

CONSULTING SERVICES AGREEMENT

This Consulting Services Agreement ("CSA") is dated as of December 14, 2021 (the "Effective Date"), and is between UNION PACIFIC RAILROAD COMPANY, successor by merger of Southern Pacific Transportation Company, a Delaware corporation ("UPRR"), MARY LOU HELIX, KAREN HOOK, DEBBIE HOOK, AND BLAKE PUCCELL (together, the "Hookston Group"), and CONTRA COSTA COUNTY, a political subdivision of the State of California (the "County") on one hand, and ERM-WEST, INC., a California corporation ("Contractor") on the other. Together, UPRR, the Hookston Group and the County are the "Hookston Parties."

RECITALS

- A. The Hookston Parties are parties to a settlement agreement that was entered into in 1997 to resolve a civil suit involving allegations of contamination of the soil, subsoil, surface water and groundwater on and emanating from an approximately 8-acre site located at the intersection of Hookston Road and Bancroft Road in Pleasant Hill, California (the "Hookston Site") (the "Settlement Agreement").
- B. The Hookston Site is currently regulated under Regional Water Quality Control Board Order No. R2-2007-0009, *Adoption of Final Site Cleanup Requirements and Recission of Order Nos. R2-2003-0035 and R2-2004-0081*, dated January 30, 2007 (the "Order").
- C. Simultaneous with the execution of this CSA, the Hookston Parties and Contractor are entering into a work authorization dated November 30, 2021 (a "Work Authorization"), that describes the scope of remediation and related environmental services (the "Work") Contractor is to perform at the Hookston Site through January 2023. If additional Work is to be performed by Contractor at the Site, the parties will execute additional Work Authorizations. Each Work Authorization is a part of this CSA and is incorporated by reference into this CSA.

The Hookston Parties and Contractor mutually agree as follows:

Section 1. CONTRACTOR REPRESENTATION AND WARRANTIES.

- Contractor shall perform the Work with the same care and skill ordinarily exercised by experienced professional performing similar services for projects of similar scope and complexity in the same jurisdiction.
- Contractor's personnel assigned by Contractor to perform the Work are experienced,

qualified, and licensed (if necessary or advisable) to perform the Work.

- Contractor and its personnel assigned to perform the Work shall comply in all respects with this CSA, and all federal, state and local laws, rules, regulations, orders, codes and ordinances applicable to the Work, including environmental, safety and health laws (if applicable) that are in effect at the time the Work is performed. Contractor warrants that its instructions to the Hookston Parties will comply in all respects with all applicable laws, rules, regulations, orders, codes and ordinances applicable to the Work.
- The Work will not infringe on any patent, copyright, trademark, or other intellectual property right, unless the Hookston Parties direct Contractor to incorporate software into the Work and such software is later determined to infringe on the intellectual property rights of a third party. If the Hookston Parties direct Contractor to incorporate software into the Work, Contractor will inform the Hookston Parties if Contractor has knowledge that the software requires a license agreement.
- Contractor has the expertise necessary to perform the Work and the Hookston Parties are entitled to rely on Contractor's expertise, reports, data and/or conclusions reached by Contractor in its performance of the Work.
- Contractor shall, at Contractor's own expense, furnish (unless herein otherwise specifically provided) all supervision, labor, tools, equipment, materials, and supplies and all other things requisite and necessary to perform the Work.
- Contractor has all necessary permits and/or licenses required to perform the Work contemplated by this CSA.
- Contractor warrants the Work for a period of one year from completion of the Work.
- CONTRACTOR MAKES NO REPRESENTATIONS OR WARRANTIES OTHER THAN THOSE EXPRESSLY SET FORTH HEREIN.

Section 2. HOOKSTON PARTIES REPRESENTATIONS AND WARRANTIES.

- The Hookston Parties shall cause their use of the Work, in accordance with Contractor's instructions, to comply with all applicable laws, rules, regulations, orders, codes and ordinances.

Section 3. ALLOCATION OF COSTS AND ESCROW ACCOUNT MANAGEMENT

The Hookston Parties will bear the cost of their obligations under each Work Authorization in accordance with the Settlement Agreement.

Section 4. CONTRACTOR COMPENSATION.

Contractor shall cause each Work Authorization to set forth an estimated costs for labor, subcontractors, and materials for the Work. The labor rates have been estimated using the current rate sheet for the calendar year when the work will occur. Contractor may adjust labor rates annually at the beginning of a new calendar year; provided the increase is no more than 3% per year.

Payments for Work will be made on a monthly basis for work performed by the Contractor in accordance with the relevant Work Authorization. The Hookston Parties will reimburse reasonable, documented expenses incurred by Contractor in the performance of the Work. The estimates set forth in the Work Letter do not include applicable taxes, including jurisdiction-specific taxes, such as sales tax, use tax, commodity tax, excise tax, valued added tax, withholding tax, transaction tax, customs, tariffs, duties and similar levies, which are the sole responsibility of the Hookston Parties. Contractor is responsible for applicable taxes on Contractor's net income or taxes arising from the independent contractor relationship between Contractor and its personnel. Late payments will bear interest at 1.5% per month. Contractor has the right to suspend performance of the Work in the event of non-payment of undisputed invoices.

The amount specified in each invoice is payable within thirty (30) days after presentation of an invoice.

Section 5. TERM; TERMINATION.

The term of this CSA begins on the Effective Date and will continue until Work under each Work Authorization is complete, unless terminated sooner as provided below.

Either Contractor or the Hookston Parties may terminate this CSA or any Work Authorization at any time during the Term, with or without cause, by providing the other party thirty (30) days written notice of termination. Upon termination, the Hookston Parties' sole obligation to Contractor is to pay for Work performed through the date of termination at the rates set forth in the relevant Work Authorization, together with all reasonable costs incurred by Contractor after termination that are necessary to conclude Contractor's performance under the relevant Work Authorization, including without limitation, demobilization and demurrage costs.

Section 6. INSURANCE REQUIREMENTS.

Contractor shall, at its sole cost and expense, procure and maintain during the life of this CSA (except as otherwise provided in this CSA) the following insurance coverage:

Commercial General Liability Insurance. Commercial general liability (CGL) with a limit of \$1,000,000 each occurrence and an aggregate limit of \$2,000,000.

Business Automobile Coverage Insurance. Business auto coverage with a combined single limit of \$1,000,000 for each accident and coverage must include liability arising out of any auto (including owned, hired, and non-owned autos).

Worker's Compensation and Employer's Liability Insurance. Coverage must include but is not limited to:

- Contractor's statutory liability under the worker's compensation laws of California.
- Employer's liability (Part B) with limits of \$1,000,000.00 each accident, \$1,000,000.00 disease policy limit, \$1,000,000.00 each employee.

Coverage must include liability arising out of the U.S. Longshoremen's and Harbor Workers' Act, the Jones Act, and the Outer Continental Shelf Land Act, if applicable.

Alternate Employer Endorsement. Worker's compensation and employer's liability insurance must be endorsed with form WC 00 03 01 A (or a substitute form providing equivalent coverage) showing each UPRR, the Hookston Group and the County in a schedule as an alternate employer, with each name stated on the certificate of insurance.

Umbrella or Excess Insurance. If Contractor utilizes umbrella or excess policies, these policies must "follow form" and afford no less coverage than the primary policy.

Other Requirements

All policy(ies) required above (except worker's compensation and employer's liability and professional liability) must identify each of the Hookston Parties as an "Additional Insured" using Additional Insured Endorsements CG 20 10 04 13 and CG 20 37 04 13 (or substitute forms providing equivalent coverage), which must be stated on the certificate of insurance. The coverage provided to the Hookston Parties as additional named insured shall, to the extent provided under Additional Insured Endorsement CG 20 10 04 13 and CG 20 37 04 13, provide coverage for the Hookston Parties negligence, whether sole or partial, active or passive, and may not be limited by Contractor's liability under the indemnity provisions of this CSA.

The fact that insurance is obtained by Contractor or the Hookston Parties on behalf of Contractor will not be deemed to release or diminish the liability of Contractor, including, without limitation, liability under the indemnity provisions of this CSA. Damages recoverable by the Hookston Parties from Contractor or any third party will not be limited by the amount of the required insurance coverage.

Contractor waives all rights against the Hookston Parties and their agents, officers, directors and employees, where permitted by law, for recovery of damages to the extent these damages are covered by the worker's compensation and employer's liability or

commercial umbrella/excess liability insurance obtained by Contractor required by this CSA, which must be stated on the certificate of insurance.

Prior to commencing the Work, Contractor shall furnish the Hookston Parties with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements in this CSA.

All insurance policies must be written by a reputable insurance company acceptable to Hookston or with a current Best's Insurance Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the Work is to be performed.

Section 7. ENFORCEABILITY; CHOICE OF LAW; CHOICE OF FORUM.

This CSA is governed by the Laws of the State of California.

Section 8. INDEPENDENT CONTRACTOR.

Contractor and the agents and employees of the Contractor are not and may not be considered as employees of the parties comprising the Hookston Parties. Contractor is and will remain an independent contractor and nothing herein contained may be construed inconsistent with that status. If the Hookston Parties determine, in their discretion, that any person employed by Contractor or any subcontractor is not performing the Work in accordance with Contractor representations and warranties set forth in this CSA or the relevant Work Authorization, then, upon the request of a majority of the entities comprising the Hookston Parties, Contractor shall permanently remove such person from the Work.

Section 9. PAYMENT OF WAGES AND PAYROLL TAXES.

Contractor shall pay the wages and salaries of the officers and employees of the Contractor in strict accordance with all applicable law, including those relating to wages, prevailing wages, minimum wages, working hours, overtime, and working conditions. Contractor agrees to accept exclusive liability for the payment of any and all payroll taxes or contributions for unemployment insurance or old age pensions or annuities that are measured by the wages, salaries or other remuneration paid to the employees of the Contractor or measured by the performance by Contractor of the services, or the furnishing of equipment, tools, or materials, as provided herein. Contractor shall reimburse the Hookston Parties for any of the aforesaid taxes and contributions that they may be required to pay. Contractor shall comply with all valid administrative regulations respecting the assumption of liability for the aforesaid taxes and contributions and the supplying of information to the proper authorities.

The Contractor agrees to comply with the provisions of 29 Code of Federal Regulations (CFR), Part 470, if applicable.

Section 10. GENERAL INDEMNITY AND LIABILITY.

Contractor shall defend, indemnify, and hold harmless the Hookston Parties from all fines, judgments, awards, claims, demands, liability, losses, damages and expenses (including attorney fees and costs) ("Claims") to the extent caused by Contractor's negligent actions, omissions, or willful misconduct in the performance of this CSA, including but not limited to those Claims based on injury or death to third parties and loss or damage to property belonging to third parties (including environmental claims). If a Claim is brought by an employee of Contractor, then Contractor shall defend, indemnify, and hold harmless the Hookston Parties harmless from such employee's Claim. **EXCEPT AS OTHERWISE SET FORTH HEREIN, CONTRACTOR'S INDEMNIFICATION OBLIGATION WITH RESPECT TO CLAIMS BROUGHT BY CONTRACTOR'S EMPLOYEES HEREUNDER IS EXPRESSLY INTENDED TO INCLUDE INDEMNIFICATION FOR ALL CLAIMS, INCLUDING THOSE CAUSED OR ALLEGED TO BE CAUSED BY THE PARTIAL OR SOLE NEGLIGENCE OF THE HOOKSTON PARTIES AND/OR THEIR EMPLOYEES, WHETHER ACTIVE OR PASSIVE, BUT EXCLUDING HOOKSTON PARTIES' GROSS NEGLIGENCE OR WILLFUL MISCONDUCT. TO THE EXTENT IT MAY LAWFULLY DO SO, CONTRACTOR WAIVES ANY AND ALL DEFENSES UNDER WORKERS' COMPENSATION OR INDUSTRIAL INSURANCE ACTS TO SO INDEMNIFY THE HOOKSTON PARTIES.**

THIS INDEMNIFICATION OBLIGATION BY CONTRACTOR INCLUDES ANY CLAIMS, SUITS OR JUDGMENTS BROUGHT AGAINST THE HOOKSTON PARTIES UNDER THE FEDERAL EMPLOYER'S LIABILITY ACT, INCLUDING CLAIMS FOR STRICT LIABILITY UNDER THE SAFETY APPLIANCE ACT OR THE BOILER INSPECTION ACT.

The Hookston Parties shall give notice to Contractor, in writing, of the receipt or pendency of any Claims. Contractor shall defend the Hookston Parties, at the Hookston Parties' discretion, from and against all Claims for which Contractor has an indemnification obligation with counsel reasonably satisfactory to the Hookston Parties. Contractor may not settle any Claim in a manner that would impose any expense, penalty, obligation or limitation on the Hookston Parties without the prior written consent of each of the parties comprising the Hookston Parties. The Hookston Parties have the right, but not the obligation, to defend any Claim, and if the Hookston Parties opt to defend, Contractor shall remain obligated to indemnify, and save harmless the Hookston Parties from and against all Claims. If Contractor disputes its indemnification obligation with regard to a particular Claim, Contractor shall nevertheless defend the Hookston Parties, and the Hookston Parties shall reimburse Contractor for any portion of the damages, judgments, decrees, attorney fees, costs, and expenses that is determined attributable to the Hookston Parties by a court of competent jurisdiction.

Contractor's obligations to defend, indemnify, and hold harmless exist whether the Claims giving rise to these obligations are made against the parties comprising the Hookston Parties individually or collectively as a whole. Contractor's obligations to

defend, indemnify, and hold harmless the Hookston Parties shall survive the termination or expiration of this CSA and the Work Authorizations.

EXCEPT FOR GROSS NEGLIGENCE, WILLFUL MISCONDUCT OR BREACH OF CONFIDENTIALITY, (A) NEITHER PARTY WILL BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL OR PUNITIVE DAMAGES, ECONOMIC LOSSES OR LOST PROFITS, AND (B) CONTRACTOR IS NOT LIABLE IN THE AGGREGATE FOR ANY DAMAGES IN EXCESS OF \$3,000,000.

The obligations and limitations of this Section shall survive any termination of this CSA.

Section 11. CONFIDENTIAL INFORMATION.

County is a political subdivision of the State of California and is, therefore, subject to the California Public Records Act (California Government Code Sections 6250 *et seq.*, the "Act"). Any information provided to the Hookston Parties by Contractor is subject to disclosure pursuant to the Act.

Section 12. RIGHT TO STOP WORK; EXTRA WORK.

The Hookston Parties have the right to stop the Work or make changes in the amount, dimensions or character of the Work as the majority of the Hookston Parties determine is in the best interest of the Hookston Parties. Any increase in the Work that results from such changes, is to be paid for by the Hookston Parties at the same rates as similar work is contracted for under a Work Authorization. Any work that the Hookston Parties may require that is outside the scope of a Work Authorization will be the subject of a separate agreement between the parties or a third-party contractor. Contractor is not liable for any work performed by a third-party contractor.

Contractor has the right to suspend performance of the Work, or terminate this CSA, without liability, immediately upon notice to the Hookston Parties if Contractor determines in its reasonable discretion, based on industry norms and the circumstances surrounding the Work, that the health and safety of its personnel or its subcontractors' personnel is or may be at risk in performing the Work.

Section 13. CONTRACTOR'S BOOKS AND RECORDS – AUDITING.

Contractor shall maintain comprehensive records of its employees, its equipment and the Work performed under this CSA and each Work Authorization. Contractor shall keep these records available for inspection by the Hookston Parties' and their respective authorized representatives at all times for the later to occur of (i) a period of seven (7) years following completion of the Work, and (ii) the expiration or termination of this CSA.

At any time, the Hookston Parties and their respective authorized representatives have the right to audit Contractor's records to determine the accuracy of bills submitted by the Contractor pursuant to this CSA and any Work Authorization. Contractor shall reimburse

the Hookston Parties for amounts that are not supported by the records maintained by Contractor.

Contractor may exclude any hardware infrastructure, trade secrets, proprietary information, confidential data, non-reimbursable costs or derivation of rates or profit margins from any audit conducted.

Section 14. ASSIGNMENT – SUBCONTRACTING.

The Contractor may not assign or subcontract this CSA or any interest therein, except as set forth in a Work Authorization.

The Contractor shall comply with the provisions of 29 CFR, Part 470, if applicable.

Section 15. PATENT, COPYRIGHT, AND OTHER INFRINGEMENTS.

The Contractor shall indemnify, defend, and hold harmless the Hookston Parties from and against any and all claims, lawsuits, judgments, losses, costs, and expenses (including attorneys' fees) arising out of any claims or action made or brought against the Hookston Parties that are based on a claim that any product, equipment, design, or any other material or thing furnished by Contractor, or used by Contractor in performing the Work, including without limitation, any computer software or related equipment or products, infringes upon patent, copyright, trademark, or other proprietary right of any third party, constitutes misappropriation of a trade secret, or constitutes misuse of a license. This indemnification obligation does not apply in the case where the majority of the Hookston Parties directed Contractor to incorporate infringed third-party intellectual property rights into the Work.

Section 16. MODIFICATION – WAIVER OF DEFAULT – ENTIRE CSA.

This CSA may be only be amended in a writing that is signed by Contractor and each of the Hookston Parties. Any waiver by the Hookston Parties of any default by Contractor does not affect or impair any right arising from any subsequent default. This CSA and the Work Authorizations constitute the entire understanding between Contractor and the Hookston Parties with respect to the Work and supersede any prior negotiations, understandings or agreements, whether written or oral, with respect to the Work or any part thereof.

Section 17. ENFORCEABILITY.

If any provision of this agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions will continue in full force and effect unless the rights and obligations of the parties have been materially altered or abridged by such invalidation, voiding or unenforceability.

There are no third-party beneficiaries to this CSA or the Work Authorizations.

Section 18. RETAINED RIGHTS.

Contractor retains all right, title and interest in and to any invention, whether patentable or not, including but not limited to compositions, formulas, designs, products, and methods, together with any data, and any know-how, copyrights, software programs, trade secrets, patents, copyrightable materials, and other intellectual property ("Intellectual Property") (a) owned, made, conceived, authored, reduced to practice, or otherwise developed by Contractor prior to the Effective Date of this CSA, or (b) developed by Contractor outside the scope of Work under this CSA.

Section 19. MISCELLANEOUS.

The Hookston Parties represents and warrant that (i) they will provide access to the Hookston Site, including access to public and private property as required for Contractor to perform Work, (ii) they will provide complete and accurate information as necessary for Contractor's performance of the Work, (iii) they will approve or direct each specific location for boring, drilling, excavation or other intrusive work before Contractor performs Work, (iv) Contractor may rely on all information provided by the Hookston Parties in order for Contractor to perform Work, (v) Contractor is not responsible for any conditions existing at Hookston Site prior to Contractor's performance of any work at the Hookston Site related to the Order, (vi) Contractor is not responsible for handling or transporting hazardous materials or other waste from the Hookston Site, for which the Hookston Parties remain liable, and (vii) the Hookston Parties remain liable for the acts or omissions of any third parties that the Hookston Parties engage to perform work at the Hookston Site.

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The parties are signing this CSA as of the date set forth in the introductory paragraph.

UNION PACIFIC RAILROAD: UNION PACIFIC RAILROAD COMPANY

By: Lauren Mancuso

SIGN HERE

Title: Senior Manager

Printed Name: Lauren Mancuso

CONTRA COSTA COUNTY

By: [Signature]

Title: Conservation and Development Director

Printed Name: John Koplik

HOOKSTON GROUP

By: Mary Lou Helix

Title: Managing Partner

Printed Name: Mary Lou Helix

CONTRACTOR: ERM-West, Inc.

By: Jennifer Lee

Title: Managing Partner, Mountains and Pacific Business Unit

Printed Name: Jennifer Lee



30 November 2021

via Electronic Mail

Ms. Mary Lou Helix
1102 Northridge Court
Concord, CA 94518

Ms. Lauren Mancuso
Union Pacific Railroad Company
1408 Middle Harbor Road
Oakland, CA 94607

Ms. Maureen Toms
Contra Costa County
C/O Department of Conservation and Development
30 Muir Road
Martinez, CA 94553

Subject: Work Authorization for Additional Required Tasks through January 2023
Hookston Station Site
Pleasant Hill, California

Dear Ms. Helix, Ms. Mancuso, and Ms. Toms:

ERM-West, Inc. (ERM) is pleased to provide this Work Authorization for additional environmental services at the Hookston Station site in Pleasant Hill, California (site) through the end of January 2023. ERM's previous work at this site has been performed on behalf of the Hookston Parties, which consist of Union Pacific Railroad Company (UPRR); Mary Lou Helix, Karen Hook, Debbie Hook, and Blake Pucell (together the Hookston Group); and Contra Costa County. The site is currently regulated under Regional Water Quality Control Board (RWQCB) Order No. R2-2007-0009, *Adoption of Final Site Cleanup Requirements and Rescission of Order Nos. R2-2003-0035 and R2-2004-0081*, dated 30 January 2007 (Order).

All tasks in this proposed scope of work are being conducted to satisfy the ongoing requirements of the Order, the RWQCB approved scope of work in *Colony Park Town House Vapor Intrusion Investigation Workplan*, dated 16 December 2016, recommendations made in the *Colony Park Town Houses Vapor Intrusion Interim Progress Report*, dated 2 July 2021, the *Mid-Plume High Resolution Site Characterization Results* document, dated 9 July 2021, and comments on the *Feasibility Study Addendum/Remedial Design and Implementation Plan*, dated 31 March 2021 issued by the RWQCB in an email dated 14 June 2021. This Work Authorization covers all currently known scopes of work to satisfy RWQCB requirements and does not include any additional elements that may be required by the RWQCB in the future. These tasks are estimated to be completed by January 2023.

This Work Authorization describes the following tasks to be performed by ERM:

- Task 1: Colony Park Town Houses Vapor Intrusion Investigation

- Task 2: Additional Mid-Plume Targeted Treatment Area Hydropunch Assessment
- Task 3: Update to Feasibility Study/Remedial Design and Implementation Plan
- Task 4: 2022 Annual Soil Vapor Monitoring and Reporting
- Task 5: 2022 Annual Indoor Air Sampling and Reporting
- Task 6: Project Management

The following sections provide a rationale for the proposed work; a brief description of the scope of work; and cost estimate for performing the tasks outlined above. Note, that there is no groundwater monitoring and sampling activities proposed in 2022, as the Self Monitoring Program (SMP) approved by RWQCB directs the Hookston Parties to conduct groundwater sampling on a biennial basis during odd years.

PROPOSED SCOPE OF WORK

A description of work to be performed under each task is provided below. All proposed work is required by the current Order.

Task 1 – Colony Park Town Houses Vapor Intrusion Investigation

This scope item satisfies the contingency sampling plan outlined in *Colony Park Town House Vapor Intrusion Investigation Workplan*, dated 16 December 2016 to perform subslab vapor and indoor air sampling in three of the Colony Park Town Houses. The performance of the contingency sampling plan is required based on the results of the initial vapor intrusion investigation results at the Colony Park Town House property, as presented in the *Colony Park Town Houses Vapor Intrusion Investigation Progress Report*, dated 2 July 2021. The scope of work includes the installation of a sub-slab vapor pin, and the collection of a sub-slab vapor sample, and two indoor air samples in each of the three town house buildings.

The following items will be performed as part of the scope of work:

- Fieldwork preparation activities will include:
 - Coordinate access with the property owners of the three Colony Park Town House buildings for advancement of soil vapor pins
 - Update the site Health and Safety Plan to include new project tasks and investigation procedures
 - Coordinate with subcontractors
- Performance of field investigation activities will include:
 - USA markout and subsurface utility clearance
 - Install soil vapor pins using a rotosonic drill
 - Collect sub-slab vapor samples and indoor air samples
- Review the field data collected during the site assessment, perform quality assurance/quality control (QA/QC) evaluation of laboratory reports, and tabulate field and analytical data

The results of the assessment activities will be summarized in a stand-alone report. ERM will provide a draft version of the report to the Hookston Parties for review, and comments/ revisions will be incorporated into the final submittal to the RWQCB.

Task 2 – Additional Mid-Plume Targeted Treatment Area Hydropunch Assessment

This scope item satisfies recommendations for additional grab groundwater sampling as described in the *Mid-Plume High Resolution Site Characterization Results* document, dated 9 July 2021. The previous scope of work was performed to refine the extent of the Mid-Plume Targeted Treatment Area, as initially outlined in the *Feasibility Study Addendum/Remedial Design and Implementation Plan*, dated 31 March 2021; however, the results of the investigation did not provide the full delineation of the targeted mid-plume treatment zone. The Hookston Parties approved ERM's recommendation to perform additional assessment in the targeted mid-plume treatment area during a conference call meeting held on 1 July 2021, and the recommendation was included in the *Mid-Plume High Resolution Site Characterization Results* document, submitted to the RWQCB on 9 July 2021. The proposed scope includes the advancement of three additional clusters of direct push soil borings for the collection of grab groundwater samples from the A1-, A2-, and B-Zones to refine our understanding of the distribution of dissolved-phase volatile organic compounds (VOCs) farther southeast than the previously-completed scope of work. These data will be use to refine the final extent of the Mid-Plume Targeted Treatment Area. The soil borings will be advanced to depths of up to 60 feet below ground surface.

The following items will be performed as part of the scope of work:

- Fieldwork preparation activities will include:
 - Coordinate access for advancement of soil borings in public right of way
 - Obtain soil boring permits from Contra Costa County
 - Update the site Health and Safety Plan to include new project tasks and investigation procedures
 - Coordinate with subcontractors
- Performance of field investigation activities will include:
 - USA markout and subsurface utility clearance
 - Advance soil borings with direct push tooling and collect grab groundwater samples
- Review the field data collected during the site assessment, perform quality assurance/quality control (QA/QC) evaluation of laboratory reports, and tabulate field and analytical data

The results of the assessment activities will be summarized in the revised *Feasibility Study Addendum/Remedial Design and Implementation Plan*. ERM will provide a draft version of the report to the Hookston Parties for review, and comments/ revisions will be incorporated into the final submittal to the RWQCB.

Task 3 – Update to Remedial Design and Implementation Plan

In an email dated 14 June 2021, RWQCB provided the following comments to the *Feasibility Study Addendum/Remedial Design and Implementation Plan*:

- Installation of a new monitoring well in the source area
- Provide time estimates to reach cleanup goals for the entire plume
- Include treatment of the B-Zone in the area downgradient of the permeable reactive barrier (PRB), depending on the results of the time estimate to reach cleanup goals evaluation
- Include all existing wells that exceed the cleanup goals in the performance monitoring program
- Provide a list of property owners within 500 feet of the plume boundary for public notification of the remedial strategy proposed in the *Feasibility Study Addendum/Remedial Design and Implementation Plan*

ERM will prepare an update to the *Feasibility Study Addendum/Remedial Design and Implementation Plan* to address the RWQCB comments presented above. This scope of this document includes the following elements:

- A review of recent and historical groundwater VOC data, placing the data into a database for statistical analysis and data visualization
- Trend analyses of existing wells to estimate cleanup timeframes under current conditions, and will provide estimated timeframes for the effects of the additional groundwater treatment to reach downgradient monitoring wells
- An evaluation of the benefits of supplemental B-Zone treatment in the PRB area, and the inclusion of a B-Zone treatment design if needed
- Redefining the performance monitoring program
- Revision to the Mid-Plume Treatment Area remedial design based on the results of the assessment activities presented above under Task 2
- Evaluation of potential source area remediation options

Additionally, ERM will review the list of property owners within a 500 foot radius of the plume boundary and assist RWQCB with the preparation and submission of a public notice regarding the final alternative remedial plan.

ERM will provide a draft version of the report to the Hookston Parties for review, and comments/ revisions will be incorporated into the final submittal to the RWQCB.

Task 4 – 2022 Annual Soil Vapor Sampling and Reporting

ERM will perform routine soil vapor sampling for the site during the Third Quarter 2022. ERM will subcontract Blaine Tech Services to sample 13 soil vapor wells. The samples will be analyzed for the presence of volatile organic compounds (VOC). Laboratory costs for sample analyses are included in this task, which includes 13 soil vapor samples and two quality assurance/quality control soil vapor samples. The results of the annual soil vapor sampling will be included in the Annual Monitoring

Status Report, which will be submitted to the RWQCB by 30 January 2023. A draft of the report will be submitted to the Hookston Parties for review as soon as it is available, but no later than a minimum of two weeks prior to submission to the RWQCB. The report will document soil vapor sampling, vapor intrusion prevention systems (VIPS) inspections, and other activities conducted during that time period. VIPS inspections are contracted directly with the Hookston Parties and are not included in this scope of work. Groundwater monitoring will not be performed in 2022 per the revisions to the SMP.

Task 5 – 2022 Annual Indoor Air Sampling and Reporting

ERM will perform annual indoor air sampling at selected properties within the Indoor Air Study Area during the Third Quarter 2022. After the completion of field activities, ERM will prepare a report that documents sampling activities, presents tabulated data, and evaluates indoor air concentration trends over time, following the existing template for prior reports as approved by the RWQCB. ERM will provide a draft version of the report to the Hookston Parties for review, and comments/revisions will be incorporated into the final submittal to the RWQCB. ERM will mail analytical results for each house sampled to the residence as required by the Order.

Task 6 – Project Management

This task will cover the management activities associated with the tasks to complete activities as presented in Tasks 1, 2, 3, 4, and 5. These activities include cost tracking; calls, meetings, and strategic support from ERM for regulatory agency interactions; and routine communications with the Hookston Parties through 31 January 2023.

Task 6a covers additional project management costs for tasks described in this Work Authorization that will be completed through the end of calendar year 2021 (Tasks 1, 2, and 3). Task 6b covers project management costs for routine annual tasks described in this Work Authorization that will be completed in calendar year 2022 through January 2023 and include a 3% annual labor escalation (Tasks 4 and 5).

ESTIMATED PROBABLE COST

The estimated probable cost to perform the proposed scope of work is \$210,233, as summarized in the tables included as [Appendix A](#). This budget is being proposed on a time-and-materials basis of hourly charges for ERM personnel, plus direct expenses. Only those costs incurred will be charged, and will not exceed the estimated cost without prior approval by the Hookston Parties. The estimated cost is an estimated maximum, which we fully expect will cover the services described herein, but no guarantee is made or implied. Our previous contract with the Hookston Parties has expired. This work will be performed in accordance with Consulting Services Agreement between the Hookston Parties and ERM dated 14 December 2021.

A cost summary by task is provided in the table below.

Task	Description	Total
1	Colony Park Town Houses Vapor Intrusion Investigation	\$37,277
2	Additional Mid-Plume Targeted Treatment Area Hydropunch Assessment	\$45,123

3	Update to Feasibility Study/Remedial Design and Implementation Plan	\$37,691
4	2022 Annual Soil Vapor Sampling and Reporting	\$20,801
5	2022 Annual Indoor Air Sampling and Reporting	\$23,714
6a	Project Management 2021	\$21,035
6b	Project Management 2022	\$24,592
Estimated Probable Cost		\$210,233

CLOSING AND SCHEDULE

ERM is prepared to start the scope of work outlines above immediately upon approval of this Work Authorization by the Hookston Parties. An estimated project schedule has been included as [Appendix B](#). This estimated schedule assumes approval of this CWA by Friday 17 December 2021; the dates listed in the estimated schedule will need to be adjusted based on the final approval date from the Hookston Parties.

AUTHORIZATION

If this Work Authorization is acceptable, please have an authorized representative sign in the space provided below and return a copy to ERM for our files. The above-referenced offer is valid for 90 days.

ERM-West, Inc.



Signature

Brian Bjorklund

Printed Name

Partner

Title

1/20/2022

Date

Client Approval

UPRR Representative



Signature

Lauren Mancuso

Printed Name

Senior Manager Site Remediation

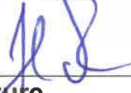
Title

1/25/2022

Date



Contra Costa County Representative



Signature



Printed Name

Conservation and Development Director

Title

12-20-21

Date

Helix Trust Representative



Signature

Mary Helix

Printed Name

Managing Partner

Title

12-21-21

Date

APPENDIX A COST ESTIMATE TABLES

PROPOSAL SUMMARY

Cost Estimate for Tasks through Calendar Year 2021
Hookston Station Site, Pleasant Hill, CA
ERM-West, Inc.

SCOPE OF WORK

The following activities to be conducted during Third Quarter 2021 and through the First Quarter 2021 are included in this proposal:

- 1) CPTHA VI Assessment
- 2) Additional Mid-Plume Hydropunch
- 3) FS/RDIP Update
- 4) 2022 Annual Soil Vapor Sampling and Reporting
- 5) 2022 Annual Indoor Air Sampling and Reporting
- 6) Regulatory Management 2021
- 7) Regulatory Management 2022

GRAND TOTALS	AMOUNT
Total Agreement Dollars	\$ 210,233
Total Labor Dollars	\$ 157,174
Total Labor Hours	1,314

SERVICE ITEM TOTALS	
SERVICE ITEM	AMOUNT
WP/Sec	\$ 5,662
Staff Associate	\$ 33,969
CAD Operator	\$ 5,317
Project Associate	\$ 37,808
Project Manager	\$ 20,369
Sr. Project Manager	\$ 30,030
Program Director	\$ 13,659
Principal	\$ 10,360
TOTAL	\$ 157,174
Reimbursables	\$ 2,720
Materials	\$ 5,904
Markup on Materials	\$ 295
Subcontractors	\$ 41,995
Markup on Subs	\$ 2,145
TOTAL	\$ 53,059

Distribute total agreement amount to the year when work will occur		DOLLAR AMOUNT
YEAR		
2020		\$ -
2021		\$ 141,126
2022		\$ 69,107

TOTAL AMOUNT PER TASK			
TASK	AMOUNT	LABOR	SUBS + ODCs
Task 1 - CPTHA Indoor Air Assessment	\$ 37,277	\$ 28,664	\$ 8,613
Task 2 - Additional Mid-Plume Hydropunch	\$ 45,123	\$ 21,031	\$ 24,093
Task 3 - FS/RDIP Update	\$ 37,691	\$ 36,916	\$ 775
Task 4 - 2022 SV Field Work and Annual Reporting	\$ 20,801	\$ 11,428	\$ 9,372
Task 5 - 2022 Indoor Air and Reporting	\$ 23,714	\$ 13,507	\$ 10,207
Task 6a - Regulatory Management 2021	\$ 21,035	\$ 21,035	\$ -
Task 6b - Regulatory Management 2022	\$ 24,592	\$ 24,592	\$ -
Totals	\$ 210,233	\$ 157,174	\$ 53,059

Task 1 - CPTHA Indoor Air Assessment

SUMMARY	
Total for Job Number	\$ 37,277
Total Labor	\$ 28,664
Total Hours	246.0

PROPOSALS	CPTHA Access and Pre-Field				CPTHA Assessment				Data Entry and QA/QC		Report Preparation	
	Category	Rate	Totals		Sub Task 1		Sub Task 2		Sub Task 3		Sub Task 4	
			Quantity	(\$)	Quantity	(\$)	Quantity	(\$)	Quantity	(\$)	Quantity	(\$)
WP/Sec	\$ 56.44	16.0	\$ 903	10.0	\$ 564	-	\$ -	-	\$ -	6.0	\$ 339	
Staff Associate	\$ 104.83	84.0	\$ 8,806	30.0	\$ 3,145	40.0	\$ 4,193	8.0	\$ 839	6.0	\$ 629	
CAD Operator	\$ 104.83	8.0	\$ 839	-	\$ -	-	\$ -	-	\$ -	8.0	\$ 839	
Project Associate	\$ 110.21	70.0	\$ 7,715	16.0	\$ 1,763	10.0	\$ 1,102	8.0	\$ 882	36.0	\$ 3,968	
Project Manager	\$ 126.33	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Sr. Project Manager	\$ 147.83	50.0	\$ 7,392	20.0	\$ 2,957	8.0	\$ 1,183	4.0	\$ 591	18.0	\$ 2,661	
Program Director	\$ 161.28	10.0	\$ 1,613	-	\$ -	4.0	\$ 645	-	\$ -	6.0	\$ 968	
Principal	\$ 174.71	8.0	\$ 1,398	4.0	\$ 699	-	\$ -	-	\$ -	4.0	\$ 699	
Reimbursables	Actual	-	\$ 620	-	\$ -	-	\$ 420	-	\$ -	-	\$ 200	
Materials	Actual	-	\$ 2,212	-	\$ 1,312	-	\$ 800	-	\$ 100	-	\$ -	
Markup on Materials	5%	-	\$ 111	-	\$ 66	-	\$ 40	-	\$ 5	-	\$ -	
Subcontractors	Actual	-	\$ 5,400	-	\$ -	-	\$ 5,400	-	\$ -	-	\$ -	
Markup on Subs	5%	-	\$ 270	-	\$ -	-	\$ 270	-	\$ -	-	\$ -	
Mileage	\$0.580	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Per Diem	\$125.00	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
Grand Totals			\$ 37,277		\$ 10,506		\$ 14,053		\$ 2,417		\$ 10,301	

REIMBURSABLE DETAILS		
ITEM	SUB TASK	AMOUNT

Reimbursable Total (Check Cell E22) \$ -

MATERIAL DETAILS		
ITEM	SUB TASK	AMOUNT

Materials Total (Check Cell E23) \$ -

SUBCONTRACTOR DETAILS		
ITEM	SUB TASK	AMOUNT

Subcontractor Total (Check Cell E25) \$ -

MATERIALS DETAILS		Sub Task 1 - CPTA Access and Pre-Field		
Item	# of Units	Price	Total	Assumption
Soil Boring Permit	1	\$1,112	\$ 1,112.00	
Postage	1	\$200	\$ 200.00	
TOTAL			\$ 1,312.00	

MATERIALS DETAILS		Sub Task 2 - CPTA Assessment		
Item	# of Units	Price	Total	Assumption
PID	4	\$150	\$ 600.00	
Sampling Supplies	1	\$200	\$ 200.00	
TOTAL			\$ 800.00	

MATERIALS DETAILS		Sub Task 3 - Data Entry and QA/QC		
Item	# of Units	Price	Total	Assumption
Shipping- Reports	1	\$100	\$ 100.00	
TOTAL			\$ 100.00	

MATERIALS DETAILS		Sub Task 4 - Report Preparation		
Item	# of Units	Price	Total	Assumption
TOTAL			\$ -	

SUBCONTRACTOR DETAILS		Sub Task 1 - CPTA Access and Pre-Field		
Item	# of Units	Price	Total	Assumption
TOTAL			\$ -	

SUBCONTRACTOR DETAILS		Sub Task 2 - CPTA Assessment		
Item	# of Units	Price	Total	Assumption
GPRS Utility Location	1	\$1,500	\$ 1,500.00	
Pace-summa	18	\$25	\$ 450.00	
Pace-flow controller	18	\$35	\$ 630.00	
Pace-VOCs TO-15	10	\$130	\$ 1,300.00	7 primary, 1 FD, 1 TB, 1 contingency
Pace-VOCs TO-15 SIM	8	\$190	\$ 1,520.00	5 primary, 1 FD, 1 TB, 1 contingency
TOTAL			\$ 5,400.00	

SUBCONTRACTOR DETAILS		Sub Task 3 - Data Entry and QA/QC		
Item	# of Units	Price	Total	Assumption
TOTAL			\$ -	

SUBCONTRACTOR DETAILS		Sub Task 4 - Report Preparation		
Item	# of Units	Price	Total	Assumption
TOTAL			\$ -	

Task 2 - Additional Mid-Plume Hydropunch

SUMMARY	
Total for Job Number	\$ 45,123
Total Labor	\$ 21,031
Total Hours	181.0

PROPOSALS	Category	SI Number - Description	Rate	Totals		Field Work Prep		Hydropunch Sampling		Reporting		Sub Task 4		
				Quantity	(\$)	Sub Task 1	Sub Task 2	Sub Task 3	Sub Task 4	Location	Location	Location	Location	
				Quantity	(\$)	Quantity	(\$)	Quantity	(\$)	Quantity	(\$)	Quantity	(\$)	Quantity
WP/Sec	\$ 56.44		6.0	\$ 339	-	\$ -	-	\$ -	6.0	\$ 339	-	\$ -	-	\$ -
Staff Associate	\$ 104.83		62.0	\$ 6,499	12.0	\$ 1,258	30.0	\$ 3,145	20.0	\$ 2,097	-	\$ -	-	\$ -
CAD Operator	\$ 104.83		8.0	\$ 839	-	\$ -	-	\$ -	8.0	\$ 839	-	\$ -	-	\$ -
Project Associate	\$ 110.21		62.0	\$ 6,833	16.0	\$ 1,763	30.0	\$ 3,306	16.0	\$ 1,763	-	\$ -	-	\$ -
Project Manager	\$ 126.33		8.0	\$ 1,011	8.0	\$ 1,011	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Sr. Project Manager	\$ 147.83		18.0	\$ 2,661	-	\$ -	6.0	\$ 887	12.0	\$ 1,774	-	\$ -	-	\$ -
Program Director	\$ 161.28		9.0	\$ 1,452	-	\$ -	3.0	\$ 484	6.0	\$ 968	-	\$ -	-	\$ -
Principal	\$ 174.71		8.0	\$ 1,398	4.0	\$ 699	-	\$ -	4.0	\$ 699	-	\$ -	-	\$ -
Reimbursables	Actual	-	-	\$ 725	-	\$ 210	-	\$ 315	-	\$ 200	-	\$ -	-	\$ -
Materials	Actual	-	-	\$ 2,662	-	\$ 2,112	-	\$ 450	-	\$ 100	-	\$ -	-	\$ -
Markup on Materials	5%	-	-	\$ 133	-	\$ 106	-	\$ 23	-	\$ 5	-	\$ -	-	\$ -
Subcontractors	Actual	-	-	\$ 19,550	-	\$ 1,500	-	\$ 18,050	-	\$ -	-	\$ -	-	\$ -
Markup on Subs	5%	-	-	\$ 1,023	-	\$ 120	-	\$ 903	-	\$ -	-	\$ -	-	\$ -
Mileage	\$0.580	-	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Per Diem	\$125.00	-	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Grand Totals				\$ 45,123		\$ 8,778		\$ 27,562		\$ 8,783		\$ -		\$ -

REIMBURSABLE DETAILS		
ITEM	SUB TASK	AMOUNT

Reimbursable Total (Check Cell E22) \$ -

MATERIAL DETAILS		
ITEM	SUB TASK	AMOUNT

Materials Total (Check Cell E23) \$ -

SUBCONTRACTOR DETAILS		
ITEM	SUB TASK	AMOUNT

Subcontractor Total (Check Cell E25) \$ -

Budget Assumptions

LABOR DETAILS Sub Task 1 - Field Work Prep		
Category	Hours	Assumptions
WP/Sec		
Staff Associate	12.0	coordination assistance, utility locate
CAD Operator		
Project Associate	16.0	project coordination, permitting, utility locate
Project Manager	8.0	PM oversight, client communications
Sr. Project Manager		
Program Director		
Principal	4.0	technical input/ review

REIMBURSABLE DETAILS Sub Task 1 - Field Work Prep				
Item	# of Units	Price	Total	Assumption
Truck	2	\$105	\$ 210.00	
TOTAL			\$ 210.00	

LABOR DETAILS Sub Task 2 - Hydropunch Sampling		
Category	Hours	Assumptions
WP/Sec		
Staff Associate	30.0	3 days field work
CAD Operator		
Project Associate	30.0	3 days field work
Project Manager		
Sr. Project Manager	6.0	field implementation oversight
Program Director	3.0	field implementation oversight
Principal		

REIMBURSABLE DETAILS Sub Task 2 - Hydropunch Sampling				
Item	# of Units	Price	Total	Assumption
Truck	3	\$105	\$ 315.00	
TOTAL			\$ 315.00	

LABOR DETAILS Sub Task 3 - Reporting		
Category	Hours	Assumptions
WP/Sec	6.0	Report copy generation, editorial review
Staff Associate	20.0	Data tabulation, reporting
CAD Operator	8.0	Figures
Project Associate	16.0	Data tabulation, reporting, QA/QC
Project Manager		
Sr. Project Manager	12.0	Data analysis, data management, reporting, edits
Program Director	6.0	Document review
Principal	4.0	Document review

REIMBURSABLE DETAILS Sub Task 3 - Reporting				
Item	# of Units	Price	Total	Assumption
CAD - Recovery Computer	8.00	\$25	\$ 200.00	Hourly CAD computer recovery rate
TOTAL			\$ 200.00	

LABOR DETAILS Sub Task 4 -		
Category	Hours	Assumptions
WP/Sec		
Staff Associate		
CAD Operator		
Project Associate		
Project Manager		
Sr. Project Manager		
Program Director		
Principal		

REIMBURSABLE DETAILS Sub Task 4 -				
Item	# of Units	Price	Total	Assumption
TOTAL			\$ -	

MATERIALS DETAILS		Sub Task 1 - Field Work Prep		
Item	# of Units	Price	Total	Assumption
Soil Boring Permit	1	\$1,112	\$ 1,112.00	
City of Concord Encroachment	1	\$1,000	\$ 1,000.00	
TOTAL \$			2,112.00	

SUBCONTRACTOR DETAILS		Sub Task 1 - Field Work Prep		
Item	# of Units	Price	Total	Assumption
GPRS Utility Location	1	\$1,500	\$ 1,500.00	
TOTAL \$			1,500.00	

MATERIALS DETAILS		Sub Task 2 - Hydropunch Sampling		
Item	# of Units	Price	Total	Assumption
PID	3	\$150	\$ 450.00	
TOTAL \$			450.00	

SUBCONTRACTOR DETAILS		Sub Task 2 - Hydropunch Sampling		
Item	# of Units	Price	Total	Assumption
Cascade Drilling	1	\$10,000	\$ 15,000.00	3 day drilling; 9-12 water samples
Surveying	1	\$2,000	\$ 2,000.00	
ALS Waste Disposal	1	\$150	\$ 150.00	
Pace-VOCs	15	\$60	\$ 900.00	
TOTAL \$			18,050.00	

MATERIALS DETAILS		Sub Task 3 - Reporting		
Item	# of Units	Price	Total	Assumption
Shipping- Reports	1	\$100	\$ 100.00	
TOTAL \$			100.00	

SUBCONTRACTOR DETAILS		Sub Task 3 - Reporting		
Item	# of Units	Price	Total	Assumption
TOTAL \$			-	

MATERIALS DETAILS		Sub Task 4 -		
Item	# of Units	Price	Total	Assumption
TOTAL \$			-	

SUBCONTRACTOR DETAILS		Sub Task 4 -		
Item	# of Units	Price	Total	Assumption
TOTAL \$			-	

Task 3 - FS/RDIP Update

SUMMARY	
Total for Job Number	\$ 37,691
Total Labor	\$ 36,916
Total Hours	314.0

PROPOSALS	Data Management				GW Timeframe Eval		Reporting		Property Owner Notification		
	Category	Rate	Totals		Sub Task 1	Sub Task 2	Sub Task 3	Sub Task 4	Quantity	(\$)	
			Quantity	(\$)	Location	Location	Location	Location			
SI Number - Description				Quantity	(\$)	Quantity	(\$)	Quantity	(\$)	Quantity	(\$)
WP/Sec	\$ 56.44	20.0	\$ 1,129	-	\$ -	-	\$ -	10.0	\$ 564	10.0	\$ 564
Staff Associate	\$ 104.83	108.0	\$ 11,322	20.0	\$ 2,097	40.0	\$ 4,193	32.0	\$ 3,355	16.0	\$ 1,677
CAD Operator	\$ 104.83	10.0	\$ 1,048	-	\$ -	-	\$ -	10.0	\$ 1,048	-	\$ -
Project Associate	\$ 110.21	80.0	\$ 8,817	20.0	\$ 2,204	24.0	\$ 2,645	28.0	\$ 3,086	8.0	\$ 882
Project Manager	\$ 126.33	16.0	\$ 2,021	-	\$ -	16.0	\$ 2,021	-	\$ -	-	\$ -
Sr. Project Manager	\$ 147.83	44.0	\$ 6,505	10.0	\$ 1,478	10.0	\$ 1,478	20.0	\$ 2,957	4.0	\$ 591
Program Director	\$ 161.28	16.0	\$ 2,580	-	\$ -	6.0	\$ 968	10.0	\$ 1,613	-	\$ -
Principal	\$ 174.71	20.0	\$ 3,494	6.0	\$ 1,048	6.0	\$ 1,048	6.0	\$ 1,048	2.0	\$ 349
Reimbursables	Actual	-	\$ 250		\$ -		\$ -		\$ 250		\$ -
Materials	Actual	-	\$ 500		\$ -		\$ -		\$ 100		\$ 400
Markup on Materials	5%	-	\$ 25		\$ -		\$ -		\$ 5		\$ 20
Subcontractors	Actual	-	\$ -		\$ -		\$ -		\$ -		\$ -
Markup on Subs	5%	-	\$ -		\$ -		\$ -		\$ -		\$ -
Mileage	\$0.580	-	\$ -		\$ -		\$ -		\$ -		\$ -
Per Diem	\$125.00	-	\$ -		\$ -		\$ -		\$ -		\$ -
Grand Totals			\$ 37,691		\$ 6,827		\$ 12,354		\$ 14,026		\$ 4,484

REIMBURSABLE DETAILS		
ITEM	SUB TASK	AMOUNT

Reimbursable Total (Check Cell E22) \$ -

MATERIAL DETAILS		
ITEM	SUB TASK	AMOUNT

Materials Total (Check Cell E23) \$ -

SUBCONTRACTOR DETAILS		
ITEM	SUB TASK	AMOUNT

Subcontractor Total (Check Cell E25) \$ -

Budget Assumptions

LABOR DETAILS			Sub Task 1 - Data Management		
Category	Hours	Assumptions			
WP/Sec					
Staff Associate	20.0	Historical data review and analysis, creating database			
CAD Operator					
Project Associate	20.0	Historical data review and analysis, creating database			
Project Manager					
Sr. Project Manager	10.0	Database review and project team management			
Program Director					
Principal	6.0	Review			

LABOR DETAILS			Sub Task 2 - GW Timeframe Eval		
Category	Hours	Assumptions			
WP/Sec					
Staff Associate	40.0	Data review and degradation timeframe calculations			
CAD Operator					
Project Associate	24.0	Data review and degradation timeframe calculations			
Project Manager	16.0	Data review and degradation timeframe calculations			
Sr. Project Manager	10.0	Data review and degradation timeframe calculations			
Program Director	6.0	Review			
Principal	6.0	Review			

LABOR DETAILS			Sub Task 3 - Reporting		
Category	Hours	Assumptions			
WP/Sec	10.0	Report copy generation, editorial review			
Staff Associate	32.0	Data tabulation, reporting			
CAD Operator	10.0	Figures			
Project Associate	28.0	Data tabulation, reporting, QA/QC			
Project Manager					
Sr. Project Manager	20.0	Data analysis, data management, reporting, edits			
Program Director	10.0	Document review			
Principal	6.0	Document review			

LABOR DETAILS			Sub Task 4 - Property Owner Notification		
Category	Hours	Assumptions			
WP/Sec	10.0	Prepare mailings for property owner communication			
Staff Associate	16.0	Build and review property owner list and develop fact sheet for communication			
CAD Operator					
Project Associate	8.0	Develop fact sheet for communication			
Project Manager					
Sr. Project Manager	4.0	Review property owner notification process			
Program Director					
Principal	2.0	Review property owner notification process			

REIMBURSABLE DETAILS					Sub Task 1 - Data Management				
Item	# of Units	Price	Total	Assumption					
			TOTAL \$	-					

REIMBURSABLE DETAILS					Sub Task 2 - GW Timeframe Eval				
Item	# of Units	Price	Total	Assumption					
			TOTAL \$	-					

REIMBURSABLE DETAILS					Sub Task 3 - Reporting				
Item	# of Units	Price	Total	Assumption					
CAD - Recovery Computer	10.00	\$25	\$ 250.00	Hourly CAD computer recovery rate					
			TOTAL \$	250.00					

REIMBURSABLE DETAILS					Sub Task 4 - Property Owner Notification				
Item	# of Units	Price	Total	Assumption					
			TOTAL \$	-					

MATERIALS DETAILS		Sub Task 1 - Data Management		
Item	# of Units	Price	Total	Assumption
			\$ -	
			\$ -	
TOTAL			\$ -	

SUBCONTRACTOR DETAILS		Sub Task 1 - Data Management		
Item	# of Units	Price	Total	Assumption
			\$ -	
TOTAL			\$ -	

MATERIALS DETAILS		Sub Task 2 - GW Timeframe Eval		
Item	# of Units	Price	Total	Assumption
			\$ -	
TOTAL			\$ -	

SUBCONTRACTOR DETAILS		Sub Task 2 - GW Timeframe Eval		
Item	# of Units	Price	Total	Assumption
			\$ -	
			\$ -	
			\$ -	
			\$ -	
TOTAL			\$ -	

MATERIALS DETAILS		Sub Task 3 - Reporting		
Item	# of Units	Price	Total	Assumption
Shipping- Reports	1	\$100	\$ 100.00	
TOTAL			\$ 100.00	

SUBCONTRACTOR DETAILS		Sub Task 3 - Reporting		
Item	# of Units	Price	Total	Assumption
TOTAL			\$ -	

MATERIALS DETAILS		Sub Task 4 - Property Owner Notification		
Item	# of Units	Price	Total	Assumption
Shipping- Letters	1	\$400	\$ 400.00	
TOTAL			\$ 400.00	

SUBCONTRACTOR DETAILS		Sub Task 4 - Property Owner Notification		
Item	# of Units	Price	Total	Assumption
TOTAL			\$ -	

APPENDIX B ESTIMATED PROJECT SCHEDULE

Appendix B: Project Schedule
 Hookston Station Site
 Pleasant Hill, California



Project: Hookston 2020 Tasks G
 Date: Wed 11/24/21

Task		Project Summary		Manual Task		Start-only		Deadline	
Split		Inactive Task		Duration-only		Finish-only		Progress	
Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
Summary		Inactive Summary		Manual Summary		External Milestone			