



ERM

1340 Treat Boulevard
Suite 550
Walnut Creek, CA, 945974

T +1 925 946 0455
F +1 925 946 9968

erm.com

Mary Lou Helix
S&D Leasing
1102 Northridge Court
Concord, CA 94518

Scott Selken
Union Pacific Railroad Company
14 Douglas Street STOP 1030
Omaha, NE 68179

Maureen Toms
Contra Costa County
Department of Conservation and Development
30 Muir Road
Martinez, CA 94553

DATE
10 April 2024

SUBJECT
Work Authorization for Routine Sampling
Tasks in 2024, Groundwater Remediation
Planning, and Source Area Soil
Remediation Planning

REFERENCE
0727130

Dear M. Helix, S. Selken, and M. Toms:

Environmental Resources Management, Inc. (ERM) has prepared this Work Authorization Request for additional environmental services at the Hookston Station site in Pleasant Hill, California (site) through 30 January 2025. 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 S&D Leasing); and Contra Costa County. The site is currently regulated under Regional Water Quality Control Board (RWQCB) Order No. R2-2023-0015, dated 29 September 2023 (Order). This Work Authorization has been issued under the existing Consulting Services Agreement between ERM and the Hookston Parties, dated 14 December 2021.

This proposed scope of work includes items to satisfy Task 1b and the Self-Monitoring Program (SMP) of the Order, and the activities outlined in ERM's *Colony Park Town Houses Additional Vapor Intrusion Investigation Work Plan*, dated 28 December 2023 (approved by the RWQCB in correspondence dated 8 February 2024). Additional Tasks listed in the Order will be included in separate Work Authorization requests. These tasks are estimated to be completed by 30 January 2025.

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

- Task 1: Annual Soil Vapor and Annual Indoor Air Monitoring and Reporting.

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- Task 2: Project and Regulatory Agency Management.
- Task 3: Groundwater Remediation Request for Proposal (RFP) Preparations.
- Task 4: Colony Park Town Home Association (CPTHA) property vapor intrusion investigation fieldwork and reporting.
- Task 5: Source Area Building Structural Analysis.

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.

1. SCOPE

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

TASK 1 – ANNUAL SOIL VAPOR AND ANNUAL INDOOR AIR MONITORING AND REPORTING

ERM will perform routine soil vapor and indoor air monitoring as required under the SMP included in the Order.

ANNUAL SOIL VAPOR MONITORING

ERM will perform routine soil vapor sampling for the site during the Third Quarter 2024 following the requirements of the SMP. ERM will subcontract Blaine Tech Services to sample 13 soil vapor wells. Samples will be collected from each well using Summa® canisters, and helium will be used as the leak check tracer compound. The samples will be analyzed for the presence of volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method TO-15.

The following assumptions have been made for this scope of work:

- At least one field duplicate will be obtained for every 10 samples and submitted for analysis.
- Samples will be collected in 1-L Summa® canisters that have been batch certified clean, to meet the requirements of USEPA Method TO-15.

ANNUAL INDOOR AIR MONITORING

ERM will perform annual indoor air sampling at selected properties within the Indoor Air Study Area during the Third Quarter 2024, following the requirements of the SMP. The Indoor Air Study Area is comprised of 14 residential properties in the Colony Park neighborhood, downgradient of the site. Letters will be submitted to the property owners within the Indoor Air Study Area requesting permission to access the private homes for participation in the Annual Indoor Air Monitoring Event. At participating properties, an air sample will be collected from the crawl space below the building (if present), a room on the first floor, and a room on the second story (if present).

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Additionally, ambient air samples from outside of the buildings will be collected concurrently with the indoor air samples. All samples will be collected over a 24-hour collection period. The samples will be analyzed for the presence of VOCs under USEPA Method TO-15 Selective Ion Monitoring (SIM).

The following assumptions have been made for this scope of work:

- ERM will make reasonable efforts to schedule the indoor air sampling at participating properties concurrently; however, individual property owner schedules may require the performance of indoor air sampling during individual mobilizations during the Third Quarter 2024.
- At least one field duplicate will be obtained for every 10 samples, or per sample collection mobilization, and submitted for analysis.
- At least one ambient air sample will be collected per sample collection mobilization and submitted for analysis.
- Samples will be collected in 6-L Summa® canisters that have been individually certified clean, to meet the requirements of USEPA Method TO-15 SIM.
- The budget for this scope of work has been developed based on the average number of participating properties in the Indoor Air Study Area (up to seven) since the current SMP was approved in 2019; if additional property owners elect to participate in the Annual Indoor Air Sampling Event, ERM will request additional funding from the Hookston Parties.

REPORTING

ERM will prepare an Annual Monitoring Status Report associated with the annual soil vapor and annual indoor air monitoring events, which will be submitted to the RWQCB by 30 January 2025. The report will document soil vapor sampling, indoor air sampling, vapor intrusion prevention systems inspections, and other activities conducted during that time. The report will include tabulated laboratory data and evaluate 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.

Additionally, ERM will mail indoor air sampling analytical results for each house sampled to the residence as required by the Order.

TASK 2 – PROJECT MANAGEMENT

This task will cover the management activities associated with Order compliance during the terms of this Work Authorization. These activities include cost tracking; calls, meetings, and strategic support from ERM for regulatory agency interactions; and routine communications with the Hookston Parties through 30 January 2025. Meetings will include, but may not be limited to, monthly project status meeting between ERM

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and the Hookston Station Parties and quarterly Stakeholder meetings between ERM, the Hookston Station Parties, and the RWQCB.

TASK 3 –GROUNDWATER REMEDIATION RFP PREPARATIONS

The following scope of work will be completed for compliance with Task 1b of the Order. ERM will prepare a detailed set of specifications to prepare a subcontractor bid package for the implementation of the groundwater remedial strategy presented in ERM's *Revised Feasibility Study Addendum / Remedial Design and Implementation Plan*, dated 28 December 2023 (Revised FS/RDIP). RWQCB approval of the Revised FS/RDIP is still pending. The specifications will include detailed scopes of work, performance and payment requirements, as well as the technical requirements for project delivery.

Bid packages will be prepared for the following general scopes of work to secure cost estimates for implementation:

- Remedial Well Installations.
- Performance Monitoring Well Installations.
- Reagent Procurement, Mixing, and Injections.

For each of the above scopes of work, ERM will solicit bids from prequalified regional contractors to evaluate their safety record, qualifications, and proposed cost to implement the scope of work. The solicited bids will be summarized and submitted to Hookston Parties as a table of comparable information for review and selection.

ERM will complete one site walk with the invited contractors for each scope of work and will take a lead role in receiving questions from the contractors following the bid walk.

ERM will review the bids for cost, completeness, and methods proposed by the potential subcontractors. ERM will rank the bids for each of these evaluation categories and will provide a recommendation to the Hookston Parties.

TASK 4 – CPTHA VAPOR INTRUSION INVESTIGATION AND REPORTING

ERM will perform soil vapor intrusion site investigation activities at the CPTHA property as outlined in ERM's *Colony Park Town Houses Additional Vapor Intrusion Investigation Work Plan*, dated 28 December 2023 (Workplan). The Workplan was approved by the RWQCB in correspondence dated 8 February 2024. The vapor intrusion investigation activities will be performed in accordance with the most current and applicable regulatory guidance, including the California Environmental Protection Agency's *Advisory – Active Soil Gas Investigations*, dated July 2015 and *Supplemental Guidance: Screening and Evaluating Vapor Intrusion*, dated February 2023.

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As outlined in the Workplan, the scope of work will include:

- ERM will coordinate access with the owners of up to three condominium units at the CPTHA property. If access requests at any of the initial three units are denied, additional requests will be made at adjacent units until access to three units is granted.
- Subsurface drilling locations will be cleared following ERM's Subsurface Clearance policy, which includes compliance with Underground Service Alert (USA) North pre-dig notification requirements and subcontracting a private utilities-locating service.
- Subslab vapor probes will be installed at each condominium unit and will be constructed using Vapor Pin™ materials (or the equivalent).
- A sub-slab soil vapor sample will be collected from each subslab soil vapor probe (up to three in total) in 1-liter (L) Summa® canisters and will be analyzed for the presence of VOCs via USEPA Method TO-15 SIM and atmospheric gases via ASTM D1946.
- Indoor air samples will be collected from the first floor and second floor of each condominium unit. The samples will be collected in 6-L Summa® canisters over a 24-hour collection time period and will be analyzed for the presence of VOCs by USEPA Method TO-15 SIM.
- ERM will prepare a summary report following the receipt of the final laboratory analytical data associated with the CPTHA vapor intrusion investigation activities. The summary report will include investigation procedures, tabular presentation of results, sampling location and results figures, applicable updates to the site conceptual site model, interpretation of results, and recommendations. 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. Additionally, ERM will mail analytical results for each condominium unit sampled to the property owner.

The following assumptions have been made for this scope of work:

- ERM will make reasonable efforts to schedule the vapor intrusion investigation activities at participating properties concurrently; however, if individual property owner schedules and access negotiations require the performance of the fieldwork during individual mobilizations, a change order may be requested.
- At least one field duplicate will be obtained for every 10 samples, or per sample collection mobilization, and submitted for analysis.
- At least one ambient air sample will be collected per sample collection mobilization and submitted for analysis.
- Samples will be collected in Summa® canisters that have been individually certified clean, to meet the requirements of USEPA Method TO-15 SIM.

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- Two seasonably variable sampling events will be performed at each condominium unit.

ERM will provide quarterly updates to the RWQCB on the progress of condominium unit access requests, which will be submitted 15 days after the end of each quarter (e.g., 15 April, 15 July, 15 October, and 15 January). Additionally, notification will be provided to the RWQCB if and when alternate property access will be pursued.

TASK 5 – SOURCE AREA BUILDING STRUCTURAL ANALYSIS

The following scope of work will be completed for compliance with Task 1b of the Order. ERM will retain the services of Baseline Designs, Inc. (Baseline, a structural engineering firm) to conduct a structural assessment of the current condition of the building's roof trusses, exterior walls, demising walls, steel columns, and existing foundation system. This assessment will be used to develop conceptual plans for both:

- Safety-related structural improvements/bracing to support building integrity (prior to initiating soil excavation activities).
- Sidewall shoring to complete the source area excavation within the existing building.

The source area soil excavation was presented in the December 2023 Revised FS/RDIP, and RWQCB approval of the Revised FS/RDIP is still pending. The proposed extent of the source area soil excavation is primarily within the footprint of the warehouse building at the site.

The scope of work will include:

- Complete a visual review of the warehouse building and structural systems supporting the building walls and roof.
- Collect field measurements of the building dimensions.
- Perform a vertical load analysis of the wooden trusses supporting the weight of the building roof.
- Perform a general assessment of the existing foundation system and provide recommendations for exploration work (if needed).
- Prepare a preliminary conceptual work plan for temporary structural improvements to support building integrity during the performance of soil excavation activities. The work plan will include sketches for conceptual shoring plans for trusses, walls, and footings for temporary improvements for conducting the soil remediation scope only. Such temporary improvements will not be intended to provide long-term structural stability to the building.



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Following the completion of Baseline's analysis of the building condition, ERM will solicit design-build cost estimates from civil/structural contractors for two alternatives:

1. Based on the conceptual work plans provided by Baseline, design and install safety-related structural improvements/bracing to support building integrity (prior to initiating soil excavation activities), install sidewall shoring, and complete the source area excavation within the existing building.
2. Demolish the existing building and then complete the source area excavation.

The cost estimates for these alternatives will be presented to the Hookston Parties for their review. Following selection of either alternative by the Hookston Parties, additional tasks for preparation of a formal contractor Bid Package and implementation of the work will be required that are excluded from this scope.

Baseline's proposal for the above scope of work is included as [Attachment A](#).

2. SCHEDULE

ERM is prepared to start the scope of work outlined above immediately upon approval of this Work Authorization by the Hookston Parties.

3. ESTIMATED PROBABLE COST

The estimated probable cost to perform the proposed scope of work is \$187,502, as summarized in the tables included as [Attachment B](#). 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.

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

Task	Description	Total
1	Annual Soil Vapor and Annual Indoor Air Monitoring and Reporting	\$53,449
2	Project Management	\$26,582
3	Groundwater Remediation RFP Preparations	\$10,408
4	CPTHA Vapor Intrusion Investigation and Reporting	\$54,389
5	Source Area Building Structural Analysis	\$42,674
Estimated Probable Cost		\$187,502



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4. TERMS AND CONDITIONS

ERM proposes to perform this scope of work in accordance with the Consulting Services Agreement between the Hookston Parties and ERM dated 14 December 2021 ("Contract"; attached by reference).

5. ORDER OF PRECEDENCE

Unless otherwise agreed in the Framework Agreement referenced above (in which case the order of precedence of the Framework Agreement shall control), this proposal, attachments, and exhibits hereto, including the Framework Agreement's terms and conditions and all referenced documents, constitute the entire agreement between the parties with respect to the matters herein, and integrate, merge, and supersede all prior negotiations, representations, or agreements relating thereto, whether written or oral, except to the extent they are expressly incorporated herein. These provisions and the accompanying documents shall be construed and interpreted consistently. Unless otherwise stated elsewhere in this proposal, any conflicts in this proposal and the accompanying documents shall be resolved in accordance with the following, in order of precedence.

1. The fully executed proposal referencing the terms and conditions of the Consulting Services Agreement between the Hookston Parties and ERM dated 14 December 2021 and its fully executed amendments.
2. Any subsequent purchase orders / work authorizations issued.

6. AUTHORIZATION


If this proposal is acceptable, please have a duly authorized representative of your organizations sign in the space provided below and return a copy to ERM for our files.


The above-referenced offer is valid for 90 days, contingent upon your acceptance of the proposed terms and conditions. Any counter offers must be transparent, fully negotiated, and agreed upon by both parties prior to ERM rendering any services.

Environmental Resources Management, Inc.

CLIENT:

UPRR Representative

DocuSigned by:

 9586C8F6AEEC430...
 Signature

DocuSigned by:

 3F33629CC1CF4CU...
 Signature

Brian Bjorklund

 Name

SCOTT SELKEN

 Name



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Partner

Title

Apr 11, 2024 | 14:00 EDT

Date

Senior Manager Site Remediation

Title

Apr 15, 2024 | 06:53 PDT

Date

Contra Costa County Representative

DocuSigned by:

John Kopchik

Signature

John.Kopchik

Name

Director, Department of Conservation and Development

Title

Apr 22, 2024 | 09:55 PDT

Date

S&D Leasing Representative

DocuSigned by:

Marilu Elliott

Signature

Marilu Elliott

Name

Property Manager

Title

Apr 17, 2024 | 11:29 PDT

Date



ATTACHMENT A BASELINE COST PROPOSAL

BASELINE DESIGNS, INC.
Civil & Structural Engineering
Design · Planning · Investigation

1700 Oak Street
Alameda, CA 94501
Tel.(510)865-4623

March 5, 2024

P02024

Mr. Graham Mackey, P.E., Director
Mr. Mathew Battin, Project Manager
Mr. Brian Bjorklund, Partner
ERM-West, Inc.
Sacramento, CA

Email: Graham.Mackey@erm.com
Tel: 415-623-6891
Email: Matthew.Battin@erm.com
Tel: 916-999-8936
Email: Brian.Bjorklund@erm.com

Re: Proposal to Provide Limited Structural Engineering Services for the Soil Remediation Work at Hookston Station Located at 199 Mayhew Way, Pleasant Hill, California.

Dear Messrs. Mackey, Battin and Bjorklund,

Per your request, BASELINE DESIGNS, INC. (BASELINE) is pleased to submit this fee proposal to provide limited structural engineering services for the referenced project. Based on our site meeting on February 1, 2024, it is my understanding from you and from the site visit that:

1. ERM-West, Inc. (ERM) is conducting a soil remedial work at the project site, known as the Hookston Station. The project involves three parties, the previous property owner (a railroad company), the current property owners and the Contra Costa County.
2. The project involves removal of a majority of the on-site soil under the building footprint as indicated in the Figures 7 and 8 ERM provided. This removal of contaminated soil will require excavation up to 4 feet deep from the top of the existing slab and will likely undermine and destabilize the existing building foundation.
3. The building is a wood-framed structure with timber roof trusses and is occupied by several light industrial businesses. The roof trusses span approximately 60 feet and supported by wood posts at each end. No as-built or record drawings for the existing building is available at this time for review. Some of the roof trusses of the building have noticeable cracks in the top and bottom chord members and in the bolted connections, and most of the wood posts which are readily observed have noticeable cross-grain cracking and splits. While the wood posts are less concern, the cross-grain cracking in bolted connections in the trusses over the demising walls could result in slippage in the connection and relying the undersized studs to support the vertical load (as some of them already have noticeable bowing and cracking in the studs). With the lack of lateral bracing to the bottom chord of these trusses and potential overload in the studs, a localized failure in the wall stud and trusses is possible. Therefore, a truss analysis is recommended to determine the stress level and evaluate their risk of a large displacement and localized failure of the roof. Cracks in the concrete slab were observed near the posts, and they could be a sign of footing settlement or undersized footings. These conditions could pose a stability issue to the structure during excavation.
4. Some of the trusses have been strengthened by wood scabs, bracing and steel columns meant for reducing the span of the trusses. According to the representative of the property owner, no design drawing or building permit information is available for this work. Footings were not provided for the steel columns. A structural analysis of these strengthening work is recommended to assess the feasibility of the removal of the columns during excavation.
5. Some of the demising walls are bowing and buckled in out-of-plane direction. Some of the wood studs at one of the walls are completely split possibly due to the sagging of the roof truss above

Graham Mackey, Matthew Battin & B. Bjorklund

Re: Hookston Station Structural Engineering

199 Mayhem Way, Pleasant Hill, CA

Date: March 5, 2024

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them. Some of the exterior walls are framed with discontinuous studs which weaken their lateral force resistance and require verification of their stability.

6. ERM wishes to obtain limited structural engineering support services for guidance and recommendations of a shoring plan for the building in a conceptual level. The detailed analysis and development of the shoring design and drawings will then be developed and prepared for by the bidders and eventual contractor selected for the project.
7. Due to the lack of as-built information of the building and operation of each of the businesses in the building, architectural and other engineering services including geotechnical, civil, MEP, waterproofing, drainage, environmental, ADA and other on-site and offsite improvements, cost estimates, and specific OSHA requirements required to complete the project will be provided by your other consultants on your project team or retained by your clients.

I. SCOPE OF ENGINEERING SERVICES

The scope of work will include the structural engineering services in accordance with the general engineering community and guideline of the current California Building Code, 2022 edition and its California Existing Building Code, and ASCE 37-14, CEBC and ASCE 7 for loads on structure during construction for your project as follows:

A. Preliminary Engineering

1. Conduct a visual review of the existing building and identify general building structural systems including both vertical load carrying system and lateral force resisting system. Only the primary roof trusses, exterior walls and demising walls will be evaluated at a conceptual level. (8 hours)
2. For the roof trusses, perform a vertical load analysis to evaluate the bolted connection with cross-grain cracking in the wood for stability of the roof trusses. (12 hours)
3. Provide general assessment of the existing foundation system and recommend exploration work, if needed. Coordinate with owner's contractor for exploratory work and identify framing layout and material condition survey. (8 hours)
4. Field measure the primary member sizes and general framing system layout for preparing a rough framing plan for analysis purpose. (8 hours)
5. Prepare a preliminary loading analysis. There are several hoisting apparatuses in one of the businesses. It is assumed they will be reinstalled but their anchorage and support designs are excluded in this proposal. (16 hours)
6. Discuss preliminary conceptual work plan for temporary structural improvements (such as removing the recently installed columns and adding diagonal bracing) and excavation phasing and steps with ERM. (16 hours)
7. Based on the above items, provide up to 2 shoring plans for the trusses, walls and footing during excavation in conceptual level, for a temporary application and is for soil remediation scope only. and in sketch format. The sketched plans and details will be submitted to your cost estimator for estimating the cost to implement this work. Attend a conference call meeting with your estimator. No technical drawing or construction specification will be provided. (32 hours)
8. Attend up to 2 virtual conference calls to discuss the conceptual shoring plans with ERM project manager. Discuss work plan and excavation phasing. (8 hours)
9. Assist in preparing performance specification with short-form specification format relating to structural shoring requirements for inclusion in the bid package to be prepared by ERM. (12 hours)

Graham Mackey, Matthew Battin & B. Bjorklund

Re: Hookston Station Structural Engineering

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- 10. Assist in preparing performance specification with short-form specification format relating to structural bracing and support requirements for inclusion in the bid package to be prepared by ERM. This specification will be used for engaging bidders in a separate design-built process (12 hours)

B. Post Design Support Services

- 1. Assist in responding to bidder questions. Attend pre-bid meeting as needed.
- 2. Review submittals including shoring plan, materials.
- 3. Respond to RFI's.

BASELINE proposes to provide the above services based on a time and material basis but not to exceed the following fees:

Part A: \$21,800.00

Part B: Based on hourly rate and as needed basis.

We will bill you for our services at the completion of each item at the following rates:

Principal: \$200/hr.	Project Manager: \$175/hr	Senior Engineer: \$165/hr
Project Engineer: \$150/hr.	Staff Engineer: \$125-\$145/hr.	AutoCAD Drafting: \$100-\$115/hr.
Admin/clerical: \$75/hr.	Auto Mileage: 0.65/mile (travel outside the 10 miles radius of office)	

Printing, copying, photos, and other reproduction and reimbursable costs such as travel, auto and meals will be billed at cost plus 15% are in addition to the above fees.

Please return a signed copy of this proposal as confirmation of this contract. Please call me at 510-501-4991 if you have any questions. I look forward to working on your project.

Sincerely;



Vincent T. Wu, P.E., Principal
California Licensed Civil Engineer #43749

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AGREED AND APPROVED BY CLIENT(S):

Accepted by: _____

Date: _____

Name: _____

Title: _____

Email/Phone #: _____

Graham Mackey, Matthew Battin & B. Bjorklund

Re: Hookston Station Structural Engineering

199 Mayhem Way, Pleasant Hill, CA

Date: March 5, 2024

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FORM Y2050 - GENERAL TERMS AND CONDITIONS

1. The Client shall provide full information about the objectives, schedule, constraints and existing conditions of the Project and shall provide a budget with reasonable contingencies. The Client shall furnish surveying, geotechnical, civil, electrical, mechanical engineering, architectural, testing and related services upon request by BASELINE DESIGNS, INC, hereinafter referred to as the Engineer or BASELINE. The Client shall employ a Contractor to perform the construction work and cost estimating services. The Client shall furnish all legal, accounting and insurance counseling services for the Project.
2. The Client shall reimburse the Engineer, for expenses paid by the Engineer in the interest of the Project, including, but not limited to reproduction of drawings and specifications, photographs, long distance phone calls, travel expenses and fee paid for permit applications.
3. The proposed fee is based on our current billing rates which are valid through the end of the fiscal year of this proposal is accepted by the Client. The billing rates are subject to change at the beginning of each fiscal year, i.e. on April 1 of each year, and the Client will be notified for such change.
4. For project involving existing structures or landmarks, remodeling and/or rehabilitation of an existing structure requires that certain assumptions be made regarding existing conditions, and because of these assumptions cannot be verified without expending additional sums of money, or destroying otherwise adequate or serviceable portion of the structure or landmark, the Client agree that, except for negligence on the part of the Engineer, the Client shall hold harmless and indemnify the Engineer for and against any and all claims, damages, awards, and cost of defense arising out of the professional services provided under this agreement.
5. A structural condition is hidden if concealed by finishes and is not capable of investigation through reasonable access for visual structural component review. If the Engineer has reason to believe that such a condition may exist, the Client shall authorize and pay for all costs associated with the investigation, and if necessary, all costs to correct said condition. If the client/owner fails to authorize such investigation or correction after due notification, or the Engineer has no reason to believe that such condition exists (such as dry rot), the Client is responsible for all risks associated with this condition; the Engineer shall not be responsible for the condition nor any resulting damages to persons or property.
6. The only warranty or guarantee made by the Engineer in connection with services performed under this agreement is that such services are performed in accordance with generally accepted professional practices and standards for the locality and at the time of such services are provided. No other warranty, express or implied, is made or intended in any of our contracts, proposals, or reports.
7. The services provided for this agreement apply to this specific project. The Engineer or his/her representative are not and shall not be responsible for nor have control over any soil and subsurface conditions, existing building conditions, construction means, methods, techniques, sequences, procedures or for safety precautions and programs in connection with the project work.
8. Ownership of the contract documents including Construction Documents as instruments of services, is that of the Engineer whether the work for which they are made be executed or not. The Engineer shall maintain all common law, statutory and other reserved rights including the copyright. These contract documents are not to be reproduced, changed, or copied in any form or manner whatsoever, nor are they to be assigned to a third party without the Client and the third party first obtaining the written permission and consent of the Engineer, except if such documents are used strictly for this project. In the event of unauthorized reuse of these plans by a third party, the Client and third party shall hold the Engineer harmless.
9. The Client and Engineer have discussed their risks, rewards, and benefits of the Project and the Engineer's compensation for the services. The risks have been allocated such that the Client agrees that, to the fullest extent permitted by law, Engineer's total professional liability for error and omission to the Client for any and all injuries, claims, losses, expenses, damages, or claim expenses arising out of this agreement from any cause or causes, shall not exceed the total amount of \$100,000.00 or the fee rendered on the project, whichever is less. Such causes include, but are not limited to, the Engineer's negligent, errors, omissions, strict liability, breach of contract or breach of warranty.
10. The Client agrees that when the professional services of the Engineer do not extend to or include contract administration or site observation of Contractor's work or performance, then it is further agreed that the owner will defend, indemnify and hold harmless the Engineer from any claim or suits whatsoever, including but not limited to all payments, expenses or costs involved, arising from or alleged to have arisen from the Contractor's performance or the failure of the Contractor's work to conform to the design intent and the contract documents. The Engineer agrees to be responsible for his own or his employee's negligent acts, errors or omission.
11. The Client agrees to pay the Engineer a late payment charge computed at maximum rate permitted by law. The late payment charge will be applied to any unpaid balance commencing thirty days after the date of original billing. Should the Client fail to pay within sixty (60) days after date of billing, the Client agree that this agreement is terminated and all work shall cease. In such event, the Client shall then promptly pay for all service performed. In the event either party institutes any legal proceeding concerning the enforcement or interpretation of this agreement, the prevailing party shall be entitled to receive reasonable attorney's fee in an amount to be determined by the Court.
12. No deduction from Engineer's compensation is to be made on account of penalty, liquidated damages, or other sums withheld from payments to Contractor's.
13. Unless otherwise provided in the Agreement, the Engineer and Engineer's consultants shall have no responsibility for the discover, presence, handling, removal or disposal of or exposure of persons to hazardous materials in any form at the project Site, including but not limited to asbestos, asbestos products, polychlorinated biphenyl (PCB) or other toxic substances.
14. This agreement may be terminated by either party upon seven day's written notice should the other party fail substantially to perform in accordance with its terms through no fault of the party initiating the termination. In the event of such termination, the Client shall pay the Engineer for all services performed including extra services and reimbursable expenses incurred prior to such termination.
15. Any claim or dispute between the Client and the Engineer shall be submitted to non-binding mediation, subject to the parties agreeing to a mediator(s). This agreement shall be governed by the laws of the principal place of business of the Engineer.

BASELINE DESIGNS, INC.Civil & Structural Engineering
Design · Planning · Investigation

1700 Oak St., Alameda, CA 94501

Office Line: 510-865-4623

www.baselinealameda.com

ENGINEERING CAPABILITIES & SERVICES

BASELINE DESIGNS, Inc. is a civil and structural engineering consulting office located in City of Alameda, California. The firm was founded by Mr. Vincent T. Wu, P.E., dba Baseline Engineering in 1992 and incorporated as BASELINE DESIGNS, Inc. in 2010. With a dedicated staff, the firm provides a variety of engineering services from structural assessment and analysis to design and preparation of plans and specifications as well as construction support services for projects in the public and private sectors. We utilize computer-based engineering programs such as SAP2000, RISA, AutoCad and MicroStation for quality and cost-effective designs and production. Over the years, our design work is recognized by various local organizations with various awards including the Alameda Chamber, PG&E Hydro Small Business Forum, and Oakland Heritage Alliance for Preservations.

- *Firm in Business: 32 years*
- *Number of Staff: 7*
- *Certifications: Minority owned, SLEB certified by Alameda County, Port of Oakland and California Public Utilities Commission.*

Structural Engineering □

- ***Building** evaluation, analysis & design for new buildings and additions*
- ***Industrial** non-building structure evaluation and design*
- ***Seismic** retrofit design for existing structures*
- ***Dynamic** & finite element analyses utilizing powerful SAP2000 modeling and RISA*
- ***Corrosion** investigation of concrete & steel structures*

Civil Engineering □

- ***Grading**, paving and drainage design*
- ***Pavement** failure investigation*
- ***Selection** of repair materials and methods*

Construction Management Services □

- ***Construction** shoring engineering and supports*
- ***Construction** observation and monitoring*



BASELINE DESIGNS, INC.Civil & Structural Engineering
Design · Planning · Investigation

1700 Oak St., Alameda, CA 94501

Office Line: 510-865-4623

www.baselinelameda.com

BASELINE DESIGNS, INC. (BASELINE) has provided structural engineering services to ERM-West since 2018. The following list provides some of the representative projects we have completed for ERM-West:

PG&E Monterey Substation Improvements (Phase 3 and 4) at 498 Del Monte Ave., Monterey, CA

BASELINE collaborated with civil and environmental engineers from ERM for the soil mitigation work at the substation in Monterey. Tasks performed include providing stability evaluation and temporary shoring design for the existing 30-foot tall concrete fence walls surrounding the substation during the phased excavation of soil to a depth of 9 feet. Also provided structural assessment of two adjacent buildings and observations of the shoring and bracing installation during excavations in two different phases.

**PG&E Substation Yard at 205 Brush St., Oakland, CA**

BASELINE provided structural engineering services to ERM-West for the renovation of a PG&E substation yard in Oakland. Work included preparing plans for a partial demolition of wood roof trusses and bearing walls of a light industrial building, temporary shoring and permanently bracing and support of an adjacent light industrial building using free-standing steel frames supported by a system of concrete piers and grade beams. Assisted ERM-West in the Building Permit application process and provided performance requirements for structural monitoring and observations of buildings during excavation of soil in the service yard.

**Industrial Water Treatment and Discharge Facility for AMETEK, INC. at 790 Greenfield Ct., El Cajon, CA**

BASELINE Assisted environmental engineers from ERM in assessing the stability of the treatment facility and building walls for a new liquid processing and containment site in El Cajon. BASELINE provided seismic evaluation of the CMU walls for a 4-foot excavation and construction of a mat slab foundation supporting processing equipment such as storage tanks, control panels and switch gears. Prepared construction documents including plans and specifications. Also assisted ERM in obtaining Building Permit, reviewing submittals and respond to RFI's during construction.



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Resume of Key Personnel: Vincent Wu, P.E., Sr. Project Manager

Name of Proposed Key Personnel: Vincent Wu**Years of Experience with BASELINE:** 32**Proposed Position:** Sr. Project Manager/Principal**Years of Experience with Other Firms:** 7**Education:**

B.S. Civil Engineering, University of California at Davis, 1985

Licenses/Affiliation:

Licensed Civil Engineer/ California/ # 43749

Member of Structural Engineers Association of Northern California

Areas of Expertise:

Mr. Wu has 39 years of experience in structural engineering, specifically in the evaluation and design of commercial and industrial facilities and their infrastructures involving different construction materials such as wood, concrete, masonry and steel construction. He has prepared evaluation reports, plans and specifications for new and existing structures such as office buildings, warehouses, manufacturing and processing facilities, and provided many building assessments and upgrade designs after the 1989 Loma Prieta Earthquake and 1994 Northridge Earthquake. His primary responsibilities include formulating analysis approach and developing design concepts for projects, leading his staff for design development and to final design and production of plans, specifications and estimate. He is familiar with ASCE Standards, FEMA regulations, and California Green Building Standards Code requirements. Mr. Wu has assisted many property owners and contractors in value engineering and assessed shoring and falsework design during construction. As Principal and Project Manager, he is also responsible for procurement of contracts, quality control and scheduling of manpower to ensure successful of project completion.

Representative Experience:**Project Title:** PG&E Substation Yard at 205 Brush Street, Oakland, CA

Project Description: As Sr. Project Engineer, provided structural engineering services to ERM-West for the renovation of the substation yard. Work included a partial demolition of wood roof trusses and bearing walls of a light industrial building, temporary shoring and permanently bracing and support of an adjacent light industrial building using free-standing steel frames supported by a system of concrete piers and grade beams. Assisted ERM-West in the Building Permit application process and provided performance requirements for structural monitoring and observations of buildings during excavation of soil in the service yard.

Project Title: Astra 415 Building Renovation & Conversion, 415 Oakmead Pkwy, Sunnyvale, CA

Project Description: As Sr. Project Manager, conducting a structural evaluation of a 59,000 sf light industrial office building with panelized roof and glu-lam beam system supported by a system of interior steel columns and concrete walls. Coordinated structural design with other disciplines for the building renovation and conversion for a testing laboratory facility and offices. New opening in walls for new office layout for egress-ingress requirements with high demising walls and loading dock. New steel columns and concrete footings were added for supporting new hoists and testing equipment. Also provided structural observation of the temporary shoring and bracing system for the loading dock.

Project Title: Corral Reef Inn and Suites Building Complex Seismic Mitigation and Building Addition, 400 Park Street, Alameda, CA

Project Description: As Sr. Project Engineer, provide assisted in providing seismic mitigation design for five two-story buildings and a seawall along a lagoon. Seismic upgrade work included adding new plywood shear walls, new steel moment resisting frames for the soft-story at the lobby building, and installing Chance anchors as tie-backs for a new seawall. Also provided structural design for a 4,800 sf addition housing new conference rooms and state of the art telecommunication system with overhead projector and screen.

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Office Line: 510-865-4623
www.baselinealameda.com**Resume of Key Personnel: Kin Tse, P.E.
Sr. Project Engineer/Associate Principal**

Name of Proposed Key Personnel: Kin Tse
Proposed Position: Lead Project Engineer

Years of Experience with BASELINE: 8
Years of Experience with Other Firms: 6

Education:

M.S. Civil Engineering, San Jose CSU, 2015; B.S. Civil Engineering, San Francisco CSU, 2007

Licenses/Affiliation:

Licensed Civil Engineer/ California/ # 91608

Certified Competent Person for Fall Protection and Inspection by Eagle Wings Co. Safety Training

Areas of Expertise:

Mr. Tse has 14 years of experience in structural engineering including seismic safety assessment, analysis and design of various types of commercial and industrial structures in wood, concrete, masonry and steel construction. He is familiar with structural computer software such as RISA and SAP2000 to model and analyze structures such as multi-level buildings and seismic upgrade of commercial and industrial structures including office buildings, manufacturing buildings, warehouses and non-building structures such as steel towers and equipment supports. Mr. Tse's primary responsibility is to conduct building evaluations, prepare structural analyses, designs, plans and specifications for new and retrofitted buildings and facilities. He also mentors staff engineers in the office for design and production of construction documents. He is familiar with California Building Code and ASCE Standards.

Representative Experience:**Project Title: Astra Headquarters - Renovation and Alteration of Building Complex at 1900 Skyhawk Street, Alameda, CA**

Project Description: As project engineer, assisted Principal Manager in conducting a structural evaluation and renovation of two buildings, including a 39,000 sf steel pre-fabricated warehouse and a 150,000 sf existing main building with concrete walls and steel frames supported by a concrete piling foundation in the former Naval Base. Coordinated structural designs with other disciplines for the main building renovation and alterations to the existing manufacturing buildings for use as the new ASTRA's Headquarters and manufacturing facilities. New steel moment frames were added for the new conference room and front lobby for seismic improvements, the existing elevated concrete slab were reinforced with carbon fiber reinforcing strips to support heavy industrial grade machine shop, high-precision integrated mill turn center and automation center for rocket assembly lines. New steel frames were added for new lobby, and new foundation pads for battery racks, emergency generator and its fuel tanks for testing. Provided fire protection curtain walls for welding operation and 25-foot tall demising walls in warehouse. Also provided construction phase support services including shoring designs for different phases of excavation to remove contaminated soil and developing backfill requirements.

Project Title: PG&E Monterey Substation Improvements at 498 Del Monte Ave., Monterey, CA

Project Description: As Sr. Project structural engineer, collaborated with civil and environmental engineers for the soil mitigation work at the Substation. Tasks performed include providing stability evaluation and temporary shoring design for the existing 30-foot tall concrete fence walls surrounding the substation during the phased excavation of soil to a depth of 9 feet. Also provided structural evaluation of the adjacent buildings and observations of shoring and bracing installation during excavations in phases.

Project Title: New Commercial Warehouse Office Building at 1919 Union Street, Alameda, CA

Project Description: As lead structural engineer, provided structural analysis and design of a new 15,000 sf wood-framed building using timber roof trusses supported by wood bearing walls on a light-weight mat slab foundation at a site with potential liquefaction in an earthquake.



ATTACHMENT B EPC SUMMARY TABLE AND ERM
2024 LABOR RATES

Summary of Estimated Costs

PROJECT PHASES & TASKS	Labor	Expenses	Equipment & Supplies	Laboratory	Subcontractor	Total Exp/Subs	TOTAL (Price)	
1	Routine Sampling	32,500.00	1,050.00	600.00	15,624.00	3,675.00	20,949.00	53,449.00
1.01	Field Work Prep	9,116.00	0.00	0.00	0.00	0.00	0.00	9,116.00
1.02	SV Sampling	3,064.00	525.00	300.00	5,523.00	3,675.00	10,023.00	13,087.00
1.03	IA Sampling	3,064.00	525.00	300.00	10,101.00	0.00	10,926.00	13,990.00
1.04	Data Entry and QA/QC	4,696.00	0.00	0.00	0.00	0.00	0.00	4,696.00
1.05	Reporting	10,118.00	0.00	0.00	0.00	0.00	0.00	10,118.00
1.06	Data Submittal to Residents	2,442.00	0.00	0.00	0.00	0.00	0.00	2,442.00
	Subtotal:	32,500.00	1,050.00	600.00	15,624.00	3,675.00	20,949.00	53,449.00
2	Project Management	26,582.00	0.00	0.00	0.00	0.00	0.00	26,582.00
2.01	Project Management	26,582.00	0.00	0.00	0.00	0.00	0.00	26,582.00
	Subtotal:	26,582.00	0.00	0.00	0.00	0.00	0.00	26,582.00
3	GW Remediation RFP Prep	10,108.00	0.00	300.00	0.00	0.00	300.00	10,408.00
3.01	GW Remediation RFP Prep	10,108.00	0.00	300.00	0.00	0.00	300.00	10,408.00
	Subtotal:	10,108.00	0.00	300.00	0.00	0.00	300.00	10,408.00
4	CPTHA VI Assessment	37,923.00	4,410.00	1,800.00	10,256.40	0.00	16,466.40	54,389.40
4.01	Property Owner Communication	7,542.00	0.00	0.00	0.00	0.00	0.00	7,542.00
4.02	SS Probe Installation/Sampling	7,531.00	2,205.00	900.00	3,515.40	0.00	6,620.40	14,151.40
4.03	Indoor Air Sampling	5,506.00	2,205.00	900.00	6,741.00	0.00	9,846.00	15,352.00
4.04	Reporting	14,902.00	0.00	0.00	0.00	0.00	0.00	14,902.00
4.05	Data Submittal to Residents	2,442.00	0.00	0.00	0.00	0.00	0.00	2,442.00
	Subtotal:	37,923.00	4,410.00	1,800.00	10,256.40	0.00	16,466.40	54,389.40
5	Source Area Building Structural Analysis	19,484.00	0.00	300.00	0.00	22,890.00	23,190.00	42,674.00
5.01	Source Area Building Structural Analysis	8,950.00	0.00	300.00	0.00	22,890.00	23,190.00	32,140.00
5.02	Preparation of Documentation to Solicit Design-Build Costs, Review of Design-Build Costs	10,534.00	0.00	0.00	0.00	0.00	0.00	10,534.00
TOTALS		126,597.00	5,460.00	3,000.00	25,880.40	26,565.00	60,905.40	187,502.40

2024 Labor Rates Table Hookston Station Site, Pleasant Hill, California

ERM Labor Categories	Hourly Rate
1.1 - Principal Consultant	\$215
1.2 - Program Director	\$198
1.3 - Senior Consultant	\$182
1.4 - Lead Consultant	\$155
1.5 - Project Manager	\$135
1.6 Staff Engineer/Scientist	\$135
1.7 - Senior Field Technician	\$129
1.8 - Field Technician	\$106
1.9 - Project Coordinator	\$69
1.10 - Administrative Support	\$69