3. Systemic exposure can occur via absorption through the skin. Most symptoms claimed for airborne MTBE exposure have not been rigorously documented, as occupational exposure is rarely to the pure compound alone. Its potent odor is recognized at 90-130 ppb.

US Department of Labor
Last Updated: 11/05/2003



GRASS VALLEY

SITE LOCATION

EMPIRE MINE
STATE HISTORIC PARK



GEOCON
CONSULTANTS, INC.
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

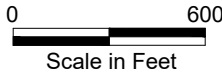
Joyce Drive Property
USEPA Community-Wide Assessment #98T42301
Grass Valley, California

SITE LOCATION MAP

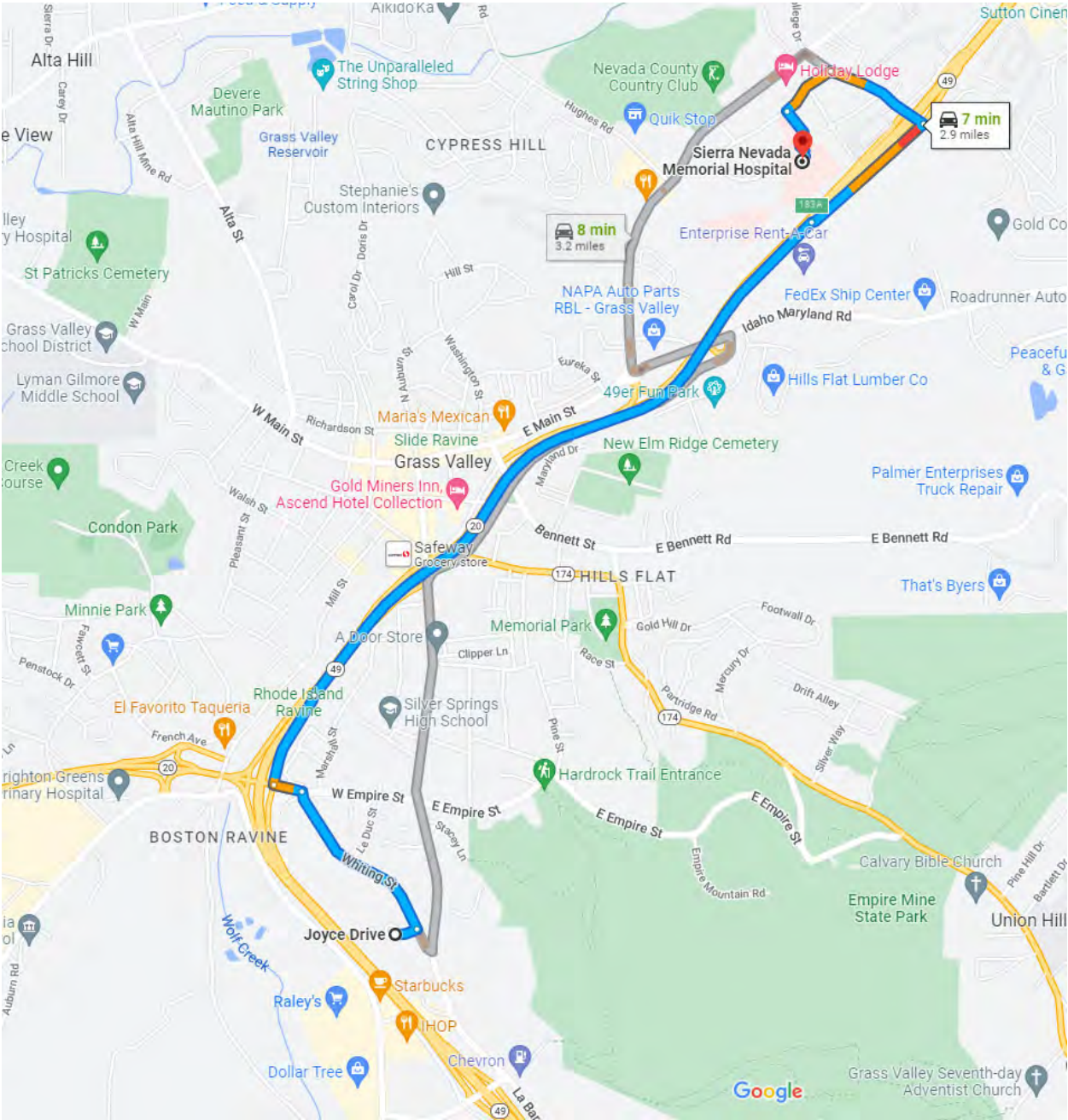
S2510-07-01	June 2025	Figure 1
-------------	-----------	----------



Base map from California Geological Survey (CGS) Data Viewer
(<https://maps.conservation.ca.gov/cgs.DataViewer/>).



Hospital Route Map



Directions

Joyce Dr

Grass Valley, CA 95945

- Get on CA-20 E/CA-49 N/Golden Center Fwy from Whiting St

3 min (0.7 mi)

- Head east on Joyce Dr toward Green Mountain Loop

253 ft

- Turn left onto Whiting St

0.4 mi

- Turn left onto W Empire St

322 ft

- Turn right to merge onto CA-20 E/CA-49 N/Golden Center Fwy toward Nevada City/CA-20 E

0.2 mi

- Continue on CA-20 E/CA-49 N/Golden Center Fwy to Dorsey Dr. Take exit 183A from CA-20 E/CA-49 N/Golden Center Fwy

2 min (1.7 mi)

- Merge onto CA-20 E/CA-49 N/Golden Center Fwy

1.4 mi

- Take exit 183A for Dorsey Dr

0.3 mi

- Continue on Dorsey Dr to your destination

2 min (0.5 mi)

- Turn left onto Dorsey Dr

0.2 mi

- Turn left onto Catherine Ln

0.1 mi

- Turn left onto Glasson Way

295 ft

- Turn right

230 ft

- Turn right

i Destination will be on the right

69 ft

Sierra Nevada Memorial Hospital

155 Glasson Way, Grass Valley, CA 95945

COMMUNITY AIR MONITORING PLAN

FOR

REMEDIAL ACTION

JOYCE DRIVE PROPERTY

GRASS VALLEY, CALIFORNIA

APRIL 2026



GEOCON
CONSULTANTS, INC.

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

PREPARED ON BEHALF OF:

CITY OF GRASS VALLEY

125 E. MAIN STREET

GRASS VALLEY, CALIFORNIA 95945

PREPARED BY:

GEOCON CONSULTANTS, INC.

3160 GOLD VALLEY DRIVE, SUITE 800

RANCHO CORDOVA, CALIFORNIA 95742

GEOCON PROJECT NO. S2510-07-01



GEOCON

TABLE OF CONTENTS

COMMUNITY AIR MONITORING PLAN	PAGE
ACRONYMS.....	ii
1.0 INTRODUCTION	1
1.1 Purpose	1
1.2 Regulatory Framework.....	2
2.0 SITE AND PROJECT DESCRIPTION	4
2.1 Site Description	4
2.2 Project Description.....	5
2.3 Personnel	5
2.4 Quality Control	7
2.5 Contaminants of Concern	8
2.6 Schedule	8
3.0 DUST MITIGATION.....	9
3.1 Engineering Controls.....	9
3.2 Compliance Monitoring	10
4.0 AIR MONITORING.....	11
4.1 Objectives.....	11
4.2 Locations	11
4.3 Meteorological Monitoring Parameters	12
4.4 Dust Monitoring Parameters	12
4.5 Schedule	14
4.6 Equipment.....	14
5.0 ACTION LEVELS.....	15
5.1 Threshold Wind Speed	15
5.2 Fugitive Dust Action Level.....	15
5.3 Visual Assessment.....	15
5.4 Site-Specific Action Limits for COCs	16
6.0 REPORTING.....	18
6.1 Reporting of Action Level Exceedances	18
6.2 Baseline Reporting	18
6.3 Periodic Reporting.....	18
6.4 Project Summary Report.....	18
7.0 REFERENCES	20
FIGURES	
1. Site Location Map	
2. Vicinity Map	
3. Site Plan	
4. Proposed Remedial Action	
5. Verification Sampling Plan	

ACRONYMS

BMP	best management practice
Cal/EPA	California Environmental Protection Agency
CARB	California Air Resources Board
C _{coc}	contaminant concentration in soil
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDMG	California Division of Mines and Geology
CFR	Code of Federal Regulations
CIH	Certified Industrial Hygienist
City	City of Grass Valley
CLS	California Laboratory Services
COC	contaminant of concern
CQA	construction quality assurance
cy	cubic yard
DCL	dust concentration limit
DTSC	Department of Toxic Substances Control
DTSC-SL	DTSC Screening Level
DMP	dust mitigation plan
FAAS	flame atomic absorption spectroscopy
Geocon	Geocon Consultants, Inc.
GPS	global positioning system
HAZWOPER	Hazardous Waste and Emergency Response Standard
HERO	Human and Ecological Risk Office
HSP	health and safety plan
mg/m ³	milligram per cubic meter
MAI	McC Campbell Analytical, Inc.
OEHHA	Office of Environmental Health Hazard Assessment
PM ₁₀	particulate matter (dust) with a diameter of 10 µm or less
RSL	Regional Screening Level
site	Joyce Drive Property
SL	screening level
SSAL	site-specific action limit
UCL	upper confidence limit
µg/m ³	microgram per cubic meter
µm	micron, 10 ⁻⁶ meter
°C	degree Celsius
%	percent

1.0 INTRODUCTION

Geocon Consultants Inc. (Geocon) prepared this *Community Air Monitoring Plan* (CAMP) to support remedial action (the cleanup project) at the Joyce Drive Property (the site) in Grass Valley, California. The CAMP is part of the *Report of Findings and Response Plan* (Response Plan) prepared on behalf of the City of Grass Valley (the City) to characterize contaminated soil and sediment at the site and describe its proposed removal and off-site disposal. The site is designated for affordable housing development, but like many properties in the historical Grass Valley Mining District, soil and sediment at the site concentrations of heavy metals (arsenic, cobalt, lead, and mercury) that are not suitable for the proposed residential development.

The site investigation and cleanup planning were funded by United States Environmental Protection Agency (USEPA) Brownfields Assessment Grant #98T42301 as part of the City's 2022 Community-Wide Assessment. The California Department of Toxic Substances Control (DTSC) is the lead regulatory agency overseeing the cleanup.

1.1 Purpose

We prepared this CAMP to outline procedures for fugitive dust control and dust monitoring to be performed during cleanup of contaminated soil and sediment at the site. The contaminated soil and sediment contain arsenic, cobalt, lead, and mercury at concentrations that are not appropriate for the proposed residential development of the site. Therefore, the contaminated soil and sediment are to be excavated, loaded into trucks, and transported from the site to a licensed solid waste disposal facility. Water is to be applied to the contaminated soil and sediment to keep it moist during excavation and transport so that dust is not generated, and monitoring is to be performed to verify that the dust control is successful.

We prepared the CAMP pursuant to the *Community Air Monitoring Plan Guidance* (CAMP Guidance; DTSC, 2020). A CAMP is required at response sites under DTSC oversight whenever cleanup activities may release contaminants into the air. The CAMP is intended to describe air monitoring protocols and best management practices (BMP) to mitigate fugitive dust emissions containing contaminated material during the authorized work.

A CAMP focuses on air monitoring at the perimeter of a site to verify the protection of the surrounding community and does not pertain to worker protection within the site, which is to be addressed by site-specific health and safety plans (HSP) prepared by each contractor at the site to protect their employees.

1.2 Regulatory Framework

The following federal, state and local regulations are potentially applicable to the proposed air monitoring and contaminated soil cleanup.

Federal Requirements

The United States Environmental Protection Agency (USEPA) has established National Ambient Air Quality Standards for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards. Primary standards provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. The USEPA has developed the Regional Screening Levels (RSL) for exposure to contaminants in air.

California Requirements

The California Air Resources Board (CARB) has adopted California Ambient Air Quality Standards (CAAQS) to protect sensitive individuals in our communities. In addition to CAAQS, the State Nuisance Law of California prohibits the “discharge from any source whatsoever [of] such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public” (Section 41700 of the California Health and Safety Code).

The DTSC has modified the USEPA RSLs for some contaminants in accordance with the Toxicity Criteria Rule for Human Health Risk Assessments, and the DTSC-modified screening levels (DTSC-SL) are used in California when they are more protective than the USEPA RSLs. In some cases, the DTSC may require the use of short-term risk-based criteria in addition to the established standards and screening levels.

Local Requirements

California’s 35 local air pollution control districts have the primary authority to regulate operations that create fugitive emissions of dust or vapors. Where local air districts have directly applicable rules, these rules should apply. The Northern Sierra Air Quality Management District (NSAQMD) Rule 226 requires that a dust control plan be prepared for construction activity disturbing over one acre of land.

Other Guidance to Be Considered

Because soil activities involve not only the potential release of fugitive dust but also contaminants of concern (COC), it is necessary to identify chemical-, action-, and location-specific guidance to be

considered during the site mitigation process. This larger body of guidance is discussed in the Response Plan. Occupational exposure limits are not appropriate for community air monitoring, and thus are not used in this CAMP.

2.0 SITE AND PROJECT DESCRIPTION

This section describes the site, the proposed remedial action (cleanup project), personnel, and schedule.

2.1 Site Description

The site is within the city limits of Grass Valley, California, approximately 50 miles northeast of Sacramento, near the junction of State Routes 49 and 20 (Figure 1). The undeveloped, 3.74-acre site is in the southern portion of Grass Valley, east of the Golden Center Freeway (State Route 20/49), west of Whiting Street, and south of Joyce Drive (Figure 2). Site identification information and project contact information are listed below.

Site	Joyce Drive Property
Address	South of 200 Block of Joyce Drive, Grass Valley, California 95945
Size	3.74 acres
Other Site Names	Proposed Heritage Oaks Phase 2 affordable housing development
USEPA ACRES ID	255511
DTSC Site Code	102504
Associated DTSC Site Codes	None
EnviroStor ID	60003507
Assessor's Parcel Number	029-280-016-000
Section, Township and Range	NW ¼ of SE ¼ of Section 34, Township 16 North, Range 8 East, MDM
USGS Quadrangle	Grass Valley, California
Latitude	39.205° (N)
Longitude	-121.063° (W)
Land Use	Undeveloped open space
Zoning	NC-FLEX GVCity (Neighborhood center flex, City of Grass Valley)
Proponent	City of Grass Valley
Point of Contact	Amy Kesler-Wolfson, City Planner and Grantee Project Manager
Mailing Address	125 East Main St., Grass Valley, CA 95945
Phone Number	530 274-4711
Email	awolfson@cityofgrassvalley.com
Consultant	Geocon Consultants, Inc.
Point of Contact	Jason Muir, PE, GE
Mailing Address	3160 Gold Valley Drive, Suite 800 Rancho Cordova, CA 95742
Phone Number	916 852-9118
Email	muir@geoconinc.com

Land to the north, northwest, and east is used for residential purposes. Most of these homes are associated with Habitat for Humanity's Heritage Oaks Phase 1 affordable housing development. Land use in other directions is mixed commercial and residential.

2.2 Project Description

The proposed cleanup project is a non-time-critical removal action including the excavation and off-site disposal of approximately 10,712 cubic yards of soil and sediment contaminated by elevated concentrations of heavy metals. The cleanup is being performed to prepare the site for residential development. Figure 3 depicts the site and the proposed residential development. Figure 4 depicts the proposed excavation areas. After the contaminated soil and sediment have been excavated, soil samples will be obtained from the base and perimeter of the excavation areas to verify that the contaminated soil and sediment have been removed. Figure 5 depicts the proposed verification sample locations.

The proposed soil and sediment excavation areas are relatively flat. Up to approximately 12 feet of soil is to be excavated from the proposed building areas. No excavation is proposed within the floodplain of the creek. The cleanup project includes the following work items:

1. Application of water before and during all soil-disturbing activities using water trucks and hoses.
2. Removal of vegetation from the ground surface.
3. Excavation of contaminated soil and sediment with a track-mounted excavator or rubber-tire backhoe.
4. Loading of the contaminated soil and sediment into trucks with a track-mounted or rubber-tire loader.
5. Transport of the contaminated soil and sediment in trucks to a licensed solid waste disposal facility.
6. Post-excavation sampling and analysis to verify that the cleanup goals are achieved.
7. Import of clean soil and placement as engineered fill to replace the excavated soil.
8. Restoration of the excavation areas, including minor grading, installation of erosion and sediment control BMPs, and application of seed, mulch, and fertilizer.

2.3 Personnel

The City will hire a licensed contractor to perform the excavation and off-site disposal of contaminated soil and sediment. The licensed contractor retained by the City will be responsible for preparing a Health and Safety Plan (HSP) to address the health and safety of the contractor's employees working

at the site. The contractor's Project Superintendent will be responsible for managing the cleanup work and overseeing health and safety at the site.

The City has retained Geocon to prepare this CAMP and to perform monitoring during the cleanup project. Geocon has prepared a HSP to address the health and safety of Geocon's employees working at the site.

Key personnel, affiliations, titles/responsibilities, phone numbers, and email addresses are listed in the following table.

Agency/ Company	Name	Title/ Responsibility	Phone Number	Email Address
City of Grass Valley	Amy Kesler- Wolfson	Project Manager	530 274-4711	awolfson@cityofgrassvalley.com
DTSC	Sarah Larese	Project Manager	714 484-5321	sarah.larese@dtsc.ca.gov
USEPA Region 9	Stephanie Steinbrecher	USEPA Brownfields Project Officer	415 947-4256	steinbrecher.stephanie@epa.gov
USEPA Region 9	Audrey Johnson	USEPA Quality Assurance Manager	415 972-3411	johnson.audreyl@epa.gov
Geocon	Jason Muir, PE, GE	Technical Manager	530 913-5996	muir@geoconinc.com
Geocon	Josh Ewert, PG	Quality Assurance Manager	916 852-9118	ewert@geoconinc.com
Geocon	Nicole Hastings- Bethel	Site Health and Safety Officer	916 852-9118	hastings@geoconinc.com
CLS	Janet Massingill	Laboratory Quality Assurance Manager	916 638-7301	janet@californialab.com
Eurofins	Heidi Hayes	Laboratory Quality Assurance Manager	916 605-3341	heidi.hayes@et.eurofinsus.com

CLS = California Laboratory Services

Eurofins = Eurofins Air Toxics Laboratory

Roles and responsibilities are summarized below:

- The City is responsible for project management and contracting. Amy Kesler-Wolfson, City Planner, serves as the City's representative.
- Scott Stollman, USEPA Region 9 Brownfields Project Officer, provides technical assistance and verifies consistency with USEPA Brownfields program site assessment guidelines.

- Audrey Johnson, USEPA Region 9 Quality Assurance Manager, is responsible for review and approval of the quality assurance plans related to site investigation.
- Jason Muir, PE, GE, is Geocon's Technical Manager. He is responsible for overall coordination of project activities and providing periodic updates to the DTSC, USEPA, and City concerning project status. The Technical Manager has the primary responsibility for implementing individual work scopes including scheduling, project performance, and cost tracking.
- Nicole Hastings-Bethel is Geocon's Field Team Leader and Site Health and Safety Officer and is responsible for implementing the field and laboratory services and managing subconsultants and subcontractors. The Field Team Leader and Technical Manager are responsible for the collection, storage, review, and use of all field and laboratory data and final laboratory reports.
- Josh Ewert, PG, is Geocon's Quality Assurance Manager and is responsible for reviewing data generated during the site investigation and directing the data validation process. The Quality Assurance Manager will be independent from the project team generating the data and will provide technical assistance as needed to ensure that quality assurance issues are adequately addressed. The Geocon Quality Assurance Manager and Geocon Technical Manager will be responsible for review and approval technically accurate and defensible draft and final versions of site investigation reports, ensuring that the data presented in the report text, tables, and figures are compatible with the field documentation and laboratory reports.
- Janet Massingill, the California Laboratory Services (CLS) Quality Assurance Officer, is responsible for review and validation of all analytical data and laboratory reports prepared by CLS.
- Heidi Hayes, the Eurofins Air Toxics (Eurofins) Quality Assurance Officer, is responsible for review and validation of all analytical data and laboratory reports prepared by Eurofins.

The Technical Manager will appoint a Construction Quality Assurance (CQA) Monitor, who will perform air monitoring and compliance monitoring during the cleanup project.

2.4 Quality Control

The Technical Manager and CQA Monitor are responsible for controlling the quality of the air monitoring data, including instrument calibration, training, documentation, and recordkeeping.

Instrument Calibration

Instrument calibration must be performed in accordance with the manufacturer's instructions at the beginning of each workday. All instrument calibration and maintenance activities, as well as calibration results, must be documented in the field logs.

Training

All personnel responsible for calibrating, handling, or interpreting the air monitoring meters, air samplers, or meter/sampling output data must have sufficient prior experience with such work.

Documentation and Recordkeeping

Documentation of community air monitoring information is required in order to provide a written record of the air monitoring results and response actions taken, and to allow for verification that the air monitoring and fugitive emission control program was followed in accordance with this CAMP. Reporting requirements are set forth in Section 6.0.

2.5 Contaminants of Concern

The contaminated soil and sediment to be removed are sand and silt with variable rock content. The COCs include arsenic, cobalt, lead, and mercury, which are related to ambient conditions in the site vicinity resulting from historical gold mining and ore processing on nearby property. Diesel-range organics (DRO) was detected at one isolated location at the ground surface near the site entrance. COCs media are summarized in the following table.

Contaminant of Concern	Affected Site Media						Detected Concentrations (mg/kg)		
	Soil	Soil Dust	Soil Vapor	Groundwater	Surface Water	Sediment	Maximum	Mean	95% UCL
Arsenic	X	X				X	870	39.8	50.6
Cobalt	X	X				X	43.1	10.4	11.6
Lead	X	X				X	480	52.4	57.6
Mercury	X	X				X	15	1.10	1.23
Diesel-range Organics	X						270	na ¹	na ¹

1 Not applicable. Diesel range organics (DRO) was detected only in one isolated surface location.
mg/kg = milligram per kilogram, UCL = Upper Confidence Limit on the mean concentration

2.6 Schedule

The cleanup project is scheduled for August through October 2026. Work may be performed Monday through Saturday between 7:00 AM and 7:00 PM. Air monitoring is to be performed during all activities that involve the disturbance of contaminated soil or sediment unless the DTSC determines that the specific work and engineering controls do not require air monitoring.

3.0 DUST MITIGATION

Best management practices (BMPs) for dust mitigation are set forth in the Dust Mitigation Plan (DMP) appended to the Response Plan. The DMP sets forth engineering controls for fugitive dust prevention, track-out prevention and surface protection, and requires monitoring to verify that the engineering controls are effective. Key elements of the DMP are summarized below.

3.1 Engineering Controls

Engineering controls and dust control measures apply to all mechanical soil disturbances in contaminated areas at the site, including areas with contaminated fill and contaminated sediment. Soil-disturbing activities include any mechanical soil disturbance in the contaminated areas. Mechanical soil disturbance may result from activities such as movement of equipment and vehicles, excavation and transport, and sample collection. The engineering controls are to be implemented during any mechanical disturbance of contaminated materials.

Traffic Control

Maximum speed for any vehicle or equipment on the site shall be 10 miles per hour. Slower vehicle speeds may be necessary to reduce soil disturbance or dust generation. Vehicular and equipment travel should be limited to designated areas. Only vehicles and equipment directly involved with the cleanup project shall be allowed in the contaminated work areas. All other vehicles and equipment shall remain parked in a designated clean area on-site.

Track Out Prevention

No soil is allowed to leave the contaminated work areas through vehicle or equipment track-out. Vehicles and equipment shall be visually inspected for soil or mud accumulation and shall be washed down as necessary at the contaminated area ingress/egress location before leaving the contaminated area.

Soil Excavation and Transport

If the ambient soil moisture is not sufficient to prevent fugitive dust generation, water shall be sprayed to sufficiently wet areas of traffic, disturbance, and stockpiled soil. Soil and sediment shall be adequately wetted such that no visible dust emissions occur. Excavation transport operations shall be suspended when, despite application of dust mitigation measures, wind speeds are high enough to result in fugitive dust emissions.

Soil Stockpiles

Contaminated soil and sediment may be temporary stockpiled for waste classification and loading onto trucks. Active stockpiles are to be adequately wetted or covered with waterproof tarps. Inactive stockpiles must be covered with waterproof tarps that are secured from wind and rain, and surrounded by BMPs for erosion and sediment control, such as straw wattles and silt fence.

3.2 Compliance Monitoring

The CQA Monitor shall conduct the following compliance monitoring during any mechanical disturbance of contaminated soil or sediment:

- confirm implementation of track-out controls;
- confirm that sufficient water is applied so that no visual fugitive dust is observed;
- confirm that on-site travel speeds are followed;
- confirm that contaminated soil is placed back into the exploratory excavations; and
- confirm that investigation activities are in compliance with the guidelines of the DMP.

4.0 AIR MONITORING

This section describes the air monitoring protocols to be performed during disturbance of contaminated soil and sediment. Air monitoring under this CAMP is required during all activities that disturb contaminated soil or sediment.

4.1 Objectives

The primary objectives of air monitoring are to:

- determine whether airborne concentrations of fugitive dust and COCs exceed action levels or regulatory limits established for the site;
- develop a relationship between fugitive dust levels and concentrations of COCs so that direct-reading particulate measurements can be used as a surrogate for COC concentrations in dust; and
- Verify that engineering controls and work practices are effective to mitigate potential community impacts.

4.2 Locations

Air monitoring is to be performed at one upwind site perimeter location and two downwind site perimeter locations, relative to the daily work area (where soil-disturbing activities are anticipated). The wind measuring location will be in the general area encompassed by the work area and the air monitoring locations. Upwind and downwind monitoring locations will be moved during the workday when the wind direction or the work location changes.

Air monitoring locations are to be selected in accordance with the requirements of Title 40 of the Code of Federal Regulations, Part 58 (40 CFR Part 58), Appendix E. Locations for air monitoring and meteorological instrumentation are subject to review and approval by the DTSC. We will use National Weather Service forecasts, current conditions and recent trends from the on-site meteorological station to position the monitors each morning prior to the start of any soil-disturbing activities. The air monitoring locations will be recorded by GPS each morning and whenever the locations are changed.

Concentrations of COCs upwind of the work area will be measured at the start of each workday and periodically thereafter to record background conditions. Downwind measurements will be compared to upwind measurements to determine whether on-site soil activities are generating fugitive dust and thereby potentially contributing to community exposures.

4.3 Meteorological Monitoring Parameters

We will use a portable meteorological station to measure and record:

- temperature,
- barometric pressure,
- wind speed, and
- wind direction.

Location and Mounting

The meteorological station will be mounted at a safe and easily accessible location away from and above site features or other obstructions that may affect ambient air flow patterns. Wind speed and direction measurements will be checked at least once per hour during the workday. The meteorological station will be relocated if a significant and sustained shift in wind direction is observed.

Data Recording

The data will be averaged on 15-minute and one-hour averaging periods and will be recorded in tabular, digital format. Wind gusts will be recorded as a “three-second peak” for each 15-minute period. The CQA Monitor will download data from the station and save it digitally in a secure location each day, with digital backup. The CQA Monitor will submit the downloaded data to the DTSC at least once per week in columnar format with the project field logs. Conditions and instrument maintenance will be documented on the field logs.

Threshold Wind Speed

If sustained winds exceed 20 miles per hour (mph), work will be stopped until the wind speed decreases below the “stop work” level.

Calibration

Meteorological equipment will be calibrated by an independent third party at least twice per year and as required by the equipment manufacturer.

4.4 Dust Monitoring Parameters

The COCs in contaminated soil and sediment are adsorbed to the soil/sediment particles. Fugitive dust (particulate matter) monitoring will be used as a surrogate for direct laboratory measurement of COCs

in air. Real-time dust monitoring is to be performed to verify that the dust mitigation procedures (such as water application for soil moisture control) are effective in controlling dust emissions.

Locations

This CAMP requires dust monitoring units at the following locations, as a minimum:

1. upwind of the work area to monitor background airborne dust conditions; and
2. at two locations on the downwind site boundary.

Dust monitoring for worker protection will also be required by the HSP prepared by the contractor selected to perform the cleanup work. A personal dust monitor is typically placed on the equipment operator where worst-case dust concentrations are anticipated. This CAMP focuses on fence-line monitoring for community protection and does not address personal dust monitoring for worker protection.

Data Recording

Continuous particulate matter data must be reported for one-hour and 24-hour averaging periods. It is acceptable to also include 15-minute averaging periods for comparison to data for the 15-minute meteorological averaging period.

Data will be reported in columnar spreadsheet format, with explanation and legend. All data reported by the unit must be recorded, including date, time, and PM10 concentration in air. PM10 concentrations must be reported to the nearest 0.1 microgram per cubic meter ($\mu\text{g}/\text{m}^3$). The data report must indicate whether the instrument is reporting data based on flow rates corrected to “actual” or “standard” temperature and pressure conditions (PM10 data should be reported in standard temperature and pressure conditions, while PM2.5 should be reported at actual temperature and pressure conditions by calculation based on the meteorological data).

Calibration

All particulate monitoring equipment must be calibrated at least once per quarter and pursuant to the manufacturer’s recommendations. Particulate monitoring equipment must undergo an independent audit every quarter. The calibration report must describe how flow rates are verified.

Dust Action Level

If airborne dust monitoring results exceed the California Code of Regulations, Title 17 (CCR Title 17) Section 70200 fence-line action level (AL) for dust in air of $50 \mu\text{g}/\text{m}^3$ (also expressed as 0.05 milligrams per cubic meter, or mg/m^3), then additional water must be applied to the soil, and additional engineering controls for dust suppression must be performed as required to maintain dust concentrations below the AL. In addition to the monitoring requirements described above, no visible dust resulting from the disturbance of contaminated soil shall cross the property line.

Air Monitoring Requirements

The lead agency or local enforcement agency may require additional dust monitoring and may also require air sampling and analysis at any time during the remedial action. If conditions arise such that additional monitoring is required, the monitoring shall be conducted in accordance with these guidelines unless modified by the agencies. Air sampling and analysis, if required, is to be performed in accordance with NIOSH Method 7082, with analysis by flame atomic absorption spectroscopy (FAAS). All results of air monitoring shall be reported to the DTSC within 48 hours.

4.5 Schedule

Particulate monitoring and meteorological monitoring are to be performed for a minimum of two days prior to soil disturbing activities to establish a baseline. The baseline monitoring should be conducted for at least 8 hours per day to represent the duration of a typical work shift.

Particulate monitoring and meteorological monitoring are to be performed during activities that disturb contaminated soil and sediment. Non-intrusive activities such as sample collection are not expected to generate dust and therefore do not require particulate monitoring unless visible dust is generated.

4.6 Equipment

Particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter with a diameter of 10 micrometers or less, and able to calculate a running 15-minute average. All direct-reading instruments shall be equipped with an audible alarm set to indicate exceedance of the action level. Airborne dust levels are to be monitored using active, real-time, data-logging aerosol monitors such as an MIE pDR1200 with PM-10 inlet attached to a sampling pump, or approved equivalent.

5.0 ACTION LEVELS

The following action levels are established for wind and fence-line dust concentrations.

5.1 Threshold Wind Speed

If sustained wind speeds exceed 20 mph, then all potential dust-producing activities shall cease until the sustained wind speed declines to 20 mph or lower. A wind speed “stop work” notification level must be set on a one-minute block average (the wind speed obtained by averaging the measured values over a one-minute period) using data from the on-site meteorological station. Non-dust-producing activities such as equipment maintenance and decontamination may be conducted during wind speeds exceeding 20 mph.

5.2 Fugitive Dust Action Level

As set forth in CCR Title 17 Section 70200, the AL for fence-line suspended particulate matter (airborne dust) is $50 \mu\text{g}/\text{m}^3$, which is equal to $0.05 \text{ mg}/\text{m}^3$.

This value is based on a 24-hour sample obtained using a PM10 sampler, determined by real-time air monitoring as the difference between upwind and downwind measurements. PM10 is defined generally by the CAMP Guidance as particulate matter with a diameter of $10 \mu\text{m}$ or less. CCR Title 17 Section 70200 states that the PM10 sampler is intended to collect a range of particulates reflecting the characteristics of lung deposition, collecting approximately 50% of all particles of $10 \mu\text{m}$ aerodynamic diameter and collecting a declining fraction of particles as their diameter increases and an increasing fraction of particles as their diameter decreases.

If fence-line airborne dust monitoring results exceed the AL, then additional water must be applied to the soil, and additional engineering controls for dust suppression must be performed as required to maintain dust concentrations below the AL.

5.3 Visual Assessment

At no time shall the contractor allow visible dust to leave the site perimeter. If visible dust is observed leaving the work site, then work must cease immediately, the source of the visible dust must be controlled, and site activities must be re-evaluated. Additionally, pursuant to Chapter 7 of the CAMP Guidance, the observation of visible dust emissions exiting the site must be recorded and reported to the DTSC.

5.4 Site-Specific Action Limits for COCs

Procedures for development of Site-Specific Action Limits (SSAL) are presented in Appendix E of the CAMP Guidance, which outlines procedures for derivation of a health-based dust concentration limit (DCL) based on the assumption that contaminant concentrations in dust are proportional to contaminant concentrations detected in soil per the following equation.

$$DCL = \frac{SSAL_{COC}}{(C_{COC} \times CF)}$$

where:

CF = unit conversion factor [1E-06 kg soil/mg soil]

COC = contaminant of concern

C_{COC} = concentration of COC in soil [mg/kg]

DCL = dust concentration limit (not-to-exceed value) [ug/m³]

SSAL_{COC} = site-specific action limit for a specific COC [ug/m³]

The DTSC Human and Ecological Risk Office (HERO, 2022) recommends that site perimeter (fence-line) DCLs be calculated using:

- arsenic and mercury SSALs based on 8-hour Reference Exposure Levels (REL) developed by the California Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program;
- a cobalt SSAL based on the National Institute for Occupational Safety and Health (NIOSH) REL;
- a lead SSAL based on the National Ambient Air Quality Standard three-month average; and
- both maximum and central-tendency (95% UCL) contaminant concentrations in soil.

These parameters and the calculated fence-line DCLs are listed in the following table. Contaminant concentrations listed in the table below are based on all validated data for soil to be excavated (see Table 10 of the Response Plan). Datasets and UCL statistics are presented in Appendix G of the Response Plan.

Parameter	Unit	Value							
		Arsenic		Cobalt		Lead		Mercury	
Site-Specific Action Limit (SSAL _{COC})	µg/m ³	0.015		50		0.15		0.06	
Contaminant Concentration in Soil (C _{COC})	mg/kg	95% UCL	Max Detect	95% UCL	Max Detect	95% UCL	Max Detect	95% UCL	Max Detect
		52	260	13.6	43.1	85	480	1.8	15
Dust Concentration Limit (DCL)	µg/m ³	288	57	3.7E+06	1.2E+06	1,764	312	33,333	4,000

The CCR Title 17 Section 70200 AL for fence-line suspended particulate matter is 50 µg/m³. This value is lower than all DCLs listed in the table above. Use of this lower AL (50 µg/m³) is appropriate for fence-line monitoring.

The CAMP Guidance states that if site-specific particulate or aerosol action levels are required, then additional integrated sampling and chemical analysis of the dust may also be required to verify the accuracy of the initial SSAL model.

6.0 REPORTING

Reporting includes immediate reporting for exceedances, baseline reporting, periodic reporting, and a project summary report.

6.1 Reporting of Action Level Exceedances

All measured fence-line dust concentrations exceeding the AL ($50 \mu\text{g}/\text{m}^3$) must be reported the same day to the DTSC. The report must be sent by email to the DTSC Project Manager and must list the AL and all 15-minute and hourly data collected during the period of elevated concentrations. The report should document routine and unusual on-site and off-site activities occurring during the incident, and should corrective actions taken to mitigate the dust release as well as any future actions planned.

6.2 Baseline Reporting

A Baseline Air Monitoring Report must be submitted prior to, or as part of, the first Progress Report.

Documentation Reports

6.3 Periodic Reporting

Reports are to be submitted on a weekly basis to the DTSC Project Manager. The periodic reports are to include:

- Tabulated, digital meteorological data including 15-minute block average data;
- Tabulated, digital dust monitoring data including 15-minute running average data for each location; and
- Graphical dust monitoring data with comparison to the AL.

The periodic reports are to be submitted to the DTSC within two business days after the end of each monitoring period.

6.4 Project Summary Report

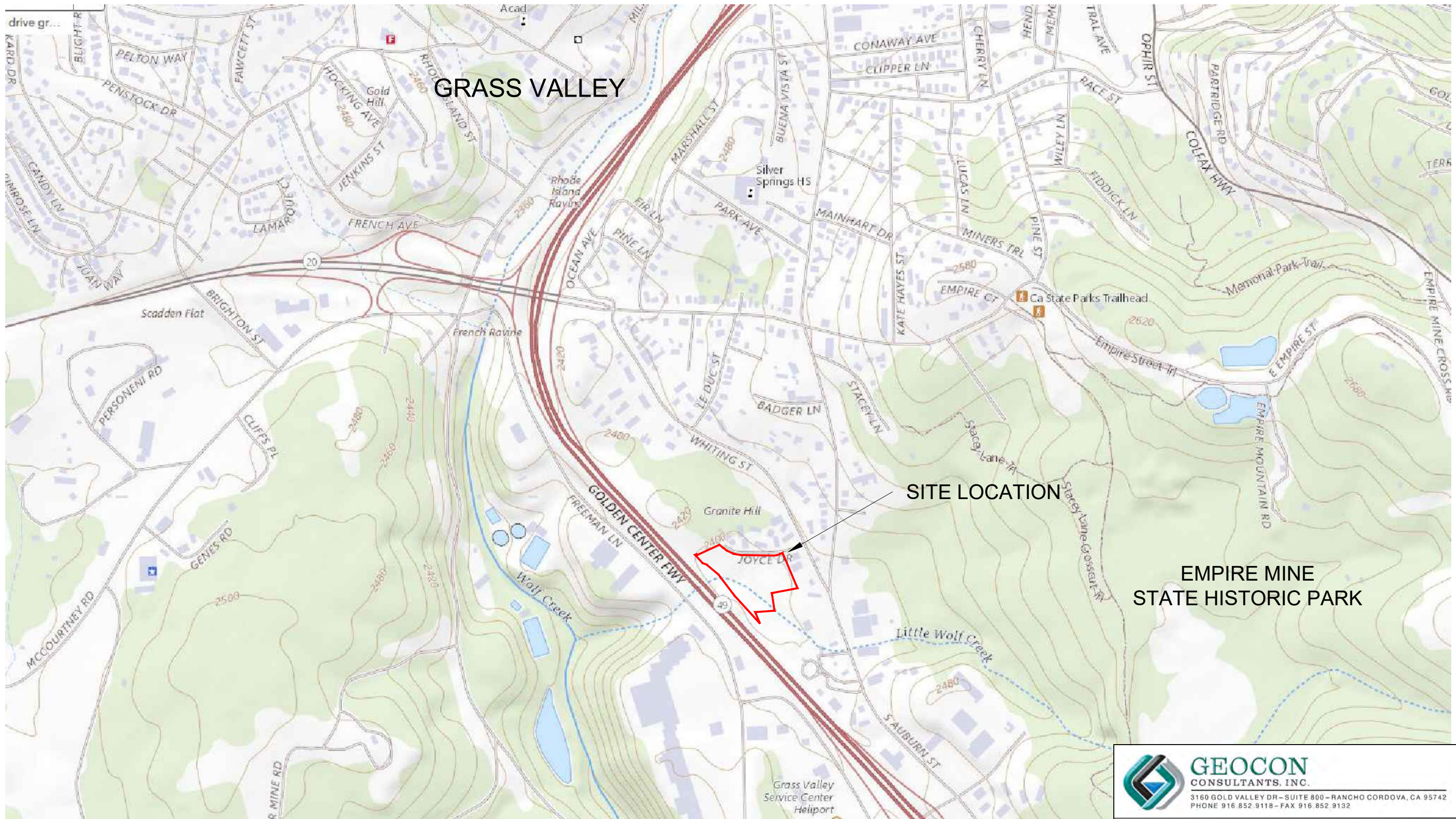
A project summary report is to be submitted to the DTSC within 30 days after the end of the cleanup project. The summary report is to include:

- a narrative summary;
- all air monitoring data in electronic format;
- calculated percentage data recovery for all parameters monitored;
- a summary of AL exceedances at each monitoring location;
- all meteorological data in electronic format for both 15-minute and one-hour intervals; and
- a wind rose chart depicting wind speed and direction by stability class.

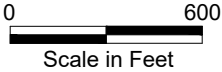
7.0 REFERENCES

DTSC, January 2020, *Community Air Monitoring Plan Guidance*, <https://dtsc.ca.gov/wp-content/uploads/sites/31/2020/10/2020-CAMP-Guide-FINAL-w-appendices-072020-A.pdf>, January 2020.

Geocon Consultants, Inc., September 2023, *Report of Findings and Response Plan, Joyce Drive Property, Grass Valley, California*



Base map from California Geological Survey (CGS) Data Viewer
(<https://maps.conservation.ca.gov/cgs.DataViewer/>).



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

Joyce Drive Property

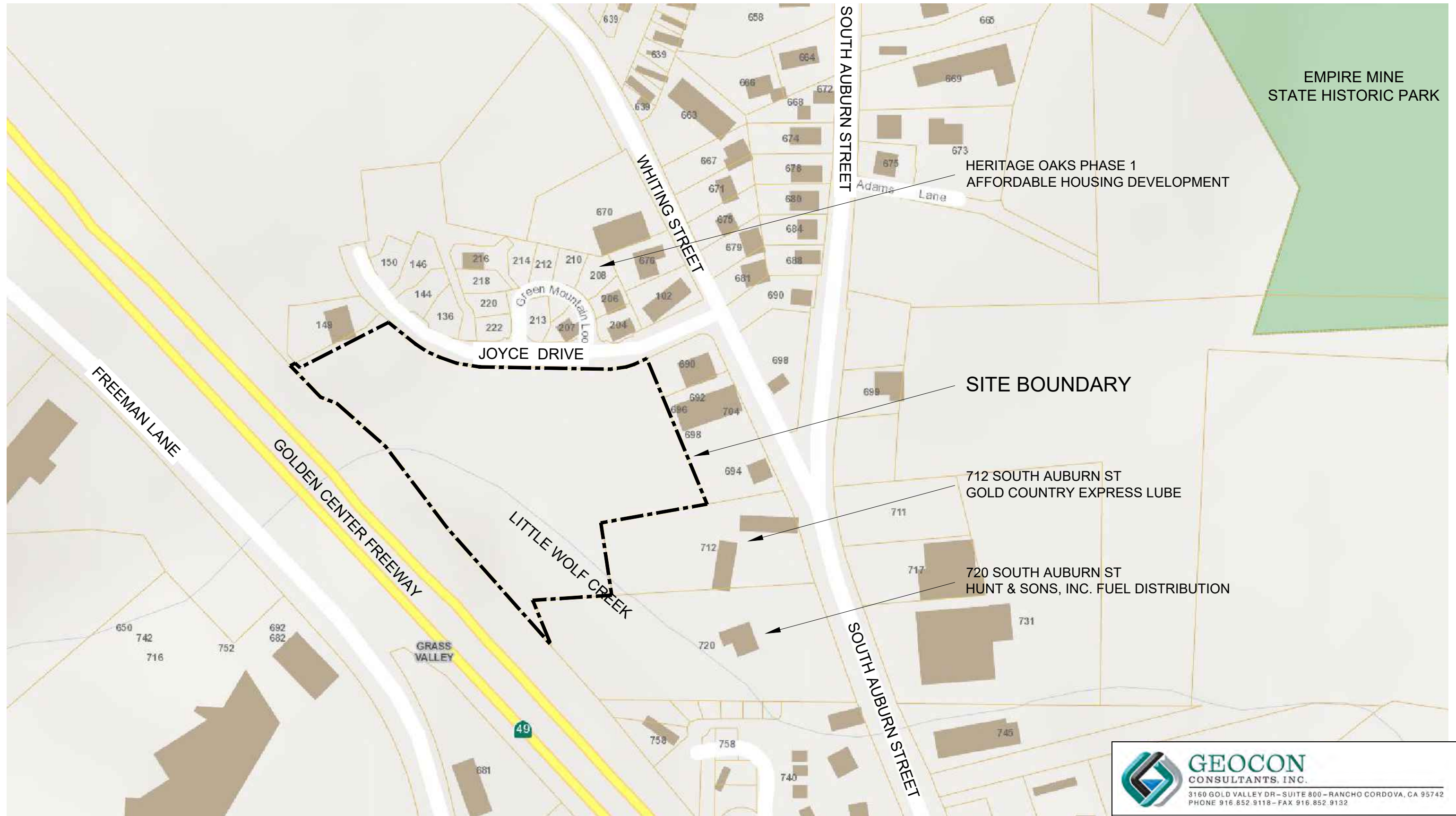
USEPA Community-Wide Assessment #98T42301
Grass Valley, California

SITE LOCATION MAP

S2510-07-01

April 2026

Figure 1



Base map from Nevada County Geographic Information System (<https://gis.nevcounty.net/MyNeighborhood/>)

0 150
Scale in Feet

Note: Boundary and feature locations were not determined by survey and should be considered approximate.



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

Joyce Drive Property

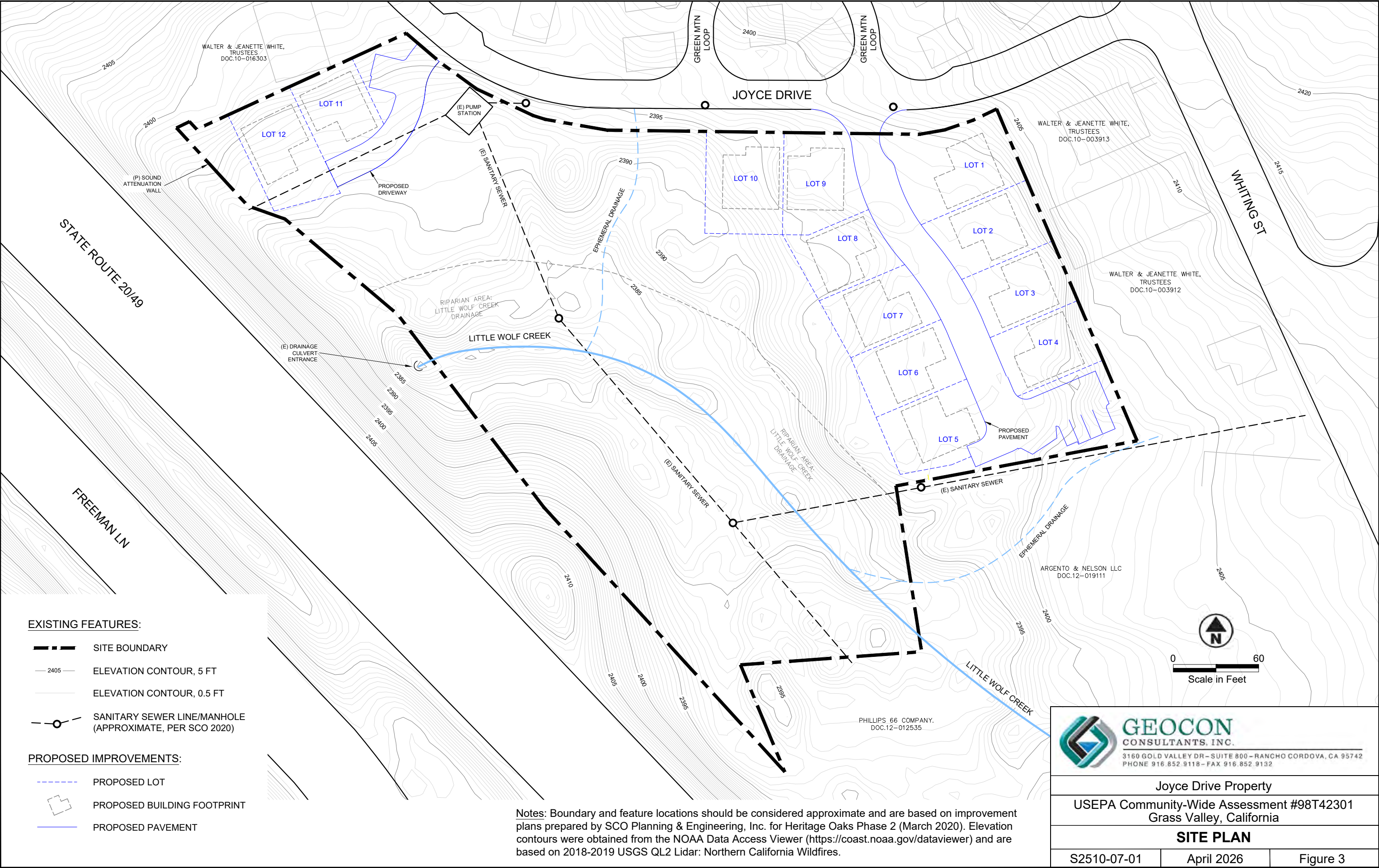
USEPA Community-Wide Assessment #98T42301
Grass Valley, California

VICINITY MAP

S2510-07-01

April 2026

Figure 2



EXISTING FEATURES:

- SITE BOUNDARY
- ELEVATION CONTOUR, 5 FT
- ELEVATION CONTOUR, 0.5 FT
- SANITARY SEWER LINE/MANHOLE (APPROXIMATE, PER SCO 2020)

PROPOSED IMPROVEMENTS:

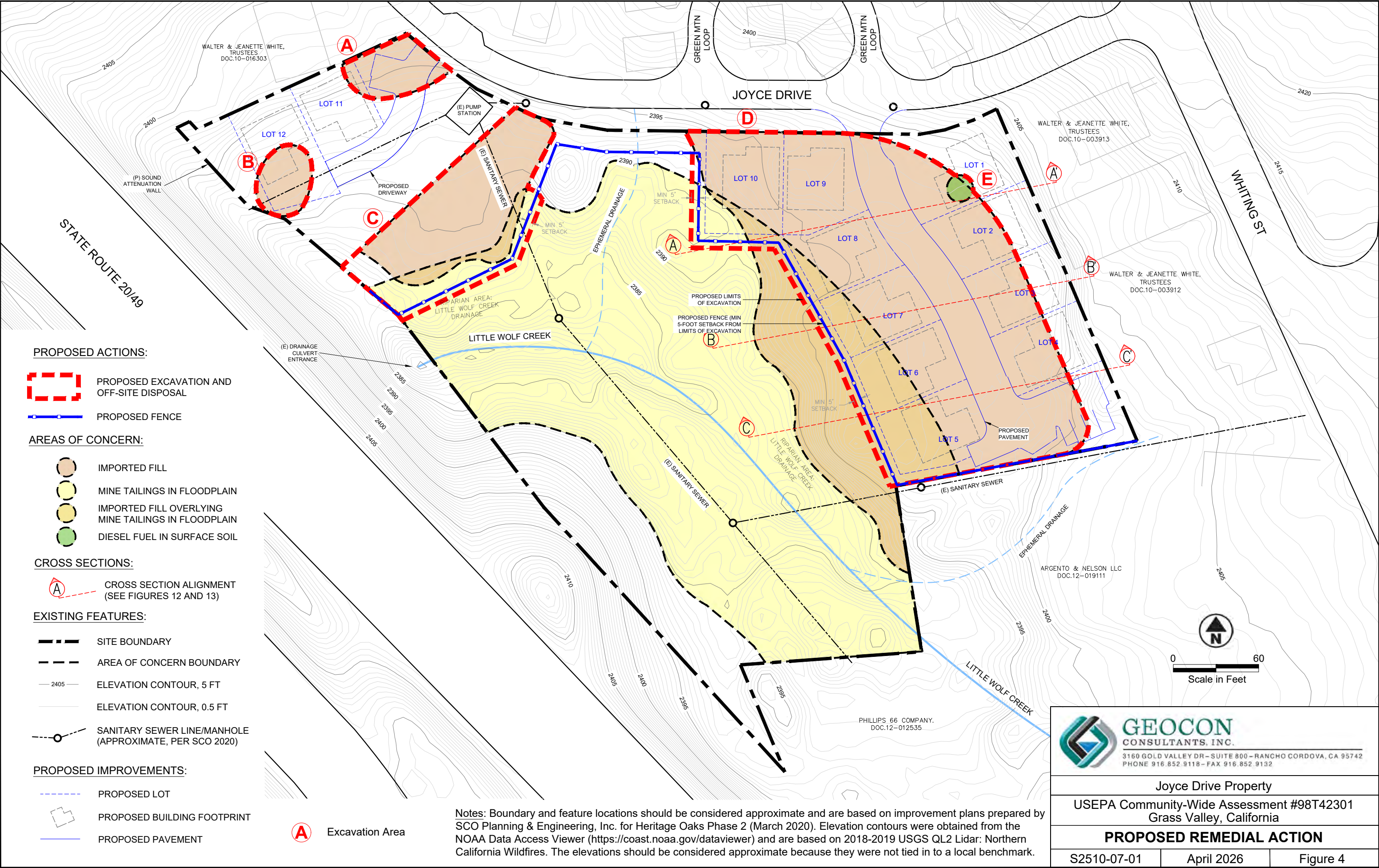
- PROPOSED LOT
- PROPOSED BUILDING FOOTPRINT
- PROPOSED PAVEMENT

Notes: Boundary and feature locations should be considered approximate and are based on improvement plans prepared by SCO Planning & Engineering, Inc. for Heritage Oaks Phase 2 (March 2020). Elevation contours were obtained from the NOAA Data Access Viewer (<https://coast.noaa.gov/dataviewer>) and are based on 2018-2019 USGS QL2 Lidar: Northern California Wildfires.



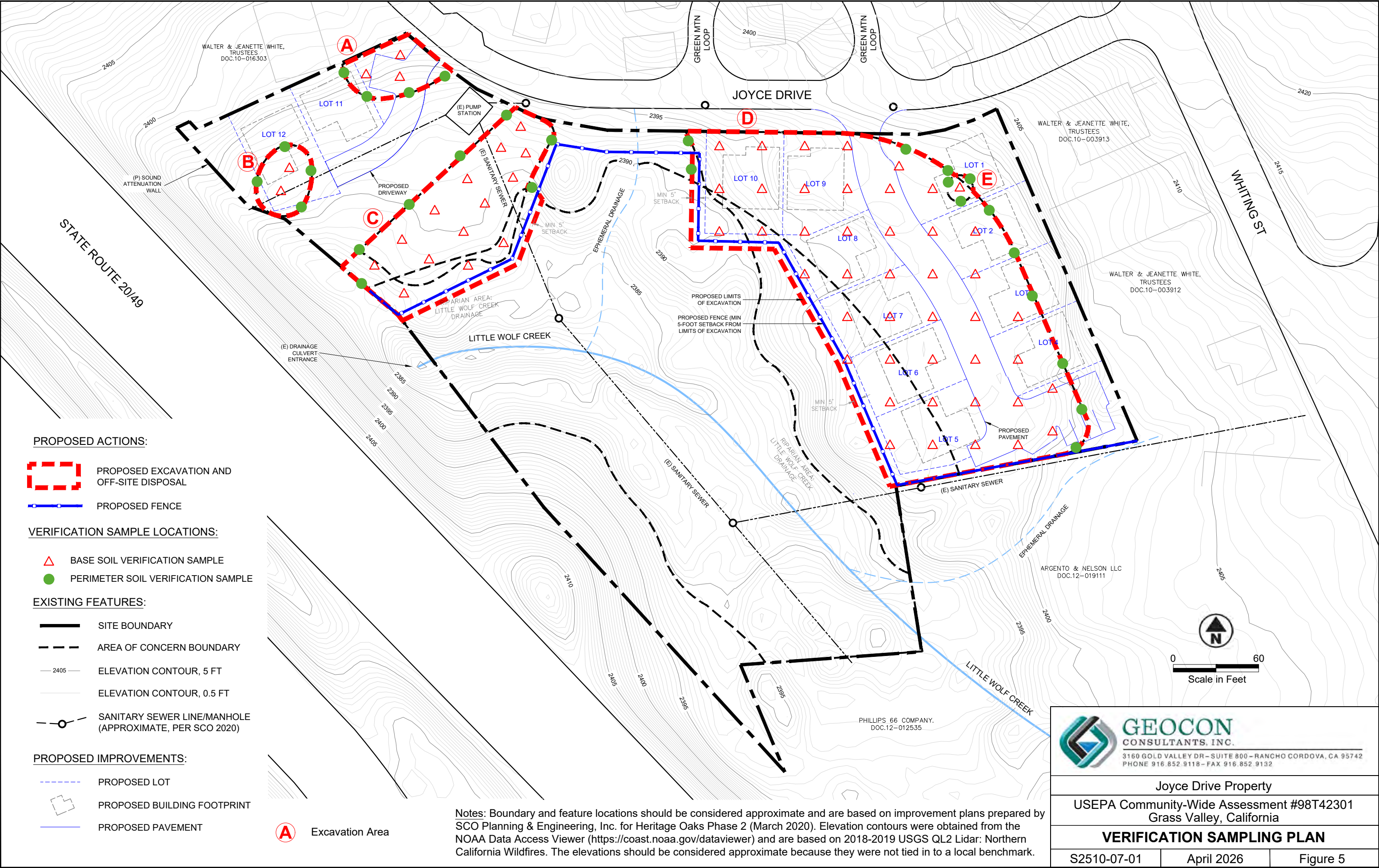
GEOCON
CONSULTANTS, INC.
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

Joyce Drive Property		
USEPA Community-Wide Assessment #98T42301 Grass Valley, California		
SITE PLAN		
S2510-07-01	April 2026	Figure 3



GEOCON
CONSULTANTS, INC.
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

Joyce Drive Property		
USEPA Community-Wide Assessment #98T42301 Grass Valley, California		
PROPOSED REMEDIAL ACTION		
S2510-07-01	April 2026	Figure 4





GEOCON
CONSULTANTS, INC.
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

Joyce Drive Property

USEPA Community-Wide Assessment #98T42301
Grass Valley, California

VERIFICATION SAMPLING PLAN

S2510-07-01

April 2026

Figure 5



GEOCON
CONSULTANTS, INC.

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

TRANSPORTATION PLAN

FOR

REMEDIAL ACTION

JOYCE DRIVE PROPERTY

GRASS VALLEY, CALIFORNIA

APRIL 2026

PREPARED ON BEHALF OF:

CITY OF GRASS VALLEY

125 E. MAIN STREET

GRASS VALLEY, CALIFORNIA 95945

PREPARED BY:

GEOCON CONSULTANTS, INC.

3160 GOLD VALLEY DRIVE, SUITE 800

RANCHO CORDOVA, CALIFORNIA 95742

GEOCON PROJECT NO. S2510-07-01



GEOCON

TABLE OF CONTENTS

TRANSPORTATION PLAN	PAGE
ACRONYMS.....	iii
1.0 INTRODUCTION	1
1.1 Purpose and Objective	1
1.2 Site Description	1
1.3 Project Description.....	2
1.4 Personnel	3
1.5 Contaminants of Concern	5
1.6 Schedule	6
2.0 OFF-SITE TRANSPORTATION	6
2.1 Characteristics of Material to be Transported.....	7
2.2 Destination of Waste Material.....	7
2.3 Decontamination Methods.....	8
2.4 Mode of Transportation.....	9
2.5 Routes of Transport	10
2.6 Traffic Control and Loading Procedures.....	12
2.7 Recordkeeping	13
3.0 HEALTH AND SAFETY.....	13
4.0 CONTINGENCY PLAN / SPILL RESPONSE PLAN	14
4.1 Spill Control, Cleanup And Containment	14
4.2 General Provisions For On-Site Spills	15
4.3 Contaminated Soil Releases.....	16
4.4 Reporting.....	16
4.5 Post-Response Evaluation.....	16
5.0 REFERENCES	17

SPILL RESONSE REPORT

CHARTS

1. General Flowchart for Spill Response

FIGURES

1. Site Location Map
2. Vicinity Map
3. Site Plan
4. Verification Sampling Plan

MAPS

- A. Transportation Route to Ostrom Road
- B. Transportation Route to Clean Harbors
- C. Transportation Route to Kettleman Hills

ACRONYMS

BMP	best management practice
City	City of Grass Valley
CLS	California Laboratory Services
COC	contaminant of concern
CQA	construction quality assurance
cy	cubic yard
DTSC	Department of Toxic Substances Control
DMP	dust mitigation plan
Geocon	Geocon Consultants, Inc.
HAZWOPER	Hazardous Waste and Emergency Response Standard
HSP	health and safety plan
MAI	McC Campbell Analytical, Inc.
site	Joyce Drive Property
UCL	upper confidence limit

TRANSPORTATION PLAN

1.0 INTRODUCTION

Geocon Consultants Inc. (Geocon) prepared this *Transportation Plan* (Plan) to support remedial action (the cleanup project) at the Joyce Drive Property (the site) in Grass Valley, California. This Plan is part of the *Report of Findings and Response Plan* (Response Plan) prepared on behalf of the City of Grass Valley (the City) to characterize contaminated soil and sediment at the site and describe its proposed removal and off-site disposal. The site is designated for affordable housing development, but like many properties in the historical Grass Valley Mining District, soil and sediment at the site concentrations of heavy metals (arsenic, cobalt, lead, and mercury) that are not suitable for the proposed residential development.

The site investigation and cleanup planning were funded by United States Environmental Protection Agency (USEPA) Brownfields Assessment Grant #98T42301 as part of the City's 2022 Community-Wide Assessment. The California Department of Toxic Substances Control (DTSC) is the lead regulatory agency overseeing the cleanup.

1.1 Purpose and Objective

The purpose of this Plan is to outline methods for off-site transportation and disposal of waste (contaminated soil and sediment) generated by the cleanup project. The objective of this Plan is to reduce the potential for impacts to the surrounding community and the environment during the cleanup project, including the transportation and disposal of contaminated waste materials.

1.2 Site Description

The site is within the city limits of Grass Valley, California, approximately 50 miles northeast of Sacramento, near the junction of State Routes 49 and 20 (Figure 1). The undeveloped, 3.74-acre site is in the southern portion of Grass Valley, east of the Golden Center Freeway (State Route 20/49), west of Whiting Street, and south of Joyce Drive (Figure 2). Site identification information and project contact information are listed below.

Site	Joyce Drive Property
Address	South of 200 Block of Joyce Drive, Grass Valley, California 95945
Size	3.74 acres
Other Site Names	Proposed Heritage Oaks Phase 2 affordable housing development
USEPA ACRES ID	255511
DTSC Site Code	102504
Associated DTSC Site Codes	None
EnviroStor ID	60003507
Assessor's Parcel Number	029-280-016-000
Section, Township and Range	NW ¼ of SE ¼ of Section 34, Township 16 North, Range 8 East, MDM
USGS Quadrangle	Grass Valley, California
Latitude	39.205° (N)
Longitude	-121.063° (W)
Land Use	Undeveloped open space
Zoning	NC-FLEX GVCity (Neighborhood center flex, City of Grass Valley)
Proponent	City of Grass Valley
Point of Contact	Amy Kesler-Wolfson, City Planner and Grantee Project Manager
Mailing Address	125 East Main St., Grass Valley, CA 95945
Phone Number	530 274-4711
Email	awolfson@cityofgrassvalley.com
Consultant	Geocon Consultants, Inc.
Point of Contact	Jason Muir, PE, GE
Mailing Address	3160 Gold Valley Drive, Suite 800 Rancho Cordova, CA 95742
Phone Number	916 852-9118
Email	muir@geoconinc.com

Land to the north, northwest, and east is used for residential purposes. Most of these homes are associated with Habitat for Humanity's Heritage Oaks Phase 1 affordable housing development. Land use in other directions is mixed commercial and residential.

1.3 Project Description

The proposed cleanup project is a non-time-critical removal action including the excavation and off-site disposal of an estimated 10,712 cubic yards of soil and sediment contaminated by elevated concentrations of heavy metals. The cleanup is being performed to prepare the site for residential development.

The proposed soil and sediment excavation areas are relatively flat. Up to approximately 4 feet of soil is to be excavated from the proposed building areas, and approximately 2 feet of sediment is to be excavated from the floodplain adjacent to Little Wolf Creek. No excavation is proposed within the banks or normal high-water level of the creek. The cleanup project includes the following work items:

1. Application of water before and during all soil-disturbing activities using water trucks and hoses.
2. Removal of vegetation from the ground surface.
3. Excavation of contaminated soil and sediment with a track-mounted excavator or rubber-tire backhoe.
4. Loading of the contaminated soil and sediment into trucks with a track-mounted or rubber-tire loader.
5. Transport of the contaminated soil and sediment in trucks to a licensed solid waste disposal facility.
6. Post-excavation sampling and analysis to verify that the cleanup goals are achieved.
7. Import of clean soil and placement as engineered fill to replace the excavated soil.
8. Restoration of the excavation areas, including minor grading, installation of erosion and sediment control BMPs, and application of seed, mulch, and fertilizer.

Offhaul of an estimated 10,712 cubic yards of contaminated soil and sediment requires approximately 595 truck trips if each truck transports 18 cubic yards of soil. Approximately 595 truck trips will be required for import of clean soil to the building areas from local sources.

1.4 Personnel

The City will hire a licensed contractor to perform the excavation and off-site disposal of contaminated soil and sediment. The licensed contractor retained by the City will be responsible for preparing a Health and Safety Plan (HSP) to address the health and safety of the contractor's employees working at the site. The contractor's Project Superindendant, who will be responsible for managing the cleanup work and overseeing health and safety at the site.

The City has retained Geocon to prepare this Plan and to perform monitoring during the cleanup project. Geocon has prepared an HSP to address the health and safety of Geocon's employees working at the site.

Key personnel, affiliations, titles/responsibilities, phone numbers, and email addresses are listed in the following table.

Agency/ Company	Name	Title/ Responsibility	Phone Number	Email Address
City of Grass Valley	Amy Kesler-Wolfson	Project Manager	530 274-4711	awolfson@cityofgrassvalley.com
DTSC	Sarah Larese	Project Manager	714 484-5321	sarah.larese@dtsc.ca.gov
USEPA Region 9	Stephanie Steinbrecher	USEPA Brownfields Project Manager	415 947-4256	steinbrecher.stephanie@epa.gov
USEPA Region 9	Audrey Johnson	USEPA Quality Assurance Manager	415 972-3411	johnson.audreyl@epa.gov
Geocon	Jason Muir, PE, GE	Technical Manager	530 913-5996	muir@geoconinc.com
Geocon	Josh Ewert, PG	Quality Assurance Manager	916 852-9118	ewert@geoconinc.com
Geocon	Nicole Hastings-Bethel	Site Health and Safety Officer	916 852-9118	hastings@geoconinc.com
CLS	Janet Massingill	Laboratory Quality Assurance Manager	916 638-7301	janet@californialab.com
Eurofins	Heidi Hayes	Laboratory Quality Assurance Manager	916 605-3341	heidi.hayes@et.eurofinsus.com

CLS = California Laboratory Services

Eurofins = Eurofins Air Toxics Laboratory

Roles and responsibilities are summarized below:

- The City is responsible for project management and contracting. Amy Kesler-Wolfson, City Planner, serves as the City's representative.
- Stephanie Steinbrecher , USEPA Region 9 Brownfields Project Manager, provides technical assistance and verifies consistency with USEPA Brownfields program site assessment guidelines.
- Audrey Johnson, USEPA Region 9 Quality Assurance Manager, is responsible for review and approval of the quality assurance plans related to site investigation.
- Jason Muir, PE, GE, is Geocon's Technical Manager. He is responsible for overall coordination of project activities and providing periodic updates to the DTSC, USEPA, and City concerning project status. The Technical Manager has the primary responsibility for implementing individual work scopes including scheduling, project performance, and cost tracking.
- Nicole Hastings-Bethel is Geocon's Field Team Leader and Site Health and Safety Officer and is responsible for implementing the field and laboratory services and managing subconsultants and subcontractors. The Field Team Leader and Technical Manager are responsible for the collection, storage, review, and use of all field and laboratory data and final laboratory reports.

- Josh Ewert, PG, is Geocon's Quality Assurance Manager and is responsible for reviewing data generated during the site investigation and directing the data validation process. The Quality Assurance Manager will be independent from the project team generating the data and will provide technical assistance as needed to ensure that quality assurance issues are adequately addressed. The Geocon Quality Assurance Manager and Geocon Technical Manager will be responsible for review and approval technically accurate and defensible draft and final versions of site investigation reports, ensuring that the data presented in the report text, tables, and figures are compatible with the field documentation and laboratory reports.
- Janet Massingill, the California Laboratory Services (CLS) Quality Assurance Officer, is responsible for review and validation of all analytical data and laboratory reports prepared by CLS.
- Heidi Hayes, the Eurofins Air Toxics (Eurofins) Quality Assurance Officer, is responsible for review and validation of all analytical data and laboratory reports prepared by Eurofins.

The Technical Manager will appoint a Construction Quality Assurance (CQA) Monitor, who will perform air monitoring and compliance monitoring during the cleanup project.

1.5 Contaminants of Concern

The contaminated soil and sediment to be removed are sand and silt with variable rock content. The contaminants of concern (COC) include arsenic, cobalt, lead, and mercury, which are related to ambient conditions in the site vicinity resulting from historical gold mining and ore processing on nearby property. Diesel-range organics (DRO) was detected at one isolated location at the ground surface near the site entrance. COCs media are summarized in the following table.

Contaminant of Concern	Affected Site Media						Detected Concentrations (mg/kg)		
	Soil	Soil Dust	Soil Vapor	Groundwater	Surface Water	Sediment	Maximum	Mean	95% UCL
Arsenic	X	X				X	870	39.8	50.6
Cobalt	X	X				X	43.1	10.4	11.6
Lead	X	X				X	480	52.4	57.6
Mercury	X	X				X	15	1.10	1.23
Diesel-range Organics	X						270	na ¹	na ¹

1 Not applicable. Diesel range organics (DRO) was detected only in one isolated surface location.

mg/kg = milligram per kilogram, UCL = Upper Confidence Limit on the mean concentration

1.6 Schedule

The cleanup project is scheduled for August through October 2026. Work may be performed Monday through Saturday between 7:00 AM and 7:00 PM. Air monitoring is to be performed during all activities that involve the disturbance of contaminated soil or sediment unless the DTSC determines that the specific work and engineering controls do not require air monitoring.

2.0 OFF-SITE TRANSPORTATION

This section presents measures and information that are intended to reduce the potential health, safety, and environmental risks associated with the off-site transport of waste material generated during the cleanup project, including:

- Characteristics of material to be transported;
- Destination of waste material;
- Decontamination methods;
- Mode of Transportation;
- Route of Transport;
- Traffic control and loading procedures; and
- Recordkeeping.

Contaminated soil will be loaded into trucks at the site, which is depicted on Figures 1 through 3. During off-haul operations, approximately 625 truckloads of contaminated soil will be removed and transported to the designated waste disposal facilities. Loading will take place at the excavation areas depicted on Figure 4. Equipment will be decontaminated prior to contact with non-impacted materials as described in Section 2.3 below.

Transportation and disposal of waste from the site is to be conducted in accordance with applicable local, state and federal regulations. Safe work practices and traffic control measures are to be employed during the remediation. Truck drivers will have Class A licenses. Manifest records will be maintained for transportation and disposal of the waste. Health and safety and contingency/spill response planning are described below in Sections 3 and 4, respectively.

2.1 Characteristics of Material to be Transported

An estimated 11,300 cubic yards of contaminated soil are to be transported from the site to licensed solid waste disposal facilities. The contaminated soil will likely be disposed of as Class II non-hazardous solid waste. However, some of the material may be classified as Class I non-RCRA hazardous waste and require disposal at a Class I facility. The soil may be impacted with heavy metals (including arsenic, cobalt, lead, and mercury) as well as diesel fuel, and may include:

- RCRA regulated hazardous waste;
- Non-RCRA hazardous waste (California hazardous);
- Non-hazardous soil impacted with metals and/or motor oil.

The contaminated soil does not exhibit any features that allow for visual determination of contamination. None of the identified constituents have been detected at levels that are immediately dangerous to life and health, but the detected constituents do present potential long-term health hazards. Due to the limited potential for exposure, and the requirement for engineering controls and dust monitoring, personal protection will be Level D.

2.2 Destination of Waste Material

Non-hazardous waste will be disposed at one of the two landfills listed below:

- Neal Road Recycling and Waste Facility
1023 Neal Road, Paradise, CA 95969
(530) 345-4917
- Recology Ostrom Road Landfill
5900 Ostrom Road
Wheatland, CA 95692
(800) 208-2371

Class I waste will be transported to and disposed of at one of the two landfills listed below:

- Waste Management Kettleman Hills Disposal Facility
35251 Old Skyline Road
Kettleman City, CA 93239
(559) 309-7688

- Clean Harbors Buttonwillow Disposal Facility
2500 West Lokern Road
Buttonwillow, CA 93206
(661) 762-6200

Alternate disposal facilities may be selected with the prior approval of DTSC.

2.3 Decontamination Methods

The following decontamination procedures are intended to reduce the chance of inadvertent transfer of contamination by construction equipment and personnel to areas other than the designated waste disposal facilities.

Loading Areas

Prior to loading excavated materials into trucks, plastic sheeting will be placed on the ground or asphalt such that any spilled material will be prevented from contacting the ground surface. Upon completion of loading, any debris will be placed in the appropriate container for proper disposal, and the plastic sheeting will be folded and disposed.

All equipment wheels/tires that have contacted contaminated soil will be cleaned over plastic sheeting by means of shovels and stiff-bristled brooms or brushes to remove all soil. Upon completion of cleaning, any debris will be placed in the appropriate container for proper disposal, and the plastic sheeting will be folded and disposed.

Personal Protective Equipment

Personal protective equipment (PPE), such as disposable booties and coveralls, will be removed and discarded in the contamination reduction zone. In order to decontaminate reusable items such as work boots, a two-stage decontamination process will be used. This process will include washing in a detergent solution with a stiff-bristled brush and rinsing with clean water. The rinsate water will be distributed over contaminated soil (to be exported) for dust control purposes. The decontamination containers will be clearly marked, identifying the first (wash), second (rinse) and third (final rinse) containers to be used. Rinse water will be applied to materials that will be off-loaded for disposal only and will not be applied to any of the open excavations to avoid potential contamination of clean soil that is to remain in place.

Transportation Equipment

Transportation equipment will be decontaminated before leaving the site. An equipment decontamination area will be established to support the soil remediation. The equipment decontamination area will be used to rinse soil and dust from heavy equipment before leaving the site. Trucks that do not leave the stabilized staging areas, and whose tires do not come into contact with contaminated soil, will be subject to visual inspection to determine whether decontamination is necessary. All rinsate from the equipment decontamination will be self-contained within the decontamination area and will not be discharged onto unimpacted areas or off-site. The rinsate from the equipment decontamination area will be characterized for proper handling.

Site Entrance/Exit

A designated entrance/exit will be established at the site to prevent tracking of soil off-site. The stabilized entrance/exit will be the unpaved access road extending from the excavation areas north to Joyce Drive. Trucks that do not leave the access road or stabilized staging areas, and whose tires do not come into contact with contaminated soil, will be subject to visual inspection at the designated exit to determine whether decontamination is necessary. Entrance/exit pathways will be routinely inspected and cleaned with a broom if needed to remove visibly accumulated soil.

Roadway Surfaces

Impacted soil will be removed from paved surfaces using stiff-bristled brooms or brushes. Soil will be placed in an appropriate container for off-haul and proper disposal. If brooming/brushing cannot remove the soil, water spray with a low-pressure power washer (i.e., 1,500 pounds per square inch) will be utilized. If water usage is necessary, the water/soil mixture must be collected and placed on contaminated soil stockpiles as dust suppression or otherwise placed with impacted materials scheduled for off-site transport/disposal.

2.4 Mode of Transportation

An estimated 625 truckloads of contaminated soil are to be transported off-site to designated disposal facilities. Contaminated soil will be transported from the site in either closed-top bins or end dumps with tarp covers that prevent wind erosion during transport. Trucks will typically hold 18 cubic yards (23 tons). Haulers will possess a valid hazardous waste hauler license.

Truck drivers are to inspect their vehicles prior to entering the site to ensure that the vehicle is safe for highway travel. Truck drivers are to inspect their vehicle after loading to ensure the trucks are properly tarped and the appropriate Department of Transportation placard is on the vehicle before leaving the site.

During loading, trucks will be parked in the on-site staging areas and will not inhibit traffic on public roads.

The transporter will be selected by the remediation contractor that is selected to perform the cleanup. Contact information for the remediation contractor and transporter must be submitted to the DTSC project manager at least ten business days prior to commencement of remedial action. DTSC contact information is provided below.

Sarah Larese, Project Manager
California Department of Toxic Substances Control
Site Mitigation and Restoration Program
5796 Corporate Avenue
Cypress, California 90630
sarah.larese@dtsc.ca.gov
(714) 484-5321

2.5 Routes of Transport

The staging area within the site will be on the northern end of the site adjacent to Joyce Drive. Transportation routes from the site to disposal facilities are presented as Maps A through D and are described below.

Local Directions to State Route (SR) 49 Southbound at McKnight Way:

1. All roads are paved public roads with one lane in each direction.
2. Exit the site north to Joyce Drive, turning right (east) onto Joyce Drive.
3. After 200 feet, turn right onto Whiting Street.
4. After 200 feet, turn right (south) onto South Auburn Street.
5. After ¼ mile, turn right (west) onto McKnight Way and continue over SR 49.
6. Turn left (south) onto the SR 49 southbound on-ramp.

Local Directions to State Route (SR) 49 Northbound at McKnight Way:

1. All roads are paved public roads with one lane in each direction.
2. Exit the site north to Joyce Drive, turning right (east) onto Joyce Drive.
3. After 200 feet, turn right onto Whiting Street.

4. After 200 feet, turn right (south) onto South Auburn Street.
5. After ¼ mile, turn right (west) onto McKnight Way and then right onto the SR 49 northbound on-ramp.

Highway Route to Recology Ostrom Road Landfill Facility

1. Follow the directions from the site to State Route 49 northbound.
2. Head north on SR 49 for ½ mile and use the right lane to take the CA-20 W/Empire St ramp to Marysville.
3. From the off-ramp, turn left onto CA-20 W/W Empire St and continue on CA-20 W.
4. Head west on Highway 20 for 32 miles before turning left onto CA-20 W/CA-70 S/B St (signs for Yuba City/Sacramento).
5. In 0.2 miles turn right onto CA-20 W/CA-70 W/9th St (signs for Yuba City/Sacramento).
6. In 0.3 miles use the left 2 lanes to turn left onto CA-70 S/E St.
7. In 4.6 miles Use the left 2 lanes to turn slightly left onto CA-65 S (signs for Roseville).
8. In 5.4 miles turn left on S Beal Rd.
9. Head northeast on South Beal Road for 2.9 miles.
10. Turn right on to Ostrom Road for 2.3 miles.
11. Turn right onto S. Erle Street for 0.2 miles to Recology Ostrom Road landfill facility entrance on the right.

Highway Route to Waste Management Kettleman Hills Disposal Facility

1. Follow the directions from the site to State Route 49 southbound.
2. Continue south on Highway 49 for 22 miles to Highway 80 west.
3. Continue west on Highway 80 for 32 miles to Interstate 5 south.
4. Continue south on Highway 5 for 214 miles to CA-41 S (Exit 309).
5. Continue southwest on CA-41 S for 3.4 miles to Skyline Road.
6. Turn right (northwest) on Skyline Road and continue to the facility at 35251 Skyline Road.

Highway Route to Clean Harbors Buttonwillow Disposal Facility

1. Follow the directions from the site to State Route 49 southbound.
2. Continue south on Highway 49 for 22 miles to Highway 80 west.

3. Continue west on Highway 80 for 32 miles to Interstate 5 south.
4. Continue south on Highway 5 for 280 miles to CA-46 W (Exit 278).
5. Turn right on CA-46 W.
6. Turn left onto Woodward Street.
7. Continue onto Lost Hills Road.
8. Turn left onto CA-33 S.
9. Turn left onto Lokern Road and continue to the facility at 2500 West Lokern Road.

2.6 Traffic Control and Loading Procedures

No off-site staging is anticipated. Trucks are to stage at the staging area in the northern portion of the site near Joyce Drive. Trucking to Neal Road or Ostrom Road may allow for 2 to 3 round trips per day. Trucking to Kettleman Hills or Buttonwillow will allow for one round trip per day.

Trucks will enter and exit the site via the driveway from Joyce Drive. After loading and prior to exiting, trucks will be closed or tarped, cleaned of any loose debris, and inspected for the appropriate placarding, and waste manifests will be completed.

Special traffic control procedures for traveling over surface streets are not anticipated because the surface streets between the site and the highway appear to have adequate signals and signage for safe access, and little pedestrian traffic is anticipated on the designated local route.

The transporters will be licensed hazardous waste haulers and will provide appropriately trained and experienced drivers. The majority of transport trucks will leave the site between the hours of 9:00 AM and 3:30 PM when surface street traffic is anticipated to be light. No lane closures will be required.

The hauling contractor(s) used to transport contaminated waste are to be fully licensed and permitted by the USEPA and the State of California. All department of transportation (Caltrans) and California Highway Patrol (CHP) safety regulations are to be strictly followed.

The remediation contractor will be required to clean, to the satisfaction of the regulatory agencies involved, any spills resulting from maintenance of the trucks or due to road accidents.

Trucks used for the off-site transportation of contaminated soil remain on clean areas, to the extent possible, to minimize the need to decontaminate the truck tires. During truck loading dust emissions will be observed, and if visible dust is observed, engineering controls will be modified to prevent visible dust emissions.

2.7 Recordkeeping

Recordkeeping for Transport and Disposal of Non-Hazardous Waste

For material transported by truck to an in-state non-hazardous disposal facility, the driver will carry a Non-Hazardous Waste Manifest or Bill of Lading to the disposal facility. The site owner will also maintain copies of the manifests/bills of lading as well as a log listing the date and time of truck loading, type of material, weight of load, and vehicle identification for each load of material transported by truck. Drivers will operate their vehicles and respond to emergencies in accordance with the licensed waste hauler's transportation safety plan and the enclosed spill response plan.

Recordkeeping for Transport and Disposal of Hazardous Waste

For material transported by truck to an in-state Class I disposal facility, the driver will carry a Hazardous Waste Manifest to the disposal facility. The site owner will also maintain copies of manifests as well as a log listing the date and time of truck loading, type of material, weight of load, and vehicle identification for each load of material transported by truck. Drivers will operate their vehicles and respond to emergencies in accordance with the licensed waste hauler's transportation safety plan and the enclosed spill response plan.

3.0 HEALTH AND SAFETY

A Health and Safety Plan (HSP) is appended to the Response Plan. The HSP is intended to establish minimum safety requirements. All remediation contractors and subcontractors for the removal action are required to abide by these minimum requirements and prepare their own HSP for their employees. In the event that unanticipated conditions occur at the site, the plans are to be modified accordingly.

Level D protection is required for project activities unless health and safety monitoring indicates that a higher level of protection is required. Engineering controls, as set forth in the Dust Mitigation Plan (DMP) appended to the Response Plan, are required.

Dust monitoring is to be performed during the removal action, as set forth in the HSP, to verify that the target dust levels are not exceeded.

4.0 CONTINGENCY PLAN / SPILL RESPONSE PLAN

In the event of a spill, the remediation contractor will be prepared to respond in a safe and efficient manner, specific to the particular spill situation. Procedures established in the following Spill Response Plan are to be used for handling of spills, whether they are on-site spills or spills occurring during transportation.

For contaminated material spilled onto the ground surface along a transportation route, cleanup would typically consist of excavation and disposal of the contaminated soil at a disposal facility. All cleanup work is to be performed in accordance with a site-specific health and safety plan and in cooperation with interested state and local agencies. For accidental releases of contaminated material in or near a stream, river, or lake, the same general response procedures will apply, with particular emphasis on preventing the release of the spilled waste material into the water body. In the event of an actual release of contaminated material into a body of water, all work will be coordinated with state and local agencies to select practical and appropriate cleanup methods based on specific circumstances of the release.

4.1 Spill Control, Cleanup And Containment

In the event of a spill or accidental release, the following general procedures are intended to serve as guidelines to confine the spill and prevent migration of contaminants. These general guidelines may require modification for specific circumstances to adequately address health and safety and the environment. Personnel are expected to use judgement and take precautions in the event of a spill and to use common sense.

A general flow chart for spill response is presented as Chart 1. Typical steps are outlined below.

- Evacuate the spill area and the site to ensure the safety of all personnel.
- Contain and/or clean up the release/spill. For large spills, contact the local Fire Department (call 911).
- Notify the Site Safety Officer (SSO) and other responsible project personnel, including the project manager, regulatory agencies and site owner.
- Complete the attached spill reporting worksheet.

The SSO is required to:

- Contact the Project Manager;
- Confirm spill information;

- Identify necessary spill response personnel and resources;
- Obtain material safety data sheets, if necessary; and
- Verify the spill reporting worksheet and prepare an incident report.

4.2 General Provisions For On-Site Spills

For on-site spills, the spill is to be confined to the site and off-site migration prevented. Spills may include contaminated soil or fuel and lubricants (oil) from equipment. Spills will be cleaned up immediately using available on-site resources if it is safe to do so. Caution is to be used not to let spilled material enter drainage locations (e.g., storm drainage inlets). Absorbent material, including booms, absorbent pads, and tools will be used to clean-up small oil spills from machinery. Sorbent material and other contaminated material must be packaged and properly disposed of at a licensed waste disposal facility. General procedures are outlined below.

1. Assess the situation and safety considerations. If it can be accomplished safely, stop the release. If applicable, activate valves and emergency shut down switches.
 - a. Determine whether available resources are sufficient to control the spill.
 - b. Do not enter any spill site to accomplish the shutdown.
 - c. Stay upwind and upgradient of the spill.
2. Alert personnel within the immediate area and make the notifications described above in Section 4.1.
3. Nonessential personnel should evacuate the area and report to a designated safe area upslope and upwind of the spill.
 - a. If there are trucks in the loading area or waiting to load, have the drivers remove their vehicles to a safe location outside the loading area, if it is safe to move the vehicles.
 - b. Prevent any vehicles (other than emergency support services) from entering the area.
4. Isolate the discharge spill area and shut off ignition sources, if it can be accomplished safely.
 - a. For flowing fuel spills, without entering the spill area, build a dike in front of the spill using absorbents or soil.
 - b. For puddled spills, place absorbent pads on top of the spill without entering the spill area.
 - c. If fuel has reached a drainage ditch, extend several sorbent booms downstream across the ditch and/or build several soil dams.
 - d. Use sorbent to soak up fuel.
 - e. Properly containerize used materials for disposal.

4.3 Contaminated Soil Releases

Trucks hauling contaminated soil, if involved in a traffic accident, have the potential to release contaminated soil on public and private property, potentially exposing the public to contaminated soil. In the event of an accident, the operator of the truck will notify the CHP and other emergency response agencies, and the SSO as described above.

4.4 Reporting

Reporting and post-response evaluation procedures must be conducted through formal documentation and follow-up investigation to identify the cause/source of the accident. Response procedures will be reviewed as part of post-response evaluation.

A spill reporting worksheet and incident report are to be prepared and/or reviewed by the SSO. The reports are to contain:

- Time and date of incident;
- Incident description;
- Material and quantity spilled;
- Location of spill (photographs and sketch map);
- Description of the response; and
- Summary of notifications.

4.5 Post-Response Evaluation

The SSO and Project Manager will document the likely causes of the incident and the preventative measures that are to be taken to reduce the chance of future incidents. If deemed appropriate, remedial procedures and/or engineering controls will be modified based on these preventative measures to reduce the chance of future incidents.

5.0 REFERENCES

Geocon Consultants, Inc., April 2026, *Report of Findings and Response Plan, Joyce Drive Property, Grass Valley, California*

SPILL RESPONSE REPORT

This form should be completed in the event of a spill or release.

DTSC Site Code. _____ Date _____

Project Manager _____

Project Name _____

Project Location _____

Weather Conditions _____

Spill Location (attach photos and map) _____

Date/Time of Discovery _____

Duration of Release _____

Estimated Quantity _____

Discovered by (Name, Title, Affiliation) _____

Materials Released (attach MSDS if available) _____

Personnel Involved _____

Description of Incident _____

Action Taken _____

Results of Action Taken _____

SPILL RESPONSE REPORT

This form should be completed in the event of a spill or release.

SSO notified? Yes_____ No_____

If not, explain _____

Injuries? Yes_____ No_____

Description _____

Property damage? Yes_____ No_____

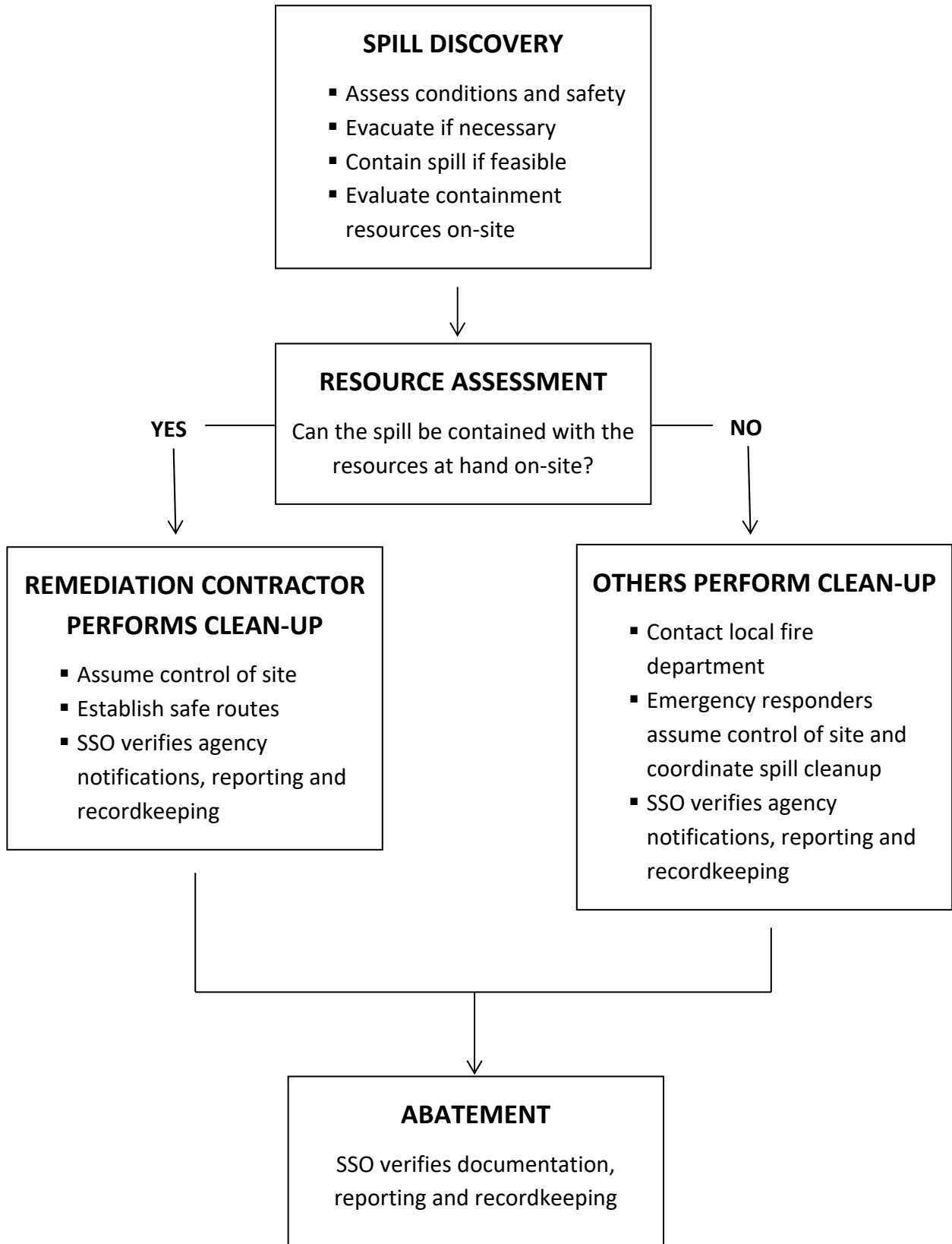
Description _____

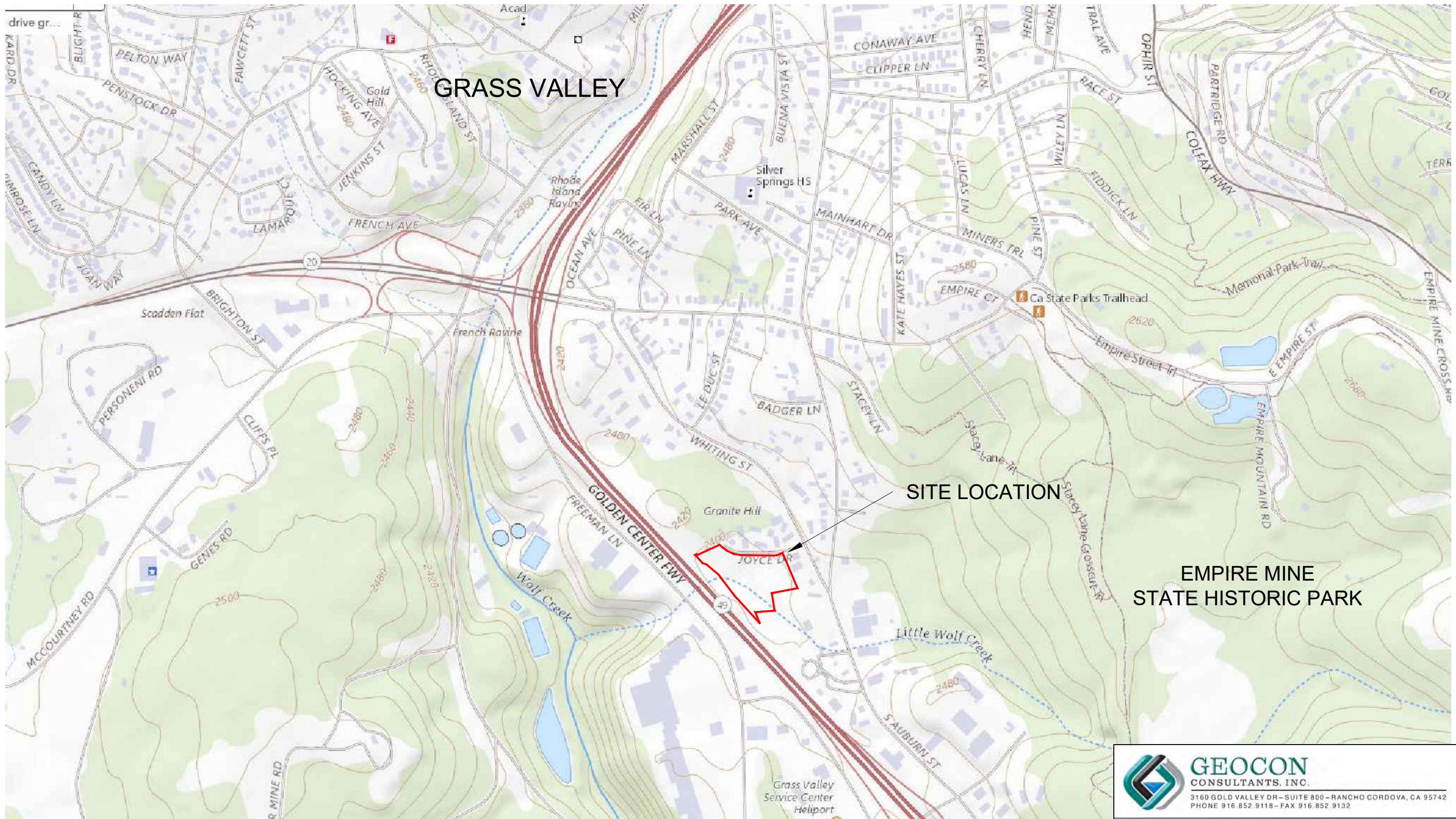
List of notifications (Person, Agency, Telephone Number, Topics Discussed):

[illegible]

CHART 1

General Flowchart for Spill Response





Base map from California Geological Survey (CGS) Data Viewer
(<https://maps.conservation.ca.gov/cgs.DataViewer/>).

0 600
Scale in Feet



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

Joyce Drive Property

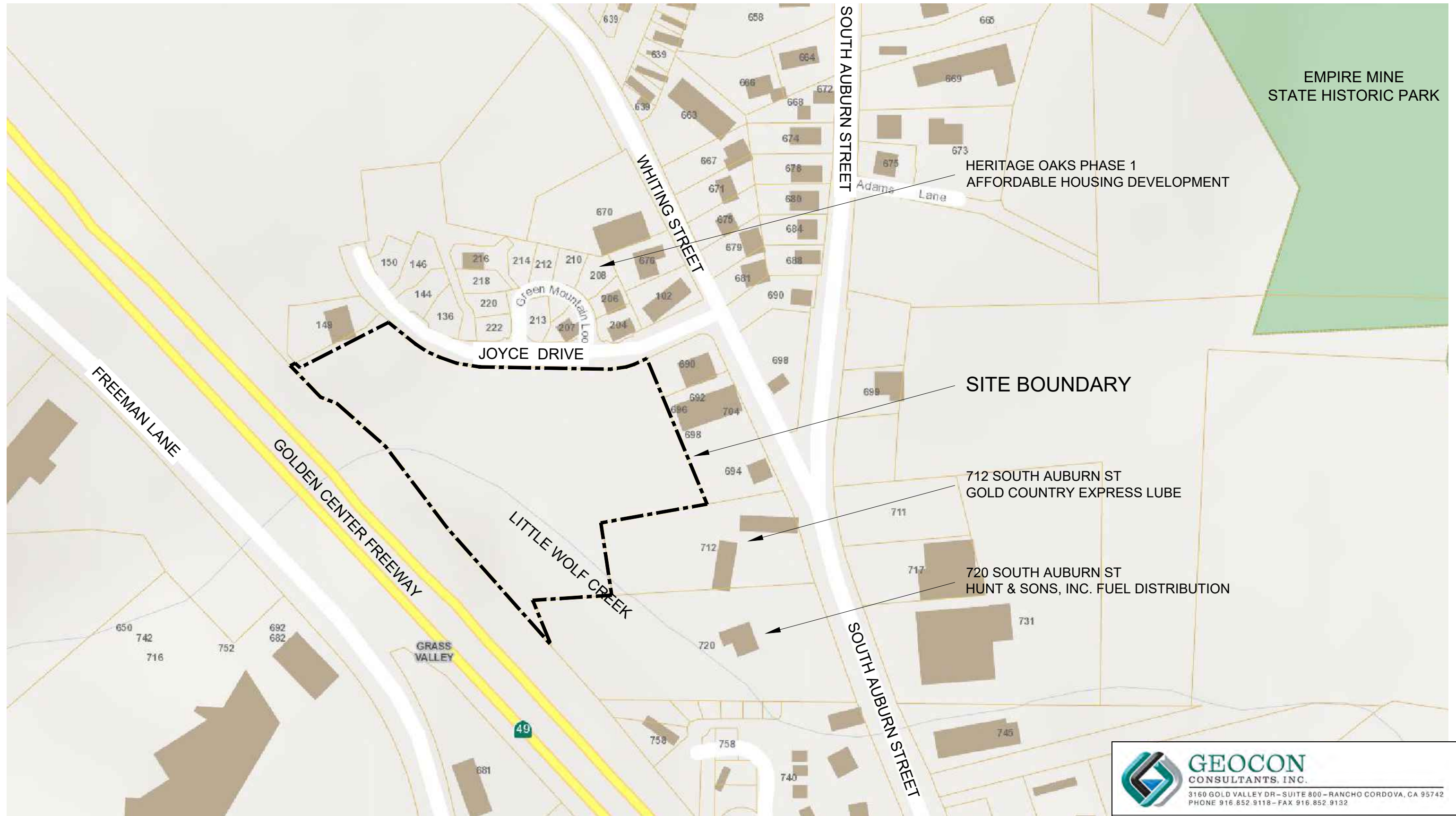
USEPA Community-Wide Assessment #98T42301
Grass Valley, California

SITE LOCATION MAP

S2510-07-01

June 2025

Figure 1



Base map from Nevada County Geographic Information System (<https://gis.nevcounty.net/MyNeighborhood/>)

0 150
Scale in Feet

Note: Boundary and feature locations were not determined by survey and should be considered approximate.



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

Joyce Drive Property

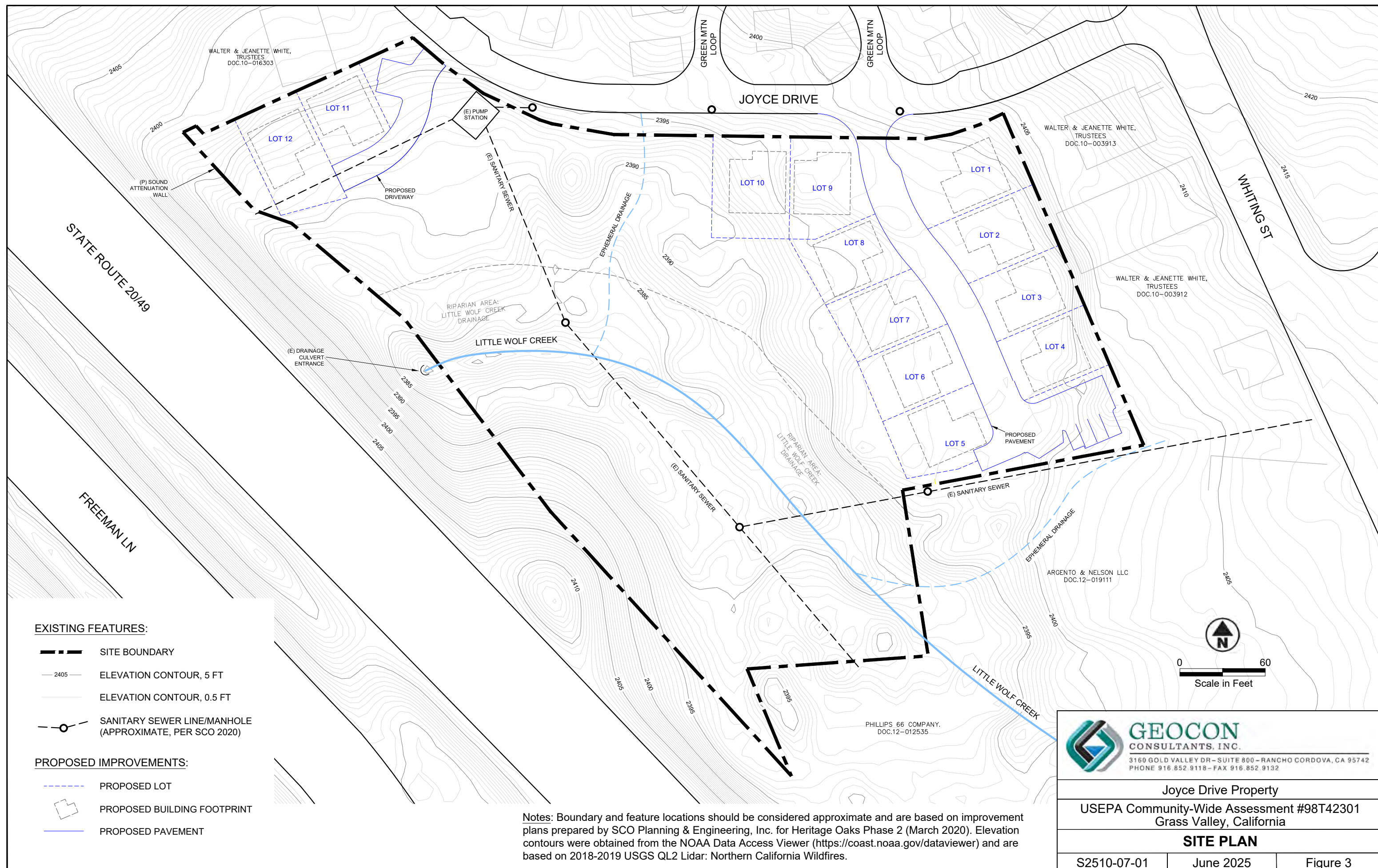
USEPA Community-Wide Assessment #98T42301
Grass Valley, California

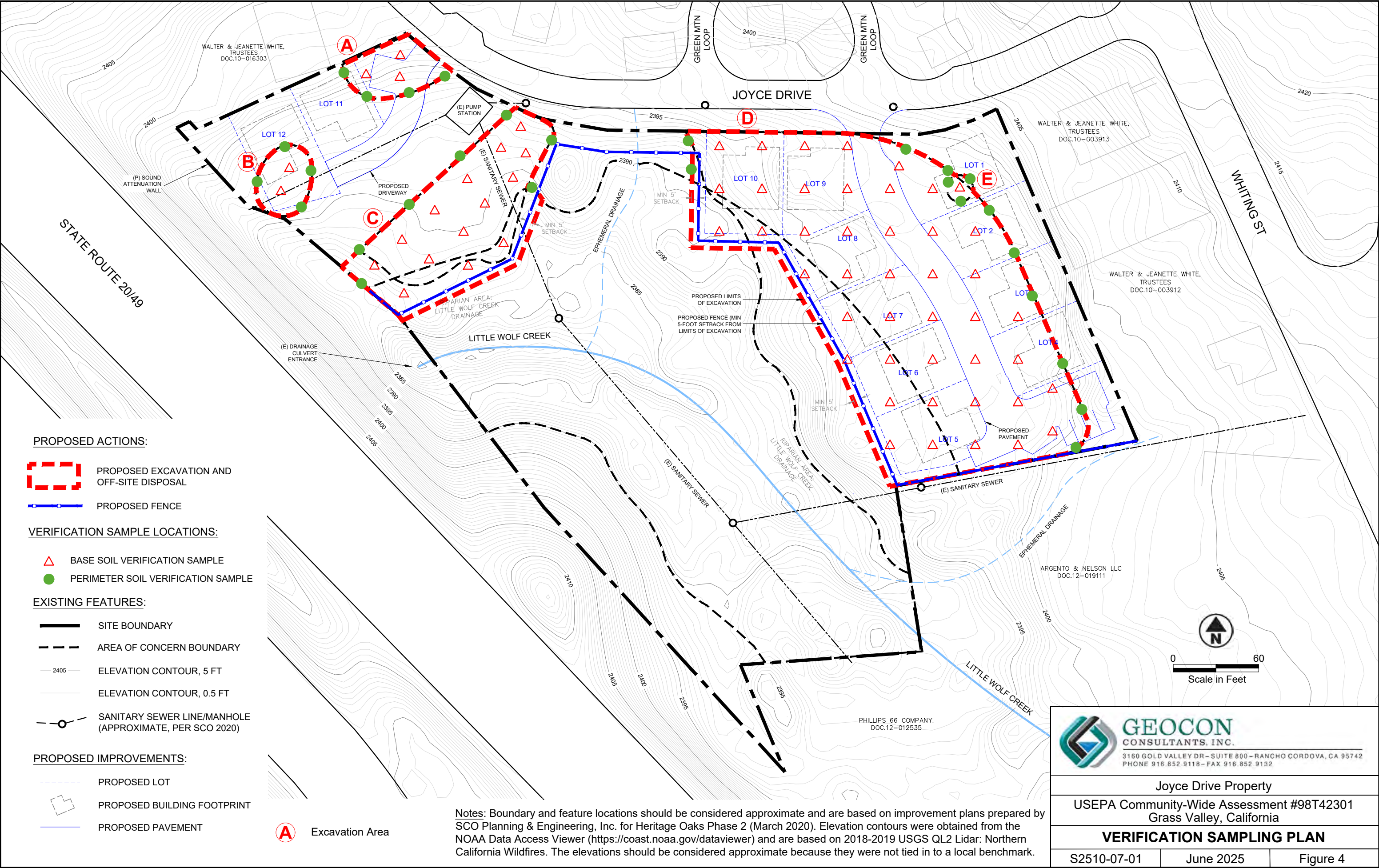
VICINITY MAP

S2510-07-01

June 2025

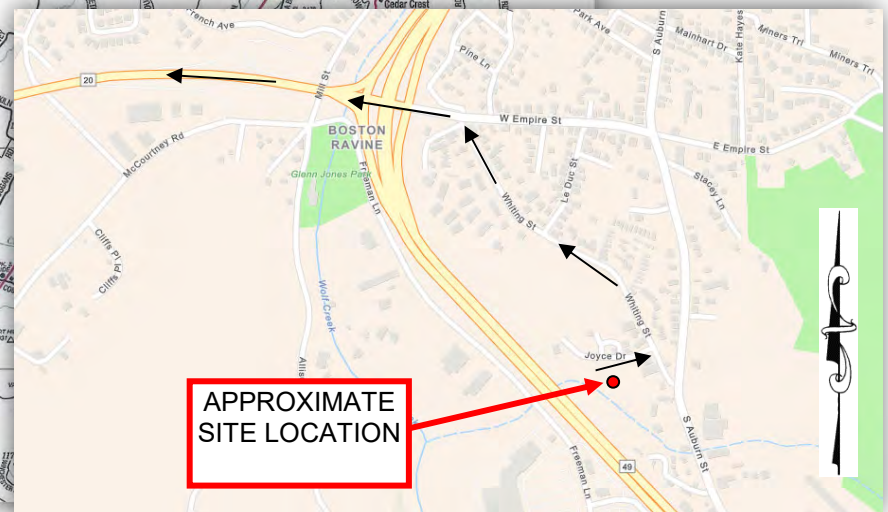
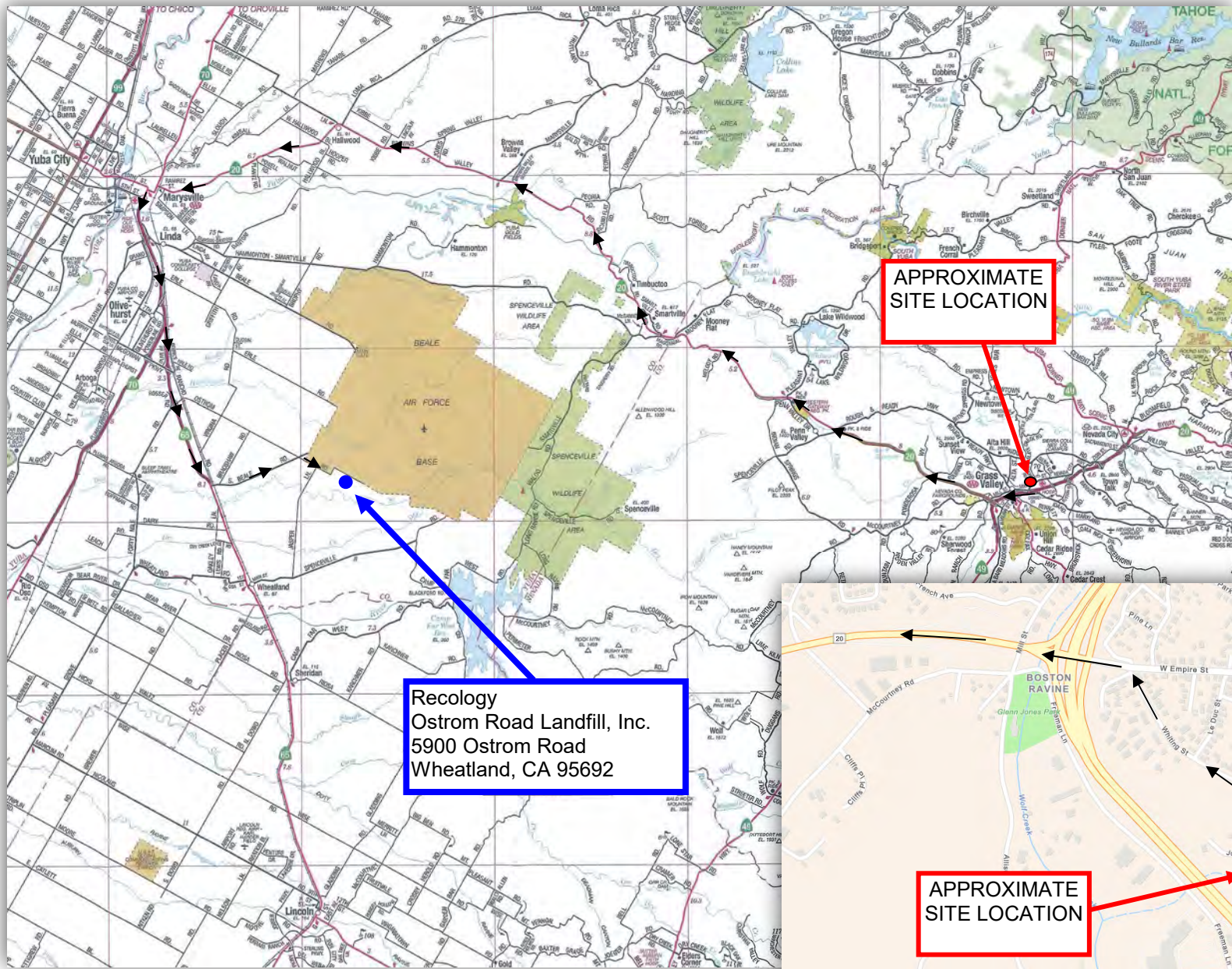
Figure 2





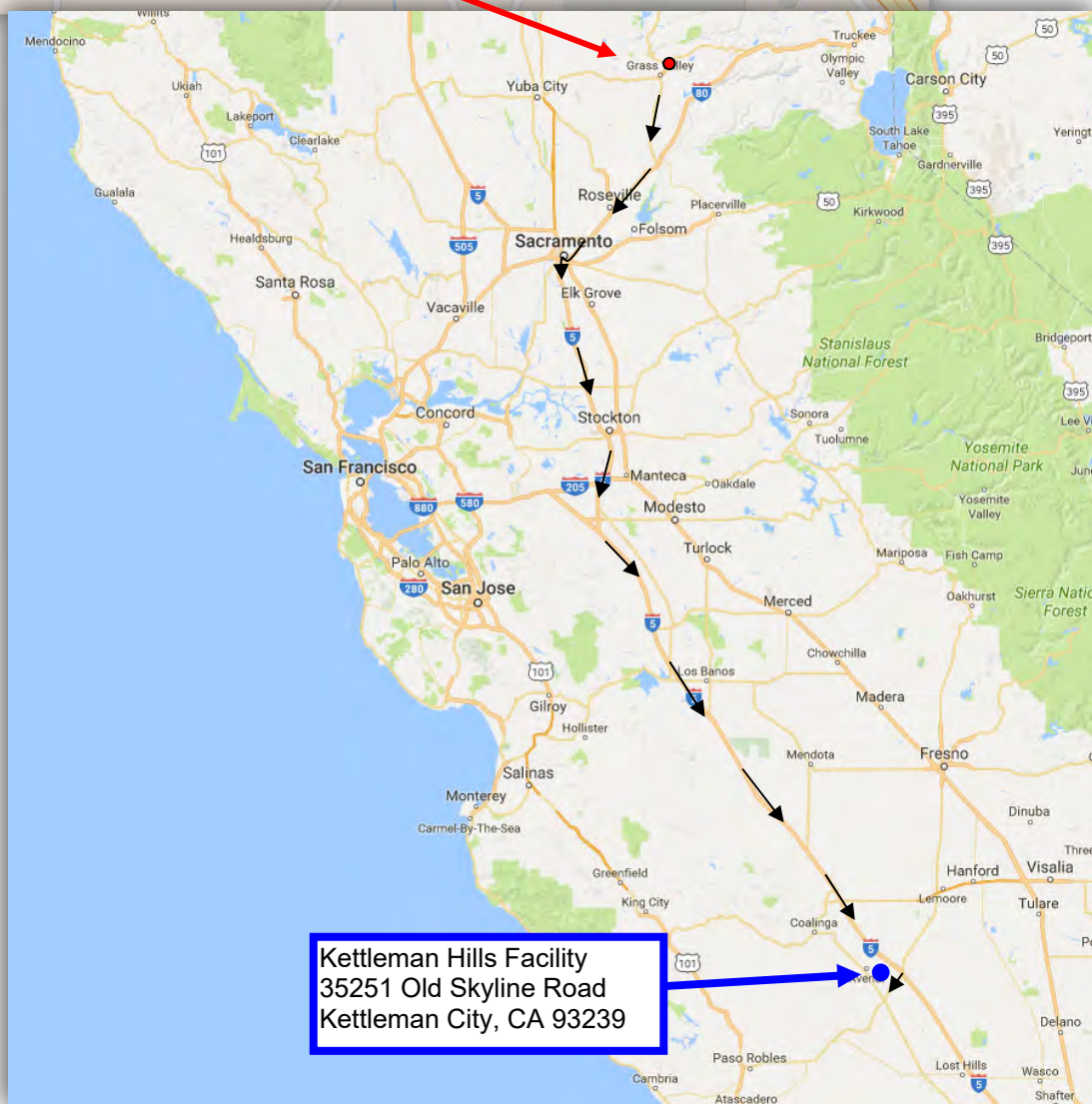
GEOCON
CONSULTANTS, INC.
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

Joyce Drive Property		
USEPA Community-Wide Assessment #98T42301 Grass Valley, California		
VERIFICATION SAMPLING PLAN		
S2510-07-01	June 2025	Figure 4



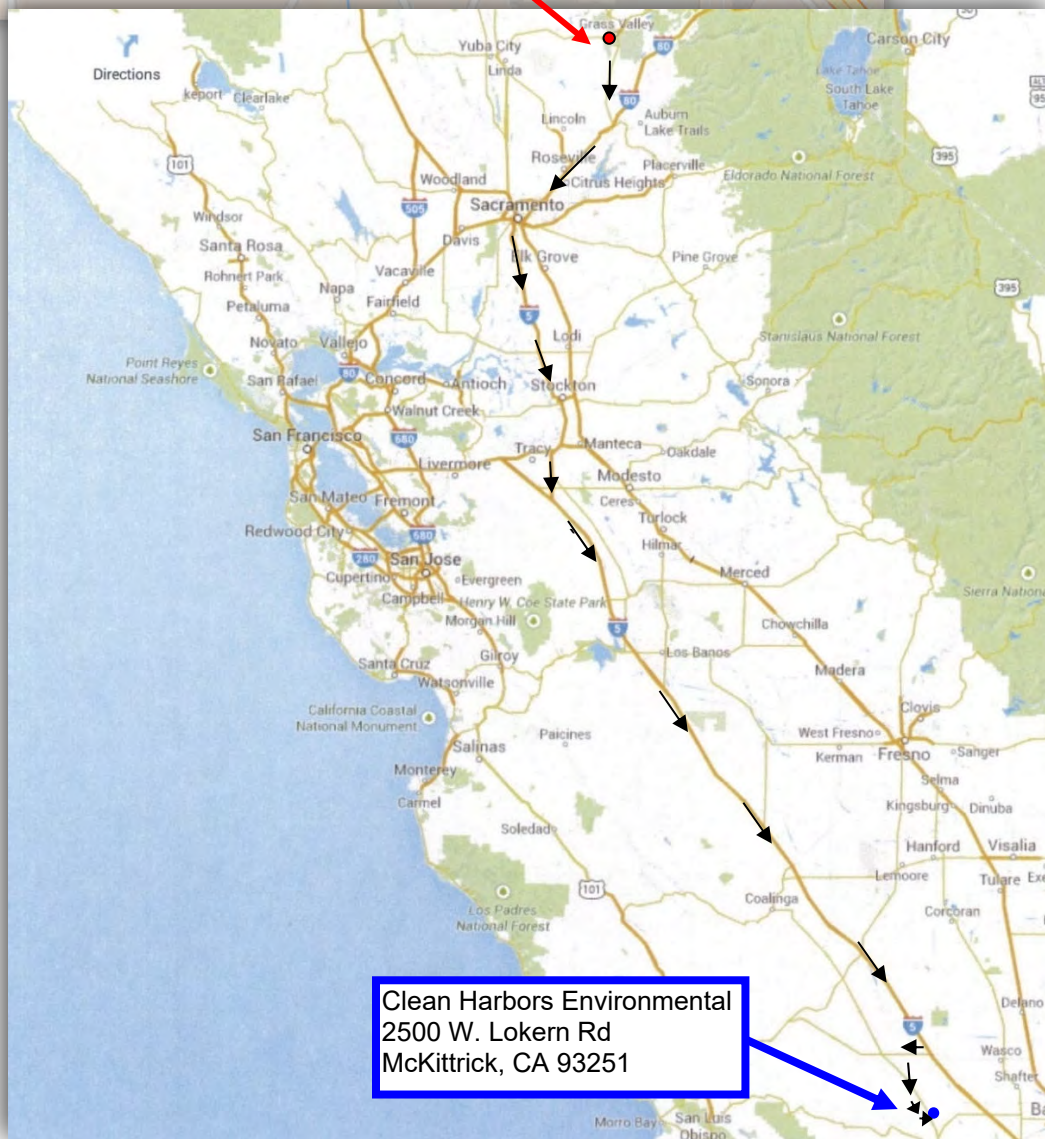
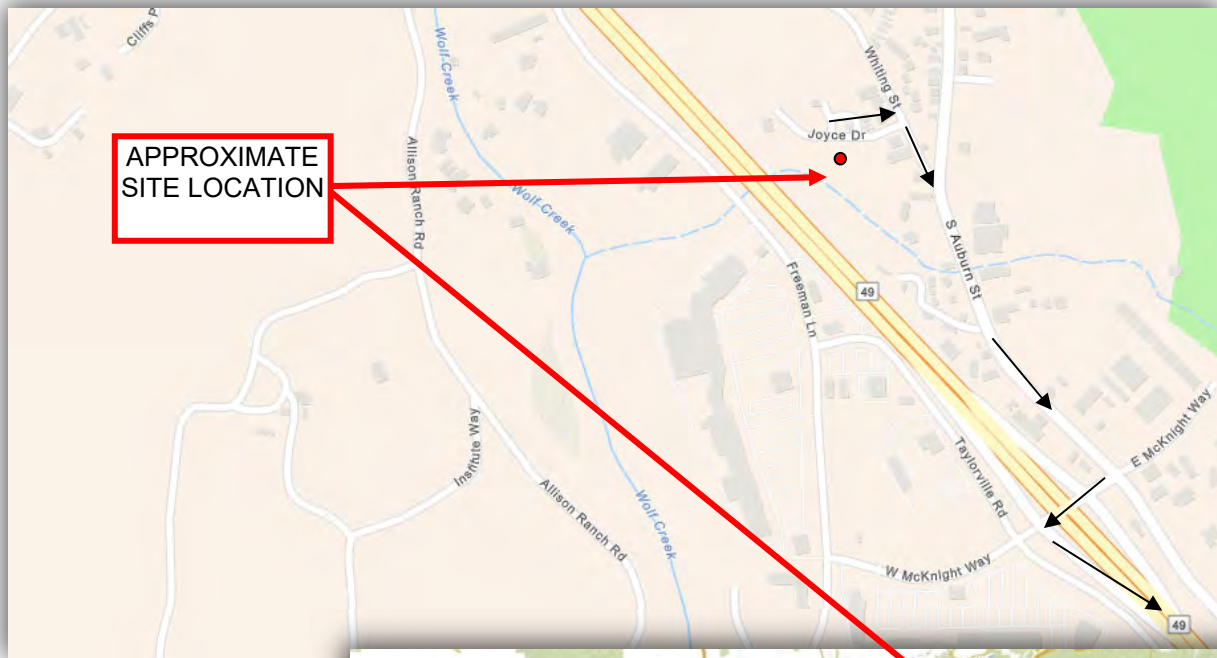
OFF-SITE TRANSPORTATION ROUTE MAP
JOYCE DRIVE PROPERTY, GRASS VALLEY, CA
TO OSTROM ROAD LANDFILL, WHEATLAND, CA

PROJECT S2510-07-01
MAP A
JUNE 2025



OFF-SITE TRANSPORTATION ROUTE MAP
JOYCE DRIVE PROPERTY, GRASS VALLEY, CA
TO KETTLEMAN HILLS, CA

S2510-07-01
MAP B
JUNE 2025



OFF-SITE TRANSPORTATION ROUTE MAP
JOYCE DRIVE PROPERTY, GRASS VALLEY, CA
TO CLEAN HARBORS BUTTONWILLOW, CA

S2510-07-01
MAP C
JUNE 2025