

CITY OF ALAMEDA

SPECIFICATIONS AND PLANS

FOR

STORM DRAIN PUMP STATION
ELECTRICAL UPGRADES

NO. P.W. 09-19-48

MANDATORY PREBID MEETING:
LOCATION:

Wednesday, August 18, 2021, 11:00 a.m.
City Hall West
950 W. Mall Square, Conference Room 156
Alameda, CA 94501

BID DUE DATE:
LOCATION:

Wed., September 8, 2021, by 2:00 p.m.
Public Works Department
950 W. Mall Square, Room 110
Alameda, CA 94501

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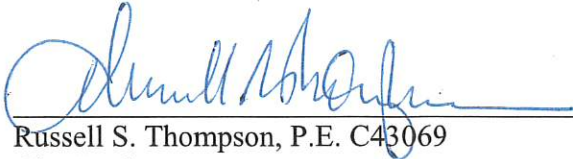
TECHNICAL SPECIFICATIONS

See separate Table of Contents for Technical Specifications found later in this document, for listing of technical specifications sections.

VOLUME 2 DRAWINGS

CITY ENGINEER'S APPROVAL

THE PROJECT SPECIFICATIONS CONTAINED HEREIN, FOR THE STORM DRAIN PUMP STATION ELECTRICAL UPGRADES, NO. P.W. 09-19-48, HAVE BEEN APPROVED BY THE CITY ENGINEER IN ACCORDANCE WITH CITY OF ALAMEDA ORDINANCE NO. 3154 AND CALIFORNIA GOVERNMENT CODE 830.6.



Russell S. Thompson, P.E. C43069
City Engineer
City of Alameda, CA

08/03/2021
Date

CITY OF ALAMEDA, CALIFORNIA
SPECIFICATIONS, SPECIAL PROVISIONS AND PLANS
FOR
PUBLIC WORK

SECTION I. PROPOSAL AND CONTRACT REQUIREMENTS

A. GENERAL INFORMATION. The City of Alameda will receive sealed bid at the time and place specified in the advertisement calling for bids for:

**STORM DRAIN PUMP STATION ELECTRICAL UPGRADES
NO. P.W. 09-19-48**

Electronic specifications and bidder's forms for bidding this project can only be obtained at the City of Alameda website, <http://alamedaca.gov/business/bids-rfps>, or by calling (510) 747-7900. There is no cost for the specifications. **It is the responsibility of each prospective bidder to check the website periodically for updates, such as Addenda.**

B. EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS AND SITE OF WORK. The bidder is required to examine carefully the site and the proposal, plans, specifications and contract forms for the work contemplated, and it will be assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality and quantities of work to be performed and materials to be furnished, and as to the requirements of the specifications, the special provisions and the contract.

C. DESIGNATIONS. As used herein "City" shall mean the City of Alameda; "Council" or "City Council" shall mean the Council of the City; "City Manager" shall mean the City Manager of the City; "Engineer" or "City Engineer" shall mean the City Engineer or City Engineer's designee of the City; "Director" shall mean the Public Works Director of the City; and "Contractor" shall mean the bidder who is awarded the contract for the work.

D. PROPOSAL FORM. All bids must be made upon blank forms which are included in these specifications. (Exhibit A)

All bids must give the prices proposed **in figures**. Bids must be signed by the Bidder. If the proposal is signed by an individual, that individual's name and business address must be shown. If made by a firm or partnership, the name and the post office address of each member of the firm or partnership must be shown. If made by a corporation, the proposal must show the name of the state under the laws of which the corporation was chartered and the names, titles, and business addresses of the president, secretary and treasurer.

E. PRESENTING AND MARKING OF BIDS. Bids must be presented to the Public Works Department, 950 W. Mall Square, Room 110, Alameda, California, under sealed cover, plainly marked on the outside, **"STORM DRAIN PUMP STATION ELECTRICAL UPGRADES, NO. P.W. 09-19-48"** no later than **2:00 p.m.** on the date set forth in the following paragraph.

A mandatory pre-bid meeting will be held at City Hall West, 950 W. Mall Square, Conference Room 156, Alameda, California, 94501 on **Wednesday, August 18, 2021 at 11:00 am**. City reserves the right to hold additional prebid meetings as necessary for contractors to visit the site.

Bids will be opened in the Public Works Department, 950 W. Mall Square, Room 110, Alameda, California, **at 2:01 p.m. on Wednesday, September 8, 2021.**

F. BIDDER'S GUARANTY. All bids shall be accompanied by one of the following forms of bidder's guaranty: cash, a cashier's check, a certified check, or a bidder's bond executed by an admitted surety insurer, made payable to the City of Alameda. The security shall be in an amount equal to at least ten percent (10%) of the amount bid. A bid shall not be considered unless one of the forms of bidder's security is enclosed with it. If, in lieu of depositing cash, a cashier's check, or a certified check, the bidder submits a bidder's bond, the said bond shall, in form, be satisfactory to the City Attorney of the City of Alameda. A Bid Bond form is provided in Exhibit H.

Said bidder's guaranty which is submitted according to the above paragraph shall, in the event of the failure, for any reason, of the successful bidder or bidders to execute the contract as awarded, be deemed to be liquidated damages to be retained in full by the City of Alameda, but shall not be construed as a penalty for failure to execute said contract. The full amount of the said bidder's guaranty shall also be retained in full by the City of Alameda as consideration payable to the City of Alameda for engineering, accounting and clerical services in formulating specifications for such bid or bids, for advertising costs to the City of Alameda in connection with such bid or bids, and further, as consideration for the award of such contract to such bidder or bidders.

Any bid bond submitted under this Section shall incorporate therein by reference, or otherwise, all of the provisions of Section I, Item F, of these specifications.

G. RETURN OF BIDDER'S GUARANTIES. Within ten (10) days after the award of the contract, the Public Works staff will return the proposal guaranties accompanying the bids which are not to be considered in making the award. All other proposal guaranties will be held until the contract has been finally executed, after which they will be returned to the respective bidders whose bids they accompanied.

H. TAXES. Bids must include all state and federal taxes applicable to the transaction.

I. SUBCONTRACTORS. All contractors shall comply with the State Subletting and Subcontracting Fair Practices Act, located in Sections 4100 through 4112 of the California Public Contract Code. A copy of said Act is available in the office of the City Engineer. Said Act is hereby made a part of the specifications on the above-mentioned job and all contractors submitting bids shall accompany the bid with information regarding subcontractors as therein provided. All Subcontractors shall have a current City of Alameda business license.

J. REJECTION OR RETURN OF BIDS. Bids may be rejected if they show any alterations of form, additions not called for, conditional or alternative bids, incomplete bids, erasures or irregularities of any kind. The right is reserved to reject any and all bids. The City reserves the right to return bids unopened.

K. BID PROTEST. Any bid protest must be submitted in writing to the Public Works Director, City of Alameda Public Works Department, City Hall West, 950 West Mall Square, Room 110, Alameda, CA 94501 before 5:00 p.m. of the 5th business day following the posting date of the Notice of Intent to Award.

1. The initial protest document shall contain a complete statement of: the legal grounds for the protest; all the facts relevant to the protest; and the form of relief requested and the legal basis for such relief.
2. The protest shall refer to all the specific portions of the document which forms the legal grounds for the protest.
3. The protest shall include the name, address, and telephone number of the person representing the protesting party.
4. The party filing the protest shall concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest which may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
5. The Public Works Director will issue a decision on the protest. If the Public Works Director determines that a protest is frivolous, the party originating the protest may be determined to be irresponsible and that party may be determined to be ineligible for future contract awards.
6. The procedure and time limits set forth in this paragraph are mandatory and are the Bidder's sole and exclusive remedy in the event of Bid protest and failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code Claim or legal proceedings.

L. AWARD OF CONTRACT. The award of contract, if it be awarded, will be to the responsible bidder who submits the lowest and best bid and whose proposal complies with all requirements described herein. The award, if made, will be made within ninety (90) days after the opening of the bids. All bids will be compared on the basis of the Engineer's estimate of quantities of work to be done. Once awarded, this contract may be mutually extended on a year-by-year basis, for up to four (4) additional years, based on satisfactory performance of all aspects of this contract. The Public Works Director shall, on or before April 1, submit written notice that the contract is to be extended upon the same terms and costs (plus an annual increase to consumer price index for the San Francisco Bay Area appropriate to the trades associated with the work for the previous calendar year) as the existing contract. In the event of a delay the City reserves the right to hold the Bidder to its bid for 90 days from the date the contract is awarded.

Bid protests, contracts, bonds, insurance, and other documents identified in these specifications and these special provisions are to be delivered to the following City address: City of Alameda, City Hall West, Public Works Department, 950 West Mall Square, Room 110, Alameda, CA 94501.

M. EXECUTION OF CONTRACT. The contract, in form and content satisfactory to the City, will be awarded at a regular City Council meeting (first and third Tuesdays of each month, except August). At least five (5) business days prior to the anticipated award date, the Contractor will be notified of apparent award status and requested to provide the documents necessary to complete the contract process. Required documentation shall include two (2) copies of the contract executed by the Contractor, proof of insurance and Payment and Performance bonds. The Contractor will be given five (5) business days from the date the City Council awards the contract to obtain the relevant bonds and insurance along with any other documents required for submission.

No proposal shall be considered binding upon the City until the execution of the contract. Failure to execute a contract and file acceptable bonds and insurance as provided herein within the time frame outlined above shall be just cause for the annulment of the award and the forfeiture of the bidder's guaranty.

N. CONTRACT BONDS. The Contractor shall furnish two good and sufficient bonds. One of the bonds shall be executed in a sum equal to at least one hundred percent (100%) of the contract price, which shall be furnished as required by the Terms of Section 3247 to 3252 of the Civil Code of the State of California (see Exhibit G). The other bond shall guaranty faithful performance of the said contract by the Contractor and shall be executed in a sum equal to at least one hundred percent (100%) of the contract price (see Exhibit F). Bonds shall be furnished by a surety company satisfactory to the City of Alameda.

Whenever any surety or sureties on any such bonds, or any bonds required by law for the protection of the claims of laborers and materials, become insufficient or the City Engineer has cause to believe that such surety or sureties have become insufficient, a demand in writing may be made of the Contractor for further bond or bonds or additional surety not exceeding that originally required, as is considered necessary, taking into account the extent of the work remaining to be done. Thereafter no payment shall be made upon such contract to the Contractor, or any assignee of the Contractor, until such further bond or bonds or additional surety has been furnished. Faithful performance bonds, whether by individual or corporate surety, shall in addition to other terms and conditions, contain the conditions that (1) death of the named principal shall not operate as a release of the obligation hereunder of the surety, and (2) extensions of time, if any, granted by the City to Contractor for performance of the work covered by said bond shall extend for a like time the period of limitations during which surety shall remain bound by the said undertaking.

SECTION II. LEGAL RELATIONS AND RESPONSIBILITIES

A. LAWS TO BE OBSERVED. The Contractor shall keep himself fully informed of all existing and future state and federal laws and all municipal ordinances and regulations of the City of Alameda which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same.

B. PROJECT STABILIZATION AGREEMENT. This project is subject to and shall be performed under the Project Stabilization Agreement (“PSA”) between the City of Alameda and the Building and Construction Trades Council of Alameda County and its affiliated local unions. Contractors submitting bids must provide evidence of acceptance of the terms and conditions of the PSA at the time of bid. Specifically, contractor must submit the completed and signed “Agreement to be Bound to PSA” (included in Exhibit A, Bidder’s Proposal). Additionally, all contractors and subcontractors of any tier on this project will be required to execute the Agreement to be Bound to PSA and be subject to the PSA prior to contract award.

C. DEPARTMENT OF INDUSTRIAL RELATIONS COMPLIANCE AND PREVAILING WAGE REQUIREMENTS ON PUBLIC WORKS PROJECTS.

1. Effective January 1, 2015, no Contractor or Subcontractor may be listed on a bid proposal for a public works project (submitted after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5 (with the limited exceptions from this requirement for bid purposed only under Labor code Section 1771.1(a)). Register at <https://www.dir.ca.gov/Public-Works/Contractor-Registration.html>

2. No Contractor or Subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5.

3. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

4. The Prime Contractor is required to post job site notices prescribed by regulations. See 8 Calif. Code Regulation §16451(d).

5. Effective April 1, 2015, All Contractors and Subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner at: <https://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html>

D. PREVAILING WAGES:

1. The Contractor is aware of the requirements of California Labor Code sections 1720 et seq. and 1770 et seq., as well as California Code of Regulations, Title 8, section 16000 et seq. (“Prevailing Wage Laws”), which require the payment of prevailing wage rates and the performance of other requirements on certain “public works” projects. Since this Project involves a “public work” project, as defined by the Prevailing Wage Laws, Contractor shall fully

comply with such Prevailing Wage Laws. Contractor's failure to comply with the Prevailing Wage Law may constitute a default under the contract for performance of the work which would entitle the City to rescind the contract or exercise other remedies as provided by law or the contract.

2. The Contractor shall obtain a copy of the prevailing rates of per diem wages at the commencement of this contract from the website of the Division of Labor Statistics and Research of the Department of Industrial Relations located at www.dir.ca.gov/dlsr/. In the alternative, the Contractor may view a copy of the prevailing rates of per diem wages at the City's Public Works Department, Building 1, 950 W. Mall Square, Room 110, Alameda. The Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to perform work on the Project available to interested parties upon request, and shall post copies at the Contractor's principal place of business and at the Project site. The Contractor shall defend, indemnify, and hold the City, its elected officials, officers, employees, volunteers, and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or allege failure to comply with the Prevailing Wage Laws and/or the City's Labor Compliance Program (hereinafter referred to as "LCP"), if any.

3. If this project is funded in whole or in part with Federal monies and subject to the provisions of the Davis-Bacon Act, the successful bidder shall pay not less than the wage rates determined by the Secretary of Labor. The Federal wage rates shall apply unless the State wage rates are higher. The Federal Wage Rates applicable to the contract are those current within ten (10) days of the bid due date.

4. The Contractor and all subcontractors shall pay and shall cause to be paid each worker engaged in work on the Project not less than the general prevailing rate of *per diem* wages determined by the Director, regardless of any contractual relationship which may be alleged to exist between the Contractor or any Subcontractor and such workers.

5. The Contractor and all subcontractors shall pay and shall cause to be paid to each worker needed to execute the work on the Project travel and subsistence payments, as such travel and subsistence payments are defined in the applicable collective bargaining Contracts filed with the Department of Industrial Relations in accordance with Labor Code § 1773.8.

6. If during the period any bid for work on this Project remains open, the Director of Industrial Relations determines that there has been a change in any prevailing rate of *per diem* wages in the locality in which this public work is to be performed, such change shall not alter the wage rates in the Notice calling for Bids or the contract subsequently awarded.

7. Pursuant to Labor Code §1775, the Contractor shall as a penalty to the City, forfeit Fifty Dollars (\$50.00) for each calendar day, or portion thereof, for each worker paid less than the prevailing rate of *per diem* wages, determined by the Director, for such craft or classification in which such worker is employed for any public work done under the Contract by the Contractor or by any Subcontractor under it. The amount of the penalty shall be determined by the Labor Commission. In addition, the difference between such prevailing rate of *per diem* wage and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing rate of *per diem* wage shall be paid to each work by the Contractor.

8. Any worker employed to perform work on the Project, which work is not covered by any craft or classification listed in the general prevailing rate of *per diem* wages determined by the Director, shall be paid not less than the minimum rate of wages specified therein for the craft or classification which most nearly corresponds to the work on the Project to be performed by them, and such minimum wage rate shall be retroactive to time of initial employment of such

person in such craft or classification.

9. For those crafts or job classifications requiring special prevailing wage determinations, please contact the Division of Labor Statistics and Research, Prevailing Wage Unit, P.O. Box 420603, San Francisco, CA 94142-0603, (415) 703-4774 or check out the web site at www.dir.ca.gov.

E. HOURS OF LABOR.

1. As provided in Article 3 (commencing at §1810), Chapter 1, Part 7, Division 2 of the Labor Code, eight (8) hours of labor shall constitute a legal day's work. The time of service of any worker employed at any time by the Contractor or by any Subcontractor on any subcontract under this Contract, upon the work or upon any part of the work contemplated by this Contract, is limited and restricted to eight (8) hours during any one calendar day and forty (40) hours during any one calendar week, except as hereinafter provided. Notwithstanding the provision hereinabove set forth, work performed by employees of Contractor in excess of eight (8) hours per day and forty (40) hours during any one week shall be permitted upon this public work provided that the employees' compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half (1-1/2) times the basic rate of pay.

2. The Contractor shall pay to the City a penalty of Twenty-five Dollars (\$25.00) for each worker employed in the execution of this Contract by the Contractor, or by any Subcontractor, for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day and forty (40) hours in any one (1) calendar week, in violation of the provisions of Article 3 (commencing at §1810), Chapter 1, Part 7, Division 2 of the Labor Code, unless compensation for the workers so employed by Contractor is not less than one and one-half (1-1/2) times the basic rate of pay for all hours worked in excess of eight (8) hours per day.

3. Holiday and overtime work, when permitted by law, shall be paid for at a rate of at least one and one-half (1½) times the above specified rate of *per diem* wages, unless otherwise specified. Holidays shall be defined in the Collective Bargaining Contract applicable to each particular craft, classification, or type of worker employed.

F. CERTIFIED PAYROLL.

1. Contractor's attention is directed to California Labor Code Section 1776, which requires Contractor and any subcontractors to keep an accurate payroll record and which imposes inspection requirements and penalties for non-compliance. Contractor is responsible for the submission of copies of payrolls by all subcontractors. Each payroll submitted shall be accompanied by a "Statement of Compliance", signed by the Contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract, and shall certify the following:

- a. That the payroll for each payroll period contains the name, social security number, and address of each employee, his or her correct classification, including applicable area and group code, hourly rates of wages paid, daily and weekly number of hours worked, deductions made and actual wages paid, and that such information is correct and complete;
- b. That such laborer or mechanic (including each helper, apprentice and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions

have been made either directly or indirectly from the full wages earned, other than permissible deductions; and

- c. That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

2. If the Contractor or a subcontractor does not work during the payroll period, a Statement of Non-Working Days must be submitted for each day not worked.

3. In the event of noncompliance with the requirements of such section after 10 Days written notice specifying in what respects compliance is required, the CONTRACTOR shall forfeit as a penalty to the CITY, \$25.00 for each calendar Day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due.

G. APPRENTICES.

1. Attention is directed to the provisions in sections 1777.5 and 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under him on contracts greater than \$30,000 or 20 working days. The Contractor and any subcontractor under him shall comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices.

2. Section 1777.5 requires the Contractor or subcontractor employing workers in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of the public works project, and which administers the apprenticeship program in that trade, for a certificate of approval, if they have not previously applied and are covered by the local apprenticeship standards.

3. The Contractor is required to make contributions to funds established for the administration of apprenticeship programs if: (1) the Contractor employs registered apprentices or journeymen in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions; or (2) if the Contractor is not a signatory to an apprenticeship fund and if the funds administrator is unable to accept Contractor's required contribution. The Contractor or subcontractor shall pay a like amount to the California Apprenticeship Council.

4. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex-officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

H. LABOR DISCRIMINATION. No discrimination shall be made in the employment of persons upon public works because of the race, color, sex, religion, age, national origin, sexual orientation, or physical disability of such persons and every Contractor for public works violating this section is subject to all the penalties imposed for a violation of the provisions of the Labor Code, and, in particular, Section 1735.

I. REGISTRATION OF CONTRACTORS. Before submitting bids, contractors shall be licensed in accordance with the provisions of Chapter 9, Division 3, of the Business and

Professional Code of the State of California. All Contractors must have an “A” license or a “C” license that allows them to complete the work specified herein, in a professional manner consistent with these specifications.

J. PERMITS AND LICENSES. The Contractor shall procure all permits and licenses, including City of Alameda business licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work. However, the contractor will be reimbursed for construction permit fees. The estimated cost shown as an allowance in the bid proposal is only for bidding purposes. Payment shall be made for the actual cost of the permit. The cost for a City of Alameda business license is not reimbursable. Each Subcontractor shall have a current City of Alameda business license.

The following permit(s) and/or license(s) are required for this project:

1. **A City of Alameda Business License from the City of Alameda, 2263 Santa Clara Avenue, Finance Department, Room 220, Alameda.**
2. **“No Parking, Tow Away” signs and Excavation Permit from City Hall, 2263 Santa Clara Avenue, Planning and Building Services, Room 190, Alameda.**
3. **The City has applied for and obtained the City of Alameda Electrical and Meter Pedestal Permit (E21-0061, E21-0062, E21-0063, and E21-0064) from the City of Alameda, 2263 Santa Clara Avenue, Room 190, Alameda. The Contractor is responsible for adhering to all requirements.**
4. **Wastewater Discharge Permit from the East Bay Municipal Utility District (EBMUD) if the Contractor plans to discharge dewatering disposal water to the City’s sewer system. Reference technical specification section 02300-3.08.C**
5. **Prime Contractor must possess a valid Class A or C-10 contractor’s license.**
6. **City of Alameda Marsh Crust Permit. The permit applies to 3rd Street Station as it is within the Marsh Crust Ordinance Area. Reference Technical Specification Section 01140-1.13 and Attachment G to these Specifications.**
7. **The City has applied for and obtained a BCDC Regionwide Permit No. RWP-2 for the work at the Webster Pump Station. A copy of the permit is included as Attachment D to these specifications. The Contractor shall adhere to all Permit requirements including the Temporary Bay Trail Detour Schematic included in it.**

K. PATENTS. The Contractor shall assume all costs arising from the use of patented materials, equipment, devices or processes used on or incorporated in the work, and agrees to indemnify and hold harmless the City of Alameda, its officers, employees and agents from all suits at law or actions of any nature, damages, royalties and costs on account of the use of any patented materials, equipment, devices or processes.

L. RESPONSIBILITY FOR DAMAGES. The City of Alameda, its officers, employees and agents shall not be answerable or accountable in any manner for any loss or damage to the work or any part thereof, nor to any material or equipment used in performing the work, nor for injury or damage to any person or persons, either workers or the public, nor for damage to adjoining property from any cause whatsoever during the progress of the work nor at any time before final acceptance.

M. CONTRACTOR'S RESPONSIBILITY FOR THE WORK. Except as provided above, until formal acceptance of the work by the City, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof, except such injuries or damages occasioned by acts of the Federal Government or the public enemy. The Contractor will not be responsible for the cost of repairing or restoring damage to the work, which damage is determined to have been proximately caused by an act of God, in excess of 5% of the contracted amount.

N. SAFETY PROVISIONS. The Contractor shall conform to the rules and regulations pertaining to safety established by the California Division of Occupational Safety and Health of the Industrial Relations Department (CAL-OSHA).

The Contractor shall conform to current and future health officer orders issued by the Alameda County Public Health Department, including but not limited to Health Officer Order 20-10, Appendix B-2, Large Construction Project Safety Protocol.

O. NO PERSONAL LIABILITY. Neither the City Council, City Manager, the City Engineer, nor any other City officer, authorized assistant or agent shall be personally responsible for any liability arising under this contract.

P. RESPONSIBILITY OF CITY. The City of Alameda shall not be held responsible for the care or protection of any material or parts of the work prior to final acceptance, except as expressly provided in these specifications.

Q. PUBLIC CONVENIENCE AND SAFETY. The Contractor shall so conduct operations as to cause the least possible obstruction and inconvenience to public traffic. The Contractor shall furnish, erect and maintain such fences, barriers, lights and signs as are necessary or as required by the Engineer to give adequate warning to the public at all times that the work is in progress and of any dangerous conditions to be encountered as a result of the work or of the presence of the Contractor's equipment or machinery.

If the work involves the construction of a street or highway, the following additional provisions shall apply:

All traffic shall be permitted to pass through the work, unless other existing streets are stipulated as detours in the special provisions. Residents and businesses along the affected street

or highway shall be provided passage as far as practicable; convenient access to driveways, houses and public buildings along the street or highway shall be maintained and temporary crossings shall be provided and maintained in good condition. No more than one cross or intersecting street or highway shall be closed at any time without the approval of the Engineer.

Contractor shall submit to the Engineer at the pre-construction meeting a Pedestrian and Traffic Control Plan, signed and stamped by a Traffic Engineer registered in the State of California, and a completed Application Form and Checklist, included as Exhibit N, for any work that will impact vehicular traffic in the area. The Contractor must have an approved plan prior to commencing of work. All Pedestrian and Traffic Control Plans must be in conformance with Caltrans Specifications and the minimum requirements included in Exhibit N.

The Contractor shall furnish, install and maintain such facilities as barricades, traffic signs, and flagmen, as may be necessary to advise the public of construction hazards and to control traffic.

At least 72 hours prior to beginning work on a section of street, curb or sidewalk that will affect use of the parking lane, the Contractor shall notify, by approved "No Parking - Tow Away" signs on barricades, all affected property owners, residents, businesses and agencies adjacent to that section of street. The "No-Parking" signs shall state the days, dates, and hours of parking lane closure, and shall be placed along the street on each side at no more than 50 feet spacing. The Contractor shall notify the Engineer at least one (1) working day in advance of the intent to post No-Parking signs, so that the timely posting can be verified by the Inspector. The Contractor is permitted to list up to one (1) working day before and one (1) working day after the scheduled days of work, as shown in the latest approved schedule on signs, in order to bracket the approved scheduled date of work. The Contractor shall remove the "No Parking" signs as soon as the parking lane is re-opened to parking.

If the Contractor is unable to meet the scheduled and noticed time for the work, the Contractor shall immediately notify the Engineer and remove the posted "No-Parking" signs. The Contractor shall submit a new scheduling request in writing to the Engineer. Upon written approval of the Engineer, the Contractor shall post signs at least 72 hours prior to beginning work per the revised schedule.

Work hours are limited between 8:00 A.M. and 5:00 P.M., except for vicinity of schools **(3rd Street Station)** where the work hours are limited between 9:00 A.M. and 3:00 P.M. **3rd Street Station is on Alameda Community Learning Center (Grades 6 through 12) property and is adjacent to the school building.**

Contractors must coordinate with the Alameda Unified School District and any private school on the streets that are in the vicinity of schools.

R. NOTICES TO CONTRACTOR. Any notice required to be given to the Contractor by the City of Alameda or by the City Engineer or by any officer of said City may be given to said Contractor at the address shown in the Contractor's proposal. Such notice may be given by

mailing a copy of said notice to the Contractor to such address by United States certified mail. Evidence of such mailing shall be deemed the equivalent of personal services of said notice.

S. UTILITIES. The location of railroad tracks, utility facilities and other structures shall be the responsibility of the Contractor. The Contractor shall contact the owners of those tracks, facilities and structures for any information that may be required. The Contractor shall contact Underground Services Alert (USA) at 800-642-2444 forty-eight (48) hours prior to commencement of work.

Where existing sewers and storm drains cross or interfere in any way with construction under this contract, they shall be left in place and the Contractor shall work around them, or where feasible and practical, the Contractor may, with the permission of the City Engineer, remove and replace them at his/her own expense. Precautions shall be exercised to provide bearing under existing sewer lines so encountered to preclude settlement during or after the term of the contract. In the event that some of these sewers are abandoned, they may, with the permission of the City Engineer, be removed and not replaced. The Contractor shall provide submittals for the Engineer's review and approval for supporting utilities.

The owners of pipes, wires, conduits, vaults and other utilities (other than sewers) located in the City streets which could conflict with the proposed work will be notified by the City Engineer to remove or adjust the same, without cost to the Contractor, to such extent as will allow the prosecution of the work described herein according to the necessities thereof and in accordance with these specifications. Wherever and whenever the Contractor anticipates working in an area from which utilities must be removed at the expense of others, he/she shall notify the City Engineer sufficiently in advance (a minimum of ten (10) working days) to permit the owners thereof to rearrange or abandon such utilities, and he/she shall cooperate with the owners thereof in the performance of the work under this contract.

The work will be so prosecuted that a minimum of damage will result to utility services. In the event that utility services are damaged or interrupted, the Contractor shall immediately, at his/her own expense, restore such services in a manner satisfactory to the City Engineer. In the event that an interruption of utility services is sustained for a period of longer than one-half hour, it shall be the responsibility of the Contractor to notify the occupants of the premises to which said services are connected, so that no damage will accrue on or to said premises.

The Contractor shall perform all work in such manner as to prevent damage to utilities lying outside of or below a required excavation of trench area.

T. SOUND CONTROL REQUIREMENTS. Sound control shall conform to Section 4-10 of the Alameda Municipal Code, which prohibits weekday construction activities between 7:00 pm and 7:00 am.

U. CONSTRUCTION SITE CONTROLS. Within five (5) business days of the date the work is to commence pursuant to the NTP the Contractor shall submit an Erosion/Stormwater Pollution Control Plan (WPCP) to the City Engineer for review. The WPCP shall include appropriate erosion and sediment control measures to effectively prevent the entry of soil, dirt,

debris and other pollutants to storm water runoff, the storm drain system, lagoons and the bay/estuary during construction. No work in the field under this Contract may begin until the City Engineer has approved the Contractor's WPCP.

Erosion and sediment control plans/sheets shall indicate the specifications and maintenance schedules for the installation and upkeep of the erosion control mechanisms. Specifications shall be provided for the erosion control practices, perimeter protection(s), any silt fencing and fiber rolls to be used, storm drain inlet protections, stabilized construction entrance(s) and exits, site and excavation dewatering activities, vehicle tire wash area(s), vehicle and equipment servicing area(s), and the materials handling and storage area(s). These specifications should meet the same level of erosion and sediment control effectiveness established by practices identified in the San Francisco Bay Regional Water Quality Control Board's Erosion and Sediment Control Field Manual (510-622-2465), the Association of Bay Area Government's Manual of Standards for Erosion and Sediment Control (510-464-7900) and/or the California Stormwater Quality Association's Stormwater Best Management Practice Handbook – Construction (2003) (www.cabmphandbooks.com). Contact City Public Works Department Clean Water Program Specialist Jim Barse (510-747-7900) for additional assistance in obtaining copies of these reference documents.

The Contractor is responsible for ensuring that all of his/her workers and subcontractors are aware of and implement the specific stormwater quality control measures under the approved WPCP. The Contractor(s) shall avoid creating excess dust when breaking asphalt/concrete and during excavation and grading. If water is to be used as a measure for dust control, use as little as possible. All wash water shall be kept out of streets, gutters and storm drains. Controls shall be implemented before construction begins and maintained until the end of construction at which time they shall be removed.

Failure to comply with the following approved construction Best Management Practices ("BMPs") shall result in the issuance of correction notices, citations and/or a project stop order:

1. Gather all construction debris on a regular basis and place it in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution. After breaking old pavement, remove all pieces to avoid contact with rainfall or runoff.
2. Remove on-site piles from the site on a regular basis. Only temporary storage is allowed. All temporary soil or other stockpiles on site shall be securely covered with a tarp, plastic sheeting or similar material.
3. Remove all dirt/mud, gravel, rubbish, refuse and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site daily and prior to rain. Clean up leaks, drips and spills immediately. Avoid unnecessary driving on unpaved areas during wet weather.
4. Install and maintain stabilized construction entrances to minimize the tracking of dirt, mud, dust and debris onto the public right-of-way.
5. Broom-sweep the sidewalk and public street pavement adjoining the project site daily and prior to rain. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the completion of work the street shall be washed and the wash water collected and disposed offsite.

6. Install filter materials (such as block and gravel bags, sandbags, filter fabric) at the storm drain inlets surrounding the project site. Such inlet protections shall be installed before: the start of the rainy season (October 1st), site de-watering activities, saw-cutting activities, or any other activity that may result in the discharge of material to the storm drain. Filter materials shall be maintained and/or replaced as necessary to minimize short-cutting and to remove sediment deposits and buildup. Accumulated sediment/debris shall be disposed of properly.

7. Vacuum saw-cutting slurry and remove from site. Do not allow saw-cut slurry to enter the storm water conveyance system.

8. Create a contained and covered area on the site for the storage of cement bags, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by wind, exposure to rainfall or in the event of a material spill.

9. Never clean machinery, tools, brushes, etc. or rinse containers into a street, gutter, storm drain or stream. See the *Building Maintenance and Remodeling* BMP flyer and ACCWP BMP brochures for more information. Contact the Public Works Department at 747-7900 for assistance with obtaining these documents.

10. Ensure that concrete/gunite supply trucks or concrete/plaster finishing operations do not discharge wash water into street gutters or drains. Concrete trucks shall have a self-contained washout system or discharge to a dedicated, secure site washout in order to avoid the possibility of debris on city streets or discharge of wash water to the storm water conveyance system.

11. Minimize removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Re-plant the area, and stabilize all cut and fill slopes as soon as possible after grading is completed. At a minimum, 4,000 pounds/acre of straw with tackifier should be placed on all exposed soils including those within active work areas and flat lots. **No site grading shall occur between October 1 and May 31 unless approved erosion and sedimentation control measures are in place.**

12. Provide erosion “prevention” and perimeter protection measures (soil stabilization) such as fiber rolls, silt fence, and/or sediment traps or basins. Ensure control measures are adequately maintained and in operable condition. Sediment controls, including inlet protection, are necessary but should be a secondary defense behind good erosion control and site perimeter measures.

13. Design site de-watering operations to prevent the discharge of any sediment, debris or other pollutants to the municipal storm water conveyance system.

14. Maintain and if necessary, repair, all erosion prevention and sediment control measures throughout the contract term. Replacement supplies should be kept on site. Site inspections shall be conducted before and after each storm event, and every 24 hours for extended storm events, to identify areas that contribute to erosion and sediment problems or any other pollutant discharges. If additional measures are needed, inform the City Engineer immediately and document all inspection findings and actions taken.

15. Conduct visual observations before, during, and after storm events. Any breach, malfunction, leakage, or spill observed that could result in the discharge of pollutants to surface waters that might not be visually detectable in stormwater shall trigger the collection of a sample of discharge. The following procedures shall be followed during sampling:

Sampling Procedures:

- For all construction activity, identify a sampling and analysis strategy and sampling schedule for potential discharges discovered through visual monitoring.
- Any breach, malfunction, leakage, or spill observed during visual monitoring which could result in the discharge of pollutants to surface waters that would not be visually detectable in stormwater shall trigger the collection of a sample of discharge.
- Samples shall be collected at all discharge locations which drain the areas identified by the visual observations and which can be safely accessed.
- Personnel trained in water quality sampling procedures shall collect stormwater samples.
- An uncontaminated sample shall be collected for comparison with the discharge sample.
- Sampling shall be conducted during the first two hours of discharge from rain events that occur during daylight hours and which generate runoff.
- The uncontaminated sample shall be compared to the samples of discharge using field analysis or through laboratory analysis. Analyses may include, but are not limited to indicator parameters such as: pH, specific conductance, dissolved oxygen, conductivity, salinity, and TDS
- All field and/or analytical data shall be kept in the WPCP document, which is to remain at the construction site at all times.

16. Contact the City of Alameda Public Works Department at 510-747-7900 in the event of any slope failure, sediment pond overflow, or any other malfunction resulting in sediment-laden runoff. The City shall, in turn, report such incidents to the Regional Water Quality Control Board.

17. Clearly mark with the words, “No Dumping! Drains to Bay” or the equivalent, using methods approved by the City of Alameda, onto the on-site storm drain inlets. All on-site storm drains must be inspected and, if necessary, cleaned, at least once a year immediately prior to the rainy season. Additional cleaning may be required by the City of Alameda.

18. Require all concrete trucks used in the performance of the work to have a self-contained washout system, rather than do washout on the site. The idea is to avoid:

- a. An undesirable pile of concrete on the jobsite, and
- b. The possibility of debris on city streets.

The objective of these Standard Conditions is to ensure that the City’s municipal storm water Permit, the National Pollutant Discharge Elimination System (NPDES) Permit provisions and additional Regional Water Quality Control Board requirements are adequately enforced.

These recommendations are intended to be used in conjunction with the State's Best Management Practices Municipal and Construction Handbooks, local program guidance materials from municipalities, Section 7.1.01, of the Standard Specifications and any other appropriate documents on storm water quality controls for construction. If you need assistance in checking these documents, contact Clean Water Program Specialist at 510-747-7900.

Failure to comply with the above program will result in issuance of noncompliance notices, citations, project stop orders or fines. The fine for noncompliance of the above program is two hundred and fifty dollars (\$250.00) per occurrence per day. The State under the Federal Clean Water Act can also impose a fine on the Contractor.

V. RECYCLING OF CONCRETE AND ASPHALT MATERIALS. Concrete and Asphalt are highly recyclable, and must be source separated as much as possible on the project site and delivered to a processor as separate materials to ensure a very high recycling rate, above 80%. Additionally, the Contractor shall prepare and submit to Alameda.WasteTracking.com a Waste Management Plan to recycle at least 80% of these two types of materials to an approved materials recycling location other than a landfill. The 80% shall be determined by weight of materials of the entire project.

The Contractor shall also submit to alameda.wastetracking.com a Summary Report, containing proof of actual recycling results of construction and/or demolition debris hauled from the project (ex. processing facility tonnage receipts verifying at least 80% recycling rate).

Proof of an approved Waste Management Plan must be provided to the City Engineer before construction starts and proof of an approved Summary Report must be provided before project acceptance. The Contractor shall submit a request, along with proof in writing, to the City Engineer of the Contractor's inability to comply with this requirement.

W. CLEAN AIR ACT OF 1970, ET SEQ. AND FEDERAL WATER POLLUTION CONTROL ACT AS AMENDED BY THE CLEAN WATER ACT OF 1977. The Contractor agrees to comply with federal clean air and water standards during the performance of this contract and specifically agrees to the following:

- The term "facility" means any building, plant, installation, structure, mine, vessel or other floating craft, location or site of operations owned, leased, or supervised by the Contractor and the subcontractors for the construction, supply and service contracts entered into by the Contractor;
- Any facility to be utilized in the accomplishment of this contract is not listed on the Environmental Protection Agency's List of Violating Facilities pursuant to 40 CFR, Part 15.20;
- In the event a facility utilized in the accomplishment of this contract becomes listed on the EPA list, this contract may be canceled, terminated, or suspended in whole or in part;
- It will comply with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Water Pollution Control Act relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in Section 114 and Section 308, respectively, and all regulations and guidelines issued thereunder;
- It will promptly notify the Government of the receipt of any notice from the Director, Office of Federal Activities, Environmental Protection Agency, indicating that any facility utilized or to be utilized in the accomplishment of this contract is under consideration for listing on the EPA List of Violating Facilities;
- It will include the provisions of Paragraph a. through g. in every subcontract or purchase order entered into for the purpose of accomplishing this contract, unless otherwise

exempted pursuant to the EPA regulations implementing the Air or Water Acts above (40 CFR, Part 15.5), so that such provisions will be binding on each subcontractor or vendor;

In the event that the Contractor or the subcontractor for the construction, supply and service contracts entered into for the purpose of accomplishing this contract were exempted from complying with the above requirements under the provisions of 40 CFR, Part 15.5 (a), the exemption shall be nullified should the facility give rise to a criminal conviction (see 40 CFR 15.20) during the accomplishment of this contract. Furthermore, with the nullification of the exemption, the above requirements shall be effective. The Contractor shall notify the Government, as soon as the Contractor's or the subcontractors' facility is listed for having given rise to a criminal conviction noted in 40 CFR, Part 15.20.

X. SUBMITTALS AND REQUEST FOR INFORMATION (RFI'S). The Contractor shall submit an RFI within five (5) business days of an event or question of fact arising under the Contract. The Engineer in charge of the project shall have ten (10) business days to respond to an RFI or any Submittal required to be made under the Contract.

Y. COMPLIANCE WITH THE CITY'S INTEGRATED PEST MANAGEMENT POLICY:
The Contractor shall follow the requirements of the City's Integrated Pest Management (IPM) Policy to ensure the City is in compliance with its Municipal Regional Stormwater NPDES Permit, Order No. R2-2009-0074, issued by the California Regional Water Quality Control Board. Contractor shall follow the City's IPM Policy and utilize generally accepted IPM Best Management Practices (BMPs) to the maximum extent practicable for the control or management of pests in and around City buildings and facilities, parks and golf courses, urban landscape areas, rights-of-way, and other City properties.

Contractor will ensure that applicators will use the most current IPM technologies available to ensure the long-term prevention or suppression of pest problems and to minimize negative impacts on the environment, non-target organisms, and human health. Contractor will consider the options or alternatives listed below in the following order, before recommending the use of or applying any pesticide on City property:

1. No controls (e.g., tolerating the pest infestation, use of resistant plant varieties or allowing normal life cycle of weeds)
2. Physical or mechanical controls (e.g., hand labor, mowing, exclusion)
3. Cultural controls (e.g., mulching, disking, alternative vegetation), good housekeeping (e.g. cleaning desk area)
4. Biological controls (e.g., natural enemies or predators)
5. Reduced-risk chemical controls (e.g., soaps or oils)
6. Other chemical controls

Contractor shall ensure that only appropriate licensed applicators who are authorized and trained in pesticide application and who shall implement the City department's IPM standard operating procedures may apply pesticides to or within City property.

Restricted Chemicals

The term pesticide applies to herbicides, insecticides, fungicides, rodenticides and other substances used to control pests. Antimicrobial agents are not included in this definition of pesticides.

Contractor shall avoid the use of pesticides that threaten water quality, human health and the environment. Thus, the Contractor shall not use or promote the use of the following chemicals:

1. Acute Toxicity Category I chemicals as identified by the Environmental Protection Agency (EPA),
2. Organophosphate pesticides (e.g., those containing Diazinon, chlorpyrifos or malathion)
3. Pyrethroids (bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin),
4. Carbamates (e.g., carbaryl),
5. Fipronil,
6. Copper-based pesticides unless:
 - a) Their use is judicious,
 - b) Other approaches and techniques have been considered, and;
 - c) Threat of impact to water-quality is prevented.

General Pesticide Usage Practices

Contractor shall ensure implementation of the following practices:

1. All pesticide applications shall be performed according to the manufacturer's instructions as detailed on the product label, and in accordance with all applicable state and local laws and regulations set forth to protect the environment, the public, and the applicator; and properly dispose of unused pesticides and their containers.
2. Pesticides that are not approved for aquatic use will not be applied to areas immediately adjacent to water bodies where through drift, drainage, or erosion, there is a reasonable possibility of a pesticide being transported into surface water.
3. Applicators will always avoid applications of pesticides that directly contact water, unless the pesticide is registered under Federal and California law for aquatic use.
4. Obtain coverage under the Statewide General NPDES Permit prior to discharging pollutants from the use of aquatic pesticides directly to the waters of the United States, or onto aquatic plants growing in waters of the United States (as required by the State Water Quality Resources Control Board).

Posting of Warning Notices Prior to Pesticide Application

1. If a pesticide with a "Warning" or "Danger" label indicator must be applied, the Contractor shall post sufficient copies of warning notices (Notice of Scheduled Chemical Application for Pest Management) and MSDS to effectively alert the public (i.e., at all entrances to a building) no less than 48 hours in advance of the pesticide application.

The warning notice must be completely filled out, including name of the pesticide (both chemical and brand name), time and date of application, and with a fully legible re-entry time.

Annual Pesticide Use Summary Report

Contractor shall track pesticide use on City properties and provide an annual pesticide use summary report of pesticide application on City properties. The annual pesticide use summary report shall be submitted to the City's Public Works Department Clean Water Program staff by a date to be determined in the scope of work and shall include the following information:

1. Product name and manufacturer
2. Active ingredient
3. The total quantity of each pesticide used during the prior fiscal year (from July 1 to June 30)
4. Target pest(s) for pesticide application(s).
5. Reasons for increases in use of pesticides that threaten water quality, specifically organophosphorous pesticides, pyrethroids, carbamates, fipronil, and copper-based pesticides.

Best Management Practices (BMPs)

To protect water quality, the Contractor shall implement the BMPs and control measures described below:

1. Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of pesticides and training of pest control advisors and applicators.
2. Use the most effective, least toxic pesticides that will do the job, provided there is a choice. The agency will take into consideration the LD50, overall risk to the applicator, and impact to the environment (chronic and acute effects).
3. Apply pesticides at the appropriate time to maximize their effectiveness and minimize the likelihood of discharging pesticides in stormwater runoff. Avoid application of pesticides if rain is expected (this does not apply to the use of pre-emergent herbicide applications when required by the label for optimal results.)
4. Employ techniques to minimize off-target application (i.e. spray drift) of pesticides, including consideration of alternative application techniques. For example, when spraying is required, increase drop size, lower application pressure, use surfactants and adjuvants, use wick application, etc.
5. Apply pesticides only when wind speeds are low.
6. Mix and apply only as much material as is necessary for treatment. Calibrate application equipment prior to and during use to ensure desired application rate.
7. Do not mix or load pesticides in application equipment adjacent to a storm drain inlet, culvert, or watercourse.
8. Properly inspect applicator equipment to prevent accidental pesticide leaks, spills and hazards to applicators and the environment.
9. Meet local fire department and Alameda County Agricultural Commissioner storage requirements for pesticide products. Provide secondary containment for liquids if required.
10. Prepare spill kits, store the kits near pesticides, and train employees to use them.

11. Store pesticides and other chemicals indoors in a locked and posted storage unit, as per California Code of Regulations.
12. Store pesticides in labeled containers, as per California Code of Regulations.
13. Rinse empty pesticide/herbicide containers, and empty in the spray, as per California Code of Regulations.
14. Dispose of triple-rinsed empty pesticide containers according to recommendations of the Alameda County Agricultural Commissioner and the manufacturer.
15. Try to find a qualified user for any unwanted pesticides, or return to the manufacturer if unopened. If disposal is required, contact Alameda County's Household Hazard Waste Collection Program at (510) 670-6460 between 8:30 AM and 5:00 PM., Monday through Friday, to make appropriate disposal arrangements, or to recycle the material.
16. If changing pesticides or cleaning spray tanks, use tank rinse water as the product, over a targeted area within the application site.
17. Irrigate slowly to prevent runoff, and do not over-water.

SECTION III. SCOPE OF WORK

A. **WORK TO BE DONE.** The project consists of removing and replacing the existing electrical equipment at four (4) storm drain pump stations: Main Street, Webster Street, 3rd Street, and Golf Course Stations. Equipment to be replaced and installed includes control panels, service pedestals, SCADA poles, concrete pads, stairs, fences, gates, electrical equipment, and other items shown to be constructed on the contract drawings or specifications, including repair, and reconstruction of existing improvements affected by the Work, and incidentals for complete and usable facility. Additional improvements may include but are not limited to curb, gutter, sidewalk, driveway, street patch, landscaping, irrigation, WPCP, traffic controls and all other associated work to complete the project at the locations designated in the plans.

Note that the Golf Course Station is located on the edge of an active golf course, and 3rd Street Station is located on Alameda Community Learning Center (ACLC) property, which is a grade 6 through 12 school.

The Engineer's Estimate for this project is \$2,270,000.

The Notice to Proceed (NTP) for this project is tentatively scheduled to be issued October 25, 2021.

The Initial Project Submittal Package shall address the entire project, and shall include the Pedestrian and Traffic Control Plan(s), WPCP, Waste Reduction and Recycling Plan, Site-Specific Health and Safety Plan (per Health Officer Order 20-10, Appendix B-2, Large Construction Project Safety Protocol), and the full project schedule. Contractor shall not commence work in the field until Engineer has approved the Initial Project Submittal Package.

The Contractor shall have two hundred fifty (250) consecutive working days from the date the work is to commence pursuant to the Notice to Proceed to complete the work.

Contractor is advised to remove all equipment from the streets identified as route, detour, and/or staging areas for the 4th of July Parade 2022.

Contractor shall not work during City holidays; 2021 and 2022 holidays include:

2021:

Labor Day	Monday, September 6, 2021
Veteran's Day	Thursday, November 11, 2021
Thanksgiving Day	Thursday, November 25, 2021
Day after Thanksgiving Day	Friday, November 26, 2021
Christmas Day	Friday, December 24, 2021
New Year's Day 2022	Friday, December 31, 2021

2022:

Martin Luther King, JR.	Third Monday in January
Presidents Day	Third Monday in February
Memorial Day	Last Monday in May

Day After Independence Day	Monday, July 4, 2022
Labor Day	First Monday in September
Veteran's Day	TBD
Thanksgiving Day	Last Thursday in November
Day after Thanksgiving Day	Day After Last Thursday in November
Christmas Day	TBD

The following City events are planned for Calendar Year 2021 and 2022:

<u>Event</u>	<u>Date</u>
Farmer's Market (Webster Street at Haight Avenue) held every Tuesday and Saturday (year-round) from 9 a.m. to 1 p.m.	
Classic Car Show (Park Street)	2021: Cancelled; 2022: TBD
Trick or Treat at Webster Street	TBD
Santa on Webster Street	TBD
Spring Festival (Park Street)	TBD
Alameda Island Jam (Webster Street)	TBD
July 4th Parade	2021: Cancelled; 2022: TBD
Art and Wine Faire (Park Street)	TBD
Concerts at the Cove	TBD

B. **ALTERATIONS.** The City of Alameda reserves the right to increase or decrease the quantity of any item or portion of work, or to omit portions of the work as may be deemed necessary or expedient by the Engineer; also to make such alterations or deviations, increases or decreases, additions or omissions in the plans and specifications, as may be determined during the progress of the work to be necessary and advisable.

C. **EXTRA AND FORCE ACCOUNT WORK.** New and unforeseen work will be classed as extra work when such work cannot be covered by any of the various items or combination of items for which there is a bid price.

The Contractor shall do no extra work except upon written order from the Engineer. Extra work as herein before defined under Section 4-1.05, Extra Work, when ordered and accepted, shall be paid for under a written work order in accordance with the terms therein provided. Payment for extra work will be made as agreed upon in writing pursuant to an extra work order signed by both parties, or by force account.

Work performed on force account shall be paid on a time and materials basis plus ten percent (10%). For work done by a subcontractor, an additional five percent (5%) markup is allowed to reimburse the contractor for additional administration cost and no other additional payment will be made; provided, however, that the City reserves the right to furnish such materials required as it deems expedient, and the Contractor shall have no claim for profit on the cost of such materials. Payment for work performed on force account pursuant to this subsection shall include full compensation to the Contractor for contributions made to the State as required by the provisions of the Unemployment Reserve Act, Chapter 352, Statutes of 1935, as amended;

for taxes paid to the Federal Government as required by the Social Securities Act, approved August 14, 1935, as amended; for premiums paid on any other insurance of any nature which the Contractor may be required to carry or which he may elect to carry, and for additional premiums paid on faithful performance and labor and materials bonds required by reason of increase in the amount of work to be performed over and above that called for in the original contract. The price paid for labor shall include any compensation insurance paid by the Contractor.

All force account work shall be recorded and tracked daily upon Time and Material Tentative Extra Work Order report sheets furnished by the Contractor to the Engineer and signed by both parties, which daily reports shall thereafter be considered the true record of force account work done. Verification of time and materials shall be made on a daily basis by the Inspector or by his/her designee.

D. REMOVAL OF OBSTRUCTIONS. The Contractor shall remove and dispose of all structures, debris, or other obstruction of any character to the construction of the project if and as required by the Engineer.

E. CLEAN UP. Contractor shall leave the work site in an acceptable clean manner at the end of each work day. Upon completion and before making application for acceptance of the work, the Contractor shall clean the street or road, borrow pits, and all ground occupied by the Contractor in connection with the work, of all rubbish, excess materials, temporary structures, and equipment; and all parts of the work shall be left in a neat and presentable condition.

SECTION IV. CONTROL

A. AUTHORITY OF THE ENGINEER. The Engineer shall decide all questions which may arise as to the quality or acceptability of materials furnished and work performed; the manner of performance and rate of progress of the work; the interpretation of the plans and specifications; the acceptable fulfillment of the contract on the part of Contractor; and all questions as to claims and compensation.

The Engineer's decision shall be final and he/she shall have executive authority to enforce and make effective such decisions and orders that the Contractor fails to carry out promptly.

B. PLANS. All authorized alterations affecting the requirements and information given on the approved plans shall be in writing. No changes shall be made to any plans or drawings after the same have been approved by the Engineer, except by direction of the Engineer.

Working drawings of plans for any structure not included in the plans furnished by the Engineer shall be approved by the Engineer before any work involving these plans shall be performed, unless approval is waived in writing by the Engineer.

Notwithstanding the foregoing, the Contractor agrees that approval by the Engineer of the Contractor's working plans does not relieve the Contractor of any responsibility for the accuracy of the dimensions and details thereof, and that the Contractor shall be responsible for agreement and conformity of his/her working plans with the approved plans and specifications.

The Contractor shall provide as-built drawings at the completion of the work. As-built drawings shall be prepared by a licensed engineer or surveyor and approved by the City Engineer.

As-built drawings must be in digital format. Any difficulty in providing the digital as-built drawings must be documented and presented to the City Engineer, who may permit manual as-built drawings on 24"x36" vellum. Release of retention is subject to the approval of the as-built drawings by the Engineer.

Full compensation for furnishing all working drawings and digital **as-built drawings** shall be considered as included in the prices paid for the various contract items of work, and no additional allowance will be made therefor.

C. CONFORMITY WITH PLANS AND ALLOWABLE DEVIATION. Finish surfaces in all cases shall conform with the lines, grades, cross sections, and dimensions shown on the approved plans. Deviations from the approved plans, as may be required by the exigencies of construction will be determined in all cases by the Engineer and authorized in writing.

D. COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS.

These specifications, the plans, special provisions and all supplementary documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be cooperative, to describe, and to provide for a complete work. Plans shall govern over specifications; special provisions shall govern over both specifications and plans.

E. INTERPRETATION OF PLANS AND SPECIFICATIONS AND ADDENDA THERETO.

Should it appear that the work to be done, or any matter relative thereto, is not sufficiently detailed or explained in these specifications, plans, and the special provisions, the Contractor shall apply to the Engineer for such further explanation as may be necessary to carry out the work. Upon such application by the Contractor or prospective bidder, or in the event that it appears expedient to the Engineer to further explain, clarify, or amend these specifications, special provisions and plans, the Engineer shall issue addenda thereto and such addenda shall constitute a part hereof, and shall be binding on the Contractor. It is up to the Contractor to check before the bid date that Contractor has all paperwork to complete the bid.

It is the responsibility of each prospective bidder to check the website listed on page 1 of these specifications periodically for Addenda updates. If the addendum is issued after the mandatory pre-bid meeting is held, the addendum will be forwarded by email to all attendees who have furnished contact information or will be posted on the website. Do not rely upon third party providers of the original plans and specs to issue all addenda. Contractor shall acknowledge receipt of all addenda on the Bid and those Bids that do not have acknowledgment of all addenda will be considered non-responsive.

In the event of any discrepancy between any drawing and the figures written thereon, the figures shall be taken as correct.

F. SUPERINTENDENCE. Whenever the Contractor is not present on any part of the work where it may be desired to give directions, orders will be given by the Engineer in writing and shall be received and obeyed by the superintendent or foreman in charge of the particular work in reference to which orders are given.

G. CONSTRUCTION STAKING & LAYOUT. Construction staking and layout shall be at the contractor's expense and performed by the contractor's surveyor or engineer qualified to do surveying work.

The Contractor shall preserve all stakes and points set for lines, grades, or measurements of the work in their proper places until authorized to remove them by the Engineer. All expenses incurred in replacing stakes that have been removed without proper authority shall be paid by the Contractor.

AND/OR

G. LINES AND GRADES. All distances and measurements are given and will be made in a horizontal plane. Grades are given from the top of stakes or nails, unless otherwise noted on the plans.

Three consecutive points shown on the same rate of slope must be used in common, in order to detect any variation from a straight grade, and in case any discrepancy exists, it must be reported to the Engineer. If such discrepancy is not reported to the Engineer, the Contractor shall be responsible for any error in the finished work.

The Contractor shall preserve all stakes and points set for lines, grades, or measurements of the work in their proper places until authorized to remove them by the Engineer. All expenses incurred in replacing stakes that have been removed without proper authority shall be paid by the Contractor.

H. INSPECTION. The Engineer shall at all times have access to the work during construction and shall be furnished with every reasonable facility for ascertaining full knowledge respecting the progress, workmanship, and character of materials used and employed in the work.

The Contractor shall give at least 48 hours notice in writing when he will require inspection on subgrade, formwork, concrete paving, etc. Inspection will routinely be carried out at pre-scheduled time established at the pre-construction meeting. Inspection will only be carried out for substantial quantities of work ready for inspection.

The Contractor shall contact the City's representative by 11:00 a.m. the day prior to any special inspections so the City can schedule the inspections. If the contractor does not perform work that requires the special inspection as previously communicated to City's representative then the contractor will be responsible for all costs associated with special inspection regardless of the fact that the special inspector did not perform any services.

Whenever the Contractor varies the period during which work is carried on each day, he shall give due notice to the Engineer, so that proper inspection may be provided. Any work done in the absence of the Engineer is subject to rejection.

The inspection of the work shall not relieve the Contractor of any of his/her obligations to fulfill the contract as prescribed. Defective work shall be made good and unsuitable materials may be rejected, notwithstanding the fact that such defective work and unsuitable materials have been previously overlooked by the Engineer and accepted or estimated for payment.

Working hours in the field are restricted to 8 AM through 5 PM, Monday through Friday, excluding City Holidays, and shall constitute "normal working hours." The Public Works Department Inspectors work on Fridays and can be reached at 510-747-7900. In some locations, as noted on the Plans, normal working hours may be further restricted to avoid traffic and/or school-related conflicts. Any work in the field performed outside of these hours, including but not limited to construction, clean up, placement of traffic control devices, and mobilization/demobilization, shall be subject to removal and the Contractor fined \$5,000 per incident, unless such work has been previously authorized by the Engineer in writing.

Inspection hours for construction shall be from 8 AM through 5 PM, Monday through Friday, excluding City Holidays, and shall constitute "normal inspection hours." The Public

Works Department Inspectors work on Friday's and can be reached at 510-747-7900. Unless prior written authorization has been received from the Engineer, the Contractor shall not perform any work outside of these hours except for general clean up, demobilization, and placement of no-parking signs. The Contractor shall pay the salary and benefits, including overtime, of the City employee(s) for inspection of any work performed outside of the normal inspection hours. Projects financed in whole or in part with state funds shall be subject to inspection at all times by the Director of Public Works of the State of California, or his agents.

I. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK. All work which is defective in its construction or deficient in any of the requirements of these specifications shall be remedied, or removed and replaced by the Contractor in an acceptable manner and no compensation will be allowed for such correction.

Any work done beyond the lines and grades shown on the plans or established by the Engineer, or any extra work done without written authority, shall be considered as unauthorized and will not be paid for.

Upon failure on the part of the Contractor to comply forthwith with any order of the Engineer made under the provisions of this article, the Engineer shall have the authority to cause defective work to be remedied, or removed and replaced, and unauthorized work to be removed, and to deduct the cost thereof from any monies due or to become due the Contractor.

The fact that the work and materials have been inspected from time to time, and payments on account have been made, does not relieve the Contractor from the responsibility of replacing and making good any defective work or materials that may be discovered within one year from the date of the completion of the work by the Contractor and its acceptance by the City.

J. FINAL INSPECTION. Whenever the work provided and contemplated by the contract shall have been satisfactorily completed, the Engineer will make the final inspection.

K. FINAL GUARANTEE. It is understood that the Contractor is skilled in the trade or calling necessary to perform the work set forth within the plans and specifications, and that the City of Alameda, not being skilled in such matters, relies upon the Contractor to do and perform all work, acts, and things necessary to carry out the contract in the most skilled and desirable manner, and the Contractor guarantees the workmanship and materials to be the best of their kind. The acceptance of any part or of the whole of the work by the City does not operate to release the Contractor or the Contractor's surety from said guarantee.

The Contractor shall be held responsible for and must make good any defects through faulty, improper or inferior workmanship or materials arising from or discovered in any part of the contract work within one year of the completion and acceptance of the same. The bond for faithful performance, furnished by the Contractor, shall cover such defects and protect the City of Alameda against any and all such defects.

Nothing in this section supersedes contractor obligations for repair and replacement of work pursuant to the Public Contract Code.

SECTION V. CONTROL OF MATERIAL

A. SAMPLES AND TESTS. At the option of the Engineer, the source of supply of each of the materials shall be approved by the Engineer before delivery is started and before such material is used in the work. Representative preliminary samples of the character and quality prescribed shall be submitted by the Contractor or producer of all materials to be used in the work for testing or examination as desired by the Engineer.

All tests of materials furnished by the Contractor shall be made in accordance with commonly recognized standards of national organizations and such special methods and tests as are prescribed in these specifications.

The Contractor shall furnish such samples of materials as are requested by the Engineer without charge. No material shall be used until it has been approved by the Engineer. Samples will be secured and tested whenever necessary to determine the quality of material.

B. DEFECTIVE MATERIALS. All materials not conforming to the requirements of these specifications shall be considered as defective, and all such materials, whether in place or not, shall be rejected. They shall be removed immediately from the site of the work unless otherwise permitted by the Engineer.

Upon failure on the part of the Contractor to comply with any order of the Engineer made under the provisions of this article, the Engineer shall have the authority to remove and replace defective material and to deduct the cost of removal and replacement from any monies due or to become due the Contractor.

SECTION VI. PROSECUTION AND PROGRESS

A. PROGRESS OF THE WORK AND TIME FOR COMPLETION. The Contractor shall submit the Initial Project Submittal Package to the City Engineer for review. The Initial Project Submittal Package shall address the entire project, and shall include the Pedestrian and Traffic Control Plan(s), WPCP, Waste Reduction and Recycling Plan, Site-Specific Health and Safety Plan (per Health Officer Order 20-10, Appendix B-2, Large Construction Project Safety Protocol), and the full project schedule. Contractor shall not commence work in the field until Engineer has approved the Initial Project Submittal Package.

The Contractor shall not commence construction on any section of the work until such time that he/she shall have on the ground, or can furnish definite assurance to the Engineer that there will be available when required, all the materials necessary to complete the section of the work upon which construction is to begin.

The Contractor shall submit a three week look-ahead work schedule every Monday and upon the issuance of any change order that alters the contract's schedule. Engineer shall have ten (10) working days to respond to the updated work schedule, and Contractor shall abide by most recently approved schedule until a new one has been approved in writing by the Engineer.

The Contractor shall submit additions to the Pedestrian and Traffic Control Plan(s) ten (10) working days in advance of any work that was not covered by the Pedestrian and Traffic Control Plan(s) submitted in the Initial Project Submittal Package.

In order to minimize disturbances to residents and public the Contractor shall:

1. Backfill and resurface failed area locations the same working day as the start of break out.
2. Resurface planed AC areas within three (3) working days from the day the areas were planed. The streets shall be swept, repeatedly if necessary, to minimize loose material.
3. Schedule removal and reconstruction of curb, gutter, and culverts so that only one side of the street is under construction on any one day, and parking and unimpeded pedestrian passage remains available on the opposite side of the street.

B. SUBLETTING AND ASSIGNMENT. The Contractor shall give his/her personal attention to the fulfillment of the contract and shall keep the work under his/her control.

Subcontractors will not be recognized as such, and all persons engaged in the work of construction will be considered as employees of the Contractor, and their work shall be subject to the provisions of the contract and specifications.

Where a portion of the work sublet by the Contractor is not being prosecuted in a manner satisfactory to the Public Works Director, the subcontractor shall be removed immediately on the requisition of the Engineer and shall not again be employed on the work.

This contract may be assigned only on written consent of the City Council.

C. CHARACTER OF WORKER. If any subcontractor or person employed by the Contractor shall fail or refuse to carry out the directions of the Engineer or shall appear to the Engineer to be incompetent or to act in a disorderly manner, said worker shall be discharged immediately on the requisition of the Engineer and such person shall not again be employed on the work.

D. TEMPORARY SUSPENSION OF WORK. The Engineer shall have the authority to suspend the work wholly or in part for such period as he/she may deem necessary, due to unsuitable weather, or to such other conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as he/she may deem necessary, due to the failure on the part of the Contractor to carry out orders given or to perform any of the provisions of the work. The Contractor shall immediately obey such orders of the Engineer and shall not resume suspended work until ordered in writing by the Engineer.

E. TIME OF COMPLETION AND LIQUIDATED DAMAGES. It is agreed by the parties to the contract that in case all the work called for under the contract is not completed before or upon the expiration of the contract's term as set forth in these specifications, damage will be sustained by the City of Alameda, and that it is and will be impracticable to determine the actual damage which the City will sustain in the event of and by reason of such delay; and it is therefore agreed that the Contractor will pay to the City of Alameda the sum of two thousand five hundred dollars (\$2,500.00) per day for each and every day's delay beyond the time prescribed to complete the work; and the Contractor agrees to pay such liquidated damages as herein provided, and in case the same are not paid, agrees that the City of Alameda may deduct the amount thereof from any money due or that may become due the Contractor under the contract.

It is further agreed that in case the work called for under the contract is not finished and completed in all parts and requirements within the time specified, the City Council shall have the right to extend the time for completion or not, as may seem best to serve the interest of the City; and if it decides to extend the time limit for the completion of the contract, it shall further have the right to charge the Contractor, his heirs, assigns, or sureties, and to deduct from the final payment for the work, all or any part, as it may deem proper, of the actual cost of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to the contract, and which accrue during the period of such extensions, except that the cost of final surveys and preparation of final estimate shall not be included in such charges.

The Contractor shall not be assessed with liquidated damages nor the cost of engineering and inspection during any delay in the completion of the work caused by acts of God or of the public enemy, acts of the City, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes; provided that the Contractor shall within ten (10) days from the beginning of such delay notify the Engineer in writing of the causes of delay. The Engineer shall ascertain the facts and the extent of the delay and his findings of the facts thereon shall be final and conclusive.

F. SUSPENSION OF CONTRACT. If, at any time, in the opinion of the City Council, the Contractor has failed to supply an adequate working force, or material of proper quality, or has failed in any other respect to prosecute the work with the diligence and force specified and intended in and by the terms of the contract, notice thereof in writing will be served upon him; and shall he neglect or refuse to provide means for a satisfactory compliance with the contract, as directed by the Engineer, within the time specified in such notice, the City Council in any such case shall have the power to suspend the operation of the contract. Upon receiving notice of such suspension, the Contractor shall discontinue said work, or such parts of it as the City Council may designate. Upon such suspension, the Contractor's control shall terminate, and thereupon the City Council or its duly authorized representative may take possession of all or any part of the Contractor's materials, tools, equipment and appliances upon the premises, and use the same for the purpose of completing said contract, and hire such force and buy or rent such additional machinery, tools, appliances, and equipment, and buy such additional materials and supplies at the Contractor's expense as may be necessary for the proper conduct of the work and for the completion thereof; or may employ other parties to substitute other machinery or materials, and purchase the materials contracted for, in such manner as the City Council may deem proper; or the City Council may annul and cancel the contract and relet the work or any part thereof. Any excess of cost arising therefrom over and above the contract price will be charged against the Contractor and his sureties, who will be liable therefor. In the event of such suspension, all monies due the Contractor or retained under the terms of this contract shall be forfeited to the City; but such forfeiture shall not release the Contractor or his sureties from liability for failure to fulfill the contract. The Contractor and his sureties will be credited with the amount of money so forfeited toward any excess of cost over and above the contract price, arising from the suspension of the operations of the contract and the completion of the work by the City as above provided; the Contractor will be so credited with any surplus remaining after all just claims for such completion have been paid.

In the determination of the question whether there has been any such noncompliance with the contract as to warrant the suspension or annulment thereof, the decision of the City Council shall be binding on all parties to the contract.

G. RIGHT-OF-WAY. The right-of-way sufficient for the work to be constructed will be provided by the City. The Contractor shall make his own arrangements, and pay all expenses for additional area required by him outside of the limits of right-of-way, unless otherwise provided in the special provisions. Contractor's staging area must be approved by the Engineer.

SECTION VII. MEASUREMENTS AND PAYMENT

A. MEASUREMENTS AND PAYMENT. Payment for work done under the contract shall be made on the basis of the sums as calculated from the finally measured quantities of work done and the agreed unit and lump sum prices. Payment shall be full compensation for furnishing all labor, materials, tools and equipment and doing all the work necessary to construct the items for which payment is being made, complete in place as shown on the plans and described in the specifications.

B. EXTRA AND FORCE ACCOUNT WORK. Extra work as hereinbefore defined (Section III, Paragraph C) when ordered and accepted, shall be paid for under a written work order in accordance with the terms therein provided. Payment for extra work will be made as agreed upon in writing pursuant to an extra work order signed by both parties, or by force account.

Work performed on force account shall be paid on a time and materials basis plus ten percent (10%). For work done by a subcontractor, an additional five percent (5%) markup is allowed to reimburse the contractor for additional administration cost and no other additional payment will be made; provided, however, that the City reserves the right to furnish such materials required as it deems expedient, and the Contractor shall have no claim for profit on the cost of such materials. Such payment shall include full compensation to the Contractor for contributions made to the State as required by the provisions of the Unemployment Reserve Act, Chapter 352, Statutes of 1935, as amended; for taxes paid to the Federal Government as required by the Social Securities Act, approved August 14, 1935, as amended; for premiums paid on any other insurance of any nature which the Contractor may be required to carry or which he may elect to carry, and for additional premiums paid on faithful performance and labor and materials bonds required by reason of increase in the amount of work to be performed over and above that called for in the original contract. The price paid for labor shall include any compensation insurance paid by the Contractor.

C. PROGRESS PAYMENTS. The City shall, once each month, cause an estimate in writing to be made by the City Engineer of the total amount of work done and the acceptable materials furnished and delivered by the Contractor on the ground and not used at the time of such estimate, and the value thereof. The City of Alameda shall retain five percent (5%) of such estimated value of the work done and fifty percent (50%) of the value of the materials so estimated to have been furnished and delivered and unused, as aforesaid, as part security for the fulfillment of the contract by the Contractor, and shall monthly pay to the Contractor, while carrying on the work, the balance not retained, as aforesaid, after deducting therefrom all previous payments and all sums to be kept or retained under the provisions of the contract. No such estimate or payment shall be required to be made, when, in the judgment of the City Engineer, the work is not proceeding in accordance with the provisions of the contract, or when in his judgment, the total value of the work done since the last estimate amounts to less than Three Hundred Dollars (\$300.00). No such estimate or payment shall be construed to be an acceptance of any defective work or improper materials.

Partial Payments

Progress payments shall be in accordance with Section 9-1.16 of the Standard Specifications "Progress Payments", as currently amended, and these special provisions. The City, once in each month, shall cause an estimate in writing to be made by the Engineer. The estimate shall include the total amount of work done and acceptable materials furnished, provided the acceptable materials are listed as eligible for partial payment as materials in the special provisions and are furnished and delivered by the Contractor on the ground and not used or are furnished and stored for use on the Contract, if the storage is within the City and the Contractor furnishes evidence satisfactory to the Engineer that the materials are stored subject to or under the control of the City, to the time of the estimate, and the value thereof. The estimate shall also include any amounts payable for mobilization.

The amount of any material to be considered in making an estimate will in no case exceed the amount thereof which has been reported by the Contractor to the Engineer. Only materials to be incorporated in the work will be considered. The estimated value of the material established by the Engineer will in no case exceed the Contract price for the item of work for which the material is furnished.

Contractor warrants that upon signature of pay estimate, all work has been performed in strict compliance with the Contract Documents, and all work for which progress payments have been previously issued and payment has been received from City, shall be free and clear of all third-party claims, stop notices, security interests, and encumbrances.

Payment of all, or any part, of an estimate in writing may be withheld on account of any of the following:

1. Defective work not remedied;
2. Third-party claims against Contractor or City arising from the acts or omissions of Contractor or subcontractors;
3. Stop Notices;
4. Failure of Contractor to make timely payments due to subcontractors for material or labor;
5. Damage to the City or others for which Contractor is responsible;
6. Failure of Contractor to maintain, update, and submit record documents;
7. Failure of Contractor to submit schedules or their updates as required by the Contract Documents;
8. Performance of the work by Contractor without properly processed shop drawings;
9. Liquidated damages assessed;
10. Any other failure of Contractor to perform its obligations under the Contract Documents.

SUBSTITUTION OF SECURITIES FOR WITHHELD ACCOUNTS. Pursuant to Chapter 13 (commencing with Section 4590), Division 5, Title 1 of the Government Code of the State of California, securities may be substituted for any monies withheld by a public agency to ensure performance under a contract. At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the public agency, or with a state or

federally chartered bank as the escrow agent, who shall pay such monies to the Contractor upon satisfactory completion of the contract.

Securities eligible for substitution under this section shall include those listed in Section 22300 of the Public Contract Code of the State of California or bank or savings and loan certificates of deposit.

Contractor shall be the beneficial owner of any securities substituted for monies withheld and shall receive any interest thereon.

Any escrow agreement entered into pursuant to this section shall contain, as a minimum, the following provisions:

1. The amount of securities to be deposited.
2. The terms and conditions of conversion to cash in case of the default of the Contractor.
3. The termination of the escrow upon completion of the contract.

D. NOTICE OF COMPLETION. Whenever the work provided and contemplated by the contract shall have been satisfactorily completed, the Engineer will make the final inspection.

When such final inspection shows that the work has been completed in conformance with the plans, specifications and special provisions, the Engineer will recommend the formal acceptance of the work by the City Council; and upon such acceptance, Notice of Completion will be recorded. The said work shall not be deemed completed until the same is accepted by the City.

E. PAYMENT OF THE RETENTION. The City Engineer shall, after the completion of the contract, total all amounts retained under the provisions of the contract. Final payment of retention shall be in conformance with Public Contract Code Section 7107.

It is mutually agreed between the parties to the contract that no certificate given or payments made under the contract, except the final certificate of final payment, shall be conclusive evidence of the performance of the contract, either wholly or in part, against any claim of the Contractor; and no payment shall be construed to be an acceptance of any defective work or improper materials.

The Contractor further agrees that the payment of the final amount due under the contract, and the adjustment and payment for any work done in accordance with any alterations of the same, shall release the City of Alameda, its officers, employees and agents from any and all claims or liability on account of work performed under the contract or any alteration thereof.

SECTION VIII. SPECIAL PROVISIONS

STANDARD SPECIFICATIONS ADOPTION. The work embraced herein shall be done in accordance with the appropriate provisions of construction detail of the specifications entitled "State of California, Department of Transportation, Standard Specifications", latest revision, insofar as the same apply, which specifications are hereinafter referred to as the Standard Specifications, and in accordance with the following Special Provisions.

Whenever in the Standard Specifications the following terms are used, they shall be understood to mean and refer to the following:

Department of Public Works or Department of Transportation	To the Engineering Division
Director of Public Works	To the Public Works Director
Engineer	To the City Engineer, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.
Laboratory	To the designated Laboratory authorized by the City of Alameda to test materials and Work involved in the contract.
State	To the City of Alameda

Other terms appearing in the Standard Specifications, and these specifications, shall have the intent and meaning specified in Section I, Definition of Terms, of the Standard Specifications.

In case of conflict between the Standard Specifications and these Special Provisions, the Special Provisions shall take precedence over and be used in lieu of such conflicting portions.

In case of conflict between the Standard Specifications or Special Provisions and the "East Bay Communities Regional Standards For Sanitary Sewer System Installation, Rehabilitation and Repair", the "East Bay Communities Regional Standards For Sanitary Sewer System Installation, Rehabilitation And Repair" shall take precedence over and be used in lieu of such conflicting portions.

SECTION IX. QUANTITIES

The following preliminary estimate of the quantities of work to be done and materials to be furnished is approximate only, and the City of Alameda does not expressly or by implication agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work or to omit portions of the work that may be deemed necessary or expedient to the Engineer.

Quantities shall be determined by the Contractor from plans and specifications. Any discrepancy or conflict shall be reported to the Project Manager. Contractor shall be held responsible for any discrepancies or conflicts not reported to the Project Manager seventy-two (72) hours prior to the bid opening.

The basis of award of contract shall be by the City of Alameda for the lowest and best bid that will best serve the City's need. The contract shall be awarded with the entire project based bid.

The City reserves the right to reject any, any portion, or all bids.

The base bid consists of forty two (42) bid items, as outlined below and detailed in Section XII, M, Extent of Contract. The project also includes ZERO add alternates.

TABULATION OF PRELIMINARY ESTIMATE OF QUANTITIES

	Description	Est. Qty.	Unit	Unit Price	Total Price
1	Mobilization and Demobilization	1	LS		
2	Third Street Demolition and Abandonment	1	LS		
3	Third Street Shoring of Open Excavations	1	LS		
4	Third Street Lower Manhole	1	LS		
5	Third Street Submersible Pumps, Rails & Accessories	2	EA		
6	Third Street Discharge Piping and Valves	1	LS		
7	Third Street 8' Diameter Wetwell	1	LS		
8	Third Street SCADA Pole	1	LS		
9	Third Street Electrical Control Panel and Concrete Pad	1	LS		
10	Third Street Service Pedestal and Concrete Pad	1	LS		
11	Third Street Picket Fence & Gates	1	LS		
12	Third Street Site Paving and Curb	1	LS		
13	Third Street Site Restoration and Cleanup	1	LS		
14	Third Street Miscellaneous Electrical Work, Wiring, and Sensors	1	LS		
15	Third Street Bollard	3	EA		
16	Golf Course Demolition and Abandonment	1	LS		
17	Golf Course Electrical Control Panel	1	LS		

18	Golf Course Service Pedestal	1	LS		
19	Golf Course Generator Receptacle	1	LS		
20	Golf Course SCADA/Light Pole	1	LS		
21	Golf Course Light Pole	1	LS		
22	Golf Course Precast Vault	1	LS		
23	Golf Course Concrete Access Pad	1	LS		
24	Golf Course Bollard	2	EA		
25	Golf Course Site Restoration and Cleanup	1	LS		
26	Golf Course Miscellaneous Electrical Work, Wiring, and Sensors	1	LS		
27	Main Street Demolition and Abandonment	1	LS		
28	Main Street Electrical Control Panel	1	LS		
29	Main Street Relocate Trash Rake Control Panel	1	LS		
30	Main Street SCADA Pole	1	LS		
31	Main Street Generator Receptacle	1	LS		
32	Main Street Raise Concrete Pad	1	LS		
33	Main Street Staircase and Handrail	1	LS		
34	Main Street Site Restoration and Cleanup	1	LS		
35	Main Street Miscellaneous Electrical Work, Wiring, and Sensors	1	LS		
36	Webster Street Demolition and Abandonment	1	LS		
37	Webster Street Electrical Control Panel	1	LS		
38	Webster Street Service Pedestal and Concrete Pad	1	LS		
39	Webster Street SCADA Antenna Mastarm	1	LS		
40	Webster Street Handrail	1	LS		
41	Webster Street Site Restoration and Cleanup	1	LS		
42	Webster Street Miscellaneous Electrical Work, Wiring, and Sensors	1	LS		
Total Bid					

SECTION X. MATERIALS

The Contractor shall furnish for use under these special provisions all materials required to complete the contract, except as described under Section VII of the specifications.

SECTION XI. DESCRIPTION AND LOCATION OF WORK

A. DESCRIPTION OF WORK The work to be done consists of doing all work associated with the installation of sanitary sewer mains, sewer laterals, manholes, cleanouts, street patch, WPCP, traffic control, removal and disposal of manholes, sewer lines, and all other associated work to complete the project at the locations shown on the plans.

All work is to be in conformance with the plans and specifications as required by the Engineer. The contract shall include all work necessary to make the job complete as herein specified or as shown on the plans. The contract will be awarded with Base Bid only.

B. PLANS The following drawings dated are incorporated into these Specifications:

<u>TITLE</u>	<u>DRAWING NO.</u>	<u>CASE</u>
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STORM DRAIN PUMP STATION ELECTRICAL UPGRADES	9426	15
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CITY OF ALAMEDA STANDARD PLANS:

Survey Monuments	3174	54
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Detail of Reinforcing Required in Sidewalk Around Utility Boxes	6080	22
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STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS 2018 EDITION AND CALIFORNIA MUTCD 2014 EDITION:

Curbs and Driveways (2015 Standard Plan)	A87A
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Traffic Control System for Lane Closure on Multilane Conventional Highways	T11
----------------------------------------------------------------------------	-----

Traffic Control System for Half Road Closure on Multilane Conventional Highways and Expressway	T12
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Traffic Control System for Lane Closure on Two Lane Conventional Highways	T13
---------------------------------------------------------------------------	-----

Work in Center of Road with Low Traffic Volumes	TA-15
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Closure in the Center of an Intersection	TA-26
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Closure at the Side of an Intersection	TA-27
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TITLE

DRAWING NO. CASE

Sidewalk Detour or Diversion

TA-28

Crosswalk Closures and Pedestrian Detours

TA-29

SECTION XII. CONSTRUCTION DETAILS

The construction details covered under this Section XII shall be Special Provisions as set forth in Section VIII.

A. MAINTAINING TRAFFIC. Attention is directed to Section 7-1.03, "Public Convenience", 7-1.04, "Public Safety", of the State of California Standard Specifications, and to Section II, Article Q of these specifications.

The Contractor shall furnish, install and maintain such facilities as barricades, traffic signs, and flagmen, as may be necessary to advise the public of construction hazards and to control traffic.

The Contractor will not be permitted to detour traffic from the work area at any time. The Contractor will be required to maintain two-way traffic at all times. Any lane closure shall be subject to the prior approval of the City Engineer.

The full width of the traveled way shall be open for use by public traffic when construction operations are not actively in progress on working days.

Prior to commencement of work, the Contractor shall provide the Engineer with sketches for approval, indicating the method of signing and necessary delineators for proposed lane closures.

The Contractor shall cooperate with local authorities relative to handling traffic through the area and shall make his own arrangement relative to keeping the work area clear of parked vehicles.

The provisions of Section 7-1.04 of the Standard Specifications, regarding State-furnished signs, are hereby revised to provide that all signs and other warning devices shall be provided by the Contractor and shall become his/her property after the completion of the contract. The Contractor shall refer to the current "Manual of Warning Signs, Lights and Devices for Use in the Performance of Work Upon Highways" and the "Uniform Sign Chart" issued by the Department of Transportation, Division of Operations.

Flagmen, if necessary, shall be properly equipped and trained in accordance with "Instructions to Flagmen", published by the California Department of Transportation. Section 12-1.04 is revised to provide that all flagmen shall be furnished by the Contractor at his/her expense.

The provisions in this section may be modified or altered if, in the opinion of the Engineer, public traffic will be better served and work expedited. Said modifications or alterations shall not be adopted until approved in writing by the Engineer.

No additional compensation will be allowed the Contractor for providing for the free passage of traffic through the work. Construction work hours are restricted between 8:00 AM to 5:00 PM, Monday through Friday.

Whenever vehicle or equipment is parked on the shoulder within 6 feet of a traffic lane, the shoulder area shall be closed with florescent traffic cones or portable delineators placed on a taper in advance of the parked vehicle or equipment and along the edge of the pavement at 25-foot intervals to a point no less than 25 feet past the last vehicle or piece of equipment. A minimum of nine (9) cones or portable delineators shall be used for the taper. A W20-1 (Road Work Ahead) or C24 (CA) (Shoulder Work Ahead) sign shall be mounted on a telescoping flag tree with flags. The flag tree shall be placed where directed by the Engineer.

Contractor shall be responsible for posting “No Parking-Tow Away” Signs for the seventy-two (72) hours prior to construction. Contractor must obtain these signs at his/her own expense from the City’s Planning and Building Office or at the Department of Public Works. No parking signs shall be posted only when work is being performed by the Contractor at the posted locations. No Parking signs shall display a date range no longer than 2 weeks at any given time. A revision in date range requires re-posting.

All vehicular, bicycle, and pedestrian traffic shall be permitted to pass through the work, unless other existing streets stipulated in the special provisions. **Contractor must comply with ADA requirements, by providing pedestrian access on the sidewalk and crosswalk during construction.**

The Contractor shall furnish, install and maintain such facilities as barricades, traffic signs, and flagmen, as may be necessary to advise the public of construction hazards and to control traffic. A Pedestrian and Traffic Control Plan(s) identifying the size and location of such facilities shall be submitted to the Engineer for approval a minimum of two weeks prior to beginning construction. Any work being performed without proper signing in place shall be stopped until the unsatisfactory condition is corrected. **Contractor shall submit to the Engineer a Pedestrian and Traffic Control Plan(s) signed and stamped by a Traffic Engineer registered in the state of California for any work that will impact vehicular, bicycle, and pedestrian traffic in the area and shall be developed to show the actual field conditions and not a typical plan. The contractor must have an approved plan prior to commencing of work. All Pedestrian and Traffic Control Plans must be in conformance with the California Manual on Uniform Traffic Control Devices (CA MUTCD) regulations and guidelines. Contractor shall submit Pedestrian and Traffic Control Plan(s) for approval to the Engineer at the pre-construction meeting. Any work being performed without proper signing in place shall be stopped until the unsatisfactory condition is corrected.**

The Contractor shall place barriers at each end of all excavations and at such places along excavations as may be necessary to warn all pedestrian and vehicular traffic of excavations. Lights shall also be placed along excavations (from sunset each day to sunrise of the next day) until excavation is entirely restored. Material for backfill or for protection of excavation in public roads from surface drainage shall be neatly placed and stored in containers so as to cause

the least possible interference with public travel. Free access must be maintained to all fire hydrants, water valves and meters, and private driveways.

Storage of construction material and equipment on City streets will not be permitted.

No trench or excavation shall be left open at the end of any day's work. Daily traffic control measures shall continue until cleanup activities have been satisfactorily completed and all of the Contractor's equipment has been removed from the traveled way area.

The provision of this section will not relieve the Contractor from his/her responsibility to provide such additional devices or take such measures as may be necessary to comply with the provision in Section 7-1.04, "Public Safety," of the Standard Specifications.

Contractor shall not work on multiple streets at a time unless approved by the engineer.

See Section II, Q. for traffic control guidelines. This section also outlines times construction is allowed on certain streets in the City. (Night work, if requested by the Contractor, must be approved by the City Engineer.)

B. ORDER OF WORK. Order of work shall conform to provisions of Section 10-1.02, "Work Sequencing", of the Standard Specifications and these Special Provisions.

The Contractor shall coordinate his work with all other contractors or utility companies working in the construction area.

At least three (3) working days prior to the placement of any new traffic striping and pavement markings, the Contractor shall layout cat-tracks for the traffic striping and pavement marking and contact the City inspector for inspection and approval of the cat-tracking. The City shall review, modify as necessary, and approve the cat-tracking prior to the Contractor proceeding with the striping/markings. The Contractor may not proceed with the striping/markings work until the cat-tracks have been approved by the Engineer or approved designee. The Contractor shall post temporary "No Parking" signs in accordance with the provisions of Sections 7-1.03 and 7-1.04, "PUBLIC CONVENIENCE AND PUBLIC SAFETY" of these Specifications.

Any work done without proper inspection and approval will be subject to rejection. In the case of rejection, the Contractor shall remove the rejected work, and the striping/markings work shall be reinstalled in accordance with these requirements and based on the direction of the Engineer. The City will not compensate the Contractor for any work associated with replacing striping/markings to the satisfaction of the Engineer, including but not limited to: the full removal of the rejected traffic striping and pavement marking work; the installation of new striping/markings, including blacking out any of the removed and rejected striping/markings; and the re-posting of temporary "No Parking" signs in accordance with the provisions of Sections 7-1.03 and 7-1.04, "PUBLIC CONVENIENCE AND PUBLIC SAFETY" of these Specifications. All of these costs shall be borne by the Contractor.

C. PORTLAND CEMENT CONCRETE.

All concrete with exposed surfaces, such as sidewalk, curb, gutter, local depressions, driveway and catch basins tops shall be colored by adding to the mix a proportionate amount of the best quality lampblack, such proportion to be determined by the Engineer.

The name of the Contractor and the year the work is performed shall be stamped upon both ends of each single piece of any concrete work, as called for by Section No. 22-5.3 of the Municipal Code. Contractor shall obtain a load slip from each delivery and give one copy of said slip to the Engineer at the point of deliver of the material.

All exposed surfaces shall be cured by the impervious membrane method to the satisfaction of the Engineer.

Refer to TECHNICAL SPECIFICATIONS SECTION 03300 CAST-IN-PLACE CONCRETE.

D. EQUAL AND/OR APPROVED EQUAL

Wherever the term “or equal” and/or “approved equal” are used following a trade name or the mention of any patented product in the specifications, they shall be deemed to read “or their equals in quality and utility” where two or more such trade names or patented products are mentioned. If any trade name or patented product or process is mentioned in these specifications and is not followed by any such term as “or equal”, such trade name or patented product or process shall be deemed to be followed by the words “or its equal in quality and utility” or “or their equals in quality and utility” if more than one is mentioned. Trade names, proprietary products and methods are used merely as standards of quality and utility and to designate the type of material and processes desired. Materials and processes of equal quality and utility may be furnished or used so long as such substitution causes no delay to product delivery and/or installation and the Contractor has received written approval therefor by the Engineer. The Contractor shall allow 30 days for the Engineer's review of the proposed substitution. Also see Exhibit L, “Statement of Standardized equipment” required for City pump stations that shall not be substituted equipment.

E. DISPOSAL OF EXCAVATED MATERIALS. Salvable materials will be disposed of as directed by the Engineer. The Contractor shall dispose of at least 80% of the removed concrete, rock, brick, asphalt or other similar materials to an approved materials recycling location other than a landfill. The 80% shall be determined by weight of materials. All disposal and recycling weight/receipt tags shall be submitted to the Engineer. In Exhibit C is a suggested list of facilities that will accept construction and demolition waste materials. The Contractor shall submit a request and proof in writing if unable to achieve this 80% goal. Other waste materials shall be disposed of in localities outside of the City of Alameda at the discretion of the Contractor.

F. EXISTING IMPROVEMENTS. Existing fence, lawn, or other improvements within the area of the work shall be carefully removed without damage and replaced in their present location and condition upon completion of the work, in a manner satisfactory to the Engineer and the owner.

Existing lawn shall be removed only where necessary and shall be replaced if considered by the Engineer to be in good condition. Otherwise, the Contractor shall furnish four inches (4") of new loam and plant new lawn, all as approved by the Engineer. All ground surface and replaced lawn shall be left smoothly graded to the original grade.

All existing irrigation system including electric wire, pipelines, sprinkler heads, damaged as a direct or indirect result of construction activity, shall be replaced by the Contractor at his/her expense at appropriate locations in a manner satisfactory to the Engineer and the owner. Any existing improvements that are damaged or disturbed due to carelessness by the Contractor shall be replaced or adjusted to the satisfaction of the Engineer.

Existing fence or other improvements within the area of the work shall be carefully removed without damage and replaced in their present location and condition upon completion of the work, in a manner satisfactory to the Engineer and the owner.

The Contractor shall not disturb or destroy any permanent survey points and/or monuments without the written consent of the City of Alameda. Any permanent survey points and/or monuments disturbed or destroyed, as a direct or indirect result of construction activity shall be replaced to the satisfaction of the Engineer by a licensed surveyor at the Contractor's expense.

All decorative landscaping (shrubs, plants, trees, lawn, etc.) and/or hardscaped ground surfaces (exposed aggregate, bricks and mortar, painted concrete, etc.) that are removed, damaged, or destroyed as a direct or indirect result of any work done for this project shall be replaced by the contractor at his expense and in the manner that is satisfactory to the engineer and the owner.

Unless specified separately by bid items, payment for existing improvements should be included in various bid items and no additional payment will be made.

G. TREE ROOTS. Where tree roots conflict with the grade for the placement or replacement of concrete work, the Contractor shall inform the City Maintenance Division immediately. When directed by the City Maintenance Division, the Contractor shall perform the necessary root removal and trimming to a minimum depth of ten inches (10") below the proposed concrete, to prepare the site for the concrete work. All cut roots shall be properly painted with an approved root-sealing compound. The Contractor shall then proceed with the work to completion. The cost of the Contractor cutting the tree roots involved shall be included in the cost of the work.

Prior to any lateral extension excavation, the area must be reviewed by the Engineer or his representative, and if required, the City Arborist shall supervise the excavation and any root cutting or shaving where tree conflicts exist.

If root trimming is not allowed by the City Maintenance Division, all trees that could be damaged from equipment will require protection from physical injury. Tree trunks are to be wrapped with orange plastic construction fencing from the base up to the first branch. The plastic fencing must be wrapped to a minimum thickness of 2 inches to protect from possible

injury. Additional protection from larger equipment can be provided by strapping 2x4 boards over the orange fencing on the side of the tree where there is a potential for injury. When trenching is undertaken, the size of the equipment may require that upper scaffold stems are also wrapped and protected. Hand digging is the only acceptable method for excavating the soil within five feet of the base of trees.

H. UTILITY RELOCATION. The known existing utilities and pipelines except building connections (laterals) are shown on the Drawings in their approximate location. The Contractor shall exercise care in avoiding damage to all utilities, as he/she will be held responsible for their repair if damaged. There is no guarantee that all utilities or obstructions are shown, or that locations indicated are accurate. Utilities are piping, conduits, wire, cable, poles, ducts, manholes, pull boxes and the like, located at the project site.

The Contractor shall be responsible for locating all utilities, and must protect and support all utilities, which are to remain whether shown or not shown on the plans. **Full compensation for this work shall be considered as included in the prices paid for the various contract items of work, and no additional allowance will be made.**

The Contractor shall contact all affected utility owners and request them to locate their respective utilities prior to the start of "potholing" procedures. The utility owner shall be given seven days written notice prior to commencing potholing. If a utility owner is not equipped to locate its utility, the Contractor shall locate it.

The location of all affected utility underground pipes; conduits and other utilities shall be clearly marked on the pavement or with suitable markers if not on pavement. In addition to the location of metallic pipes and conduits, non-metallic pipe, ducts and conduits shall also be similarly located using surface indicators and shall then be similarly marked.

After the utility survey is completed, potholing shall commence to determine the actual location of the utilities. Prior to excavating for any new pipelines or structures, the Contractor shall locate and uncover all existing utilities to a point one foot below the utility. Pothole for all utilities where crossings, interferences, or connections to the new pipelines are shown on the Drawings, marked by the utility companies, or indicated by surface signs. The Contractor shall submit a report identifying each underground utility and its depth and station. Any variation in the actual elevations and the indicated elevations shall be brought to the Engineer's attention.

Any necessary relocations of utilities, whether shown on the Drawings or not, shall be coordinated with the affected utility. The Contractor shall perform the relocation only if instructed to do so in writing from the utility and the Engineer. Payment for work not shown on the Drawings shall be in accordance with Section VII, Article B, of these specifications or for a price previously agreed upon in writing, by the Contractor and the Engineer. If the Contractor does not expose all required utilities, he shall not be entitled to additional compensation for work necessary to avoid interferences, nor for repair to damaged utilities.

Excavations around underground electrical ducts and conduits shall be performed using extreme caution to prevent injury to workmen or damage to electrical ducts or conduits. Similar precautions shall be exercised around gas lines, telephone and television cables.

Backfill and pave with one inch of cutback after completing potholing.

If interferences occur at locations other than shown on the Drawings, the Contractor shall notify the Engineer, and a method for correcting said interferences shall be supplied by the Engineer. Payment for interferences that are not shown on the plans, nor for which there are surface indications, shall be in accordance with the provisions of the General Conditions.

Planned utility service shutdowns shall be accomplished during periods of minimum use. In some cases this may require night or weekend work, at no additional cost to the City. The Contractor shall program his work so that service will be restored in the minimum possible time, and shall cooperate with the utility companies in reducing shutdowns of utility systems to a minimum.

No utility shall be disconnected without prior written approval from the utility owner. When it is necessary to disconnect a utility, the Contractor shall give the utility owner not less than 72 hours notice when requesting written approval. The Contractor shall program his work so that service will be restored in the minimum possible time.

There are existing overhead electric and telephone transmission lines along the pipeline routes. These overhead utilities are not shown on the Drawings. Extreme caution shall be used when working in the vicinity of overhead utilities so as to prevent injury to workmen or damage to the utilities. The Contractor shall be required to comply with the applicable provisions of the California Construction Safety Orders when working anywhere on this project.

Existing gas, water, sewer and telephone house laterals are not specifically shown on the Drawings but do exist along the pipeline routes. Protect all service laterals from damage due to construction operations. If any laterals are damaged, notify the Engineer and the affected utility immediately. The cost of repair shall be borne by the Contractor.

I. EXCAVATION AND BACKFILL Method of excavation, trench shoring and dewatering, if applicable, shall be the responsibility of the Contractor, subject to the approval of the Engineer. It should be presumed that the presence of high groundwater will require dewatering operations.

Contractor shall submit to the Engineer a submittal for the trenching plan, material data sheets of any shoring equipment to be used, and calculations signed, stamped and approved by a registered California Engineer. The Contractor must have an approved plan prior to commencing of any excavation and trenching work.

Refer to the attached Geotechnical reports and technical specification sections 02300 Earthwork and 02318 for Trenching Guidelines.

The Contractor shall conform to the rules and regulations pertaining to safety established by the California Division of Occupational Safety and Health of the Industrial Relations Department.

Any excavation shall be supported so that it will be safe and the ground alongside the excavation will not slide or settle, and all existing improvements, either on public or private property, will be fully protected from damage.

Any damage or collapse of pavement or improvements beyond the trench shoring or excavation limits, due to sliding, caving, or settling of ground during excavation, construction, or backfilling, or from construction equipment, shall be repaired to the satisfaction of the Engineer at the Contractor's expense. All supports shall be removed after construction is completed, unless otherwise directed by the Engineer, and shall be withdrawn in a manner that will prevent the caving of the sides of the excavation. All openings caused by the removal of supports shall be filled with suitable material properly compacted.

Approved local or imported material shall be used for backfill. When the material from the excavation is unsuitable for backfill; it shall be disposed of and a suitable material (free from large stones) and approved by the Engineer, shall be furnished by the Contractor for the backfill. Backfilling shall be accomplished by tapping or ramming with proper tools for the full depth to sub-grade elevation in six inch (6") layers or less. Relative compaction shall be ninety-five percent (95%) or more as determined by the Impact or Field Method Compaction Test. Flooding or jetting of backfill shall not be allowed.

Backfilling of trenches in pipe areas shall be accomplished by backfilling on both sides of the pipe simultaneously so that injurious side pressures do not occur. Backfilling around the pipe by bulldozer or other mechanical equipment will not be allowed.

Guidelines for site preparation, suitable backfill material, material requirements, fill placement and compaction are outlined in specification section 02300.

Payment for excavation and backfill shall be included in the various bid items of these specifications. The contractor shall provide the engineer daily load tags for backfill material used.

J. STORM WATER PUMPING The Contractor shall furnish, install, and operate pumps, conduits, and other equipment to convey storm water flow during the project construction as described in detail in technical **specifications section 01500.**

K. CONTROL OF WATER All excavations shall be kept free from water and all construction shall be in the dry. The presence of high groundwater will require dewatering operations. The contractor shall furnish, install, maintain and operate all necessary pumping and other equipment for dewatering all excavations. The contractor shall at all times have on the project sufficient pumping equipment for immediate use, including standby pumps for use in case other pumps become inoperable. A sufficient number of pumps shall be provided as to hold the groundwater level at an elevation not less than two feet below the lowest elevation of the concrete or other material to be placed. Water shall be disposed of in such a manner as to cause no injury or nuisance to public or private property, or be menace to the public health.

The Contractor may obtain a wastewater discharge permit from the East Bay Municipal Utility District (EBMUD) to discharge dewatering disposal water to the City's sewer system.

The Contractor is responsible for applying for and meeting all of the EBMUD permit requirements.

The Contractor shall remove sediment from the disposal water prior to disposing into the sewer system. The sediment removal method shall meet the requirements of the EBMUD permit (filtered with Whatman 934 AH Glass Microfiber filter, or equivalent).

The dewatering operation shall be continuous, so that the excavated areas shall be kept free from water during construction, while concrete is setting and achieves full strength, and until backfill has been placed to a sufficient height to anchor the work against possible floatation.

Dewatering shall be continued during, backfilling operations such that the groundwater is at least one foot below the level of the compaction effort at all times. No compaction of saturated clay materials shall be allowed.

Dewatering devices must be adequately filtered to prevent the removal of fines from the soil.

The Contractor shall be responsible for any damage to foundations or any other parts of existing structures or the new work caused by failure of any part of the Contractor's protective works. After temporary protective works are no longer needed for dewatering purposes, they shall be removed by the Contractor.

If pumping is required on a 24- hour basis, requiring engine drives, then engines shall be equipped in a manner to keep noise to a minimum. Refer to Section II, Article T, of these specifications for noise control requirements.

The contractor shall be responsible for furnishing temporary drainage facilities to convey and dispose of surface water falling or passing over site.

No sediment shall be pumped from the excavation. Refer to Section II, Article U, of these specifications for construction site controls.

Reference technical specifications section 02300 for additional requirements.

Payment for dewatering whether on public right-of-way and private property shall be included in the various contract items of work.

L. **EXCAVATION OF TRENCH** The ground shall be excavated in open trenches, the sides of which shall be parallel to and at equal distances on each side of the sanitary sewer centerline. **Trench shall be saw cut along straight lines with no jagged edges.** At no time shall there be more than 200 lineal feet of the trench opened along any single sanitary sewer force main route, including the section opened ahead of the pipe laying and the section behind the pipe laying which has not been completely backfilled. Open trenches will be plated during non-working hours. This is to include asphalt concrete fillets around the perimeter of plates.

The Contractor shall conform to the rules and regulations pertaining to safety established by the California Division of Occupational Safety and health of the Industrial Relations Department. **See Attachment A, "TRENCH EXCAVATION CONSTRUCTION STANDARDS".**

Except where otherwise shown on the plans or otherwise approved by the Engineer, maximum trench width shall be as follows:

For pipe size 4" use maximum trench width 28"
For pipe size 8" use maximum trench width 36"
For pipe size 10" use maximum trench width 36"

In addition, all excavation shall conform to Section XII. I., "Excavation and Backfill." Additional requirements are also included in technical specification sections 02318 and 02300.

Due to nature of soil along alignment excavation should be shored using recommended methods in Section XII, I., "Excavation & Backfill", Subsection "Excavation Stabilization & Temporary Slopes." Contractor shall conform to the rules and regulations pertaining to safety established by the California Division of Occupational Safety and Health of the Industrial Relations Department.

Contractor shall submit proposal for review and approval to the Engineer for method of sheeting and shoring.

All storm drains, water pipes, gas pipes, EBMUD sewer pipes, and conduits or other structures must be properly supported where crossing or lying along the trench.

Contractor should expect to encounter 8" concrete patch over utility crossings. The 8" patch shall be saw cut, as necessary, when trenching for the new line.

a. Trench Backfill shall be in conformance with Section XII.I. of these specifications and this Section.

b. Location wires for non-trace-able pipes. All PVC, HPDE pipe and conduits for electrical wires shall be marked with a locatable wire prior to back filling the trenches during construction so as to be easily located from the ground surface by the typical Underground alert service.

c. Service shall be maintained at all times. No temporary connections shall be made which are health hazard. All connections shall be made in such a manner that no rock, soil, piece of pipe, or other debris is allowed to enter the sewerage system.

When trenching, the Contractor will not be permitted to tunnel under curb and/or gutter and or sidewalk for lower lateral installation. The curb, and/or gutter, and/or sidewalk will be saw cut at the nearest score marks and then removed and disposed of off-site. Upon completion of required work, the curb and/or gutter, and/or sidewalk will be replaced per Caltrans Standard Plan A87A.

Excavation shall be supported so that it will be safe and the ground alongside the excavation will not slide or settle. All existing improvements including structures, fences, walls, and foundations will be fully protected from damage.

Any damage to the existing improvements beyond the trench shoring or excavation limits due sliding, caving, or settling of ground or backfill, or from construction equipment shall be repaired to the satisfaction of the property owner and the City Engineer.

All existing improvements including irrigation system, brick walkways, brick walls, fences, electrical wires, driveways, pipelines, sprinkler heads, and landscaping damaged as a direct or indirect result of construction activity shall be replaced by the contractor at his expense at appropriate locations in a manner satisfactory to the property owner and the City Engineer. Continuous dewatering may be required due to high groundwater. Dewatering shall be in conformance with Section XII, K "Control of Water."

Contractor shall take extra care where trees are in conflict or in close proximity to laterals. See Section XII G. TREE ROOTS.

Payment shall be shall be included in the various bid items of these specifications.

M. EXTENT OF CONTRACT. The Contractor shall furnish all labor, material has herein specified, tools and equipment necessary and shall do all the work necessary to construct and put in complete order for use the construction project contemplated by these specifications, the various items, and in the approximate quantities tabulated in the Proposal, Section XIV and described in The technical Specifications - Division I to 16 and construction drawings. See Section 01125 "Measurement and Payment" in the Technical Specifications for additional descriptions of the Bid Items, sequence of work, required submittals and shop drawings etc.

N. SIGNAGE, STRIPING AND RESTORATION OF TRAFFIC LOOPS where applicable: Traffic stripes and marking removed shall be installed in accordance to the Standard Specifications Section 84. New striping must match the preexisting striping. Thermoplastic pavement striping and marking shall conform to Section 84-2.02 and 84-2.04 of the Standard Specifications. Painted striping and marking shall conform to Section 84-3 of the Standard Specifications. Pavement marking damage or destroyed as a result of the work shall be replaced in kind in conformance with Section 85 of the Standard Specifications. **Pavement markings shall be replaced in full, partial replacement of words, symbols, limit lines and crosswalk lines will not be allowed.** Whenever the Contractor's operations obliterate pavement delineation (striping - either painted or pavement markers or both, stop bars and crosswalks), pavement delineation shall be temporarily replaced before opening the traveled way to public traffic. For lane or center lines temporary delineation shall consist of reflective traffic line tape applied in pieces not less than 4" long nor less than 4" wide, spaced no more than 12' apart on curve, nor more than 24' apart on tangents, or as required by the Engineer.

Contractor to field verify loop location and type and contact Engineer if any loops are affected.

Striping & Signage

Reflective traffic line tape shall be applied in accordance with the manufacturer's instructions. Temporary delineation shall be the same color as permanent delineation. Full compensation for temporary delineation shall be considered as included in the prices paid for the contract items of work that obliterated the existing delineation and no separate payment will be made therefore. Traffic tape shall be removed when required and disposed of as specified under Section XII, E., Disposal of Excavated Materials. Striping for all other locations within the project boundaries shall be replaced in kind across full width of roadway, as directed by the Engineer.

Layout of traffic striping and pavement markings shall be subject to approval by the Engineer prior to placement of striping/markings, in accordance with Section 10-1.02 ORDER OF WORK.

SECTION XIII. MANDATORY PRE-CONSTRUCTION MEETING SUBMITTALS

A. REQUIRED REPORTS. Contractor shall submit the following mandatory reports to the City Engineer at the pre-construction meeting:

- Construction Schedule
- Schedule of Values
- Pedestrian and Traffic Control Plan for each site
- Water Pollution Control Plan
- Waste Reduction and Recycling Plan
- Site-Specific Health and Safety Plan (per Health Officer Order 20-10, Appendix B-2, Large Construction Project Safety Protocol)

The Contractor shall not proceed with construction until these reports have been approved by the City Engineer and the Contractor has received such approval in writing (included in your Notice to Proceed letter). The potholing plan and schedule must be approved by the City Engineer at least two (2) weeks before construction may proceed.

Exhibit ‘A’

BIDDER’S PROPOSAL FORM

Bidder’s Proposal

Subcontractors to be used in the Performance of this Contract (Form)

Executed Agreement to be Bound to PSA

Security For Compensation Certificate

Important Instructions

EXHIBIT “A”**SECTION XIV. BIDDER’S PROPOSAL**

Specifications and Special
Provisions

No. P.W. 09-19-48

Filed:

Storm Drain Pump Station Electrical Upgrades
Alameda, California

Proposal to the COUNCIL of the
CITY OF ALAMEDA:

The undersigned declares that he has carefully examined the location of the proposed work and the Plans, Specifications, and Special Provisions therefore, referred to herein, and hereby proposes to furnish all labor, materials, machinery, tools and equipment required to perform the work, and to do all the said work, in accordance with said Plans, Specifications and Special Provisions for the unit prices set forth in the following schedule:

	Description	Est. Qty.	Unit	Unit Price	Total Price
1	Mobilization and Demobilization	1	LS		
2	Third Street Demolition and Abandonment	1	LS		
3	Third Street Shoring of Open Excavations	1	LS		
4	Third Street Lower Manhole	1	LS		
5	Third Street Submersible Pumps, Rails & Accessories	2	EA		
6	Third Street Discharge Piping and Valves	1	LS		
7	Third Street 8' Diameter Wetwell	1	LS		
8	Third Street SCADA Pole	1	LS		
9	Third Street Electrical Control Panel and Concrete Pad	1	LS		
10	Third Street Service Pedestal and Concrete Pad	1	LS		
11	Third Street Picket Fence & Gates	1	LS		
12	Third Street Site Paving and Curb	1	LS		
13	Third Street Site Restoration and Cleanup	1	LS		
14	Third Street Miscellaneous Electrical Work, Wiring, and Sensors	1	LS		
15	Third Street Bollard	3	EA		
16	Golf Course Demolition and Abandonment	1	LS		
17	Golf Course Electrical Control Panel	1	LS		
18	Golf Course Service Pedestal	1	LS		

19	Golf Course Generator Receptacle	1	LS		
20	Golf Course SCADA/Light Pole	1	LS		
21	Golf Course Light Pole	1	LS		
22	Golf Course Precast Vault	1	LS		
23	Golf Course Concrete Access Pad	1	LS		
24	Golf Course Bollard	2	EA		
25	Golf Course Site Restoration and Cleanup	1	LS		
26	Golf Course Miscellaneous Electrical Work, Wiring, and Sensors	1	LS		
27	Main Street Demolition and Abandonment	1	LS		
28	Main Street Electrical Control Panel	1	LS		
29	Main Street Relocate Trash Rake Control Panel	1	LS		
30	Main Street SCADA Pole	1	LS		
31	Main Street Generator Receptacle	1	LS		
32	Main Street Raise Concrete Pad	1	LS		
33	Main Street Staircase and Handrail	1	LS		
34	Main Street Site Restoration and Cleanup	1	LS		
35	Main Street Miscellaneous Electrical Work, Wiring, and Sensors	1	LS		
36	Webster Street Demolition and Abandonment	1	LS		
37	Webster Street Electrical Control Panel	1	LS		
38	Webster Street Service Pedestal and Concrete Pad	1	LS		
39	Webster Street SCADA Antenna Mastarm	1	LS		
40	Webster Street Handrail	1	LS		
41	Webster Street Site Restoration and Cleanup	1	LS		
42	Webster Street Miscellaneous Electrical Work, Wiring, and Sensors	1	LS		
Total Bid					

Amount of Time Required to Commence
Work After Receipt of Work Order: 10 Days

The undersigned agrees to execute the contract required in said Specifications, to the satisfaction of the Council of the City of Alameda, with the necessary bonds, if any be required, within ten days, not including Sundays or legal holidays, after receiving notice that the contract has been awarded and is ready for signature; and further agrees that, in case of his default in any of the foregoing provisions, the proceeds of any check which may accompany his bid in lieu of a bid bond shall become the property of the City of Alameda as agreed and liquidated damages.

Firm Name (Please Print) _____

Signature of Person on Behalf of Firm _____

Business Address _____

Dated: _____

Zip Code _____

Name	Title	Address
(Of Officers or Partners)		

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Incorporated under the laws of the State of _____

Contractor's License No. _____ Expiration Date: _____

Department of Industrial Relations (DIR) No.: _____

The signature above certifies that the foregoing information given on this document is true and correct under penalty of perjury. (Section 7028.15 California Business and Professionals Code.)

PROPOSED SUBCONTRACTOR FORM

The Bidder shall list the name, address, license number and Department of Industrial Relations number of each subcontractor to whom the Bidder proposes to subcontract portions of the work, as required by the provisions in Section 2-1.01, "General," and Section 2-1.10, "Subcontractor List," of the Standard Specifications. **If no subcontractors are proposed in the performance of this contract, write "None" in the first cell.**

COMPANY NAME	CA LICENSE NO.	BUSINESS ADDRESS	DESCRIPTION OF WORK	DIR NO.

(This form may be duplicated if necessary to list additional subcontractors)

The bidder's execution on the signature portion of this proposal shall also constitute an endorsement and execution of those certifications which are a part of this proposal)

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The bidder _____, proposed subcontractor, hereby certified that he has ____, has not ____, participated in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all report due under the applicable filing requirements.

NOTE: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b)(1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

AGREEMENT TO BE BOUND TO PSA

PROJECT STABILIZATION AGREEMENT FOR THE CITY OF ALAMEDA AGREEMENT TO BE BOUND

The undersigned party confirms that it agrees and assents to comply with and to be bound by the City of Alameda

Project Stabilization Agreement as such Agreement may, from time to time, be amended by the parties or interpreted pursuant to its terms.

By executing this Agreement To Be Bound, the undersigned party subscribes to, adopts and agrees to be bound by the written terms of the legally established trust agreements, as set forth in section 17, specifying the detailed basis upon which contributions are to be made into, and benefits made out of, such Trust Fund(s) and ratifies and accepts the trustees appointed by the parties to such Trust Fund(s) and agrees to execute a separate Subscription Agreement(s) for Trust Funds when such Trust Fund(s) require(s) such document(s).

Such assent and obligation to comply with and to be bound by this Agreement shall extend to all work covered by said Agreement undertaken by the undersigned party. The undersigned party shall require all of its subcontractors, of whatever tier, to become similarly bound for all their work within the scope of this Agreement by signing an identical Agreement To Be Bound.

This letter shall constitute a subscription agreement, to the extent of the terms of the letter.

Dated: _____

Project: _____

Signature of Authorized Officer

Authorized Officer & Title

Name of Contractor/Employer(s)

Contractor/Employer(s) Address

CSLB #

Area Code Phone

E-mail and/or Fax

Motor Carrier (CA) Permit Number

DIR Prevailing Wage Registration #

SECURITY FOR COMPENSATION CERTIFICATE

(Required by Paragraph 1861, California Labor Code)

To: _____

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

(Signature of Bidder)

Business Address

IMPORTANT INSTRUCTIONS

1. Any erasure or interlineation may invalidate bid.
2. If corporation is bidder, affix seal of corporation.
3. If bidder is:
 - (a) An individual doing business under his own name, sign his own name only.
 - (b) An individual using a firm name, sign: Example, "John Doe, an individual doing business as Blank Company."
 - (c) A co-partnership, sign: Example, "Blank Company, by John Doe, President" (or other title).
4. If a firm or co-partnership, give the names of all individual co-partners composing the firm. If a corporation, state legal name of corporation; also name of president, secretary and treasurer thereof.
5. If a bid is sent by mail, write the word "Proposal" plainly on the envelope.

Exhibit 'B'

CERTIFIED PAYROLL AND PREVAILING WAGES FORMS

Contractor's Certification Concerning Labor Standards and Prevailing Wage Requirements

Subcontractor's Certification Concerning Labor Standards and Prevailing Wage Requirements

Certification of Bidder Regarding Section 3 and Segregated Facilities

Certification of Proposed Subcontractor Regarding Section 3 and Segregated Facilities

Certification of Understanding and Authorization

Certification For Applicable Fringe Benefit Payments

Authorization For Deductions

Employee Questionnaire

EXHIBIT B: Certified Payroll Forms

CITY OF ALAMEDA PUBLIC WORKS DEPARTMENT CONTRACTOR'S CERTIFICATION CONCERNING LABOR STANDARDS AND PREVAILING WAGE REQUIREMENTS																		
(Appropriate Recipient):		DATE																
c/o	PROJECT NUMBER (if any)																	
	PROJECT NAME																	
<p>1. The undersigned, having executed a contract with _____ _____ for the construction of the above-identified project acknowledges that:</p> <p>(a) The Labor Standards provisions are included in the aforesaid contract;</p> <p>(b) Correction of any infractions of the aforesaid conditions, including infractions any of his subcontractors and Any lower tier subcontractor, is his responsibility.</p>																		
<p>2. He certifies that:</p> <p>(a) Neither he nor any firm, partnership or association in which he has substantial interest is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6(b) of the Regulations of the Secretary Labor, part 5 (29 CFR, Part 5) or pursuant to Section 3(a) of the Davis-Bacon Act as amended (40 U.S.C. 276u-2(a)).</p> <p>(b) No part of the aforementioned contract has been or will be subcontracted to any subcontractor if such subcontractor or any firm, corporation, partnership or association in which such subcontractor has a substantial interest is designated an ineligible contractor pursuant to any of the aforementioned regulatory or statutory provisions.</p> <p>He agrees to obtain and forward to the aforementioned recipient within ten days after the execution of any subcontract, including those executed by his subcontractors and any lower tier subcontractors, a Subcontractor's Certification Concerning Labor Standards at Prevailing Wage Requirements executed by the subcontractors.</p> <p>He certified that:</p> <p>(a) The legal name and the business address of the undersigned are:</p> <p>(b) The undersigned is:</p> <table border="1"><tr><td>(1) A SINGLE PROPRIETORSHIP</td><td>(3) A CORPORATION ORGANIZED IN THE STATE OF</td></tr><tr><td>(2) A PARTNERSHIP</td><td>(4) OTHER ORGANIZATION (Describe)</td></tr></table> <p>(c) The name, title and address of the owner, partners or officers of the undersigned are:</p> <table border="1"><thead><tr><th>NAME</th><th>TITLE</th><th>ADDRESS</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table>			(1) A SINGLE PROPRIETORSHIP	(3) A CORPORATION ORGANIZED IN THE STATE OF	(2) A PARTNERSHIP	(4) OTHER ORGANIZATION (Describe)	NAME	TITLE	ADDRESS									
(1) A SINGLE PROPRIETORSHIP	(3) A CORPORATION ORGANIZED IN THE STATE OF																	
(2) A PARTNERSHIP	(4) OTHER ORGANIZATION (Describe)																	
NAME	TITLE	ADDRESS																

EXHIBIT B: Certified Payroll Forms

(d) The names and address of all other persons, both natural and corporate, having a substantial interest in the undersigned, and the nature of the interest are (if none, so state):		
NAME	TITLE	ADDRESS
(e) The names, address and trade classification of all other building construction contractors in which the undersigned, has a substantial interest are (if none, so state):		
NAME	TITLE	ADDRESS

3. He certifies:
(a) The company's Federal Tax Identification Number is: _____
(b) The ethnicity of the company's owner(s) is/are: _____
(c) Is the company a female owned business: _____ Yes _____ No

Date _____ (Contractor)

By _____ (Signature)

WARNING

U.S. Criminal Code, Section 1010, Title 18, U.S. C. Provides in part "Whoevermakes, passes, utters, or publishes any statement, knowing the same to be falseshall be fined not more than \$5,000 or imprisoned not more than two years or both."

EXHIBIT B: Certified Payroll Forms

CITY OF ALAMEDA PUBLIC WORKS DEPARTMENT SUBCONTRACTOR'S CERTIFICATION CONCERNING LABOR STANDARDS AND PREVAILING WAGE REQUIREMENTS		
(Appropriate Recipient):	DATE	
c/o	PROJECT NUMBER (if any)	
	PROJECT NAME	
<p>1. The undersigned, having executed a contract with _____</p> <p>_____ for _____</p> <p>in the amount of \$_____ In the construction of the above-identified project, certifies that:</p> <p>(a) The Labor Standards provisions of the contract for construction are included in the aforesaid contract;</p> <p>(b) Neither he nor any firm, partnership or association in which he has substantial interest is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6(b) of the Regulations of the Secretary Labor, part 5 (29 CFR, Part 5) or pursuant to Section 3(a) of the Davis-Bacon Act as amended (40 U.S.C.. 276u-2(a)).</p> <p>(b) No part of the aforementioned contract has been or will be subcontracted to any subcontractor if such subcontractor or any firm, corporation, partnership or association in which such subcontractor has a substantial interest is designated an ineligible contractor pursuant to any of the aforementioned regulatory or statutory provisions.</p>		
<p>2. He agrees to obtain and forward to the aforementioned recipient within ten days after the execution of any subcontract, including those executed by his subcontractors and any lower tier subcontractors, a Subcontractor's Certification Concerning Labor Standards at Prevailing Wage Requirements executed by the subcontractors.</p> <p>(a) The workmen will report for duty on or about _____(date).</p>		
<p>3. He certifies that:</p> <p>(a) The legal name and the business address of the undersigned are:</p>		
<p>(b) The undersigned is:</p>		
<div style="display: flex; justify-content: space-between;"> (1) A SINGLE PROPRIETORSHIP (3) A CORPORATION ORGANIZED IN THE STATE OF </div>		
<div style="display: flex; justify-content: space-between;"> (2) A PARTNERSHIP (4) OTHER ORGANIZATION (Describe) </div>		
<p>(c) The name, title and address of the owner, partners or officers of the undersigned are:</p>		
NAME		ADDRESS

EXHIBIT B: Certified Payroll Forms

(d) The names and address of all other persons, both natural and corporate, having a substantial interest in the undersigned, and the nature of the interest are (if none, so state):		
NAME	TITLE	ADDRESS
(e) The names, address and trade classification of all other building construction contractors in which the undersigned, has a substantial interest are (if none, so state):		
NAME	TITLE	ADDRESS

3. He certifies:
(a) The company's Federal Tax Identification Number is: _____
(b) The ethnicity of the company's owner(s) is/are: _____
(c) Is the company a female owned business: _____ Yes _____ No

Date: _____ (Contractor)

By _____ (Signature)

WARNING

U.S. Criminal Code, Section 1010, Title 18, U.S. C. Provides in part "Whoevermakes, passes, utters, or publishes any statement, knowing the same to be falseshall be fined not more than \$5,000 or imprisoned not more than two years or both."

EXHIBIT B: Certified Payroll Forms

CERTIFICATION OF BIDDER REGARDING SECTION 3
AND SEGREGATED FACILITIES

Name of Prime Contractor

Project Name and Number

The undersigned hereby certified that:

- (a) Section 3 provisions are included in the Contract.
- (b) A written Section 3 plan was prepared and submitted as part of the bid proceedings (if bid equals or exceeds \$10,000).
- (c) No segregated facilities will be maintained.

Name

Name and Title of Signer (Print or Type)

Signature

Date

EXHIBIT B: Certified Payroll Forms

**CERTIFICATION OF PROPOSED SUBCONTRACTOR REGARDING
SECTION 3 AND SEGREGATED FACILITIES**

Name of Subcontractor

Project Name and Number

The undersigned hereby certified that:

- (a) Section 3 provisions are included in the Contract.
- (b) A written Section 3 plan was prepared and submitted as part of the bid proceedings (if bid equals or exceeds \$10,000).
- (c) No segregated facilities will be maintained, as required by Title VI of the Civil Right Act of 1964.

Name

Name and Title of Signer (Print or Type)

Signature

Date

EXHIBIT B: Certified Payroll Forms

**CERTIFICATION OF UNDERSTANDING
AND AUTHORIZATION**

Project Name: _____

Project Number: _____

This is to certify that the principals, and the authorized payroll officer, below, have read and understand the Minutes of the Preconstruction Conference and the labor standards clauses pertaining to the subject project.

The following person(s) is designated as the payroll officer for the undersigned and is authorized to sign the Statement of Compliance which will accompany our weekly certified payroll reports for this project:

Designated Payroll Officer (Name)

Designated Payroll Officer (Signature)

Authorized by (Contractor/Subcontractor)

(Signature)

(Title)

(IRS) Employer Identification Number

(Date)

EXHIBIT B: Certified Payroll Forms
CERTIFICATION FOR APPLICABLE FRINGE BENEFIT PAYMENTS

Project Name: _____

Project Number: _____

Classification/ Fringe Benefits Provided	Name, Address and Telephone Number of Plan/Fund/Program
1. _____ Health and Welfare	_____
_____	_____
_____	_____
_____	_____
_____	_____
2. _____ Health and Welfare	_____
_____	_____
_____	_____
_____	_____
_____	_____
3. _____ Health and Welfare	_____
_____	_____
_____	_____
_____	_____
_____	_____

OR: (Check if applicable)

_____ I certify that I do not make payments to approved fringe benefit plans, funds or programs.

_____	By _____
Contractor/Subcontractor	Signature
_____	_____
Date	Title

EXHIBIT B: Certified Payroll Forms

AUTHORIZATION FOR DEDUCTIONS

The undersigned authorized deductions, as noted, to be made from their wages. It is understood that these deductions: (a) are in the interest of the employee; (b) is not a condition of employment; (c) there is no direct or indirect financial benefit accruing to the employee; and; (d) it is not otherwise forbidden by law.

Employee's Name	Employee's Signature	Date	Deduction

Signature of Authorized Representative of Employee

Authorized Representative's Name and Title

Date

EXHIBIT C

LIST OF PROCESSORS BY MATERIAL

List of Processors by Material

LIST OF PROCESSORS BY MATERIAL

This guide is a listing of facilities/processors that accept construction and demolition waste materials. This is not a complete and comprehensive list; it is intended to be a quick reference guide to assist contractors and the general public recycle their construction and demolition debris.

Please call each facility for accepted materials, hours of operation, and the terms and conditions prior to delivering your materials.

ASPHALT & CONCRETE

AMAN ENVIRONMENTAL CONSTRUCTION (510) 553-0110

8300 Baldwin Street, Oakland

- . Clean asphalt
- . Clean concrete

CALMAT (925) 485-1279

501 El Charo Road, Pleasanton

- . Clean asphalt
- . Clean concrete

COUNTY QUARRY PRODUCTS, INC. (510) 682-0707

5501 Imhoff Drive, Martinez

- . Clean asphalt
- . Clean concrete
- . Concrete with rebar
- . Concrete roofing
- . Tiles, gravel, porcelain

CURTNER QUARRY (510) 793-8861

2000 Scott Creek Road, Milpitas

- . Clean concrete
- . Clean asphalt (broken or grindings)
- . Concrete roofing
- . Tiles, gravel, porcelain

DAVIS STREET TRANSFER STATION (510) 638-2303

2615 Davis Street, San Leandro

DORN RECYCLERS

(925) 449-9328

Livermore

(May pickup: large quantities)

DUTRA MATERIALS

(510) 887-8070

4001 West Winton Avenue, Hayward

- . Clean asphalt
- . Clean concrete
- . Concrete with rebar
- . Concrete roofing
- . Tiles, gravel, porcelain

LA VISTA QUARRY

(510) 538-5085

28814 Mission Boulevard, Hayward

- . Clean asphalt
- . Clean concrete
- . Concrete with rebar
- . Concrete roofing
- . Tiles, gravel, porcelain

RAISCH PRODUCTS

(408) 227-9222

2122 Old Calaveras Road, Milpitas

- . Clean asphalt
- . Clean concrete
- . Concrete with rebar
- . Concrete roofing
- . Tiles, gravel, porcelain

RAISCH PRODUCTS

(408) 734-4245

1444 Borregas Avenue

- . Clean asphalt
- . Clean concrete
- . Concrete with rebar
- . Concrete roofing
- . Tiles, gravel, porcelain

RAISCH PRODUCTS

(510) 623-5870

7010 Auto Mall Parkway, Fremont

- . Clean asphalt
- . Clean concrete
- . Concrete with rebar
- . Concrete roofing
- . Tiles, gravel, porcelain

RAISCH PRODUCTS

(408) 227-9222

55 Hillsdale Avenue, San Jose

- . Clean asphalt
- . Clean concrete
- . Concrete with rebar
- . Concrete roofing
- . Tiles, gravel, porcelain

**RECYCLED BUILDING MATERIALS- WHOLE
HOUSE SALVAGE**

(650) 856-0634

- . Cinder blocks
- . Roofing tiles

SPECIALTY CRUSHING

(510) 986-0964

Oakland

- . Clean asphalt
- . Clean concrete
- . Cinder blocks

SRDC, Inc.

(415) 367-7324

195 Seaport Boulevard, Redwood City

- . Clean asphalt
- . Clean concrete

SYAR INDUSTRIES, INC.

(510) 215-1114

Foot of Parr Boulevard, Richmond

- . Clean asphalt
- . Clean concrete

THE REUSE PEOPLE

(510) 567-8525

2615 Davis Street, San Leandro

- . Reuse/free drop-off;
- . Useable, whole cinder blocks
- . Roofing tile

**VASCO ROAD LANDFILL &
RECYCLING DROPOFF**

(925) 447-0491

4001 North Vasco Road, Livermore

- . Clean asphalt
- . Clean concrete

WRT WASTE MANAGEMENT

(415) 822-2175

895 Egbert Avenue, San Francisco

- . May pickup; asphalt, concrete

ZANKER RESOURCE MANAGEMENT**(408) 263-2383**

705 Los Esteros Way, San Jose

- . Clean asphalt
- . Clean concrete
- . Concrete with rebar
- . Concrete roofing
- . Tiles, gravel, porcelain

Recycled materials, if deemed acceptable, by the Engineer, for the requirements of these specifications will be considered for building materials. Contractor shall submit a request in writing for the Engineer's use. The written request shall include all specification information required by the Engineer that provides him/her assurance that the proposed materials are an equal or better to those specified herein.

For further information regarding materials and vendors, Contractor may call Waste Management at (510) 747-7960.

Exhibit 'D'

**SAMPLE CONTRACT AGREEMENT/
ADDITIONAL INSURED CERTIFICATE**

Sample of Contract Agreement

Additional Insured Certificates

CONTRACTOR AGREEMENT

THIS CONTRACTOR AGREEMENT (“**Agreement**”) is entered into this ____ day of _____ 2021, by and between the CITY OF ALAMEDA, a municipal corporation (the "**City**"), and COMPANY, a (California corporation, LP, GP, sole proprietor/individual) whose address is Address, (“**Contractor**”), in reference to the following:

RECITALS:

A. The City is a municipal corporation duly organized and validly existing under the laws of the State of California with the power to carry on its business as it is now being conducted under the statutes of the State of California and the Charter of the City.

B. The City is in need of the following services: Storm Drain Pump Station Electrical Upgrades. City staff issued an IFB on DATE, after a submittal period of NUMBER days received NUMBER of timely submitted bids, and the bids were opened on DATE. Staff reviewed the bids and selected the lowest responsive and responsible bidder.

C. Contractor possesses the skill, experience, ability, background, certification and knowledge to provide the services described in this Agreement on the terms and conditions described herein.

D. City and Contractor desire to enter into an agreement for Storm Drain Pump Station Electrical Upgrades, upon the terms and conditions herein.

NOW, THEREFORE, in consideration of the forgoing, which are incorporated herein by reference, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. TERM:

Contractor shall have ____ consecutive working days from the date the work is to commence pursuant to the Notice to Proceed to diligently prosecute the work to completion.

2. SERVICES TO BE PERFORMED:

Contractor agrees, at its own cost and expense, to furnish all labor, tools, equipment, materials, except as otherwise specified, and to do all work strictly in accordance with the Specifications, Special Provisions and Plans, which Specifications, Special Provisions and Plans are hereby referred to and expressly made a part hereof with the same force and effect as if the same were fully incorporated herein. Contractor acknowledges that the work plan included in Exhibit A is tentative and does not commit the City to request Contractor to perform all tasks included therein.

3. COMPENSATION TO CONTRACTOR:

Contractor shall be compensated for services performed pursuant to this Agreement in the amount and manner set forth in Contractor's bid, which is attached hereto as Exhibit A and

incorporated herein by this reference. Payment will be made in the same manner that claims of a like character are paid by the City, with checks drawn on the treasury of the City.

Payment will be made by the City in the following manner: On the first day of each month, Contractor shall submit a written estimate of the total amount of work done the previous month. However, the City reserves the right to adjust budget within and between tasks. Pricing and accounting of charges are to be according to the bid packet pricing, unless mutually agreed to in writing.

Payment shall be made for 95% of the value of the work completed as determined by the City. The City shall retain 5% of the value of the work as partial security for the completion of the work by Contractor. Retained amounts shall be paid to Contractor within sixty days of acceptance by the City of the project. Payment shall not be construed as acceptance of defective work. No interest will be paid to Contractor on retained funds.

Total compensation for work is \$_____, with a _____ percent contingency in the amount of \$_____ for a total not to exceed of \$_____. Use of contingency shall be for items of work outside the original scope and requires prior written authorization by the City.

Prompt Payment Of Withheld Funds To Subcontractors: The City shall hold retainage from the prime contractor and shall, as determined by the City, make prompt and regular incremental acceptances of portions of the contract work and pay retainage to the prime contractor based on these acceptances. The prime contractor or subcontractor shall return all monies withheld in retention from all subcontractors within 30 days after receiving payment for work satisfactorily completed and accepted by the City, including incremental acceptances of portions of the contract work. Any delay or postponement of payment may take place only for good cause and with the City's prior written approval. Any violation of these provisions shall subject the violating prime contractor to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business Professions Code. This requirement shall not be construed to limit or impair any contractual, administrative or judicial remedies otherwise available to the prime contractor or subcontractor in the event of a dispute involving (a) late payment or nonpayment by the prime contractor, (b) deficient subcontractor performance, or (c) noncompliance by a subcontractor with the contract, including but not limited to remedies under California Public Contract Code Section 9204. This clause applies to both DBE and non-DBE subcontractors.

4. TIME IS OF THE ESSENCE:

Contractor and the City agree that time is of the essence regarding the performance of this Agreement.

It is agreed by the parties to this Agreement that if all the work called for under the Agreement is not completed before or upon the expiration of the time limit as set forth in Paragraph 1 above, damage will be sustained by the City, and it is and will be impracticable to determine the actual damage which the City will sustain in the event of and by reason of such delay. It is therefore agreed that Contractor will pay the City the sum of one thousand DOLLARS (\$1,000) per day as liquidated damages for each and every day's delay beyond the

time prescribed to complete the work; and Contractor agrees to pay such liquidated damages as herein provided, and in case the same are not paid, agrees that the City may deduct the amount thereof from any money due or that may become due Contractor under the Agreement.

It is further agreed that in case the work called for under the Agreement is not finished and completed in all parts and requirements within the time specified, the City shall have the right to extend the time for completion or not, as may seem best to serve the interest of the City; and if the City decides to extend the time limit for the completion of the Agreement, it shall further have the right to charge Contractor, his or her heirs, assigns or sureties, and to deduct from the final payment for the work, all or any part, as it may deem proper, of the actual costs and overhead expenses which are directly chargeable to the Agreement, and which accrue during the period of such extensions.

Contractor shall not be assessed with liquidated damages during any delay in the completion of the work caused by an act of God or of the public enemy, acts of the City, fire, flood, epidemic, quarantine restriction, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes; provided that Contractor shall, within one (1) day from the beginning of such delay, notify the City in writing of the causes of delay. The City shall ascertain the facts in good faith and the extent of the delay, and its findings of the facts thereon shall be final and conclusive.

5. STANDARD OF CARE:

Contractor agrees to perform all services and work hereunder in a manner commensurate with the prevailing standards of like professionals in the San Francisco Bay Area and agrees that all services and work shall be performed by qualified and experienced personnel who are not employed by the City nor have any contractual relationship with the City.

6. INDEPENDENT PARTIES:

Contractor hereby declares that it is engaged as an independent business and it agrees to perform its services as an independent contractor. The manner and means of conducting the work are under the control of Contractor, except to the extent they are limited by statute, rule or regulation and the express terms of this Agreement. No civil service status or other right of employment will be acquired by virtue of Contractor's services and work. None of the benefits provided by the City to its employees, including but not limited to unemployment insurance, workers' compensation plans, vacation and sick leave are available from the City to Contractor, its employees, subcontractors, suppliers or agents. Deductions shall not be made for any state or federal taxes, FICA payments, PERS payments, or other purposes normally associated with an employer-employee relationship from any fees due Contractor. Payments of the above items, if required, are the responsibility of Contractor.

7. IMMIGRATION REFORM AND CONTROL ACT (IRCA):

Contractor assumes any and all responsibility for verifying the identity and employment authorization of all of its employees performing work hereunder, pursuant to all applicable IRCA or other federal, or state rules and regulations. Contractor shall indemnify, defend (with counsel acceptable to the City) and hold the City harmless from and against any loss, damage, liability, costs or expenses arising from any noncompliance of this provision by Contractor.

8. NON-DISCRIMINATION:

Consistent with the City's policy and state and federal law that harassment and discrimination are unacceptable employer/employee conduct, Contractor agrees that harassment or discrimination directed toward a job applicant, a City employee, or a citizen by Contractor or Contractor's employee, agents, subcontractors or suppliers on the basis of any kind of any statutorily (federal, state or local) protected class, including but not limited to: race, religious creed, color, national origin, ancestry, physical disability (including HIV and AIDS), mental disability, medical condition (ex. Cancer), genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, pregnancy, political affiliation, military and veteran status or legitimate Union activities. Contractor agrees that any violations of this provision shall constitute a material breach of this Agreement.

9. HOLD HARMLESS:

Contractor shall indemnify, defend (with counsel acceptable to the City) and hold harmless the City, its City Council, boards, commissions, officials, employees, agents and volunteers ("**Indemnitees**") from and against any and all loss, damages, liability, obligations, claims, suits, judgments, costs and expenses whatsoever, including reasonable attorneys' fees and costs of litigation ("**Claims**"), arising from or in any manner connected to Contractor's performance of its obligations under this agreement or out of the operations conducted by Contractor, including the City's active or passive negligence EXCEPT for such loss or damage arising from the active negligence or willful misconduct of the City. If Claims are filed against Indemnitees which allege negligence, recklessness or willful misconduct on behalf of the Contractor, Contractor shall have no right of reimbursement against Indemnitees for the costs of defense even if negligence is not found on the part of Contractor.

Contractor's obligation to indemnify, defend and hold harmless Indemnities shall expressly survive the expiration or early termination of this Agreement.

10. INSURANCE:

On or before the commencement of the terms of this Agreement, Contractor shall furnish the City's Risk Manager with certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of insurance coverage in compliance with paragraphs 10A, B, C and D. Such certificates, which do not limit Contractor's indemnification, shall also contain substantially the following statement: "Should any of the above insurance covered by this certificate be canceled or coverage reduced before the expiration date thereof, the insurer affording coverage shall provide thirty (30) days advance written notice to the City of Alameda, Attention: Risk Manager."

Contractor shall maintain in force at all times during the performance of this Agreement all appropriate coverage of insurance required by this Agreement with an insurance company licensed to offer insurance business in the State of California with a current A.M. Best's rating of no less than A:VII or Standard & Poor's Rating (if rated) of at least BBB unless otherwise acceptable to the City. Endorsements naming the City, its City Council, boards, commissions, officials, employees, agents and volunteers as additional insured shall be submitted with the insurance certificates.

A. COVERAGE:

Contractor shall maintain insurance coverage and limits at least as broad as:

- (1) Workers' Compensation:
Statutory coverage as required by the State of California.
- (2) Liability:
Commercial general liability coverage in the following minimum limits:
- | | |
|----------------|-----------------------------------|
| Bodily Injury: | \$1,000,000 each occurrence |
| | \$2,000,000 aggregate - all other |

Property Damage:	\$1,000,000 each occurrence
	\$2,000,000 aggregate

If submitted, combined single limit policy with per occurrence limits in the amounts of \$2,000,000 and aggregate limits in the amounts of \$4,000,000 will be considered equivalent to the required minimum limits shown above. Additional Insured Endorsement naming the City, its City Council, boards, commissions, officials, employees, agents, and volunteers is required.

- (3) Automotive:
Comprehensive automobile liability coverage (any auto) in the following minimum limits:

Bodily injury:	\$1,000,000 each occurrence
Property Damage:	\$1,000,000 each occurrence

or

Combined Single Limit:	\$2,000,000 each occurrence
------------------------	-----------------------------

Additional Insured Endorsement naming the City, its City Council, boards, commissions, officials, employees, agents, and volunteers is required.

- (4) Pollution Prevention:
Legal liability required for hazardous materials excavation in the amount of \$2,000,000 each occurrence. Additional Insured Endorsement naming the City, its City Council, boards, commissions, officials, employees, agents, and volunteers is required.

- (5) Builders Risk:

Insurance utilizing an "All Risk" (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions.

The coverage and limits shall be (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of the coverage carried by or available to the Contractor; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to the City.

B. SUBROGATION WAIVER:

Contractor hereby agrees to waive rights of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether the City has received a waiver of subrogation endorsement from the insurer. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.

C. FAILURE TO SECURE:

If Contractor at any time during the term hereof should fail to secure or maintain the foregoing insurance, the City shall be permitted to obtain such insurance in Contractor's name or as an agent of Contractor and shall be compensated by Contractor for the costs of the insurance premiums at the maximum rate permitted by law and computed from the date written notice is received that the premiums have not been paid.

D. ADDITIONAL INSURED:

City, its City Council, boards, commissions, officials, employees and volunteers shall be named as an additional insured under all insurance coverages, except worker's compensation insurance. The naming of an additional insured shall not affect any recovery to which such additional insured would be entitled under this policy if not named as such additional insured. An additional insured named herein shall not be held liable for any premium, deductible portion of any loss, or expense of any nature on this policy or any extension thereof. Any other insurance held by an additional insured shall not be required to contribute anything toward any loss or expense covered by the insurance provided by this policy. The additional insured coverage under the Contractor's policy shall be primary and non-contributory and will not seek contribution from the City's insurance or self-insurance.

E. SUFFICIENCY OF INSURANCE:

Contractor shall furnish the following bonds from a bonding company acceptable to the City's Risk Manager. Faithful Performance Bond and Labor and Material Bond are only required for work over \$25,000. Therefore, those estimates that are under \$25,000 will not need to budget for the bond premiums and those estimates over \$25,000 will need to be sure to budget for the bond premiums.

The insurance limits required by the City are not represented as being sufficient to protect Contractor. Contractor is advised to consult Contractor's insurance broker to determine adequate coverage for Contractor.

11. BONDS:

Contractor shall furnish the following bonds from a bonding company acceptable to the City's Risk Manager:

A. Faithful Performance: A bond in the amount of 100% of the total contract price guaranteeing the faithful performance of this contract, and

B. Labor and Materials: A bond for labor and materials in the amount of 100% of the total contract price.

12. PROHIBITION AGAINST TRANSFERS:

Contractor shall not assign, sublease, hypothecate, or transfer this Agreement, or any interest therein, directly or indirectly, by operation of law or otherwise, without prior written consent of the City Manager. Any attempt to do so without said consent shall be null and void, and any assignee, sublessee, hypothecate or transferee shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer. However, Contractor's claims for money from the City under this Agreement may be assigned to a bank, trust company or other financial institution without prior written consent. Written notice of such assignment shall be promptly furnished to the City by Contractor.

The sale, assignment, transfer or other disposition of any of the issued and outstanding capital stock of Contractor, or of the interest of any general partner or joint venturer or syndicate member or cotenant, if Contractor is a partnership or joint venture or syndicate or cotenancy, which shall result in changing the control of Contractor, shall be construed as an assignment of this Agreement. Control means fifty percent (50%) or more of the voting power of the corporation.

13. SUBCONTRACTOR APPROVAL:

Unless prior written consent from the City is obtained, only those people and subcontractors whose names are listed in Contractor's bid shall be used in the performance of this Agreement.

Requests for additional subcontracting shall be submitted in writing, describing the scope of work to be subcontracted and the name of the proposed subcontractor. Such request shall set forth the total price or hourly rates used in preparing estimated costs for the subcontractor's services. Approval of the subcontractor may, at the option of the City, be issued in the form of a Work Order.

In the event that Contractor employs subcontractors, such subcontractors shall be required to furnish proof of workers' compensation insurance and shall also be required to carry general and automobile liability insurance in reasonable conformity to the insurance carried by Contractor. In addition, any work or services subcontracted hereunder shall be subject to each provision of this Agreement.

14. PERMITS AND LICENSES:

Contractor, at its sole expense, shall obtain and maintain during the term of this Agreement, all appropriate permits, certificates and licenses, including a City Business License that may be required in connection with the performance of services and work hereunder.

15. REPORTS:

Each and every report, draft, work product, map, record and other document reproduced, prepared or caused to be prepared by Contractor pursuant to or in connection with this Agreement shall be the exclusive property of the City.

No report, information nor other data given to or prepared or assembled by Contractor pursuant to this Agreement shall be made available to any individual or organization by Contractor without prior approval by the City.

Contractor shall, at such time and in such form as the City may require, furnish reports concerning the status of services and work required under this Agreement.

16. RECORDS:

Contractor shall maintain complete and accurate records with respect to sales, costs, expenses, receipts and other such information required by the City that relate to the performance of services and work under this Agreement.

Contractor shall maintain adequate records of services and work provided in sufficient detail to permit an evaluation of services and work. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Contractor shall provide free access to such books and records to the representatives of the City or its designees at all proper times, and gives the City the right to examine and audit same, and to make transcripts therefrom as necessary, and to allow inspection of all work, data, documents, proceedings and activities related to this Agreement. Such records, together with supporting documents, shall be kept separate from other documents and records and shall be maintained for a period of three (3) years after receipt of final payment.

If supplemental examination or audit of the records is necessary due to concerns raised by the City's preliminary examination or audit of records, and the City's supplemental examination or audit of the records discloses a failure to adhere to appropriate internal financial controls, or other breach of contract or failure to act in good faith, then Contractor shall reimburse the City for all reasonable costs and expenses associated with the supplemental examination or audit.

17. NOTICES:

All notices, demands, requests or approvals to be given under this Agreement shall be given in writing and conclusively shall be deemed served when delivered personally or on the second business day after the deposit thereof in the United States Mail, postage prepaid, registered or certified, addressed as hereinafter provided.

All notices, demands, requests, or approvals from Contractor to the City shall be addressed to the City at:

City of Alameda
Public Works Department
950 West Mall Square, Room 110
Alameda, CA 94501
ATTENTION: Flavio Barrantes, Project Manager III
Ph: (510) 747-7952 / Fax: (510) 769-6030
Email: fbarrant@alamedaca.gov

All notices, demands, requests, or approvals from the City to Contractor shall be addressed to Contractor at:

[Contractor Name]
[Department]
[Address]
Alameda, CA 94501
ATTENTION; [Title]
Ph: (510) xxx-xxxx / Fax: (510) xxx-xxxx
Email:

18. SAFETY:

Contractor will be solely and completely responsible for conditions of all vehicles owned or operated by Contractor, including the safety of all persons and property during performance of the services and work under this Agreement. This requirement will apply continuously and not be limited to normal working hours. In addition, Contractor will comply with all safety provisions in conformance with U.S. Department of Labor Occupational Safety and Health Act, any equivalent state law, and all other applicable federal, state, county and local laws, ordinances, codes, and any regulations that may be detailed in other parts of the Agreement. Where any of these are in conflict, the more stringent requirements will be followed. Contractor's failure to thoroughly familiarize itself with the aforementioned safety provisions will not relieve it from compliance with the obligations and penalties set forth herein.

Contractor will immediately notify the City's Risk Manager within 24 hours of any incident of death, serious personal injury or substantial property damage that occurs in connection with the performance of this Agreement. Contractor will promptly submit to the City a written report of all incidents that occur in connection with this Agreement. This report must include the following information: (i) name and address of injured or deceased person(s); (ii) name and address of Contractor's employee(s) involved in the incident; (iii) name and address of Contractor's liability insurance carrier; (iv) a detailed description of the incident; and (v) a police report.

19. LAWS TO BE OBSERVED:

Contractor shall comply with all applicable laws, state, federal, and all ordinances, rules and regulations enacted or issued by City. In addition, Contractor shall keep himself fully informed of all existing and future state and federal laws and all municipal ordinances and regulations of the City which in any manner affect those engaged or employed in the work, or the

materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same.

20. DEPARTMENT OF INDUSTRIAL RELATIONS COMPLIANCE AND PREVAILING WAGE REQUIREMENTS ON PUBLIC WORKS PROJECTS:

Effective January 1, 2015, no Contractor or Subcontractor may be listed on a bid proposal for a public works project (submitted after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5 (with the limited exceptions from this requirement for bid purposed only under Labor Code Section 1771.1(a)). Register at <https://efiling.dir.ca.gov/PWCR>

No Contractor or Subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The Prime Contractor is required to post job site notices prescribed by regulations. See 8 Calif. Code Regulation §16451(d).

Effective April 1, 2015, All Contractors and Subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner at: <https://apps.dir.ca.gov/ecpr/das/altlogin>

21. HOURS OF LABOR:

As provided in Article 3 (commencing at § 1810), Chapter 1, Part 7, Division 2 of the Labor Code, eight (8) hours of labor shall constitute a legal day's work. The time of service of any worker employed at any time by Contractor or by any subcontractor on any subcontract under this Agreement, upon the work or upon any part of the work contemplated by this Agreement, is limited and restricted to eight (8) hours during any one calendar day and forty (40) hours during any one calendar week, except as hereinafter provided. Notwithstanding the provision hereinabove set forth, work performed by employees of Contractor in excess of eight (8) hours per day and forty (40) hours during any one week shall be permitted upon this public work, provided that the employees' compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half (1-1/2) times the basic rate of pay.

Contractor shall pay the City a penalty of Twenty-five Dollars (\$25.00) for each worker employed in the execution of this Agreement by Contractor, or by any subcontractor, for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day and forty (40) hours in any one (1) calendar week, in violation of the provisions of Article 3 (commencing at § 1810), Chapter 1, Part 7, Division 2 of the Labor Code, unless compensation for the workers so employed by Contractor is not less than one and one-half (1-1/2) times the basic rate of pay for all hours worked in excess of eight (8) hours per day.

Holiday and overtime work, when permitted by law, shall be paid for at a rate of at least one and one-half (1½) times the above specified rate of *per diem* wages, unless otherwise

specified. Holidays shall be defined in the Collective Bargaining Contract applicable to each particular craft, classification, or type of worker employed.

22. APPRENTICES:

Attention is directed to the provisions in Sections 1777.5 and 1777.6 of the Labor Code concerning the employment of apprentices by Contractor or any subcontractor under it on contracts greater than \$30,000 or 20 working days. Contractor and any subcontractor under it shall comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices.

Section 1777.5 of the Labor Code requires Contractor or subcontractor employing workers in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of the public works project, and which administers the apprenticeship program in that trade, for a certificate of approval, if they have not previously applied and are covered by the local apprenticeship standards.

Contractor is required to make contributions to funds established for the administration of apprenticeship programs if: (1) Contractor employs registered apprentices or journeymen in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions; or (2) if Contractor is not a signatory to an apprenticeship fund and if the funds administrator is unable to accept Contractor's required contribution. Contractor or subcontractor shall pay a like amount to the California Apprenticeship Council.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex-officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

23. LABOR DISCRIMINATION:

No discrimination shall be made in the employment of persons upon public works because of the race, color, sex, religion, age, national origin, sexual orientation or physical disability of such persons and every Contractor for public works violating this section is subject to all the penalties imposed for a violation of the provisions of the Labor Code, and, in particular, Section 1735.

24. REGISTRATION OF CONTRACTORS:

Before submitting bids, contractors shall be licensed in accordance with the provisions of Chapter 9, Division 3, of the Business and Professional Code of the State of California.

25. URBAN RUNOFF MANAGEMENT:

Contractor shall avoid creating excess dust when breaking asphalt or concrete and during excavation and grading. If water is used for dust control, contractor shall use as little as necessary. Contractor shall take all steps necessary to keep wash water out of the streets, gutters and storm drains.

Contractor shall develop and implement erosion and sediment control to prevent pollution of storm drains. Such control includes but is not limited to:

- a. Use storm drain inlet protection devices such as sand bag barriers, filter fabric fences, block and gravel filters. (Block storm drain inlets prior to the start of the rainy season (October 15), on site de-watering activities and saw-cutting activities; shovel or vacuum saw-cut slurry and remove from the site).
- b. Cover exposed piles of soil or construction material with plastic sheeting. All construction materials must be stored in containers.
- c. Sweep and remove all materials from paved surfaces that drain to streets, gutters and storm drains prior to rain as well as at the end of the each work day. At the completion of the project, the street shall be washed and the wash water shall be collected and disposed of offsite in an appropriate location.
- d. After breaking old pavement, Contractor shall remove all debris to avoid contact with rainfall or runoff.
- e. Contractor shall maintain a clean work area by removing trash, litter, and debris at the end of each workday. Contractor shall also clean up any leaks, drips, and other spills as they occur.

The objective is to ensure that the City and County of Alameda County-Wide Clean Water Program is adequately enforced. These controls should be implemented prior to the start of construction, up-graded as required, maintained during construction phases to provide adequate protection, and removed at the end of construction.

These recommendations are intended to be used in conjunction with the State's Best Management Practices Municipal and Construction Handbooks, local program guidance materials from municipalities, Section 7.1.01 of the Standard Specifications and any other appropriate documents on storm water quality controls for construction.

Failure to comply with this program will result in the issuance of noncompliance notices, citations, project stop orders or fines. The fine for noncompliance of the above program is two hundred and fifty dollars (\$250.00) per occurrence per day. The State under the Federal Clean Water Act can also impose a fine on the contractor, pursuant to Cal. Water Code §13385.

26. COMPLIANCE WITH MARSH CRUST ORDINANCE:

Contractor shall perform all excavation work in compliance with the City's Marsh Crust Ordinance as set forth at Section 13-56 of the Municipal Code. Prior to performing any excavation work, Contractor shall verify with the Building Official whether the excavation work is subject to the Marsh Crust Ordinance. Contractor shall apply for and obtain permits from Building Services on projects deemed to be subject to the Marsh Crust Ordinance.

27. COMPLIANCE WITH THE CITY'S INTEGRATED PEST MANAGEMENT POLICY:

Contractor shall follow the requirements of the City's Integrated Pest Management (IPM) Policy to ensure the City is in compliance with its Municipal Regional Stormwater NPDES Permit, Order No. R2-2009-0074, issued by the San Francisco Bay Regional Water Quality Control Board.

- ☐ Contractor shall use the most current IPM technologies available to ensure the long-term prevention or suppression of pest problems and to minimize negative impacts on the environment, non-target organisms, and human health for the control or management of pests in and around City buildings and facilities, parks and golf courses, urban landscape areas, rights-of-way, and other City properties.
- ☐ Contractor will consider the City IPM Policy's hierarchy of options or alternatives listed below, in the following order before recommending the use of or applying any pesticide on City property: (1)
 - a. No controls (e.g. tolerating the pest infestation, use of resistant plant varieties or allowing normal life cycle of weeds);
 - b. Physical or mechanical controls (e.g. hand labor, mowing, exclusion);
 - c. Cultural controls (e.g. mulching, disking, alternative vegetation) and good housekeeping (e.g. cleaning desk area);
 - d. Biological controls (e.g., natural enemies or predators);
 - e. Reduced-risk chemical controls (e.g., soaps or oils); and
 - f. Other chemical controls.
- ☐ Prior to applying chemical controls Contractor shall complete a checklist for the City's pre-approval that explains why a chemical control is necessary. For annual contracts that require regular application of chemical controls the contractor shall submit one checklist prior to the initiation of the project demonstrating that the hierarchy has been reviewed and no other options exist. (See Exhibit C). Additionally, Contractor shall provide documentation to the City's project manager of the implementation of the IPM techniques hierarchy described in the City's IPM Policy.
- ☐ Contractor shall avoid the use of the following pesticides that threaten water quality, human health and the environment:
 - a. Acute Toxicity Category I chemicals as identified by the Environmental Protection Agency (EPA);
 - b. Organophosphate pesticides (e.g., those containing Diazinon, chlorpyrifos or malathion);
 - c. Pyrethroids (bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin), carbamates (e.g., carbaryl), and fipronil; and

- d. Copper-based pesticides unless their use is judicious, other approaches and techniques have been considered, and the threat of impact to water quality is prevented.
- ☐ Contractor shall sign the Contractor Verification Form (attached as Exhibit B) indicating the intent to implement the City's IPM Policy, and return a signed copy to the City's project manager.
 - ☐ Contractor shall provide to the City's project manager an annual report of all pesticide usage in support of City operations including pesticide name, active ingredient(s), target pest(s), the total amounts used and the reasons for any increase in use of any pesticide.
 - ☐ Contractor shall provide a copy of any current IPM certifications(s) to the City's project manager prior to initiation of the service work.

A copy of the City's IPM Policy may be obtained from the City's project manager and is also on file with the City Clerk.

If this Agreement pertains to the use of any items listed above, Contractor will need to fill out and send in the Contractor Verification Form and Contractor Check List. ADD EXHIBIT B IF PEST CONTROL.

28. PURCHASES OF MINED MATERIALS REQUIREMENT:

Contractor shall ensure that all purchases of mined materials such as construction aggregate, sand and gravel, crushed stone, road base, fill materials, and any other mineral materials must originate from a surface mining operation identified on the AB3098 List per the Surface Mining and Reclamation Act of 1975 (SMARA).

Within five days of award of contract, Contractor shall submit a report to the City which lists the intended suppliers for the above materials and demonstrates that the suppliers are in compliance with the SMARA requirements. The AB3098 List is maintained by the Department of Conservation's Office of Mine Reclamation (OMR) and can be viewed at: www.conservation.ca.gov/OMR/ab_3098_list/index.htm. Note that the list changes periodically and should be reviewed accordingly.

29. TERMINATION:

In the event Contractor fails or refuses to perform any of the provisions hereof at the time and in the manner required hereunder, Contractor shall be deemed in default in the performance of this Agreement. If such default is not cured within a period of two (2) business days after receipt by Contractor from the City of written notice of default, specifying the nature of such default and the steps necessary to cure such default, the City may terminate the Agreement forthwith by giving to Contractor written notice thereof.

The City shall have the option, at its sole discretion and without cause, of terminating this Agreement by giving seven (7) days' prior written notice to Contractor as provided herein. Upon termination of this Agreement, each party shall pay to the other party that portion of

compensation specified in this Agreement that is earned and unpaid prior to the effective date of termination.

30. ATTORNEYS' FEES:

In the event of the bringing of any action or suit by a party hereto against the other party by reason of any breach of any covenants, conditions, obligation or provision arising out of this Agreement, the prevailing party shall be entitled to recover from the non-prevailing party all of its costs and expenses of the action or suit, including reasonable attorneys' fees, experts' fees, all court costs and other costs of action incurred by the prevailing party in connection with the prosecution or defense of such action and enforcing or establishing its rights hereunder (whether or not such action is prosecuted to a judgment). For the purposes of this Agreement, reasonable fees of attorneys of the Alameda City Attorney's office shall be based on the fees regularly charged by private attorneys with the equivalent number of years of experience in the subject matter area of the law for which the services were rendered who practice in Alameda County in law firms with approximately the same number of attorneys as employed by the Alameda City Attorney's Office.

31. PCC SECTION 9204 SUMMARY - CLAIMS SUBMITTED BETWEEN 01-01-2017 AND 01-01-2027.:

Notwithstanding anything else to the contrary stated in the Information For Bidders (IFB) or the Contract Documents, all claims, regardless of dollar amount, submitted between January 1, 2017 and January 1, 2027 shall be governed by PCC Section 9204 and this section.

The following provisions and procedures shall apply:

A. For the purposes of this section, the term "Claim", "Contractor", "mediation", "Public Entity" "Public works project" and "Subcontractor" shall have the meaning provided for in PCC Section 9204.

B. Contractor shall submit each Claim (whether for a time extension, payment for money or damages) in writing and in compliance with PCC Section 9204. Contractor must include reasonable documentation to support each claim.

C. Upon receipt of a Claim, the City shall conduct a reasonable review and respond in writing within 45 days of receipt and shall identify in a written statement what portions of the claim are disputed and undisputed. Undisputed portions of the Claim shall be process and paid within 60 days of the written statement. Undisputed amounts not paid in a timely manner shall bear interest at 7% per annum. The City and Contractor may mutually agree to extend the 45 day response time.

D. If the City needs approval from the City Council to provide a written statement, the 45 days may be extended to 3 days following the next duly noticed public meeting pursuant to PCC Section 9204(d)(1)(C).

E. If the City fails to timely respond to a Claim or if Contractor disputes the City's response, Contractor may submit a written demand for an informal meet and confer conference with the

City to settle the issues in dispute. The demand must be sent via registered or certified mail, return receipt requested. Upon receipt, the City shall schedule the conference within 30 days.

F. Within 10 business days following the informal meet and confer conference, the City shall submit to Contractor a written statement describing any issues remaining in dispute and that portion which is undisputed. Undisputed portions of the Claim shall be process and paid within 60 days of the written statement. Undisputed amounts not paid in a timely manner shall bear interest at 7% per annum. The issues remaining in dispute shall be submitted to non-binding mediation. If the City and Contractor mutually agree on a mediator, each party shall pay equal portions of all associated costs. If within 10 business days, the City and Contractor cannot agree on a mediator, each party shall select a mediator (paying all costs associated with their selected mediator), and those mediators shall select a qualified neutral third party to mediate the disputed issues. The City and Contractor shall pay equal portions of all associated costs of such third party mediator.

G. Unless otherwise agreed by the City and Contractor, any mediation conducted hereunder shall excuse any further obligation under Public Contract Code Section 20104.4 to mediate after litigation has commenced.

H. The City reserves all rights and remedies that it has pursuant to the Construction Contract, plans and specification, at law or in equity which are not in conflict with PCC 9204.

This Section shall be automatically extended if legislation is lawfully passed which extends the terms of Public Contract Code Section 9204 beyond January 1, 2027.

32. CONFLICT OF LAW:

This Agreement shall be interpreted under, and enforced by the laws of the State of California excepting any choice of law rules which may direct the application of laws of another jurisdiction. The Agreement and obligations of the parties are subject to all valid laws, orders, rules, and regulations of the authorities having jurisdiction over this Agreement (or the successors of those authorities.) Any suits brought pursuant to this Agreement shall be filed with the courts of the County of Alameda, State of California.

33. ADVERTISEMENT:

Contractor shall not post, exhibit, display or allow to be posted, exhibited, displayed any signs, advertising, show bills, lithographs, posters or cards of any kind pertaining to the services performed under this Agreement unless prior written approval has been secured from the City to do otherwise.

34. WAIVER:

A waiver by City of any breach of any term, covenant, or condition contained herein, shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant, or condition contained herein, whether of the same or a different character.

35. INTEGRATED CONTRACT:

This Agreement represents the full and complete understanding of every kind or nature whatsoever between the parties hereto, and all preliminary negotiations and agreements of whatsoever kind or nature are merged herein. No verbal agreement or implied covenant shall be held to vary the provisions hereof. Any modification of this Agreement will be effective only by written execution signed by both the City and Contractor.

36. INSERTED PROVISIONS:

Each provision and clause required by law to be inserted into the Agreement shall be deemed to be enacted herein, and the Agreement shall be read and enforced as though each were included herein. If through mistake or otherwise, any such provision is not inserted or is not correctly inserted, the Agreement shall be amended to make such insertion on application by either party.

37. CAPTIONS:

The captions in this Agreement are for convenience only, are not a part of the Agreement and in no way affect, limit or amplify the terms or provisions of this Agreement.

38. COUNTERPARTS:

This Agreement may be executed in any number of counterparts (including by fax, PDF, DocuSign, or other electronic means), each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

39. SIGNATORY:

By signing this Agreement, each signatory warrants and represents that he/she executed this Agreement in his/her authorized capacity and that by his/her signature on this Agreement, he/she or the entity upon behalf of which he/she acted, executed this Agreement.

40. CONTROLLING AGREEMENT:

In the event of a conflict between the terms and conditions of this Agreement (as amended, supplemented, restated or otherwise modified from time to time) and any other terms and conditions wherever contained, including, without limitation, terms and conditions included within exhibits, the terms and conditions of this Agreement shall control and be primary.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties have caused the Agreement to be executed on the day and year first above written.

COMPANY NAME
a (California corporation, LP, GP,
sole proprietor/individual)

CITY OF ALAMEDA,
a municipal corporation

(Name)
(Title)

Eric J. Levitt
City Manager

RECOMMENDED FOR APPROVAL

(Name)
(Title)

Erin Smith
Public Works Director

Contractor License No. _____

APPROVED AS TO FORM:
City Attorney

DIR No. _____

City Attorney

Exhibit 'E'

EMERGENCY FORM

EXHIBIT “E”

EMERGENCY FORM

During the course of the work and/or while the contractor has responsibility for the project, emergencies may arise where it is necessary to repair or replace safety devices, or install additional safety devices, or take preventative measures necessary for public safety. Such corrections as may be necessary are the contractor’s responsibility and he, or his representative, will be called upon in such emergencies.

Please fill in the following information and submit it to the Deputy Public Works Director/City Engineer.

CONTRACTOR’S NAME_____

CONTRACTOR’S PHONE NUMBER_____

PROJECT SUPERINTENDENT_____

CONTACT IN THE EVENT OF EMERGENCY:

Name:_____

Phone Number:_____

In cases where the contractor, or his representative, cannot be contacted or will not take the necessary actions, the City Public Works Department will be notified and the necessary repairs, corrections, or changes will be made. The contractor will be billed for such remedial action. Charges will include the cost of labor at applicable rates, the City’s normal overhead factor, the rental of any equipment or safety devices placed during the emergency that are damaged or stolen, or otherwise not returned to the City, will be billed to the contractor.

Scheduled starting date_____

Scheduled completion date_____

Job Name_____

EMERGENCY CONTACT INFORMATION – CITY OF ALAMEDA:

PROJECT MANAGER (NAME & PHONE NO.)_____

PROJECT INSPECTOR (NAME & PHONE NO.)_____

OTHER STAFF (NAME & PHONE NO.)_____

EXHIBIT “F”

PERFORMANCE BOND FORM

Performance Bond Form

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal, and
(Corporation, Partnership, or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto _____

(Name of Owner)

(Address of Owner)

hereinafter called OWNER, in the penal sum of _____
Dollars. (\$ _____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____, 2021, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PERFORMANCE BOND FORM

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

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

IN WITNESS WHEREOF, this instrument is executed on _____ counterparts, each one

of which shall be deemed an original, this the _____^(Number) day of _____, 2021.

ATTEST:

Principal Secretary
(SEAL) By: _____
Principal

(Witness as to Principal) (Address)

(Address)

(Surety)

ATTEST:

Surety Secretary
(SEAL) By: _____
(Witness as to Surety) Attorney-in-fact

(Address) (Address)

NOTE: Date of BOND must not be prior to date of Contract.

If the CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

Exhibit 'G'

PAYMENT BOND FORM

PAYMENT BOND FORM

KNOW ALL MEN BY THESE PRESENTS: that

a _____, hereinafter called Principal, and

hereinafter called Surety, are held and firmly bound unto _____

hereinafter called OWNER, in the penal sum of _____ Dollars. (\$ _____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____, 2021, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

EXHIBIT 'G'

PAYMENT BOND FORM

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

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

IN WITNESS WHEREOF, this instrument is executed on _____ counterparts, each one

(Number)
of which shall be deemed an original, this the _____ day of _____, 2019.

ATTEST:

Principal
By: _____

Principal Secretary
(SEAL)

(Witness as to Principal) (Address)

(Address)

(Surety)

ATTEST:

Surety Secretary
(SEAL)
By: _____

(Witness as to Surety) Attorney-in-fact

(Address) (Address)

NOTE: Date of BOND must not be prior to date of Contract.

If the CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

Exhibit 'H'

BIDDER'S BOND FORM

EXHIBIT 'H'

Bidder's Proposal Form

Contractor Name: _____

BIDDER'S BOND

We, _____
as Principal, and as Surety are bound unto the _____,
hereafter referred to as "obligee", in the penal sum of ten percent (10%) of the total amount of the
bid of the Principal submitted to the Obligee for the work described below, for the payment of
which sum we bind ourselves, jointly, and severally,

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:
WHEREAS, the Principal is submitted to the Obligee, for _____
(Copy here the exact description of

work, including locations as it appears on the proposal)

for which bids are to be opened per Section 1 Proposal and Contract Requirements, Paragraph E,
Presenting and Marking of Bid.

NOW, THEREFORE, if the Principal is awarded the contract and, within the time and
manner required under the specifications, after the prescribed forms are presented to Contractor
for signature, enters into a written contract, in the prescribed form, in accordance with the bid,
and files two bonds with Obligee, one to guarantee faithful performance of the contract and the
other to guarantee payment for labor and materials as provided by law, then this obligation shall
be null and void; otherwise, it shall remain in full force.

In the event suit is brought upon this bond by the Obligee and judgement is recovered,
the Surety shall pay all cost incurred by the Obligee in such suite, including a reasonable
attorney's fee to be fixed by the court.

The surety; for value received, hereby stipulates and agrees that the obligations of said
Surety and its Bond shall be in no way impaired or affected by any extension of the time within
which the OWNER may accept such BID; and said Surety does hereby waive notice of any such
extension.

Dated: _____, 2021. _____

Principal

Surety

By: _____

EXHIBIT "H"

CERTIFICATE OF ACKNOWLEDGMENT

State of California
County of Alameda

On this _____ day of _____ in the year **2021** before me
_____, a Notary Public, personally appeared _____

Attorney-in-fact

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)
Notary Public

EXHIBIT “I”

LIST OF SUBMITTALS

EXHIBIT “I”**List of Submittals****Storm Drain Pump Station Electrical Upgrades
No. P.W. 09-19-48**

Shall include but not limited to the following:

Item	Section Reference	Due Date/Frequency
1. Contract Bonds	Section I, Paragraph N	Within 5 days of award
2. Certified Payroll	Section II, Paragraph F	Submitted weekly
3. Emergency Form	Exhibit E	Preconstruction meeting
4. Insurance	Contract, Exhibit D	Within 5 days of award
5. Licenses/Permits	Section II, Paragraph J	Preconstruction meeting
6. Traffic Control Plan	Section XII, Paragraph A	Preconstruction meeting
7. Technical Submittals	Relevant Technical Specifications	Preconstruction meeting and updated at weekly meetings
8. Stormwater PPP	Section II, Paragraph U	Preconstruction meeting
9. Work Schedule	Section VI, Paragraph A	Preconstruction meeting and updated at weekly meetings

The above list is not exhaustive and the Contractor shall follow the requirements in the documents for submittals.

EXHIBIT “J”

**INTEGRATED PEST MANAGEMENT POLICY WITH
CONTRACTOR VERIFICATION FORM AND
CONTRACTOR CHECK LIST**

City of Alameda Contractor Verification Form
Implementation of City of Alameda Integrated Pest Management Policy

The City of Alameda (City) is mandated to:

- (a) Minimize its reliance on pesticides that threaten water quality, and
- (b) Require the effective use of Integrated Pest Management (IPM) in all municipal operations and on all municipal property.

To ensure compliance with this mandate, all City operations need to verifiably implement the practices and policies described in the City's IPM Policy adopted June 15, 2010. A copy of this IPM Policy is included with this form. The implementation of the IPM Policy is applicable to all municipal contractors that provide landscaping, structural pest control, or other pest management services in support of City operations and/or on municipal property.

The undersigning parties acknowledge that all elements of the City's IPM Policy will be implemented throughout the period of contractual services provided to City operations and on municipal property. Specific actions to document this performance shall include:

- ☐ Pest Management Contractor shall provide to City project manager for pre-approval the Pest Management Considerations Checklist.
- ☐ Pest Management Contractor shall avoid the use of the following pesticides that threaten water quality, human health and the environment:
 - o Acute Toxicity Category I chemicals as identified by the Environmental Protection Agency (EPA)
 - o Organophosphate pesticides (e.g., those containing Diazinon, chlorpyrifos or malathion)
 - o Pyrethroids (bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin), carbamates (e.g., carbaryl), and fipronil
 - o Copper-based pesticides unless their use is judicious, other approaches and techniques have been considered and the threat of impact to water quality is prevented.
- ☐ Pest Management Contractor shall provide to the City's project manager an annual Report of all pesticide usage in support of City operations including product name and manufacturer, active ingredient(s), target pest(s), the total amounts used and reasons for any increase in use of any pesticide.
- ☐ If the Contractor's on-site personnel are currently IPM certified through either the EcoWise or GreenPro programs, or through another program, the contractor shall provide written evidence of any certifications to the City's project manager.

City Departmental Representative

Contractor Representative

Print Name

Print Name

Date

Date

City Department

City Contractor

City of Alameda Pest Management Contractor Checklist:

Pest Management Options Considerations

Contractor will consider the City IPM Policy's hierarchy of options or alternatives listed below, in the following order before recommending the use of or applying any pesticide on City property. Please provide a written explanation in each section below of why the specific pest management option is not appropriate:

(1) No controls (e.g. tolerating the pest infestation, use of resistant plant varieties or allowing normal life cycle of weeds)

Comment: _____

(2) Physical or mechanical controls (e.g. hand labor, mowing, exclusion)

Comment: _____

(3) Cultural controls (e.g. mulching, disking, alternative vegetation), good housekeeping (e.g. cleaning desk area)

Comment: _____

(4) Biological controls (e.g., natural enemies or predators)

Comment: _____

(5) Reduced-risk chemical controls (e.g., soaps or oils)

Comment: _____

(6) Other chemical controls

Comment: _____

Contractor Representative

Print Name

Date

City Contractor

EXHIBIT “K”

**PROJECT STABILIZATION AGREEMENT
FOR THE CITY OF ALAMEDA**

PROJECT STABILIZATION AGREEMENT

FOR THE CITY OF ALAMEDA

PREAMBLE

This Agreement is made and entered into on this date, January 19, 2017, by and between the city of Alameda ("City" or "Owner") together with contractors and/or subcontractors who shall become signatory to this Agreement by signing the "Agreement To Be Bound" (Addendum "A"), ("Contractor/Employer(s)"), and the Building and Construction Trades Council of Alameda County, AFL-CIO ("Council") and its affiliated Local Unions signatory hereto ("Union(s)").

The purpose of this Agreement is to promote efficiency of construction operations during construction of the Project (as defined in Section 1.11 below) by providing for the orderly and peaceful settlement of labor disputes and grievances without strikes, work stoppages or lockouts, thereby promoting the public interest in assuring the timely and economical completion of the Project.

RECITALS

WHEREAS, the timely and successful completion of the Project is of the utmost importance to the city of Alameda; and

WHEREAS, large numbers of workers of various skills will be required in the performance of the construction work, including those to be represented by the Union(s) signatory to this Agreement employed by Contractor/Employer(s) and subcontractors who are also signatories to this Agreement; and

WHEREAS, it is recognized that on a project of this magnitude with multiple contractors and bargaining units on the job site at the same time over an extended period of time, the potential for work disruption is substantial without an overriding commitment to maintain continuity of work; and

WHEREAS, the interests of the general public, the city of Alameda, the Union(s) and Contractor/Employer(s) would be best served if the construction work proceeded in an orderly manner without disruption because of strikes, sympathy strikes, work stoppages, picketing, lockouts, slowdowns or other interferences with work; and

WHEREAS, the Contractor/Employer(s) and the Union(s) desire to mutually establish and stabilize wages, hours and working conditions for the workers employed on the Project by the Contractor/Employer(s), and further, to encourage close cooperation among the

Contractor/Employer(s) and the Union(s) so that a satisfactory, continuous and harmonious relationship will exist among the parties to this Agreement; and

WHEREAS, the parties agree that one of the primary purposes of this Agreement is to avoid the tensions that might arise on the Project if union and non-union workers of different employers were to work side by side on the Project thereby leading to labor disputes that could delay completion of the Project; and

WHEREAS, this Agreement is not intended to replace, interfere with, abrogate, diminish or modify existing local or national collective bargaining agreements in effect during the duration of the Project, insofar as a legally binding agreement exists between the Contractor/Employer(s) and the affected Union(s), except to the extent that the provisions of this Agreement are inconsistent with said collective bargaining agreements, in which event, the provisions of this Agreement shall prevail; and

WHEREAS, the contract(s) for construction work on the Project will be awarded in accordance with the applicable provisions of the California Public Contract Code; and

WHEREAS, the city of Alameda desires to provide construction training and employment opportunities for residents of the city of Alameda and Alameda County through apprentice and pre-apprentice programs; and

WHEREAS, the parties to this Agreement pledge their full good faith and trust to work towards a mutually satisfactory completion of the Project;

NOW, THEREFORE, IT IS AGREED BETWEEN AND AMONG THE PARTIES HERETO, AS FOLLOWS:

ARTICLE 1

DEFINITIONS

- 1.1 "City" means the city of Alameda.
- 1.2 "Agreement" means this Project Stabilization Agreement and all attached hereto Addenda.
- 1.3 "Agreement To Be Bound" means the document, as set forth in Addendum A hereto, that formally binds the Contractor/Employer(s) to comply with all the terms and conditions of this Agreement and that operates as a pre-condition to performing work on the Project.
- 1.4 "Apprentice" means an individual registered and participating as an apprentice in a Joint Labor/Management Apprenticeship Program approved by the State of California, Department of Industrial Relations, Division of Apprenticeship Standards.

- 1.5 "Completion" shall mean the date upon which the written notice of completion has been issued for a specific building, phase or project constructed under this Agreement.
- 1.6 "Construction Contract" means the public works or improvement contract(s) which will be awarded by the City and which are necessary to complete the Project, including subcontracts at any tier.
- 1.7 "Contractor/Employer(s)" means any individual, firm, partnership or corporation, or combination thereof, including joint ventures, and their successors and assigns that is an independent business enterprise and enters into a contract with the City or its Project Manager or any of its contractors or subcontractors at any tier, with respect to the construction of any part of the Project under contract terms and conditions approved by the City and which incorporate this Agreement.
- 1.8 "Coordinator" means that individual or entity designated and authorized by the City to provide those administrative services required by this Agreement.
- 1.9 "Council" means the Building and Construction Trades Council of Alameda County, AFL-CIO.
- 1.10 "Master Labor Agreement" ("MLA" or "Schedule A") means the Master Collective Bargaining Agreement of each craft Union(s) signatory to this Agreement listed in Exhibit A to this Agreement and incorporated herein by reference, a copy of which shall be made available to the City upon request.
- 1.11 "Project" means those Construction Contracts for individual public works, within the City of Alameda with a total value (as estimated by the City) of one million dollars (\$1,000,000.00) or more. Specifically excluded from this definition of Project and, therefore, the scope of this Agreement are multi-year contracts that have already been let by the City. The City and the Council may mutually agree in writing to add additional components to the Project Scope of Work to be covered under this Agreement.
- 1.12 "Project Manager" means the person or persons or business entity designated by City or private developer having control over a public works project to oversee all phases of construction on the Project.
- 1.13 "Trust Fund(s)" means an agreement for an established vacation, pension or other form of deferred compensation plan, apprenticeship and health benefit funds established by an applicable Master Labor Agreement as set forth in Section 17.1.
- 1.14 "Union(s)" means the Building and Construction Trades Council of Alameda County, AFL-CIO and any affiliated Labor Organization signatory to this Agreement, acting on their own behalf and on behalf of their respective affiliates and member organizations whose names are subscribed hereto and who have through their officers executed this Agreement.

ARTICLE 2

SCOPE OF AGREEMENT

- 2.1 The City will apply this Agreement as a contract specification to the award of all public works construction contracts on the Project for Covered Work as specifically defined under Article 2 of this Agreement. This Agreement does not apply to any private development projects. In the event that the City is made aware that this Agreement or portions thereof are inconsistent with the terms and conditions of any grant, loan, or contract with any Federal or State agency or with the instructions or directions of an authorized representative of a Federal or State agency regarding the requirements of any such grant, loan, or contract, the City shall notify the Council. Within seven (7) days of notification, the parties shall meet and confer to attempt to modify the Agreement to avoid forfeiture of any funding or otherwise resolve the issue. Should the parties be unable to come to agreement, the Agreement or any inconsistent provision shall be subject to resolution by the grievance arbitration procedures set forth in Article 11. The foregoing notwithstanding, if the granting agency determines that the resolution of such grievance procedure will result in the forfeiture of material grant funds (meaning an amount that would threaten viability of the project), then the Agreement may be modified or terminated in order to avoid the forfeiture.
- 2.2 Parties: The Agreement shall apply and is limited to all Contractor/Employer(s) performing work for the Project (including subcontractors at any tier), the City, the Council and the Union(s) signatory to this Agreement, acting on their own behalf and on behalf of their respective affiliates and member organizations whose names are subscribed hereto and who have through their officers executed this Agreement.
- 2.3 Covered Work: This Agreement covers, without limitation, all site preparation, surveying, construction, alteration, demolition, installation, improvement painting or repair of buildings, structures and other works, and related activities for the Project, including geotechnical and exploratory drilling, temporary HVAC, and landscaping and temporary fencing that is within the craft jurisdiction of one of the Union(s) and which is directly or indirectly part of the Project, including, without limitation to the following examples, pipelines (including those in linear corridors built to serve the project), pumps, pump stations, start-up, and modular furniture installation. On-site work includes work done for the Project in temporary yards or areas adjacent to the Project, and at any on-site or off-site batch plant constructed solely to supply materials to the Project. This scope of work includes all on-site soils and materials testing and inspection where such testing and inspection is a classification in which a prevailing wage determination has been published.
- 2.4.1 This Agreement shall apply to any start-up, calibration, commissioning, performance testing, repair, operational revisions to systems and/or subsystems performed after Completion if it is within the scope of the contract for public work unless it is performed by City employees.

- 2.4.2 This Agreement covers all on-site fabrication work over which the City, Contractor/Employer(s) or subcontractor(s) possess the right of control (including work done for the Project in any temporary yard or area established for the Project). Additionally, it is agreed hereby that this Agreement covers any off-site work, including fabrication work necessary for the Project defined herein, that is covered by a current MLA or local addenda to a National Agreement of the applicable Union(s) that is in effect as of the execution date of this Agreement.
- 2.4.3 The furnishing of supplies, equipment or materials which are stockpiled for later use shall not be covered by this Agreement. However, construction trucking work, such as the delivery of ready-mix, asphalt, aggregate, sand or other fill material which are incorporated into the construction process as well as the off-hauling of debris and excess fill, material and/or mud, shall be covered by the terms and conditions of this Agreement, to the fullest extent provided by law and by prevailing wage determinations of the California Department of Industrial Relations. Contractor/Employer(s), including brokers, of persons providing construction trucking work shall provide certified payroll records to the City within ten (10) days of written request or as required by bid specifications.
- 2.4.4 It is agreed that the Contractor shall require all contractors of whatever tier who have been awarded contracts for work covered by this Agreement, to accept and be bound by the terms and conditions of this Project Agreement by executing the Agreement to be Bound (Attachment A) prior to commencing work. The Project Manager and/or Coordinator shall assure compliance with this Agreement by the Contractors. It is further agreed that, where there is a conflict, the terms and conditions of this Project Agreement shall supersede and override terms and conditions of any and all other national, area, or local collective bargaining agreements, except work covered by the Agreement within the following craft jurisdictions shall be performed under the terms of their National Agreements as follows: National Agreement of Elevator Constructors, National Transient Lodge (NTL) Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, and all instrument calibration work and loop checking shall be performed under the terms of the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians, except that Articles 5, 6, and 11 of this Agreement shall prevail and be applied to such work. It is understood that this is a self-contained, stand alone, Agreement and that by virtue of having become bound to this Project Agreement, neither the Project Contractor/Manager nor the Contractors will be obligated to sign any other local, area, or national agreement.
- 2.5 The on-site installation or application of all items shall be performed by the craft having jurisdiction over such work as set forth under the provisions of this Agreement; provided, however, it is recognized that installation of specialty items which may be furnished by the owner of the Project or a contractor shall be performed by construction persons employed under this Agreement who may be directed by other personnel in a supervisory role.

- 2.6 After installation by the Contractor/Employer(s) and upon Completion, it is understood, the City reserves the right to perform start-up, operation, repair, maintenance or revision of equipment or systems with employees of the City. If required, the service representative may make a final check and may direct workmen on site to make any necessary repairs to protect the terms of a manufacturer's guarantee or warranty prior to start-up of a piece of equipment.
- 2.7 It is expressly agreed and understood by the parties hereto that the City shall have the right to purchase material and equipment from any source, except where limited by this Agreement, and the craftspersons will handle and install such material and equipment.
- 2.8 Exclusions. The following shall be excluded from the scope of this Agreement:
- 2.8.1 The Agreement is not intended to, and shall not affect or govern the award of public works contracts by the City which are not included in the Project.
- 2.8.2 The Agreement shall not apply to a Contractor/Employer(s)' non-construction craft employees, including, but not limited to, executives, managerial employees, engineering employees and supervisors above the level of General Foreman or Senior General Foreman (except those covered by existing MLAs), staff engineers or other professional engineers, administrative and management.
- 2.8.3 This Agreement shall not apply to any work performed on or near or leading to the site of work covered by this Agreement that is undertaken by state, county, city or other governmental bodies or their contractors; or by public or private utilities or their contractors.
- 2.8.4 Off-site maintenance of leased equipment and on-site supervision of such work;
- 2.8.5 The City shall not be required to comply with this Agreement for any work performed with its own forces as permitted by the City Charter, City Codes or Ordinances, the California Uniform Construction Cost Accounting Act, Public Contract Code and Education Code, as applicable.
- 2.9 Award of Contracts: It is understood and agreed that the City shall, for the award of contracts for public works, have the absolute right to select the bidder with the lowest responsive, responsible bid for the award of contracts under this Agreement. The bidder need only be willing, ready and able to execute and comply with this Agreement.

ARTICLE 3

EFFECT OF AGREEMENT

- 3.1 By executing the Agreement, the Union(s) and the City agree to be bound by each and all of the provisions of the Agreement.

- 3.2 By accepting the award of a construction contract for the Project, whether as contractor or subcontractor, the Contractor/Employer(s) agrees to be bound by each and every provision of the Agreement and agrees that it will evidence its acceptance prior to the commencement of work by executing the Agreement To Be Bound in the form attached hereto as Addendum A.
- 3.3 At the time that any Contractor/Employer(s) enters into a subcontract with any subcontractor providing for the performance of a construction contract, the Contractor/Employer(s) shall provide a copy of this Agreement to said subcontractor and shall require the subcontractor as a part of accepting an award of a construction subcontract to agree in writing to be bound by each and every provision of this Agreement prior to the commencement of work. The obligations of a Contractor/Employer(s) may not be evaded by subcontracting.
- 3.4 Each Contractor/Employer(s) shall give written notice to the Union(s) of any subcontract involving the performance of work covered by this Agreement within either seven (7) days of entering such subcontract or before such Contractor/Employer(s) commences work on the Project, whichever occurs first. Such notice shall specify the name, address, phone number, and the California Contractor State License Board (CSLB) license number and motor carrier permit number, and DIR registration number, of the Contractor/Employer(s). Written notice at a Pre-Job Conference shall be deemed written notice under this provision for those Contractor/Employer(s) listed at the Pre-Job only.
- 3.5 This Agreement shall only be binding on the signatory parties hereto and shall not apply to the parents, affiliates, subsidiaries, or other ventures of any such party. Each Contractor/Employer(s) shall alone be liable and responsible for its own individual acts and conduct and for any breach or alleged breach of this Agreement. Any dispute between the Union(s) and the Contractor/Employer(s) respecting compliance with the terms of the Agreement shall not affect the rights, liabilities, obligations and duties between the signatory Union(s) and other Contractor/Employer(s) party to this Agreement.
- 3.6 The provisions of this Agreement, including MLA's, shall apply to the work covered by this Agreement, notwithstanding the provisions of any other local, area and/or national agreements which may conflict with or differ from the terms of this Agreement. Where a subject covered by the provisions of this Agreement is also covered by a MLA, the provisions of this Agreement shall prevail. Where a subject is covered by the provisions of a MLA and is not covered by this Agreement, the provisions of the MLA shall prevail.
- 3.7 (a) With regard to any Contractor/Employer(s) that is independently signed to any MLA, this Project Stabilization Agreement shall in no way supersede or prevent the enforcement of any subcontracting clause contained in such MLA, except as specifically set forth in subsection (b) of this Section 3.7. Any such subcontracting clause in an MLA shall remain and be fully enforceable between each craft union and its signatory employers, and no provision of this Project Stabilization Agreement shall be interpreted and/or applied in any

manner that would give this Project Stabilization Agreement precedence over subcontracting obligations and restrictions that exist between craft unions and their respective signatory employers under an MLA, except as specifically set forth in subsection (b) of this Section 3.7.

- (b) If a craft union (hereafter "Aggrieved Union") believes that an assignment of work on this Project has been made improperly by a contractor or subcontractor, even if that assignment was as a result of another craft union's successful enforcement of the subcontracting clause in its MLA, as permitted by subsection (a) of this Section 3.7, the Aggrieved Union may submit a claim under the jurisdictional resolution process contained in Article 6 of this PLA, and the decision rendered as part of that process shall be enforceable to require the contractor or subcontractor that made the work assignment to assign that work prospectively to the Aggrieved Union. An award made to a craft union under the subcontracting clause of its MLA, as permitted pursuant to Section 3.7 (a) of this Article, shall be valid and fully enforceable by that craft union unless it conflicts with a jurisdictional award made pursuant to this Agreement. If the award made under the MLA conflicts with the jurisdictional award, the award of any damages under the former shall be null and void ab initio.

ARTICLE 4

RELATIONSHIP BETWEEN PARTIES

- 4.1 This Agreement shall only be binding on the signatory parties hereto, and shall not apply to parents, affiliates, subsidiaries, or other ventures of any such party.
- 4.2 Each Contractor/Employer(s) shall alone be liable and responsible for its own individual acts and conduct and for any breach or alleged breach of this Agreement. Any alleged breach of this Agreement by a Contractor/Employer(s) or any dispute between the Union(s) and the Contractor/Employer(s) respecting compliance with the terms of this Agreement, shall not affect the rights, liabilities, obligations and duties between the signatory Union(s) and each of the other Contractor/Employer(s), party to this Agreement.
- 4.3 It is mutually agreed by the parties that any liability of a Union(s) shall be several and not joint. Any alleged breach of this Agreement by a signatory Union(s) shall not affect the rights, liabilities, obligations and duties between the Contractor/Employer(s) and the other Union(s) party to this Agreement.
- 4.4 It is recognized by the parties to this Agreement that the Contractor/Employer(s) are acting only on behalf of said Contractor/Employer(s), and said Contractor/Employer(s) have no authority, either expressed, implied, actual, apparent or ostensible, to speak for or bind the City.

ARTICLE 5

NO STRIKES - NO LOCKOUTS

- 5.1 The Union(s), the City and Contractor/Employer(s) covered by the Agreement agree that for the duration of the Project:
- 5.1.1 There shall be no strikes, sympathy strikes, work stoppages, picketing, hand billing or otherwise advising the public that a labor dispute exists, or slowdowns of any kind, for any reason, by the Union(s) or employees employed on the Project, at the job site of the Project or at any other facility of the City because of a dispute on the Project. Disputes arising between the Union(s) and Contractor/Employer(s) on other City projects are not governed by the terms of the Agreement or this Article.
 - 5.1.2 As to employees employed on the Project, there shall be no lockout of any kind by a Contractor/Employer(s) covered by the Agreement.
 - 5.1.3 If a master collective bargaining agreement expires before the Contractor/Employer(s) completes the performance of the Construction Contract and the Union(s) or Contractor/Employer(s) gives notice of demands for a new or modified master collective bargaining agreement, the Union(s) agrees that it will not strike on work covered under this Agreement and the Union(s) and the Contractor/Employer(s) agree that the expired master collective bargaining agreement shall continue in full force and effect for work covered under this Agreement until a new or modified master collective bargaining agreement is reached. If the new or modified master collective bargaining agreement provides that any terms of the master collective bargaining agreement shall be retroactive, the Contractor/Employer(s) agrees to comply with any retroactive terms of the new or modified master collective bargaining agreement which are applicable to employees who were employed on the projects during the interim with retroactive payment due within seven (7) days of the effective date of the modified Master Agreement.
 - 5.1.4 Withholding employees for failure of a Contractor/Employer(s) to tender timely Trust Fund(s) contributions as required in accordance with Article 16 and/or for failure to timely meet its weekly payroll is not a violation of this Article 5; however, the Union(s) shall give the affected Contractor/Employer(s), the Coordinator and the City written notice seventy-two (72) hours prior to the withholding of employees when failure to tender Trust Fund(s) contributions has occurred. There shall be twenty-four (24) hours notice when failure to meet weekly payroll has occurred or when paychecks are determined to be nonnegotiable by a financial institution normally recognized to honor such paychecks.

Should a Contractor/Employer(s) performing work on this Project be delinquent in the payment of Trust Fund(s) contributions required under this Agreement, the

Union(s) may request that the general Contractor/Employer(s) issue joint checks payable to the Contractor/Employer(s) and the appropriate employee benefit Trust Fund(s), on behalf of the employee(s) until such delinquencies are satisfied. Any Trust Fund(s) claiming that a Contractor/Employer(s) is delinquent in its fringe benefit contributions to the Trust Fund(s) will provide written notice of the alleged delinquency to the affected Contractor/Employer(s), with copies to the General Contractor/Employer(s), the Coordinator and the City. The notice will indicate the amount of delinquency asserted and the period that the delinquency covers. It is agreed, however, with respect to Contractor/Employer(s) delinquent in trust or benefit contribution payments, that nothing in this Agreement shall affect normal contract remedies available under the MLAs. If the General Contractor/Employer(s) is delinquent in the payment of Trust Fund(s) contributions for covered work performed on this project, the General Contractor/Employer(s) agrees that the affected Trust Fund(s) may place the City on notice of such delinquencies and the General Contractor/Employer(s) further agrees that the City may issue joint checks to the General Contractor/Employer(s) and the Trust Fund(s), on behalf of the employee(s) until the delinquency is satisfied.

- 5.2 Expedited Arbitration: Any party to this Agreement shall institute the following procedure, prior to initiating any other action at law or equity, when a breach of this Article is alleged to have occurred:
- 5.2.1 A party invoking this procedure shall notify Bob Hirsch, as the permanent Arbitrator, or, Barry Winograd, as the alternate Arbitrator under this procedure. In the event that the permanent Arbitrator is unavailable at any time, the alternate will be contacted. If neither is available, then a selection shall be made from the list of Arbitrators in Article 11.2.2, Step 5. Should either the permanent or the alternate arbitrator listed above no longer work as a labor arbitrator, the City and the Council shall mutually agree to a replacement. Notice to the Arbitrator shall be by the most expeditious means available, with notices by facsimile, email or telephone to the Coordinator, the City and the party alleged to be in violation, and to the Council and involved local Union(s) if a Union(s) is alleged to be in violation.
 - 5.2.2 Upon receipt of said notice, the Coordinator will contact the designated Arbitrator named above or his alternate who will attempt to convene a hearing within twenty-four (24) hours if it is contended that the violation still exists.
 - 5.2.3 The Arbitrator shall notify the parties by facsimile, email or telephone of the place and time for the hearing. Said hearing shall be completed in one session, which, with appropriate recesses at the Arbitrator's discretion, shall not exceed twenty-four (24) hours unless otherwise agreed upon by all parties. A failure of any party to attend said hearings shall not delay the hearing of evidence or the issuance of an award by the Arbitrator.

- 5.2.4 The sole issue at the hearing shall be whether or not a violation of Article 5, Section 5.1.1 of the Agreement has occurred. The Arbitrator shall have no authority to consider any matter of justification, explanation or mitigation of such violation or to award damages, which issue is reserved for court proceedings, if any. The award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with or enforcement of the award. The Arbitrator may order cessation of the violation of this Article and other appropriate relief and such award shall be served on all parties by hand or certified mail upon issuance.
- 5.2.5 Such award may be enforced by any Court of competent jurisdiction upon the filing of this Agreement and all other relevant documents referred to above in the following manner. Written notice of the filing of such enforcement proceedings shall be given to the other party. In the proceeding to obtain a temporary order enforcing the Arbitrator's award as issued under Section 5.2.4 of this Article, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order or enforcement. The Court's order or orders enforcing the Arbitrator's award shall be served on all parties by hand or delivered by certified mail.
- 5.2.6 Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure, or which interfere with compliance, are waived by the parties.
- 5.2.7 The fees and expenses of the Arbitrator shall be divided equally between the party instituting the arbitration proceedings provided in this article and the party alleged to be in breach of its obligation under this article.

ARTICLE 6

WORK ASSIGNMENTS AND JURISDICTIONAL DISPUTES

- 6.1 The assignment of Covered Work will be solely the responsibility of the Contractor/Employer(s) performing the work involved and such work assignments will be in accordance with the Plan for the Settlement of Jurisdictional Disputes in the Construction Industry (the "Plan") or any successor Plan.
- 6.2 All jurisdictional disputes on this Project between or among the Union(s) and the Contractor/Employer(s), parties to this Agreement, shall be settled and adjusted according to the present Plan established by the Building and Construction Trades Department, or any other plan or method of procedure that may be adopted in the future by the Building

and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Contractor/Employer(s) and Union(s) parties to this Agreement.

6.2.1 If a dispute arising under this Article involves the Northern California Carpenters Regional Council or any of its subordinate bodies, an Arbitrator shall be chosen by the procedures specified in Article V, Section 5, of the Plan from a list composed of John Kagel, Thomas Angelo, Robert Hirsch and Thomas Pagan and the Arbitrator's hearing on the dispute shall be held at the offices of the California State Building and Construction Trades Council in Sacramento, California, within fourteen (14) days of the selection of the Arbitrator. All other procedures shall be as specified in the Plan.

6.3 All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slow-down of any nature, and the Contractor/Employer(s)' assignment shall be adhered to until the dispute is resolved. Individuals violating this Section shall be subject to immediate discharge.

6.4 Each Contractor/Employer(s) shall conduct a Pre-Job Conference with the Council prior to commencing Covered Work. The Primary Employer, the Coordinator and the City will be advised in advance of all such conferences and may participate if they wish. Pre-job conferences for different Contractor/Employer(s) may be held together.

ARTICLE 7

COORDINATOR

7.1 The City will designate a Coordinator, who will be responsible for the administration and application of this Agreement.

7.2 The Coordinator shall endeavor to facilitate harmonious relations between the Contractors and Unions signatory hereto and will represent the City at the Pre-Job Conference(s) called for in Article 8 and the A Joint Administrative Committee called for in Article 20. The Coordinator shall not be responsible for the acts of the Contractor/Employer(s) or Unions signatory hereto, and will not be a party to any arbitration or litigation arising out of this Agreement.

ARTICLE 8

PRE-JOB CONFERENCES

8.1 Pre-Job Conference Timing and Attendees:

8.1.1 The Contractor shall hold and conduct a mandatory pre-job conference with representatives of all involved sub-contractors and the Unions at a location mutually agreeable to the Council at least twenty-one (21) calendar days prior to:

(a) The commencement of any Covered Work, as defined in section 2.3 above; and

(b) The commencement of Covered Work on each subsequently awarded Construction Contract.

8.1.2 The conference shall be attended by a representative of each participating Contractor, each affected Union, and the Council. The Owner may attend at its discretion.

8.2 Pre-Job Conference Information.

8.2.1 The information to be presented at the pre-job conference will consist of:

- (a) A listing of each Contractor's scope of work;
- (b) The Contractor's craft assignments;
- (c) The estimated number of craft workers required to perform the work;
- (d) Transportation and parking arrangements, if any;
- (e) The estimated start and completion dates of the work;
- (f) Identification of any pre-fabricated materials;
- (g) All workforce projection information required under Article 14 of this Agreement; and
- (h) A listing of all specialty work to be performed by the employees of an equipment vendor or manufacturer to protect the warranty on such equipment, and a demonstration by enumeration of specific tasks why such work cannot be performed by Covered Employees.

8.3 Work will not commence for any Contractor until an **Agreement to be Bound** has been signed and submitted by a duly authorized representative of the Contractor to the applicable Union(s) and the Council.

ARTICLE 9

MANAGEMENT RIGHTS

9.1 Consistent with the Schedule A Agreements, the Contractor/Employer(s) shall retain full and exclusive authority for the management of their operations, including the right to direct their work force in their sole discretion. No rules, customs or practices shall be permitted or observed which limit or restrict production, or limit or restrict the working efforts of employees except that lawful manning provisions in the MLA shall be recognized.

ARTICLE 10

WORK RULES

10.1 Work rules shall apply as set forth in the applicable MLA.

ARTICLE 11

GRIEVANCE PROCEDURE

- 11.1 All disputes concerning the interpretation and/or application of this Agreement which do not fall within the Article 5, No Strikes-No Lockouts procedure or Article 6, Work Assignments and Jurisdictional Disputes, shall be governed by the following grievance and arbitration procedure.

Employee Grievances: All disputes involving discipline and/or discharge of employees working on the Project shall be resolved through the grievance and arbitration provision contained in the MLA for the craft of the affected employee. No employee working on the Project shall be disciplined or dismissed without just cause.

- 11.2 Grievances between one or more Union(s) and one or more Contractor/Employer(s); or between the City and one or more Contractor/Employer(s) regarding interpretation and/or application of this Agreement shall be pursued according to the following provisions:

11.2.1 A grievance shall be considered null and void if not brought to the attention of the Contractor/Employer(s) or the Union(s) within fourteen (14) calendar days after the grievance is alleged to have occurred but in no event more than thirty (30) calendar days after the charging party became aware of the event giving rise to the dispute. The Coordinator shall be delivered a copy of all grievances.

11.2.2 Grievances between one or more Union(s) and one or more Contractor/Employer(s), or between the City and one or more Contractor/Employer(s) regarding provisions of this Agreement shall be settled or otherwise resolved according to the following Steps and provisions:

Step 1: A representative of the grievant and the party against whom the grievance is filed shall meet and attempt to resolve the grievance.

Step 2: In the event the matter remains unresolved in Step 1 above, within seven (7) calendar days, the grievance shall be reduced to writing and may then be referred by the Union(s), the City, or the Contractor/Employer(s) to the other party for discussion and resolution.

Step 3: In the event that the representatives are unable to resolve the dispute within the seven (7) calendar days after its referral to Step 2, either involved party may submit the dispute within seven (7) calendar days to the Joint Administrative Subcommittee established in Section 20.2. The Joint Administrative Subcommittee shall meet within seven (7) calendar days after such referral (or such longer time as is mutually agreed upon by the representatives on the Joint Administrative Subcommittee) to confer in an attempt to resolve the grievance. If a Union(s) is party to the grievance, regardless of which party has initiated the grievance proceeding, prior to the

meeting of the Joint Administrative Subcommittee, the Union(s) shall notify its International Union Representative(s), which shall advise both parties if it intends on participating in the meeting. The participation by the International Union Representative in this Step 3 meeting shall not delay the time set herein for the meeting, unless otherwise mutually agreed by the parties. If the dispute is not resolved by the Joint Administrative Subcommittee, it may be referred within seven (7) calendar days by either party to Step 4.

At the time a grievance is submitted under this Agreement or any MLA, the Union(s) may request that the City withhold and retain an amount from what is due and owing to the Contractor/Employer(s) against whom the grievance is filed, sufficient to cover the damages alleged in the grievance, should the Union(s) prevail.

The amount shall be retained by the City until such time as the underlying grievance giving rise to the retention is withdrawn, settled, or otherwise resolved, and the retained amount shall be paid to whomever the parties to the grievance shall decide, or to whomever an Arbitrator shall so order.

Step 4: In the event the matter remains unresolved in Step 3, either Party may request, within seven (7) calendar days, that the dispute be submitted to arbitration. The time limits set out in this procedure may, upon mutual agreement, be extended. Any request for arbitration, request for extension of time limits, and agreement to extend such time limits shall be in writing with a copy delivered to the Coordinator.

Step 5: The Parties agree that the Arbitrator who will hear the grievance shall be selected from the following: Barry Winograd, William Riker, and Robert Hirsch. The parties shall flip a coin to determine who shall strike the first name and shall then alternately strike names from the list and the last remaining name shall be the neutral third party Arbitrator who shall have the power to resolve the dispute in a final and binding manner. Should a Party to the procedure fail or refuse to participate in the hearing, if the Arbitrator determines that proper notice of the hearing has been given, said hearing shall proceed to a default award. The Arbitrator's award shall be final and binding on all Parties to the arbitration. The costs of the arbitration, excluding attorney fees, including the Arbitrator's fee and expenses, shall be borne by the losing party. The Arbitrator's decision shall be confined to the question(s) posed by the grievance and the Arbitrator shall not have authority to modify amend, alter, add to, or subtract from, any provisions of this Agreement.

- 11.3 Grievances raised by the City against one or more Union(s) and/or the Council, or against the City by one or more Union(s) and/or the Council, regarding provisions of this Agreement shall be settled or otherwise resolved according to the following Steps and provisions:

Step 1: The Joint Administrative Subcommittee shall attempt to resolve the grievance. The Joint Administrative Subcommittee shall meet within five (5) working days after receipt of the grievance (or such longer time as is mutually agreed upon by the representatives on this Joint Administrative Subcommittee) to confer with regard to the grievance. If the dispute is not resolved by the Joint Administrative Subcommittee, it may be referred within five (5) working days by either party to the Joint Administrative Committee.

Step 2: The Joint Administrative Committee shall attempt to resolve the grievance. The Joint Administrative Committee shall meet within five (5) working days after receipt of the grievance (or such longer time as is mutually agreed upon by the representatives on the Joint Administrative Committee) to confer with regard to the grievance. In the event that the Joint Administrative Committee is unable to resolve the dispute within the five (5) working days after receipt of the grievance, either involved party may proceed to Step 3.

Step 3: In the event the matter remains unresolved pursuant to Step 2, either Party may request that the dispute be submitted to arbitration in accordance with the process set forth in Paragraph 11.2.2. Step 5.

Step 4: Should a Party to the procedure fail or refuse to participate in the hearing, if the Arbitrator determines that proper notice of the hearing has been given, said hearing shall proceed to a default award. The Arbitrator's award shall be final and binding on all Parties to the arbitration. The costs of the arbitration, including the Arbitrator's fee and expenses, shall be borne by the losing Party. The Arbitrator's decision shall be confined to the question(s) posed by the grievance and the Arbitrator shall not have authority to modify, amend, alter, add to, or subtract from, any provisions of this Agreement.

- 11.4 Grievances between a Union(s) and a Union(s)' signatory Contractor/Employer(s) involving interpretation or application of the MLA shall be governed by the grievance procedures contained in the MLA.

ARTICLE 12

UNION RECOGNITION AND REPRESENTATION

- 12.1 The Contractor/Employer(s) recognize the Union(s) signatory hereto as the sole and exclusive collective bargaining representatives for all craft employees on the Project.

- 12.2 The Contractor/Employer(s) shall require all employees who work on a Construction Contract on or before eight (8) days of consecutive or cumulative employment on the Project to comply with the applicable Union(s)' security provisions, and to maintain compliance for the period of time they are performing work on the Project, which requirement shall be satisfied by the tendering of periodic dues and fees uniformly required to the extent allowed by law. Further, there is nothing in this Agreement that would prevent non-union employees from joining the Union(s).
- 12.3 Authorized representatives of the Union(s) shall have access to the site at all times. Such representatives shall comply with reasonable visitor safety and security rules established for the Project at the pre-job meeting. Access for Union(s) representatives will not be unduly restricted.

ARTICLE 13

REFERRAL

- 13.1 Contractor/Employer(s) performing construction work on the Project described in the Agreement shall, in filling craft job requirements, utilize and be bound by the registration facilities and referral systems established or authorized by the Union(s) signatory hereto when such procedures are not in violation of Federal law. The Contractor/Employer(s) shall have the right to reject any applicant referred by the Union(s), in accordance with the applicable Master Agreement.
- 13.2 The Contractor/Employer(s) shall have the unqualified right to select and hire directly all supervisors above the level of general foreman or senior general foreman it considers necessary and desirable, without such persons being referred by the Union(s).
- 13.3 In the event that referral facilities maintained by the Union(s) are unable to fill the requisition of a Contractor/Employer(s) for employees within a forty-eight (48) hour period (Saturdays, Sundays and Holidays excluded) after such requisition is made by the Contractor/Employer(s), the Contractor/Employer(s) shall be free to obtain workers from any source. A Contractor/Employer(s) who hires any personnel to perform covered work on the Project pursuant to this Section shall immediately provide the appropriate Union(s) with the name and address of such employee(s) and shall immediately refer such employee(s) to the appropriate Union(s) to satisfy the requirements of Article 12 of this Agreement.

ARTICLE 14

LOCAL WORKFORCE DEVELOPMENT

- 14.1 The parties agree to a goal that residents of the city of Alameda, and Alameda County ("Local Residents"), in order of priority as here listed, will perform up to twenty-five

percent (25%) percent of all hours worked on the Project, on a craft-by-craft basis, if such workers are available, capable and willing to work. Contractors will first be required to request residents from the City of Alameda, and if those are not available, will then request residents from Alameda County. If the Local Resident is also a high school graduate of a high school located in Alameda or has received a General Educational Development diploma ("GED") while living in Alameda, those hours will count double. In addition, the parties agree that participants in the Alameda Point Collaborative Program will be referred to the apprentice programs of the Union(s) and establish a goal that such participants will perform fifteen percent (15%) of all apprentice hours worked on the Project. All participants that will be referred to the contractors to meet this requirement will have gone through a pre-apprenticeship program that meets the Multi-Craft Core Curriculum as established by the National Building Trades, or other union pre-apprenticeship programs.

- 14.2 The Contractor/Employer(s) shall make good faith efforts to reach these goals working through the hiring hall procedures of the applicable Schedule A Agreement and, when applicable, utilize their "rehire" and "name call" rights to employ such Local Residents. The Union(s) shall utilize their utmost efforts to recruit sufficient numbers of apprentice and journeymen craftspersons who are Local Residents to fulfill the requirements of the Contractor/Employer(s). The parties to this Agreement support the development and placement of increased numbers of skilled construction workers from Local Residents to meet the needs of the Project and the requirements of the industry generally.
- 14.3 To evaluate the performance of the Contractor/Employer(s) and Union(s) in achieving the employment of Local Residents goal on this Project, the Contractor/Employer(s) shall submit copies of their monthly certified payroll reporting forms to the Coordinator. The Contractor shall also submit a monthly report tabulating the ratio of Local Residents to total employees for each craft Union to the Coordinator. The performance of the Contractor/Employer(s) and Union(s) will be reviewed at the periodic Joint Administrative Committee meetings called for in Section 20 of this Agreement.

ARTICLE 15

NON-DISCRIMINATION

- 15.1 The Contractor/Employer(s) and Union(s) agree to comply with all anti-discrimination provisions of federal, state and local law, to protect employees and applicants for employment on the Project.

ARTICLE 16

APPRENTICES

- 16.1 Recognizing the need to maintain continuing support of programs designed to develop adequate numbers of competent workers in the construction industry, the Contractor/Employer(s) will employ apprentices in the respective Union(s) to perform such work as is within their capabilities and which is customarily performed by the Union(s) in which they are indentured. The apprentice ratios will be in compliance with the applicable provisions of the California Labor Code and Prevailing Wage Rate Determinations.
- 16.2 The parties only recognize the State-approved Apprenticeship training programs administered by Joint Labor/Management Apprenticeship Training Committees for the purposes of meeting the goals of this Article 16.

ARTICLE 17

WAGE SCALES AND FRINGE BENEFITS

- 17.1 All Contractor/Employer(s) agree to pay contributions to the established vacation, pension and other form of deferred compensation plan, apprenticeship, health benefit funds, and all other contributions established by the applicable MLA for each hour worked on the Project in the amounts designated in the MLAs of the appropriate Union(s) that are recognized by a prevailing wage determination and paid in accordance with the MLA. The Contractor/Employer(s) shall not be required to pay contributions to any other trust funds or other contributions that are not contained in the published prevailing wage determination to satisfy their obligation under this Article, except that those Contractor/Employer(s) who are signatory to the MLAs with the respective trades shall continue to pay all trust fund or other contributions as outlined in such MLAs.
- 17.2 By signing this Agreement, the Contractors/Employers adopt and agree to be bound by the written terms of the legally established Trust Agreements, as described in Section 17.1, which may from time to time be amended, specifying the detailed basis on which payments are to be made into, and benefits paid out of, such Trust Funds. The Contractors/Employers authorize the parties to such local trust agreements to appoint trustees and successor trustees to administer the Trust Funds and hereby ratify and accept the trustees so appointed as if made by the Contractors/Employers. The Contractors/Employers agree to execute a separate Subscription Agreement(s) for Trust Funds when such Trust Fund(s) requires such document(s).
- 17.3 Wages, Hours, Terms and Conditions of Employment: The wages, hours and other terms and conditions of employment on the Project shall be governed by the MLAs of the respective Union(s), copies of which shall be made available to the City upon request, to the extent such MLA is not inconsistent with this Agreement.

- 17.4 Holidays: Holidays shall be established as set forth in the applicable MLA.

ARTICLE 18

HEALTH AND SAFETY

- 18.1 The employees covered by the terms of this Agreement shall at all times, while in the employ of the Contractor/Employer(s), be bound by the reasonable safety rules and regulations as established by the City and Contractor/Employer(s) and in accordance with OSHA/Cal-OSHA. These rules and regulations will be published and posted at conspicuous places throughout the Project.
- 18.2 In accordance with the requirements of OSHA/Cal-OSHA, it shall be the exclusive responsibility of each Contractor/Employer(s) on the Project to assure safe working conditions for its employees and compliance by them with any safety rules contained herein or established by the Contractor/Employer(s).
- 18.3 A convenient supply of cold and potable drinking water shall be provided by the Contractor/Employer(s).
- 18.4 The Contractor/Employer(s) and Union(s) agree that the work site shall be a drug free workplace. Parties agree to recognize and use the Substance Abuse Prevention Program contained in each applicable Union(s)' MLA.

ARTICLE 19

HELMETS TO HARDHATS

- 19.1 The parties recognize a desire to facilitate the entry into the Building and Construction Trade Union(s) of veterans who are interested in careers in the building and construction industry. The parties agree to utilize the services of the Center for Military Recruitment, Assessment and Veteran's Employment (hereinafter "Center") and the Center's "Helmets to Hardhats" program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the parties.
- 19.2 The Union(s) and Contractor/Employer(s) agree to coordinate with the Center to assist in the creation and maintenance an integrated database of Veterans interested in working on this Project and of apprenticeship and employment opportunities for this Project. To the extent permitted by law, the Union(s) will give credit to such Veterans for bona fide, provable past experience.

- 19.3 To evaluate the performance of the Contractor/Employer(s) and Union(s) in achieving the employment of veterans on this Project, the Contractor/Employer(s) shall submit to the Coordinator information regarding veterans it has employed on a Project. The Contractor/Employer(s) shall submit a monthly report tabulating the number of veterans employed to the Coordinator. The performance of the Contractor/Employer(s) and Union(s) will be reviewed at the periodic Joint Administrative Committee meetings called for in Section 20 of this Agreement.

ARTICLE 20

JOINT ADMINISTRATIVE COMMITTEE

- 20.1 The Council and the City to this Agreement shall establish a six (6) person Joint Administrative Committee. This Committee shall be comprised of three (3) representatives selected by the City and three (3) representatives selected by the Council. The City and the Council shall designate alternates who shall serve in the absence of designated representatives for any purpose contemplated by this Agreement. The Joint Administrative Committee shall meet as required to review the implementation of the Agreement, the progress of the Projects and the employment of Local Residents and veterans on Projects covered by this Agreement.
- 20.2 The Joint Administrative Committee shall appoint a Joint Administrative Subcommittee consisting of one City representative and one Union(s) representative for the purpose of convening to confer in an attempt to resolve a grievance that has been filed consistent with Article 11. Any question regarding the meaning, interpretation, or application of the provisions of this Agreement shall be referred directly to the Joint Administrative Subcommittee for resolution. The Joint Administrative Subcommittee shall meet as required to resolve grievances by majority vote with such resolutions to be final and binding on all signatories of the Agreement. A failure of any party or parties to attend said hearing shall not delay the hearing of evidence or issuance of an award by the Joint Administrative Subcommittee, if such award is made by a majority vote, and the hearing shall proceed ex parte. If the subcommittee is unable to resolve the grievance, the grievance may be referred in accordance with Step 3 of Article 11.

ARTICLE 21

MISCELLANEOUS PROVISIONS

- 21.1 Counterparts. This Agreement may be executed in counterparts, such that original signatures may appear on separate pages, and when bound together all necessary signatures shall constitute an original. Faxed or e-mailed pdf signature pages transmitted separately to other parties to this Agreement shall be deemed equivalent to original signatures.

- 21.2 Warranty of Authority. Each of the persons signing this Agreement represents and warrants that such person has been duly authorized to sign this Agreement on behalf of the party indicated, and each of the parties by signing this Agreement warrants and represents that such party is legally authorized and entitled to enter into this Agreement.

ARTICLE 22

GENERAL SAVINGS CLAUSE

- 22.1 It is not the intention of either the City, Contractor/Employer(s) or the Union(s) parties to violate any laws governing the subject matter of this Agreement. If any Article or provision of this Agreement shall be declared invalid, inoperative, or unenforceable by any competent authority of the executive, legislative, judicial or administrative branch of the federal, state or local government, the parties shall suspend the operation of each such Article or provision during the period of invalidity. Such suspension shall not affect the operation of any other provision covered in this Agreement to which the law or regulation is not applicable. Further, the Contractor/Employer(s) and Union(s) agree that if and when any or all provisions of this Agreement are finally held or determined to be illegal or void by a Court of competent jurisdiction, the City and the Council will promptly enter into negotiations concerning the substance affected by such decision for the purpose of achieving conformity with the requirements of an applicable law and the intent of the parties hereto.

ARTICLE 23

DURATION OF AGREEMENT

- 23.1 This Agreement shall become effective on the day the city of Alameda ratifies this Agreement and shall continue in full force and effect for a period of three (3) years, at which time this Agreement will be reviewed and considered for extension or renewal with modifications if appropriate. Individual projects within the scope of this Agreement may be completed in phases and this Agreement shall be applied to such individual projects until Completion of such phase. After the expiration of this Agreement, the provisions of the Agreement shall continue to apply to those Projects subject to this Agreement until construction is completed. The parties may mutually agree in writing to amend, extend or terminate this Agreement at any time.

[THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

ADDENDUM "A"

PROJECT STABILIZATION AGREEMENT FOR THE CITY OF ALAMEDA

AGREEMENT TO BE BOUND

The undersigned party confirms that it agrees and assents to comply with and to be bound by the City of Alameda Project Stabilization Agreement as such Agreement may, from time to time, be amended by the parties or interpreted pursuant to its terms.

By executing this Agreement To Be Bound, the undersigned party subscribes to, adopts and agrees to be bound by the written terms of the legally established trust agreements, as set forth in section 17, specifying the detailed basis upon which contributions are to be made into, and benefits made out of, such Trust Fund(s) and ratifies and accepts the trustees appointed by the parties to such Trust Fund(s) and agrees to execute a separate Subscription Agreement(s) for Trust Funds when such Trust Fund(s) require(s) such document(s).

Such assent and obligation to comply with and to be bound by this Agreement shall extend to all work covered by said Agreement undertaken by the undersigned party. The undersigned party shall require all of its subcontractors, of whatever tier, to become similarly bound for all their work within the scope of this Agreement by signing an identical Agreement To Be Bound.

This letter shall constitute a subscription agreement, to the extent of the terms of the letter.

Dated: _____

Project: _____

Signature of Authorized Officer

Authorized Officer & Title

Name of Contractor/Employer(s)

Contractor/Employer(s) Address

CSLB #

Area Code Phone

E-mail and/or Fax

Motor Carrier (CA) Permit Number

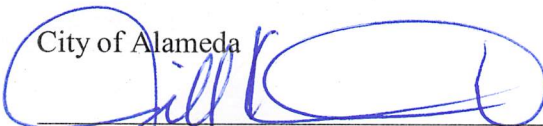
DIR Prevailing Wage Registration #

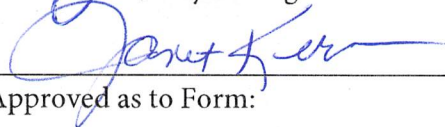
EXHIBIT A

MASTER LABOR AGREEMENTS OF SIGNATORY AFFILIATED LOCAL UNIONS:

SIGNATURES

City of Alameda


Jill Keimach, City Manager


Approved as to Form:

Janet Kern, City Attorney

Building and Construction Trades Council
Of Alameda County, AFL-CIO


Andreas Cluver, Secretary-Treasurer

SIGNATORY UNION(S)

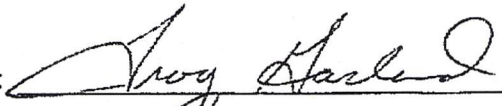
Asbestos Workers, Local 16

By: 

Boilermakers, Local 549

By: 

Bricklayers & Allied Craftsmen, Local 3

By: 

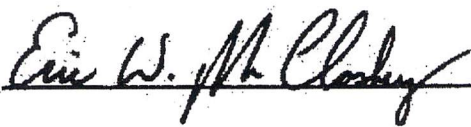
Cement Masons, Local 300

By: 


Electrical Workers, Local 595

By: 

Elevator Constructors, Local 8

By: 

Laborers, Local 886

By: 

Iron Workers, Local 378

By: [Signature]

Laborers, Local 67

By: [Signature]

Laborers, Local 304

By: Fernando Estrada

Operating Engineers, Local 3

By: [Signature]

Plasterers, Local 66

By: Chest [Signature]

Roofers, Local 81

By: [Signature]

Sheet Metal Workers, Local 104

By: [Signature]

Sign Display, Local 510

By: Joseph B Toback

Sprinkler Fitters, Local 483

By: Stanley R. Smith

Teamsters, Local 853

By: [Signature]

United Association of Journeymen and
Apprentices Fitting Industry, Underground
Utility & Landscape, Local 355

By:



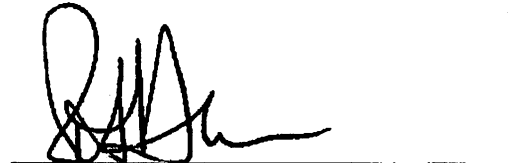
United Association of Steamfitters,
Pipefitters, Plumbers, & Gas Fitters,
Local 342

By:



Northern California Carpenters
Regional Council (on behalf of Carpenters,
Local 713, Carpenters, Local 2236, Lathers,
Local 68L, Millwrights, Local 102,
Pile Drivers, Local 34)

By:



District Council No. 16 Northern
California International Union of
Painters & Allied Trades (on behalf of
Auto & Marine Painters, Local 1176,
Carpet & Linoleum Layers, Local 12,
Glaziers, Architectural Metal
& Glassworkers, Local 169,
Painters & Tapers, Local 3)

By:



District Council of Iron Workers of the
State of California & Vicinity Trades

By:

EXHIBIT “L”

STANDARDIZATION OF MAJOR EQUIPMENT COMPONENETS FOR SEWER PUMP STATIONS

EXHIBIT “L”

STANDARDIZATION OF MAJOR EQUIPMENT COMPONENETS FOR SEWER PUMP STATIONS

The Engineer hereby finds that it is necessary to specify standardized equipment for installation in all of the City’s sewer pump stations in order to field test or experiment to determine the equipment’s suitability for future use and in order to match existing equipment already in use in other sewer pump stations.

The Engineer further finds that standardizing the specific major components of the sewer pump stations would result in more efficient and reliable equipment operations, faster repair time on incidents that could result in sanitary sewer overflows (SSOs) through the use of common parts, and a reduction in on-going training costs. Standardization will also minimize spare and critical replacement parts inventory and costs.

Based on the foregoing criteria, the following specified standardized equipment shall be required for sewer pump stations.

- Flygt Submersible Pumps
- California Motor Controls Pump Vision PV600
- MOSCAD (Motorola SCADA)
- PMC, VL2000 Series Submersible Hydrostatic (Pressure) Level Transmitter
- Gems Warrick Series 3F water level probes

The following standardized equipment items for sewer pump station are included in this project. They are described in detail in the Project Technical Specifications as listed below:

- | | |
|-----------------------------------------------|--------------------------------------------------------|
| • Flygt Pumps | Section 11312 – Submersible Pumps |
| • California Motor Controls Pump Vision PV600 | Section 16901 - Pump Control Panel |
| • Hydrostatic (Pressure) Level Transmitter | Section 16901 - Pump Control Panel, and
sheet notes |
| • Gems Warrick 3F water level probes | Section 16901 - Pump Control Panel |

EXHIBIT “M”

Special Inspection and Testing Agreement Form



STATEMENT OF SPECIAL INSPECTION

Community Development • Planning & Building
2263 Santa Clara Ave., Rm. 190
Alameda, CA 94501-4477
alamedaca.gov
510.747.6800 • F: 510.865.4053 • TDD: 510.522.7538
Hours: 7:30 a.m.–3:30 p.m., M–Th

Project Title: Storm Drain Pump Station Electrical Upgrades Plan Check #: _____
Project Address: Varies

This Statement of Special Inspections is submitted in fulfillment of the requirements of California Building Code Sections 1704 and 1705.

Special Inspections and Testing will be performed in accordance with the approved plans and specifications, this statement and California Building Code Sections 1704, 1705, 1707, and 1708.

The attached Summary of Special Inspection lists the special inspections and tests required. Special inspectors will refer to the approved plans and specifications for detailed special inspection requirements.

Any additional tests and inspections required by the approved plans and specifications will also be performed.

Before a Permit Can be Issued

The owner or his representative, on the advice of the registered design professional in responsible charge, shall complete, sign by all parties, and submit two (2) copies of this package to this Division for review and approval.

1. The Owner recognizes his or her obligation to ensure that the construction complies with the approved permit documents and to implement this program of special inspections.
2. Contractor is responsible for proper notification to the Inspection or Testing agency for items listed.
3. Only the testing laboratory should take samples and transport them to their laboratory.
4. Copies of all laboratory reports and inspections are to be sent directly to this Division and to the registered design professional in responsible charge by the testing agency on a weekly basis.
5. Inspection agency to submit names and qualifications of on-site special inspectors to this Division for approval. Submission of qualifications is not required when the agency utilizes the inspectors who are pre-approved by the City. See Item #10 below.

The agency must provide each special inspector with an identification badge that indicates the following:

- Name of inspector
 - Photo of inspector
 - The specific areas in which the inspector is qualified to inspect
 - An authorization signature by the registered engineer who is a full-time employee of the agency
 - The authorization signature by the registered engineer who is a full-time employee of the inspector
6. The special inspector is responsible to the Chief Building Official for immediate notification of any concerns and/or problems encountered.
 7. It is the responsibility of the contractor to review the Building Division approved plans for additional inspection or testing requirements that may be noted. A pre-construction conference at the job site is recommended to review special inspection procedures.
 8. The special inspector shall use only Building Division approved drawings.
 9. **Before an occupancy permit can be issued:** A final report of special inspections documenting required special inspections, tests and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy (California Building Code Section 1704.1.2). The final report will document:
 - Required special inspections
 - Correction of discrepancies noted in inspection
 10. Attach a City approved matrix list from the Special Inspection Agency for all special inspectors showing inspection areas for which they are qualified by experience and appropriate certifications (see enclosed). This will be cross checked with the list currently residing in our office, to make sure all special inspectors are approved by the City.

ACKNOWLEDGEMENT

Print: _____ Sign: _____ Date: _____
Registered Design Professional in Responsible Charge

Print: _____ Sign: _____ Date: _____
Owner's authorization

Print: _____ Sign: _____ Date: _____
Contractor

Print: _____ Sign: _____ Date: _____
Special Inspection Agency

Print: _____ Sign: _____ Date: _____
Building Official's Acceptance

SPECIAL INSPECTION AND TESTING AGENCIES

The following are the testing agencies and special inspectors that will be retained to conduct tests and inspection on this project.

RESPONSIBILITY	FIRM NAME	ADDRESS, TELEPHONE AND E-MAIL
<u>Special Inspection</u>		
Material Testing		

CONTRACTOR'S STATEMENT OF RESPONSIBILITY

Per Section 1706 of the California Building Code, the contractor responsible for the construction of a main wind or seismic force resisting system, designated seismic system or a wind or seismic resisting component listed in the statement of special inspections (structural tests and inspection schedule and as noted on the Building Division approved plans) shall submit a written statement of responsibility to the Building Official and the owner prior to the commencement of work on the system or component.

To comply with the requirements of California Building Code Section 1706 of the California Building Code, the contractor acknowledges that they are aware of the special requirements contained in the statements of special inspections (structural tests and inspection schedule and as noted on the Building Division approved plans) prepared by the engineer of record or the registered design professional per the requirements of California Building Code Section 1705.

ACKNOWLEDGEMENT

Print: _____ Sign: _____ Date: _____
Contractor

SEISMIC AND WIND RESISTANCE

Seismic Requirements (California Building Code Section 1705.3.1)

Description of seismic-force-resisting system and designated seismic systems subject to special inspections in accordance with California Building Code Section 1705.3:

The extent of the seismic-force-resisting system is defined in more detail in the construction documents.

Wind Requirements (California Building Code Section 1705.4.1)

Description of seismic-force-resisting system and designated seismic systems subject to special inspections in accordance with California Building Code Section 1705.3:

The extent of the main wind-force-resisting system and wind resisting components is defined in more detail in the construction documents.

SUMMARY OF SPECIAL INSPECTION

Complete the following form to indicate the types of special inspection required on this project. List the required inspections from the California Building Code Chapter 17; indicate Continuous or Periodic or both as required by code. **Reference California Building Code Chapter 17 for a complete list of inspections.**

Construction Type Requiring Inspection	List of Required Inspections	C	P
Steel – Table 1704.3	Embeds and Bolts Installed in Concrete	X	X
Concrete – Table 1704.4	Reinforcing Steel Placement	X	
	Concrete Placement	X	X
	Post Installed Concrete Bolts	X	X
Masonry Level 1 – Table 1704.5.1 Level 2 – Table 1704.5.3			
Wood – Section 1704.6			
Soils – Table 1704.7	Geotechnical inspection of wetwell and pipe excavations		X
Pile Foundations – Table 1704.8			
Pier Foundations – Table 1704.9			
Sprayed Fire-Resistant Materials – Section 1704.10			
Mastic and Intumescent Coatings – Section 1704.11			
Exterior Insulation and Finish Systems – Section 1704.12			
Alternate Materials and Systems – Section 1704.13			
Smoke Control System – Section 1704.14			
Wind Resistance – Section 1705.4			
Seismic Resistance – Section 1707			
Testing for Seismic Resistance – Section 1708			
Specify other tests, inspections, or special instructions as required:			



RECOGNIZED SPECIAL INSPECTION AND TESTING AGENCIES

Updated: May 31, 2013

Key: RC = Reinforced Concrete
HSB = High-Strength Bolting

PC = Prestressed Concrete
NDT = Non-destructive Testing

SM = Structural Masonry
SWC = Structural Wood Construction

SW = Steel Welding
FP = Fireproofing

Agency Name	Address	Phone/Fax	RC	PC	SM	SW	HSB	NDT	SWC	FP	Expiration
A 1 Inspection Services	1754 Mission Street San Francisco, CA 94109	(415) 621-8001 (415) 358-4409	X	X	X	X	X	X	X	X	8/7/2015
Achievement Engineering Corp.	434 Camille Circle #13 San Jose, CA 95134	(800) 653-1397 (408) 852-0331	X	X	X		X		X	X	7/10/2015
Advanced Testing & Inspection, LLC	540 Brunken Avenue, Suite B Salinas, CA 93907	(831) 422-2272 (831) 597-2004	X	X	X	X	X			X	2/5/2016
Apex Testing Laboratories, Inc.	3450 Third Street, Suite 3E San Francisco, CA 94124	(415) 550-9800 (415) 550-9880	X	X	X	X	X			X	Exp. 3/3/2012
Applied Materials & Engineering, Inc.	980 41 st Street Oakland, CA 94608	(510) 420-8190 (510) 420-8186	X	X	X	X	X	X	X	X	4/11/2016
BAGG Engineers	847 West Maude Avenue Sunnyvale, CA 94085	(650) 852-9133 (650) 852-9138	X	X	X	X	X	X		X	3/6/2015
Berlogar, Stevens and Associates	5587 Sunol Boulevard Pleasanton, CA 94566	(925) 484-0220 (925) 846-9645	X	X	X	X	X				6/7/2014
Biggs Cardosa Associates, Inc.	1871 The Alameda, Suite 200 San Jose, CA 95126	(408) 296-5515 (408) 296-8114	X	X	X	X	X				2/1/2014
B.S.K. Associates	324 Earhart Way Livermore, CA 94551	(925) 315-3151 (925) 315-3152	X	X	X	X	X	X		X	10/2/2015
Capex Engineering Inc.	571 Seville Place Fremont, CA 94539	(510) 668-1815 (510) 490-8690	X	X	X	X	X		X	X	4/3/2015
Consolidated Engineering Labs	2001 Crow Canyon Rd, Suite 100 San Ramon, CA 94583	(925) 314-7100 (925) 855-7140	X	X	X	X	X	X	X	X	3/27/2015
Construction Materials Testing, Inc.	2278-F Pike Court Concord, CA 94520	(925) 825-2840 (925) 682-7953	X	X	X	X	X			X	3/14/2016
Construction Testing Services	2174 Rheem Drive, Suite A Pleasanton, CA 94588	(925) 462-5151 (925) 462-5183	X	X	X	X	X	X	X	X	4/25/2016
Construction Testing & Engineering, Inc.	242 West Larch Road, Suite F Tracy, CA 95304	(209) 839-2890 (209) 839-2895	X	X	X	X	X			X	Exp. 2/2/2013
Earth System Pacific	780 Montague Expy, Suite 205 San Jose, CA 95131	(408) 934-9302 (408) 946-4569	X	X	X	X	X			X	4/3/2015
EARTHTEC, Inc.	1830 Vernon Street, Suite 7 Roseville, CA 95678	(916) 786-5262 (916) 786-5263	X	X	X	X	X			X	6/1/2013
ENGEO Incorporated	2010 Crow Canyon Pl., Suite 250 San Ramon, CA 94583-1545	(925) 866-9000 (888) 279-2698	X	X	X	X	X	X	X	X	3/6/2015
Geocon Consultants, Inc.	6671 Brisa Street Livermore, CA 94550	(925) 371-5900 (925) 371-5915	X	X	X		X			X	5/10/2015
Holdrege & Kull	792 Searls Ave Nevada City, CA 95959	(530) 478-1305 (530) 478-1019	X	X	X	X	X	X		X	8/6/2015
HP Inspections	690 Sunol Street, Bldg. Hx San Jose, CA 95126	(408) 288-8460 (408) 271-0902	X	X	X	X	X	X		X	3/1/2014
Inspection Consultants, Inc.	1515 North C Street Sacramento, CA 95814	(916) 321-5580 (916) 321-5590	X	X	X	X	X			X	10/2/2015
Inspection Services Inc.	1798 University Avenue Berkeley, CA 94703	(415) 243-3265 (415) 243-3266	X	X	X	X	X	X	X	X	10/2/2015
KC Engineering Co.	865 Cotting Lane, Suite A Vacaville, CA 95688	(707) 447-4025 (707) 447-4143	X	X	X	X	X			X	12/6/2014
Agency Name	Address	Phone/Fax	RC	PC	SM	SW	HSB	NDT	SWC	FP	Expiration

Revised 8/1/2016

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Kleinfelder Inc.	21330 Broadway, Suite 1200 Oakland, CA 94612	(510) 628-9000 (510) 628-9009	X	X	X	X	X	X	X	X	10/2/2015
Korbmacher Engineering Inc.	480 Preston Court, Suite B Livermore, CA 94551	(925) 454-9033 (925) 454-9564	X	X	X	X	X		X	X	1/27/2015
Krazan and Associates Inc.	6711 Sierra Court, Suite B Dublin, CA	(925) 307-1160 (925) 307-1161	X	X	X	X	X			X	Exp. 6/9/2012 Pending Review
MatriScope Engineering Laboratories, Inc.	436 14 th Street, Suite 1429 Oakland, CA 94612	(510) 763-3601 (510) 763-1388	X	X	X	X	X	X	X	X	9/24/2015
Moore Twining Associates, Inc.	2527 Fresno Street Fresno, CA 93721	(559) 268-7021 (559) 268-0740	X	X	X	X	X			X	Exp. 8/11/2012 Pending Review
Neil O. Anderson and Associates	50 Goldenland Ct., #100 Sacramento, CA 95834	(916) 928-4690 (916) 928-4697	X	X	X	X	X		X	X	4/17/2015
Nicholas Engineering Consultants	6743 Dublin Boulevard, #15 Dublin, CA 94568	(925) 829-8090 (925) 829-0235	X	X	X	X	X		X	X	8/21/2015
Ninyo & Moore	1956 Webster Street, Suite 400 Oakland, CA 94612	(510) 633-5640 (510) 633-5646	X	X	X	X	X			X	Exp. 12/11/2012 Pending Review
Purcell, Rhoades & Associates, Inc.	1041 Hook Avenue Pleasant Hill, CA 94523	(925) 932-1177 (925) 932-2795	X		X						Expired 10/7/2011
Professional Service Industries, Inc.	365 Victor Street, Suite C Salinas, CA 93907	(831) 757-3536 (831) 757-6265	X		X	X	X			X	3/1/2014
Raney Geotechnical, Inc.	3140 Beacon Blvd. West Sacramento, CA 95691	(916) 371-0434 (916) 371-1809	X	X	X	X	X			X	5/14/2013
RES Engineers, Inc.	1250 Missouri Street, Suite 207 San Francisco, CA 94107	(415) 822-4625 (415) 822-8925	X	X	X	X	X	X	X	X	8/7/2015
RMA Group	6293 San Ignacio Ave, Suite A San Jose, CA 95119	(408) 362-4920 (408) 362-4926	X	X	X	X	X			X	10/4/2014
Salem Engineering Group, Inc.	4055 W. Shaw Ave, Suite 110 Fresno, CA 93722	(559) 271-9700 (559) 275-0827	X	X	X	X	X	X			5/3/2014
Signet Testing Laboratories	3526 Breakwater Ct. Hayward, CA 94545	(510) 887-8484 (510) 783-4295	X	X	X	X	X			X	Exp. 9/28/2012
Smith-Emery Company	Hunters Point Shipyard, Building 114 San Francisco, CA 94188	(415) 642-7326 (415) 642-7055	X	X	X	X	X	X	X	X	1/9/2016
Stevens Ferrone & Bailey	1600 Willow Pass Court Concord, CA 94520	(925) 688-1001 (925) 688-1005	X	X	X	X	X		X	X	7/5/2014
Summit Associates	2300 Clayton Road, Suite 1380 Concord, CA 94520	(925) 363-5560 (925) 363-5511	X		X	X	X	X	X	X	3/6/2015
T. Makdissy Consulting, Inc.	23 Las Colinas Lane, Suite 106 San Jose, CA 95119	(408) 227-8595 (408) 227-1672	X	X	X	X				X	1/29/2016
Testing Engineers Inc.	2811 Teagarden Street San Leandro, CA 94577	(510) 835-3142 (510) 834-3777	X	X	X	X	X	X	X	X	5/3/2014
Twining	1572 Santa Ana Avenue Sacramento, CA 95838	(916) 649-9000 (916) 921-8532	X	X	X	X	X			X	4/3/2015
Valley Inspection	326 Woodrow Avenue Vallejo, CA 94591	(707) 552-7037 (707) 552-7022				X			X	X	2/7/2015
Wallace-Kuhl & Associates, Inc.	3050 Industrial Boulevard West Sacramento, CA 95691	(916) 372-1434 (916) 372-2565	X	X	X	X	X	X		X	4/19/2016
Youngdahl Consulting Group, Inc.	1234 Glenhaven Court El Dorado Hills, CA 95762	(916) 933-0633 (916) 933-6482	X	X	X	X	X	X	X	X	8/17/2015

Agencies may have offices in more than one location. Agencies with a "Pending Review" status are recognized. Other agencies may be approved by local jurisdictions.

EXHIBIT “N”

Pedestrian and Traffic Control Plan Application Form and Checklist



Office Use	PC	PW
Received By:		
Date:		

City of Alameda

Pedestrian + Traffic Control Plan

Public Works Department – Permit Center

2263 Santa Clara Ave, Rm 190, Alameda, CA 94501
Main: (510) 747-6800 Fax: (510) 865-4053

PTCP Application Form and Checklist

Submittal Date: _____ ☐ New Submittal ☐ Re-Submittal No: _____

Related Encroachment Permit No. _____

Location of Work: _____

Description of Work in Public Right-of-Way: _____

Related to a Development Project? ☐ Yes, Project Name _____ ☐ n/a

Applicant Name / Contact Person: _____

Company Name: _____

Phone: _____ Email: _____

Address: _____

A Pedestrian + Traffic Control Plan (PTCP) is a component of an approved Encroachment Permit.

An approved PTCP permits a contractor or owner to work within the public right-of-way efficiently and effectively, while maintaining a safe, uniform flow of traffic for pedestrians, bikes, motor vehicles, and any other modes of transportation. Both construction work and public safety must be given consideration when developing a PTCP. In addition, when considering the public, equal access must be given to all aspects of travel through the work zone including—pedestrians, bicyclists, motor vehicles, and other modes of transportation.

Initial Applicant shall adhere to the following requirements:

- _____ ☐ The site specific Pedestrian +Traffic Control Plan (PTCP) shall conform to the most current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans. For traffic control plan references, see the CA MUTCD: <https://dot.ca.gov/programs/traffic-operations/camutcd>
- _____ ☐ Submitted PTCP meets all of the requirements listed in this Application Checklist. If City determines that ANY of the requirements of the checklist are missing, the application shall be deemed incomplete and returned for revision and resubmittal.
- _____ ☐ Each review cycle of PTCP is a MINIMUM of ten(10) business days and begins after a complete application is submitted and stamped "received" by City. If a PTCP fails to meet the requirements after two review cycles, any subsequent PTCP submittals shall be prepared and stamped by a State of California registered Civil or Traffic Engineer.
- _____ ☐ Minimum 72-hour notice and confirmed approval by a Public Works Inspector required prior to field Implementation of an approved PTCP.

- _____ ☐ All affected residents, businesses, agencies, and schools shall be given a 72-hour notice prior to start of work and their access shall be maintained at all times.

Initial Pedestrian and Traffic Control Plan Minimum Requirements:

- _____ ☐ PTCP shall be electronically drawn on 8.5" x 11", 8.5" x 14", or 11" x 17" paper only. Photocopied sections of the CA MUTCD or any other manual will not be accepted. All PTCP's shall be site specific and thoroughly detailed. Hand drawn PTCP's will not be accepted.
- _____ ☐ City of Alameda PTCP General Notes are provided on the plans.
- _____ ☐ Indicate contractors name, address, and telephone number. Provide name and telephone number of the 24-hour contact person representing the contractor.
- _____ ☐ Include details on construction activity and equipment being used as part of construction to assist in reviewing the adequacy of the proposed PTCP.
- _____ ☐ Indicate planned work hours. Lane closures are not allowed anytime during weekends and weekdays before 9:00 AM or after 3:30 PM, without prior written approval by the City Engineer.
- _____ ☐ Show the exact location and dimensions of the construction work zone. Show all streets in the work zone vicinity to ensure proper orientation. Include (a) north arrow and (b) true scale or Not to Scale.
- _____ ☐ The PTCP shall show all existing traffic signals and traffic control signs, existing striping, pavement markings, crosswalks and bike lanes. Include full roadway widths, individual lane widths, bike lane widths, and median dimensions. Show and indicate existing curbs, gutters, sidewalks, driveways, intersections, parking meters, and bus stops in the construction work zone including areas affected by taper transition.
- _____ ☐ Indicate locations of the construction signs (note signs CA MUTCD sign code and indicate sign size), barricades, cones, and any other temporary traffic control device. For each Flashing Arrow Board, include its size, panel display, and location on the PTCP.
- _____ ☐ Show size, height and location of all channelizing devices, warning lights, flag trees, portable barriers, etc. All devices must meet standards specified by the CA MUTCD.
- _____ ☐ Indicate posted speed limits. Label all taper lengths and widths, delineator spacing and sign spacing. All taper lengths and widths, delineator spacing and sign spacing shall be per CA MUTCD standards and nomenclature.
- _____ ☐ Show all pedestrian and bicyclist entry, paths, and exits on the PTCP. Signs and barricades are required to direct pedestrians and bicyclists safely around the construction work zone and shall be shown on the PTCP. All signage must meet standards specified by the CA MUTCD.
- _____ ☐ If a detour is required for pedestrians, bicyclists, motor vehicles, and/or other modes of transportation, the PTCP shall include mode specific detour information.
- _____ ☐ All conflicting signs, striping and/or pavement markings shall be covered or removed during construction and shall be replaced when work is complete.
- _____ ☐ For any impacts to public transit, Contractor shall provide pdf's of emails showing proof of coordination with the respective transit agencies, including, but not limited to AC Transit, San Francisco Bay Ferry, and Alameda Loop Shuttle.

Name & Signature of Applicant

Date



City of Alameda

Pedestrian + Traffic Control Plan

Public Works Department – Permit Center

2263 Santa Clara Ave, Rm 190, Alameda, CA 94501

Main: (510) 747-6800 Fax: (510) 865-4053

PTCP General Notes

1. The site specific Pedestrian +Traffic Control Plan (PTCP) shall conform to the most current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans.
2. The City, through its designated employees reserves the right to initiate field changes to assure public safety. This includes the implementation of additional traffic control measures while construction is in progress to address unforeseen field conditions.
3. Minimum 72-hour notice and confirmed approval by a Public Works Inspector is required prior to field Implementation of an approved PTCP.
4. All traffic control devices shall be removed from the public right-of-way when not in use, unless otherwise permitted.
5. Lane closures for motor vehicle, bicycle, and pedestrian traffic shall be limited to 9:00 AM to 3:30 PM. Set up and break down shall not occur outside of these lane closure hours. These times may be more restricted if located in school zones.
6. Trenches shall be backfilled or plated during non-working hours and this includes for trenches in bike lane and sidewalk. If trench plates are used over open excavation, include "Steel Plates Ahead" warning sign.
7. A minimum eleven (11) foot travel lanes must be maintained at all times.
8. Pedestrian and bicyclist controls shall be provided on the PTCP.
9. Pedestrians and bicyclists shall have a safe route to walk or ride and shall be protected throughout the entire traffic control area. Pedestrian routes shall meet all ADA accessibility requirements per <http://ada.gov>.
10. Contractor shall provide adequate lighting for all pedestrian detours.
11. Existing construction site drainage shall not be hindered due to the project.
12. Contractor is fully responsible for the installation, maintenance, and removal of signs upon completion of work.
13. Temporary "NO PARKING" signs shall be posted 48 hours prior to work commencement. These signs shall be posted no more than 30 feet apart.
14. Contractor shall call Alameda Police Department (510) 337-8340 to schedule "NO PARKING" sign inspection. Contractor shall have signed inspection paperwork from the Police officer on site at all times. Failure to get Police Department inspection of signs in advance will prevent Police enforcement of parked vehicles.
15. "NO PARKING" signs are available for purchase at the City Hall Permit Center, Room 190. Only City of Alameda issued "NO PARKING" signs shall be used.



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PTCP General Notes

16. Access to driveways and transit stops/terminals shall be maintained at all times, unless permitted otherwise.
17. If public transit being impacted in any way during construction, the Contractor is responsible for informing transit agencies and coordinating with them accordingly.
18. Any work that disturbs normal traffic signal operations, such as intersection detection shall be coordinated with Public Works fourteen (14) calendar days prior to beginning construction.
19. If the traffic signal loops are damaged during construction, contractor shall:
 - a) Immediately notify Public Works inspector
 - b) Within 72 hours, replace damaged loops per Caltrans specifications
 - c) Schedule inspection of the loop installation with City traffic signal technician(s)
 - d) Ensure traffic signal operations are fully restored as before and approved by City within 72 hours
20. The contractor shall make immediate temporary repairs to any street light and/or traffic signal conduit(s) damaged during construction. Permanent repairs shall be made within five (5) working days and approved by City.
21. Any segment of pavement striping or legend(s) removed or damaged during construction shall be fully removed and then replaced with new, like-material within 24 hours. No partial or fill-in stenciling allowed.
22. Any curb painting that is removed or damaged during construction shall be repainted for the full section of that curb painting. Coordinate with Public Works Maintenance Service Center staff for appropriate color code.
23. Any permanent traffic sign that is damaged shall be replaced in kind.
24. Any traffic sign post that is damaged (e.g. uni-strut, galvanized, wooden) shall be replaced in kind. Proper Underground Service Alert must be done before any new pole installation.
25. All certified flaggers shall be equipped with a hard hat, reflective vest, two-way radios, and "STOP/SLOW" paddle.
26. The contractor shall maintain all traffic control devices 24 hours per day 7 days per week, until completion of all work. Any traffic control devices used overnight in the public right-of-way must have flashing lights.
27. All channelizing devices, warning lights, flag tress, portable barriers, etc., shall meet the current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans.

PTCP GENERAL NOTES:

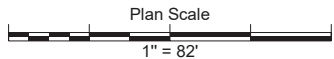
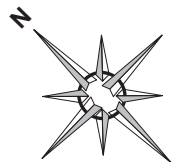
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Scope of Work

The project is to remove a portion of the existing concrete median and landscaping in the public right-of-way to allow for a new left-turn pocket on Harbor Bay Parkway into a driveway for the property at 1951 Harbor Bay Parkway.



LEGEND

	Flashing Arrow Board		Truck Entrance Route
	Flashing Arrow Board (Plan View)		Truck Exit Route
	Portable Flashing Beacon		Crash Cushion
	Type I Barricade		Concrete K-Rail Barrier
	Type III Barricade		Water Filled Barrier
	Type III Barricade (Plan View)		Not To Scale
	28" Traffic Cone		Tow-Away/No Stopping
	Temporary Delineator		Police Officer
	Work Area		Flagger
	Sign and Stand		Equipment
			Pipe to be installed

Table 6F-10(CA). Maximum Spacing of Channelizing Devices				
Speed (mph)	Taper* (feet)	Tangent (feet)	Conflict** (feet)	
20	25	40	10	
25	25	50	12	
30	30	60	15	
35	35	70	17	
40	40	80	20	
45	45	90	22	
50	50	100	25	
55	50	100	25	
60	50	100	25	
65	50	100	25	
70	50	100	25	
75	50	100	25	

* Maximum channelizing device spacing for all speeds on one-lane/two-way tapers is 20 feet. Maximum channelizing device spacing for all speeds on downstream tapers is 20 feet. All other tapers are as shown.

** Use on intermediate and short-term projects for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizing devices.

Table 6C-3(CA). Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)					
Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (W)				
	Merging L (feet)	Shifting L2 (feet)	Shoulder L2 (feet)	Down Stream L2 (feet)	
20	90	40	27	50	
25	125	60	42	50	
30	160	80	60	50	
35	240	123	82	50	
40	260	160	100	50	
45	340	270	180	50	
50	600	300	200	50	
55	660	330	220	50	
60	720	360	240	50	
65	780	390	260	50	
70	840	420	280	50	
75	900	450	300	50	

* Posted speed limit, off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph.

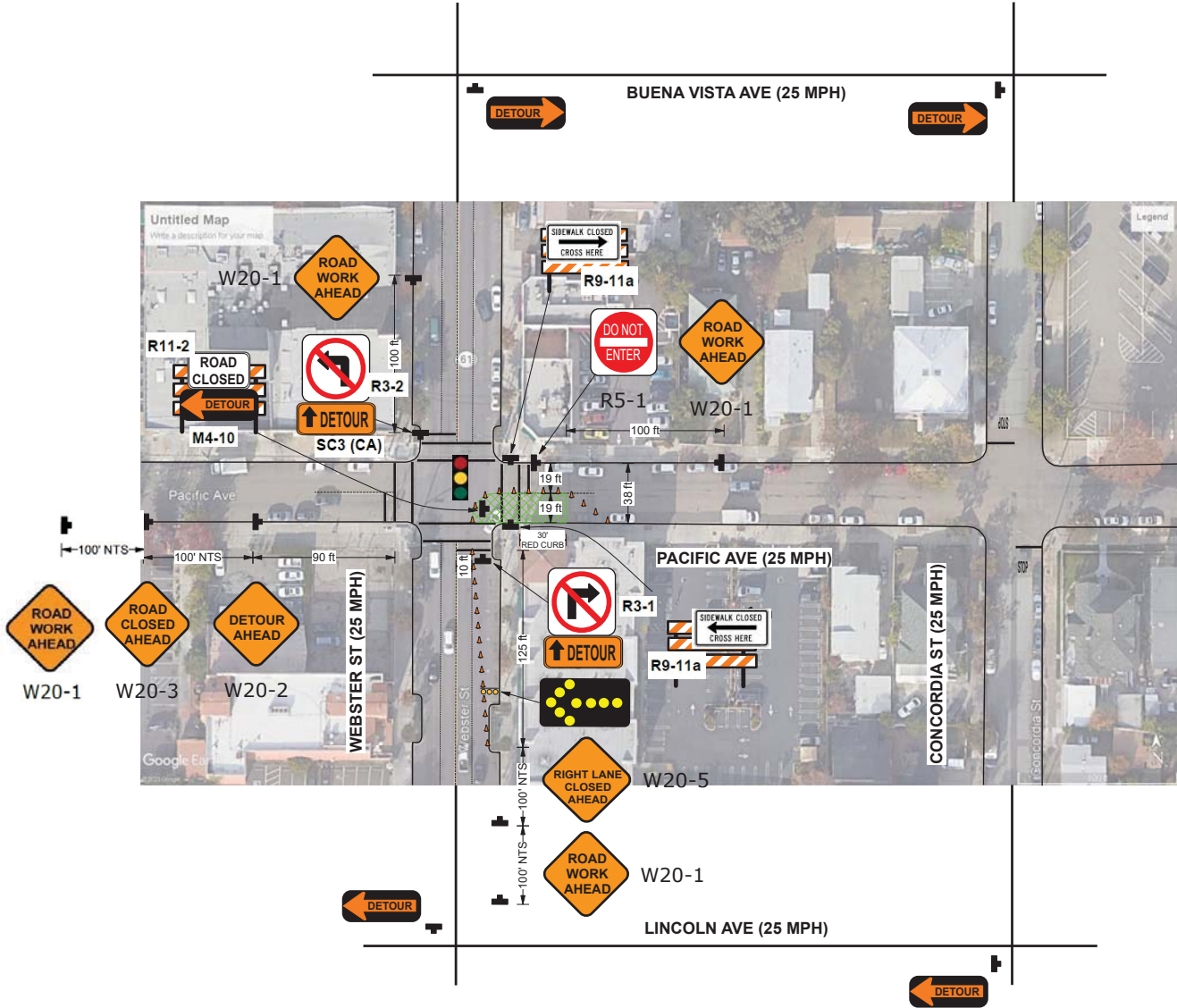
** For other offsets use the following merging taper length formula for L: For speeds of 40 mph or less, L=WS/50 For speeds of 45 mph or more, L=WS

Where: L = taper length in feet W = width of offset in feet S = posted speed limit, off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph

*** Maximum downstream taper length is 100 feet. See Section 6C.08.

Table 6C-1. Recommended Advance Warning Sign Minimum Spacing			
Road Type	Distance Between Signs**		
	A	B	C
Urban Arterial - 20 mph or less***	100 feet	100 feet	100 feet
Urban Arterial - 25 mph to 30 mph***	150 feet	150 feet	150 feet
Urban Arterial - 35 mph to 40 mph***	200 feet	200 feet	200 feet
Urban Arterial - 45 mph to 50 mph***	300 feet	300 feet	300 feet
Urban Arterial - 55 mph to 60 mph***	400 feet	400 feet	400 feet
Urban Arterial - 65 mph to 70 mph***	500 feet	500 feet	500 feet
Urban Arterial - 75 mph to 80 mph***	600 feet	600 feet	600 feet
Urban Arterial - 85 mph to 90 mph***	700 feet	700 feet	700 feet
Urban Arterial - 95 mph to 100 mph***	800 feet	800 feet	800 feet
Urban Arterial - 105 mph to 110 mph***	900 feet	900 feet	900 feet
Urban Arterial - 115 mph to 120 mph***	1,000 feet	1,000 feet	1,000 feet
Urban Arterial - 125 mph to 130 mph***	1,100 feet	1,100 feet	1,100 feet
Urban Arterial - 135 mph to 140 mph***	1,200 feet	1,200 feet	1,200 feet
Urban Arterial - 145 mph to 150 mph***	1,300 feet	1,300 feet	1,300 feet
Urban Arterial - 155 mph to 160 mph***	1,400 feet	1,400 feet	1,400 feet
Urban Arterial - 165 mph to 170 mph***	1,500 feet	1,500 feet	1,500 feet
Urban Arterial - 175 mph to 180 mph***	1,600 feet	1,600 feet	1,600 feet
Urban Arterial - 185 mph to 190 mph***	1,700 feet	1,700 feet	1,700 feet
Urban Arterial - 195 mph to 200 mph***	1,800 feet	1,800 feet	1,800 feet
Urban Arterial - 205 mph to 210 mph***	1,900 feet	1,900 feet	1,900 feet
Urban Arterial - 215 mph to 220 mph***	2,000 feet	2,000 feet	2,000 feet
Urban Arterial - 225 mph to 230 mph***	2,100 feet	2,100 feet	2,100 feet
Urban Arterial - 235 mph to 240 mph***	2,200 feet	2,200 feet	2,200 feet
Urban Arterial - 245 mph to 250 mph***	2,300 feet	2,300 feet	2,300 feet
Urban Arterial - 255 mph to 260 mph***	2,400 feet	2,400 feet	2,400 feet
Urban Arterial - 265 mph to 270 mph***	2,500 feet	2,500 feet	2,500 feet
Urban Arterial - 275 mph to 280 mph***	2,600 feet	2,600 feet	2,600 feet
Urban Arterial - 285 mph to 290 mph***	2,700 feet	2,700 feet	2,700 feet
Urban Arterial - 295 mph to 300 mph***	2,800 feet	2,800 feet	2,800 feet
Urban Arterial - 305 mph to 310 mph***	2,900 feet	2,900 feet	2,900 feet
Urban Arterial - 315 mph to 320 mph***	3,000 feet	3,000 feet	3,000 feet
Urban Arterial - 325 mph to 330 mph***	3,100 feet	3,100 feet	3,100 feet
Urban Arterial - 335 mph to 340 mph***	3,200 feet	3,200 feet	3,200 feet
Urban Arterial - 345 mph to 350 mph***	3,300 feet	3,300 feet	3,300 feet
Urban Arterial - 355 mph to 360 mph***	3,400 feet	3,400 feet	3,400 feet
Urban Arterial - 365 mph to 370 mph***	3,500 feet	3,500 feet	3,500 feet
Urban Arterial - 375 mph to 380 mph***	3,600 feet	3,600 feet	3,600 feet
Urban Arterial - 385 mph to 390 mph***	3,700 feet	3,700 feet	3,700 feet
Urban Arterial - 395 mph to 400 mph***	3,800 feet	3,800 feet	3,800 feet
Urban Arterial - 405 mph to 410 mph***	3,900 feet	3,900 feet	3,900 feet
Urban Arterial - 415 mph to 420 mph***	4,000 feet	4,000 feet	4,000 feet
Urban Arterial - 425 mph to 430 mph***	4,100 feet	4,100 feet	4,100 feet
Urban Arterial - 435 mph to 440 mph***	4,200 feet	4,200 feet	4,200 feet
Urban Arterial - 445 mph to 450 mph***	4,300 feet	4,300 feet	4,300 feet
Urban Arterial - 455 mph to 460 mph***	4,400 feet	4,400 feet	4,400 feet
Urban Arterial - 465 mph to 470 mph***	4,500 feet	4,500 feet	4,500 feet
Urban Arterial - 475 mph to 480 mph***	4,600 feet	4,600 feet	4,600 feet
Urban Arterial - 485 mph to 490 mph***	4,700 feet	4,700 feet	4,700 feet
Urban Arterial - 495 mph to 500 mph***	4,800 feet	4,800 feet	4,800 feet
Urban Arterial - 505 mph to 510 mph***	4,900 feet	4,900 feet	4,900 feet
Urban Arterial - 515 mph to 520 mph***	5,000 feet	5,000 feet	5,000 feet
Urban Arterial - 525 mph to 530 mph***	5,100 feet	5,100 feet	5,100 feet
Urban Arterial - 535 mph to 540 mph***	5,200 feet	5,200 feet	5,200 feet
Urban Arterial - 545 mph to 550 mph***	5,300 feet	5,300 feet	5,300 feet
Urban Arterial - 555 mph to 560 mph***	5,400 feet	5,400 feet	5,400 feet
Urban Arterial - 565 mph to 570 mph***	5,500 feet	5,500 feet	5,500 feet
Urban Arterial - 575 mph to 580 mph***	5,600 feet	5,600 feet	5,600 feet
Urban Arterial - 585 mph to 590 mph***	5,700 feet	5,700 feet	5,700 feet
Urban Arterial - 595 mph to 600 mph***	5,800 feet	5,800 feet	5,800 feet
Urban Arterial - 605 mph to 610 mph***	5,900 feet	5,900 feet	5,900 feet
Urban Arterial - 615 mph to 620 mph***	6,000 feet	6,000 feet	6,000 feet
Urban Arterial - 625 mph to 630 mph***	6,100 feet	6,100 feet	6,100 feet
Urban Arterial - 635 mph to 640 mph***	6,200 feet	6,200 feet	6,200 feet
Urban Arterial - 645 mph to 650 mph***	6,300 feet	6,300 feet	6,300 feet
Urban Arterial - 655 mph to 660 mph***	6,400 feet	6,400 feet	6,400 feet
Urban Arterial - 665 mph to 670 mph***	6,500 feet	6,500 feet	6,500 feet
Urban Arterial - 675 mph to 680 mph***	6,600 feet	6,600 feet	6,600 feet
Urban Arterial - 685 mph to 690 mph***	6,700 feet	6,700 feet	6,700 feet
Urban Arterial - 695 mph to 700 mph***	6,800 feet	6,800 feet	6,800 feet
Urban Arterial - 705 mph to 710 mph***	6,900 feet	6,900 feet	6,900 feet
Urban Arterial - 715 mph to 720 mph***	7,000 feet	7,000 feet	7,000 feet
Urban Arterial - 725 mph to 730 mph***	7,100 feet	7,100 feet	7,100 feet
Urban Arterial - 735 mph to 740 mph***	7,200 feet	7,200 feet	7,200 feet
Urban Arterial - 745 mph to 750 mph***	7,300 feet	7,300 feet	7,300 feet
Urban Arterial - 755 mph to 760 mph***	7,400 feet	7,400 feet	7,400 feet
Urban Arterial - 765 mph to 770 mph***	7,500 feet	7,500 feet	7,500 feet
Urban Arterial - 775 mph to 780 mph***	7,600 feet	7,600 feet	7,600 feet
Urban Arterial - 785 mph to 790 mph***	7,700 feet	7,700 feet	7,700 feet
Urban Arterial - 795 mph to 800 mph***	7,800 feet	7,800 feet	7,800 feet
Urban Arterial - 805 mph to 810 mph***	7,900 feet	7,900 feet	7,900 feet
Urban Arterial - 815 mph to 820 mph***	8,000 feet	8,000 feet	8,000 feet
Urban Arterial - 825 mph to 830 mph***	8,100 feet	8,100 feet	8,100 feet
Urban Arterial - 835 mph to 840 mph***	8,200 feet	8,200 feet	8,200 feet
Urban Arterial - 845 mph to 850 mph***	8,300 feet	8,300 feet	8,300 feet
Urban Arterial - 855 mph to 860 mph***	8,400 feet	8,400 feet	8,400 feet
Urban Arterial - 865 mph to 870 mph***	8,500 feet	8,500 feet	8,500 feet
Urban Arterial - 875 mph to 880 mph***	8,600 feet	8,600 feet	8,600 feet
Urban Arterial - 885 mph to 890 mph***	8,700 feet	8,700 feet	8,700 feet
Urban Arterial - 895 mph to 900 mph***	8,800 feet	8,800 feet	8,800 feet
Urban Arterial - 905 mph to 910 mph***	8,900 feet	8,900 feet	8,900 feet
Urban Arterial - 915 mph to 920 mph***	9,000 feet	9,000 feet	9,000 feet
Urban Arterial - 925 mph to 930 mph***	9,100 feet	9,100 feet	9,100 feet
Urban Arterial - 935 mph to 940 mph***	9,200 feet	9,200 feet	9,200 feet
Urban Arterial - 945 mph to 950 mph***	9,300 feet	9,300 feet	9,300 feet
Urban Arterial - 955 mph to 960 mph***	9,400 feet	9,400 feet	9,400 feet
Urban Arterial - 965 mph to 970 mph***	9,500 feet	9,500 feet	9,500 feet
Urban Arterial - 975 mph to 980 mph***	9,600 feet	9,600 feet	9,600 feet
Urban Arterial - 985 mph to 990 mph***	9,700 feet	9,700 feet	9,700 feet
Urban Arterial - 995 mph to 1,000 mph***	9,800 feet	9,800 feet	9,800 feet
Urban Arterial - 1,005 mph to 1,010 mph***	9,900 feet	9,900 feet	9,900 feet
Urban Arterial - 1,015 mph to 1,020 mph***	10,000 feet	10,000 feet	10,000 feet
Urban Arterial - 1,025 mph to 1,030 mph***	10,100 feet	10,100 feet	10,100 feet
Urban Arterial - 1,035 mph to 1,040 mph***	10,200 feet	10,200 feet	10,200 feet
Urban Arterial - 1,045 mph to 1,050 mph***	10,300 feet	10,300 feet	10,300 feet
Urban Arterial - 1,055 mph to 1,060 mph***	10,400 feet	10,400 feet	10,400 feet
Urban Arterial - 1,065 mph to 1,070 mph***	10,500 feet	10,500 feet	10,500 feet
Urban Arterial - 1,075 mph to 1,080 mph***	10,600 feet	10,600 feet	10,600 feet
Urban Arterial - 1,085 mph to 1,090 mph***	10,700 feet	10,700 feet	10,700 feet
Urban Arterial - 1,095 mph to 1,100 mph***	10,800 feet	10,800 feet	10,800 feet
Urban Arterial - 1,105 mph to 1,110 mph***	10,900 feet	10,900 feet	10,900 feet
Urban Arterial - 1,115 mph to 1,120 mph***	11,000 feet	11,000 feet	11,000 feet
Urban Arterial - 1,125 mph to 1,130 mph***	11,100 feet	11,100 feet	11,100 feet
Urban Arterial - 1,135 mph to 1,140 mph***	11,200 feet	11,200 feet	11,200 feet
Urban Arterial - 1,145 mph to 1,150 mph***	11,300 feet	11,300 feet	11,300 feet
Urban Arterial - 1,155 mph to 1,160 mph***	11,400 feet	11,400 feet	11,400 feet
Urban Arterial - 1,165 mph to 1,170 mph***	11,500 feet	11,500 feet	11,500 feet
Urban Arterial - 1,175 mph to 1,180 mph***	11,600 feet	11,600 feet	11,600 feet
Urban Arterial - 1,185 mph to 1,190 mph***	11,700 feet	11,700 feet	11,700 feet
Urban Arterial - 1,195 mph to 1,200 mph***	11,800 feet	11,800 feet	11,800 feet
Urban Arterial - 1,205 mph to 1,210 mph***	11,900 feet	11,900 feet	11,900 feet
Urban Arterial - 1,215 mph to 1,220 mph***	12,000 feet	12,000 feet	12,000 feet
Urban Arterial - 1,225 mph to 1,230 mph***	12,100 feet	12,100 feet	12,100 feet
Urban Arterial - 1,235 mph to 1,240 mph***	12,200 feet	12,200 feet	12,200 feet
Urban Arterial - 1,245 mph to 1,250 mph***	12,300 feet	12,300 feet	12,300 feet
Urban Arterial - 1,255 mph to 1,260 mph***	12,400 feet	12,400 feet	12,400 feet
Urban Arterial - 1,265 mph to 1,270 mph***	12,500 feet	12,500 feet	12,500 feet
Urban Arterial - 1,275 mph to 1,280 mph***	12,600 feet	12,600 feet	12,600 feet
Urban Arterial - 1,285 mph to 1,290 mph***	12,700 feet	12,700 feet	12,700 feet
Urban Arterial - 1,295 mph to 1,300 mph***	12,800 feet	12,800 feet	12,800 feet
Urban Arterial - 1,305 mph to 1,310 mph***	12,900 feet	12,900 feet	12,900 feet
Urban Arterial - 1,315 mph to 1,320 mph***	13,000 feet	13,000 feet	13,000 feet
Urban Arterial - 1,325 mph to 1,330 mph***	13,100 feet	13,100 feet	13,100 feet
Urban Arterial - 1,335 mph to 1,340 mph***	13,200 feet	13,200 feet	13,200 feet
Urban Arterial - 1,345 mph to 1,350 mph***	13,300 feet	13,300 feet	13,300 feet
Urban Arterial - 1,355 mph to 1,360 mph***	13,400 feet	13,400 feet	13,400 feet
Urban Arterial - 1,365 mph to 1,370 mph***	13,500 feet	13,500 feet	13,500 feet
Urban Arterial - 1,375 mph to 1,380 mph***	13,600 feet	13,600 feet	13,600 feet
Urban Arterial - 1,385 mph to 1,390 mph***	13,700 feet	13,700 feet	13,700 feet
Urban Arterial - 1,395 mph to 1,400 mph***	13,800 feet	13,800 feet	13,800 feet
Urban Arterial - 1,405 mph to 1,410 mph***	13,900 feet	13,900 feet	13,900 feet
Urban Arterial - 1,415 mph to 1,420 mph***	14,000 feet	14,000 feet	14,000 feet
Urban Arterial - 1,425 mph to 1,430 mph***	14,100 feet	14,100 feet	14,100 feet
Urban Arterial - 1,435 mph to 1,440 mph***	14,200 feet	14,200 feet	14,200 feet
Urban Arterial - 1,445 mph to 1,450 mph***	14,300 feet	14,300 feet	14,300 feet
Urban Arterial - 1,455 mph to 1,460 mph***	14,400 feet	14,400 feet	14,400 feet
Urban Arterial - 1,465 mph to 1,470 mph***	14,500 feet	14,500 feet	14,500 feet
Urban Arterial - 1,475 mph to 1,480 mph***	14,600 feet	14,600 feet	14,600 feet
Urban Arterial - 1,485 mph to 1,490 mph***	14,700 feet	14,700 feet	14,700 feet
Urban Arterial - 1,495 mph to 1,500 mph***	14,800 feet	14,800 feet	14,800 feet
Urban Arterial - 1,505 mph to 1,510 mph***	14,900 feet	14,900 feet	14,900 feet
Urban Arterial - 1,515 mph to 1,520 mph***	15,000 feet	15,000 feet	15,000 feet
Urban Arterial - 1,525 mph to 1,530 mph***	15,100 feet	15,100 feet	15,100 feet
Urban Arterial - 1,535 mph to 1,540 mph***	15,200 feet	15,200 feet	15,200 feet
Urban Arterial - 1,545 mph to 1,550 mph***	15,300 feet	15,300 feet	15,300 feet
Urban Arterial - 1,555 mph to 1,560 mph***	15,400 feet	15,400 feet	15,400 feet
Urban Arterial - 1,565 mph to 1,570 mph***	15,500 feet	15,500 feet	15,500 feet
Urban Arterial - 1,575 mph to 1,580 mph***	15,600 feet	15,600 feet	15,600 feet
Urban Arterial - 1,585 mph to 1,590 mph***	15,700 feet	15,700 feet	15,700 feet
Urban Arterial - 1,595 mph to 1,600 mph***	15,800 feet	15,800 feet	15,800 feet
Urban Arterial - 1,605 mph to 1,610 mph***	15,900 feet	15,900 feet	15,900 feet
Urban Arterial - 1,615 mph to 1,620 mph***	16,000 feet	16,000 feet	16,000 feet
Urban Arterial - 1,625 mph to 1,630 mph***	16,100 feet	16,100 feet	16,100 feet
Urban Arterial - 1,635 mph to 1,640 mph***	16,200 feet	16,200 feet	16,200 feet
Urban Arterial - 1,645 mph to 1,650 mph***	16,300 feet	16,300 feet	16,300 feet
Urban Arterial - 1,655 mph to 1,660 mph***	16,400 feet	16,400 feet	16,400 feet
Urban Arterial - 1,665 mph to 1,670 mph***	16,500 feet	16,500 feet	16,500 feet
Urban Arterial - 1,675 mph to 1,680 mph***	16,600 feet	16,600 feet	16,600 feet
Urban Arterial - 1,685 mph to 1,690 mph***	16,700 feet	16,700 feet	16,700 feet
Urban Arterial - 1,695 mph to 1,700 mph***	16,800 feet	16,800 feet	16,800 feet
Urban Arterial - 1,705 mph to 1,710 mph***	16,900 feet	16,900 feet	16,900 feet
Urban Arterial - 1,715 mph to 1,720 mph***	17,000 feet	17,000 feet	17,000 feet
Urban Arterial - 1,725 mph to 1,730 mph***	17,100 feet	17,100 feet	17,100 feet
Urban Arterial - 1,735 mph to 1,740 mph***	17,200 feet	17,200 feet	17,200 feet
Urban Arterial - 1,745 mph to 1,750 mph***	17,300 feet	17,300 feet	17,300 feet
Urban Arterial - 1,755 mph to 1,760 mph***	17,400 feet	17,400 feet	17,400 feet
Urban Arterial - 1,765 mph to 1,770 mph***	17,500 feet	17,500 feet	17,500 feet
Urban Arterial - 1,775 mph to 1,780 mph***	17,600 feet	17,600 feet	17,600 feet
Urban Arterial - 1,785 mph to 1,790 mph***	17,700 feet	17,700 feet	17,700 feet
Urban Arterial - 1,795 mph to 1,800 mph***	17,800 feet	17,800 feet	17,800 feet
Urban Arterial - 1,805 mph to 1,810 mph***	17,900 feet	17,900 feet	17,900 feet
Urban Arterial - 1,815 mph to 1,820 mph***	18,000 feet	18,000 feet	18,000 feet
Urban Arterial - 1,825 mph to 1,830 mph***	18,100 feet	18,100 feet	18,100 feet
Urban Arterial - 1,835 mph to 1,840 mph***	18,200 feet	18,200 feet	18,200 feet
Urban Arterial - 1,845 mph to 1,850 mph***	18,300 feet	18,300 feet	18,300 feet
Urban Arterial - 1,855 mph to 1,860 mph***	18,400 feet	18,400 feet	18,400 feet
Urban Arterial - 1,865 mph to 1,870 mph***	18,500 feet	18,500 feet	18,500 feet
Urban Arterial - 1,875 mph to 1,880 mph***	18,600 feet	18,600 feet	18,600 feet
Urban Arterial - 1,885 mph to 1,890 mph***	18,700 feet	18,700 feet	18,700 feet
Urban Arterial - 1,895 mph to 1,900 mph***	18,800 feet	18,800 feet	18,800 feet
Urban Arterial - 1,905 mph to 1,910 mph***	18,900 feet	18,900 feet	18,900 feet
Urban Arterial - 1,915 mph to 1,920 mph***	19,000 feet	19,000 feet	19,000 feet
Urban Arterial - 1,925 mph to 1,930 mph***	19,100 feet	19,100 feet	19,100 feet
Urban Arterial - 1,935 mph to 1,940 mph***	19,200 feet	19,200 feet	19,200 feet
Urban Arterial - 1,945 mph to 1,950 mph***	19,300 feet	19,300 feet	19,300 feet
Urban Arterial - 1,955 mph to 1,960 mph***	19,400 feet	19,400 feet	19,400 feet
Urban Arterial - 1,965 mph to 1,970 mph***	19,500 feet	19,500 feet	19,500 feet
Urban Arterial - 1,975 mph to 1,980 mph***	19,600 feet	19,600 feet	19,600 feet
Urban Arterial - 1,985 mph to 1,990 mph***	19,700 feet	19,700 feet	19,700 feet
Urban Arterial - 1			

EXAMPLE #2 PEDESTRIAN AND TRAFFIC CONTROL PLAN



PTCP GENERAL NOTES:

1. The site specific Pedestrian +Traffic Control Plan (PTCP) shall conform to the most current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans.
2. The City, through its designated employees reserves the right to initiate field changes to assure public safety. This includes the implementation of additional traffic control measures while construction is in progress to address unforeseen field conditions.
3. Minimum 72-hour notice and confirmed approval by a Public Works Inspector is required prior to field implementation of an approved PTCP.
4. All traffic control devices shall be removed from the public right-of-way when not in use, unless otherwise permitted.
5. Lane closures for motor vehicle, bicycle, and pedestrian traffic shall be limited to 9:00 AM to 3:30 PM. Set up and break down shall not occur outside of these lane closure hours. These times may be more restricted if located in school zones.
6. Trenches shall be backfilled or plated during non-working hours and this includes for trenches in bike lane and sidewalk. If trench plates are used over open excavation, include "Steel Plates Ahead" warning sign.
7. A minimum eleven (11) foot travel lanes must be maintained at all times.
8. Pedestrian and bicyclist controls shall be provided on the PTCP.
9. Pedestrians and bicyclists shall have a safe route to walk or ride and shall be protected throughout the entire traffic control area. Pedestrian routes shall meet all ADA accessibility requirements per <http://ada.gov>.
10. Contractor shall provide adequate lighting for all pedestrian detours.
11. Existing construction site drainage shall not be hindered due to the project.
12. Contractor is fully responsible for the installation, maintenance, and removal of signs upon completion of work.
13. Temporary "NO PARKING" signs shall be posted 48 hours prior to work commencement. These signs shall be posted no more than 30 feet apart.
14. Contractor shall call Alameda Police Department (510) 337-8340 to schedule "NO PARKING" sign inspection. Contractor shall have signed inspection paperwork from the Police officer on site at all times. Failure to get Police Department inspection of signs in advance will prevent Police enforcement of parked vehicles.
15. "NO PARKING" signs are available for purchase at the City Hall Permit Center, Room 190. Only City of Alameda issued "NO PARKING" signs shall be used.
16. Access to driveways and transit stops/terminals shall be maintained at all times, unless permitted otherwise.
17. If public transit being impacted in any way during construction, the Contractor is responsible for informing transit agencies and coordinating with them accordingly.
18. Any work that disturbs normal traffic signal operations, such as intersection detection shall be coordinated with Public Works fourteen (14) calendar days prior to beginning construction.
19. If the traffic signal loops are damaged during construction, contractor shall:
 - a) Immediately notify Public Works Inspector
 - b) Within 72 hours, replace damaged loops per Caltrans specifications
 - c) Schedule inspection of the loop installation with City traffic signal technician(s)
 - d) Ensure traffic signal operations are fully restored as before and approved by City within 72 hours
20. The contractor shall make immediate temporary repairs to any street light and/or traffic signal conduit(s) damaged during construction. Permanent repairs shall be made within five (5) working days and approved by City.
21. Any segment of pavement striping or legend(s) removed or damaged during construction shall be fully removed and then replaced with new, like-material within 24 hours. No partial or fill-in stenciling allowed.
22. Any curb painting that is removed or damaged during construction shall be repainted for the full section of that curb painting. Coordinate with Public Works Maintenance Service Center staff for appropriate color code.
23. Any permanent traffic sign that is damaged shall be replaced in kind.
24. Any traffic sign post that is damaged (e.g. uni-strut, galvanized, wooden) shall be replaced in kind. Proper Underground Service Alert must be done before any new pole installation.
25. All certified flaggers shall be equipped with a hard hat, reflective vest, two-way radios, and "STOP/SLOW" paddle.
26. The contractor shall maintain all traffic control devices 24 hours per day 7 days per week, until completion of all work. Any traffic control devices used overnight in the public right-of-way must have flashing lights.
27. All channelizing devices, warning lights, flag tress, portable barriers, etc., shall meet the current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans.

Equipment Used

List each equipment to be used

Posted Speed Limit

25 MPH

Scope of Work

The project is to perform a point repair on a sewer main by open cut on Pacific Avenue. Work in the public right-of-way will result in a detour to eastbound travelling vehicles on Pacific Avenue and detour pedestrians on the east side of Webster Street around the work zone.

Contact

Contractor's Name: Company A

Contractor's Address:
123 Main Street, Anywhere, CA 94501

Contractor's Telephone Number:
(510) 123-4567

Contact Name: John Smith

Contact Phone Number (24 hours):
(510) 234-5678

Date: Author: Project:
Client: Location: ALAMEDA TCP: CMC Job #: REV:

Comments:

- 1) WORK HOURS: 9AM TO 3PM
- 2) CONTRACTOR TO VERIFY EXISTING STRIPING IS ACCURATE PRIOR TO START OF WORK.
- 3) ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF CA MUTCD.
- 4) ALL TRAFFIC CONTROL DEVICES SHALL BE RETROREFLECTIVE IF SETUP DURING HOURS OF DARKNESS.
- 5) MAINTAIN LOCAL ACCESS TO BUSINESSES AND RESIDENTS AT ALL TIME.
- 6) THE CONTRACTOR SHALL NOT PREVENT OR DELAY THE OPERATION OF MASS TRANSIT VEHICLES AT ANY TIME.
- 7) THE CONTRACTOR SHALL PERFORM THE APPROPRIATE MEASURES TO ENSURE THE SAFETY OF BICYCLISTS ON ALL STREET ON WHICH THERE IS CONSTRUCTION.

Legend

- Type III Barricade
- 28" Traffic Cone
- Delineator
- Pedestrian Barricade
- Work Area
- Sign and Stand
- Direction of Travel
- Concrete K-Rail
- Crash Cushion
- NTS Not To Scale
- T/ANS Tow-Away/No Stopping
- Parking Control Officer
- Flagger
- Type I Barricade
- Flashing Beacon
- (N) Sewer

Table 6F-101(CA). Maximum Spacing of Channelizing Devices

Speed (mph)	Taper* (feet)	Tangent (feet)	Conflict** (feet)
20	20	40	10
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	90	22
50	50	100	25
55	50	100	25
60	50	100	25
65	50	100	25
70	50	100	25
75	50	100	25

* Maximum channelizing device spacing for all speeds on one-lane/two-way tapers is 20 feet. Maximum channelizing device spacing for all speeds on downstream tapers is 20 feet. All other tapers are as shown. ** Use on intermediate and short-term projects for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizing devices.

Table 6C-3(CA). Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)

Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (W)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)***
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50
60	720	360	240	50
65	780	390	260	50
70	840	420	280	50
75	900	450	300	50

* - Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph. ** - For other offsets use the following merging taper length formula for L: For speeds of 40 mph or less, L=WS/60 For speeds of 45 mph or more, L=WS

Where: L = taper length in feet W = width of offset in feet S = posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

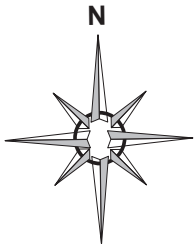
*** - Maximum downstream taper length is 100 feet. See Section 6C.08.

Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

Road Type	Distance Between Signs**		
	A	B	C
Urban - less than 25 mph or less***	100 feet	100 feet	100 feet
Urban - more than 25 mph to 40 mph***	250 feet	250 feet	250 feet
Urban - high-speed - more than 40 mph***	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,640 feet

* Speed limits are to be determined by the local jurisdiction. ** The column headings A, B, and C are the dimensions shown in Figures 6B-1 through 6B-4B. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.) *** Posted speed limit, off-peak 85th-percentile speed prior to work starting, or other anticipated operating speed in mph.

Plan Scale
1" = 50'



ATTACHMENT “A”

TRENCH EXCAVATION AND CONSTRUCTION STANDARDS

SECTION CS-2.

TRENCH EXCAVATION CONSTRUCTION STANDARDS

CS-2-01. GENERAL: Trench excavation shall conform with the City Standard Specifications. In general a trench is defined as an excavation in which the depth is greater than the width of the bottom of the excavation. Additionally, for the purpose of the City Standard Specifications, a trench shall include excavation for appurtenant structures including but not limited to, manholes, transition structures, junction structures, vaults, valve boxes, catch basins, thrust blocks, and boring pits. The Contractor's attention is directed to the rules, orders, and regulations of the California Division of Occupational Safety and Health (CAL/OSHA) for a more specific definition.

- A.** The requirements specified in this section of the City Standard Specifications apply to all trench excavations. Nothing in these City Standard Specifications shall relieve the Contractor from conforming to the requirements of CAL/OSHA. If there is a conflict between the two aforementioned standards, the more stringent requirement shall apply.
- B.** Trench excavation shall include the removal of all water and materials of any nature which interfere with the construction work.
- D.** The method for installation of pipe or conduit (open trench, tunnel, or bore and jack) shall be shown on the Project Plans.
- E.** Open trenching shall be prohibited on paved streets for a period of not less than five (5) years from the date the asphalt concrete pavement was placed or one (1) year from the date any slurry seal was placed unless the Contractor receives written approval from the Director of Public Works.
- F.** Where pipe is to be installed in new embankment, the embankment shall be first constructed to the following dimensions and compacted prior to any excavation for placement of pipe:
 - 1.** a height of 12 inches above the top of pipe.
 - 2.** a width of not less than 5 times the diameter of the pipe on each side of the pipe, after which the trench shall be excavated.
- G.** Excavated material from trenches located within paved areas shall be immediately loaded into trucks and hauled off and disposed of outside the public right of way. No excavated material shall be placed or stored within the public right of way unless otherwise allowed by the Director of Public Works.

CS-2-02. EXISTING UNDERGROUND UTILITIES:

- A.** The Contractor shall contact Underground Services Alert (U.S.A.), at least 48 hours in advance of any excavation.
 - 1.** The Contractor shall not commence excavation in a location prior to U.S.A. members marking the location of their utilities or indicating that none exist within the excavation limits outlined by the Contractor.
 - 2.** The Contractor shall notify the Inspector of any conflict discovered as a result of the USA marking prior to commencing excavation at that location.
- B.** It is the Contractor's responsibility to verify the location and elevation of all existing utilities within the limits of excavation.
- C.** All existing pipes within the trench zone and any other facilities adjacent to the trench shall be carefully supported and protected from damage as a result of the Contractor's operations.

CS-2-03. EXCAVATION METHOD: Methods used in excavation shall be such as not to cause damage to surrounding property or to unnecessarily damage pavement. Street pads for backhoe outriggers and other equipment shall be utilized to prevent unnecessary damage.

CS-2-04. MINIMUM AND MAXIMUM TRENCH WIDTH: All trench widths shall be in compliance with the Standard Drawings. In the event that unsuitable materials or unstable trench walls are encountered, the trench width shall be modified in accordance with the applicable ASTM standard.

- A.** The pipe or conduit shall be positioned in the center of the trench.
- B.** The trench width for utility company owned facilities shall conform to the utility company standards.
- C.** The minimum trench width for City owned facilities shall conform to the requirements of Table CS-2-1, with the exception of Rock Wheel trench excavation specified elsewhere in the City Standard Specifications:

Table CS-2-1

<i>Pipe Material</i>	<i>Pipe Size (nominal diameter)</i>	<i>Minimum Trench Width</i>
All Pipes	6-Inches and less	O.D. ^a + 12-inches
Ductile Iron Pipe	Greater than 6-inches	O.D. + 24-inches
Polyvinyl Chloride and High Density Polyethylene Pipes ^b	Greater than 6-inches	O.D. + 16 inches ^c
Cast-in-Place Concrete Pipe	Greater than 36-inches	O.D.
Reinforced Concrete and Vitrified Clay Pipes	Greater than 6-inches	O.D. + 16-inches

a. -O.D. – Outside Diameter

b. -High Density Polyethylene Pipe shall be used only when approved.

c. -Where trench walls can not sustain a vertical cut, trench width shall be three times O.D.

D. If the maximum trench width specified on the Project Plans is exceeded, the Contractor shall be required to provide a higher strength bedding class or a higher strength pipe as approved by the Director of Public Works.

E. The minimum trench width for installation of water service, street light, or traffic signal conduit of two inches in diameter or less, shall be in accordance with the manufacturer's recommendation for the conduit.

F. Rock Wheel trench excavation for trench depths up to twenty-four (24) inches for street light, traffic signal, or utility company conduit installations shall only be permitted when approved by the Director of Public Works. Where allowed, rock wheel excavation shall be performed in accordance with Section 86 of the Caltrans Standard Specifications. The minimum trench width shall be two (2) inches wider than the conduit being placed in the trench. The maximum rock wheel trench width shall be six (6) inches.

CS-2-05. SHORING, SHEETING, AND BRACING: The Contractor shall furnish and install sufficient shoring, sheeting, and bracing to insure the safety of workmen and the public, protect the work, and protect existing facilities.

A. Shoring, sheeting, and bracing shall comply with the rules, orders and regulations of CAL/OSHA.

B. Each Contractor shall submit to the Inspector a copy of its current Annual Excavation Permit issued by CAL/OSHA along with the Contractor's own Trench Safety Plan prior to the start of construction.

- C. The Contractor shall be required to provide drawings and/or calculations by a registered engineer to the Director of Public Works a minimum of five (5) working days prior to beginning excavation for specially designed bracing and shoring of an excavation where required by CAL/OSHA or the Contractor's Trench Safety Plan.
- D. Failure to comply with any of the rules, orders or regulations mentioned herein shall be sufficient cause for the Inspector to immediately suspend the work. The Contractor shall be responsible for the adequacy of all shoring and bracing and compliance with the law. Failure of the Inspector to suspend the work or notify the Contractor of any inadequacy of shoring and bracing or noncompliance with the law shall not relieve the Contractor of this responsibility.
- E. The Contractor shall furnish and maintain shoring, sheeting and bracing until after the pipeline has been installed and sufficiently backfilled and the Inspector has approved the placement of backfill. The Contractor shall provide adequate safety measures to allow for access by the Inspector or testing personnel to perform compaction testing and inspection of the lifts of backfill placed.

CS-2-06. CONTROL OF WATER: When either ground water or surface run-off is encountered, the Contractor shall furnish, install, maintain, and operate all necessary pumps, materials and equipment to keep excavation reasonably free from water until the laying and jointing of the pipe, pouring of concrete and placing of bedding material has been completed, inspected and approved, and all danger of flotation and other damage is removed. Water pumped from the trench excavation shall be disposed of in a manner subject to the approval of the Director of Public Works.

CS-2-07. FOUNDATION:

- A. All loose material shall be removed from the new trench bottom before placing the bedding material.
- B. Special Foundation Treatment:
 - 1. Whenever the bottom of the trench is soft or rocky, or, otherwise unsuitable as a foundation for the pipe in the opinion of the Director of the Public Works, the unsuitable material shall be removed as directed by the Director of Public Works to provide a stable and satisfactory foundation.

CS-2-08. MAXIMUM LENGTH OF OPEN TRENCH:

- A. The maximum length of open trench where prefabricated pipe is to be laid shall be the distance necessary to accommodate that amount of pipe which can be installed and backfilled in that same day, but in no case shall exceed 400 feet except as allowed for with storm drain installation under Section CS-10B, CAST-IN-PLACE CONCRETE PIPE (CIPCP) of the Construction Standards.

- B.** At the end of each working day, there shall be no open trench in paved or improved areas unless it is plated in accordance with these City Standard Specifications. Improved areas are defined as any areas within 300' of any existing housing or commercial structure or paved area whether paved with asphalt concrete or Portland cement concrete.

The maximum length of trench in unimproved areas that may be left open for CIPCP is defined in Section CS-10B. A maximum of 300 feet of trench may be left open in unimproved areas if barricaded for all other piping material installations.

CS-2-09. TRENCH PLATES: Trench plates shall be used for temporary cover of trenches and other excavations.

- A.** When the backfilling of trenches and excavations can not be completed in the same day within a paved street section or within the concrete curb and gutter and sidewalk area, trench plates shall be required and the following conditions shall apply:
1. The plates shall be of steel construction capable of supporting H20 loading
 2. The plates shall have a skid resistant surface.
 3. The plates must extend beyond the edge of the trench wall to adequately support the traffic loads on it. In no case shall the plates extend less than twelve (12) inches beyond the trench wall.
 4. Each plate must be fully supported around the perimeter to prevent wobbling or rocking.
 5. The plates shall be secured to prevent any movement.
 6. Trenches and excavations shall be adequately shored and braced to withstand highway traffic loads.
 7. Temporary paving or cold-mix asphalt concrete (cutback) shall be placed and continuously maintained around all outside edges of the trench plates until removal of the plates.

ATTACHMENT “B”

**GEOTECHNICAL EVALUATION,
GOLF COURSE PUMP STATION ELECTRICAL CONTROL PANEL,
CORICA PARK GOLF COURSE,
NINYO & MOORE. AUGUST 7, 2019**

Geotechnical Evaluation

Golf Course Pump Station Electrical Control Panel
Corica Park Golf Course, Bay Farm Island
Alameda, California

City of Alameda

950 West Mall Square | Alameda, California 94502

August 7, 2019 | Project No. 403483001



Geotechnical | Environmental | Construction Inspection & Testing | Forensic Engineering & Expert Witness

Geophysics | Engineering Geology | Laboratory Testing | Industrial Hygiene | Occupational Safety | Air Quality | GIS

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

Geotechnical Evaluation

Golf Course Pump Station Electrical Control Panel
Corica Park Golf Course, Bay Farm Island
Alameda, California

Mr. Andrew Nowacki
City of Alameda
950 West Mall Square | Alameda, California 94502

August 7, 2019 | Project No. 403483001



Gerardo Lopez
Senior Staff Engineer

Timothy P. Sneddon, PE, GE
Principal Engineer

GL/TPS/slt

Distribution: (1) Addressee (via e-mail)

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APPENDICES

A – Boring Log

B – Laboratory Testing

1 INTRODUCTION

In accordance with your request, Ninyo & Moore has performed a geotechnical evaluation for the proposed new electrical panel structure for the pump station located on the Corica Park Golf Course, near the intersection of Doolittle Drive and Island Drive in Alameda, California (Figure 1). Based on our correspondence with you and review of documents, we understand that this project will consist of a new electrical control panel structure that will be supported either on slab-on-grade or an elevated steel structure or a precast concrete box. The purpose of our services were to perform a subsurface evaluation in order to evaluate the site conditions and to provide geotechnical design and construction recommendations for the new electrical panel structure.

2 SCOPE OF SERVICES

Our scope of services included the following:

- Reviewed readily available geologic literature pertinent to the project area including geologic maps and reports.
- Performed a site reconnaissance to observe the general site conditions and to mark the proposed location for subsurface exploration.
- Coordinated with Underground Service Alert to locate the underground utilities in the vicinity of the proposed exploration location.
- Obtained a boring permit from the Alameda County Public Works Agency.
- Drilled one (1) exploratory boring to a depth of approximately 40 feet below grade to evaluate the subsurface conditions. The boring was drilled using a truck-mounted drill rig. A representative of Ninyo & Moore logged the subsurface conditions exposed in the boring, and collected bulk and relatively undisturbed samples for laboratory testing. The boring was backfilled with Portland cement grout.
- Performed laboratory testing on selected soil samples to evaluate soil moisture and dry density, soil gradation, Atterberg limits, expansion potential, and corrosivity.
- Compilation and analysis of the data obtained from our background review, subsurface evaluation, and laboratory testing.
- Prepared this geotechnical report presenting our findings and conclusions regarding the subsurface conditions encountered at the project site, and our geotechnical recommendations for the design and construction of the proposed new control panel structure.

3 SITE DESCRIPTION AND BACKGROUND

The subject site is located at Corica Park Golf Course, Bay Farm Island in Alameda, California (Figure 1). The site is located at the northern end of the golf course, between the pond and Doolittle Drive. The project site is bounded to the north, west, and east by unimproved access roads and construction laydown areas and to the south by a pond. A pump station is located in the northwest corner of the pond with an electrical control panel structure located about 30 feet to the northwest of the pump station and a small transformer located about 20 feet to the northeast of the control panel. The site is relatively flat with ground surface elevations that range from about 4 to 6 feet above mean sea level (MSL) on the access roads and about 2 feet above MSL in the area of the existing electrical control panel and transformer (Google Earth, 2019).

4 PROJECT DESCRIPTION

The proposed new construction will involve removal of the existing electrical control panel structure and appurtenances, and the construction of a new electrical control panel structure that will be supported either on slab-on-grade or an elevated steel structure or a precast concrete box. The existing structure is reportedly tilted due to movement of the foundation. The size and location of the new structure is not known at this time but it is anticipated to be located in the vicinity of the existing structure and of similar size.

5 SUBSURFACE EVALUATION AND LABORATORY TESTING

Our field exploration for this study included a geotechnical reconnaissance and subsurface exploration that consisted of one boring. The approximate location of the boring is shown on Figure 2. Prior to commencing the subsurface exploration, USA was notified for field marking of the existing utilities and a boring permit was obtained from the Alameda County Public Works Agency. The boring was hand-excavated to a depth of about 5 feet to check for underground utilities.

The exploratory boring was advanced with solid-stem auger drilling methods to a depth of up to approximately 40 feet below the existing grade. A representative of Ninyo & Moore logged the subsurface conditions exposed in the boring and collected relatively undisturbed and bulk soil samples from the boring. The samples were transported to our geotechnical laboratory for testing. The boring was backfilled with grout after excavation. Descriptions of the subsurface materials encountered are presented in the following sections. A detailed log of the boring is presented in Appendix A.

Laboratory testing of soil samples recovered from the boring included tests to evaluate in-situ soil moisture content and dry density, soil gradation, Atterberg limits, expansion potential, and corrosivity. The results of the in-situ moisture content and dry density tests are presented on the boring log in Appendix A. The results of the other laboratory tests are presented in Appendix B.

6 GEOLOGIC AND SUBSURFACE CONDITIONS

6.1 Regional Geologic Setting

The site is located on the eastern side of San Francisco Bay in the Coast Ranges Province of California. The Coast Ranges are comprised of several mountain ranges and structural valleys stretching approximately 600 miles from the Oregon border to the Santa Ynez River. They are formed by tectonic processes commonly found around the Circum-Pacific belt. Basement rocks have been sheared, faulted, metamorphosed, and uplifted, and are separated by thick blankets of Cretaceous and Cenozoic sediments that fill structural valleys and line continental margins. The San Francisco Bay Area has several ranges that trend northwest-southeast, parallel to major strike-slip faults such as the San Andreas, Hayward, and Calaveras (Figure 3). Major tectonic activity associated with these and other faults consists primarily of right-lateral strike-slip movement.

6.2 Site Geology

Regional geologic maps by Graymer (2000) indicate that the site is underlain by Holocene age artificial fill. The fill is described as man-made deposit of various materials and ages. Some are compacted and quite firm, but fills made before 1965 are nearly everywhere not compacted and consist simply of dumped materials. A map of the regional geology is presented as Figure 4 (Graymer, 2000).

6.3 Subsurface Conditions

The following sections provide a generalized description of the geologic units encountered during our subsurface evaluation. More detailed descriptions are presented on the boring log in Appendix A.

6.3.1 Aggregate Base

Boring B-1 was advanced through aggregate base. The aggregate base section encountered consisted of approximately 9 inches of aggregate base. Variations in the thickness of the aggregate base layer may be encountered due to past maintenance, utility work, or other factors.

6.3.2 Fill

Fill was encountered below the aggregate section in the Boring B-1 to a depth of up to approximately 8 feet below the ground surface. The fill generally consisted of moist, firm to very stiff, sandy lean clay and moist, medium dense, clayey gravel.

6.3.3 Young Bay Mud

Young bay mud was encountered in the boring below the fill to a depth of about 35 feet below the ground surface. The young bay mud generally consisted of moist to wet, firm, lean clay, and moist to wet, very soft to soft fat clay.

6.3.4 San Antonio Formation

Deposits of the San Antonio Formation were encountered in the boring below the young bay mud to the depth explored of 40 feet below the ground surface. The material generally consisted of wet, very stiff, lean clay and wet, medium dense, clayey sand.

6.4 Groundwater

Groundwater was encountered during our subsurface exploration at a depth of approximately 18 feet below the ground surface in Boring B-1. The California Geological Survey (CGS) indicates that the historical high groundwater level near the site is less than 5 feet below the ground surface (CGS, 2003b).

Fluctuations in the level of groundwater may occur due to variations in ground surface topography, subsurface stratification, rainfall, irrigation practices, tidal fluctuations, groundwater pumping, and other factors which may not have been evident at the time of our field evaluation. In addition, seeps may be encountered at elevations above the groundwater levels encountered due to perched groundwater conditions, leaking pipes, preferential drainage, or other factors not evident at the time of our exploration. Piezometers can be installed to further evaluate the depth to groundwater in the study area and fluctuation in groundwater levels if needed.

7 GEOLOGIC HAZARDS AND GEOTECHNICAL CONSIDERATIONS

This study considered a number of potential issues relevant to the proposed construction on the subject site, including seismic hazards, landsliding, settlement of compressible soil layers, expansive soil, potential of on-site soil to corrode ferrous metals and promote sulfate attack on concrete, and excavation characteristics. These issues are discussed in the following subsections.

7.1 Seismic Hazards

The project site is located within the San Francisco Bay Area, a seismically active region. The seismic hazards considered in this study include the potential for ground surface rupture and ground shaking due to seismic activity, seismically induced liquefaction and dynamic settlement, ground subsidence related to sand boils, and lateral spreading. These potential hazards are discussed in the following subsections.

7.1.1 Historical Seismicity

The site is located in a seismically active region. Figure 3 presents the location of the site relative to the epicenters of historic earthquakes with magnitudes of 5.5 or more from 1800 to 2000. Records of historic ground effects related to seismic activity (e.g. liquefaction, sand boils, lateral spreading, ground cracking, etc.) compiled by Knudsen et al. (2000), indicate that no ground effects related to historic seismic activity have been reported for the site.

7.1.2 Faulting and Ground Surface Rupture

California lies along the boundary between the North American and Pacific tectonic plates. Movement along the plate boundary can generate earthquakes and has created zones of deformation within the Earth's crust. These zones include various types of complex geologic structures and geomorphic features such as folds, faults, sag ponds, shutter ridges, linear valleys, and scarps. During moderate to large magnitude earthquakes, the ground can rupture along well defined zones of deformation where faults intersect the Earth's surface.

In response to hazards associated with ground rupture, or surface displacement, the State of California enacted the Alquist-Priolo Earthquake Fault Zoning Act (AP Act) in 1972, which regulates development of structures for human occupancy in areas within active fault zones. The AP Act requires that the State Geologist delineate zones along active faults where evaluation of the potential for ground rupture is required. As defined by the California Geological Survey (CGS, 2018), active faults are faults that have caused surface displacement within Holocene time, or within approximately the last 11,700 years.

The site is not located within an Alquist-Priolo Earthquake Fault Zone established by the State Geologist (CGS, 2018) to delineate regions of potential ground surface rupture adjacent to active faults. The closest known active fault is the Hayward fault, located approximately 4 miles northeast of the site. The approximate locations of major faults in the region and their geographic relationship to the project vicinity are shown on Figure 3.

Based on our review of the referenced geologic maps, the project site is not underlain by known active faults (i.e., faults that exhibit evidence of surface displacement in the last 11,700 years). Therefore, the potential for ground surface rupture because of faulting at the site is considered low. Lurching or cracking of the ground surface as a result of nearby seismic events is possible.

7.1.3 Strong Ground Motion

Based on historic activity, the potential for future strong ground motion at the site is considered significant. The peak ground acceleration (PGA) associated with the Maximum Considered Earthquake Geometric Mean (MCE_G) was calculated in accordance with the American Society of Civil Engineers (ASCE) 7-10 Standard and the 2016 California Building Code (CBC). The MCE_G peak ground acceleration with adjustment for site class effects (PGA_M) was calculated as 0.556g using the Structural Engineer Association of California (SEAOC) and California's Office of Statewide Health Planning and Development (OSHPD) seismic design map tool (SEAOC & OSHPD, 2019) that yielded a mapped MCE_G peak ground acceleration of 0.618g for the site and a site coefficient (F_{PGA}) of 0.9 for Site Class E.

7.1.4 Liquefaction, Strain Softening, and Dynamic Settlement

The strong vibratory motions generated by earthquakes can trigger a rapid loss of shear strength in saturated, loose, granular soils of low plasticity (liquefaction) or in wet, sensitive, cohesive soils (strain softening). Liquefaction and strain softening can result in a loss of foundation bearing capacity or lateral spreading of sloping or unconfined ground. Liquefaction can also generate sand boils leading to subsidence at the ground surface. Liquefaction (or strain softening) is generally not a concern at depths more than 50 feet below ground surface. The site is located within a liquefaction hazard zone established by the state geologist (CGS, 2003a). The seismic hazard zone for the site vicinity are presented on Figure 5. Regional studies of liquefaction susceptibility (Witter et al., 2006) indicate that the liquefaction susceptibility at the site is very high.

We encountered deposits of sand and fine-grained soil of low plasticity below the historic high groundwater level during our subsurface exploration. We evaluated the potential for dynamic settlement due to liquefaction of saturated soil using the blow count data collected during our subsurface exploration in accordance with the method presented by Boulanger and Idriss (2014) for saturated sand. Our analysis assumed a design groundwater elevation of 5 feet below the ground surface, and considered a seismic event producing a PGA of 0.556g resulting from a Magnitude 7.3 earthquake. The results of our analysis indicate that the layer of sandy soil between depths of about 35 and 39 feet below the ground surface

will liquefy under the considered ground motion. Dynamic settlement analysis indicates that following the considered seismic event the free-field total dynamic settlement is estimated to be up to about 1½ inches with a differential dynamic settlement of about ¾ inches over a horizontal distance of approximately 30 feet. Based on the depth of liquefaction, effects at the ground surface, such as a reduction in shallow foundation bearing capacity due to liquefaction, are not a design consideration for the relatively minor structure proposed.

The cohesive soils encountered during our subsurface exploration are generally not considered to be particularly sensitive. As such, we do not regard seismically induced strain-softening behavior as a design consideration.

7.1.5 Lateral Spread

In addition to vertical displacements, seismic ground shaking can induce horizontal displacements as surficial soil deposits spread laterally by floating atop liquefied subsurface layers. Lateral spread can occur on sloping ground or on flat ground adjacent to an exposed face. A quantitative evaluation of lateral spreading was not within our scope for this project. Based on the location of the site, lateral spreading may occur following a seismic event.

7.2 Landsliding and Slope Stability

Based on our background review, the site is not within a mapped landslide or landslide hazard zone (CGS, 2003a). The site and surrounding areas are relatively flat and the proposed improvements do not include grading significant slopes. As such, we do not regard landsliding or slope stability as a design consideration.

7.3 Static Settlement

The results of our subsurface exploration indicate that the young bay mud deposits encountered below the proposed location for the structure included layers of soft, compressible bay mud. Static settlement due to sustained loads is a design consideration for structures and on-going settlement could be occurring due to the presence of the fill in the vicinity of the site. Recommendations for deep foundations are provided to reduce the potential static settlement for the structure. Pad fills or embankments are not anticipated to be part of the proposed improvements. If fill is placed as part of the project or other projects in the vicinity, additional static settlement should be anticipated to occur.

7.4 Expansive Soil

Some clay minerals undergo volume changes upon wetting or drying. Unsaturated soil containing those minerals will shrink/swell with the removal/addition of water. The heaving pressures associated with this expansion can damage structures and flatwork. Laboratory testing was performed on samples of the near-surface soil to evaluate the expansion index. The tests were performed in accordance with the American Society of Testing and Materials (ASTM) Standard D 4829 (Expansion Index). The results of our laboratory tests indicate that the expansion index of the near-surface soils from our boring is 28. This result is indicative of a low expansion characteristic. The results of the expansion index testing are presented in Appendix B. Based on these results, expansive soils are not a design consideration for near-surface features in the vicinity of our boring location.

7.5 Corrosivity

An evaluation of the corrosivity of the on-site material was conducted to assess the impact to concrete and metals. The corrosion impact was evaluated using the results of limited laboratory testing on samples obtained during our subsurface study. Laboratory testing to quantify pH, resistivity, chloride, and soluble sulfate contents was performed on samples of the near-surface soil. The results of the corrosivity tests are presented in Appendix B.

California Department of Transportation (Caltrans) defines a corrosive environment as an area where the soil contains chloride concentration of 500 ppm or greater, soluble sulfate concentration of 1,500 ppm or greater, electrical resistivity of 1,100 ohm-centimeters or less, and a pH of 5.5 or less (Caltrans, 2018a). Based on these criteria, the near-surface soils at the site meet the definition of a corrosive environment. A corrosion engineer should be consulted to provide specific guidance on protective measures to mitigate corrosion.

Based on the criteria used to evaluate the deleterious nature of soil on concrete and recommendations from the American Concrete Institute (ACI, 2014) for sulfate exposure classes, the soil on site is defined as Exposure Class S0.

7.6 Excavation Characteristics

We anticipate that the proposed project will involve excavations of up to 5 feet in depth for installation of utilities and foundation construction. The soil encountered during our subsurface exploration generally consisted of moist, firm, sandy lean clay; and moist, medium dense clayey gravel. Groundwater was encountered at depths of about 18 feet below existing grade, but could rise to shallower depths. Regional studies (CGS, 2003b) indicate that the depth to historic

high groundwater is less than 5 feet below the ground surface. Excavations extending near or below groundwater may be unstable without dewatering to depress the water level. Excavations in the fill may encounter debris, rubble, oversize material, buried objects, or other potential obstructions. The earth materials underlying the site should be excavatable with conventional earth moving equipment in good working condition. Caving conditions could occur, particularly in granular material below groundwater. Casing should be anticipated for drilling of piles.

8 CONCLUSIONS

Based on our review of the referenced background data, site field reconnaissance, subsurface evaluation, and laboratory testing, it is our opinion that the proposed construction is feasible from a geotechnical standpoint. Geotechnical considerations include the following:

- Our subsurface exploration encountered undocumented fill, young bay mud, and San Antonio Formation deposits. Fill was encountered to a depth of up to about 8 feet. The fill generally consisted of moist, firm to very stiff, sandy lean clay and moist, medium dense, clayey gravel. The young bay mud generally consisted of moist to wet, firm, lean clay; and moist to wet, very soft to soft fat clay. San Antonio Formation deposits generally consisted of wet, very stiff, lean clay and wet, medium dense, clayey sand.
- Groundwater was encountered at approximately 18.5 below the existing grade during our subsurface exploration and at 18 feet below existing grade 15 minutes after drilling. Variations in the groundwater level across the site and over time should be anticipated.
- The site will experience a relatively large degree of ground shaking during a significant earthquake on a nearby fault.
- The results of our dynamic settlement analysis indicate that the total dynamic settlement is estimated to be up to about 1½ inches with a differential dynamic settlement of about ¾ inches over a horizontal distance of approximately 30 feet.
- Static settlement due to sustained loading is a design consideration. Recommendations for deep foundations are provided to mitigate concerns related to static settlement.
- Expansion Index testing indicates that the near-surface soil on site in the vicinity of Boring B-1 has a low expansion characteristic. Based on these results, expansive soils are not a design consideration for near-surface features in the vicinity of our boring location.
- Our laboratory corrosion testing indicates that the near-surface site soils are considered corrosive based on California Department of Transportation (Caltrans, 2018a) corrosion guidelines. A corrosion engineer should be consulted to provide specific guidance on protective measures to mitigate corrosion.
- Excavations that remain unsupported and are exposed to water, extend below groundwater, or encounter granular soil may be unstable and prone to sloughing.
- Excavations in the fill may encounter debris, rubble, oversize material, buried objects, or other potential obstructions.

- The earth materials underlying the site should be excavatable with conventional earth moving equipment in good working condition. Caving conditions could occur, particularly in granular material below groundwater. Casing should be anticipated for drilling of piles.

9 RECOMMENDATIONS

The following guidelines should be used in the preparation of the construction plans. The project plans and specifications should be reviewed by Ninyo & Moore prior to construction bidding to check for consistency with these recommendations.

9.1 Earthwork

Earthwork should be performed in accordance with the requirements of applicable governing agencies and the recommendations presented below. The geotechnical consultant should observe earthwork operations. Evaluations performed by the geotechnical consultant during the course of operations may result in new recommendations, which could supersede the recommendations in this section.

9.1.1 Pre-Construction Conference

We recommend that a pre-construction conference be held to discuss the grading recommendations presented in the report. Representatives of the City, the design engineer, Ninyo & Moore, and the contractor should be in attendance to discuss project schedule and earthwork requirements.

9.1.2 Site Preparation

Site preparation should begin with the removal of existing foundations, vegetation, utility lines, debris and other deleterious materials from areas to be graded. Tree stumps and roots should be removed to such a depth that organic material is generally not present. Clearing and grubbing should extend beyond the proposed excavation and fill areas. Rubble and excavated materials that do not meet criteria for use as fill should be disposed of in an appropriate landfill. Existing utilities in the work area should be relocated away from the proposed structures. Existing utilities to be abandoned should be removed, crushed in place, or backfilled with grout.

Excavations resulting from removal of buried utilities, tree stumps, or obstructions should be backfilled with compacted fill in accordance with the recommendations in the following sections.

9.1.3 Observation and Removals

Prior to placement of fill, or the placement of forms or reinforcement for foundations, the client should request an evaluation of the exposed subgrade by Ninyo & Moore. Materials that are considered unsuitable shall be excavated under the observation of Ninyo & Moore in accordance with the recommendations in this section or supplemental recommendations by the geotechnical engineer.

Unsuitable materials include, but may not be limited to dry, loose, soft, wet, expansive, organic, or compressible natural soil, and undocumented or otherwise deleterious fill materials. Unsuitable materials should be removed from trench bottoms and below bearing surfaces to a depth at which suitable foundation subgrade, as evaluated in the field by Ninyo & Moore, is exposed. Based on the site history and materials encountered in our subsurface exploration, undocumented fill should be anticipated to a depth of about 8 feet in the area of the access road. Excavations should be backfilled with fill or controlled low strength material (CLSM) as per Section 9.1.4. Undocumented fill that can be processed to meet the general criteria in Section 9.1.4 can be re-used as general fill.

9.1.4 Material Recommendations

Materials used during earthwork, grading, and paving operations should comply with the requirements listed in Table 1. Materials should be evaluated by the geotechnical engineer for suitability prior to use. The contractor should notify the geotechnical consultant 72 hours prior to import of materials or use of on-site materials to permit time for sampling, testing, and evaluation of the proposed materials. On-site materials may need to be dried out before re-use as fill. The contractor should be responsible for the uniformity of import material brought to the site.

Table 1 – Recommended Material Requirements		
Material and Use	Source	Requirements ^{1,2}
Select Fill	Import	Close-graded with 35 percent or more passing No. 4 sieve and either: Expansion Index of 50 or less, Plasticity Index of 12 or less, or less than 10 percent, by dry weight, passing No. 200 sieve
General Fill -For uses not otherwise specified	Import or On-site Borrow	Import: As per Select Fill On-Site Borrow: No additional requirements ¹
Pipe/Conduit Bedding and Pipe Zone Material -material below conduit invert to 12 inches above conduit	Import	90 to 100 percent (by mass) should pass No. 4 sieve, and 5 percent or less should pass No. 200 sieve
Trench Backfill - above bedding material	Import or On-site Borrow	As per general fill and excluding rock/lumps retained on 4-inch sieve or 2-inch sieve in top 12 inches
Aggregate Base	Import	Class II; CSS ⁴ Section 26-1.02
Asphalt Concrete	Import	Type A; CSS ⁴ Section 39-2
Controlled Low Strength Material (CLSM)	Import	CSS ⁴ Section 19-3.02G

Notes:

¹ In general, fill should be free of rocks or lumps in excess of 6 inches in diameter, trash, debris, roots, vegetation or other deleterious material.

² In general, import fill should be tested or documented to be non-corrosive³ and free from hazardous materials in concentrations above levels of concern.

³ Non-corrosive as defined by the Corrosion Guidelines (Caltrans, 2018a).

⁴ CSS is California Standard Specifications (Caltrans, 2018b).

9.1.5 Subgrade Preparation

Subgrade in trenches and below slabs or fill should be prepared as per the recommendations in Table 2. Prepared subgrade should be maintained in a moist (but not saturated) condition by the periodic sprinkling of water prior to placement of additional overlying fill. Subgrade that has been permitted to dry out and loosen or develop desiccation cracking, should be scarified, moisture-conditioned, and recompact as per the requirements above.

Table 2 – Subgrade Preparation Recommendations	
Subgrade Location	Source
Below Slabs, Pavement, and General Fill	<ul style="list-style-type: none"> • After clearing per Section 9.1.2, check for unsuitable materials as per Section 9.1.3. • Scarify 8 inches then moisture condition and compact as per Section 9.1.6. • Keep in moist condition by sprinkling water.
Utility Trenches	<ul style="list-style-type: none"> • After clearing per Section 9.1.2, check for unsuitable materials as per Section 9.1.3. • Remove or compact loose/soft material.

9.1.6 Fill Placement and Compaction

Fill and backfill should be compacted in horizontal lifts in conformance with the recommendations presented in Table 3. The allowable uncompacted thickness of each lift of fill depends on the type of compaction equipment utilized, but generally should not exceed 8 inches in loose thickness.

Table 3 – Fill Placement and Compaction Recommendations			
Fill Type	Location	Compacted Density ¹	Moisture Content ²
Subgrade	Below pavement (within 18 inches of finished grade)	95 percent	+ 2 percent or above
	Below slabs or fill and in locations not already specified	90 percent	+ 2 percent or above
General Fill	Below pavement (within 18 inches of finished grade)	95 percent	+ 2 percent or above
	In locations not already specified	90 percent	+ 2 percent or above
Bedding and Pipe Zone Fill	Material below invert to 12 inches above pipe or conduit	90 percent	Near Optimum
Trench Backfill	Top 18 inches below finish subgrade for areas subject to vehicular loading	95 percent	+ 2 percent or above
	In locations not already specified	90 percent	+ 2 percent or above
Aggregate Base	Below slabs or pavement	95 percent	Near Optimum

Notes:

- 1 Expressed as percent relative compaction or ratio of field density to reference density (typically on a dry density basis for soil and aggregate). The reference density of soil and aggregate should be evaluated by ASTM D 1557.
- 2 Target moisture content at compaction relative to the optimum as evaluated by ASTM D 1557.

Compacted fill should be maintained in a moist (but not saturated) condition by the periodic sprinkling of water prior to placement of additional overlying fill. Fill that has been permitted

to dry out and loosen or develop desiccation cracking, should be scarified, moisture-conditioned, and recompactd as per the requirements above.

9.1.7 Temporary Excavations and Shoring

Trench excavations shall be stabilized in accordance with the Excavation Rules and Regulations (29 Code of Federal Regulations [CFR], Part 1926) stipulated by the Occupational Safety and Health Administration (OSHA). Stabilization shall consist of shoring sidewalls or laying slopes back.

Dewatering pits or sumps should be used to depress the groundwater level (if encountered) below the bottom of the excavation. Table 4 lists the OSHA material type classifications and corresponding allowable temporary slope layback inclinations for soil deposits that may be encountered on site. Alternatively, an internally-braced shoring system or trench shield conforming to the OSHA Excavation Rules and Regulations (29 CFR, Part 1926) may be used to stabilize excavation sidewalls during construction. The lateral earth pressures listed in Table 4 may be used to design or select the internally-braced shoring system or trench shield. The recommendations listed in this table are based upon the limited subsurface data provided by our subsurface exploration and reflect the influence of the environmental conditions that existed at the time of our exploration. Excavation stability, material classifications, allowable slopes, and shoring pressures should be re-evaluated and revised, as-needed, during construction. Excavations, shoring systems and the surrounding areas should be evaluated daily by a competent person for indications of possible instability or collapse.

Table 4 – OSHA Material Classifications and Allowable Slopes			
Formation	OSHA Classification	Allowable Temporary Slope ^{1,2,3}	Lateral Earth Pressure on Shoring ⁴ (psf)
Fill (above groundwater)	Type C	1½ h:1v (34°)	80×D + 72

Notes:

- 1 Allowable slope for excavations less than 20 feet deep. Excavation sidewalls in cohesive soil may be benched to meet the allowable slope criteria (measured from the bottom edge of the excavation). The allowable bench height is 4 feet. The bench at the bottom of the excavation may protrude above the allowable slope criteria.
- 2 In layered soil, layers shall not be sloped steeper than the layer below.
- 3 Temporary excavations less than 5 feet deep may be made with vertical side slopes and remain unshored if judged to be stable by a competent person (29 CFR, Part 1926.650).
- 4 'D' is depth of excavation for excavations up to 20 feet deep. Includes a surface surcharge equivalent to two feet of soil.

The shoring system should be designed or selected by a suitably qualified individual or specialty subcontractor. The shoring parameters presented in this report are preliminary

design criteria, and the designer should evaluate the adequacy of these parameters and make appropriate modifications for their design. We recommend that the contractor take appropriate measures to protect workers. OSHA requirements pertaining to worker safety should be observed.

Excavations made in close proximity to existing structures may undermine the foundation of those structures and/or cause soil movement related distress to the existing structures. Stabilization techniques for excavations in close proximity to existing structures will need to account for the additional loads imposed on the shoring system and appropriate setback distances for temporary slopes. The geotechnical engineer should be consulted for additional recommendations if the proposed excavations cross below a plane extending down and away from the foundation bearing surfaces of the adjacent structure at an angle of 2:1 (horizontal to vertical).

The excavation bottoms may encounter wet, loose material which may be subject to pumping under heavy equipment loads. The contractor should be prepared to stabilize the bottom of the excavations. In general, unstable bottom conditions may be mitigated by using a stabilizing geogrid, overexcavating the excavation bottom to suitable depths and replacing with compacted fill, or other suitable method. Additionally, aeration of wet soils should be anticipated.

9.1.8 Construction Dewatering

Groundwater was encountered during our subsurface exploration at depths of about 18 feet. Regional maps indicate that the historic high groundwater level in the site vicinity is less than 5 feet below the ground surface. Variations in groundwater levels across the site and over time should be anticipated. Water intrusion into the excavations may occur as a result of groundwater intrusion or surface runoff. The contractor should be prepared to take appropriate dewatering measures in the event that water intrudes into the excavations. Sump pits, trenches, or similar measures should be used to depress the water level below the bottom of the excavation. Considerations for construction dewatering should include anticipated drawdown, volume of pumping, potential for settlement, and groundwater discharge. Disposal of groundwater should be performed in accordance with the guidelines of the Regional Water Quality Control Board.

9.1.9 Utility Trenches

Trenches constructed for the installation of underground utilities should be stabilized in accordance with our recommendations in Section 9.1.7. Utility trenches should be backfilled

with materials that conform to our recommendations in Section 9.1.4. Trench backfill, bedding, and pipe zone fill should be compacted in accordance with Section 9.1.6 of this report. Bedding and pipe zone fill should be shoveled under pipe haunches and compacted by manual or mechanical, hand-held tampers. Trench backfill should be compacted by mechanical means. Densification of trench backfill by flooding or jetting should not be permitted.

Trenches should not be excavated adjacent to footings. If trenches are to be excavated near a continuous footing, the bottom of the trench should be located above a 2:1 (horizontal to vertical) plane projected downward from the bottom of the footing. Utility lines that cross beneath footings should be encased in concrete or CLSM below the footing for a distance equivalent to the depth of the excavation.

9.1.10 Rainy Weather Considerations

Earthwork and foundation construction should be performed during the period between approximately April 15 and October 15 to avoid the rainy season. In the event that grading is performed during the rainy season, the plans for the project should be supplemented to include a stormwater management plan prepared in accordance with the requirements of the relevant agency having jurisdiction. The plan should include details of measures to protect the subject property and adjoining off-site properties from damage by erosion, flooding or the deposition of mud, debris, or construction-related pollutants, which may originate from the site or result from the grading operation. The protective measures should be installed by the commencement of grading, or prior to the start of the rainy season. The protective measures should be maintained in good working order unless the project drainage system is installed by that date and approval has been granted by the building official to remove the temporary devices.

In addition, construction activities performed during rainy weather may impact the stability of excavation subgrade and exposed ground. Temporary swales should be constructed to divert surface runoff away from excavations and slopes. Steep temporary slopes should be covered with plastic sheeting during significant rains. The geotechnical consultant should be consulted for recommendations to stabilize the site as-needed.

9.2 Seismic Design Criteria

Design of the proposed improvements should be performed in accordance with the requirements of the governing jurisdictions and applicable building codes. Table 5 presents the

seismic design parameters for the site in accordance with the CBC (2016) guidelines and adjusted MCE_R spectral response acceleration parameters (SEAOC & OSHPD, 2019).

Table 5 – California Building Code Seismic Design Criteria	
Seismic Design Parameter	Value
Site Classification	E
Site Coefficient, F_a	0.9
Site Coefficient, F_v	2.4
Mapped Spectral Response Acceleration at 0.2-second Period, S_s	1.596 g
Mapped Spectral Response Acceleration at 1.0-second Period, S_1	0.627 g
Spectral Response Acceleration at 0.2-second Period Adjusted for Site Class, S_{MS}	1.436 g
Spectral Response Acceleration at 1.0-second Period Adjusted for Site Class, S_{M1}	1.505 g
Design Spectral Response Acceleration at 0.2-second Period, S_{DS}	0.958 g
Design Spectral Response Acceleration at 1.0-second Period, S_{D1}	1.003 g
Seismic Design Category	D

9.3 Foundations

Foundations should be designed in accordance with structural considerations and our geotechnical recommendations. In addition, requirements of the governing jurisdictions, practices of the Structural Engineers Association of California, and applicable building codes should be considered in the design of the structures. The foundation design parameters presented in this report are not intended to preclude differential movement of soils. Minor cracking (considered tolerable) of foundations may occur.

Due to the young bay mud deposits encountered below the proposed location for the structure including layers of soft, compressible bay mud, static settlement due to sustained loads is a design consideration for structures. On-going settlement could be occurring due to the presence of the fill in the vicinity of the site. Recommendations for deep foundations are provided to mitigate potential static settlement.

9.3.1 Helical Pile Foundations

The proposed structure may be supported on helical pile foundations. Helical piles generally consist of a plate or a series of plates, formed into the shape of a helix, that are attached to a central shaft. The shafts are rotated down into the soil using a torque motor.

Several patented and non-patented helical pile or screw pile foundations are available including Heli-Pile, Chance Anchors, and Viking Helical Anchors. A qualified, licensed vendor/installer should be consulted for selection of an appropriate helical pile for this

application. Helical test probes may be needed to select an appropriate pile for the subsurface conditions on site. Helixes should be embedded below a depth of 35 feet.

We recommend each helical anchor consist of 2, or more, helical plates and that 4 or more anchors be used to support the electrical control panel structure. For planning purposes, an 8-inch diameter double helix bearing 40 feet below the ground surface, may be assumed to have an allowable resistance of 3 kips to downward loading and 2 kips to upward loading. The allowable resistance includes a factor of safety of 2 for downward loading and 3 for upward loading presuming that proof load testing will be performed to check the assumed design loads. The allowable resistance may be increased by a factor of one-third for downward wind or seismic loading combinations and upward wind loading combinations.

Helical piles generally provide relatively light resistance to lateral loading. However, helical piles can be installed with a batter to develop lateral resistance in a particular loading direction. Alternatively, the pile cap may be extended to provide additional resistance to lateral loads. An equivalent fluid passive earth pressure of 250 pounds per cubic foot acting against the pile cap may be considered when evaluating resistance to lateral loading. Passive earth pressure should be neglected to a depth of one foot below grade unless the ground adjacent to the structure is covered by flatwork or pavement.

Structures supported on helical pier foundations should be designed to accommodate a total static settlement of approximately $\frac{1}{2}$ inch with a differential static settlement of about $\frac{1}{4}$ inch over a lateral distance of 40 feet. Helical pier foundations should mitigate the impact of static settlement on the structure, however, dynamic settlement and ground subsidence may still occur following a significant seismic event. Dynamic settlement of the helical piers is estimated to be approximately $1\frac{1}{2}$ inch (total) with a differential of approximately $\frac{3}{4}$ inch over a lateral distance of 30 feet.

9.3.2 Slabs-on-Grade

Floor slabs should be designed as structural slabs, where the support provided by the subgrade is neglected. Building floor slabs should be designed by the project structural engineer based on the anticipated loading conditions. The subgrade should be prepared in accordance with Section 9.1.5. Where a vapor retarding system is not used, slabs should be constructed on 6 inches, or more, of aggregate base conforming to Section 9.1.4 and placed in accordance with Section 9.1.6. The slab should be reinforced with deformed steel bars. We recommend that masonry briquettes or plastic chairs be used to aid in the correct placement of slab reinforcement in the upper half of the slab. Refer to Section 9.4 for the recommended concrete cover over reinforcing steel. A vapor retarder is recommended in

areas where moisture-sensitive floor coverings or conditioned environments are anticipated. Joints consistent with ACI guidelines (ACI, 2016) may be constructed at periodic intervals to reduce the potential for random cracking of the slab.

9.4 Concrete

Laboratory testing indicated that the concentration of sulfate and corresponding potential for sulfate attack on concrete is negligible for the soil tested. However, due to the variability in the on-site soil, we recommend that Type II/V or Type V cement be used for concrete structures in contact with soil. In addition, we recommend a water-to-cement ratio of no more than 0.45. A 3-inch thick, or thicker, concrete cover should be maintained over reinforcing steel where concrete is in contact with soil in accordance with Section 20.6 of ACI Concrete Institute (ACI) Committee 318 (ACI, 2014).

9.5 Moisture Vapor Retarder

The migration of moisture through slabs underlying enclosed spaces or overlain by moisture sensitive floor coverings should be discouraged by providing a moisture vapor retarding system between the subgrade soil and the bottom of slabs. We recommend that the moisture vapor retarding system consist of a 4-inch-thick capillary break, overlain by a 15-mil-thick plastic membrane. The capillary break should be constructed of clean, compacted, open-graded crushed rock or angular gravel of ¾-inch nominal size. To reduce the potential for slab curling and cracking, an appropriate concrete mix with low shrinkage characteristics and a low water-to-cementitious-materials ratio should be specified. In addition, the concrete should be delivered and placed in accordance with ASTM C94 with attention to concrete temperature and elapsed time from batching to placement, and the slab should be cured in accordance with the ACI Manual of Concrete Practice (ACI, 2016), as appropriate. The plastic membrane should conform to the requirements in the latest version of ASTM Standard E 1745 for a Class A membrane. The bottom of the moisture barrier system should be higher in elevation than the exterior grade, if possible. Positive drainage should be established and maintained adjacent to foundations and flatwork.

9.6 Drainage and Site Maintenance

Surface drainage on the site should generally be provided so that water is diverted away from structures and is not permitted to pond. Positive drainage should be established adjacent to structures to divert surface water to an appropriate collector (graded swale, v-ditch, or area drain) with a suitable outlet. Drainage gradients should be 2 percent or more a distance of 5 feet or more from the structure for impervious surfaces and 5 percent or more a distance of 10 feet

or more from the structure for pervious surfaces. Slope, pad, and roof drainage (from adjacent structures) should be collected and diverted to suitable discharge areas away from structures or other slopes by non-erodible devices (e.g., gutters, downspouts, concrete swales, etc.). Graded swales, v-ditches, or curb and gutter should be provided at the site perimeter to restrict flow of surface water onto and off of the site. Slopes should be vegetated or otherwise armored to reduce potential for erosion of soil. Drainage structures should be periodically cleaned out and repaired, as-needed, to maintain appropriate site drainage patterns.

Landscaping adjacent to foundations should include vegetation with low-water demands and irrigation should be limited to that which is needed to sustain the plants. Trees should be restricted from the areas adjacent to foundations a distance equivalent to the canopy radius of the mature tree. Bioretention areas should not be located within a distance of 20 feet from structure foundations.

Care should be taken by the contractor during grading to preserve any berms, drainage terraces, interceptor swales or other drainage devices on or adjacent to the project area. Drainage patterns established at the time of grading should be maintained for the life of the project.

9.7 Review of Construction Plans

The recommendations provided in this report are based on preliminary design information for the proposed construction. We recommend that a copy of the plans be provided to Ninyo & Moore for review before bidding to check the interpretation of our recommendations and that the designed improvements are consistent with our assumptions. It should be noted that, upon review of these documents, some recommendations presented in this report might be revised or modified to meet the project requirements.

9.8 Construction Observation and Testing

The recommendations provided in this report are based on subsurface conditions encountered in our exploratory boring. During construction, the geotechnical engineer or their representative in the field should be allowed to check the exposed subsurface conditions. During construction, the geotechnical engineer or their representative should be allowed to:

- Observe preparation and compaction of subgrade.
- Check and test imported materials prior to use as fill.
- Observe placement and compaction of fill.
- Perform field density tests to evaluate fill and subgrade compaction.
- Observe excavation and foundation construction.

The recommendations provided in this report assume that Ninyo & Moore will be retained as the geotechnical consultant during the construction phase of the project. If another geotechnical consultant is selected, we request that the selected consultant provide a letter to the architect and the owner (with a copy to Ninyo & Moore) indicating that they fully understand Ninyo & Moore's recommendations, and that they are in full agreement with the recommendations contained in this report.

10 LIMITATIONS

The field evaluation, laboratory testing, and geotechnical analyses presented in this geotechnical report have been conducted in general accordance with current practice and the standard of care exercised by geotechnical consultants performing similar tasks in the project area. No warranty, expressed or implied, is made regarding the conclusions, recommendations, and opinions presented in this report. There is no evaluation detailed enough to reveal every subsurface condition. Variations may exist and conditions not observed or described in this report may be encountered during construction. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation will be performed upon request.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

This report is intended for design purposes only. It does not provide sufficient data to prepare an accurate bid by contractors. It is suggested that the bidders and their geotechnical consultant perform an independent evaluation of the subsurface conditions in the project areas. The independent evaluations may include, but not be limited to, review of other geotechnical reports prepared for the adjacent areas, site reconnaissance, and additional exploration and laboratory testing.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. If geotechnical conditions different from those described in this report are encountered, our office should be notified, and additional recommendations, if warranted, will be provided upon request. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may,

therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

11 REFERENCES

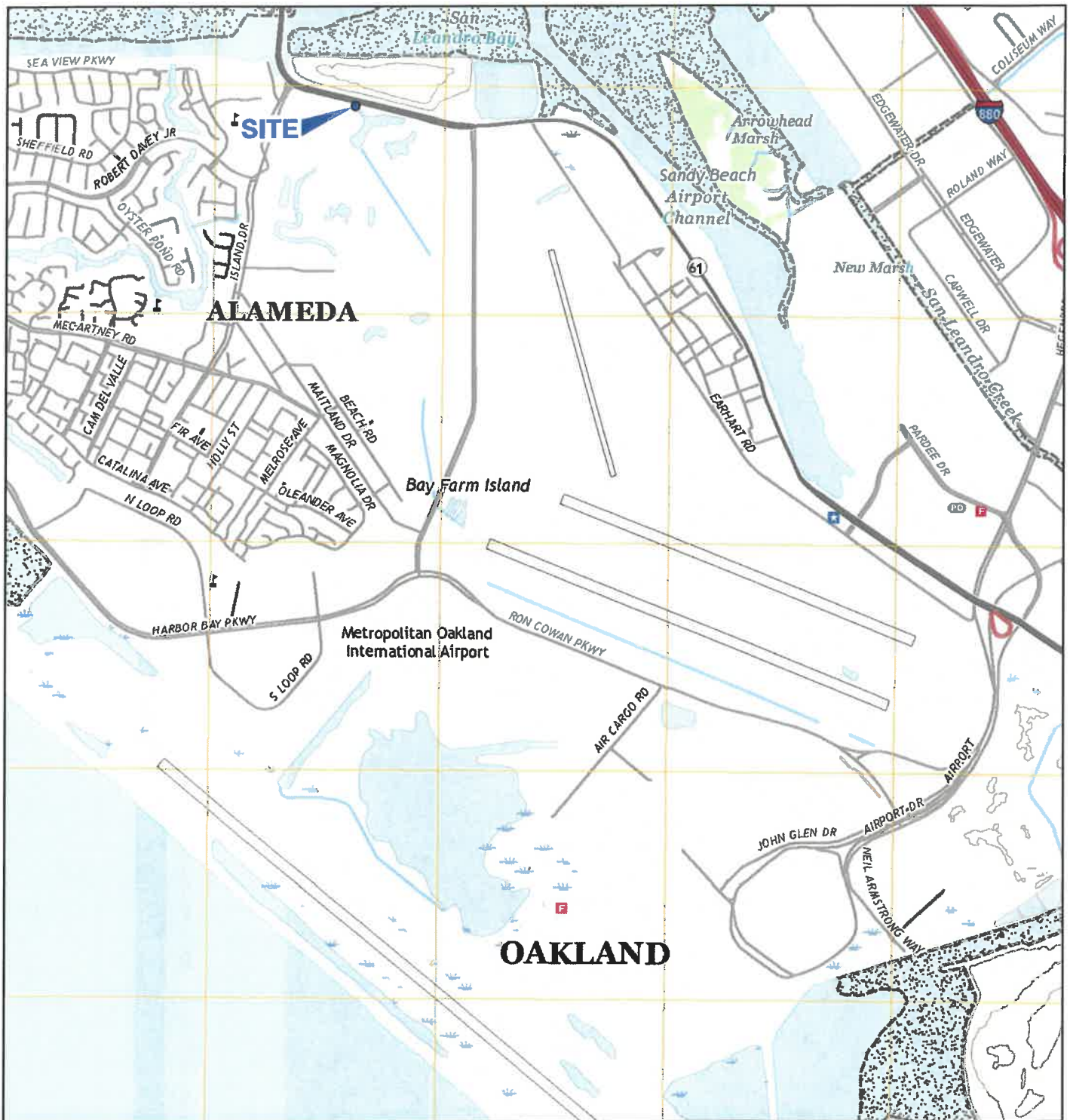
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FIGURES

403483001.dwg 05/14/2019 AEK



NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE | REFERENCE: USGS, 2018

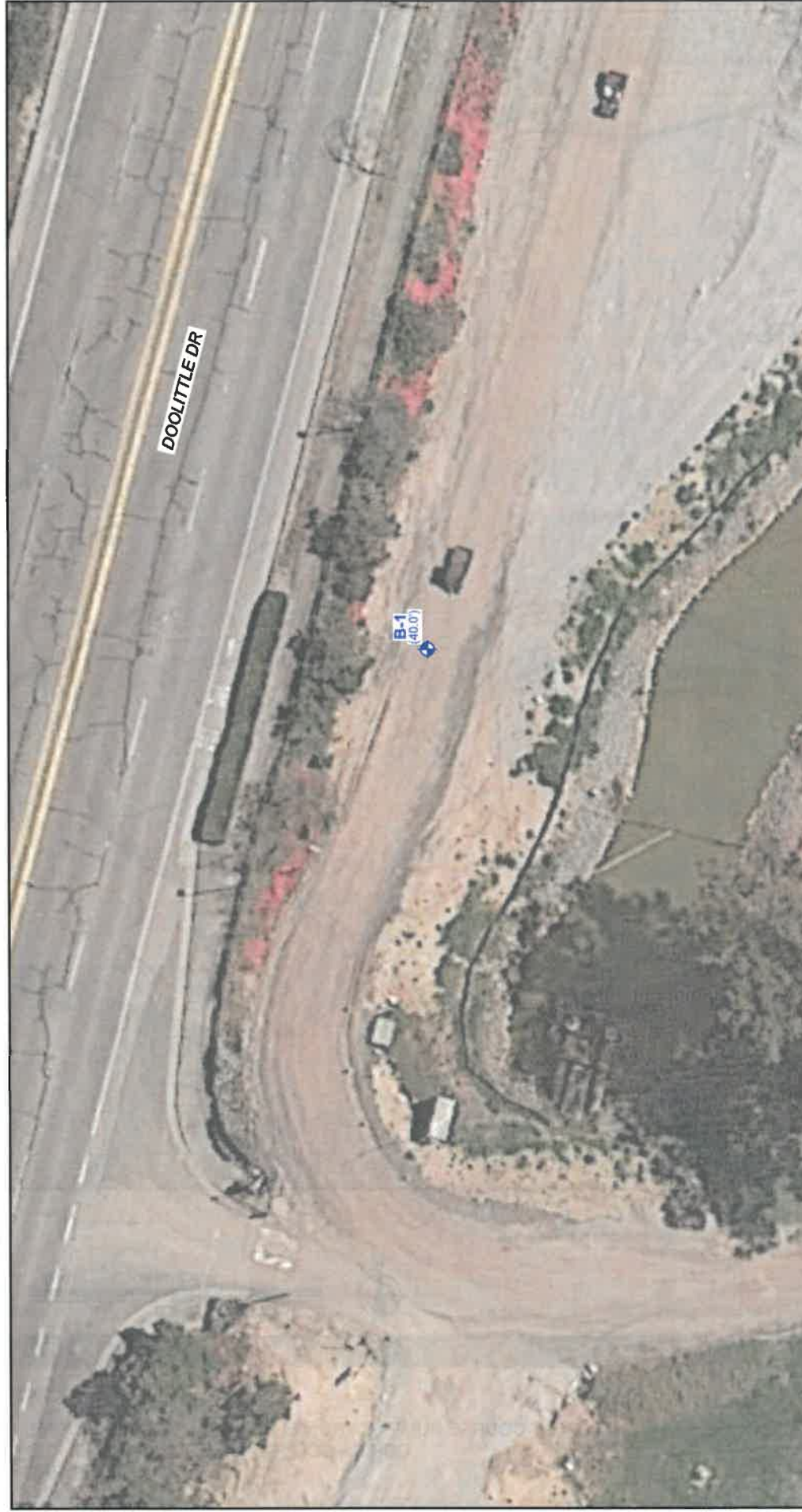


FIGURE 1

Ninyo & Moore

Geotechnical & Environmental Sciences Consultants

SITE LOCATION
GOLF COURSE PUMP STATION ELECTRICAL CONTROL PANEL
CORICA GOLF COURSE, BAY FARM ISLAND
ALAMEDA, CALIFORNIA
403483001 | 06/19



LEGEND

B-1  **BORING LOCATION**
(40.0') **TOTAL DEPTH, IN FEET**

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE | REFERENCE: GOOGLE EARTH, 2019



FIGURE 2

AERIAL PHOTOGRAPH

GOLF COURSE PUMP STATION ELECTRICAL CONTROL PANEL
CORICA GOLF COURSE, BAY FARM ISLAND
ALAMEDA, CALIFORNIA
403483001 | 06/19

403483001_FL.pdf 06/14/2019 AEX

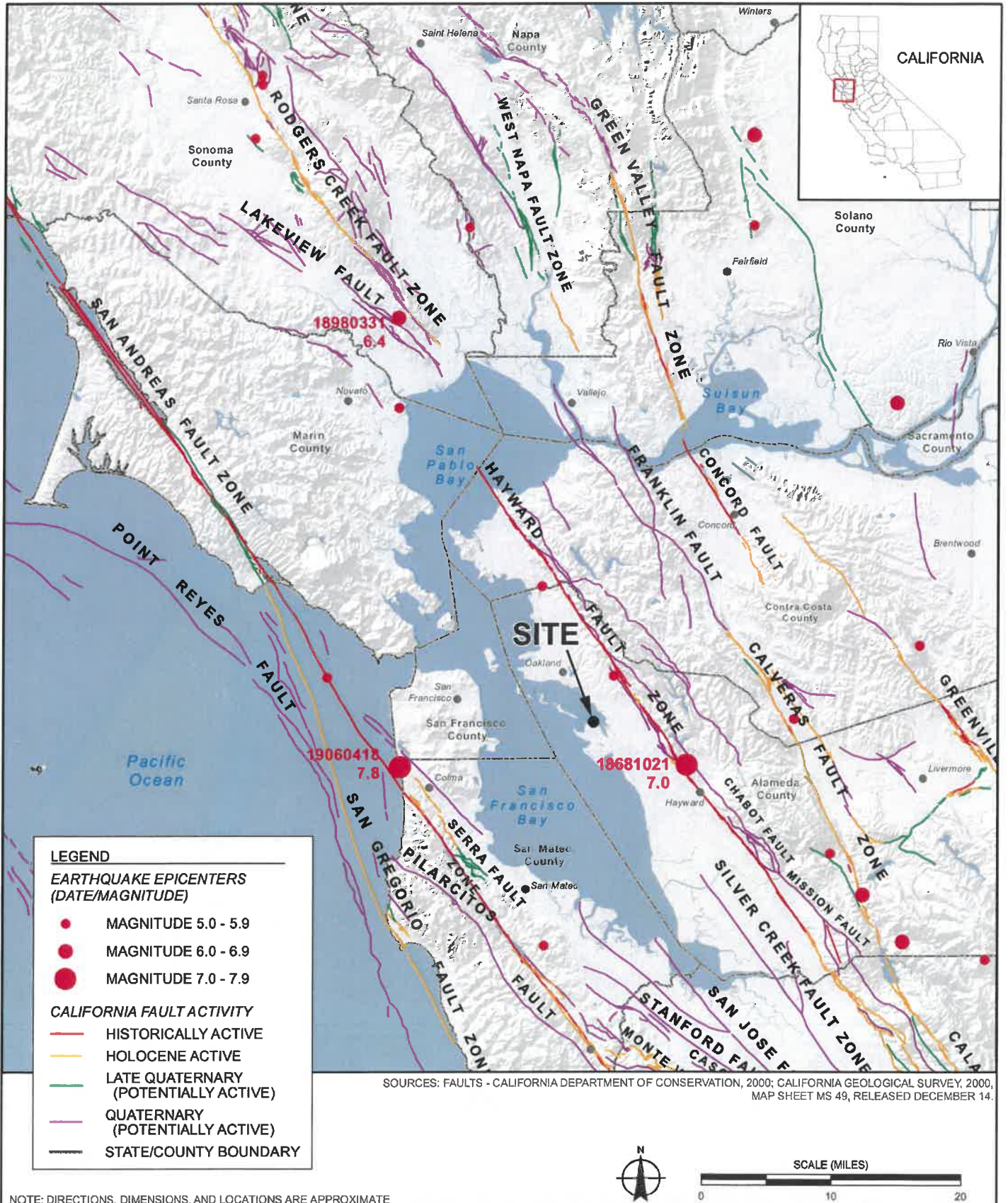


FIGURE 3

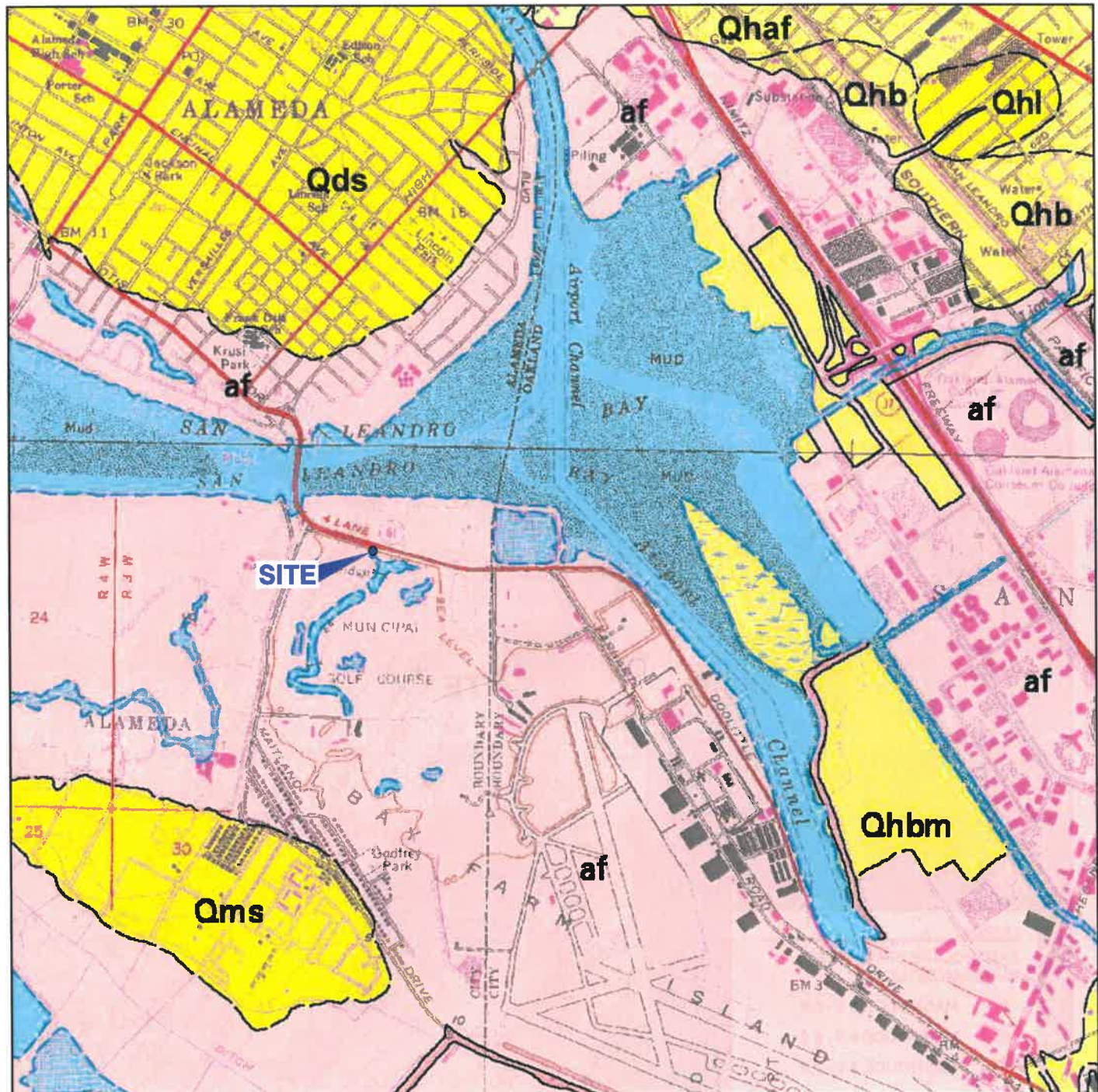
FAULT LOCATIONS AND EARTHQUAKE EPICENTERS

GOLF COURSE PUMP STATION ELECTRICAL CONTROL PANEL

CORICA GOLF COURSE, BAY FARM ISLAND

ALAMEDA, CALIFORNIA

403483001 | 06/19



LEGEND

af ARTIFICIAL FILL (HOLOCENE)	Qhb BASIN DEPOSITS (HOLOCENE)	Qhl NATURAL LEVEE DEPOSITS (HOLOCENE)	Qms MERRITT SAND (HOLOCENE & PLEISTOCENE)	▼▼▼▼ THRUST FAULT
Qhaf ALLUVIAL FAN AND FLUVIAL DEPOSITS (HOLOCENE)	Qhbm BAY MUD (HOLOCENE)	Qds DUNE SAND (HOLOCENE & PLEISTOCENE)		----- FAULT
				- - - - - GEOLOGIC CONTACT
				— — STRIKE AND DIP OF BEDDING

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE REFERENCE. USGS, GRAYMER, 2000



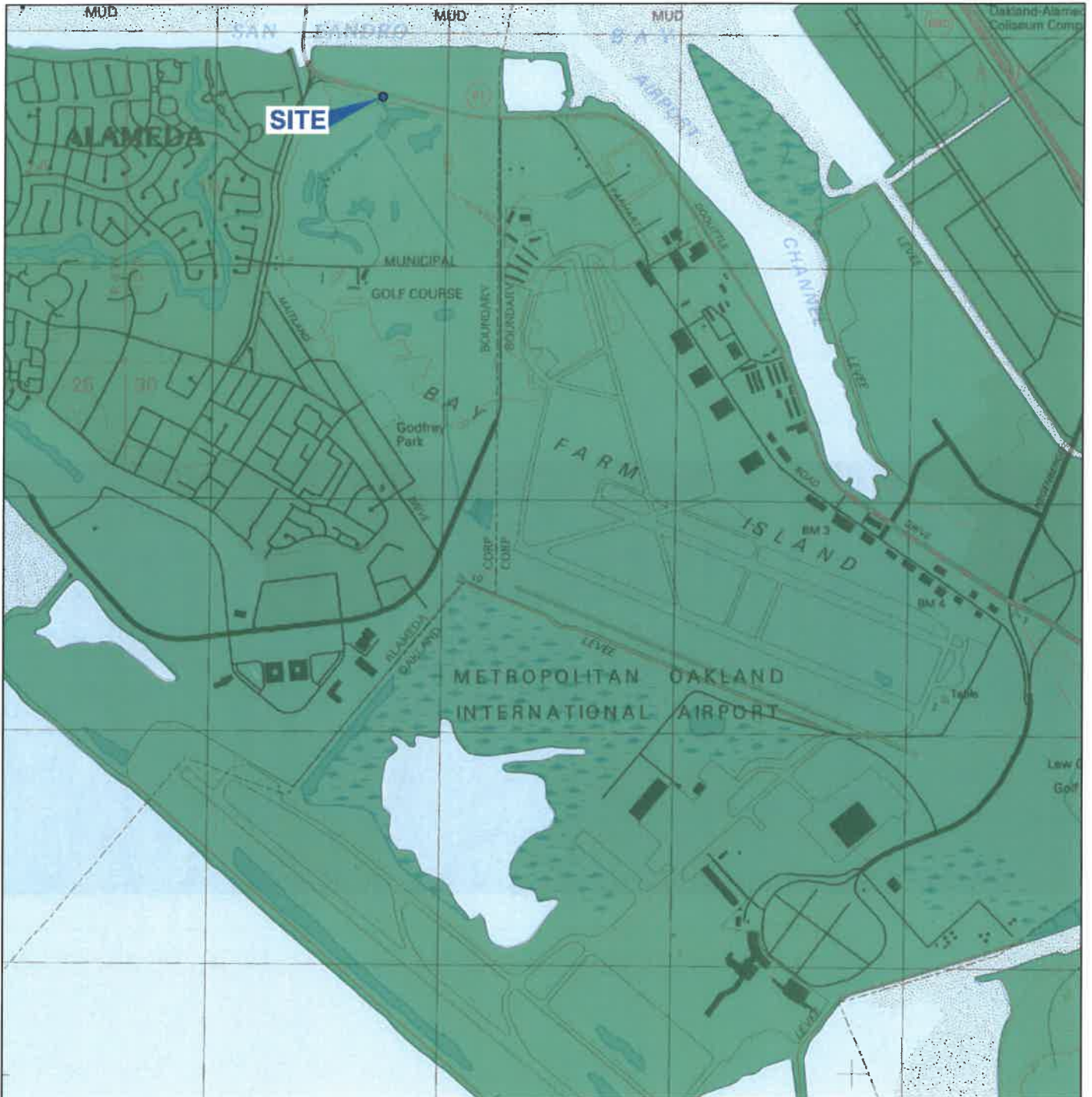
FIGURE 4

Ningo & Moore

Geotechnical & Environmental Sciences Consultants

REGIONAL GEOLOGY

GOLF COURSE PUMP STATION ELECTRICAL CONTROL PANEL
CORICA GOLF COURSE, BAY FARM ISLAND
ALAMEDA, CALIFORNIA
403483001 | 06/19



LEGEND



LIQUEFACTION ZONES:

Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE
REFERENCE: CGS, 1982, 2003



FIGURE 5



APPENDIX A

Boring Log

APPENDIX A

BORING LOG

Field Procedure for the Collection of Disturbed Samples

Disturbed soil samples were obtained in the field using the following methods.

Bulk Samples

Bulk samples of representative earth materials were obtained from the exploratory boring. The samples were bagged and transported to the laboratory for testing.

The Standard Penetration Test (SPT) Sampler

Disturbed drive samples of earth materials were obtained by means of a Standard Penetration Test sampler. The sampler is composed of a split barrel with an external diameter of 2 inches and an unlined internal diameter of 1-3/8 inches. The sampler was driven into the ground 12 to 18 inches with a 140-pound hammer falling freely from a height of 30 inches in general accordance with ASTM D 1586. The blow counts were recorded for every 6 inches of penetration; the blow counts reported on the log are those for the last 12 inches of penetration. Soil samples were observed and removed from the sampler, bagged, sealed and transported to the laboratory for testing.

Field Procedure for the Collection of Relatively Undisturbed Samples





























Relatively undisturbed soil samples were obtained in the field using the following methods.

Modified Split-Barrel Drive Sampler

Relatively undisturbed soil samples were obtained in the field using a modified split-barrel drive sampler. The sampler, with an external diameter of 3.0 inches, was lined with 6-inch-long, thin brass liners with inside diameters of approximately 2.4 inches. The sample barrel was driven into the ground with the weight of a hammer in general accordance with ASTM D 3550. The driving weight was permitted to fall freely. The approximate length of the fall, the weight of the hammer, and the number of blows per foot of driving are presented on the boring log as an index to the relative resistance of the materials sampled. The samples were removed from the sample barrel in the brass liners, sealed, and transported to the laboratory for testing.

DEPTH (feet)		BULK SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	BORING LOG EXPLANATION SHEET
0								<p>Bulk sample.</p> <p>Modified split-barrel drive sampler.</p> <p>No recovery with modified split-barrel drive sampler.</p> <p>Sample retained by others.</p> <p>Standard Penetration Test (SPT).</p> <p>No recovery with a SPT.</p> <p>Shelby tube sample. Distance pushed in inches/length of sample recovered in inches.</p> <p>No recovery with Shelby tube sampler.</p> <p>Continuous Push Sample.</p> <p>Seepage.</p> <p>Groundwater encountered during drilling.</p> <p>Groundwater measured after drilling.</p>
5			XX/XX					
10								
							SM	<p>MAJOR MATERIAL TYPE (SOIL):</p> <p>Solid line denotes unit change.</p>
							CL	<p>Dashed line denotes material change.</p> <p>Attitudes: Strike/Dip</p> <p>b: Bedding</p> <p>c: Contact</p> <p>j: Joint</p> <p>f: Fracture</p> <p>F: Fault</p> <p>cs: Clay Seam</p> <p>s: Shear</p> <p>bss: Basal Slide Surface</p> <p>sf: Shear Fracture</p> <p>sz: Shear Zone</p> <p>sbs: Shear Bedding Surface</p>
15								
20								<p>The total depth line is a solid line that is drawn at the bottom of the boring.</p>

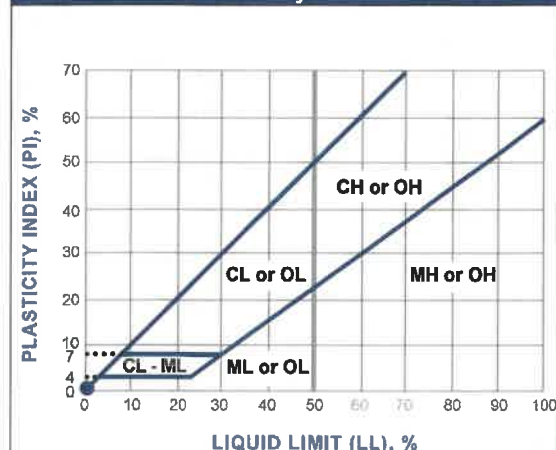
Soil Classification Chart Per ASTM D 2488

Primary Divisions			Secondary Divisions	
			Group Symbol	Group Name
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVEL more than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVEL less than 5% fines	 GW well-graded GRAVEL	
			 GP poorly graded GRAVEL	
		GRAVEL with DUAL CLASSIFICATIONS 5% to 12% fines	 GW-GM well-graded GRAVEL with silt	
			 GP-GM poorly graded GRAVEL with silt	
			 GW-GC well-graded GRAVEL with clay	
			 GP-GC poorly graded GRAVEL with	
		GRAVEL with FINES more than 12% fines	 GM silty GRAVEL	
			 GC clayey GRAVEL	
			 GC-GM silty, clayey GRAVEL	
	SAND 50% or more of coarse fraction passes No. 4 sieve	CLEAN SAND less than 5% fines	 SW well-graded SAND	
			 SP poorly graded SAND	
		SAND with DUAL CLASSIFICATIONS 5% to 12% fines	 SW-SM well-graded SAND with silt	
			 SP-SM poorly graded SAND with silt	
			 SW-SC well-graded SAND with clay	
			 SP-SC poorly graded SAND with clay	
		SAND with FINES more than 12% fines	 SM silty SAND	
			 SC clayey SAND	
 SC-SM silty, clayey SAND				
FINE-GRAINED SOILS 50% or more passes No. 200 sieve	SILT and CLAY liquid limit less than 50%	INORGANIC	 CL lean CLAY	
			 ML SILT	
			 CL-ML silty CLAY	
		ORGANIC	 OL (PI > 4) organic CLAY	
			 OL (PI < 4) organic SILT	
	SILT and CLAY liquid limit 50% or more	INORGANIC	 CH fat CLAY	
			 MH elastic SILT	
		ORGANIC	 OH (plots on or above "A"-line) organic CLAY	
 OH (plots below "A"-line) organic SILT				
Highly Organic Soils		 PT Peat		

Grain Size

Description	Sieve Size	Grain Size	Approximate Size
Boulders	> 12"	> 12"	Larger than basketball-sized
Cobbles	3 - 12"	3 - 12"	Fist-sized to basketball-sized
Gravel	Coarse	3/4 - 3"	Thumb-sized to fist-sized
	Fine	#4 - 3/4"	Pea-sized to thumb-sized
Sand	Coarse	#10 - #4	Rock-salt-sized to pea-sized
	Medium	#40 - #10	Sugar-sized to rock-salt-sized
	Fine	#200 - #40	Flour-sized to sugar-sized
Fines	Passing #200	< 0.0029"	Flour-sized and smaller

Plasticity Chart



Apparent Density - Coarse-Grained Soil

Apparent Density	Spooling Cable or Cathode		Automatic Trip Hammer	
	SPT (blows/foot)	Modified Split Barrel (blows/foot)	SPT (blows/foot)	Modified Split Barrel (blows/foot)
Very Loose	≤ 4	≤ 8	≤ 3	≤ 5
Loose	5 - 10	9 - 21	4 - 7	6 - 14
Medium Dense	11 - 30	22 - 63	8 - 20	15 - 42
Dense	31 - 50	64 - 105	21 - 33	43 - 70
Very Dense	> 50	> 105	> 33	> 70

Consistency - Fine-Grained Soil

Consistency	Spooling Cable or Cathode		Automatic Trip Hammer	
	SPT (blows/foot)	Modified Split Barrel (blows/foot)	SPT (blows/foot)	Modified Split Barrel (blows/foot)
Very Soft	< 2	< 3	< 1	< 2
Soft	2 - 4	3 - 5	1 - 3	2 - 3
Firm	5 - 8	6 - 10	4 - 5	4 - 6
Stiff	9 - 15	11 - 20	6 - 10	7 - 13
Very Stiff	16 - 30	21 - 39	11 - 20	14 - 26
Hard	> 30	> 39	> 20	> 26

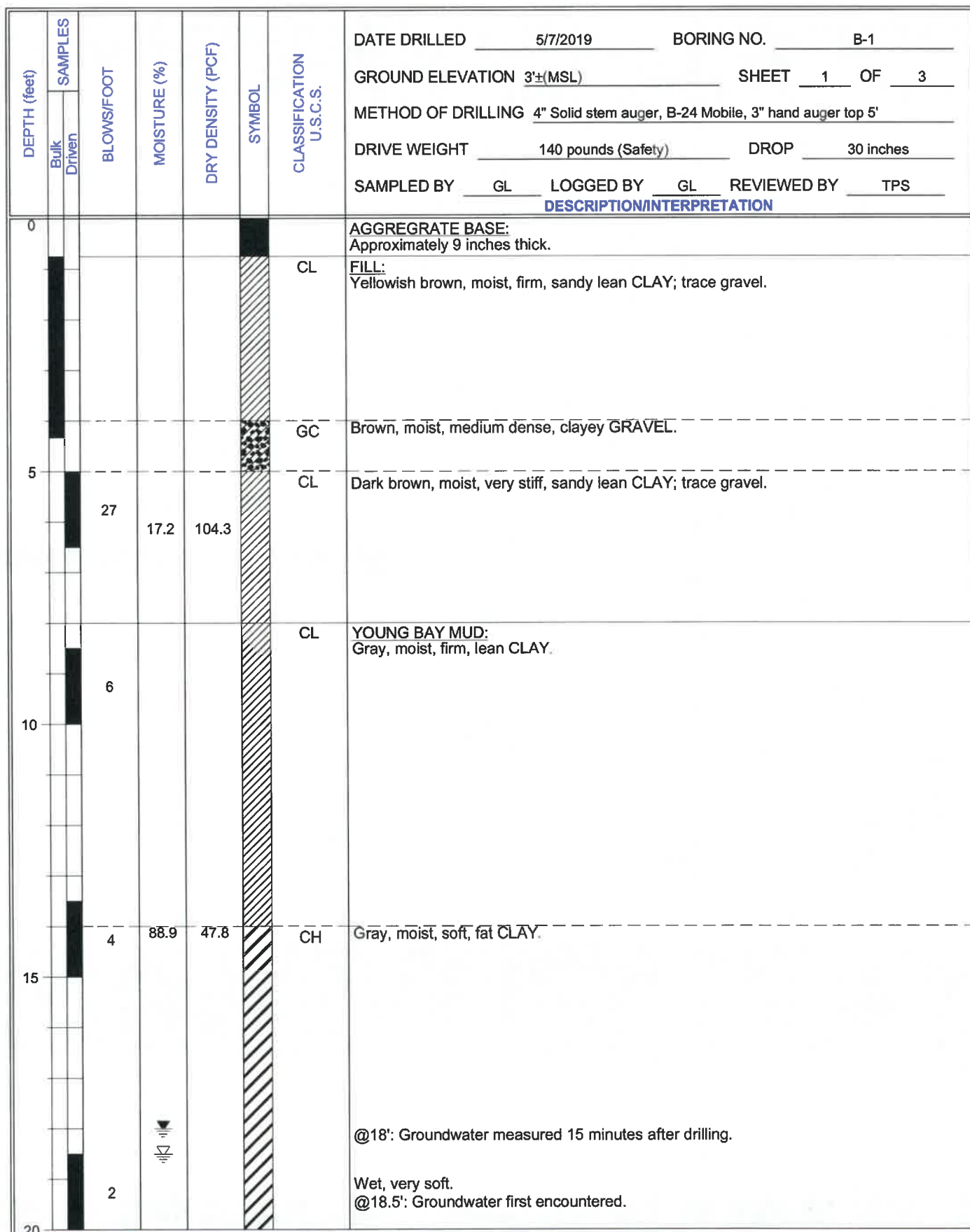


FIGURE A- 1

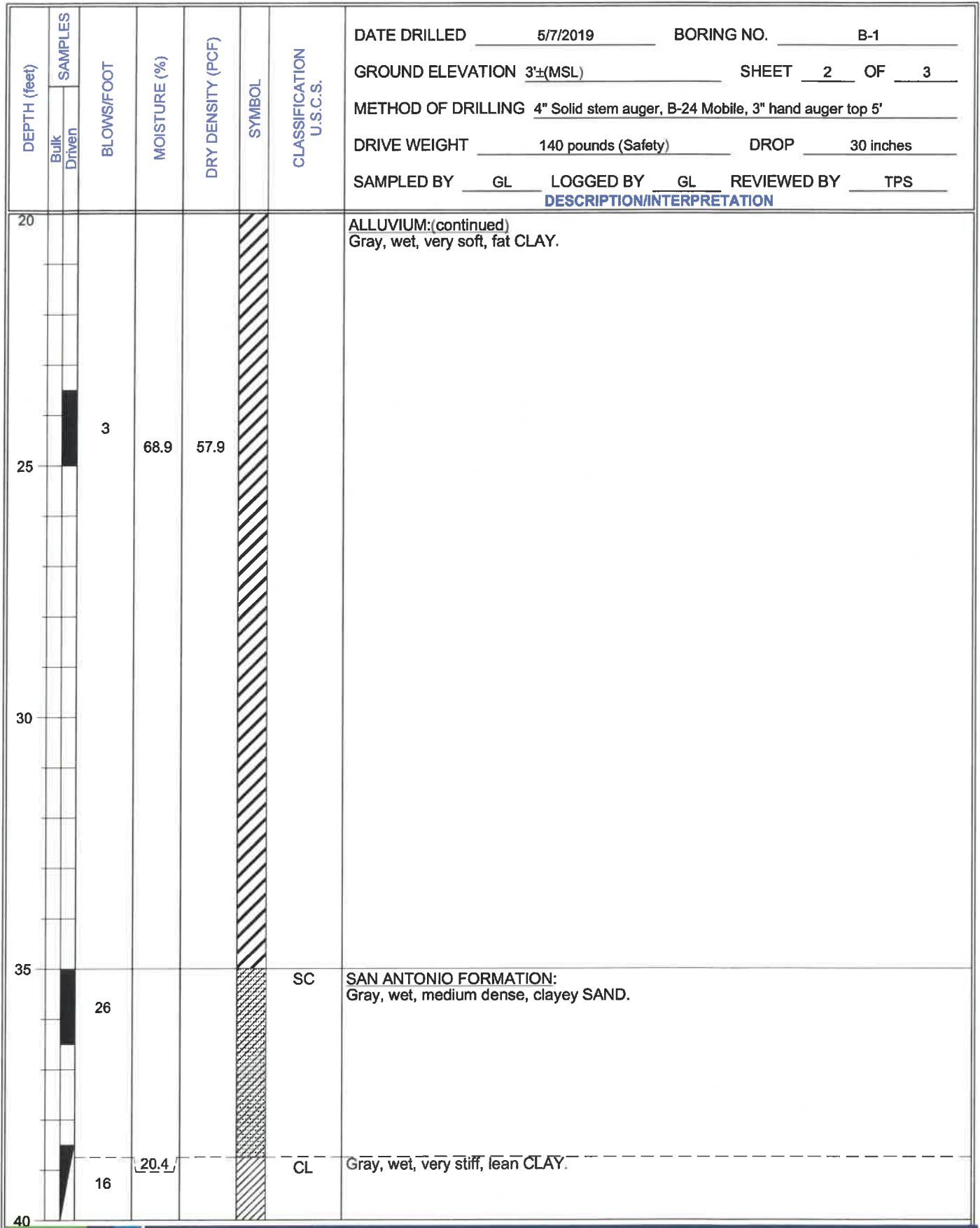


FIGURE A- 2

DEPTH (feet)	Bulk Driven	SAMPLES	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>5/7/2019</u> BORING NO. <u>B-1</u>	
								GROUND ELEVATION <u>3'±(MSL)</u> SHEET <u>3</u> OF <u>3</u>	
METHOD OF DRILLING <u>4" Solid stem auger, B-24 Mobile, 3" hand auger top 5'</u>								DRIVE WEIGHT <u>140 pounds (Safety)</u> DROP <u>30 inches</u>	
SAMPLED BY <u>GL</u> LOGGED BY <u>GL</u> REVIEWED BY <u>TPS</u>								<u>DESCRIPTION/INTERPRETATION</u>	
40								<p>Total Depth = 40 ft.</p> <p>Backfilled with cement grout on 5/7/2019.</p> <p>Caving occurred at 25 feet below ground surface.</p> <p>Groundwater first encountered at 18.5 feet below the ground surface during drilling. Groundwater measured at 18 feet in borehole about 15 minutes after drilling.</p> <p><u>Notes:</u> The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.</p> <p>Groundwater may rise to a level higher than that measured in borehole due to relatively slow rate of seepage in clay and several other factors as discussed in the report.</p>	
45									
50									
55									
60									

FIGURE A- 3



APPENDIX B

Laboratory Testing

APPENDIX B

LABORATORY TESTING

Classification

Soils were visually and texturally classified in accordance with the Unified Soil Classification System (USCS) in general accordance with ASTM D 2488. Soil classifications are indicated on the log of the exploratory boring in Appendix A.

In-Place Moisture and Density Tests

The moisture content and dry density of relatively undisturbed samples obtained from the exploratory boring were evaluated in accordance with ASTM D 2937. The test results are presented on the log of the exploratory boring in Appendix A.

Gradation Analysis

Gradation analysis tests were performed on selected representative soil samples in accordance with ASTM D 422. The grain-size distribution curves are shown on Figures B-1 and B-2. These test results were utilized in evaluating the soil classifications in accordance with the USCS.

Atterberg Limits

Tests were performed on selected representative fine-grained soil samples to evaluate the liquid limit, plastic limit, and plasticity index in accordance with ASTM D 4318. These test results were utilized to evaluate the soil classification in accordance with the USCS. The test results and classifications are shown on Figure B-3.

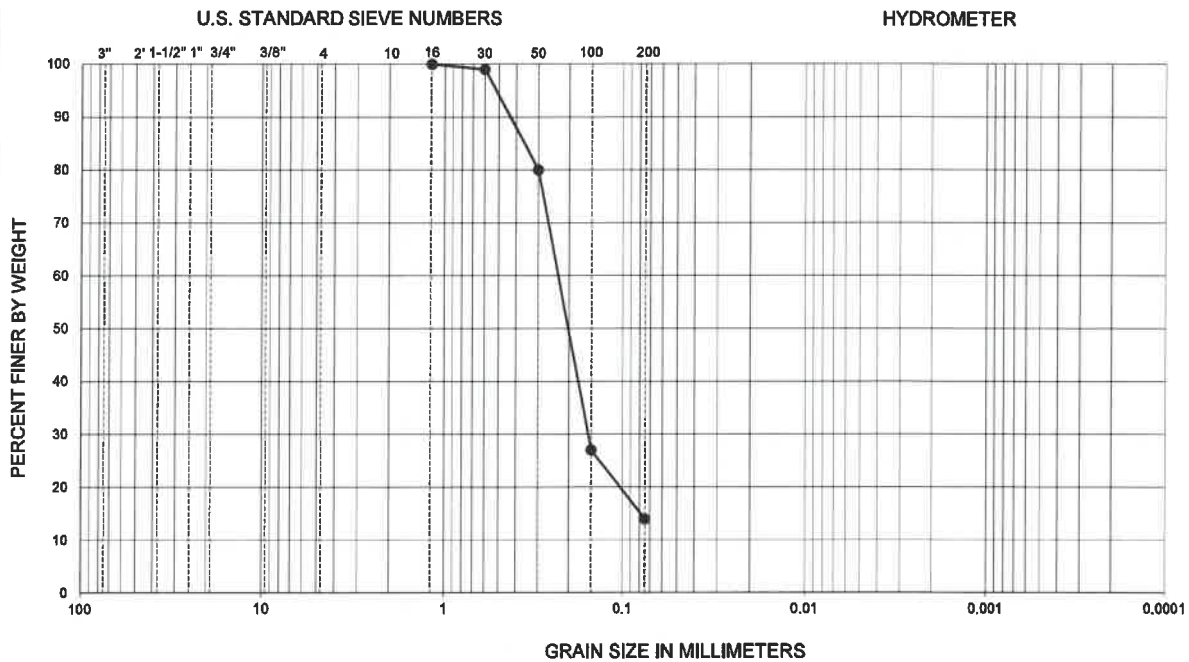
Expansion Index Test

The expansion index of a selected material was evaluated in accordance with ASTM D 4829. The specimen was molded under a specified compactive energy at approximately 50 percent saturation (plus or minus 1 percent). The prepared 1-inch-thick by 4-inch diameter specimen was loaded with a surcharge of 144 pounds per square foot and inundated with tap water. Readings of volumetric swell were made for a period of 24 hours. The test results are presented on Figure B-4.

Soil Corrosivity Tests

Soil pH, and resistivity tests were performed on representative samples in accordance with California Test (CT) 643. The soluble sulfate and chloride content of the selected samples were evaluated in general accordance with CT 417 and CT 422, respectively. The test results are presented on Figure B-5.

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D ₁₀	D ₃₀	D ₆₀	C _u	C _c	Passing No. 200 (percent)	USCS
●	B-1	35.5-36.0	—	—	—	—	0.17	0.24	—	—	14	SC

PERFORMED IN ACCORDANCE WITH ASTM D 422 / D6913

FIGURE B-1

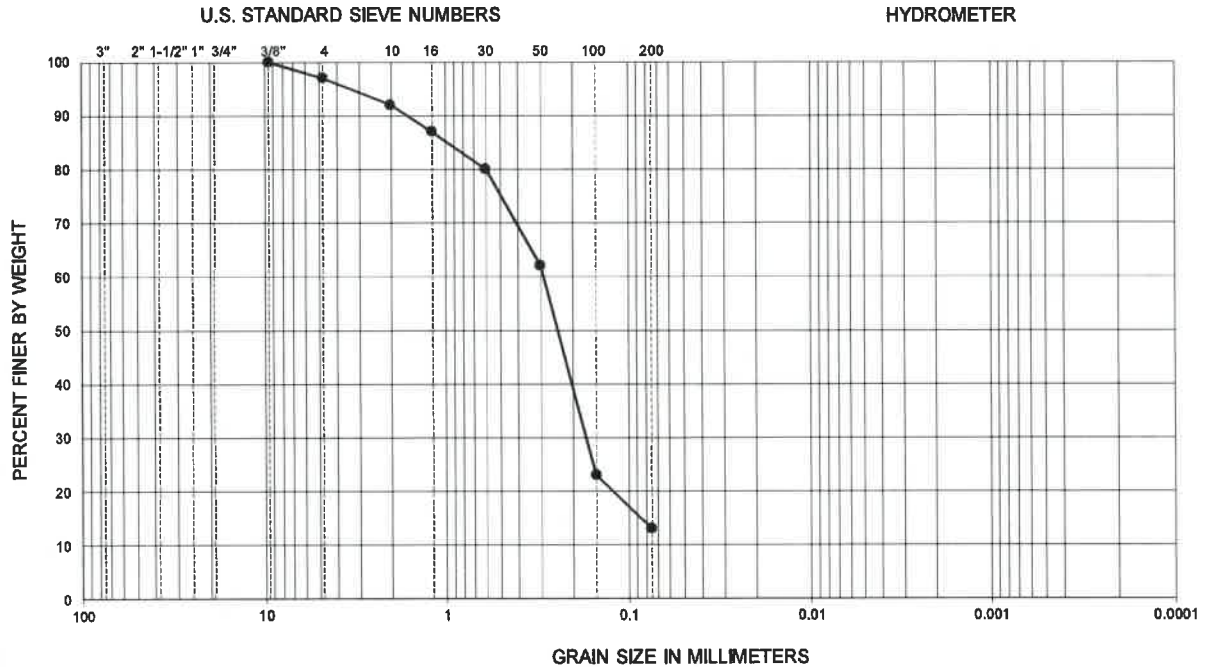
GRADATION TEST RESULTS

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

GOLF COURSE PUMP STATION ELECTRICAL CONTROL PANEL
CORICA PARK GOLF COURSE, BAY FARM ISLAND
ALAMEDA, CALIFORNIA

403483001 | 6/19

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D ₁₀	D ₃₀	D ₆₀	C _u	C _c	Passing No. 200 (percent)	USCS
●	B-1	38.5-38.75	--	--	--	--	0.17	0.29	--	--	13	SC

PERFORMED IN ACCORDANCE WITH ASTM D 422 / D6913

FIGURE B-2

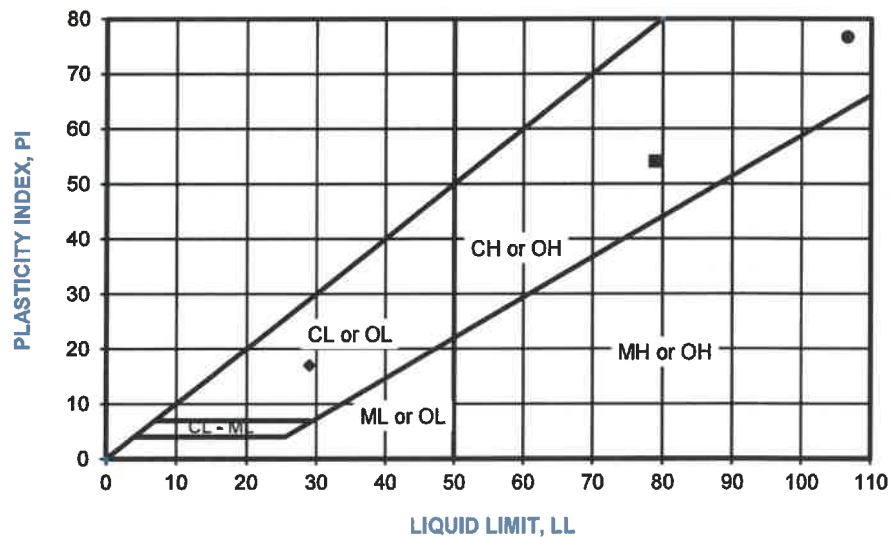
GRADATION TEST RESULTS

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

GOLF COURSE PUMP STATION ELECTRICAL CONTROL PANEL
CORICA PARK GOLF COURSE, BAY FARM ISLAND
ALAMEDA, CALIFORNIA

403483001 | 6/19

SYMBOL	LOCATION	DEPTH (ft)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS
●	B-1	14.0-14.5	107	30	77	CH	CH
■	B-1	24.5-25.0	79	25	54	CH	CH
◆	B-1	38.75-40.0	29	12	17	CL	CL



PERFORMED IN ACCORDANCE WITH ASTM D 4318

FIGURE B-3

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

ATTERBERG LIMITS TEST RESULTS
GOLF COURSE PUMP STATION ELECTRICAL CONTROL PANEL
CORICA PARK GOLF COURSE, BAY FARM ISLAND
ALAMEDA, CALIFORNIA

403483001 | 6/19

SAMPLE LOCATION	SAMPLE DEPTH (ft)	INITIAL MOISTURE (percent)	COMPACTED DRY DENSITY (pcf)	FINAL MOISTURE (percent)	VOLUMETRIC SWELL (in)	EXPANSION INDEX	POTENTIAL EXPANSION
B-1	1.0-4.0	8.5	115.9	17.4	0.028	28	Low

PERFORMED IN ACCORDANCE WITH ASTM D 4829

FIGURE B-4

EXPANSION INDEX TEST RESULTS

GOLF COURSE PUMP STATION ELECTRICAL CONTROL PANEL
CORICA PARK GOLF COURSE, BAY FARM ISLAND
ALAMEDA, CALIFORNIA

1 PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 643
2 PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 417
3 PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 422

CORROSIVITY TEST RESULTS

Ninya & Moore
Geotechnical & Environmental Sciences Consultants



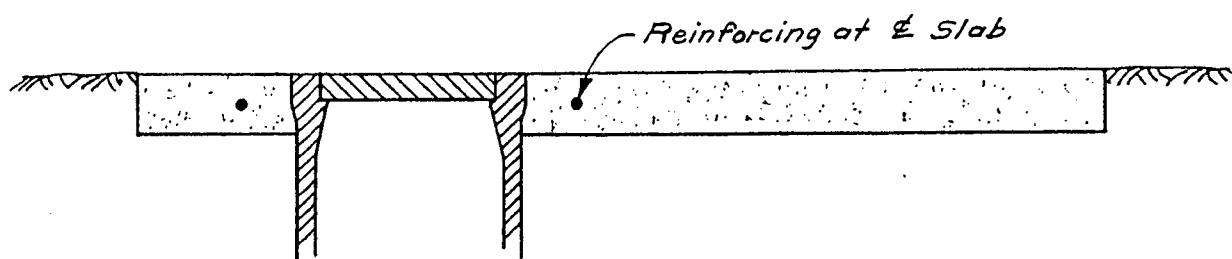
2149 O'Toole Avenue, Suite 30 | San Jose, California 95131 | 408.435.9000

ARIZONA | CALIFORNIA | COLORADO | NEVADA | TEXAS | UTAH

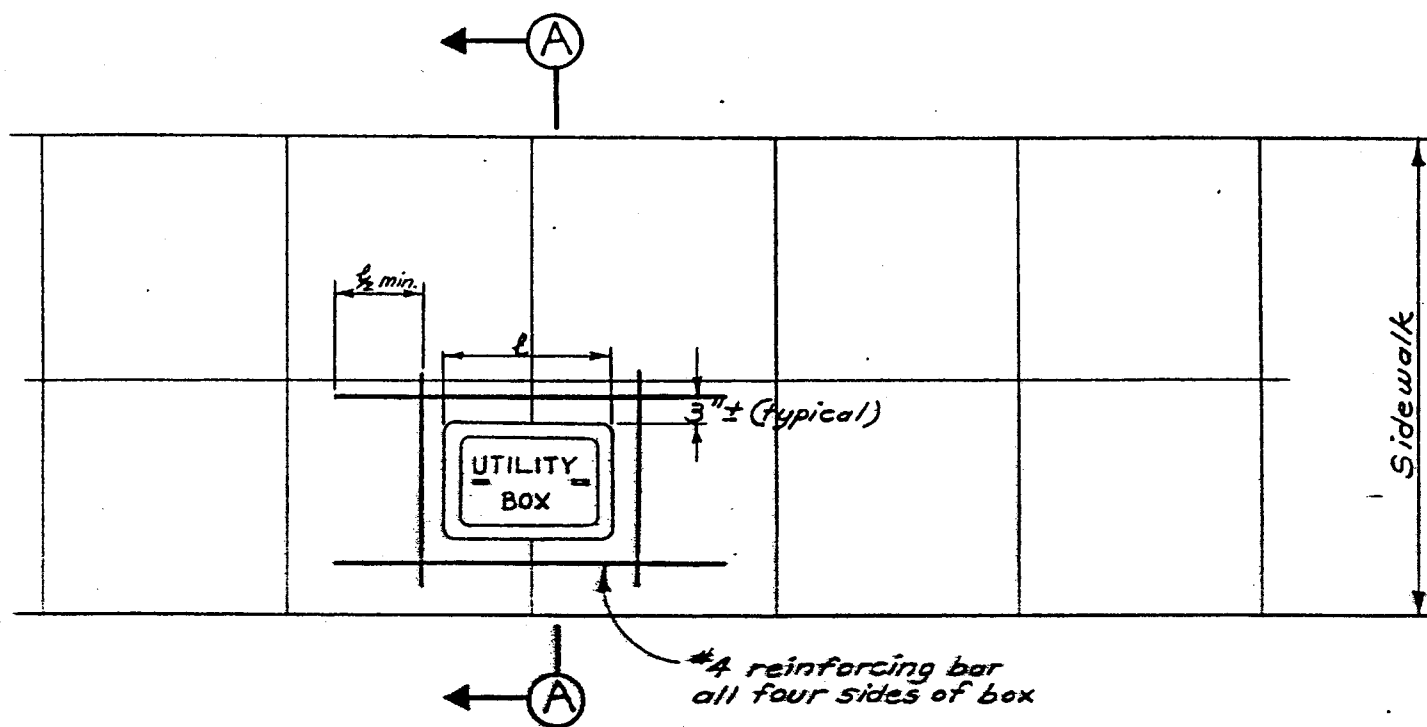
www.ninyoandmoore.com

ATTACHMENT “C”

APPLICABLE CITY OF ALAMEDA STANDARD PLANS AND DETAILS



SECTION (A)



CITY OF ALAMEDA CALIFORNIA ENGINEERING DEPARTMENT

DETAIL OF REINFORCING REQUIRED IN SIDEWALK AROUND UTILITY BOXES

Δ	Feb. 13, 1970	A.T.	MH
NO.	REVISED	BY	APVD.
COMPILED <i>P.H. Long</i>			
DRAWN <i>A. Tang</i>			
CHECKED <i>P.H. Long</i>			
DATE	SCALE		
April 1967	No Scale		

SHEET 1 OF 1

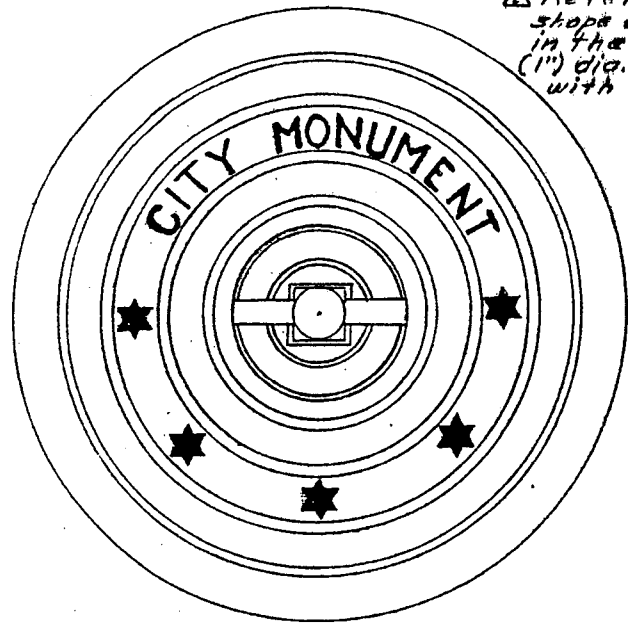
APPROVED BY

CITY ENGINEER
REG. C. E. NO. 7061

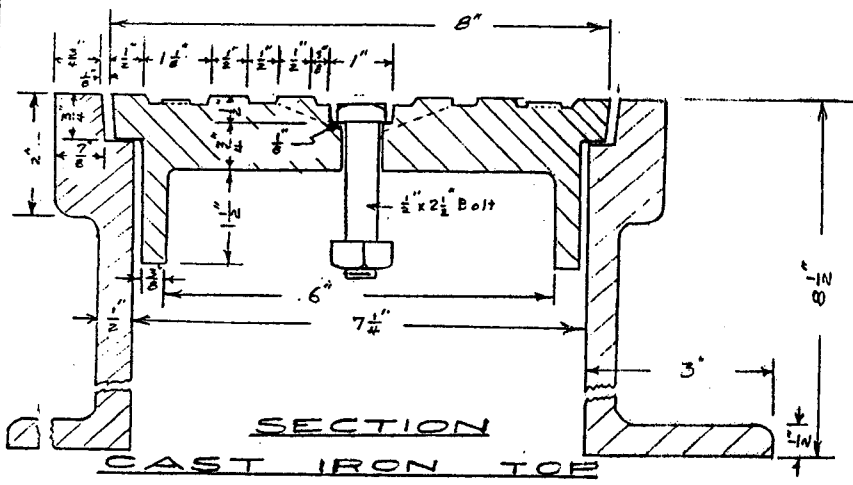
DATE

DWG.
6080CASE
22

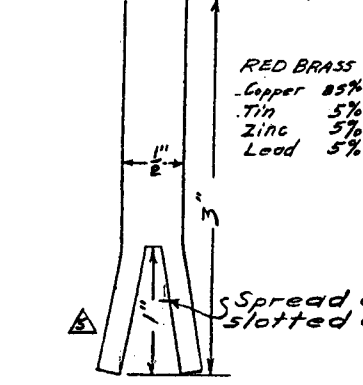
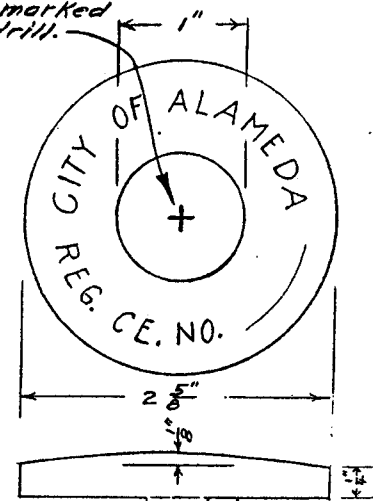
Reference mark in the shape of a cross shall be in the center one inch (1") dia. area and marked with a $\frac{3}{8}$ " star drill.



PLAN
CAST IRON TOP



SECTION
CAST IRON TOP
Scale 1"=2"

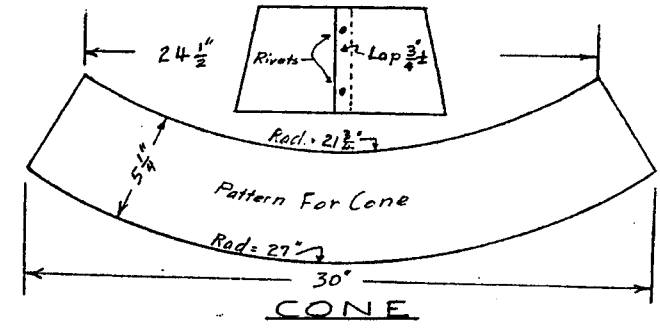


STANDARD DISC
Full Size

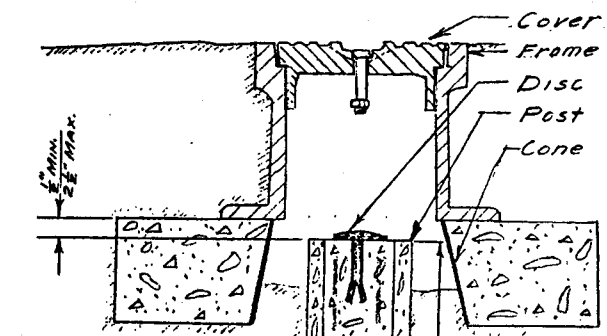
RED BRASS
Copper 85%
Tin 5%
Zinc 5%
Lead 5%



STANDARD POST
ASSEMBLY

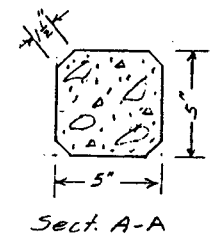


CONE



2 #4 rebar

Scale 1"=6"



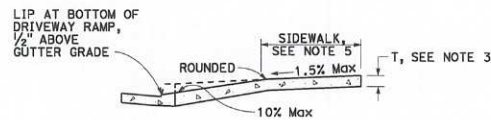
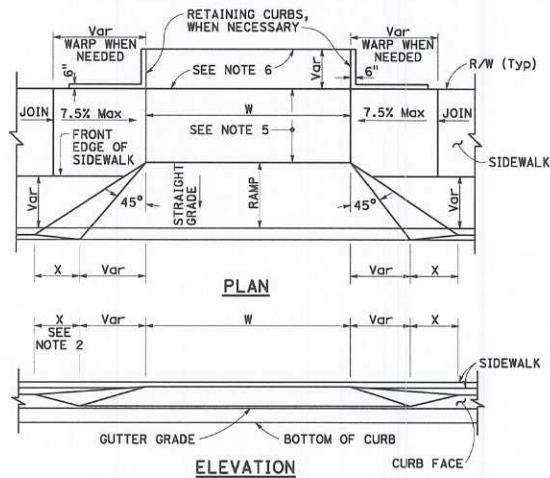
Sect. A-A

NO.	REVISED	BY	APPROVED
1	JAN. 1979	Terry MH	
COMPILED R.A. Wheeler			
DRAWN RAW			
CHECKED DATE 5-13-48			
SCALE As Shown			

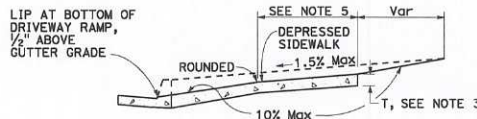
CITY OF ALAMEDA
CALIFORNIA
ENGINEERING DEPARTMENT

DETAILS OF CITY
SURVEY MONUMENTS

SHEET 1 OF 1	
APPROVED BY <i>Carl Froerer</i>	
CARL FROERER CITY ENGINEER REG. C. E. NO. 495	
DATE 10/25/48	CASE 3174
DWG. 3174	SCALE 54



CASE A
Typical driveway, sidewalk not depressed



CASE B
Driveway with depressed sidewalk

SECTIONS

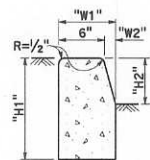
TABLE A

CURB TYPE	DIMENSIONS			
	"H1"	"H2"	"W1"	"W2"
A1-6	1'-2"	6"	7 1/2"	1 1/2"
A1-8	1'-4"	8"	8"	2"
A2-6	1'-0"	6"	2'-7 1/2"	1 1/2"
A2-8	1'-2"	8"	2'-8"	2"
A3-6	6"	5"	7 1/4"	1 1/4"
A3-8	8"	7"	7 3/4"	1 3/4"
B1-4	1'-0"	4"	7 1/2"	2 1/2"
B1-6	1'-2"	6"	9"	4"
B2-4	10"	4"	2'-7 1/2"	2 1/2"
B2-6	1'-0"	6"	2'-9"	4"
B3-4	4"	3"	7"	2"
B3-6	6"	5"	8 1/2"	3 1/2"
D-4	10"	4"	1'-6"	1'-1"
D-6	1'-0"	6"	2'-2"	1'-9"

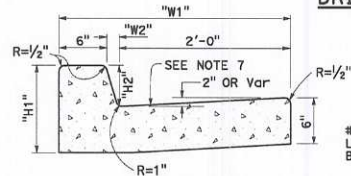
CURB QUANTITIES

TYPE	CUBIC YARDS PER LINEAR FOOT
A1-6	0.02585
A1-8	0.03084
A2-6	0.05903
A2-8	0.06379
A3-6	0.01036
A3-8	0.01435
B1-4	0.02185
B1-6	0.02930
B2-4	0.05515
B2-6	0.06171
B3-4	0.00641
B3-6	0.01074
B4	0.05709
D-4	0.04083
D-6	0.06804
E	0.06661

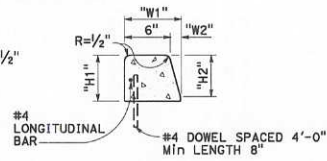
DRIVEWAYS



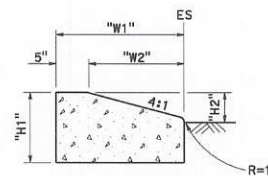
TYPE A1 CURBS
See Table A



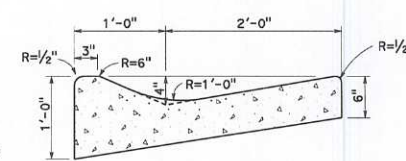
TYPE A2 CURBS
See Table A



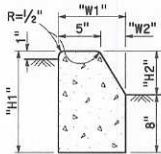
TYPE A3 CURBS
Superimposed on existing pavement
See Table A



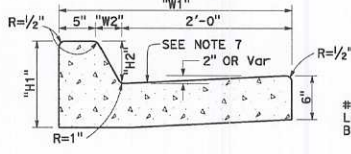
TYPE D CURBS
See Table A



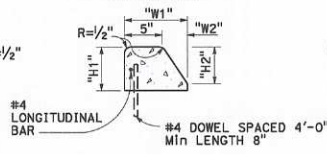
TYPE E CURB



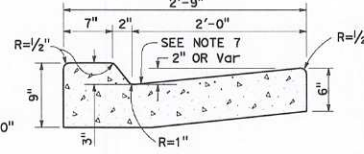
TYPE B1 CURBS
See Table A



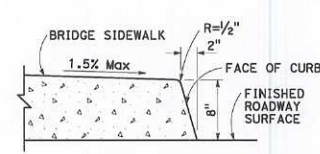
TYPE B2 CURBS
See Table A



TYPE B3 CURBS
Superimposed on existing pavement
See Table A



TYPE B4 CURBS



TYPE H CURB
On Bridges

CURBS

NOTES:

- Case A driveway section typically applies.
- X=3'-0" except for curb heights over 10" where 4:1 slopes shall be used on curb slope.
- Sidewalk and ramp thickness "T" at driveway shall be 4" for residential and 6" for commercial.
- Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5'-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
- Minimum width of clear passageway for sidewalk shall be 4'-2".
- Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
- Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURBS AND DRIVEWAYS

NO SCALE

A87A

SHEET	COUNTY	ROUTE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

Michael J. Jarama
 REGISTERED CIVIL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE ACCURACY OR COMPLETENESS OF SCANNED
 COPIES OF THIS PLAN SHEET.

Michael Jarama
 44708
 3-31-16
 CIVIL
 STATE OF CALIFORNIA

ATTACHMENT “D”

**BCDC Regionwide Permit No. RWP-2
for the work at the Webster Street Pump Station**

San Francisco Bay Conservation and Development Commission

375 Beale Street, Suite 510, San Francisco, California 94105 tel 415 352 3600 fax 888 348 5190

State of California | Gavin Newsom – Governor | info@bcdc.ca.gov | www.bcdc.ca.gov

BCDC ORIGINAL

**REGIONWIDE PERMIT NO. RWP-2
NOTICE OF INTENT TO PROCEED
NO. NOI2020.017.00**

**(As Amended Through January 7, 2010)
(Reconstruction, replacement, incidental additions, and maintenance of service lines, utilities, utility cables, pipelines, and outfalls; installation of new pipelines where the majority of work would occur below the ground surface and Bay bottom; and backfilling of geotechnical or monitoring wells in the Bay, certain waterways, managed wetlands, and shoreline band)**

August 14, 2020

City of Alameda
2263 Santa Clara Avenue
Alameda, California 94501

On March 19, 1992, the San Francisco Bay Conservation and Development Commission, by a vote of 17 affirmative, 0 negative, and 0 abstentions, approved the issuance of the original of this Regionwide Permit. On April 18, 1996, the Commission, by a vote of 17 affirmative, 0 negative, and 0 abstentions, approved Amendment No. One of this Regionwide Permit. On December 18, 2008, the Commission by a vote of 18 affirmative, 0 negative, and 0 abstentions, approved Amendment No. Two of this Regionwide Permit. On January 7, 2010, the Commission by a vote of 19 affirmative, 0 negative, and 0 abstentions, approved Amendment No. Three of this Regionwide Permit upon which your authorization is based:

I. Authorization

A. Subject to the conditions stated below, the permittee(s) is hereby authorized to do the following:

- Location:** Within the 100-foot Shoreline Band, at 2400 Webster Street, in the City of Alameda, Alameda County.
- Description:** 1) Atop an existing storm drain pump station: remove a control panel and SCADA antenna, and install, use, and maintain an approximately 13-square-foot by 64-inch-high control panel, an approximately 12-foot-high SCADA antenna, and an approximately 42-inch-high handrail;



REGIONWIDE PERMIT NO. RWP-2
NOTICE OF INTENT TO PROCEED NO. NOI2020.017.00

City of Alameda
August 14, 2020
Page 2

- 2) Adjacent to the pump station: Remove an electrical service meter, and install, use, and maintain an approximately 54-inch-high electrical service meter, an approximately 6-square-foot concrete pad, and an approximately 1-square-foot electrical pullbox;
- 3) Replace and maintain approximately 50 square feet of sidewalk;
- 4) Conduct electrical upgrades within the storm drain pump station; and
- 5) Temporarily stage construction materials.

B. This authority is limited to activities undertaken at a site where activities are not already authorized by another BCDC permit and to projects that would not adversely impact: (1) the Bay; (2) Bay resources such as those that are scarce, easily disturbed or have an abundance and diversity of fish, other aquatic organisms or wildlife (such as tidal marshes or eelgrass beds); and (3) existing or possible future visual or physical public access to and along the Bay from public access areas, public roads and pathways. This authority is generally pursuant to and limited by your notice of intent to proceed under a Regionwide Permit dated March 4, 2020, including its accompanying exhibits, any subsequent additions or modifications, and all conditions of this Regionwide Permit.

C. Work authorized herein must commence within two years of the date of the transmittal of this Regionwide Permit by the Executive Director to you or the authorization of your work will lapse and become null and void. Such work must also be diligently pursued to completion and must be completed within two years of commencement, or within three years of the date of transmittal of this Regionwide Permit to you, whichever is earlier, unless an extension of time is granted by the Executive Director.

II. Special Conditions

The authorization made herein shall be subject to the following special conditions, in addition to the standard conditions in Part IV:

A. **Limit of Work.** Authorized work shall be built in general conformance with the plans entitled "City of Alameda, Storm Drain Pump Station Electrical Upgrades," prepared by Schaaf and Wheeler and dated October 11, 2019, and with the plans entitled "Temporary Bay Trail Detour Schematic During Webster St. Pump Station Upgrades," prepared by City of Alameda Public Works Department, and dated July 8, 2020, submitted as part of the application.

B. **Construction Operations and Debris Removal.** All construction operations shall be performed so as to minimize turbidity and the roiling of waters, to prevent construction materials from falling, washing, or blowing into any tidal areas of the Bay or drifting and presenting a navigation or pollution hazard. In the event that any such material is placed or

REGIONWIDE PERMIT NO. RWP-2
NOTICE OF INTENT TO PROCEED NO. NOI2020.017.00

City of Alameda
August 14, 2020
Page 3

escapes into any area subject to tidal action of the Bay, the permittee(s), its assigns or successors in interest, or the owner of the improvements shall immediately retrieve and remove such material at its expense. All construction debris shall be removed to an authorized location outside the Commission's jurisdiction and the site left in the same condition and grade as existed prior to project implementation. Any material used to backfill excavated holes and trenches shall be free of contaminants and approved for such use by the Regional Water Quality Control Board.

C. Habitat Protection. The work authorized by this Regionwide Permit shall be performed so as to prevent any significant adverse impact on any tidal marsh, tidal flat, eelgrass habitat or other sensitive Bay resources. If any unforeseen adverse impacts occur to any such area as a result of the activities authorized herein, the permittee(s) shall restore the area to or improve the area above its previous condition, which may include returning the disturbed area to its original elevation and soil composition and, if the area does not revegetate to its former condition within one year, seeding all disturbed areas with appropriate vegetation.

D. Creosote Treated Wood. No pilings or other wood structures that have been pressure treated with creosote shall be used in any area subject to tidal action in the Bay or any certain waterway, in any salt pond, or in any managed wetland within the Commission's jurisdiction as part of the project authorized herein.

E. Maintenance and Replacement of Authorized Facilities. Any in-kind repairs and maintenance of an authorized structure or improvement shall only use construction material that is approved by the Commission in consultation with the Regional Water Quality Control Board and the California Department of Fish and Game for use in San Francisco Bay. Construction shall only occur during those months of the year, as approved by the Commission in consultation with resource agencies such as U.S. Fish and Wildlife Service, Department of Fish and Game and National Marine Fisheries Service, that avoid or minimize potential impacts to fish and wildlife. BCDC staff should be contacted to confirm current restrictions.

F. Water Quality. Prior to undertaking any work authorized herein on any outfall pipe or similar facility, the permittee(s) shall receive all necessary approvals from the California Regional Water Quality Control Board, San Francisco Bay Region, for any discharge or emission from such structure.

G. Diked Wetlands Protection. No work authorized herein on culverts, outfalls, tide gates, or similar facilities shall significantly alter water management, circulation or drainage patterns or otherwise adversely affect any salt pond or other sensitive diked wetland resources.

H. Abandonment. If, at any time, the Commission determines that the improvements authorized herein have been abandoned for a period of two years or more, or have deteriorated to the point that public health, safety or welfare is adversely affected, the Commission may require that the improvements be removed by the permittee(s), its assigns or successors in interest, or by the owner of the improvements within 60 days or such other reasonable time as the Commission may direct.

REGIONWIDE PERMIT NO. RWP-2
NOTICE OF INTENT TO PROCEED NO. NOI2020.017.00

City of Alameda
August 14, 2020
Page 4

I. **Notice to Contractor.** The permittee(s) shall provide a copy of this Regionwide Permit to any contractor or person working in concert with the permittee(s) to carry out the activities authorized herein and shall point out the special conditions contained herein.

III. Findings and Declarations

The Commission hereby finds, declares, and certifies that:

A. **Consistency with Commission Regulations.** The projects authorized by this Regionwide Permit include installation, reconstruction, replacement and maintenance of, and incidental additions to, existing currently-used outfall pipes, service lines, utility cables, pipelines, and similar facilities that do not involve any substantial enlargement or any substantial extension into the Bay, into certain waterways, managed wetlands or the 100-foot shoreline band and the installation of new pipelines where the majority of work would occur below the ground surface or Bay bottom. Such projects have been authorized by the Commission as qualifying for a Regionwide Permit because they involve repairs to outfall pipes approved by the California Regional Water Quality Control Board, San Francisco Bay Region, utility cables on or under the bottom of the Bay, and similar facilities, as defined in Regulation Sections 10601(a)(4), 10601(a)(5), 10601(a)(6), 10601(b)(1) and 10601(b)(5), or activities similar to those described above, as defined in Regulation Section 10601(e)(3), and thus are equivalent to a “minor repair and improvement” and qualify for authorization under a Regionwide Permit that may be issued by the Commission and approved by the Executive Director, pursuant to Government Code Section 66632(f) and Regulation Sections 11700 and 11713.

B. **Consistency with McAteer-Petris Act and San Francisco Bay Plan.** The project authorized by this permit is consistent with the McAteer-Petris Act and with the *San Francisco Bay Plan* in that it will not adversely affect the Bay nor public access to and enjoyment of the Bay. Special conditions have been included to assure that project construction, materials and the improvements themselves will not adversely affect the Bay’s natural resources, water quality or navigation and that any deteriorated improvements will be removed if they adversely impact the Bay’s natural resources, water quality, or pose a navigation hazard, as required by the *San Francisco Bay Plan* policies on fish, other aquatic organisms, and wildlife, tidal marshes and tidal flats, water quality, and navigational safety.

C. **Consistency with Coastal Zone Management Act.** The activities authorized herein are consistent with the Commission's Amended Management Program for San Francisco Bay, as approved by the Department of Commerce under the Federal Coastal Zone Management Act of 1972, as amended.

D. **Consistency with California Environmental Quality Act.** California Public Resources Code Section 21084 provides that the California Environmental Quality Act (CEQA) guidelines shall include a list of classes of projects that have been determined not to have a substantial adverse impact on the environment and are therefore exempt from the requirements of CEQA. This list of “categorical exemptions” is located at 14 Cal. Admin. Code Sections 15300 through 15329. Section 15301 (Class 1) exempts the operation, repair, maintenance or minor alteration

REGIONWIDE PERMIT NO. RWP-2
NOTICE OF INTENT TO PROCEED NO. NOI2020.017.00

City of Alameda
August 14, 2020
Page 5

of existing public or private structures or facilities that involve negligible or no expansion of previous use. Section 15302 (Class 2) exempts the replacement or reconstruction of existing structures or facilities where the new structure will be located on the same site as the structure being replaced and will have substantially the same purpose and capacity as the replaced structure. Section 15303 (Class 3) exempts the construction of limited numbers of new, small facilities or structures, and subsection (e) specifically exempts accessory structures. The Commission's own regulations provide that the Commission need not prepare an environmental assessment before it issues a permit for a project that falls within the list of categorically exempt activities (14 Cal. Admin. Code Section 10910). This Regionwide Permit is therefore categorically exempt because it authorizes only reconstruction and replacement of, and incidental additions to, existing, currently used outfall pipes, service lines, utility cables, pipelines, and similar facilities that do not involve any substantial enlargement or any substantial extension into the Bay.

E. Listing with the Commission. The Commission staff will prepare a description and indicate the location of any project authorized under this Regionwide Permit, along with the name and address of the permittee(s), and attach such information to the listing of administrative permits, marsh development permits, and federal consistency actions that is sent to the Commission, following the Executive Director's approval of the project under this Regionwide Permit.

F. Enforcement Program and Civil Penalties. The Commission has an enforcement program that reviews its permits for compliance. The Commission may issue cease and desist and civil penalty orders if violations are discovered. The McAteer-Petris Act provides for the imposition of administrative civil penalties ranging from \$10 to \$2,000 per day up to a maximum of \$30,000 per violation. The Act also provides for the imposition of court-imposed civil penalties of up to \$30,000 in addition to any other penalties, penalties for negligent violations of between \$50 and \$5,000 per day, knowing and intentional penalties of between \$100 and \$10,000 per day, and exemplary penalties, which are supplemental penalties, in an amount necessary to deter future violations. In addition, anyone who places fill, extracts materials, or makes any substantial change in use of any water, land or structure within the area of the Commission's jurisdiction without securing a permit from the Commission is guilty of a misdemeanor.

IV. Standard Conditions

A. Permit Execution. This Regionwide Permit shall not take effect unless the permittee(s) executes the original of this Regionwide Permit and returns it to the Commission within 14 days after the date of the issuance of the Regionwide Permit. No work shall be done until the acknowledgment is duly executed and returned to the Commission.

B. Permit Assignment. The rights, duties, and obligations contained in this Regionwide Permit are assignable. When the permittee(s) transfers any interest in any property either on which the activity is authorized to occur or which is necessary to achieve full compliance of one

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or more conditions to this Regionwide Permit, the permittee(s)/transferor and the transferee shall execute and submit to the Commission a permit assignment form acceptable to the Executive Director. An assignment shall not be effective until the assignee executes and the Executive Director receives an acknowledgment that the assignee has read and understands the Regionwide Permit and agrees to be bound by the terms and conditions of the Regionwide Permit, and the assignee is accepted by the Executive Director as being reasonably capable of complying with the terms and conditions of the Regionwide Permit.

C. Permit Runs With the Land. Unless otherwise provided in this Regionwide Permit, the terms and conditions of this Regionwide Permit shall bind all future owners and future possessors of any legal interest in the land and shall run with the land.

D. Other Government Approvals. All required permissions from governmental bodies must be obtained before the commencement of work; these bodies include, but are not limited to, the U. S. Army Corps of Engineers, the State Lands Commission, the Regional Water Quality Control Board, and the city or county in which the work is to be performed, whenever any of these may be required. This Regionwide Permit does not relieve the permittee(s) of any obligations imposed by State or Federal law, either statutory or otherwise.

E. Built Project must be Consistent with Application. Work must be performed in the precise manner and at the precise locations indicated in your application, as such may have been modified by the terms of the Regionwide Permit and any plans approved in writing by or on behalf of the Commission.

F. Life of Authorization. Unless otherwise provided in this Regionwide Permit, all the terms and conditions of this Regionwide Permit shall remain effective for so long as the Regionwide Permit remains in effect or for so long as any use or construction authorized by this Regionwide Permit exists, whichever is longer.

G. Commission Jurisdiction. Any area subject to the jurisdiction of the San Francisco Bay Conservation and Development Commission under either the McAteer-Petris Act or the Suisun Marsh Preservation Act at the time the Regionwide Permit is granted or thereafter shall remain subject to that jurisdiction notwithstanding the placement of any fill or the implementation of any substantial change in use authorized by this Regionwide Permit. Any area not subject to the jurisdiction of the San Francisco Bay Conservation and Development Commission that becomes, as a result of any work or project authorized in this Regionwide Permit, subject to tidal action shall become subject to the Commission's "bay" jurisdiction.

H. Changes to the Commission's Jurisdiction as a Result of Natural Processes. This Regionwide Permit reflects the location of the shoreline of San Francisco Bay when the Regionwide Permit was issued. Over time, erosion, avulsion, accretion, subsidence, relative sea level change, and other factors may change the location of the shoreline, which may, in turn, change the extent of the Commission's regulatory jurisdiction. Therefore, the issuance of this Regionwide Permit does not guarantee that the Commission's jurisdiction will not change in the future.

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I. Violation of Permit May Lead to Permit Revocation. Except as otherwise noted, violation of any of the terms of this Regionwide Permit shall be grounds for revocation. The Commission may revoke any permit for such violation after a public hearing held on reasonable notice to the permittee(s) or its assignee if the permit has been effectively assigned. If the Regionwide Permit is revoked, the Commission may determine, if it deems appropriate, that all or part of any fill or structure placed pursuant to this Regionwide Permit shall be removed by the permittee(s) or its assignee if the Regionwide Permit has been assigned.

J. Should Permit Conditions Be Found to be Illegal or Unenforceable. Unless the Commission directs otherwise, this Regionwide Permit shall become null and void if any term, standard condition, or special condition of this Regionwide Permit shall be found illegal or unenforceable through the application of statute, administrative ruling, or court determination. If this Regionwide Permit becomes null and void, any fill or structures placed in reliance on this Regionwide Permit shall be subject to removal by the permittee(s) or its assignee if the Regionwide Permit has been assigned to the extent that the Commission determines that such removal is appropriate. Any uses authorized shall be terminated to the extent that the Commission determines that such uses should be terminated.

K. Permission to Conduct Site Visit. The permittee(s) shall grant permission to any member of the Commission's staff to conduct a site visit at the subject property during and after construction to verify that the project is being and has been constructed in compliance with the authorization and conditions contained herein. Site visits may occur during business hours without prior notice and after business hours with 24-hour notice.

Executed at San Francisco, California, on behalf of the San Francisco Bay Conservation and Development Commission on the date first above written.

DocuSigned by:

FD166E908010417...

LAWRENCE J. GOLDZBAND
Executive Director
San Francisco Bay Conservation and
Development Commission

LIG/SO/ra

cc: U. S. Army Corps of Engineers, Attn: Regulatory Functions Branch
San Francisco Bay Regional Water Quality Control Board,
Attn: Certification Section
Environmental Protection Agency
City of Alameda Planning Department

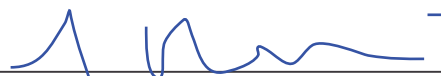
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* * * * *

Receipt acknowledged, contents understood and agreed to:

Executed at 950 W. Mall Square, Alameda, CA City of Alameda
Permittee

On August 27, 2020

By: 

Andrew Nowacki, Associate Civil Engineer

Print Name and Title

ATTACHMENT “E”

**Geotechnical Evaluation, CAT/RAMP 3rd Street Pump Station,
Ninyo & Moore, November 16, 2020**

Geotechnical Evaluation
CAT/RAMP 3rd Street Pump Station
3rd Street and Ralph Appezato Memorial
Parkway
Alameda, California

City of Alameda
950 West Mall Square | Alameda, California 94501

November 16, 2020 | Project No. 403773001



November 16, 2020
Project No. 403773001

Mr. Andrew Nowacki
City of Alameda
Public Works Department
950 West Mall Square
Alameda, California 94501

Subject: Geotechnical Evaluation
CAT/RAMP 3rd Street Pump Station
3rd Street and Ralph Appezato Memorial Parkway
Alameda, California


Dear Mr. Nowacki:

In accordance with your authorization, we have performed a geotechnical evaluation for the proposed improvements to the storm drain pump station near 3rd Street and the Cross Alameda Trail/Ralph Appezato Memorial Parkway (CAT/RAMP) in Alameda, California. This report presents the findings and conclusions from our evaluation, and our geotechnical recommendations regarding the proposed project.

As an integral part of our role as the geotechnical engineer-of-record, we request the opportunity to review the construction plans before they go to bid and to provide follow-up construction observation and testing services.

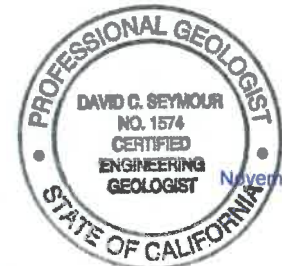
Ninyo & Moore appreciates the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE



Peter C. Connolly, PE, GE
Principal Engineer



November 16, 2020



November 16, 2020


David C. Seymour, PG, CEG
Principal Engineering Geologist

KCC/PCC/DCS/gvr

Distribution: (1) Addressee (via e-mail)

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B – Laboratory Testing
C – Corrosivity Evaluation

1 INTRODUCTION

In accordance with your authorization, we have performed a geotechnical evaluation for the proposed improvements to the 3rd Street Pump Station along the Cross Alameda Trail and Ralph Appezato Memorial Parkway in Alameda, California (Figure 1). This report presents the findings and conclusions from our evaluation, and our geotechnical recommendations for the proposed improvements.

2 SCOPE OF SERVICES

Our scope of services included the following:

- Review of readily available geologic and seismic literature pertinent to the project area including geologic maps and reports, regional fault maps, seismic hazard maps; and aerial photography.
- Procurement of a boring permit from Alameda County Public Works Agency.
- Procurement of a Marsh Crust permit from the City of Alameda.
- Geotechnical reconnaissance to observe the general site conditions and to mark the proposed locations for subsurface exploration.
- Coordination with Underground Service Alert (USA) to locate underground utilities in the vicinity of the proposed exploration.
- Private utility survey by electro-magnetic scanning and ground-penetrating radar to check the exploration locations for potential conflicts with underground utilities.
- Subsurface exploration consisting of one (1) auger boring. A representative of Ninyo & Moore logged the subsurface conditions exposed in the boring and collected bulk soil samples for laboratory testing.
- Laboratory testing on selected samples to evaluate in-situ soil moisture content and dry density, Atterberg limits, particle size distribution, and soil corrosivity
- Compilation and engineering analysis of the field and laboratory data, and the findings from our background review.
- Preparation of this report presenting the findings and conclusions from our evaluation, and our geotechnical recommendations for design and construction of the project.

Ninyo & Moore also performed an environmental investigation for the project. The findings and conclusions from that evaluation are reported under separate cover.

3 PROJECT DESCRIPTION

The proposed project will replace the existing wet well at the pump station with a new wet well that will be approximately 18 feet deep and 8 feet in diameter. The new wet well will be constructed at the location of the existing wet well. Other associated improvements will include concrete pads to support electrical equipment and control panels, new bollards, new fencing, and may include installation or relocation of underground utilities (Schaaf & Wheeler, 2020).

4 SITE DESCRIPTION

The existing pump station occupies an approximately 100 square foot area surrounded by chain-link fencing that is located approximately 300 feet east of 3rd Street and 75 feet south of the travelled way on the Ralph Appezato Memorial Parkway. The pump station enclosure is partially within the landscaped margin of the Cross Alameda Trail and extends into an asphalt-paved driveway for the Alameda Community Learning Center (ACLC). The location of the pump station relative to Ralph Appezato Memorial Parkway is illustrated on Figure 2. The aerial imagery on Figure 2 depicts conditions on October of 2018, which predates the construction of the Cross Alameda Trail. The topography within the proximity of the project site is relatively flat with ground elevation approximately 10 feet above mean sea level (Google Earth, 2020). A one-story modular building associated with the ACLC is located about 15 feet south of the existing pump station enclosure.

5 FIELD EXPLORATION AND LABORATORY TESTING

Our field exploration for this study included a site reconnaissance and a subsurface exploration consisting of one (1) hollow stem auger boring. The approximate location of this boring, designated as Boring B-2, is shown on Figure 2. The other boring depicted on Figure 2, Boring B-1, was performed for the project environmental investigation. The findings and conclusions from the environmental investigation are reported under separate cover.

Prior to the subsurface exploration, Ninyo & Moore obtained a boring permit from Alameda County and a Marsh Crust permit from the City of Alameda. Underground Service Alert was notified for field marking of the existing utilities. A private utility survey was also performed to check for mapped underground utilities near the proposed locations for the borings. Boring B-2 was drilled on September 25, 2020 using a Mobile B-53 truck-mounted rig equipped with hollow-stem augers. Boring B-2 was advanced to approximately 30 feet below existing grade. A representative of Ninyo & Moore logged the subsurface conditions exposed, and collected bulk and relatively undisturbed soil samples from the boring. A detailed log of the boring is presented in Appendix A.

Boring B-2 was backfilled with grout in accordance with the boring permit requirements shortly after drilling.

Soil samples collected from the boring were transported to our geotechnical laboratory for testing. Laboratory testing of soil samples included tests to evaluate in-situ soil moisture content and dry density, particle size distribution, and Atterberg limits. A soil sample was submitted to CERCO Analytical for a corrosivity evaluation. The results of the in-situ moisture and dry density tests are presented on the boring log in Appendix A. The results of the other laboratory tests, excluding the corrosivity testing, are presented in Appendix B. The results and findings of the corrosivity evaluation are provided in Appendix C.

6 GEOLOGIC AND SUBSURFACE CONDITIONS

Our findings regarding regional geologic setting, site geology, subsurface stratigraphy, and groundwater conditions are provided in the following sections.

6.1 Regional Geologic Setting

The subject site is on the eastern margin of San Francisco Bay in the Coast Ranges geomorphic province of California. The Coast Ranges are comprised of several mountain ranges and structural valleys formed by tectonic processes commonly found around the Circum-Pacific belt. Basement rocks have been sheared, faulted, metamorphosed, and uplifted, and are separated by thick blankets of Cretaceous and Cenozoic sediments that fill structural valleys and line continental margins. The San Francisco Bay Area has several ranges that trend northwest, parallel to major strike-slip faults such as the San Andreas, Hayward, and Calaveras (Figure 3). Major tectonic activity associated with these and other faults within this regional tectonic framework consists primarily of right-lateral, strike-slip movement.

6.2 Site Geology

Regional geologic mapping indicates that the project site is underlain by artificial fill and near areas underlain by dune sand (Graymer, 2000). A regional geologic map is provided as Figure 4. Graymer describes the dune sand as a fine-grained, very well sorted, and well drained eolian deposit that occurs in large sheets. The artificial fill, used to create reclaimed land along the eastern margin of San Francisco Bay, varies in composition depending upon the source of the material. Some fills are compacted and quite firm, but fills placed before 1965 (as is the case for this area) are typically loose and poorly compacted consisting of dumped materials. The findings of our subsurface exploration, described below, indicate that the site is underlain by fill and dune sand.

6.3 Subsurface Conditions

The following sections provide a generalized description of the geologic units encountered during our subsurface evaluation. More detailed descriptions are presented on the boring log in Appendix A.

6.3.1 Fill

Fill was encountered in the boring from the surface to approximately 8½ feet below existing grade. As encountered, the fill generally consisted of brown and gray, dry to wet, very loose to medium dense, clayey gravel with sand and silty sand.

6.3.2 Dune Sand

Dune sand was encountered from below the fill to the depth explored. The dune sand, as encountered, generally consisted of yellowish brown to brown, wet, dense to very dense, silty sand.

6.4 Groundwater

Groundwater was encountered at approximately 3½ feet below existing grade during the subsurface exploration. Based on regional records, the historic high groundwater level in the study area is about 5 feet below ground surface (CGS, 2003a). The depth to groundwater is subject to spatial variations in topography and the elevation of the phreatic surface. Groundwater may rise to a higher elevation than was encountered in our exploratory borings due to the short time available for seepage of water into the borings. Groundwater levels may fluctuate in response to seasonal variations in precipitation, termination or initiation of nearby groundwater pumping/dewatering, changes in irrigation practices adjacent to or within the study area, or other factors. In addition, seeps may be encountered due to perched groundwater conditions, leaking pipes, preferential drainage, or other factors not evident at the time of our exploration.

7 GEOLOGIC HAZARDS AND CONSIDERATIONS

This study considered a number of issues relevant to the proposed construction, including seismic hazards, slope stability, settlement of compressible soil layers from static loading, soil corrosivity, expansive soils, excavation characteristics, excavation stability, and uplift considerations. These issues are discussed in the following subsections.

7.1 Seismic Hazards

The site is within a seismically active region and may experience a relatively high degree of ground shaking within the design life of the structure following a significant seismic event on a nearby fault. The peak ground acceleration (PGA) associated with the geometric mean maximum considered earthquake (MCE_G) adjusted for site effects (PGA_M) in accordance with the 2019 California Building Code (CBC) is 0.742g based on the seismic design tool developed by the Structural Engineers Association of California in conjunction with the Office of Statewide Health Planning and Development (SEAOC/OSHPD, 2019). To account for site effects, the default Class D seismic site classification was selected based on the findings from the limited subsurface exploration performed for this study. Seismic design criteria consistent with the 2019 CBC and the American Society of Civil Engineers (ASCE) 7-16 Standard are presented in Section 9.1.

Strong ground shaking may induce liquefaction and related hazards such as sand-boils, lateral spreading, and dynamic settlement in susceptible soils. The site is located within a liquefaction hazard zone established by the California Geological Survey (2003), and in an area considered to have very high susceptibility to liquefaction based on regional studies (Witter et al, 2006). As such, the potential for future liquefaction and related hazards at the site is high. However, since liquefaction-related impacts to the proposed improvements pose negligible hazard to human life, repairing or reconstructing the improvements following a significant earthquake is expected to be preferable to mitigating the potential for damage by ground improvement or deep foundations. Liquefaction, dynamic settlement, and related hazards can be quantitatively evaluated to develop recommendations for mitigation upon request as an additional scope of work.

The site is not located within an Alquist-Priolo Earthquake Fault Zone established by the State Geologist (CGS, 1982) to delineate regions of potential ground surface rupture adjacent to active faults. The closest fault rupture hazard zone is associated with the Hayward Fault. This hazard zone is approximately 5¼ miles from the site to the northeast.

7.2 Landsliding and Slope Stability

The site is relatively flat and not within a hazard zone for earthquake induced landslides (CGS, 2003). No significant slopes are proposed for the project. Based on the topographic site conditions and the proposed grading, we do not regard landsliding or slope stability as a design consideration.

7.3 Static Settlement

The proposed improvements will be relatively light and significant changes to site grades are not proposed. We estimate that settlement due to sustained loading from the wet well and equipment pads will be approximately ½ inch or less presuming that foundation subgrade is prepared in conformance with the recommendations in this report.

7.4 Corrosive/Deleterious Soil

An evaluation of the corrosivity of the on-site material was conducted to assess the impact to concrete and metals. The corrosion impact was evaluated using the results of limited laboratory testing on samples obtained during our subsurface study. Laboratory testing to quantify pH, electrical resistivity, chloride content, and soluble sulfate content was performed on samples of near surface soil. The results of the corrosivity tests are presented in Appendix C. California Department of Transportation (Caltrans) defines a corrosive environment for structures as an area where the soil has a chloride concentration of 500 parts per million (ppm) or greater, soluble sulfate concentration of 0.15 percent (1,500 ppm) or greater, or a pH of 5.5 or less (Caltrans, 2018). The criteria used to evaluate the deleterious nature of soil on concrete are listed in Table 1.

Table 1 – Criteria for Deleterious Soil on Concrete

Sulfate Content Percent by Weight	Sulfate Exposure	Exposure Class
0.0 to 0.1	Negligible	S0
0.1 to 0.2	Moderate	S1
0.2 to 2.0	Severe	S2
> 2.0	Very Severe	S3

Reference: American Concrete Institute (ACI) Committee 318 Table 19.3.1.1 (ACI, 2016)

Based on these criteria and the results of the testing, the site does not meet the definition of a corrosive environment for structures, and the sulfate exposure to concrete is negligible, with an exposure classification for sulfate of S0. The sample tested is corrosive to ferrous metals based on the resistivity test results and slightly corrosive based on the redox potential as noted in Appendix C. Buried iron, steel, cast iron, ductile iron, galvanized steel, and dielectric coated steel should be appropriately protected against corrosion depending on the importance or expected service life of the element. A corrosion engineer may be consulted to provide recommendations to mitigate corrosion. Recommendations to mitigate the impact of corrosive/deleterious soil on concrete structures are presented in Section 9.7.

7.5 Expansive Soils

Some clay minerals undergo volume changes upon wetting or drying. Unsaturated soils containing those minerals will shrink/swell with the removal/addition of water. The heaving pressures associated with this expansion can damage structures and flatwork. Given the predominantly granular nature of underlying fill materials, the potential for shrink/swell due to expansive soils is very low.

7.6 Excavation Characteristics

We anticipate the proposed project will involve excavations of up to approximately 18 feet deep for installation of the new wet well. The soil encountered during our subsurface exploration over this interval generally consisted of very loose to very dense clayey gravel and silty sand. We anticipate that conventional earthmoving equipment in good working condition should be able to make the proposed excavations. Excavations in fill materials may encounter obstructions consisting of debris, rubble, abandoned structures, utilities, or over-sized materials that may require special handling or demolition equipment for removal.

7.7 Excavation Stability

The geologic units encountered during our subsurface evaluation generally consisted of very loose to very dense clayey gravel and silty sand. Our subsurface evaluation encountered a relatively shallow groundwater table. Cuts in these deposits or excavations below the groundwater table may not remain stable without appropriate inclination of side slopes or shoring. Precipitation on the trench sidewalls or surface runoff over the trench sidewalls may further adversely impact the stability of the excavation walls. Dewatering measures will be needed to provide a dry excavation in which to work. Excavations that extend near or below the water table may experience “quick” conditions or bottom instability. Recommendations for dewatering and excavation stabilization are presented in Sections 9.5 and 9.4, respectively. Recommendations for a crushed rock layer to improve support for the wet well footing are provided in Section 9.3.

7.8 Uplift Considerations

The proposed wet well will extend well below the groundwater level encountered in our exploratory boring. As such, buoyancy-related uplift will be a consideration for the wet well. Recommended parameters to evaluate uplift and uplift resistance are provided in Section 9.3.

8 CONCLUSIONS

Based on the results of our geotechnical evaluation, it is our opinion that the proposed improvements are feasible from a geotechnical standpoint provided the recommendations presented in this report are incorporated into the design and construction of the subject project.

The conclusions from our evaluation are as follows:

- The subsurface exploration for this study encountered fill and dune sand. The fill, as encountered, generally consisted of very loose to medium dense clayey gravel with sand and silty sand. The dune sand, as encountered, generally consisted of yellowish brown to brown, wet, dense to very dense, silty sand.
- Groundwater was encountered at a depth of approximately 3½ feet below existing grade during the subsurface exploration. Variation and fluctuation in groundwater levels should be anticipated as discussed in Section 6.4.
- The site could experience a relatively large degree of ground shaking during a significant earthquake on a nearby fault.
- Landslides and ground surface rupture due to faulting are not design considerations based on the location of the project.
- Liquefaction, sand boils, lateral spreading, dynamic settlement, and other liquefaction-related phenomenon may occur at the site during a moderate to large magnitude earthquake on a nearby active fault. Repair or reconstruction of the proposed improvements following a significant earthquake may be needed.
- We estimate that static settlement due to sustained loading for the wet well and equipment pads will be approximately ½ inch or less with a differential static settlement of ¼ inch over a lateral distance of about 20 feet.
- The potential for shrink/swell due to expansive soils is very low given the predominantly granular nature of material encountered during our subsurface exploration.
- Based on the results of limited soil corrosivity testing and the Caltrans Corrosion Guidelines (2018), the site does not meet the definition of a corrosive environment for structures. Based on the redox and electrical resistivity testing, the sample tested may be considered slightly corrosive to corrosive to ferrous metals, as noted in Appendix C. A corrosion engineer may be consulted to provide specific recommendations to mitigate corrosion.
- The proposed wet well will extend well below the groundwater level encountered in our exploratory boring. Recommendations for dewatering to create a dry excavation for installation are provided in Section 9.5. Recommended parameters to evaluate uplift and uplift resistance for the wet well after dewatering is terminated are provided in Section 9.3.
- Excavations in fill materials may encounter debris, rubble, oversize material, underground utilities, buried objects, or other potential obstructions.
- Due to the shallow groundwater and granular soil encountered, excavations are likely to be unstable and prone to sloughing. Recommendations for excavation stabilization are presented in Section 9.4. Recommendations for a crushed rock layer to improve support for the wet well footing are provided in Section 9.3.

9 RECOMMENDATIONS

The following sections present our geotechnical recommendations for the design and construction of the proposed improvements. Earthwork and construction should be conducted in accordance with the applicable codes and relevant grading ordinances having jurisdiction over the project area, and the following recommendations. The geotechnical consultant should observe earthwork operations. Evaluations performed by the geotechnical consultant during the course of operations may result in new recommendations, which could supersede the recommendations provided in this section.

9.1 Seismic Design Criteria

Table 2 presents the Risk-Targeted, Maximum Considered Earthquake (MCE_R) spectral response accelerations consistent with the 2019 California Building Code and corresponding site-adjusted and design level spectral response accelerations based on the USGS seismic design maps (SEAOC/OSHPD, 2020). The values provided in the table may be used for structures with a fundamental period of ½ second or less presuming that the seismic response coefficient is calculated from equation 12.8-2 of ASCE Standard 7-16 in accordance with Exceptions 1 and 3 in Section 11.4.8 of ASCE Standard 7-16.

Table 2 – California Building Code Seismic Design Criteria

Seismic Design Parameter Evaluated for 37.7797°North latitude, 122.2868°West longitude	Value
Site Class	D - Default
Site Coefficient, F_a	1.20
Mapped Spectral Acceleration at 0.2-second Period, S_s	1.500g
Spectral Acceleration at 0.2-second Period Adjusted for Site Class, S_{MS}	1.800g
Design Spectral Response Acceleration at 0.2-second Period, S_{DS}	1.200g
Seismic Design Category for Risk Category I, II, or III	D

9.2 Equipment Pad Foundations

Foundations should be designed in accordance with structural considerations and our geotechnical recommendations. In addition, requirements of the governing jurisdictions, and applicable building codes should be considered in the design of the structures. The foundation design parameters provided in the following sections are not intended to preclude differential movement of foundations. Minor cracking (considered tolerable) of foundations may occur.

The control panel, and other electrical equipment associated with the pump station, may be supported on concrete pads. Concrete pads bearing no less than 6 inches below the adjacent

grade on subgrade prepared as per the recommendations in Section 9.6 may be designed for a net allowable bearing capacity of 1,500 pounds per square foot (psf). This allowable bearing capacity, which includes a safety factor of 3 or more, may be increased by one-third for alternative basic load combinations with loads of short duration such as wind or seismic loads. Equipment supported on foundations consistent with these recommendations should be designed for a total static settlement of $\frac{1}{2}$ inch with a differential static settlement of approximately $\frac{1}{4}$ inch over a lateral distance of about 20 feet for sustained loads of 5 kips or less. The footings should be reinforced with deformed steel bars as detailed by the project structural engineer. Masonry briquettes or plastic chairs should be used to aid in the correct placement of reinforcement. Recommendations for concrete and concrete cover over reinforcing steel are presented in Section 9.7.

A friction coefficient of 0.35 may be used to evaluate foundation resistance to lateral loads. The friction coefficient may be increased to 0.50 where the mat is constructed over 6 inches of aggregate base compacted to 95 percent of the reference density as evaluated by ASTM D1557.

9.3 Wet Well

The wet well should be designed to resist at-rest lateral earth pressures and hydrostatic pressure as depicted on Figure 6. The excavation for the wet well should be backfilled in accordance with the recommendations in Section 9.6. In addition to the lateral pressures depicted on Figure 6, the wet well should be designed to resist construction or live load surcharges on the backfill. The lateral earth pressure due to a backfill surcharge of 240 psf should be a uniform horizontal surcharge of 120 psf for at-rest conditions.

Due to the potential for unstable conditions at the bottom of the excavation for the wet well, we recommend placing an 8-inch thick layer of $\frac{3}{4}$ -inch crushed rock over the base of the excavation and compacting the layer with an excavator bucket or other mechanical tamper to achieve a firm bearing condition for the wet well footing. The wet well footing, bearing on a layer of compacted rock per these recommendations, may be designed for a gross allowable bearing capacity of 4,000 pounds per square foot (psf). This allowable bearing capacity, which includes a safety factor of 3 or more, may be increased by one-third for alternative basic load combinations with loads of short duration such as wind or seismic loads.

The wet well footing should also be designed to resist buoyancy-related uplift forces. Figure 7 may be used to compute the uplift pressures and uplift resistance for the wet well. The wet well footing may be enlarged to increase the uplift resistance.

9.4 Excavation Stabilization

Excavations should be stabilized in accordance with the Excavation Rules and Regulations (29 Code of Federal Regulations, Part 1926) developed by the Occupational Safety and Health Administration. Stabilization may consist of shoring sidewalls or laying slopes back. Dewatering should be performed as needed in accordance with Section 9.5 to depress groundwater levels below the bottom of excavations. Site soil above groundwater may be considered an OSHA Type C material with an allowable temporary slope gradient of 1½:1 (horizontal to vertical). Alternatively, a shoring system may be used to stabilize excavation sidewalls during construction. To reduce the potential for settlement of the ACLC building near the south wall of the pump station enclosure, we anticipate that shoring systems that can provide positive support for south wall of the excavation and can accommodate obstructions from existing pipes, such as sheet piles installed by a vibratory hammer with lagging members above and below pipes, will be needed. Temporary relocation of overhead utilities may be needed to install the sheet piles. Internal bracing or consideration of lateral support from abutting walls may be needed given the depth of the excavation.

The earth pressure diagrams presented in Figure 8 may be used to evaluate a sheet pile shoring system for a cantilever condition. Where the upper portion of the excavation sidewalls are cut back to reduce the height of the shoring wall, the lateral earth pressure should be evaluated for an effective wall height equivalent to the wall height plus half the height of the cut back slope. The earth pressures listed in Figure 8 do not include a factor of safety. Once the depth of embedment and point of rotation are selected to meet shear and moment equilibrium at the tip of the sheet pile, the depth of embedment should be increased by 20 to 40 percent for an approximate factor of safety of 1.5 to 2.0. The earth pressure diagrams presented in Figure 9 may be used to design an internally- or laterally-braced, sheet pile shoring system. The designer should select an appropriate factor of safety to use with the earth pressure diagrams presented in Figure 9.

The surcharge lateral earth pressure listed on Figures 8 and 9 is adequate to account for the lateral earth pressure from the surcharge provided by the adjacent one-story modular ACLC building along with potential construction and live load surcharges.

The shoring system should be designed by a suitably qualified individual or specialty subcontractor. The designer should estimate shoring wall deflection and ground settlement, and adjust the design as needed so that ground settlement at adjacent structures is not more than ¼-inch or as specified by the City. Potential causes of settlement that should be addressed include loss of lateral support following excavation, vibration during the installation of sheet piles, other construction induced vibrations, dewatering, and removal of the support system. Ground

settlement due to shoring wall movement may be considered equivalent to wall deflection adjacent to the wall with proportional reduction to negligible values at a lateral distance from the wall equivalent to 300 percent of the excavation depth. The recommended active and passive lateral earth pressures are associated with a wall deflection equivalent to 0.2 percent of the wall height for active earth pressures and 1 percent of wall embedment depth below the bottom of the excavation for passive earth pressures.

The shoring parameters presented in this report are preliminary design criteria that are based on the limited subsurface data provided by our exploratory borings and reflect the influence of the environmental conditions that existed at the time of our exploration. The designer should evaluate the adequacy of these parameters and make appropriate modifications for their design. Excavation stability, material classifications, allowable slopes, and shoring pressures should be re-evaluated and revised, as-needed, during construction. Excavations, shoring systems and the surrounding areas should be evaluated daily by a competent person for indications of possible instability or collapse.

9.5 Construction Dewatering

Groundwater was encountered in our exploratory boring at a depth of approximately 3½ feet below the ground surface. However, significant fluctuations in the groundwater level may occur as a result of variations in seasonal precipitation and other factors. Water intrusion into the excavations may occur as a result of groundwater intrusion or surface runoff. The contractor should be prepared to take appropriate dewatering measures in the event that water intrudes into the excavations. Considerations for construction dewatering should include anticipated drawdown, volume of pumping, potential for settlement due to groundwater drawdown in the area, and groundwater discharge. Disposal of groundwater should be performed in accordance with the guidelines of the Regional Water Quality Control Board. The contractor should prepare and submit a dewatering plan that addresses these issues.

When excavating near or below the groundwater table, the dewatering system should depress the water level below the bottom of the cut to reduce the potential for subgrade instability and washout from behind sheeting or sloughing of exposed trench walls. The dewatering system should maintain the water level about 2 feet below the bottom of the cut to provide a stable bottom. The operation of the dewatering system should continue during and after the construction of the wet well until sufficient backfill has been placed to balance the uplift forces.

9.6 Earthwork Recommendations

The site of the proposed improvements should be prepared by demolition, clearing, and grubbing to remove pavements, hardscape, debris, rubble, and vegetation from excavation and fill areas. The debris generated from these activities should be hauled off site to a legal dump site. Excavations created by the clearing and grubbing operations should be backfilled with compacted fill in accordance with the recommendations in this report.

After clearing, grubbing, and excavation to rough grade, where needed, the geotechnical engineer should check the exposed subgrade for unsuitable materials including debris, organic matter, deleterious fill, or dry, loose, soft, or wet soil and evaluate if additional excavation is needed. The exposed subgrade for pad foundations and in areas to receive fill should be scarified and moisture conditioned as needed to achieve a moisture content about 2 percentage points above the optimum, before compaction, by mechanical means, to 90 percent or more of the reference density as evaluated by ASTM D1557. Utility trench subgrade should be evaluated by the geotechnical engineer. Dry subgrade that exhibits desiccation cracking should be scarified and moisture conditioned to approximately 2 percentage points above the optimum. Loose or soft soil should be removed or compacted to achieve a firm condition. Other materials found to be unsuitable by the geotechnical engineer should be removed or otherwise mitigated in accordance with the recommendations of the geotechnical engineer.

In general, fill should not consist of pea gravel and should be free of rocks or lumps in excess of 3-inches in median dimension, hazardous materials, trash, debris, and vegetation or other deleterious material. The on-site soil is generally suitable for reuse as general fill provided that it is processed as-needed to meet the preceding criteria, and moisture conditioned to achieve a moisture content approximately 2 percentage points above the optimum. In addition, import fill should be close graded with 35 percent or more by dry weight passing the No. 4 sieve and either: an expansion index of 50 or less, a plasticity index of 12 or less, or less than 10 percent by dry weight passing the No. 200 sieve.

Fill, including utility trench backfill and backfill for the wet well excavation, should be moisture conditioned to approximately 2 percentage points above the optimum before placement and compaction in lifts by hand tampers or mechanical means to 90 percent of the reference density as evaluated by American Society for Testing and Materials (ASTM) Standard D1557. The allowable lift thickness is influenced by the type of compaction equipment utilized but generally should not exceed 8 inches in loose thickness. Finish subgrade should be compacted to 90 percent of ASTM D1557, or 95 percent under pavement subject to vehicular loading, after scarification and moisture conditioning, as needed, to achieve a moisture content approximately

2 percentage points above the optimum. Prepared subgrade should be maintained in a moist but not saturated condition by sprinkling water or covering with plastic, aggregate base, or other fill. The aggregate base section below flatwork or pavement should be compacted to 95 percent of ASTM D1557.

Construction should be performed during the period between approximately April 15 and October 15 to avoid the rainy season. In the event that grading is performed during the rainy season, the plans for the project should be supplemented to include a stormwater management plan prepared in accordance with the requirements of the relevant agency having jurisdiction. Rainy weather may impact the stability of excavation subgrade and exposed ground. Temporary swales should be constructed to divert surface runoff away from excavations and slopes. Steep temporary slopes should be covered with plastic sheeting during significant rains.

Excavation bottoms or subgrade, if exposed to wet conditions, may be subject to pumping under load. The contractor should be prepared to stabilize subgrade. In general, unstable subgrade conditions may be mitigated by scarification and aeration to dry the soil to the optimum moisture content or treating the soil with quicklime. Alternatively, unstable subgrade may be removed and replaced with engineered fill. Construction of a bridging layer consisting of crushed rock or granular fill with geotextile may be needed to support the engineered fill layer so that the specified compaction can be achieved. Appropriate mitigation measures will be influenced by the conditions encountered. The geotechnical consultant should be consulted for recommendations to stabilize the site as-needed.

9.7 Concrete

Laboratory testing indicated that the site does not meet the definition of a corrosive environment to structures per the Caltrans Corrosion Guidelines (2018) and the sulfate exposure is negligible (exposure classification S0) for the soil tested. However, due to the variability in the on-site soil and the potential future use of reclaimed water at the site, we recommend that Type II/V or Type V cement be used for concrete structures in contact with soil. In addition, we recommend a water-to-cement ratio of no more than 0.45. A 3-inch thick, or thicker, concrete cover should be maintained over reinforcing steel where concrete is in contact with soil in accordance with the recommendations of ACI Committee 318 (ACI, 2016).

9.8 Review of Construction Plans

The recommendations provided in this report are based on preliminary design information for the proposed construction. We recommend that a copy of the plans be provided to Ninyo & Moore for review before bidding to check the interpretation of our recommendations and that the designed

improvements are consistent with our assumptions. It should be noted that, upon review of these documents, some recommendations presented in this report might be revised or modified to meet the project requirements.

9.9 Construction Monitoring and Documentation

Consideration should be given to implementing a monitoring program to evaluate design assumptions, document existing conditions, and to monitor movements and groundwater levels during construction, particularly where construction activities will be close to improvements that are sensitive to ground deformation.

9.9.1 Documentation of Existing Conditions

We recommend a pre-construction survey be performed on structures that are within approximately 100 feet of the proposed excavation. The pre-construction survey should consist of photographic documentation of the exterior portions of the buildings, including distress features, such as cracks and/or separations that may be present. Consideration may be given to videotaping the survey.

9.9.2 Ground Deflection

We also recommend installing an array of survey points on excavation shoring walls and on the ground behind shoring walls to monitor vertical and lateral deflection, and on the ground near buildings of concern to check for settlement due to dewatering. The survey points should be established before the excavation begins and monitored daily during excavation and periodically thereafter until the temporary shoring is removed and dewatering is completed. The contractor should be responsible for maintaining the total wall deflection and ground settlement within tolerable levels. If the amount of movement reaches 50 percent of the tolerable deflection, the contractor should review the construction methods, modify construction procedures, or implement mitigative action as appropriate.

Consideration should be given to placing survey monitoring points on nearby structures to monitor the performance of the structures. In this way, a record of the performance of the structure will be maintained and available. This information, in conjunction with pre-construction surveys, is helpful in reducing potential claims and expediting and limiting settlement of legitimate claims.

9.9.3 Groundwater Levels

Consideration should be given to installing piezometers near improvements sensitive to ground settlement. The piezometers should be monitored before and during construction dewatering to document groundwater levels, check that the drawdown is consistent with the estimated drawdown from the dewatering analysis, and enable the implementation of mitigation measures where the drawdown exceeds tolerable levels.

9.10 Construction Observation and Testing

The recommendations provided in this report are based on subsurface conditions encountered in discrete exploratory borings. During construction, the geotechnical engineer should be retained to evaluate the exposed subsurface conditions and to check that the work conforms with our geotechnical recommendations. Specifically, the geotechnical engineer should be retained to:

- Check for unsuitable materials and observe foundation excavations.
- Observe preparation and compaction of subgrade.
- Check and test imported materials prior to use as fill.
- Observe placement and compaction of fill.
- Perform field density tests to evaluate fill and subgrade compaction.

The recommendations provided in this report assume that Ninyo & Moore will be retained as the geotechnical consultant during the construction phase of the project. If another geotechnical consultant is selected, we request that the selected consultant provide a letter to the architect and the owner (with a copy to Ninyo & Moore) indicating that they fully understand Ninyo & Moore's recommendations, and that they are in full agreement with the recommendations contained in this report.

10 LIMITATIONS

The field evaluation, laboratory testing, and geotechnical analyses presented in this geotechnical report have been conducted in general accordance with current practice and the standard of care exercised by geotechnical consultants performing similar tasks in the project area. No warranty, expressed or implied, is made regarding the conclusions, recommendations, and opinions presented in this report. There is no evaluation detailed enough to reveal every subsurface condition. Variations may exist and conditions not observed or described in this report may be encountered during construction. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation will be performed

upon request. Please also note that our evaluation was limited to assessment of the geotechnical aspects of the project, and did not include evaluation of structural issues, environmental concerns, or the presence of hazardous materials.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

This report is intended for design purposes only. It does not provide sufficient data to prepare an accurate bid by contractors. It is suggested that the bidders and their geotechnical consultant perform an independent evaluation of the subsurface conditions in the project areas. The independent evaluations may include, but not be limited to, review of other geotechnical reports prepared for the adjacent areas, site reconnaissance, and additional exploration and laboratory testing.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. If geotechnical conditions different from those described in this report are encountered, our office should be notified and additional recommendations, if warranted, will be provided upon request. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

11 REFERENCES

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FIGURES



NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE | REFERENCE: USGS 2018

FIGURE 1

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SITE LOCATION
3RD STREET PUMP STATION IMPROVEMENTS
3RD STREET AND RALPH APPEZZATO MEMORIAL PARKWAY
ALAMEDA, CALIFORNIA

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RALPH APPEZZATO MEMORIAL PKWY

PUMP
STATION

B-2
(30.0')

B-1
(20.0')

LEGEND

B-1 ENVIRONMENTAL BORING TOTAL DEPTH (FEET)
(20.0')

B-2 (30.0')

GEOTECHNICAL BORING
TOTAL DEPTH (FEET)

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE | REFERENCE: GOOGLE EARTH, 2020



FIGURE 2

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BORING LOCATION

3RD STREET PUMP STATION IMPROVEMENTS
3RD STREET AND RALPH APPEZZATO MEMORIAL PARKWAY
ALAMEDA, CALIFORNIA

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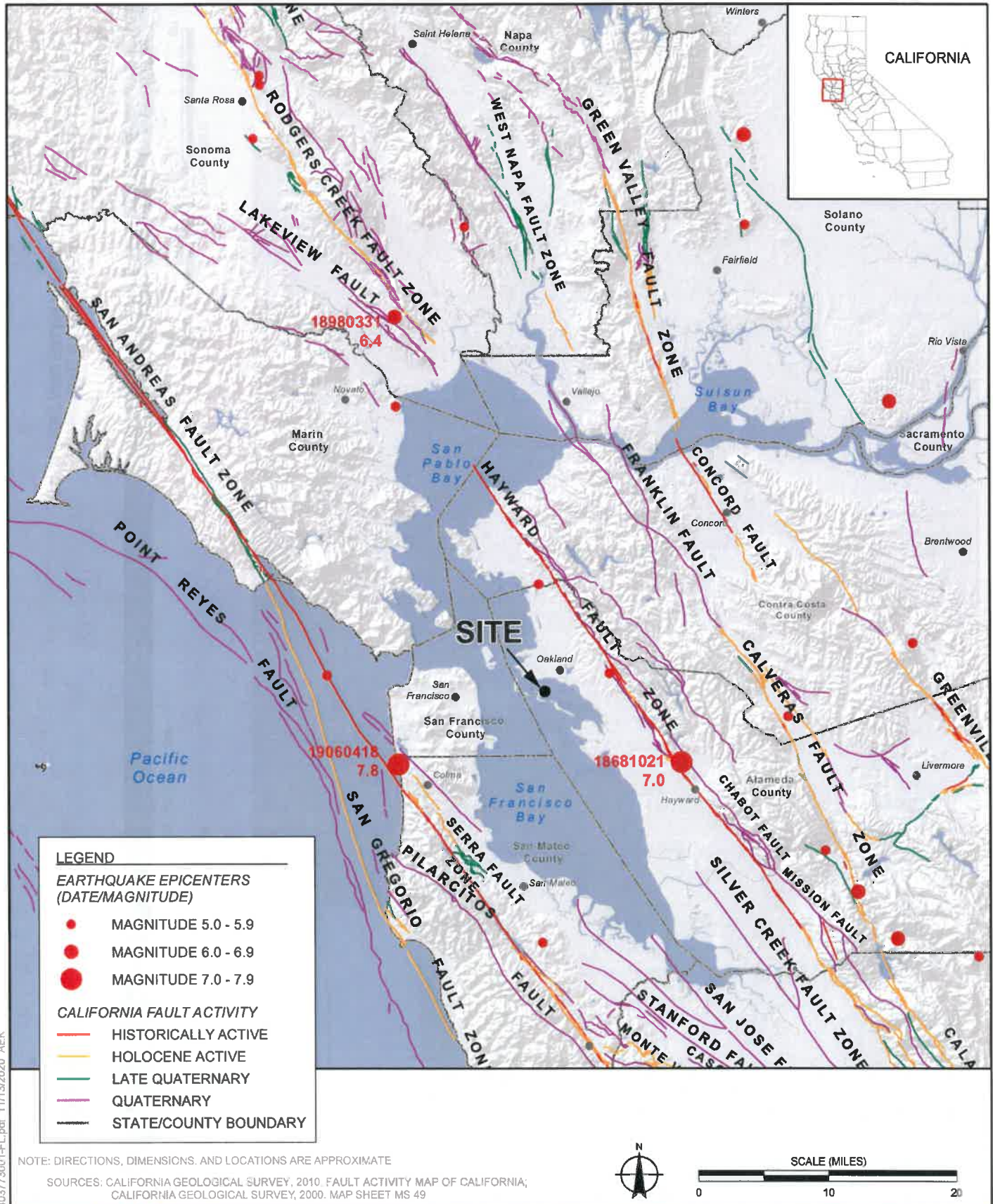
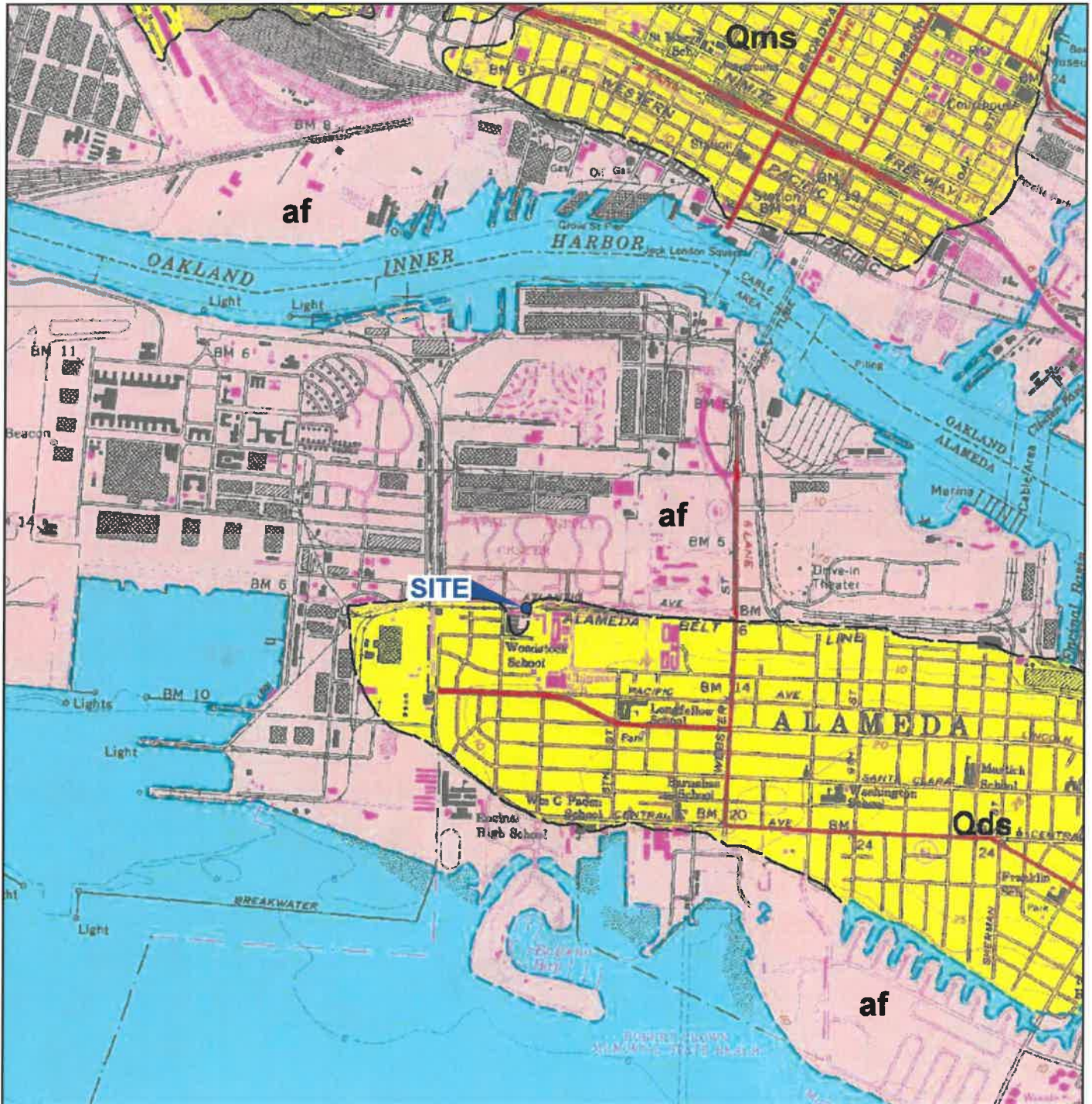


FIGURE 3

FAULT LOCATIONS AND EARTHQUAKE EPICENTERS
 3RD STREET PUMP STATION IMPROVEMENTS
 3RD STREET AND RALPH APPEZZATO MEMORIAL PARKWAY
 ALAMEDA, CALIFORNIA
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LEGEND



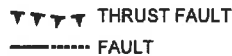
ARTIFICIAL FILL
(HOLOCENE)



MERRITT SAND
(HOLOCENE &
PLEISTOCENE)



DUNE SAND
(HOLOCENE &
PLEISTOCENE)



THRUST FAULT



FAULT



GEOLOGIC CONTACT



STRIKE AND DIP OF BEDDING



SCALE (FEET)

0 2,000 4,000

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE | REFERENCE: GRAYMER, 2000

FIGURE 4

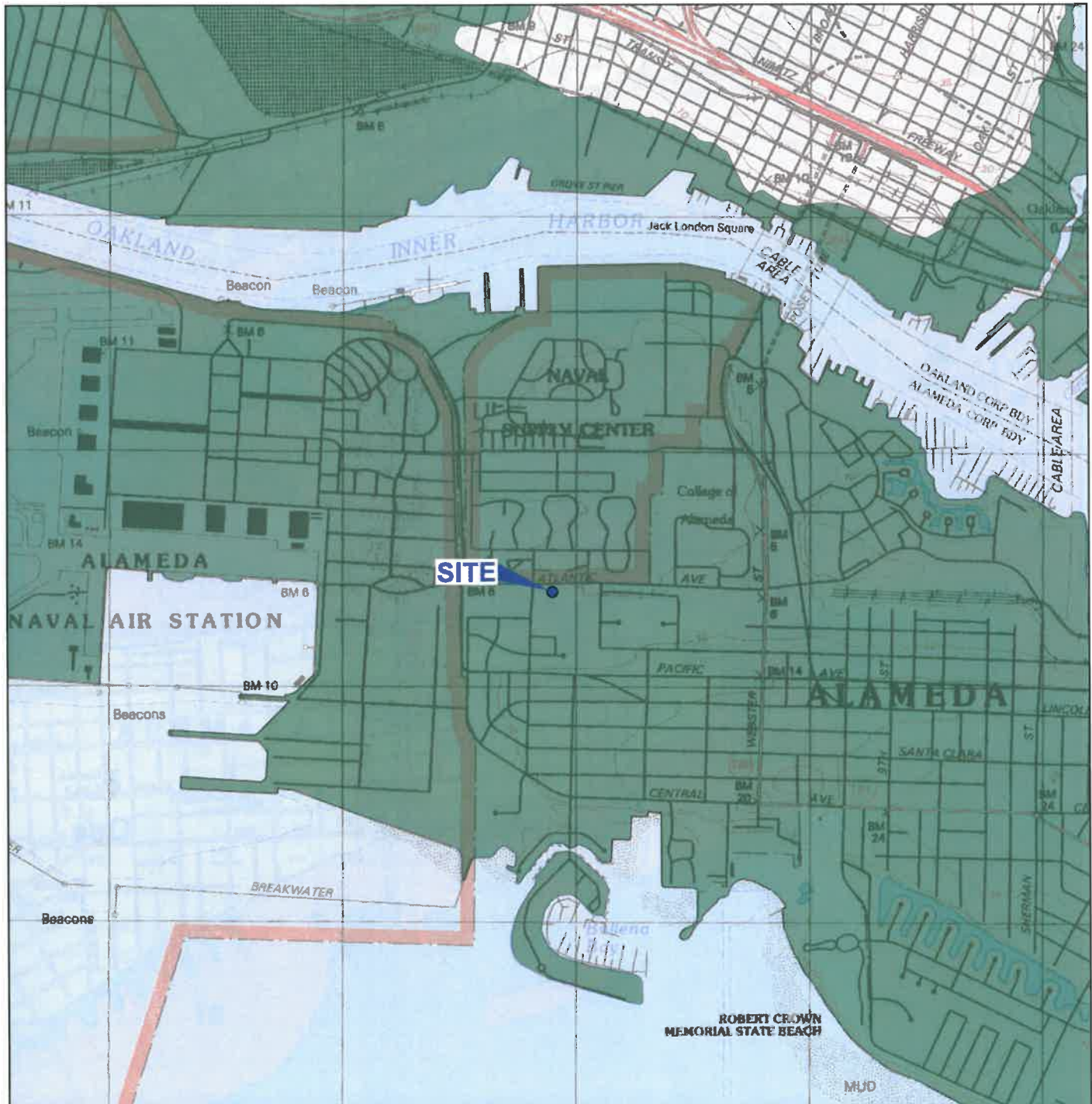
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REGIONAL GEOLOGY

3RD STREET PUMP STATION IMPROVEMENTS
3RD STREET AND RALPH APPEZZATO MEMORIAL PARKWAY
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LEGEND



LIQUEFACTION ZONES:

Areas where historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE
REFERENCE: CGS, 1982, 2003



FIGURE 5

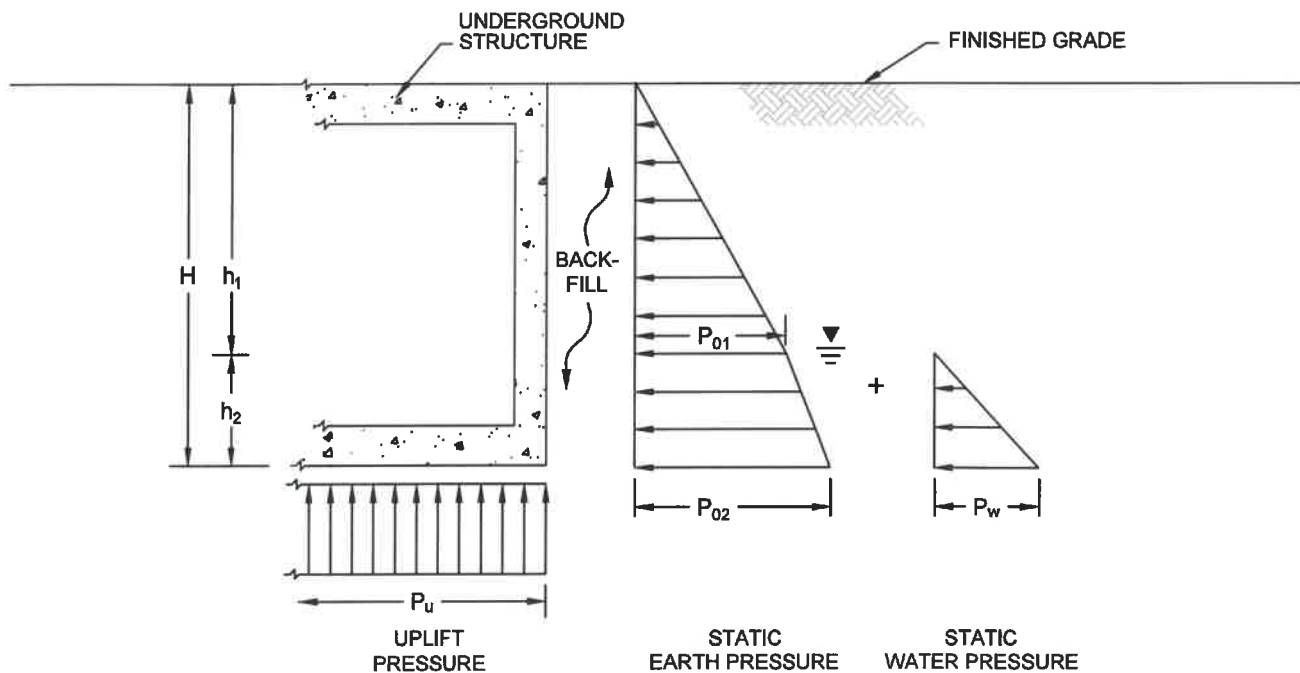
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SEISMIC HAZARD ZONES

3RD STREET PUMP STATION IMPROVEMENTS
3RD STREET AND RALPH APPEZZATO MEMORIAL PARKWAY
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NOTES:

1. APPARENT LATERAL EARTH PRESSURES, P_{01} AND P_{02}
 $P_{01} = 60 h_1 \text{ psf}$
 $P_{02} = 60 h_1 + 30 h_2 \text{ psf}$
2. WATER PRESSURE, P_w
 $P_w = 62.4 h_2 \text{ psf}$
3. UPLIFT PRESSURE, P_u
 $P_u = 62.4 h_2 \text{ psf}$
4. SURCHARGE PRESSURES CAUSED BY VEHICLES OR NEARBY STRUCTURES ARE NOT INCLUDED
5. H , h_1 , AND h_2 ARE IN FEET
6.  GROUNDWATER TABLE

NOTE: NOT TO SCALE

FIGURE 6

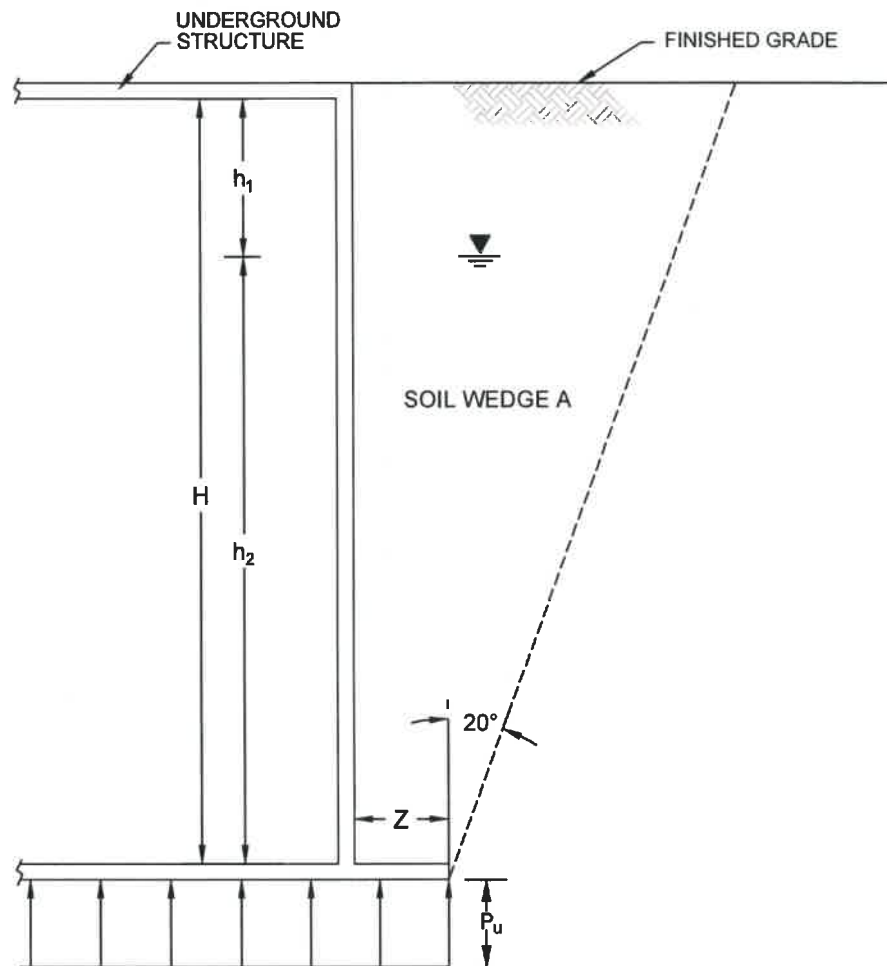
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LATERAL EARTH PRESSURES FOR UNDERGROUND STRUCTURES


3RD STREET PUMP STATION IMPROVEMENTS
 3RD STREET AND RALPH APPEZZATO MEMORIAL PARKWAY
 ALAMEDA, CALIFORNIA

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STATIC RESISTANCE TO UPLIFT = WEIGHT OF STRUCTURE + WEIGHT OF SOIL WEDGE A

NOTES:

1. UNIT WEIGHT OF SOILS, γ OR γ_b
 $\gamma = 120$ pcf ABOVE GROUNDWATER TABLE
 $\gamma_b = 60$ pcf ABOVE GROUNDWATER TABLE
2. UPLIFT PRESSURE, P_u
 $P_u = 62.4 h_2$ psf
3. H , h_1 , AND h_2 ARE IN FEET
4.  GROUNDWATER TABLE

NOTE: NOT TO SCALE

FIGURE 7

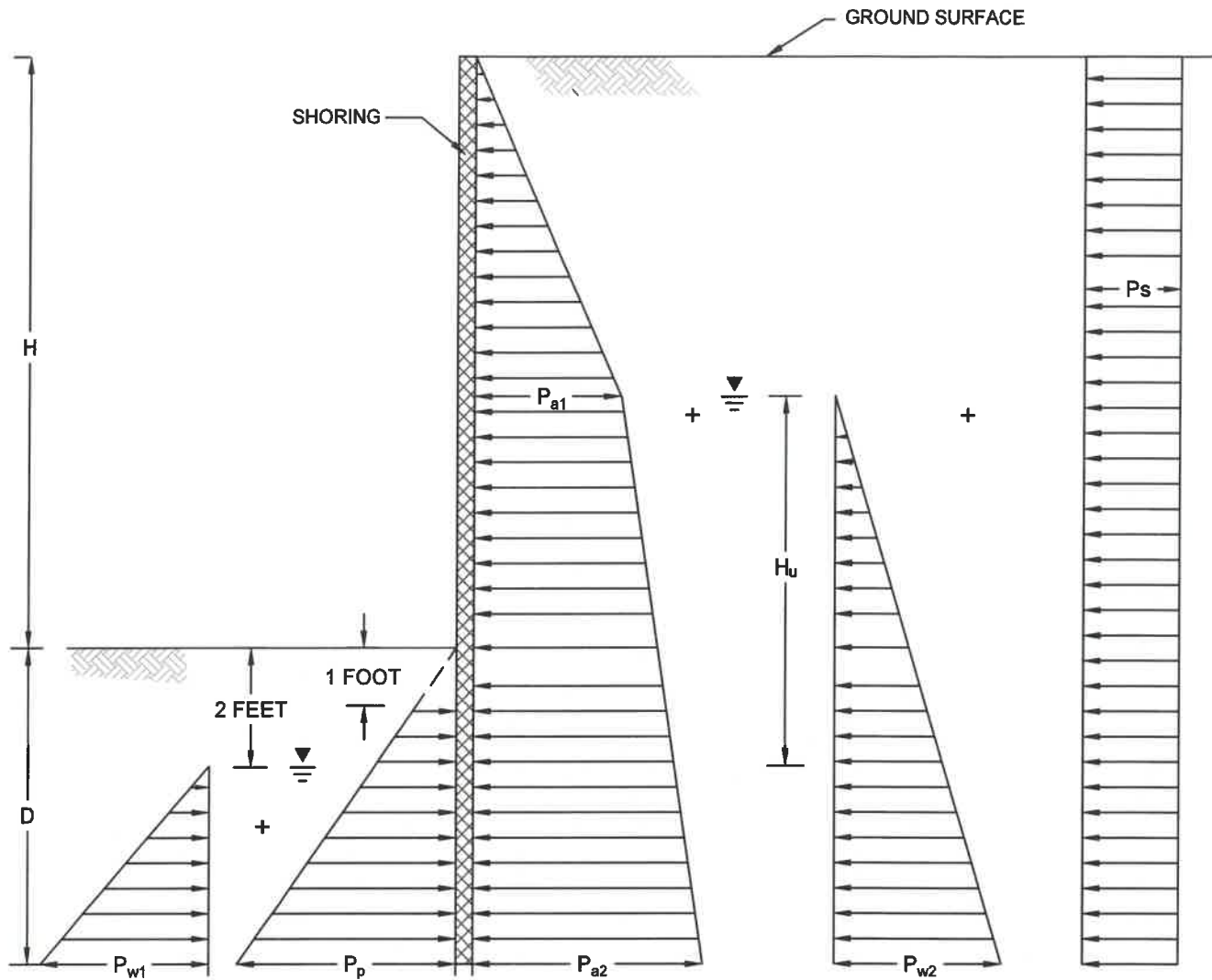
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UPLIFT RESISTANCE DIAGRAM FOR UNDERGROUND STRUCTURES

3RD STREET PUMP STATION IMPROVEMENTS
 3RD STREET AND RALPH APPEZZATO MEMORIAL PARKWAY
 ALAMEDA, CALIFORNIA

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NOTES:

1. ACTIVE LATERAL EARTH PRESSURE, P_a
 $P_{a1} = 40 (H - H_u + 2)$ psf; $P_{a2} = 0.33 [125 (H_u - 2 + D) - P_{w2}] + P_{a1}$ psf
2. PASSIVE LATERAL EARTH PRESSURE, P_p
 $P_p = 3 [240 + 125 (D - 2) - P_{w1}]$ psf
3. NEGLECT PASSIVE LATERAL EARTH PRESSURE FOR 1 FOOT BELOW MUDLINE
4. HYDROSTATIC PRESSURE WITH SEEPAGE
 $P_{w1} = P_{w2} = 124.8 (H_u + D - 2)(D - 2) / (2D + H_u - 4)$ psf
5. LATERAL EARTH PRESSURE DUE TO CONSTRUCTION OR LIVE LOAD SURCHARGE, $P_s = 72$ psf
6. NEGLECT DYNAMIC EARTH PRESSURES FOR TEMPORARY CONDITION
7. H , H_u , AND D ARE IN FEET
8.  GROUNDWATER TABLE

NOTE: NOT TO SCALE

FIGURE 8

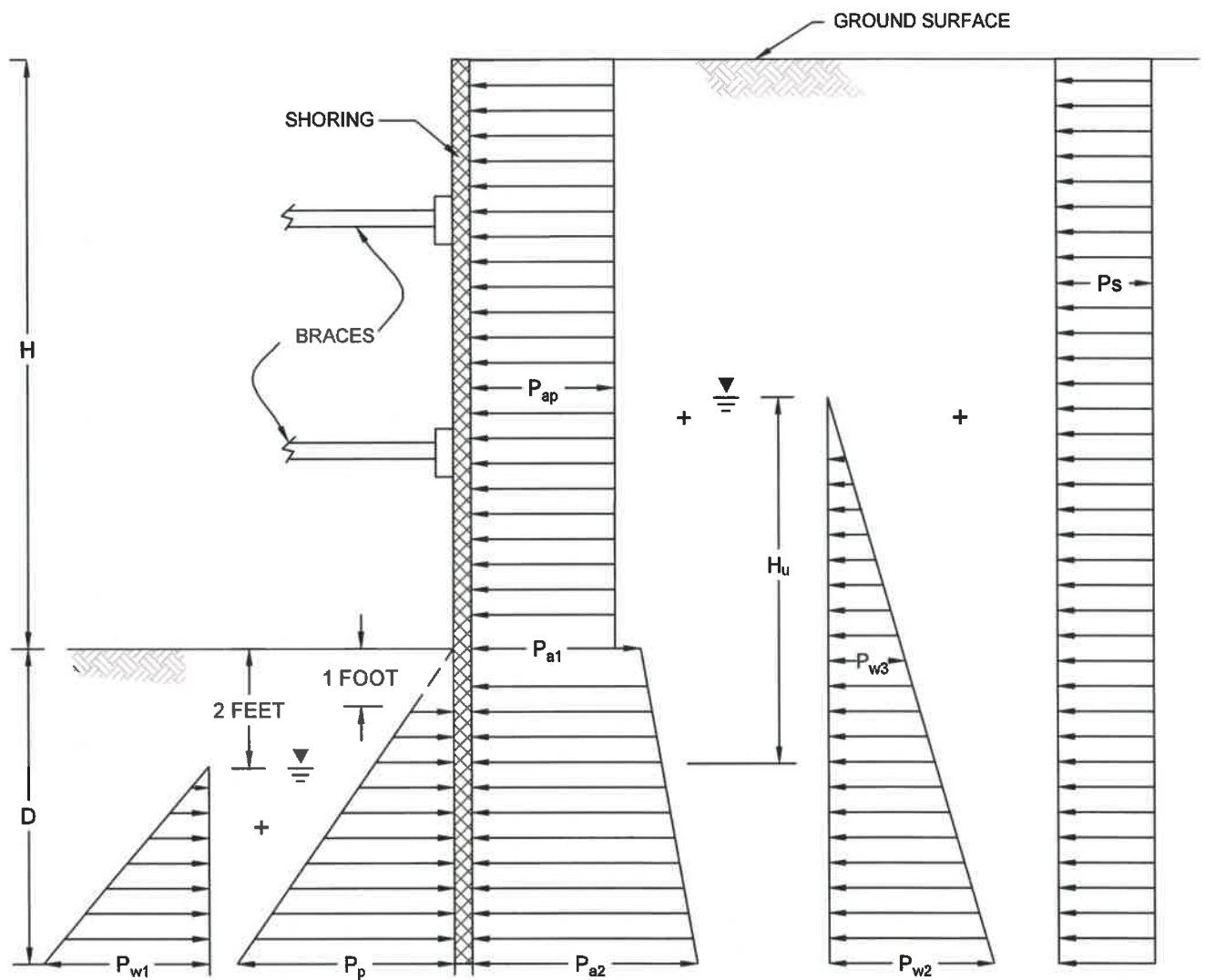
Ninyo & Moore

Geotechnical & Environmental Sciences Consultants


LATERAL EARTH PRESSURES FOR CANTILEVERED SHORING

3RD STREET PUMP STATION IMPROVEMENTS
 3RD STREET AND RALPH APPEZZATO MEMORIAL PARKWAY
 ALAMEDA, CALIFORNIA

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NOTES:

1. APPARENT LATERAL EARTH PRESSURE, P_{ap}
 $P_{ap} = 26H$ psf
2. ACTIVE LATERAL EARTH PRESSURE, P_a
 $P_{a1} = 0.33 [120 (H - H_u + 2) + 125 (H_u - 2) - P_{w3}]$ psf; $P_{a2} = 0.33 [120 (H - H_u + 2) + 125 (H_u - 2 + D) - P_{w2}]$ psf
3. PASSIVE LATERAL EARTH PRESSURE, P_p
 $P_p = 3 [240 + 125 (D - 2) - P_{w1}]$ psf
4. NEGLECT PASSIVE LATERAL EARTH PRESSURE FOR 1 FOOT BELOW MUDLINE
5. HYDROSTATIC PRESSURE WITH SEEPAGE
 $P_{w1} = P_{w2} = 124.8 (H_u + D - 2)(D - 2)/(2D + H_u - 4)$ psf; $P_{w3} = P_{w2} (H_u - 2)/(H_u - 2 + D)$ psf
6. LATERAL EARTH PRESSURE DUE TO CONSTRUCTION OR LIVE LOAD SURCHARGE, $P_s = 72$ psf
7. NEGLECT DYNAMIC EARTH PRESSURES FOR TEMPORARY CONDITION
8. H, H_u , AND D ARE IN FEET
9.  GROUNDWATER TABLE

NOTE: NOT TO SCALE

FIGURE 9

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LATERAL EARTH PRESSURES FOR BRACED EXCAVATION

3RD STREET PUMP STATION IMPROVEMENTS
 3RD STREET AND RALPH APPEZZATO MEMORIAL PARKWAY
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APPENDIX A

BORING LOGS

APPENDIX A

BORING LOGS

Field Procedure for the Collection of Disturbed Samples

Disturbed soil samples were obtained in the field using the following methods.

Bulk Sample

A bulk sample of representative material was obtained from the boring. The sample was bagged and transported to the laboratory for testing.

The Standard Penetration Test (SPT) Sampler

Disturbed drive samples of earth materials were obtained by means of a Standard Penetration Test sampler. The sampler is composed of a split barrel with an external diameter of 2 inches and an unlined internal diameter of 1-3/8 inches. The sampler was driven into the ground 18 inches with a 140-pound hammer falling freely from a height of 30 inches in general accordance with ASTM D 1586. The blow counts were recorded for every 6 inches of penetration; the blow counts reported on the logs are those for the last 12 inches of penetration. Soil samples were observed and removed from the sampler, bagged, sealed and transported to the laboratory for testing.

Field Procedure for the Collection of Relatively Undisturbed Samples

Relatively undisturbed soil samples were obtained in the field using the following method.

The Modified Split-Barrel Drive Sampler

The sampler, with an external diameter of 3.0 inches, was lined with 6-inch long, thin brass liners with an inside diameter of approximately 2.4 inches. The sample barrel was driven into the ground with the weight of a hammer in general accordance with ASTM D 3550. The driving weight was permitted to fall freely. The approximate length of the fall, the weight of the hammer, and the number of blows per foot of driving are presented on the boring log as an index to the relative resistance of the materials sampled. The samples were removed from the sample barrel in the brass liners, sealed, and transported to the laboratory for testing.
















Field Testing

The following test was performed in the field to evaluate soil properties.

Static Cone Penetrometer

A penetrometer with a conical tip having an apex angle of 60 degrees and a cone base area of 1.5 square centimeters was manually pushed 6 inches into the soil. The penetrometer was instrumented to measure the Cone Penetration Index (Qc) computed as the peak force on the cone divided by the cone base area. The Cone Penetration Index is reported in kilograms per square centimeter (ksc) on the boring log at the depth of the test as a measure of the relative density or consistency of the soil encountered.

BORING LOG EXPLANATION SHEET

DEPTH (feet)	Bulk Samples Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	
0							Bulk sample.
							Modified split-barrel drive sampler.
							No recovery with modified split-barrel drive sampler.
							Sample retained by others.
							Standard Penetration Test (SPT).
5							No recovery with a SPT.
		XX/XX					Shelby tube sample. Distance pushed in inches/length of sample recovered in inches.
							No recovery with Shelby tube sampler.
							Continuous Push Sample.
10							Seepage.
							Groundwater encountered during drilling.
							Groundwater measured after drilling.
						SM	MAJOR MATERIAL TYPE (SOIL): Solid line denotes unit change.
						CL	Dashed line denotes material change.
15							Attitudes: Strike/Dip b: Bedding c: Contact j: Joint f: Fracture F: Fault cs: Clay Seam s: Shear bss: Basal Slide Surface sf: Shear Fracture sz: Shear Zone sbs: Shear Bedding Surface
20							The total depth line is a solid line that is drawn at the bottom of the boring.

Soil Classification Chart Per ASTM D 2488				
Primary Divisions			Secondary Divisions	
			Group Symbol	Group Name
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVEL more than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVEL less than 5% fines	GW	well-graded GRAVEL
			GP	poorly graded GRAVEL
		GRAVEL with DUAL CLASSIFICATIONS 5% to 12% fines	GW-GM	well-graded GRAVEL with silt
			GP-GM	poorly graded GRAVEL with silt
			GW-GC	well-graded GRAVEL with clay
			GP-GC	poorly graded GRAVEL with
			GM	silty GRAVEL
		GRAVEL with FINES more than 12% fines	GC	clayey GRAVEL
			GC-GM	silty, clayey GRAVEL
	SAND 50% or more of coarse fraction passes No. 4 sieve		CLEAN SAND less than 5% fines	SW
		SP		poorly graded SAND
		SAND with DUAL CLASSIFICATIONS 5% to 12% fines	SW-SM	well-graded SAND with silt
			SP-SM	poorly graded SAND with silt
			SW-SC	well-graded SAND with clay
			SP-SC	poorly graded SAND with clay
			SAND with FINES more than 12% fines	SM
		SC		clayey SAND
		SC-SM		silty, clayey SAND
FINE-GRAINED SOILS 50% or more passes No. 200 sieve	SILT and CLAY liquid limit less than 50%	INORGANIC	CL	lean CLAY
			ML	SILT
			CL-ML	silty CLAY
		ORGANIC	OL (PI > 4)	organic CLAY
			OL (PI < 4)	organic SILT
			CH	fat CLAY
	SILT and CLAY liquid limit 50% or more	INORGANIC	MH	elastic SILT
			OH (plots on or above "A"-line)	organic CLAY
			OH (plots below "A"-line)	organic SILT
		ORGANIC		
Highly Organic Soils		PT	Peat	

Grain Size			
Description	Sieve Size	Grain Size	Approximate Size
Boulders	> 12"	> 12"	Larger than basketball-sized
Cobbles	3 - 12"	3 - 12"	Fist-sized to basketball-sized
Gravel	Coarse	3/4 - 3"	Thumb-sized to fist-sized
	Fine	#4 - 3/4"	Pea-sized to thumb-sized
Sand	Coarse	#10 - #4	Rock-salt-sized to pea-sized
	Medium	#40 - #10	Sugar-sized to rock-salt-sized
	Fine	#200 - #40	Flour-sized to sugar-sized
Fines	Passing #200	< 0.0029"	Flour-sized and smaller

Plasticity Chart	
PLASTICITY INDEX (PI), %	LIQUID LIMIT (LL), %

Apparent Density - Coarse-Grained Soil				
Apparent Density	Spooling Cable or Cathead		Automatic Trip Hammer	
	SPT (blows/foot)	Modified Split Barrel (blows/foot)	SPT (blows/foot)	Modified Split Barrel (blows/foot)
Very Loose	≤ 4	≤ 8	≤ 3	≤ 5
Loose	5 - 10	9 - 21	4 - 7	6 - 14
Medium Dense	11 - 30	22 - 63	8 - 20	15 - 42
Dense	31 - 50	64 - 105	21 - 33	43 - 70
Very Dense	> 50	> 105	> 33	> 70

Consistency - Fine-Grained Soil				
Consistency	Spooling Cable or Cathead		Automatic Trip Hammer	
	SPT (blows/foot)	Modified Split Barrel (blows/foot)	SPT (blows/foot)	Modified Split Barrel (blows/foot)
Very Soft	< 2	< 3	< 1	< 2
Soft	2 - 4	3 - 5	1 - 3	2 - 3
Firm	5 - 8	6 - 10	4 - 5	4 - 6
Stiff	9 - 15	11 - 20	6 - 10	7 - 13
Very Stiff	16 - 30	21 - 39	11 - 20	14 - 26
Hard	> 30	> 39	> 20	> 26

Geotechnical & Environmental Sciences Consultants

USCS METHOD OF SOIL CLASSIFICATION

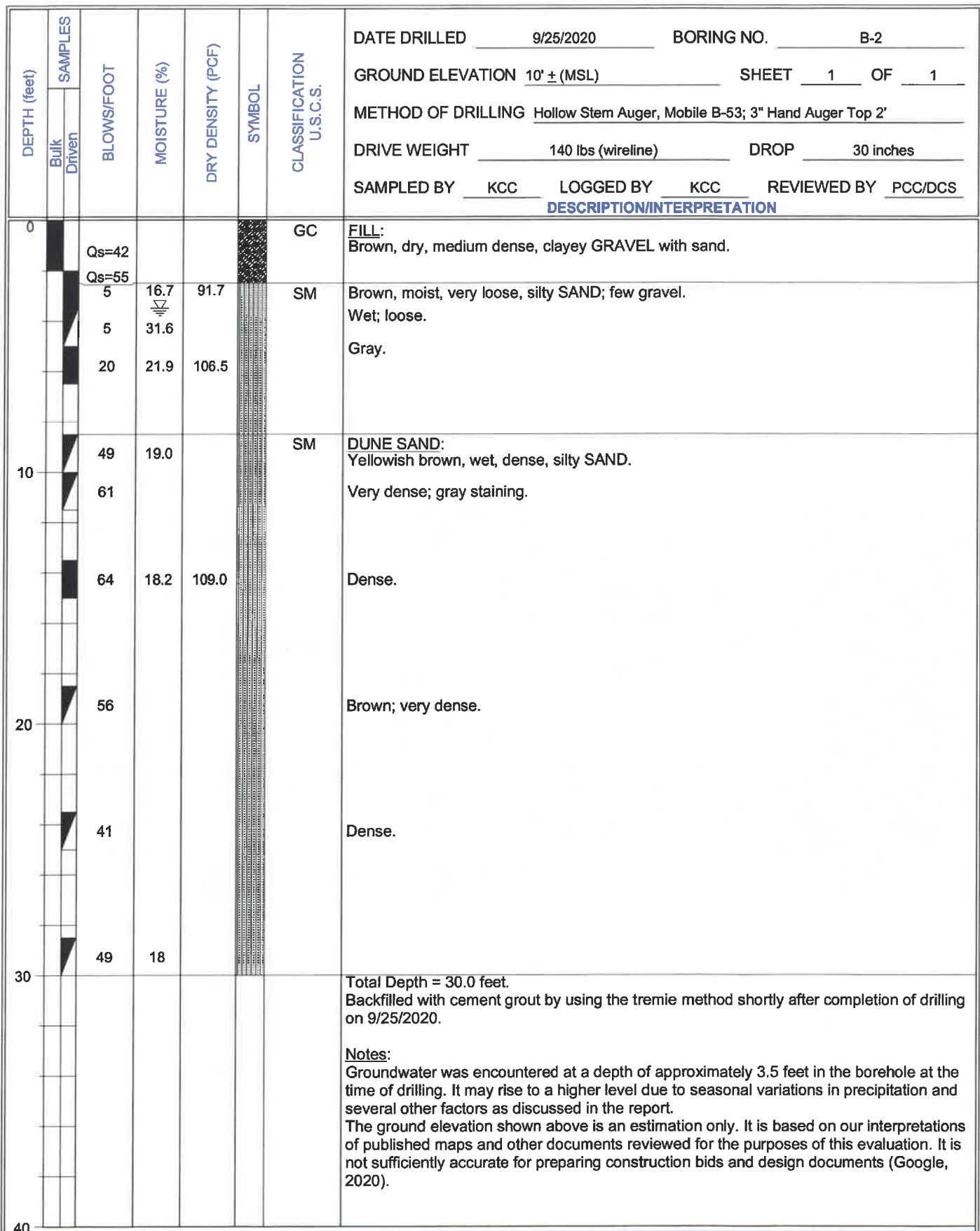


FIGURE A- 1



APPENDIX B

LABORATORY TESTING

APPENDIX B

LABORATORY TESTING

Classification

Soils were visually and texturally classified in accordance with the Unified Soil Classification System (USCS) in general accordance with ASTM D 2488-00. Soil classifications are indicated on the boring log in Appendix A.

Moisture Content

The moisture content of samples obtained from the boring was evaluated in accordance with ASTM D 2216. The test results are presented on the boring log in Appendix A.

In-Place Density Test

The dry density of relatively undisturbed samples obtained from the boring was evaluated in general accordance with ASTM D 2937. The test results are presented on the boring log in Appendix A.

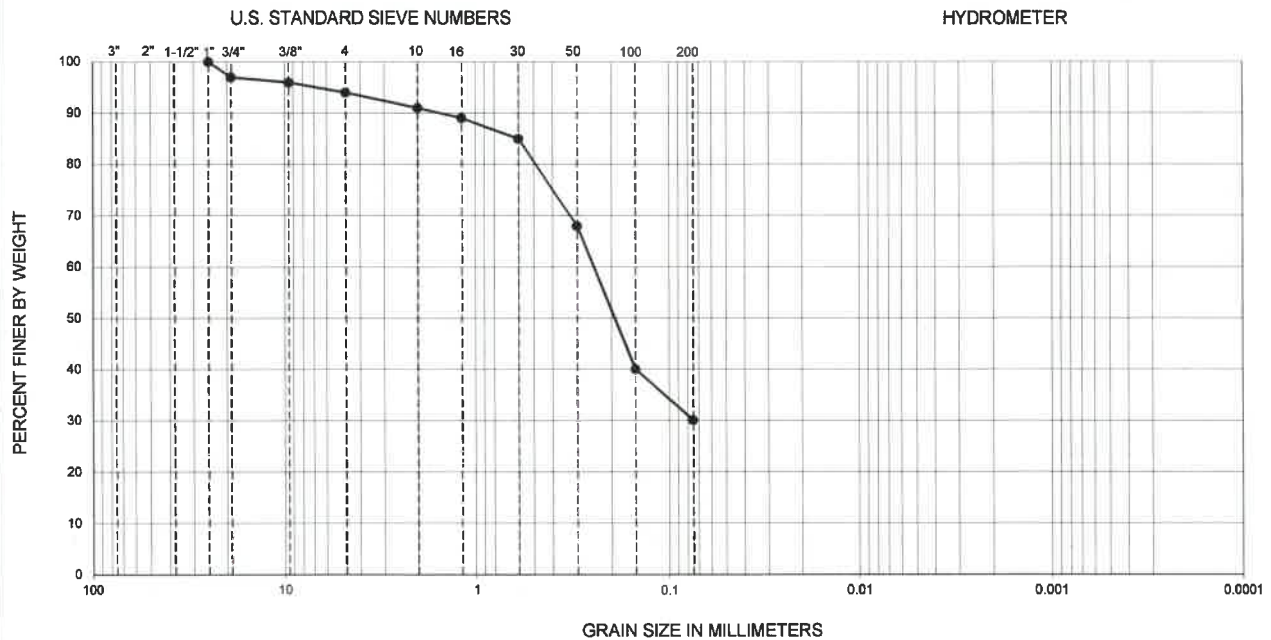
Gradation Analysis

Gradation analysis tests were performed on a selected soil samples in general accordance with ASTM D 422. The grain-size distribution curves are shown on Figures B-1 through B-4. The test results were used to evaluate the soil classification in accordance with the Unified Soil Classification System (USCS).

Atterberg Limits

Tests were performed on a selected representative soil sample to evaluate the liquid limit, plastic limit, and plasticity index in general accordance with ASTM D 4318. These test results were utilized to evaluate the soil classification in accordance with the Unified Soil Classification System (USCS). The test results and classification are shown on Figure B-5.

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D ₁₀	D ₃₀	D ₆₀	C _u	C _c	Passing No. 200 (percent)	USCS
●	B-2	3.5-5.0	NP	NP	NP	—	—	0.26	—	—	30	SM

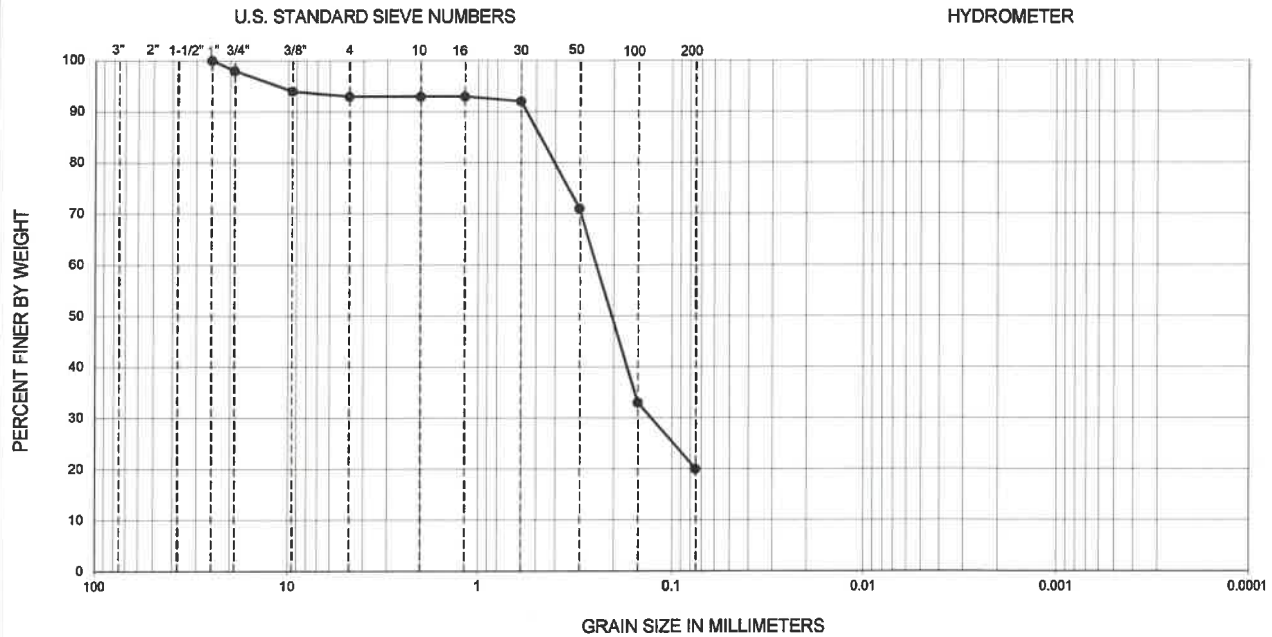
PERFORMED IN ACCORDANCE WITH ASTM D 422 / D6913

NP - INDICATES NON-PLASTIC

FIGURE B-1

GRADATION TEST RESULTS

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



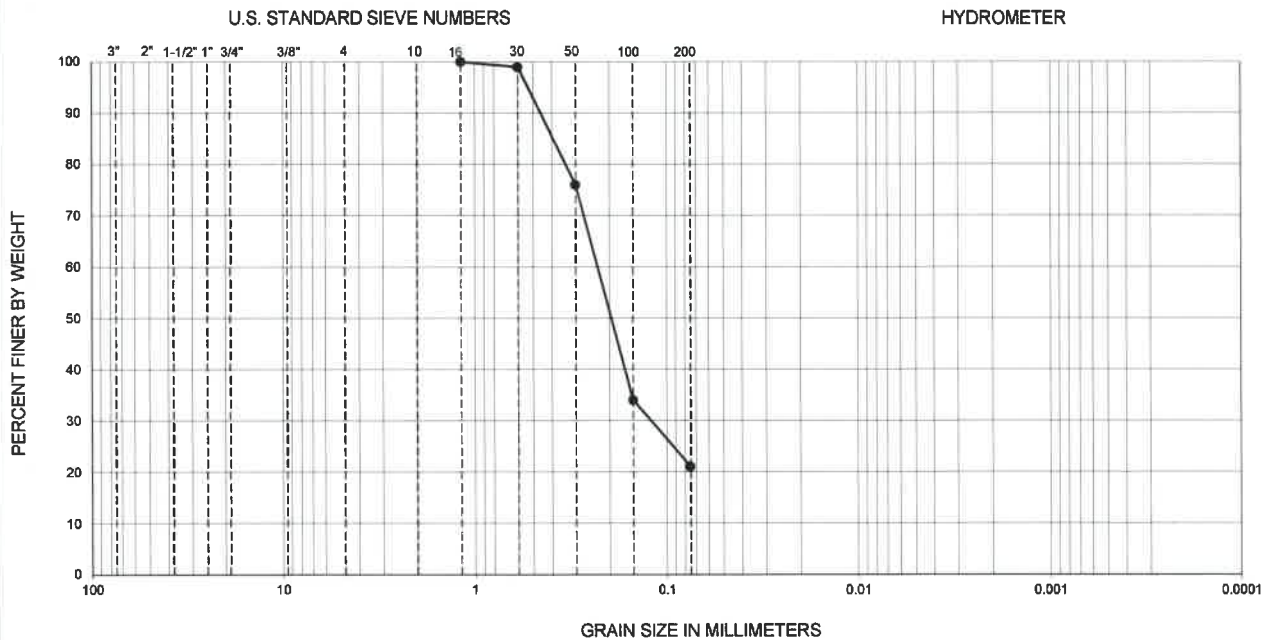
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D ₁₀	D ₃₀	D ₆₀	C _u	C _c	Passing No. 200 (percent)	USCS
●	B-2	6.0-6.5	--	--	--	--	0.13	0.26	--	--	20	SM

PERFORMED IN ACCORDANCE WITH ASTM D 422 / D6913

FIGURE B-2

GRADATION TEST RESULTS

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



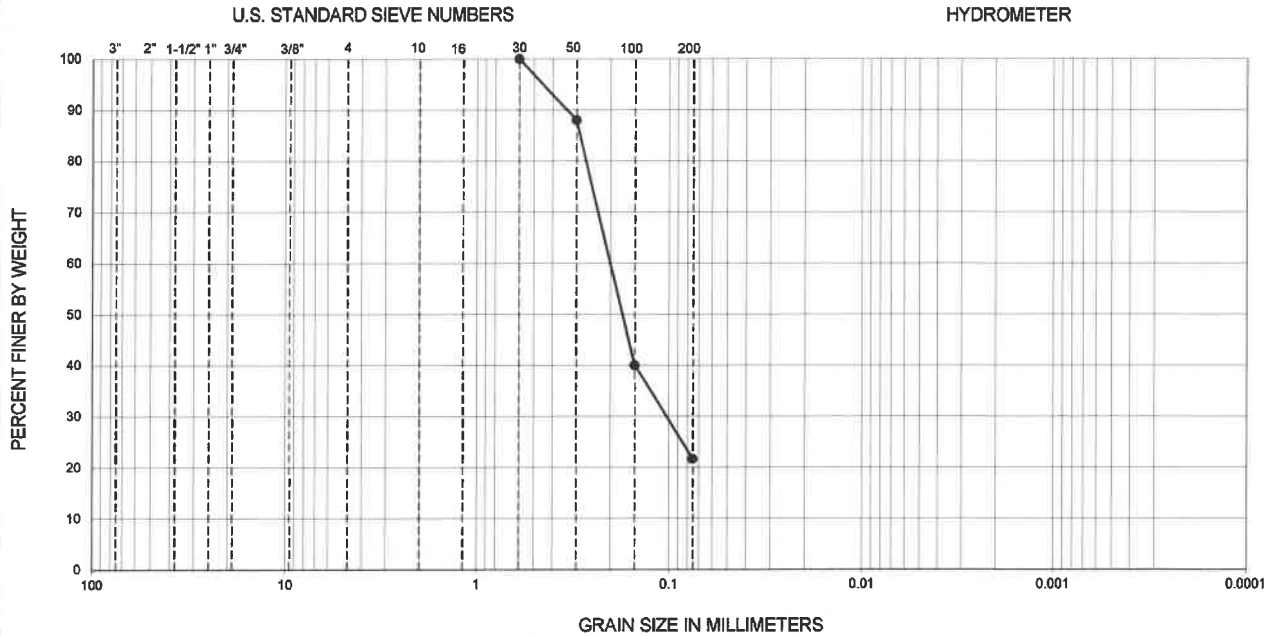
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D ₁₀	D ₃₀	D ₆₀	C _u	C _c	Passing No. 200 (percent)	USCS
●	B-2	8.5-10.0	--	--	--	--	0.13	0.24	--	--	21	SM

PERFORMED IN ACCORDANCE WITH ASTM D 422 / D6913

FIGURE B-3

GRADATION TEST RESULTS

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D ₁₀	D ₃₀	D ₆₀	C _u	C _c	Passing No. 200 (percent)	USCS
●	B-2	28.5-30.0	--	--	--	--	0.11	0.21	--	--	22	SM

PERFORMED IN ACCORDANCE WITH ASTM D 422 / D6913

FIGURE B-4

GRADATION TEST RESULTS

NP - INDICATES NON-PLASTIC
NP - INDICATES NON-PLASTIC



403773001 | 11/20



APPENDIX C

CORROSIVITY EVALUATION



1100 Willow Pass Court, Suite A
Concord, CA 94520-1006

925 462 2771 Fax. 925 462 2775

www.cercoanalytical.com

22 October, 2020

Job No. 2010056
Cust. No. 12060

Mr. David Seymour
Ninyo & Moore
2020 Challenger Drive, Suite 103
Alameda, CA 94501

Subject: Project No.: 403773001
Project Name: CAT/Ramp 3rd Street Pump Station, Alameda
Corrosivity Analysis – ASTM Test Methods

Dear Mr. Seymour:

Pursuant to your request, CERCO Analytical has analyzed the soil sample submitted on October 12, 2020. Based on the analytical results, this brief corrosivity evaluation is enclosed for your consideration.

Based upon the resistivity measurement, this sample is are classified as "corrosive". All buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric coated steel or iron should be properly protected against corrosion depending upon the critical nature of the structure. All buried metallic pressure piping such as ductile iron firewater pipelines should be protected against corrosion.

The chloride ion concentration is 56 mg/kg and is determined to be insufficient to attack steel embedded in a concrete mortar coating.

The sulfate ion concentration is 290 mg/kg and is determined to be insufficient to damage reinforced concrete structures and cement mortar-coated steel at this location.

The pH of the soil is 7.95 which does not present corrosion problems for buried iron, steel, mortar-coated steel and reinforced concrete structures.

The redox potential is 280-mV and is indicative of potentially "slightly corrosive" soils resulting from anaerobic soil conditions.

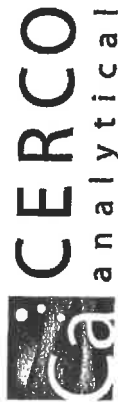
This corrosivity evaluation is based on general corrosion engineering standards and is non-specific in nature. For specific long-term corrosion control design recommendations or consultation, please call *JDH Corrosion Consultants, Inc.* at (925) 927-6630.

We appreciate the opportunity of working with you on this project. If you have any questions, or if you require further information, please do not hesitate to contact us.

Very truly yours,
CERCO ANALYTICAL, INC.


J. Darby Howard, Jr., P.E.
President

JDH/jdl
Enclosure



**1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com**

Date of Report: 22-Oct-2020

Client: Ninyo & Moore
 Client's Project No.: 403773001
 Client's Project Name: CAT/Ramp 3rd Street Pump Station, Alameda
 Date Sampled: 25-Sep-20
 Date Received: 12-Oct-20
 Matrix: Soil
 Authorization: Signed Chain of Custody

[illegible]

Method:	ASTM D1498	ASTM D4972	ASTM D1125M	ASTM G57	ASTM D4638M	ASTM D4327	ASTM D4327
Reporting Limit:	-	-	10	-	50	15	15
Date Analyzed:	20-Oct-2020	20-Oct-2020	-	21-Oct-2020	-	20-Oct-2020	20-Oct-2020

* Results Reported on "As Received" Basis
N.D. - None Detected

Cheryl McMillen
Laboratory Director

Quality Control Summary - All laboratory quality control parameters were found to be within established limits



2020 Challenger Drive, Suite 103 | Alameda, California 94501 | p. 510.343.3000

ARIZONA | CALIFORNIA | COLORADO | NEVADA | TEXAS | UTAH

ninyoandmoore.com

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

ATTACHMENT “F”

**Subsurface Investigation Report, 3rd Street Pump Station,
Ninyo & Moore, November 18, 2020**

Subsurface Investigation Report 3rd Street Pump Station Alameda, California

City of Alameda Public Works Department
950 West Mall Square | Alameda, California 94501

November 18, 2020 | Project No. 403773001



November 18, 2020
Project No. 403773001

Mr. Andrew Nowacki
City of Alameda
Public Works Department
950 West Mall Square
Alameda, California 94501

Subject: Subsurface Investigation Report
3rd Street Pump Station
Alameda, California

Dear Mr. Nowacki:

In accordance with your request, and as described in our *Proposal for Geotechnical and Environmental Evaluations* dated July 13, 2020, Ninyo & Moore has conducted a Subsurface Investigation and, based on our finding prepared this Subsurface Investigation Report (SIR) for the 3rd Street Pump Station project located in the vicinity of 3rd Street and Ralph Appezato Memorial Parkway in Alameda, California (Site, Figure 1). This SIR includes a description of sampling activities, analytical results, findings and conclusions associated with our SIR activities.


We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE

Madeleine Little
Madeleine Little
Staff Geologist

HEH/KML/gvr

Distribution: (1) Addressee, via email

Kristopher M. Larson

Kristopher M. Larson, PG 8059
Principal Environmental Geologist

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- 2 – Soil Analytical Results – Title 22 Metals
- 3 – Groundwater Analytical Results

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- 1 – Site Vicinity
- 2 – Site Plan

APPENDICES

A – Marsh Crust Ordinance Map

B – Permits

C – Boring Log

D – Analytical Laboratory Reports

1 INTRODUCTION

Ninyo & Moore was retained by the City of Alameda Public Works Department to perform a Subsurface Investigation Report (SIR) at the 3rd Street Pump Station, located at the intersection of 3rd Street and the Cross Alameda Trail (CAT) on the southern side of Ralph Appezzato Memorial Parkway (RAMP) (Figure 1, Site). Work was conducted under our current on-call geotechnical engineering on-call services contract. The work was proposed in conjunction with pump station upgrades including the installation of a new wet well and equipment pads. This SIR was performed to evaluate the potential impacts to soil and groundwater from historical Site uses in the proposed project area. A geotechnical investigation was conducted separately to evaluate subsurface conditions and to provide recommendations for the construction and design of the proposed improvements, and will be submitted under separate cover.

2 BACKGROUND

The Site is located in the CAT/RAMP, approximately 300 feet east of the intersection of 3rd Street and RAMP. The Site currently consists of an existing storm drain water pump station. Upgrades to the station include installation of a new wet well extending approximately 18 feet below ground surface (bgs) to replace the existing wet well.

The Site is located within the City of Alameda's Ordinance No. 2824 boundary, in an area where the Marsh Crust permit applies to any excavations extending deeper than the mean higher high tide elevation (Appendix A). The Marsh Crust is a layer of contaminated sediment that was formed by discharges of gas plants and oil refineries into the San Francisco Bay and the Oakland Inner Harbor from the late 1800s until the 1920s. These sediments were dredged and used to fill tidal flats in the western portion of Alameda, known as Alameda Point, from approximately 1900 to 1930. The Marsh Crust is a layer of high organic content and typically marks the top boundary of Bay Mud beneath western Alameda.

Based on the location of the Site, Ninyo & Moore proposed to install one environmental boring to first-encountered groundwater to determine potential impacts to soil and groundwater at the Site from historical uses.

3 PRE-FIELD ACTIVITIES

The following pre-field activities were performed prior to mobilizing to the site.

3.1 Permitting

Ninyo & Moore obtained two permits, Marsh Crust Permit no. MC20-0001 and Encroachment Permit no. EN20-0290 from the City of Alameda. Ninyo & Moore also obtained Boring Permit no. W2020-0514 from the County of Alameda. These permits are provided in Appendix B.

3.2 Utility Location

As required by California law, Ninyo & Moore notified Underground Service Alert (USA) at least 48 hours prior to conducting any ground disturbance activities. Ninyo & Moore personnel marked out the vicinity of the boring locations in white paint and notified USA of the proposed drilling, including location and date. No conflicts were identified with the proposed boring location.

3.3 Health and Safety Plan

Prior to mobilizing to the Site for field activities, Ninyo & Moore prepared a Site-specific Health and Safety Plan (SSHSP) which was reviewed with field personnel prior to the start of each day of field work. The SSHSP specified concerns associated with soil and groundwater sampling, and identified the location and route to the nearest emergency medical facility. Field personnel signed the acknowledgement form attached to the SSHSP, indicating they understood and would abide by its provisions.

4 FIELD ACTIVITIES

Field activities performed at the Site included advancing one soil boring (B1) using a hand-auger to 5 feet bgs, then to depth via a direct push drilling rig. Ninyo & Moore collected two soil samples and one groundwater sample from the boring. Following sampling activities, the borehole was backfilled to grade with neat cement grout.

4.1 Soil Sampling Activities

On September 23, 2020, Ninyo & Moore personnel oversaw VTS Drilling LLC (VTS) of Hayward, California (C57 no. 916085) advance B1 to a depth of 20 feet bgs. The location of boring B1 is presented on Figure 2, and the soil boring log is presented in Appendix C.

In accordance with the Marsh Crust Permit, one soil sample should be collected from above the Marsh Crust and within the Marsh Crust. Based on boring observations and PID readings, the Marsh Crust was not encountered during this event. Ninyo & Moore collected two soil samples, one from 2 to 3 feet bgs and one from 7 to 12 feet bgs, due to low recovery from the direct push drilling rig. The soil samples collected for laboratory analysis were placed in 16 ounce jars, which

were labeled with the boring identification and sample depth, placed in re-sealable plastic bags and stored in a cooler containing ice. The soil samples were transported under chain-of-custody documentation to Eurofins Scientific Laboratories (Eurofins), a California-certified analytical laboratory located in Pleasanton, California. The soil samples were analyzed for total petroleum hydrocarbons (TPH) as diesel (TPHd) and motor oil (TPHmo) by United States Environmental Protection Agency (US EPA) Method 8015B, TPH as gasoline (TPHg) and volatile organic compounds (VOCs) by US EPA Method 8260B, and Title 22 metals by US EPA Methods 6010B/7471A.

4.2 Groundwater Sampling Activities

Ninyo & Moore personnel collected a groundwater sample from boring B1. Groundwater was encountered in this boring at a depth of approximately 7 feet bgs. The groundwater sample was collected from a temporary polyvinyl chloride casing, which was lowered into the borehole, using a peristaltic pump. The groundwater sample was collected in laboratory-provided containers, placed on ice, and transported under COC documentation to Eurofins.

4.2.1 Investigation-Derived Waste

Investigation-derived waste (IDW) generated from the boring advancement included soil cuttings. The IDW was stored in a 55-gallon drum, which was labelled and placed in a secure location pending waste profiling and proper off-Site disposal. The IDW will be removed from the site pending approval of the waste profile by the waste disposal company. A copied of the waste manifest will be forwarded to the City upon receipt.

5 ANALYTICAL RESULTS

Soil analytical results are presented in Table 1 and Table 2, and grab groundwater sample results are included in Table 3. Copies of the Eurofins certified analytical laboratory reports, including chain-of-custody documentation, are provided in Appendix C.

5.1 Soil Sample Analytical Results

Soil samples were collected from boring B1 and analyzed for TPHd, TPHmo, TPHg, VOCs, PAHs, and Title 22 metals. Analytical results are summarized and compared to the San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs; RWQCB, 2019) on Tables 1 and 2. TPHs, VOCs and PAHs are presented on Table 1, and Title 22 Metals are presented on Table 2. Metals results are additionally compared to California Code of Regulations (CCR) Title 22 Division Characterization of Hazardous Waste criteria and the background

concentration of arsenic in urbanized Bay Area soils (Duverge, 2011), which has been accepted by the RWQCB.

5.1.1 Total Petroleum Hydrocarbons

Concentrations of TPHd and TPHmo were detected in one sample, B1-2, above its laboratory reporting limits (RLs), at concentrations below their respective Tier 1 ESLs. Concentrations of TPHg were not detected in either sample.

5.1.2 Volatile Organic Compounds

Concentrations of VOCs were not reported above their respective RLs in either soil sample collected during this sampling event.

5.1.3 Polycyclic Aromatic Hydrocarbons

Concentrations of five PAHs were reported above their respective RLs, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, indeno[1,2,3-c,d]pyrene, and pyrene, in sample B1-7, but below their respective Tier 1 ESLs. Concentrations of PAHs were not detected in sample B1-2.

5.1.4 Title 22 Metals

Concentrations of 11 metals, arsenic, barium, beryllium, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc, were detected in the two samples. Any ESL exceedances are discussed below:

- Arsenic was detected in sample B1-2 at a concentration of 4.7 milligrams per kilogram (mg/kg) and in sample B1-7 at 2.0 mg/kg. These concentrations exceed its RWQCB Tier 1 ESL and Construction Worker ESL, however, they do not exceed the background concentration of arsenic in urbanized Bay Area soils of 11 mg/kg (Duverge, 2011).
- Vanadium was detected in sample B1-2 at 49 mg/kg and in sample B1-7 at 19 mg/kg, which exceed the RWQCB Tier 1 ESL of 18 mg/kg, which is based on terrestrial habitat. These concentrations are below the Construction Worker ESL of 470 mg/kg.

5.1.4.1 Waste Extraction Test

Metals concentrations were compared to state and CCR Title 22 Hazardous Waste criteria for soil characterization purposes. Chromium in sample B1-2 exceeded its trigger level of 10 times the Soluble Threshold Limit Concentration (STLC) of 50 mg/kg. A STLC Waste Extraction Test (WET) was performed on this sample and the result did not exceed its STLC.

5.2 Groundwater Analytical Results

One grab groundwater sample, B1-GW-1, was collected from boring B1 and analyzed for TPHd, TPHmo, TPHg, VOCs, and SVOCs. Concentrations of these constituents were not detected above their respective RLs in the sample.

6 FINDINGS AND CONCLUSIONS

Based on the results of the soil and groundwater sampling activities, Ninyo & Moore presents the following findings and conclusions:

- No obvious signs of contamination were observed during our soil sampling activities.
- Ninyo & Moore advanced one boring, B1, at the Site to assess the potential for impacts to soil and groundwater from historical Site uses.
- Minor concentrations of TPHs, PAHs and metals were detected in the soil samples, however these concentrations do not pose a threat to future construction workers.
- One concentration of chromium exceeds its STLC trigger level in sample B1-2. A WET was conducted on this sample, and the result was not detected above its RL. Based on this result, the soil in boring B1 is classified as non-hazardous.
- Concentrations of TPHs, VOCs and PAHs were not detected above their respective RLs in groundwater.

7 LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in Site conditions may exist, and conditions not observed or described in this report may be encountered during subsequent activities.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-Site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil conditions will exist beyond the points explored in this evaluation.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject Site. The testing and analyses have been conducted by an independent laboratory which is certified by the State of California to conduct such tests. Ninyo & Moore have no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaim responsibility for any inaccuracy in such laboratory results.

Conclusions, recommendations and opinions are based on an analysis of the observed Site conditions. It should be understood that the conditions of a Site could change with time as a result of natural processes or the activities of man at the subject Site or nearby sites. In addition, changes to the applicable laws, regulations, codes and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore have no control. This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented or completeness of this document.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

8 REFERENCES

California Code of Regulations, Title 22 Division 4.5, Chapter 11, Article 3. Characterization of Hazardous Waste

Duverg , 2011, Establishing Background Arsenic In Soil of the Urbanized San Francisco Bay region. Dated December.

San Francisco Bay Regional Water Quality Control Board, Environmental Screening Levels. 2019. Rev.2.



TABLES

Table 1 - Soil Analytical Results - TPHs, VOCs and PAHs

Sample ID	Sample Date	TPHs			VOCs	PAHs					
		TPHd	TPHmo	TPHg		Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Indeno[1,2,3-cd]pyrene	Pyrene	Other PAHs
B1-2	9/23/2020	18 Z	28 Z	ND-99	ND	ND<0.01 F2	ND<0.01	ND<0.01 F2	ND<0.01 F2	ND<0.01	ND
B1-7	9/23/2020	ND<5.0	ND<5.0	ND<98	ND	0.013	0.014	0.01	0.013	0.013	ND
Regulatory Screening Criteria											
Tier 1 ESLs ^{1,3}											
Construction Worker ESLs ²		260	1,600	100	Various	0.11	1.1	2.5	0.48	45	Various
		1,100	54,000	1,800	Various	10	110	NE	110	5,000	Various

Notes:

ID - identification

TPH - total petroleum hydrocarbons

VOCs - volatile organic compounds analyzed using United States Environmental Protection Agency (US EPA) Method 8260B

PAHs - polycyclic aromatic hydrocarbons analyzed using US EPA method 8270C SIM

TPHd - TPH as diesel analyzed using US EPA Method 8015B

TPHmo - TPH as motor oil analyzed using US EPA Method 8015B

TPHg - TPH as gasoline analyzed using US EPA Method 8260B

mg/kg - milligrams per kilogram

µg/kg - micrograms per kilogram

ND<X = analyte not detected above laboratory reporting limit of X

ND - not detected; see analytical laboratory report for laboratory reporting limits

F2 = MS/MSD relative percent difference (RPD) exceeds control limits

Z - The chromatographic response does not resemble a typical fuel pattern

1. San Francisco Bay Regional Water Quality Control Board (SFRWQCB), Environmental Screening Levels (ESL), January 2019 (Rev. 2), Tier 1 ESLs, Soil

2. SFRWQCB ESL, January 2019 (Rev. 2), Direct Exposure Human Health Risk Levels (Table S-1), Any Land Use/Any Depth Soil Exposure: Construction Worker, Soil

NE - not established

Bold indicates constituent was detected above ESL

Table 2 - Soil Analytical Results - Title 22 Metals														
Sample ID	Sample Date	Arsenic	Barium	Beryllium	Chromium	Chromium STLC	Cobalt	Copper	Lead	Mercury	Nickel	Vanadium	Zinc	Other Metals
mg/kg														
B1-2	9/23/2020	4.7	120	0.74	52 F1	ND<0.50	14	28	4.2	0.11	66 F1	49 F1	52 F1	ND
B1-7	9/23/2020	2.0	27	0.30	27	—	5.0	6.1	1.4	ND<0.082	26	19	15	ND
Regulatory Screening Criteria														
Tier 1 ESLs ^{1,3}		0.067	390	5.0	160	—	23	180	32	13	86	18	340	Various
Construction Worker ESLs ²		0.98	3,000	27	NE	—	28	14,000	160	44	86	470	110,000	Various
Background Arsenic ³		11	—	—	—	—	—	—	—	—	—	—	—	—
STLC ⁴ x 10		50	1,000	7.5	50	5.0	800	250	50	2.0	200	240	2,500	Various

Notes:

ID - Identification

Title 22 Metals analyzed using United States Environmental Protection Agency (US EPA) Method 8010B; mercury analyzed by US EPA Method 7471

mg/L - milligrams per liter

mg/kg - milligrams per kilogram

ND < x = analyte not detected above laboratory reporting limit of x

NE - not detected; see analytical laboratory report for laboratory reporting limits

F1 = matrix spike (MS) and/or matrix spike duplicate (MSD) recovery is outside acceptance limits.

1. San Francisco Bay Regional Water Quality Control Board (SFRWQCB), Environmental Screening Levels (ESL), January 2019 (Rev. 2), Tier 1 ESLs, Soil

2. SFRWQCB ESL, January 2019 (Rev. 2), Direct Exposure Human Health Risk Levels (Table S-1), Any Land Use/Any Depth Soil Exposure: Construction Worker, Soil

3. Diverge, Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region, December, 2011

4. Soluble Threshold Limit Concentration, CCR, Title 22, STLC analytical testing trigger level is 10x the listed STLC

NE - not established

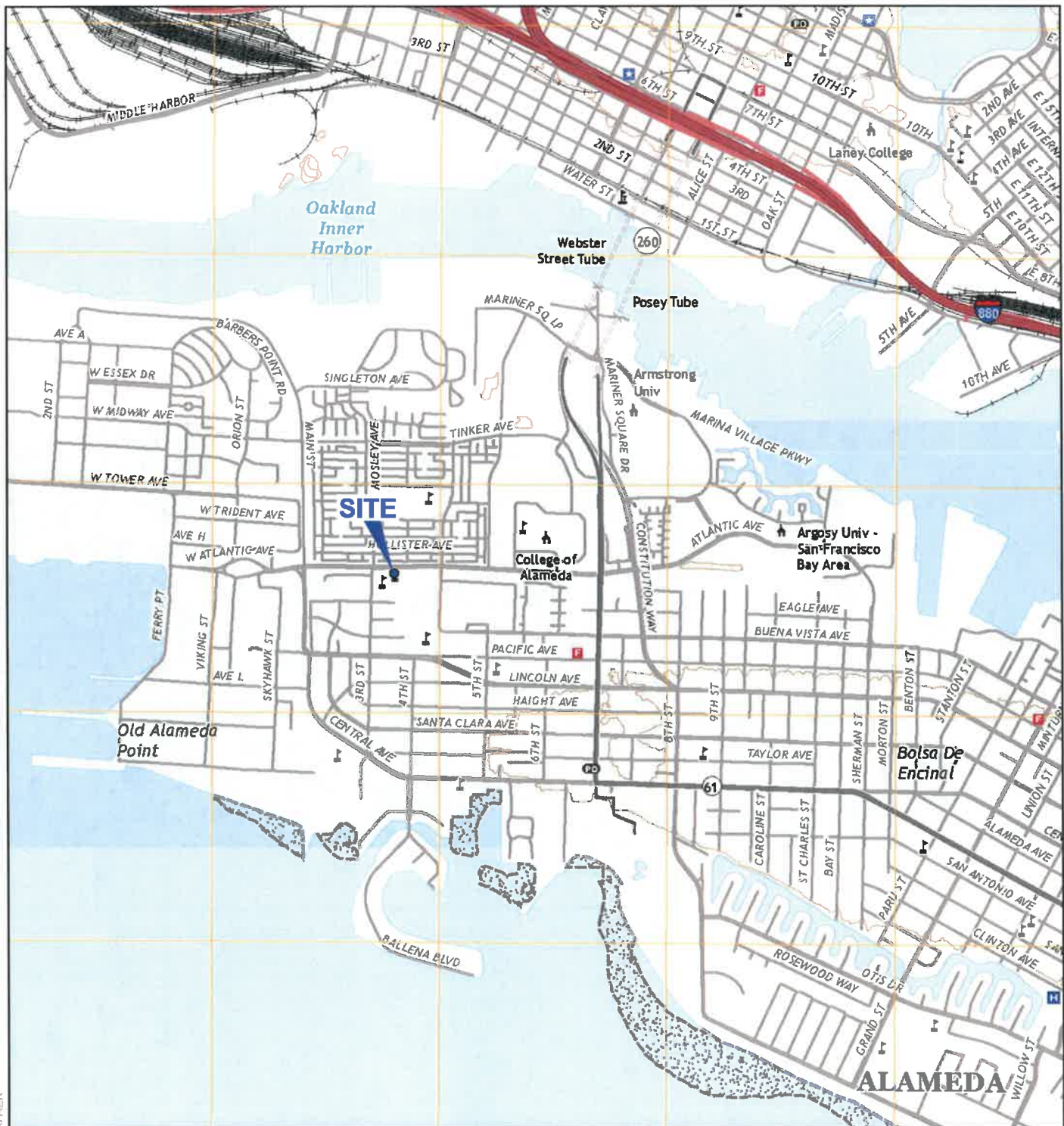
Bold indicates constituent was detected above ESL

Table 3 - Groundwater Analytical Results

Sample ID	Sample Date	TPHd	TPHmo	TPHg	VOCs	SVOCs
		µg/L				
B1-GW-1	9/23/2020	ND<46	ND<46	ND<50	ND	ND
Regulatory Screening Criteria						
Tier 1 ESLs		100	NE	100	Various	Various
Notes:						
ID - identification						
TPH - total petroleum hydrocarbons						
TPHd - TPH as diesel analyzed using United States Environmental Protection Agency (US EPA) Method 8015B						
TPHmo - TPH as motor oil analyzed using US EPA Method 8015B						
TPHg - TPH as gasoline analyzed using US EPA Method 8015B						
VOCs - volatile organic compounds analyzed using US EPA Method 8260B						
µg/L = micrograms per liter						
ND<X - analyte not detected above reporting limit of X						
ND - not detected; see laboratory report for constituents and reporting limits						
ESLs = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels, Tier 1 ESLs, January 2019 (Rev. 2), Groundwater						
NE - not established						
Bold indicates constituent was detected above ESL						



FIGURES



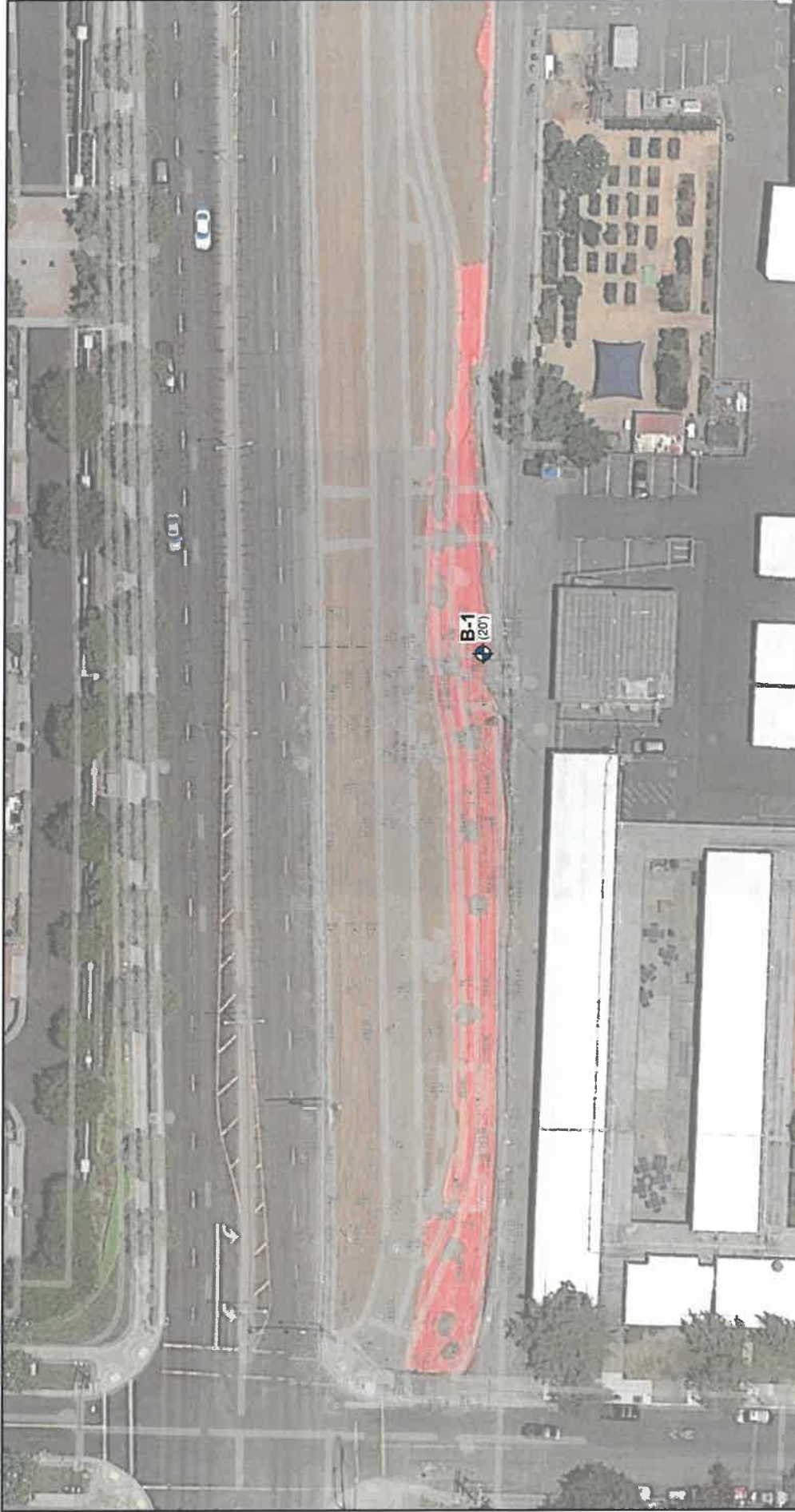
NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE | REFERENCE: USGS, 2018

FIGURE 1

Ninyo & Moore

Geotechnical & Environmental Sciences Consultants

SITE LOCATION
 CAT & 3RD STREET PUMP STATION
 CROSS ALAMEDA TRAIL
 ALAMEDA, CALIFORNIA
 403773001 | 11/20



LEGEND

-  **B-1**
(20') **BORING LOCATION**
TOTAL DEPTH, IN FEET

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE | REFERENCE: BKF 2018; GOOGLE EARTH, 2020



SCALE (FEET)



FIGURE 2

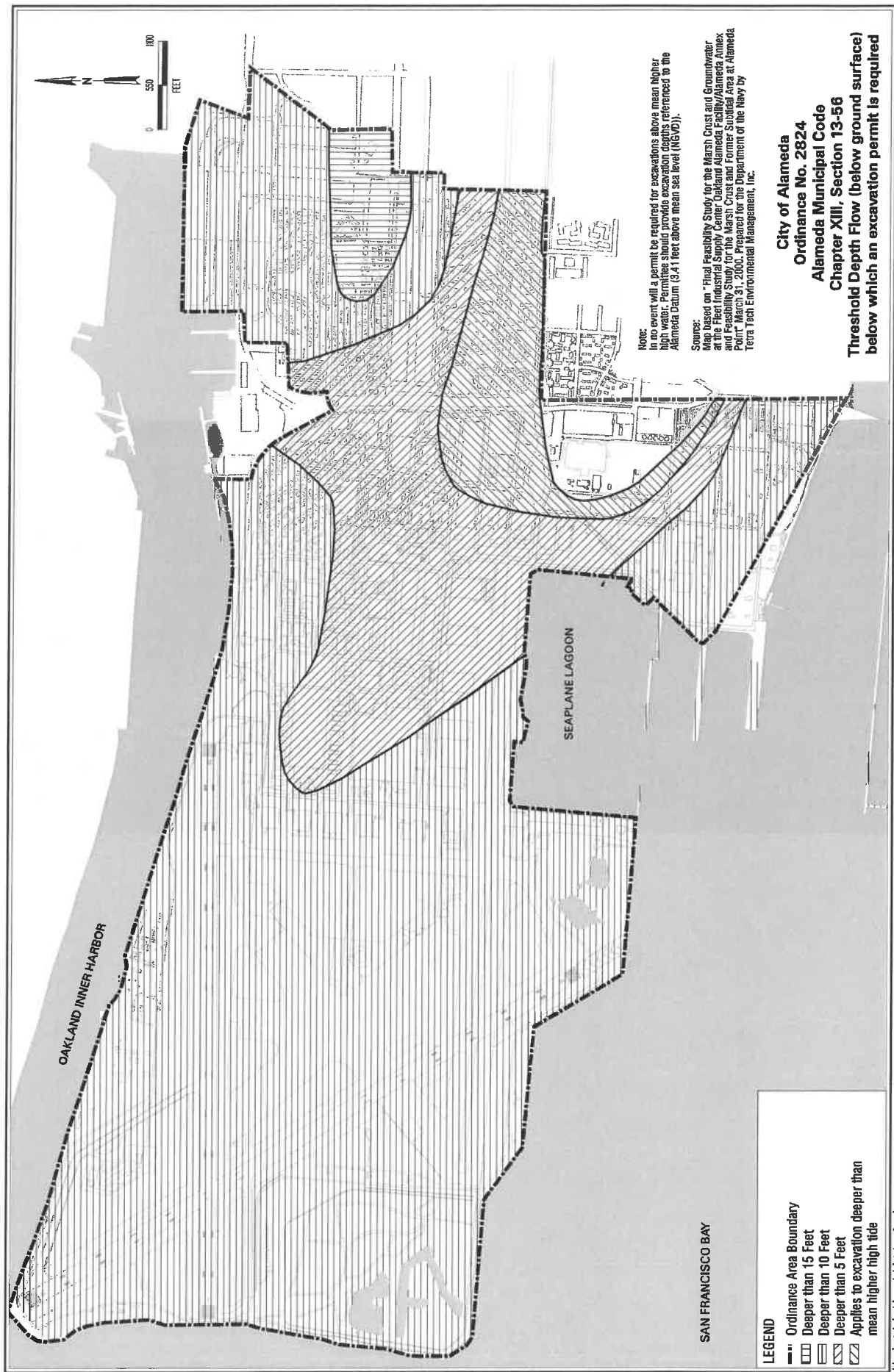
SITE PLAN

CAT & 3RD STREET PUMP STATION
CROSS ALAMEDA TRAIL
ALAMEDA, CALIFORNIA
403773001 | 11/20



APPENDIX A

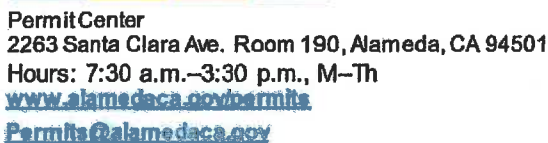
Marsh Crust Ordinance Map





APPENDIX B

Permits



Permit # EN EN20-0290

Description of Work: One boring to 30 feet, one boring to GW

Estimated Start Date: 8/10/20

Estimated Completion Date: 8/14/20

Project Related To: ☐ Public Works Permit # _____ ☐ Building Permit # _____ ☒ N/A

Applicant Attached Plan: ☒ Site Plan ☐ Traffic Control Plan ☒ Pedestrian Control Plan ☐ Other: _____

APPLICANT (Company): Ninyo & Moore

Street Address: 2020 Challenger Drive, Suite 103 Phone: () 510 343 3000

City, State, Zip: **Alameda, CA 94501** Email: **hhild@ninyoandmoore.com**

State License # **697063** Alameda Business License # **021821**

Applicant is: ☐ Property Owner ☒ Contractor ☐ Utility Company ☐ Other _____

I certify that I have read, understood, and agree to comply with the Encroachment Permit rules and regulations as stated on this and the reverse side of this permit. that the information given in this permit is true and correct.

Indemnity and Hold Harmless Agreement: Indemnitor shall defend, indemnify, and hold harmless the City of Alameda, its Council, Boards and Commissions, officers, and employees from and against any and all loss, damages, liability, claims, suits, costs, and expenses whatsoever, including reasonable attorney's fees, regardless of the merit of outcome of any such claim or suit arising from or in any manner connected to the event, services, or work conducted or performed pursuant to this Agreement and Permit. Indemnitor shall defend, indemnify and hold harmless the City of Alameda, its Council, Boards and Commissions, officers, and employees from and against any and all loss, damages, liability, claims, suits, costs, and expenses whatsoever, including reasonable attorney's fees, accruing or resulting to any and all persons, firms, or corporations, furnishing or supplying work, services, materials, equipment, or supplies arising from or in any manner connected to the services or work conducted or performed pursuant to this Agreement and Permit. By the signature below, Indemnitor agrees that it has read this Indemnity and Hold Harmless Agreement and accepts and agrees to each and every term and condition therein. The Signatory below warrants that he/she is authorized by the Indemnitor to execute on its behalf this Indemnity and Hold Harmless Agreement.:

Indemnitor (Print Name): Helen Hild

Title: Geologist

Signature:

Date: 7/31/20

- Have permit and City approved traffic control plans on site
- Utility Companies must email daily field locations to John Tallitsch, JTallitsch@alamedaca.gov by 8:00am
- Applicant must notify Underground Service Alert (USA) at least two (2) working days prior to excavation

Inspection requests received after 8am will be scheduled for the next working day. When requesting an inspection, please provide: Name, Company, Permit No., Job Location, Type of Inspection, preferred Date and Time, and phone number.

☒ Insurance Certificate / Endorsements approved by Risk Management
☐ Insurance Certificate / Endorsements on file with Risk Management

Attached Conditions: ☐ yes ☐ no

Date Granted: 8/31/2020

Expires: 8/31/2021

BY: _____

ENCROACHMENT PERMIT RULES AND REGULATIONS:

Permit No. EN

1. **Definition:** This permit is issued pursuant to Article 19 of Chapter 22 of the Alameda Municipal Code.
2. **Acceptance of provisions:** Commencing any work under this permit shall constitute an acceptance by the applicant to comply with all local ordinances and state laws relating to building construction and any conditions attached to this permit. All work involved is to be done in accordance with standard CITY OF ALAMEDA specifications and CITY OF ALAMEDA practices, all to the satisfaction of the CITY Engineer.
3. **Insurance and Additional Insured Endorsement Requirements:** Applicant shall obtain and maintain through the terms of this permit general liability, automobile liability, or worker's compensation and any other insurance coverage as required based on the type of contract and scope of services pursuant to the Hold Harmless and Indemnity Agreement, as follows: **Certificate of Insurance:** **General Liability:** minimum \$1,000,000 per/occurrence/\$2 million per/aggregate. Insurance coverage and limits shall be 1) the minimum coverage and limits specified in this agreement, or 2) the broader coverage and maximum limits of the coverage carried by or available to the named insured, whichever is greater. **Notice of Cancellation:** provide the City of Alameda ten (10) days advance written notice of cancellation, non-renewal or reduction in limits or coverage including the name of the contract or event. **Additional Insured Endorsement Policy:** Name the "City of Alameda, its Council, Officers, Employees, Volunteers, Board and Commissions" as additional insureds and must include the policy number and type of coverage. **PLEASE NOTE: a statement included on the Certificate that the City is an additional insured, is NOT sufficient. Please ask your insurance broker or agent to provide all insurance documents to the City of Alameda ten (10) days prior to the event taking place since several departments must sign off on the entire request package prior to approval of the permit application.**
4. **Workers Compensation:** Applicant shall maintain statutory coverage as required by the State of California.
5. **USA:** All utilities within the work area shall be located and marked by USA prior to commencing excavation, trenching, micro-tunneling, or boring operations. Call 811 or 1800-227-2600, minimum of two working days prior to any excavation.
6. **Required Inspections:** Applicant shall notify the Public Works Inspector (510) 747-7930, 2 business days prior to beginning of any work within the City's right-of-way. Inspection is mandatory for trenching, backfill, concrete, asphalt, striping, storm and sewer pipe installation, traffic/pedestrian detours, urban runoff, and final inspection. Do not conceal or cover any construction units until the work is inspected by the City of Alameda Public Works Department. Failure to obtain inspections prior to completion of work may result in rejection of said work and is subject to additional inspection costs per the Master Fee Schedule.
7. **Public Notifications:** All property owners and businesses within the immediate vicinity of the proposed work area must be notified in writing at least 5 days prior to the start of construction. All public notifications must include a brief description of the work, contractor information, including company name, license number, contact person's name, and phone number, for citizens to report their concerns while work is in progress.
8. **Trash Notification:** If the proposed traffic control and/or work will impact weekly trash collection, contact Kerry Parker at kparker@alamedaca.gov at least 3 days in advance of work.
9. **Permits from other agencies:** Applicant must obtain consent from any other public or private agencies or individuals required to complete such work. Such consent may be required to be obtained prior to issuance of an encroachment permit from the CITY. If this provision is not complied with, this permit shall be void.
10. **Hours of Work:** Work shall only be conducted between hours of 7:00 a.m. and 7:00 p.m., Monday through Friday. Uninterrupted traffic circulation within the public right-of-way is mandatory during the commute hour of 7:30 a.m. to 9:00 a.m. and 3:00 p.m. to 4:30 p.m. Work outside these hours may be authorized in writing based on CITY staff availability. No construction activity shall be permitted on Sundays or State and Federal holidays.
11. **Traffic Control:** If construction work encroaches within the public right-of-way, the applicant must submit a traffic control plan for vehicles and pedestrians that conforms to standards and guidelines provided by the California Manual on Uniform Traffic Control Devices and/or Caltrans Standard Plans.
12. **Urban Runoff Clean Water Program:** Applicant shall implement and maintain measures to keep sediment, washwaters, equipment maintenance products, and other construction related material/debris from entering the storm drainage system. Dumping or discharge into the CITY's storm drainage system, including the street, is prohibited. Measures to protect the storm drainage system shall be in place prior to start of work. Contractor is required to protect inlets. Failure to comply is subject to \$250.00 per violation and per day.
13. **Hauling Provisions:** Applicant hereby acknowledges and understands the following for projects valued at less than \$100,000; 1) Applicant shall not hire any contractor or business entity to place a dumpster or haul Construction and Demolition (C&D) debris other than the City's franchised waste hauler, Alameda County Industries (ACI); 2) Applicant may choose to haul C&D debris personally; 3) Waste that is not C&D shall be hauled by ACI.
14. **Construction Staging:** Storage of construction materials and equipment within the public right-of-way is not permitted at any time. Streets shall be swept and kept clean after daily work.
15. **Pavement, Traffic Striping & Detectors:** Whenever the applicant disturbs the surface of any public property for any purpose, applicant shall restore that property to the condition that existed prior to that disturbance in accordance with CITY standard plans. Additionally, traffic striping & marking, signal detectors, curb, gutter and other concrete improvements, damaged as a result of construction shall be replaced to the satisfaction of the City Engineer or designated agent. Installation and maintenance of temporary striping and pavement markers is required while work is ongoing.
16. **Site Restoration:** Upon completion of the work all existing improvements within the project area (e.g. landscaping, irrigation, utilities, paths, area drainage, etc.) shall be completely restored to prior condition within five (5) working days of installation. Any damage within the public-right-of-ways shall be replaced at the permittee's expense to the satisfaction of the City Engineer or his designated agent.
17. **Display of Permit:** This permit shall be kept at the site of work. Upon request, the permit must be shown to any representative of the CITY Engineer or law enforcement officer.

I HAVE READ BOTH PAGES. Applicant Signature: _____

Date: _____

7/31/20



LEGEND

- B-1 BORING LOCATION TOTAL DEPTH, IN FEET
- WORK ZONE
- WORK ZONE DELINEATION
- SIDEWALK CLOSED AHEAD SIGN

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE | REFERENCE: BKF, 2018; GOOGLE EARTH, 2020



FIGURE 1

SITE PLAN WITH WORK ZONE

CAT & 3RD STREET PUMP STATION
CROSS ALAMEDA TRAIL
ALAMEDA, CALIFORNIA
403773001 | 08/20



CITY OF ALAMEDA
2283 SANTA CLARA AVENUE, ROOM 190
ALAMEDA, CA 94501

(510) 747-6800

Marsh Crust Permit : MC20-0001

Applicant Information

MADELEINE LITTLE
NINYO & MOORE GEOTECHNICAL &
ENVIROMENTAL SCIENCES
CONSULTANTS
5710 RUFFIN ROAD
SAN DIEGO CA, 92123
(858) 576-1000

Contractor Information

NINYO & MOORE GEOTECHNICAL &
ENVIROMENTAL SCIENCES
CONSULTANTS
5710 RUFFIN ROAD
SAN DIEGO, CA 92123
8585761000

Owner Information

CITY OF ALAMEDA
CITY MANAGER
2263 SANTA CLARA AVE
ALAMEDA, CA 94501-4477

Project Information

Status: **Issued** Applied: **08/05/2020** Issued: **09/09/2020**
Type: **Marsh Crust Permit** Finaled: Expired: **03/08/2021**
Category: **NA**
Sub-Type: **NA**
Parcel Number: **071-0219-028-03** Valuation:
Job Address: **RALPH APPEZZATO MEMORIAL PKWY**
Work Description: **MARSH CRUST - FOR THE PURPOSE OF ENVIRONMENTAL AND GEOTECHNICAL SAMPLING ON
THE SOUTH SIDE OF RALPH APPEZZATO MEMORIAL PKWY 213 FT FROM 320 HOLLISTER AVE**

<u>FEE DESCRIPTION</u>	<u>ACCOUNT CODE</u>	<u>UNITS</u>	<u>FEE AMOUNT</u>	<u>PAID</u>
Building Permit Fee (Manual)	481003-33400 (1010)	200	\$200.00	\$200.00
City Attorney	07120-37900 (1420)	75	\$74.50	\$74.50
Filing Fee	481003-37450 (1050)	1	\$66.00	\$66.00
Technology Fee	481003-33063 (1051)	1	\$18.30	\$18.30
Building Standards Fee	209-212391 (1230)	1	\$1.00	\$1.00
Plan Check Fee - Building	481003-37160 (1025)	100	\$100.00	\$100.00
Community Planning Fee (manual)	481005-33064 (8765)	25	\$25.00	\$25.00
TOTALS:			\$484.80	\$484.80

<u>RECEIPT #</u>	<u>PAYMENT METHOD</u>	<u>CHECK #</u>	<u>PAYOR:</u>	<u>RECEIPT DATE</u>	<u>RECEIPT AMOUNT</u>
540318	Credit Card		JENNY O'TOOLE	08/06/2020	\$484.80
Cashier: RWRIGHT					
Total Payments:					\$484.80
Balance Due:					\$0.00



APPENDIX C

Boring Log

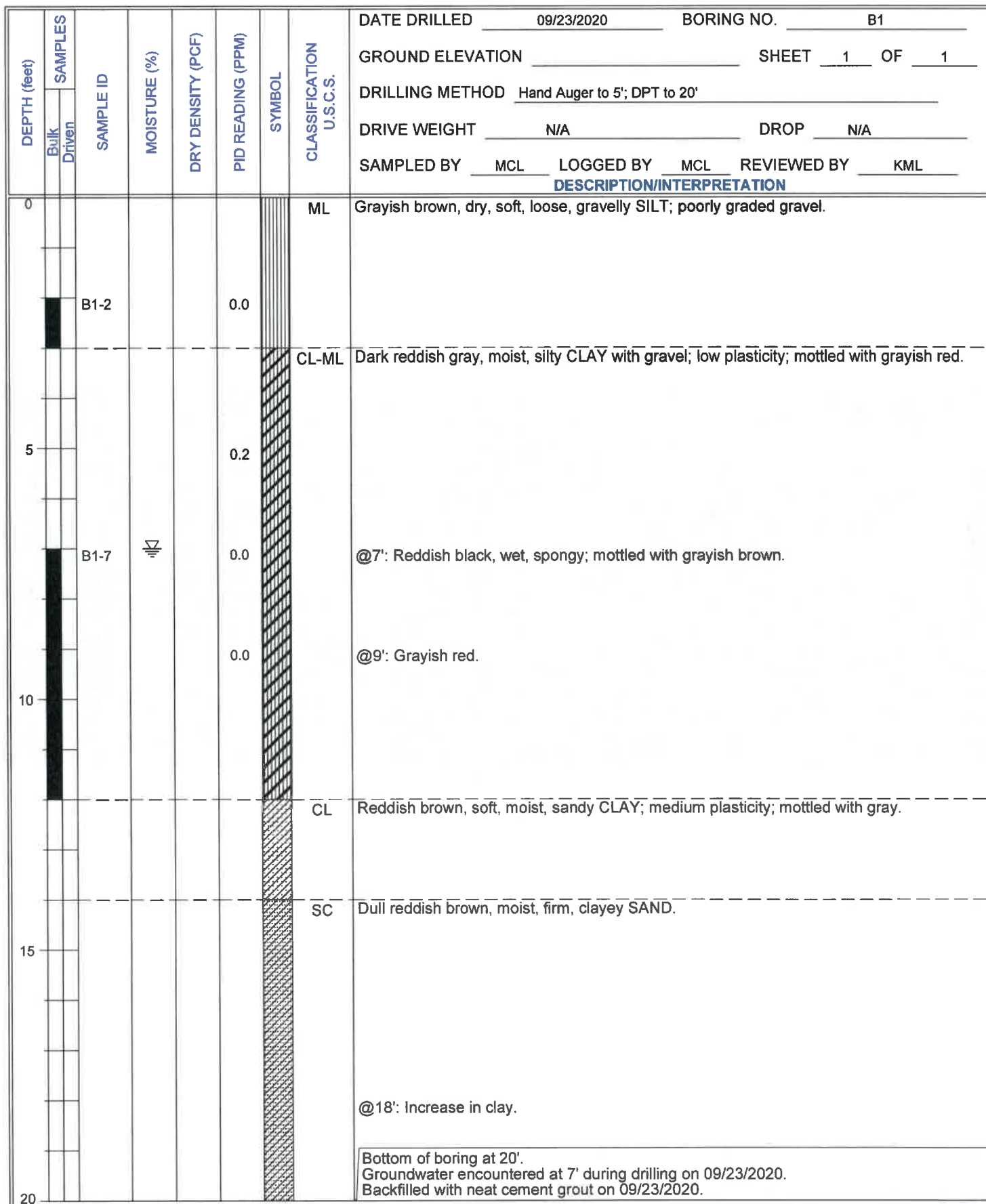


FIGURE C-1



APPENDIX D

Analytical Laboratory Reports



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

Laboratory Job ID: 720-99942-1
Client Project/Site: CAT RAMP Sampling

For:
Ninyo & Moore
2020 Challenger Drive
Suite 103
Alameda, California 94501

Attn: Helen Hild

Authorized for release by:
9/30/2020 5:47:29 PM

Justinn Gonzales, Project Manager I
(925)484-1919
Justinn.Gonzales@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits

GC Semi VOA

Qualifier	Qualifier Description
Z	The chromatographic response does not resemble a typical fuel pattern.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
L	A negative instrument reading had an absolute value greater than the reporting limit

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Job ID: 720-99942-1

Laboratory: Eurofins TestAmerica, Pleasanton

Narrative

Job Narrative 720-99942-1

Comments

No additional comments.

Receipt

The samples were received on 9/23/2020 2:00 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-97566.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 8270C SIM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 570-97164 and analytical batch 570-97943 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-97345 and analytical batch 570-97731 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 570-97345 and analytical batch 570-97731 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 6010B: Due to the high concentration of Barium the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 570-97345 and analytical batch 570-97731 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 6010B: The absolute response for Selenium was greater than the method reporting limit (RL) in the following sample: B1-2 (720-99942-1). The instrument raw data has been manually reviewed and the result can be reported as ND.

Method 6010B: The absolute response for Lead was greater than the method reporting limit (RL) in the following sample: (MB 570-97345/1-A). The instrument raw data has been manually reviewed and the result can be reported as ND.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-97735. LCS/LCSD was performed to meet QC requirements.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Client Sample ID: B1-2

Lab Sample ID: 720-99942-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Naphthalene	0.015	F2	0.010		mg/Kg	1			8270C SIM	Total/NA
Diesel Range Organics [C10-C28]	18	Z	5.0		mg/Kg	1			8015B	Total/NA
Motor Oil Range Organics [C24-C36]	28	Z	5.0		mg/Kg	1			8015B	Total/NA
Arsenic	4.7		0.76		mg/Kg	1			6010B	Total/NA
Barium	120		0.51		mg/Kg	1			6010B	Total/NA
Beryllium	0.74		0.25		mg/Kg	1			6010B	Total/NA
Cobalt	14		0.25		mg/Kg	1			6010B	Total/NA
Chromium	52	F1	0.25		mg/Kg	1			6010B	Total/NA
Copper	28		0.51		mg/Kg	1			6010B	Total/NA
Nickel	66	F1	0.25		mg/Kg	1			6010B	Total/NA
Vanadium	49	F1	0.25		mg/Kg	1			6010B	Total/NA
Zinc	52	F1	1.0		mg/Kg	1			6010B	Total/NA
Lead	4.2		0.51		mg/Kg	1			6010B	Total/NA
Mercury	0.11		0.085		mg/Kg	1			7471A	Total/NA

Client Sample ID: B1-7

Lab Sample ID: 720-99942-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzo[a]pyrene	0.013		0.010		mg/Kg	1			8270C SIM	Total/NA
Benzo[b]fluoranthene	0.014		0.010		mg/Kg	1			8270C SIM	Total/NA
Benzo[g,h,i]perylene	0.010		0.010		mg/Kg	1			8270C SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.013		0.010		mg/Kg	1			8270C SIM	Total/NA
Pyrene	0.013		0.010		mg/Kg	1			8270C SIM	Total/NA
Arsenic	2.0		0.73		mg/Kg	1			6010B	Total/NA
Barium	27		0.49		mg/Kg	1			6010B	Total/NA
Beryllium	0.30		0.24		mg/Kg	1			6010B	Total/NA
Cobalt	5.0		0.24		mg/Kg	1			6010B	Total/NA
Chromium	27		0.24		mg/Kg	1			6010B	Total/NA
Copper	6.1		0.49		mg/Kg	1			6010B	Total/NA
Nickel	26		0.24		mg/Kg	1			6010B	Total/NA
Vanadium	19		0.24		mg/Kg	1			6010B	Total/NA
Zinc	15		0.97		mg/Kg	1			6010B	Total/NA
Lead	1.4		0.49		mg/Kg	1			6010B	Total/NA

Client Sample ID: B1-GW-1

Lab Sample ID: 720-99942-3

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pleasanton

Client Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Client Sample ID: B1-2

Lab Sample ID: 720-99942-1

Date Collected: 09/23/20 07:52

Matrix: Solid

Date Received: 09/23/20 14:00

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C4-C12	ND		99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120				09/24/20 14:59	09/24/20 18:01	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Acetone	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Benzene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Dichlorobromomethane	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Bromobenzene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Chlorobromomethane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Bromoform	ND		5.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Bromomethane	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
2-Butanone (MEK)	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
n-Butylbenzene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
sec-Butylbenzene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
tert-Butylbenzene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Carbon disulfide	ND		9.9		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Carbon tetrachloride	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Chlorobenzene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Chloroethane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Chloroform	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Chloromethane	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
2-Chlorotoluene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
4-Chlorotoluene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Chlorodibromomethane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,2-Dichlorobenzene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,3-Dichlorobenzene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,4-Dichlorobenzene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,3-Dichloropropane	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,1-Dichloropropene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,2-Dibromo-3-Chloropropane	ND		9.9		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Ethylene Dibromide	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Dibromomethane	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Dichlorodifluoromethane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,1-Dichloroethane	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,2-Dichloroethane	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,1-Dichloroethene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
cis-1,2-Dichloroethene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
trans-1,2-Dichloroethene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,2-Dichloropropane	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
cis-1,3-Dichloropropene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Ethylbenzene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Hexachlorobutadiene	ND		5.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
2-Hexanone	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Isopropylbenzene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1

Eurofins TestAmerica, Pleasanton

Client Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Client Sample ID: B1-2

Lab Sample ID: 720-99942-1

Date Collected: 09/23/20 07:52

Matrix: Solid

Date Received: 09/23/20 14:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Methylene Chloride	ND		9.9		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
4-Methyl-2-pentanone (MIBK)	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Naphthalene	ND		9.9		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
N-Propylbenzene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Styrene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,1,1,2-Tetrachloroethane	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Tetrachloroethene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Toluene	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,2,4-Trichlorobenzene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,1,1-Trichloroethane	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,1,2-Trichloroethane	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Trichloroethene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Trichlorofluoromethane	ND		9.9		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,2,3-Trichloropropane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.9		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Vinyl acetate	ND		9.9		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Vinyl chloride	ND		0.99		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
Xylenes, Total	ND		3.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1
2,2-Dichloropropane	ND		5.0		ug/Kg		09/24/20 14:59	09/24/20 18:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120	09/24/20 14:59	09/24/20 18:01	1
Dibromofluoromethane (Surr)	99		79 - 133	09/24/20 14:59	09/24/20 18:01	1
1,2-Dichloroethane-d4 (Surr)	101		71 - 155	09/24/20 14:59	09/24/20 18:01	1
Toluene-d8 (Surr)	101		80 - 120	09/24/20 14:59	09/24/20 18:01	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.015	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Acenaphthene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Acenaphthylene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Fluorene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Phenanthrene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Anthracene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Benzo[a]anthracene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Chrysene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Benzo[a]pyrene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Benzo[b]fluoranthene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Benzo[k]fluoranthene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Benzo[g,h,i]perylene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Indeno[1,2,3-cd]pyrene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Fluoranthene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Pyrene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1
Dibenz(a,h)anthracene	ND	F2	0.010		mg/Kg		09/25/20 07:42	09/29/20 13:07	1

Eurofins TestAmerica, Pleasanton

Client Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Client Sample ID: B1-2

Lab Sample ID: 720-99942-1

Date Collected: 09/23/20 07:52

Matrix: Solid

Date Received: 09/23/20 14:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	71		19 - 120	09/25/20 07:42	09/29/20 13:07	1
Nitrobenzene-d5 (Surr)	77		14 - 120	09/25/20 07:42	09/29/20 13:07	1
p-Terphenyl-d14 (Surr)	79		24 - 120	09/25/20 07:42	09/29/20 13:07	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	18	Z	5.0		mg/Kg		09/25/20 12:43	09/26/20 03:16	1
Motor Oil Range Organics [C24-C36]	28	Z	5.0		mg/Kg		09/25/20 12:43	09/26/20 03:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	69		61 - 145	09/25/20 12:43	09/26/20 03:16	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.25		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Arsenic	4.7		0.76		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Barium	120		0.51		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Beryllium	0.74		0.25		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Cadmium	ND		0.51		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Cobalt	14		0.25		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Chromium	52	F1	0.25		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Copper	28		0.51		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Molybdenum	ND		0.25		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Nickel	66	F1	0.25		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Antimony	ND	F1 F2	0.76		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Selenium	ND	L	0.76		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Thallium	ND		0.76		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Vanadium	49	F1	0.25		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Zinc	52	F1	1.0		mg/Kg		09/25/20 18:00	09/26/20 12:22	1
Lead	4.2		0.51		mg/Kg		09/25/20 18:00	09/26/20 12:22	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.085		mg/Kg		09/25/20 18:00	09/28/20 14:46	1

Client Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Client Sample ID: B1-7

Lab Sample ID: 720-99942-2

Date Collected: 09/23/20 08:20

Matrix: Solid

Date Received: 09/23/20 14:00

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C4-C12	ND		98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120				09/24/20 14:59	09/24/20 18:27	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Acetone	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Benzene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Dichlorobromomethane	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Bromobenzene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Chlorobromomethane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Bromoform	ND		4.9		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Bromomethane	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
2-Butanone (MEK)	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
n-Butylbenzene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
sec-Butylbenzene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
tert-Butylbenzene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Carbon disulfide	ND		9.8		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Carbon tetrachloride	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Chlorobenzene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Chloroethane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Chloroform	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Chloromethane	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
2-Chlorotoluene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
4-Chlorotoluene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Chlorodibromomethane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,2-Dichlorobenzene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,3-Dichlorobenzene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,4-Dichlorobenzene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,3-Dichloropropane	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,1-Dichloropropene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,2-Dibromo-3-Chloropropane	ND		9.8		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Ethylene Dibromide	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Dibromomethane	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Dichlorodifluoromethane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,1-Dichloroethane	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,2-Dichloroethane	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,1-Dichloroethene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
cis-1,2-Dichloroethene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
trans-1,2-Dichloroethene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,2-Dichloropropane	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
cis-1,3-Dichloropropene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Ethylbenzene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Hexachlorobutadiene	ND		4.9		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
2-Hexanone	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Isopropylbenzene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1

Eurofins TestAmerica, Pleasanton

Client Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Client Sample ID: B1-7

Lab Sample ID: 720-99942-2

Date Collected: 09/23/20 08:20

Matrix: Solid

Date Received: 09/23/20 14:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Methylene Chloride	ND		9.8		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
4-Methyl-2-pentanone (MIBK)	ND		20		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Naphthalene	ND		9.8		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
N-Propylbenzene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Styrene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,1,1,2-Tetrachloroethane	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Tetrachloroethene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Toluene	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,2,4-Trichlorobenzene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,1,1-Trichloroethane	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,1,2-Trichloroethane	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Trichloroethene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Trichlorofluoromethane	ND		9.8		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,2,3-Trichloropropane	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.8		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Vinyl acetate	ND		9.8		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Vinyl chloride	ND		0.98		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
Xylenes, Total	ND		2.9		ug/Kg		09/24/20 14:59	09/24/20 18:27	1
2,2-Dichloropropane	ND		4.9		ug/Kg		09/24/20 14:59	09/24/20 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120	09/24/20 14:59	09/24/20 18:27	1
Dibromofluoromethane (Surr)	100		79 - 133	09/24/20 14:59	09/24/20 18:27	1
1,2-Dichloroethane-d4 (Surr)	100		71 - 155	09/24/20 14:59	09/24/20 18:27	1
Toluene-d8 (Surr)	98		80 - 120	09/24/20 14:59	09/24/20 18:27	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Acenaphthene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Acenaphthylene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Fluorene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Phenanthrene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Anthracene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Benzo[a]anthracene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Chrysene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Benzo[a]pyrene	0.013		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Benzo[b]fluoranthene	0.014		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Benzo[k]fluoranthene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Benzo[g,h,i]perylene	0.010		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Indeno[1,2,3-cd]pyrene	0.013		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Fluoranthene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Pyrene	0.013		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1
Dibenz(a,h)anthracene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 13:25	1

Eurofins TestAmerica, Pleasanton

Client Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Client Sample ID: B1-7

Lab Sample ID: 720-99942-2

Date Collected: 09/23/20 08:20

Matrix: Solid

Date Received: 09/23/20 14:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		19 - 120	09/25/20 07:42	09/29/20 13:25	1
Nitrobenzene-d5 (Surr)	73		14 - 120	09/25/20 07:42	09/29/20 13:25	1
p-Terphenyl-d14 (Surr)	72		24 - 120	09/25/20 07:42	09/29/20 13:25	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		5.0		mg/Kg		09/25/20 12:43	09/26/20 03:36	1
Motor Oil Range Organics [C24-C36]	ND		5.0		mg/Kg		09/25/20 12:43	09/26/20 03:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	88		61 - 145	09/25/20 12:43	09/26/20 03:36	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.24		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Arsenic	2.0		0.73		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Barium	27		0.49		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Beryllium	0.30		0.24		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Cadmium	ND		0.49		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Cobalt	5.0		0.24		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Chromium	27		0.24		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Copper	6.1		0.49		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Molybdenum	ND		0.24		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Nickel	26		0.24		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Antimony	ND		0.73		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Selenium	ND		0.73		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Thallium	ND		0.73		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Vanadium	19		0.24		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Zinc	15		0.97		mg/Kg		09/25/20 18:00	09/26/20 12:28	1
Lead	1.4		0.49		mg/Kg		09/25/20 18:00	09/26/20 12:28	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.082		mg/Kg		09/25/20 18:00	09/28/20 14:52	1

Client Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Client Sample ID: B1-GW-1

Lab Sample ID: 720-99942-3

Date Collected: 09/23/20 08:50

Matrix: Water

Date Received: 09/23/20 14:00

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12	ND		50		ug/L			09/26/20 04:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120					09/26/20 04:33	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0		ug/L			09/28/20 07:23	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/28/20 07:23	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/28/20 07:23	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/28/20 07:23	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/28/20 07:23	1
1,1-Dichloroethane	ND		0.50		ug/L			09/28/20 07:23	1
1,1-Dichloroethene	ND		0.50		ug/L			09/28/20 07:23	1
1,1-Dichloropropene	ND		0.50		ug/L			09/28/20 07:23	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			09/28/20 07:23	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			09/28/20 07:23	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/28/20 07:23	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			09/28/20 07:23	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/28/20 07:23	1
1,2-Dichloroethane	ND		0.50		ug/L			09/28/20 07:23	1
1,2-Dichloropropane	ND		0.50		ug/L			09/28/20 07:23	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/28/20 07:23	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/28/20 07:23	1
1,3-Dichloropropane	ND		1.0		ug/L			09/28/20 07:23	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/28/20 07:23	1
2,2-Dichloropropane	ND		1.0		ug/L			09/28/20 07:23	1
2-Chlorotoluene	ND		0.50		ug/L			09/28/20 07:23	1
2-Hexanone	ND		10		ug/L			09/28/20 07:23	1
4-Chlorotoluene	ND		0.50		ug/L			09/28/20 07:23	1
4-Isopropyltoluene	ND		0.50		ug/L			09/28/20 07:23	1
Acetone	ND		10		ug/L			09/28/20 07:23	1
Benzene	ND		0.50		ug/L			09/28/20 07:23	1
Bromobenzene	ND		0.50		ug/L			09/28/20 07:23	1
Bromoform	ND		0.50		ug/L			09/28/20 07:23	1
Bromomethane	ND		2.0		ug/L			09/28/20 07:23	1
Carbon disulfide	ND		10		ug/L			09/28/20 07:23	1
Carbon tetrachloride	ND		0.50		ug/L			09/28/20 07:23	1
Chlorobenzene	ND		0.50		ug/L			09/28/20 07:23	1
Chlorobromomethane	ND		1.0		ug/L			09/28/20 07:23	1
Chloroethane	ND		0.50		ug/L			09/28/20 07:23	1
Chloroform	ND		0.50		ug/L			09/28/20 07:23	1
Chloromethane	ND		5.0		ug/L			09/28/20 07:23	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/28/20 07:23	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/28/20 07:23	1
Chlorodibromomethane	ND		0.50		ug/L			09/28/20 07:23	1
Dibromomethane	ND		0.50		ug/L			09/28/20 07:23	1
Dichlorobromomethane	ND		0.50		ug/L			09/28/20 07:23	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/28/20 07:23	1
Ethylbenzene	ND		0.50		ug/L			09/28/20 07:23	1

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Client Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Client Sample ID: B1-GW-1

Lab Sample ID: 720-99942-3

Date Collected: 09/23/20 08:50

Matrix: Water

Date Received: 09/23/20 14:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		2.0		ug/L			09/28/20 07:23	1
Isopropylbenzene	ND		0.50		ug/L			09/28/20 07:23	1
Methylene Chloride	ND		1.0		ug/L			09/28/20 07:23	1
Methyl tert-butyl ether	ND		0.50		ug/L			09/28/20 07:23	1
Naphthalene	ND		1.0		ug/L			09/28/20 07:23	1
n-Butylbenzene	ND		0.50		ug/L			09/28/20 07:23	1
N-Propylbenzene	ND		0.50		ug/L			09/28/20 07:23	1
sec-Butylbenzene	ND		0.50		ug/L			09/28/20 07:23	1
Styrene	ND		0.50		ug/L			09/28/20 07:23	1
tert-Butylbenzene	ND		0.50		ug/L			09/28/20 07:23	1
Tetrachloroethene	ND		0.50		ug/L			09/28/20 07:23	1
Toluene	ND		0.50		ug/L			09/28/20 07:23	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/28/20 07:23	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/28/20 07:23	1
Trichloroethene	ND		0.50		ug/L			09/28/20 07:23	1
Trichlorofluoromethane	ND		0.50		ug/L			09/28/20 07:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			09/28/20 07:23	1
Vinyl acetate	ND		5.0		ug/L			09/28/20 07:23	1
Vinyl chloride	ND		0.50		ug/L			09/28/20 07:23	1
Xylenes, Total	ND		1.0		ug/L			09/28/20 07:23	1
Ethylene Dibromide	ND		0.50		ug/L			09/28/20 07:23	1
2-Butanone (MEK)	ND		5.0		ug/L			09/28/20 07:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/28/20 07:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		68 - 120		09/28/20 07:23	1
Dibromofluoromethane (Surr)	108		80 - 127		09/28/20 07:23	1
Toluene-d8 (Surr)	103		80 - 120		09/28/20 07:23	1
1,2-Dichloroethane-d4 (Surr)	113		80 - 128		09/28/20 07:23	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Acenaphthylene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Anthracene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Benzo[a]anthracene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Benzo[a]pyrene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Benzo[b]fluoranthene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Benzo[g,h,i]perylene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Benzo[k]fluoranthene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Chrysene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Dibenz(a,h)anthracene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Fluoranthene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Fluorene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Indeno[1,2,3-cd]pyrene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Naphthalene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Phenanthrene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1
Pyrene	ND		0.23		ug/L		09/28/20 13:23	09/29/20 15:58	1

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Client Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Client Sample ID: B1-GW-1

Lab Sample ID: 720-99942-3

Date Collected: 09/23/20 08:50

Matrix: Water

Date Received: 09/23/20 14:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	65		53 - 117	09/28/20 13:23	09/29/20 15:58	1
2-Fluorobiphenyl (Surr)	76		36 - 102	09/28/20 13:23	09/29/20 15:58	1
2-Fluorophenol (Surr)	55		21 - 80	09/28/20 13:23	09/29/20 15:58	1
Nitrobenzene-d5 (Surr)	65		43 - 114	09/28/20 13:23	09/29/20 15:58	1
Phenol-d6 (Surr)	44		3 - 63	09/28/20 13:23	09/29/20 15:58	1
p-Terphenyl-d14 (Surr)	85		45 - 117	09/28/20 13:23	09/29/20 15:58	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		46		ug/L		09/29/20 11:52	09/30/20 13:29	1
Motor Oil Range Organics [C24-C36]	ND		46		ug/L		09/29/20 11:52	09/30/20 13:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	102		68 - 140	09/29/20 11:52	09/30/20 13:29	1

Surrogate Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (79-133)	DCA (71-155)	TOL (80-120)
720-99942-1	B1-2	98	99	101	101
720-99942-2	B1-7	99	100	100	98
LCS 570-96832/2-A	Lab Control Sample	99	100	99	100
LCSD 570-96832/3-A	Lab Control Sample Dup	100	100	101	99
MB 570-96832/1-A	Method Blank	99	98	99	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (68-120)	DBFM (80-127)	TOL (80-120)	DCA (80-128)
720-99942-3	B1-GW-1	90	108	103	113
LCS 570-97566/3	Lab Control Sample	99	107	105	103
LCSD 570-97566/4	Lab Control Sample Dup	98	107	103	103
MB 570-97566/7	Method Blank	89	109	101	108

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (80-120)			
720-99942-1	B1-2	100			
720-99942-2	B1-7	98			
LCS 570-96789/7	Lab Control Sample	99			
LCSD 570-96789/8	Lab Control Sample Dup	99			
MB 570-96832/1-A	Method Blank	98			

Surrogate Legend

TOL = Toluene-d8 (Surr)

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (80-120)			
720-99942-3	B1-GW-1	101			
LCS 570-97368/4	Lab Control Sample	100			

Eurofins TestAmerica, Pleasanton

Surrogate Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TOL (80-120)
LCSD 570-97368/5	Lab Control Sample Dup	99
MB 570-97368/7	Method Blank	98

Surrogate Legend

TOL = Toluene-d8 (Surr)

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (19-120)	NBZ (14-120)	TPHd14 (24-120)
720-99942-1	B1-2	71	77	79
720-99942-1 MS	B1-2	75	83	81
720-99942-1 MSD	B1-2	53	58	59
720-99942-2	B1-7	67	73	72
LCS 570-97164/2-A	Lab Control Sample	84	93	90
LCSD 570-97164/3-A	Lab Control Sample Dup	80	89	85
MB 570-97164/1-A	Method Blank	61	63	67

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBP (53-117)	FBP (36-102)	2FP (21-80)	NBZ (43-114)	PHL6 (3-63)	TPHd14 (45-117)
720-99942-3	B1-GW-1	65	76	55	65	44	85
LCS 570-97735/2-A	Lab Control Sample	89	81	52	73	35	95
LCSD 570-97735/3-A	Lab Control Sample Dup	88	78	52	73	35	93
MB 570-97735/1-A	Method Blank	75	85	54	72	35	99

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL6 = Phenol-d6 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (61-145)
720-99942-1	B1-2	69
720-99942-2	B1-7	88
LCS 570-97240/2-A	Lab Control Sample	84

Eurofins TestAmerica, Pleasanton

Surrogate Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	OTCSN1 (61-145)	
LCSD 570-97240/3-A	Lab Control Sample Dup	86	
MB 570-97240/1-A	Method Blank	76	
Surrogate Legend			
OTCSN = n-Octacosane (Surr)			

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	OTCSN1 (68-140)	
720-99942-3	B1-GW-1	102	
LCS 570-98016/2-A	Lab Control Sample	107	
LCSD 570-98016/3-A	Lab Control Sample Dup	108	
MB 570-98016/1-A	Method Blank	110	
Surrogate Legend			
OTCSN = n-Octacosane (Surr)			

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-96832/1-A
Matrix: Solid
Analysis Batch: 96790

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 96832

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Acetone	ND		20		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Benzene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Dichlorobromomethane	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Bromobenzene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Chlorobromomethane	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Bromoform	ND		4.9		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Bromomethane	ND		20		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
2-Butanone (MEK)	ND		20		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
n-Butylbenzene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
sec-Butylbenzene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
tert-Butylbenzene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Carbon disulfide	ND		9.9		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Carbon tetrachloride	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Chlorobenzene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Chloroethane	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Chloroform	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Chloromethane	ND		20		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
2-Chlorotoluene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
4-Chlorotoluene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Chlorodibromomethane	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,2-Dichlorobenzene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,3-Dichlorobenzene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,4-Dichlorobenzene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,3-Dichloropropane	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,1-Dichloropropene	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,2-Dibromo-3-Chloropropane	ND		9.9		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Ethylene Dibromide	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Dibromomethane	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Dichlorodifluoromethane	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,1-Dichloroethane	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,2-Dichloroethane	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,1-Dichloroethene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
cis-1,2-Dichloroethene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
trans-1,2-Dichloroethene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,2-Dichloropropane	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
cis-1,3-Dichloropropene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Ethylbenzene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Hexachlorobutadiene	ND		4.9		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
2-Hexanone	ND		20		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Isopropylbenzene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
4-Isopropyltoluene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Methylene Chloride	ND		9.9		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
4-Methyl-2-pentanone (MIBK)	ND		20		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Naphthalene	ND		9.9		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
N-Propylbenzene	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Styrene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-96832/1-A

Matrix: Solid

Analysis Batch: 96790

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 96832

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Tetrachloroethene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Toluene	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,2,4-Trichlorobenzene	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,1,1-Trichloroethane	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,1,2-Trichloroethane	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Trichloroethene	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Trichlorofluoromethane	ND		9.9		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,2,3-Trichloropropane	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.9		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Vinyl acetate	ND		9.9		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Vinyl chloride	ND		0.99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Xylenes, Total	ND		3.0		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
2,2-Dichloropropane	ND		4.9		ug/Kg		09/24/20 07:55	09/24/20 11:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120	09/24/20 07:55	09/24/20 11:34	1
Dibromofluoromethane (Surr)	98		79 - 133	09/24/20 07:55	09/24/20 11:34	1
1,2-Dichloroethane-d4 (Surr)	99		71 - 155	09/24/20 07:55	09/24/20 11:34	1
Toluene-d8 (Surr)	98		80 - 120	09/24/20 07:55	09/24/20 11:34	1

Lab Sample ID: LCS 570-96832/2-A

Matrix: Solid

Analysis Batch: 96790

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 96832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	49.8	47.8		ug/Kg		96	70 - 124
Acetone	49.8	40.0		ug/Kg		80	70 - 130
Benzene	49.8	46.0		ug/Kg		92	78 - 120
Dichlorobromomethane	49.8	49.9		ug/Kg		100	70 - 130
Bromobenzene	49.8	49.4		ug/Kg		99	70 - 130
Chlorobromomethane	49.8	49.0		ug/Kg		98	70 - 130
Bromoform	49.8	51.0		ug/Kg		102	70 - 130
Bromomethane	49.8	47.2		ug/Kg		95	70 - 130
2-Butanone (MEK)	49.8	52.8		ug/Kg		106	70 - 130
n-Butylbenzene	49.8	46.5		ug/Kg		93	77 - 123
sec-Butylbenzene	49.8	50.2		ug/Kg		101	70 - 130
tert-Butylbenzene	49.8	48.2		ug/Kg		97	70 - 130
Carbon disulfide	49.8	51.8		ug/Kg		104	70 - 130
Carbon tetrachloride	49.8	48.4		ug/Kg		97	49 - 139
Chlorobenzene	49.8	48.8		ug/Kg		98	79 - 120
Chloroethane	49.8	50.6		ug/Kg		102	70 - 130
Chloroform	49.8	49.2		ug/Kg		99	70 - 130
Chloromethane	49.8	52.2		ug/Kg		105	70 - 130

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-96832/2-A

Matrix: Solid

Analysis Batch: 96790

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 96832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	49.8	46.9		ug/Kg		94	70 - 130
4-Chlorotoluene	49.8	47.2		ug/Kg		95	70 - 130
Chlorodibromomethane	49.8	51.2		ug/Kg		103	70 - 130
1,2-Dichlorobenzene	49.8	48.4		ug/Kg		97	75 - 120
1,3-Dichlorobenzene	49.8	48.8		ug/Kg		98	70 - 130
1,4-Dichlorobenzene	49.8	49.1		ug/Kg		99	70 - 130
1,3-Dichloropropane	49.8	50.7		ug/Kg		102	70 - 130
1,1-Dichloropropene	49.8	50.3		ug/Kg		101	70 - 130
1,2-Dibromo-3-Chloropropane	49.8	50.2		ug/Kg		101	70 - 130
Ethylene Dibromide	49.8	48.6		ug/Kg		98	70 - 130
Dibromomethane	49.8	49.1		ug/Kg		99	70 - 130
Dichlorodifluoromethane	49.8	48.4		ug/Kg		97	70 - 130
1,1-Dichloroethane	49.8	48.5		ug/Kg		97	70 - 130
1,2-Dichloroethane	49.8	49.6		ug/Kg		100	70 - 130
1,1-Dichloroethene	49.8	50.3		ug/Kg		101	74 - 122
cis-1,2-Dichloroethene	49.8	47.3		ug/Kg		95	70 - 130
trans-1,2-Dichloroethene	49.8	48.9		ug/Kg		98	70 - 130
1,2-Dichloropropane	49.8	50.7		ug/Kg		102	79 - 115
cis-1,3-Dichloropropene	49.8	50.4		ug/Kg		101	70 - 130
trans-1,3-Dichloropropene	49.8	53.0		ug/Kg		106	70 - 130
Ethylbenzene	49.8	47.3		ug/Kg		95	76 - 120
Hexachlorobutadiene	49.8	52.9		ug/Kg		106	80 - 120
2-Hexanone	49.8	51.6		ug/Kg		104	70 - 130
Isopropylbenzene	49.8	50.3		ug/Kg		101	70 - 130
4-Isopropyltoluene	49.8	48.5		ug/Kg		97	70 - 130
Methylene Chloride	49.8	49.6		ug/Kg		100	70 - 130
4-Methyl-2-pentanone (MIBK)	49.8	48.3		ug/Kg		97	70 - 130
Naphthalene	49.8	47.4		ug/Kg		95	70 - 130
N-Propylbenzene	49.8	46.6		ug/Kg		93	70 - 130
Styrene	49.8	49.2		ug/Kg		99	70 - 130
1,1,1,2-Tetrachloroethane	49.8	49.1		ug/Kg		99	70 - 130
1,1,2,2-Tetrachloroethane	49.8	47.7		ug/Kg		96	70 - 130
Tetrachloroethene	49.8	51.7		ug/Kg		104	70 - 130
Toluene	49.8	47.2		ug/Kg		95	77 - 120
1,2,3-Trichlorobenzene	49.8	49.3		ug/Kg		99	70 - 130
1,2,4-Trichlorobenzene	49.8	50.7		ug/Kg		102	70 - 130
1,1,1-Trichloroethane	49.8	47.1		ug/Kg		95	70 - 130
1,1,2-Trichloroethane	49.8	51.4		ug/Kg		103	70 - 130
Trichloroethene	49.8	47.7		ug/Kg		96	70 - 130
Trichlorofluoromethane	49.8	58.1		ug/Kg		117	70 - 130
1,2,3-Trichloropropane	49.8	50.0		ug/Kg		100	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	49.8	46.8		ug/Kg		94	70 - 130
1,2,4-Trimethylbenzene	49.8	48.7		ug/Kg		98	70 - 130
1,3,5-Trimethylbenzene	49.8	49.2		ug/Kg		99	70 - 130
Vinyl acetate	49.8	54.4		ug/Kg		109	70 - 130
Vinyl chloride	49.8	53.8		ug/Kg		108	68 - 122
m-Xylene & p-Xylene	99.6	91.9		ug/Kg		92	70 - 130
o-Xylene	49.8	46.8		ug/Kg		94	70 - 130

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-96832/2-A

Matrix: Solid

Analysis Batch: 96790

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 96832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	49.8	49.9		ug/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	100		79 - 133
1,2-Dichloroethane-d4 (Surr)	99		71 - 155
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 570-96832/3-A

Matrix: Solid

Analysis Batch: 96790

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 96832

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Methyl tert-butyl ether	50.2	48.3		ug/Kg		96	70 - 124	1	20
Acetone	50.2	40.2		ug/Kg		80	70 - 130	1	20
Benzene	50.2	47.2		ug/Kg		94	78 - 120	2	20
Dichlorobromomethane	50.2	52.0		ug/Kg		104	70 - 130	4	20
Bromobenzene	50.2	50.7		ug/Kg		101	70 - 130	3	20
Chlorobromomethane	50.2	49.9		ug/Kg		99	70 - 130	2	20
Bromoform	50.2	50.9		ug/Kg		101	70 - 130	0	20
Bromomethane	50.2	49.1		ug/Kg		98	70 - 130	4	20
2-Butanone (MEK)	50.2	51.4		ug/Kg		102	70 - 130	3	20
n-Butylbenzene	50.2	47.0		ug/Kg		94	77 - 123	1	25
sec-Butylbenzene	50.2	51.2		ug/Kg		102	70 - 130	2	20
tert-Butylbenzene	50.2	48.7		ug/Kg		97	70 - 130	1	20
Carbon disulfide	50.2	51.6		ug/Kg		103	70 - 130	0	20
Carbon tetrachloride	50.2	49.3		ug/Kg		98	49 - 139	2	20
Chlorobenzene	50.2	49.1		ug/Kg		98	79 - 120	1	20
Chloroethane	50.2	50.9		ug/Kg		101	70 - 130	1	20
Chloroform	50.2	49.0		ug/Kg		98	70 - 130	0	20
Chloromethane	50.2	54.0		ug/Kg		107	70 - 130	3	20
2-Chlorotoluene	50.2	48.2		ug/Kg		96	70 - 130	3	20
4-Chlorotoluene	50.2	47.2		ug/Kg		94	70 - 130	0	20
Chlorodibromomethane	50.2	52.0		ug/Kg		103	70 - 130	1	20
1,2-Dichlorobenzene	50.2	50.7		ug/Kg		101	75 - 120	5	20
1,3-Dichlorobenzene	50.2	49.2		ug/Kg		98	70 - 130	1	20
1,4-Dichlorobenzene	50.2	49.9		ug/Kg		99	70 - 130	2	20
1,3-Dichloropropane	50.2	50.4		ug/Kg		100	70 - 130	1	20
1,1-Dichloropropene	50.2	50.7		ug/Kg		101	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	50.2	47.0		ug/Kg		94	70 - 130	7	20
Ethylene Dibromide	50.2	50.2		ug/Kg		100	70 - 130	3	20
Dibromomethane	50.2	50.2		ug/Kg		100	70 - 130	2	20
Dichlorodifluoromethane	50.2	49.7		ug/Kg		99	70 - 130	3	20
1,1-Dichloroethane	50.2	49.0		ug/Kg		98	70 - 130	1	20
1,2-Dichloroethane	50.2	50.8		ug/Kg		101	70 - 130	2	20
1,1-Dichloroethene	50.2	50.0		ug/Kg		100	74 - 122	0	20
cis-1,2-Dichloroethene	50.2	46.7		ug/Kg		93	70 - 130	1	20
trans-1,2-Dichloroethene	50.2	48.7		ug/Kg		97	70 - 130	0	20

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-96832/3-A

Matrix: Solid

Analysis Batch: 96790

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 96832

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloropropane	50.2	50.9		ug/Kg		101	79 - 115	0	25
cis-1,3-Dichloropropene	50.2	51.3		ug/Kg		102	70 - 130	2	20
trans-1,3-Dichloropropene	50.2	53.8		ug/Kg		107	70 - 130	1	20
Ethylbenzene	50.2	47.7		ug/Kg		95	76 - 120	1	20
Hexachlorobutadiene	50.2	53.8		ug/Kg		107	80 - 120	2	20
2-Hexanone	50.2	51.8		ug/Kg		103	70 - 130	0	20
Isopropylbenzene	50.2	51.4		ug/Kg		102	70 - 130	2	20
4-Isopropyltoluene	50.2	49.6		ug/Kg		99	70 - 130	2	20
Methylene Chloride	50.2	51.0		ug/Kg		102	70 - 130	3	20
4-Methyl-2-pentanone (MIBK)	50.2	49.8		ug/Kg		99	70 - 130	3	20
Naphthalene	50.2	48.3		ug/Kg		96	70 - 130	2	20
N-Propylbenzene	50.2	47.5		ug/Kg		95	70 - 130	2	20
Styrene	50.2	50.4		ug/Kg		100	70 - 130	2	20
1,1,1,2-Tetrachloroethane	50.2	51.9		ug/Kg		103	70 - 130	6	20
1,1,2,2-Tetrachloroethane	50.2	48.6		ug/Kg		97	70 - 130	2	20
Tetrachloroethene	50.2	51.4		ug/Kg		102	70 - 130	0	20
Toluene	50.2	47.9		ug/Kg		95	77 - 120	1	20
1,2,3-Trichlorobenzene	50.2	50.4		ug/Kg		100	70 - 130	2	20
1,2,4-Trichlorobenzene	50.2	50.9		ug/Kg		101	70 - 130	0	20
1,1,1-Trichloroethane	50.2	47.3		ug/Kg		94	70 - 130	0	20
1,1,2-Trichloroethane	50.2	52.0		ug/Kg		104	70 - 130	1	20
Trichloroethene	50.2	47.8		ug/Kg		95	70 - 130	0	20
Trichlorofluoromethane	50.2	60.0		ug/Kg		120	70 - 130	3	20
1,2,3-Trichloropropane	50.2	50.3		ug/Kg		100	70 - 130	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.2	48.3		ug/Kg		96	70 - 130	3	20
1,2,4-Trimethylbenzene	50.2	49.2		ug/Kg		98	70 - 130	1	20
1,3,5-Trimethylbenzene	50.2	50.2		ug/Kg		100	70 - 130	2	20
Vinyl acetate	50.2	55.0		ug/Kg		110	70 - 130	1	20
Vinyl chloride	50.2	55.5		ug/Kg		111	68 - 122	3	20
m-Xylene & p-Xylene	100	93.1		ug/Kg		93	70 - 130	1	20
o-Xylene	50.2	47.2		ug/Kg		94	70 - 130	1	20
2,2-Dichloropropane	50.2	49.9		ug/Kg		99	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	100		79 - 133
1,2-Dichloroethane-d4 (Surr)	101		71 - 155
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: MB 570-97566/7

Matrix: Water

Analysis Batch: 97566

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0		ug/L			09/28/20 02:55	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/28/20 02:55	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/28/20 02:55	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/28/20 02:55	1

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-97566/7

Matrix: Water

Analysis Batch: 97566

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,2-Trichloroethane	ND		0.50		ug/L			09/28/20 02:55	1
1,1-Dichloroethane	ND		0.50		ug/L			09/28/20 02:55	1
1,1-Dichloroethene	ND		0.50		ug/L			09/28/20 02:55	1
1,1-Dichloropropene	ND		0.50		ug/L			09/28/20 02:55	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			09/28/20 02:55	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			09/28/20 02:55	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/28/20 02:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			09/28/20 02:55	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/28/20 02:55	1
1,2-Dichloroethane	ND		0.50		ug/L			09/28/20 02:55	1
1,2-Dichloropropane	ND		0.50		ug/L			09/28/20 02:55	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/28/20 02:55	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/28/20 02:55	1
1,3-Dichloropropane	ND		1.0		ug/L			09/28/20 02:55	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/28/20 02:55	1
2,2-Dichloropropane	ND		1.0		ug/L			09/28/20 02:55	1
2-Chlorotoluene	ND		0.50		ug/L			09/28/20 02:55	1
2-Hexanone	ND		10		ug/L			09/28/20 02:55	1
4-Chlorotoluene	ND		0.50		ug/L			09/28/20 02:55	1
4-Isopropyltoluene	ND		0.50		ug/L			09/28/20 02:55	1
Acetone	ND		10		ug/L			09/28/20 02:55	1
Benzene	ND		0.50		ug/L			09/28/20 02:55	1
Bromobenzene	ND		0.50		ug/L			09/28/20 02:55	1
Bromoform	ND		0.50		ug/L			09/28/20 02:55	1
Bromomethane	ND		2.0		ug/L			09/28/20 02:55	1
Carbon disulfide	ND		10		ug/L			09/28/20 02:55	1
Carbon tetrachloride	ND		0.50		ug/L			09/28/20 02:55	1
Chlorobenzene	ND		0.50		ug/L			09/28/20 02:55	1
Chlorobromomethane	ND		1.0		ug/L			09/28/20 02:55	1
Chloroethane	ND		0.50		ug/L			09/28/20 02:55	1
Chloroform	ND		0.50		ug/L			09/28/20 02:55	1
Chloromethane	ND		5.0		ug/L			09/28/20 02:55	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/28/20 02:55	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/28/20 02:55	1
Chlorodibromomethane	ND		0.50		ug/L			09/28/20 02:55	1
Dibromomethane	ND		0.50		ug/L			09/28/20 02:55	1
Dichlorobromomethane	ND		0.50		ug/L			09/28/20 02:55	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/28/20 02:55	1
Ethylbenzene	ND		0.50		ug/L			09/28/20 02:55	1
Hexachlorobutadiene	ND		2.0		ug/L			09/28/20 02:55	1
Isopropylbenzene	ND		0.50		ug/L			09/28/20 02:55	1
Methylene Chloride	ND		1.0		ug/L			09/28/20 02:55	1
Methyl tert-butyl ether	ND		0.50		ug/L			09/28/20 02:55	1
Naphthalene	ND		1.0		ug/L			09/28/20 02:55	1
n-Butylbenzene	ND		0.50		ug/L			09/28/20 02:55	1
N-Propylbenzene	ND		0.50		ug/L			09/28/20 02:55	1
sec-Butylbenzene	ND		0.50		ug/L			09/28/20 02:55	1
Styrene	ND		0.50		ug/L			09/28/20 02:55	1
tert-Butylbenzene	ND		0.50		ug/L			09/28/20 02:55	1

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-97566/7

Matrix: Water

Analysis Batch: 97566

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		0.50		ug/L			09/28/20 02:55	1
Toluene	ND		0.50		ug/L			09/28/20 02:55	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/28/20 02:55	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/28/20 02:55	1
Trichloroethene	ND		0.50		ug/L			09/28/20 02:55	1
Trichlorofluoromethane	ND		0.50		ug/L			09/28/20 02:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			09/28/20 02:55	1
Vinyl acetate	ND		5.0		ug/L			09/28/20 02:55	1
Vinyl chloride	ND		0.50		ug/L			09/28/20 02:55	1
Xylenes, Total	ND		1.0		ug/L			09/28/20 02:55	1
Ethylene Dibromide	ND		0.50		ug/L			09/28/20 02:55	1
2-Butanone (MEK)	ND		5.0		ug/L			09/28/20 02:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/28/20 02:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		68 - 120		09/28/20 02:55	1
Dibromofluoromethane (Surr)	109		80 - 127		09/28/20 02:55	1
Toluene-d8 (Surr)	101		80 - 120		09/28/20 02:55	1
1,2-Dichloroethane-d4 (Surr)	108		80 - 128		09/28/20 02:55	1

Lab Sample ID: LCS 570-97566/3

Matrix: Water

Analysis Batch: 97566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	10.0	10.7		ug/L		107	80 - 120
1,1,1,2-Tetrachloroethane	10.0	11.8		ug/L		118	80 - 126
1,1,1-Trichloroethane	10.0	10.8		ug/L		108	80 - 125
1,1,2,2-Tetrachloroethane	10.0	11.0		ug/L		110	80 - 120
1,1,2-Trichloroethane	10.0	11.4		ug/L		114	80 - 120
1,1-Dichloroethane	10.0	11.3		ug/L		113	77 - 120
1,1-Dichloroethene	10.0	9.57		ug/L		96	74 - 128
1,1-Dichloropropene	10.0	10.3		ug/L		103	79 - 125
1,2,3-Trichlorobenzene	10.0	10.4		ug/L		104	80 - 121
1,2,4-Trichlorobenzene	10.0	10.4		ug/L		104	80 - 120
1,2,4-Trimethylbenzene	10.0	9.55		ug/L		96	80 - 122
1,2-Dibromo-3-Chloropropane	10.0	11.2		ug/L		112	67 - 120
1,2-Dichlorobenzene	10.0	10.7		ug/L		107	80 - 120
1,2-Dichloroethane	10.0	10.6		ug/L		106	80 - 123
1,2-Dichloropropane	10.0	11.0		ug/L		110	80 - 120
1,3,5-Trimethylbenzene	10.0	10.2		ug/L		102	80 - 121
1,3-Dichlorobenzene	10.0	10.7		ug/L		107	80 - 120
1,3-Dichloropropane	10.0	11.2		ug/L		112	80 - 120
1,4-Dichlorobenzene	10.0	10.5		ug/L		105	80 - 120
2,2-Dichloropropane	10.0	9.05		ug/L		90	77 - 139
2-Chlorotoluene	10.0	10.2		ug/L		102	80 - 120
2-Hexanone	10.0	8.66	J	ug/L		87	66 - 129
4-Chlorotoluene	10.0	10.4		ug/L		104	80 - 120

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-97566/3

Matrix: Water

Analysis Batch: 97566

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Isopropyltoluene	10.0	10.0		ug/L		100	80 - 121
Acetone	10.0	10.7		ug/L		107	58 - 131
Benzene	10.0	10.5		ug/L		105	80 - 120
Bromobenzene	10.0	10.5		ug/L		105	80 - 120
Bromoform	10.0	13.0		ug/L		130	70 - 141
Bromomethane	10.0	12.4		ug/L		124	50 - 150
Carbon disulfide	10.0	10.7		ug/L		107	65 - 136
Carbon tetrachloride	10.0	11.5		ug/L		115	75 - 142
Chlorobenzene	10.0	10.7		ug/L		107	80 - 120
Chlorobromomethane	10.0	11.0		ug/L		110	80 - 120
Chloroethane	10.0	11.1		ug/L		111	74 - 123
Chloroform	10.0	11.0		ug/L		110	80 - 120
Chloromethane	10.0	11.3		ug/L		113	54 - 140
cis-1,2-Dichloroethene	10.0	11.0		ug/L		110	80 - 121
cis-1,3-Dichloropropene	10.0	11.0		ug/L		110	80 - 120
Chlorodibromomethane	10.0	11.6		ug/L		116	80 - 128
Dibromomethane	10.0	11.1		ug/L		111	80 - 120
Dichlorobromomethane	10.0	11.6		ug/L		116	80 - 126
Dichlorodifluoromethane	10.0	9.10		ug/L		91	63 - 135
Ethylbenzene	10.0	10.0		ug/L		100	80 - 120
Hexachlorobutadiene	10.0	9.93		ug/L		99	80 - 130
Isopropylbenzene	10.0	10.3		ug/L		103	80 - 121
m-Xylene & p-Xylene	20.0	20.0		ug/L		100	80 - 120
Methylene Chloride	10.0	11.8		ug/L		118	71 - 125
Methyl tert-butyl ether	10.0	10.7		ug/L		107	70 - 121
Naphthalene	10.0	9.26		ug/L		93	80 - 125
n-Butylbenzene	10.0	10.2		ug/L		102	80 - 124
N-Propylbenzene	10.0	10.6		ug/L		106	80 - 121
o-Xylene	10.0	10.6		ug/L		106	80 - 120
sec-Butylbenzene	10.0	10.1		ug/L		101	80 - 120
Styrene	10.0	10.5		ug/L		105	80 - 120
tert-Butylbenzene	10.0	10.2		ug/L		102	80 - 120
Tetrachloroethene	10.0	10.5		ug/L		105	80 - 126
Toluene	10.0	10.9		ug/L		109	80 - 120
trans-1,2-Dichloroethene	10.0	11.0		ug/L		110	74 - 121
trans-1,3-Dichloropropene	10.0	10.7		ug/L		107	80 - 123
Trichloroethene	10.0	10.9		ug/L		109	80 - 120
Trichlorofluoromethane	10.0	9.13		ug/L		91	74 - 137
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.5		ug/L		105	51 - 140
Vinyl acetate	10.0	8.23		ug/L		82	50 - 150
Vinyl chloride	10.0	10.1		ug/L		101	72 - 126
Ethylene Dibromide	10.0	10.9		ug/L		109	80 - 120
2-Butanone (MEK)	10.0	7.83		ug/L		78	50 - 127
4-Methyl-2-pentanone (MIBK)	10.0	9.45		ug/L		94	72 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		68 - 120

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-97566/3

Matrix: Water

Analysis Batch: 97566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	107		80 - 127
Toluene-d8 (Surr)	105		80 - 120
1,2-Dichloroethane-d4 (Surr)	103		80 - 128

Lab Sample ID: LCSD 570-97566/4

Matrix: Water

Analysis Batch: 97566

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	10.0	10.9		ug/L		109	80 - 120	2	14
1,1,1,2-Tetrachloroethane	10.0	11.9		ug/L		119	80 - 126	1	11
1,1,1-Trichloroethane	10.0	10.7		ug/L		107	80 - 125	1	14
1,1,2,2-Tetrachloroethane	10.0	10.6		ug/L		106	80 - 120	3	16
1,1,2-Trichloroethane	10.0	11.4		ug/L		114	80 - 120	1	13
1,1-Dichloroethane	10.0	11.2		ug/L		112	77 - 120	1	14
1,1-Dichloroethene	10.0	9.83		ug/L		98	74 - 128	3	17
1,1-Dichloropropene	10.0	10.4		ug/L		104	79 - 125	1	14
1,2,3-Trichlorobenzene	10.0	10.3		ug/L		103	80 - 121	0	15
1,2,4-Trichlorobenzene	10.0	10.2		ug/L		102	80 - 120	2	16
1,2,4-Trimethylbenzene	10.0	9.42		ug/L		94	80 - 122	1	15
1,2-Dibromo-3-Chloropropane	10.0	11.1		ug/L		111	67 - 120	1	20
1,2-Dichlorobenzene	10.0	10.6		ug/L		106	80 - 120	1	14
1,2-Dichloroethane	10.0	10.3		ug/L		103	80 - 123	3	10
1,2-Dichloropropane	10.0	11.0		ug/L		110	80 - 120	0	11
1,3,5-Trimethylbenzene	10.0	10.1		ug/L		101	80 - 121	1	13
1,3-Dichlorobenzene	10.0	10.4		ug/L		104	80 - 120	3	15
1,3-Dichloropropane	10.0	11.4		ug/L		114	80 - 120	2	13
1,4-Dichlorobenzene	10.0	10.1		ug/L		101	80 - 120	4	15
2,2-Dichloropropane	10.0	8.89		ug/L		89	77 - 139	2	16
2-Chlorotoluene	10.0	10.1		ug/L		101	80 - 120	2	13
2-Hexanone	10.0	8.32	J	ug/L		83	66 - 129	4	21
4-Chlorotoluene	10.0	10.2		ug/L		102	80 - 120	2	16
4-Isopropyltoluene	10.0	9.88		ug/L		99	80 - 121	1	16
Acetone	10.0	10.8		ug/L		108	58 - 131	2	30
Benzene	10.0	10.2		ug/L		102	80 - 120	3	12
Bromobenzene	10.0	10.5		ug/L		105	80 - 120	0	11
Bromoform	10.0	12.5		ug/L		125	70 - 141	3	15
Bromomethane	10.0	11.8		ug/L		118	50 - 150	5	22
Carbon disulfide	10.0	10.4		ug/L		104	65 - 136	3	17
Carbon tetrachloride	10.0	11.3		ug/L		113	75 - 142	1	15
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120	1	12
Chlorobromomethane	10.0	10.9		ug/L		109	80 - 120	1	12
Chloroethane	10.0	10.6		ug/L		106	74 - 123	4	17
Chloroform	10.0	11.1		ug/L		111	80 - 120	0	12
Chloromethane	10.0	11.1		ug/L		111	54 - 140	1	19
cis-1,2-Dichloroethene	10.0	10.9		ug/L		109	80 - 121	1	13
cis-1,3-Dichloropropene	10.0	10.8		ug/L		108	80 - 120	1	12
Chlorodibromomethane	10.0	11.9		ug/L		119	80 - 128	3	11

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-97566/4

Matrix: Water

Analysis Batch: 97566

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	10.0	11.0		ug/L		110	80 - 120	0	11
Dichlorobromomethane	10.0	11.7		ug/L		117	80 - 126	1	11
Dichlorodifluoromethane	10.0	9.07		ug/L		91	63 - 135	0	17
Ethylbenzene	10.0	9.87		ug/L		99	80 - 120	2	13
Hexachlorobutadiene	10.0	9.70		ug/L		97	80 - 130	2	19
Isopropylbenzene	10.0	10.1		ug/L		101	80 - 121	2	13
m-Xylene & p-Xylene	20.0	19.8		ug/L		99	80 - 120	1	13
Methylene Chloride	10.0	11.9		ug/L		119	71 - 125	0	19
Methyl tert-butyl ether	10.0	11.0		ug/L		110	70 - 121	3	11
Naphthalene	10.0	9.36		ug/L		94	80 - 125	1	16
n-Butylbenzene	10.0	10.1		ug/L		101	80 - 124	2	16
N-Propylbenzene	10.0	10.4		ug/L		104	80 - 121	2	14
o-Xylene	10.0	10.3		ug/L		103	80 - 120	3	12
sec-Butylbenzene	10.0	9.76		ug/L		98	80 - 120	3	16
Styrene	10.0	10.4		ug/L		104	80 - 120	1	12
tert-Butylbenzene	10.0	9.91		ug/L		99	80 - 120	3	16
Tetrachloroethene	10.0	10.2		ug/L		102	80 - 126	3	15
Toluene	10.0	10.7		ug/L		107	80 - 120	2	13
trans-1,2-Dichloroethene	10.0	11.0		ug/L		110	74 - 121	0	14
trans-1,3-Dichloropropene	10.0	10.6		ug/L		106	80 - 123	0	13
Trichloroethene	10.0	10.8		ug/L		108	80 - 120	1	14
Trichlorofluoromethane	10.0	8.99		ug/L		90	74 - 137	2	16
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.3		ug/L		103	51 - 140	2	18
Vinyl acetate	10.0	8.68		ug/L		87	50 - 150	5	28
Vinyl chloride	10.0	9.95		ug/L		100	72 - 126	2	17
Ethylene Dibromide	10.0	11.0		ug/L		110	80 - 120	1	12
2-Butanone (MEK)	10.0	8.91		ug/L		89	50 - 127	13	26
4-Methyl-2-pentanone (MIBK)	10.0	9.78		ug/L		98	72 - 120	3	14

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		68 - 120
Dibromofluoromethane (Surr)	107		80 - 127
Toluene-d8 (Surr)	103		80 - 120
1,2-Dichloroethane-d4 (Surr)	103		80 - 128

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: LCS 570-96789/7

Matrix: Solid

Analysis Batch: 96789

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPPH	1000	1060		ug/Kg		106	65 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	99		80 - 120

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 570-96789/8
Matrix: Solid
Analysis Batch: 96789

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TPPH	1000	997		ug/Kg		100	65 - 135	6	30
Surrogate	%Recovery	LCSD Qualifier	Limits						
Toluene-d8 (Surr)	99		80 - 120						

Lab Sample ID: MB 570-96832/1-A
Matrix: Solid
Analysis Batch: 96789

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 96832

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C4-C12	ND		99		ug/Kg		09/24/20 07:55	09/24/20 11:34	1
Surrogate	%Recovery	MB Qualifier	Limits						
Toluene-d8 (Surr)	98		80 - 120						
							Prepared	Analyzed	Dil Fac
							09/24/20 07:55	09/24/20 11:34	1

Lab Sample ID: MB 570-97368/7
Matrix: Water
Analysis Batch: 97368

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12	ND		50		ug/L			09/26/20 04:04	1
Surrogate	%Recovery	MB Qualifier	Limits						
Toluene-d8 (Surr)	98		80 - 120						
							Prepared	Analyzed	Dil Fac
							09/26/20 04:04		1

Lab Sample ID: LCS 570-97368/4
Matrix: Water
Analysis Batch: 97368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPPH	1000	1160		ug/L		116	65 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Toluene-d8 (Surr)	100		80 - 120				

Lab Sample ID: LCSD 570-97368/5
Matrix: Water
Analysis Batch: 97368

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TPPH	1000	1130		ug/L		113	65 - 135	3	30
Surrogate	%Recovery	LCSD Qualifier	Limits						
Toluene-d8 (Surr)	99		80 - 120						

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 570-97164/1-A
Matrix: Solid
Analysis Batch: 97943

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 97164

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Acenaphthylene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Anthracene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Benzo[a]anthracene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Benzo[a]pyrene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Chrysene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Benzo[b]fluoranthene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Benzo[k]fluoranthene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Benzo[g,h,i]perylene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Fluorene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Indeno[1,2,3-cd]pyrene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Fluoranthene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Naphthalene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Phenanthrene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Dibenz(a,h)anthracene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1
Pyrene	ND		0.010		mg/Kg		09/25/20 07:42	09/29/20 11:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61		19 - 120	09/25/20 07:42	09/29/20 11:33	1
Nitrobenzene-d5 (Surr)	63		14 - 120	09/25/20 07:42	09/29/20 11:33	1
p-Terphenyl-d14 (Surr)	67		24 - 120	09/25/20 07:42	09/29/20 11:33	1

Lab Sample ID: LCS 570-97164/2-A
Matrix: Solid
Analysis Batch: 97943

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 97164

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1.00	0.999		mg/Kg		100	37 - 126
Acenaphthylene	1.00	1.10		mg/Kg		110	42 - 141
Anthracene	1.00	1.03		mg/Kg		103	46 - 127
Benzo[a]anthracene	1.00	1.11		mg/Kg		111	52 - 134
Benzo[a]pyrene	1.00	1.06		mg/Kg		106	48 - 137
Chrysene	1.00	0.979		mg/Kg		98	47 - 130
Benzo[b]fluoranthene	1.00	1.01		mg/Kg		101	50 - 133
Benzo[k]fluoranthene	1.00	0.982		mg/Kg		98	49 - 136
Benzo[g,h,i]perylene	1.00	1.06		mg/Kg		106	51 - 137
Fluorene	1.00	1.03		mg/Kg		103	36 - 134
Indeno[1,2,3-cd]pyrene	1.00	0.946		mg/Kg		95	49 - 133
Fluoranthene	1.00	1.05		mg/Kg		105	47 - 135
Naphthalene	1.00	0.991		mg/Kg		99	41 - 126
Phenanthrene	1.00	0.964		mg/Kg		96	43 - 125
Dibenz(a,h)anthracene	1.00	0.980		mg/Kg		98	50 - 136
Pyrene	1.00	1.03		mg/Kg		103	46 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	84		19 - 120
Nitrobenzene-d5 (Surr)	93		14 - 120
p-Terphenyl-d14 (Surr)	90		24 - 120

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: LCSD 570-97164/3-A

Matrix: Solid

Analysis Batch: 97943

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 97164

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	1.00	0.950		mg/Kg		95	37 - 126	5	21
Acenaphthylene	1.00	1.04		mg/Kg		104	42 - 141	6	20
Anthracene	1.00	0.945		mg/Kg		94	46 - 127	9	19
Benzo[a]anthracene	1.00	1.01		mg/Kg		101	52 - 134	9	21
Benzo[a]pyrene	1.00	0.955		mg/Kg		96	48 - 137	10	25
Chrysene	1.00	0.900		mg/Kg		90	47 - 130	8	21
Benzo[b]fluoranthene	1.00	0.919		mg/Kg		92	50 - 133	9	24
Benzo[k]fluoranthene	1.00	0.908		mg/Kg		91	49 - 136	8	24
Benzo[g,h,i]perylene	1.00	0.965		mg/Kg		97	51 - 137	9	21
Fluorene	1.00	0.973		mg/Kg		97	36 - 134	6	22
Indeno[1,2,3-cd]pyrene	1.00	0.863		mg/Kg		86	49 - 133	9	22
Fluoranthene	1.00	0.960		mg/Kg		96	47 - 135	9	25
Naphthalene	1.00	0.939		mg/Kg		94	41 - 126	5	23
Phenanthrene	1.00	0.909		mg/Kg		91	43 - 125	6	19
Dibenz(a,h)anthracene	1.00	0.888		mg/Kg		89	50 - 136	10	22
Pyrene	1.00	0.963		mg/Kg		96	46 - 129	7	22

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	80		19 - 120
Nitrobenzene-d5 (Surr)	89		14 - 120
p-Terphenyl-d14 (Surr)	85		24 - 120

Lab Sample ID: 720-99942-1 MS

Matrix: Solid

Analysis Batch: 97943

Client Sample ID: B1-2

Prep Type: Total/NA

Prep Batch: 97164

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND	F2	0.993	0.902		mg/Kg		91	36 - 125
Acenaphthylene	ND	F2	0.993	0.984		mg/Kg		99	41 - 128
Anthracene	ND	F2	0.993	0.865		mg/Kg		87	39 - 129
Benzo[a]anthracene	ND	F2	0.993	0.933		mg/Kg		94	40 - 150
Benzo[a]pyrene	ND	F2	0.993	0.853		mg/Kg		85	25 - 172
Chrysene	ND	F2	0.993	0.817		mg/Kg		82	28 - 158
Benzo[b]fluoranthene	ND		0.993	0.781		mg/Kg		78	32 - 158
Benzo[k]fluoranthene	ND	F2	0.993	0.786		mg/Kg		79	38 - 149
Benzo[g,h,i]perylene	ND	F2	0.993	0.887		mg/Kg		89	28 - 160
Fluorene	ND	F2	0.993	0.921		mg/Kg		93	40 - 125
Indeno[1,2,3-cd]pyrene	ND	F2	0.993	0.768		mg/Kg		77	35 - 146
Fluoranthene	ND	F2	0.993	0.867		mg/Kg		87	14 - 175
Naphthalene	0.015	F2	0.993	0.890		mg/Kg		88	33 - 125
Phenanthrene	ND	F2	0.993	0.820		mg/Kg		82	18 - 150
Dibenz(a,h)anthracene	ND	F2	0.993	0.805		mg/Kg		81	43 - 135
Pyrene	ND		0.993	0.915		mg/Kg		92	30 - 154

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	75		19 - 120
Nitrobenzene-d5 (Surr)	83		14 - 120
p-Terphenyl-d14 (Surr)	81		24 - 120

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: 720-99942-1 MSD

Matrix: Solid

Analysis Batch: 97943

Client Sample ID: B1-2

Prep Type: Total/NA

Prep Batch: 97164

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND	F2	1.00	0.661	F2	mg/Kg		66	36 - 125	31	29
Acenaphthylene	ND	F2	1.00	0.721	F2	mg/Kg		72	41 - 128	31	25
Anthracene	ND	F2	1.00	0.630	F2	mg/Kg		63	39 - 129	31	19
Benzo[a]anthracene	ND	F2	1.00	0.685	F2	mg/Kg		68	40 - 150	31	26
Benzo[a]pyrene	ND	F2	1.00	0.630	F2	mg/Kg		62	25 - 172	30	27
Chrysene	ND	F2	1.00	0.610	F2	mg/Kg		61	28 - 158	29	27
Benzo[b]fluoranthene	ND		1.00	0.609		mg/Kg		60	32 - 158	25	27
Benzo[k]fluoranthene	ND	F2	1.00	0.594	F2	mg/Kg		59	38 - 149	28	25
Benzo[g,h,i]perylene	ND	F2	1.00	0.651	F2	mg/Kg		65	28 - 160	31	28
Fluorene	ND	F2	1.00	0.666	F2	mg/Kg		67	40 - 125	32	24
Indeno[1,2,3-cd]pyrene	ND	F2	1.00	0.567	F2	mg/Kg		57	35 - 146	30	26
Fluoranthene	ND	F2	1.00	0.625	F2	mg/Kg		62	14 - 175	32	23
Naphthalene	0.015	F2	1.00	0.647	F2	mg/Kg		63	33 - 125	32	28
Phenanthrene	ND	F2	1.00	0.616	F2	mg/Kg		61	18 - 150	28	22
Dibenz(a,h)anthracene	ND	F2	1.00	0.591	F2	mg/Kg		59	43 - 135	31	28
Pyrene	ND		1.00	0.687		mg/Kg		68	30 - 154	28	29

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	53		19 - 120
Nitrobenzene-d5 (Surr)	58		14 - 120
p-Terphenyl-d14 (Surr)	59		24 - 120

Lab Sample ID: MB 570-97735/1-A

Matrix: Water

Analysis Batch: 98024

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 97735

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Acenaphthylene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Anthracene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Benzo[a]anthracene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Benzo[a]pyrene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Chrysene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Benzo[b]fluoranthene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Benzo[k]fluoranthene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Benzo[g,h,i]perylene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Fluorene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Indeno[1,2,3-cd]pyrene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Fluoranthene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Naphthalene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Phenanthrene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Dibenz(a,h)anthracene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1
Pyrene	ND		0.20		ug/L		09/28/20 13:23	09/29/20 13:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	75		53 - 117	09/28/20 13:23	09/29/20 13:32	1
2-Fluorobiphenyl (Surr)	85		36 - 102	09/28/20 13:23	09/29/20 13:32	1
2-Fluorophenol (Surr)	54		21 - 80	09/28/20 13:23	09/29/20 13:32	1

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 570-97735/1-A

Matrix: Water

Analysis Batch: 98024

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 97735

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
%Recovery	Qualifier					
Nitrobenzene-d5 (Surr)	72		43 - 114	09/28/20 13:23	09/29/20 13:32	1
Phenol-d6 (Surr)	35		3 - 63	09/28/20 13:23	09/29/20 13:32	1
p-Terphenyl-d14 (Surr)	99		45 - 117	09/28/20 13:23	09/29/20 13:32	1

Lab Sample ID: LCS 570-97735/2-A

Matrix: Water

Analysis Batch: 98024

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 97735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	20.0	18.0		ug/L		90	58 - 113
Acenaphthylene	20.0	18.7		ug/L		94	66 - 131
Anthracene	20.0	19.4		ug/L		97	68 - 127
Benzo[a]anthracene	20.0	20.4		ug/L		102	71 - 132
Benzo[a]pyrene	20.0	18.6		ug/L		93	75 - 136
Chrysene	20.0	19.6		ug/L		98	74 - 128
Benzo[b]fluoranthene	20.0	18.4		ug/L		92	72 - 131
Benzo[k]fluoranthene	20.0	19.1		ug/L		95	72 - 135
Benzo[g,h,i]perylene	20.0	21.9		ug/L		110	75 - 133
Fluorene	20.0	18.5		ug/L		93	63 - 115
Indeno[1,2,3-cd]pyrene	20.0	21.0		ug/L		105	73 - 130
Fluoranthene	20.0	18.5		ug/L		92	70 - 125
Naphthalene	20.0	14.4		ug/L		72	47 - 123
Phenanthrene	20.0	19.7		ug/L		98	68 - 124
Dibenz(a,h)anthracene	20.0	21.3		ug/L		107	74 - 131
Pyrene	20.0	21.2		ug/L		106	62 - 146

Surrogate	LCS	LCS	Limits
%Recovery	Qualifier		
2,4,6-Tribromophenol (Surr)	89		53 - 117
2-Fluorobiphenyl (Surr)	81		36 - 102
2-Fluorophenol (Surr)	52		21 - 80
Nitrobenzene-d5 (Surr)	73		43 - 114
Phenol-d6 (Surr)	35		3 - 63
p-Terphenyl-d14 (Surr)	95		45 - 117

Lab Sample ID: LCSD 570-97735/3-A

Matrix: Water

Analysis Batch: 98024

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 97735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	20.0	17.7		ug/L		88	58 - 113	2	11
Acenaphthylene	20.0	18.3		ug/L		92	66 - 131	2	14
Anthracene	20.0	19.2		ug/L		96	68 - 127	1	13
Benzo[a]anthracene	20.0	19.8		ug/L		99	71 - 132	3	14
Benzo[a]pyrene	20.0	18.7		ug/L		94	75 - 136	1	18
Chrysene	20.0	19.3		ug/L		96	74 - 128	2	14
Benzo[b]fluoranthene	20.0	18.4		ug/L		92	72 - 131	0	12
Benzo[k]fluoranthene	20.0	19.0		ug/L		95	72 - 135	1	17
Benzo[g,h,i]perylene	20.0	20.7		ug/L		103	75 - 133	6	9

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 570-97735/3-A

Matrix: Water

Analysis Batch: 98024

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 97735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluorene	20.0	18.4		ug/L		92	63 - 115	1	14
Indeno[1,2,3-cd]pyrene	20.0	19.8		ug/L		99	73 - 130	6	11
Fluoranthene	20.0	19.2		ug/L		96	70 - 125	4	12
Naphthalene	20.0	14.4		ug/L		72	47 - 123	0	13
Phenanthrene	20.0	19.1		ug/L		96	68 - 124	3	12
Dibenz(a,h)anthracene	20.0	20.3		ug/L		101	74 - 131	5	11
Pyrene	20.0	20.0		ug/L		100	62 - 146	6	14

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	88		53 - 117
2-Fluorobiphenyl (Surr)	78		36 - 102
2-Fluorophenol (Surr)	52		21 - 80
Nitrobenzene-d5 (Surr)	73		43 - 114
Phenol-d6 (Surr)	35		3 - 63
p-Terphenyl-d14 (Surr)	93		45 - 117

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-97240/1-A

Matrix: Solid

Analysis Batch: 97221

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 97240

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		5.0		mg/Kg		09/25/20 11:10	09/25/20 19:00	1
Motor Oil Range Organics [C24-C36]	ND		5.0		mg/Kg		09/25/20 11:10	09/25/20 19:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	76		61 - 145	09/25/20 11:10	09/25/20 19:00	1

Lab Sample ID: LCS 570-97240/2-A

Matrix: Solid

Analysis Batch: 97221

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 97240

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	400	354		mg/Kg		89	67 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane (Surr)	84		61 - 145

Lab Sample ID: LCSD 570-97240/3-A

Matrix: Solid

Analysis Batch: 97221

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 97240

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	400	358		mg/Kg		89	67 - 121	1	20

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 570-97240/3-A
Matrix: Solid
Analysis Batch: 97221

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 97240

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Octacosane (Surr)	86		61 - 145

Lab Sample ID: MB 570-98016/1-A
Matrix: Water
Analysis Batch: 98246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 98016

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		09/29/20 11:52	09/30/20 12:07	1
Motor Oil Range Organics [C24-C36]	ND		50		ug/L		09/29/20 11:52	09/30/20 12:07	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	110		68 - 140				09/29/20 11:52	09/30/20 12:07	1

Lab Sample ID: LCS 570-98016/2-A
Matrix: Water
Analysis Batch: 98246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 98016

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
Diesel Range Organics [C10-C28]	2000	1810		ug/L		90		69 - 123
Surrogate	LCS	LCS	Limits					
n-Octacosane (Surr)	107		68 - 140					

Lab Sample ID: LCSD 570-98016/3-A
Matrix: Water
Analysis Batch: 98246

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 98016

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
Diesel Range Organics [C10-C28]	2000	1920		ug/L		96		69 - 123	30
Surrogate	LCSD	LCSD	Limits						
n-Octacosane (Surr)	108		68 - 140						

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-97345/1-A
Matrix: Solid
Analysis Batch: 97731

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 97345

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.25		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Arsenic	ND		0.74		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Barium	ND		0.50		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Beryllium	ND		0.25		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Cadmium	ND		0.50		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Cobalt	ND		0.25		mg/Kg		09/25/20 18:00	09/26/20 12:14	1

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 570-97345/1-A
Matrix: Solid
Analysis Batch: 97731

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 97345

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Chromium	ND		0.25		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Copper	ND		0.50		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Molybdenum	ND		0.25		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Nickel	ND		0.25		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Antimony	ND		0.74		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Selenium	ND		0.74		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Thallium	ND		0.74		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Vanadium	ND		0.25		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Zinc	ND		0.99		mg/Kg		09/25/20 18:00	09/26/20 12:14	1
Lead	ND	L	0.50		mg/Kg		09/25/20 18:00	09/26/20 12:14	1

Lab Sample ID: LCS 570-97345/2-A
Matrix: Solid
Analysis Batch: 97731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 97345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	12.5	14.0		mg/Kg		112	80 - 120
Arsenic	25.0	23.8		mg/Kg		95	80 - 120
Barium	25.0	26.3		mg/Kg		105	80 - 120
Beryllium	25.0	24.4		mg/Kg		98	80 - 120
Cadmium	25.0	24.6		mg/Kg		98	80 - 120
Cobalt	25.0	25.5		mg/Kg		102	80 - 120
Chromium	25.0	24.8		mg/Kg		99	80 - 120
Copper	25.0	26.5		mg/Kg		106	80 - 120
Molybdenum	25.0	23.9		mg/Kg		96	80 - 120
Nickel	25.0	27.0		mg/Kg		108	80 - 120
Antimony	25.0	23.9		mg/Kg		96	80 - 120
Selenium	25.0	23.6		mg/Kg		94	80 - 120
Thallium	25.0	24.6		mg/Kg		98	80 - 120
Vanadium	25.0	24.6		mg/Kg		98	80 - 120
Zinc	25.0	25.0		mg/Kg		100	80 - 120
Lead	25.0	25.1		mg/Kg		100	80 - 120

Lab Sample ID: LCSD 570-97345/3-A
Matrix: Solid
Analysis Batch: 97731

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 97345

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	12.4	13.5		mg/Kg		109	80 - 120	3	20
Arsenic	24.8	22.3		mg/Kg		90	80 - 120	7	20
Barium	24.8	25.4		mg/Kg		103	80 - 120	3	20
Beryllium	24.8	23.4		mg/Kg		95	80 - 120	4	20
Cadmium	24.8	24.1		mg/Kg		97	80 - 120	2	20
Cobalt	24.8	24.7		mg/Kg		100	80 - 120	3	20
Chromium	24.8	24.0		mg/Kg		97	80 - 120	3	20
Copper	24.8	25.9		mg/Kg		105	80 - 120	2	20
Molybdenum	24.8	23.5		mg/Kg		95	80 - 120	2	20
Nickel	24.8	25.8		mg/Kg		104	80 - 120	5	20
Antimony	24.8	23.4		mg/Kg		94	80 - 120	2	20

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 570-97345/3-A

Matrix: Solid

Analysis Batch: 97731

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 97345

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	24.8	22.6		mg/Kg		91	80 - 120	4	20
Thallium	24.8	24.1		mg/Kg		98	80 - 120	2	20
Vanadium	24.8	24.0		mg/Kg		97	80 - 120	2	20
Zinc	24.8	24.3		mg/Kg		98	80 - 120	3	20
Lead	24.8	24.2		mg/Kg		98	80 - 120	4	20

Lab Sample ID: 720-99942-1 MS

Matrix: Solid

Analysis Batch: 97731

Client Sample ID: B1-2

Prep Type: Total/NA

Prep Batch: 97345

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	ND		12.1	11.3		mg/Kg		93	75 - 125		
Arsenic	4.7		24.2	25.0		mg/Kg		84	75 - 125		
Barium	120		24.2	138	4	mg/Kg		67	75 - 125		
Beryllium	0.74		24.2	23.6		mg/Kg		94	75 - 125		
Cadmium	ND		24.2	22.9		mg/Kg		93	75 - 125		
Cobalt	14		24.2	32.8		mg/Kg		80	75 - 125		
Chromium	52	F1	24.2	64.9	F1	mg/Kg		54	75 - 125		
Copper	28		24.2	48.7		mg/Kg		85	75 - 125		
Molybdenum	ND		24.2	19.6		mg/Kg		81	75 - 125		
Nickel	66	F1	24.2	74.2	F1	mg/Kg		33	75 - 125		
Antimony	ND	F1 F2	24.2	5.95	F1	mg/Kg		24	50 - 115		
Selenium	ND	L	24.2	21.5		mg/Kg		89	75 - 125		
Thallium	ND		24.2	22.4		mg/Kg		91	75 - 125		
Vanadium	49	F1	24.2	66.2	F1	mg/Kg		72	75 - 125		
Zinc	52	F1	24.2	64.1	F1	mg/Kg		50	75 - 125		
Lead	4.2		24.2	26.2		mg/Kg		91	75 - 125		

Lab Sample ID: 720-99942-1 MSD

Matrix: Solid

Analysis Batch: 97731

Client Sample ID: B1-2

Prep Type: Total/NA

Prep Batch: 97345

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	ND		12.4	12.1		mg/Kg		97	75 - 125	7	20
Arsenic	4.7		24.9	25.9		mg/Kg		85	75 - 125	4	20
Barium	120		24.9	139	4	mg/Kg		69	75 - 125	1	20
Beryllium	0.74		24.9	25.2		mg/Kg		98	75 - 125	7	20
Cadmium	ND		24.9	24.7		mg/Kg		98	75 - 125	8	20
Cobalt	14		24.9	34.4		mg/Kg		84	75 - 125	5	20
Chromium	52	F1	24.9	66.5	F1	mg/Kg		59	75 - 125	2	20
Copper	28		24.9	49.8		mg/Kg		87	75 - 125	2	20
Molybdenum	ND		24.9	22.1		mg/Kg		89	75 - 125	12	20
Nickel	66	F1	24.9	77.3	F1	mg/Kg		45	75 - 125	4	20
Antimony	ND	F1 F2	24.9	8.10	F1 F2	mg/Kg		32	50 - 115	31	20
Selenium	ND	L	24.9	24.2		mg/Kg		97	75 - 125	12	20
Thallium	ND		24.9	23.3		mg/Kg		92	75 - 125	4	20
Vanadium	49	F1	24.9	69.2		mg/Kg		82	75 - 125	5	20
Zinc	52	F1	24.9	68.4	F1	mg/Kg		66	75 - 125	6	20
Lead	4.2		24.9	28.4		mg/Kg		97	75 - 125	8	20

Eurofins TestAmerica, Pleasanton

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-97346/1-A
Matrix: Solid
Analysis Batch: 97729

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 97346

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Mercury	ND		0.085		mg/Kg		09/25/20 18:00	09/28/20 14:41	1

Lab Sample ID: LCS 570-97346/2-A
Matrix: Solid
Analysis Batch: 97729

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 97346

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.806	0.808		mg/Kg		100	85 - 121

Lab Sample ID: LCSD 570-97346/3-A
Matrix: Solid
Analysis Batch: 97729

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 97346

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.830		mg/Kg		100	85 - 121	3	10

Lab Sample ID: 720-99942-1 MS
Matrix: Solid
Analysis Batch: 97729

Client Sample ID: B1-2
Prep Type: Total/NA
Prep Batch: 97346

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.11		0.794	0.831		mg/Kg		91	71 - 137

Lab Sample ID: 720-99942-1 MSD
Matrix: Solid
Analysis Batch: 97729

Client Sample ID: B1-2
Prep Type: Total/NA
Prep Batch: 97346

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.11		0.847	0.897		mg/Kg		93	71 - 137	8	14

QC Association Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

GC/MS VOA

Analysis Batch: 96789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	Total/NA	Solid	8260B/CA_LUFT MS	96832
720-99942-2	B1-7	Total/NA	Solid	8260B/CA_LUFT MS	96832
MB 570-96832/1-A	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	96832
LCS 570-96789/7	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 570-96789/8	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 96790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	Total/NA	Solid	8260B	96832
720-99942-2	B1-7	Total/NA	Solid	8260B	96832
MB 570-96832/1-A	Method Blank	Total/NA	Solid	8260B	96832
LCS 570-96832/2-A	Lab Control Sample	Total/NA	Solid	8260B	96832
LCSD 570-96832/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	96832

Prep Batch: 96832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	Total/NA	Solid	5030C	
720-99942-2	B1-7	Total/NA	Solid	5030C	
MB 570-96832/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-96832/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-96832/3-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

Analysis Batch: 97368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-3	B1-GW-1	Total/NA	Water	8260B/CA_LUFT MS	
MB 570-97368/7	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	
LCS 570-97368/4	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 570-97368/5	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 97566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-3	B1-GW-1	Total/NA	Water	8260B	
MB 570-97566/7	Method Blank	Total/NA	Water	8260B	
LCS 570-97566/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-97566/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 97164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	Total/NA	Solid	3545	
720-99942-2	B1-7	Total/NA	Solid	3545	
MB 570-97164/1-A	Method Blank	Total/NA	Solid	3545	
LCS 570-97164/2-A	Lab Control Sample	Total/NA	Solid	3545	
LCSD 570-97164/3-A	Lab Control Sample Dup	Total/NA	Solid	3545	

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QC Association Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

GC/MS Semi VOA (Continued)

Prep Batch: 97164 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1 MS	B1-2	Total/NA	Solid	3545	
720-99942-1 MSD	B1-2	Total/NA	Solid	3545	

Prep Batch: 97735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-3	B1-GW-1	Total/NA	Water	3510C	
MB 570-97735/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-97735/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-97735/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 97943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	Total/NA	Solid	8270C SIM	97164
720-99942-2	B1-7	Total/NA	Solid	8270C SIM	97164
MB 570-97164/1-A	Method Blank	Total/NA	Solid	8270C SIM	97164
LCS 570-97164/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	97164
LCSD 570-97164/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	97164
720-99942-1 MS	B1-2	Total/NA	Solid	8270C SIM	97164
720-99942-1 MSD	B1-2	Total/NA	Solid	8270C SIM	97164

Analysis Batch: 98024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-3	B1-GW-1	Total/NA	Water	8270C SIM	97735
MB 570-97735/1-A	Method Blank	Total/NA	Water	8270C SIM	97735
LCS 570-97735/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	97735
LCSD 570-97735/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	97735

GC Semi VOA

Analysis Batch: 97221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	Total/NA	Solid	8015B	97240
720-99942-2	B1-7	Total/NA	Solid	8015B	97240
MB 570-97240/1-A	Method Blank	Total/NA	Solid	8015B	97240
LCS 570-97240/2-A	Lab Control Sample	Total/NA	Solid	8015B	97240
LCSD 570-97240/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	97240

Prep Batch: 97240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	Total/NA	Solid	3550C	
720-99942-2	B1-7	Total/NA	Solid	3550C	
MB 570-97240/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-97240/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-97240/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Prep Batch: 98016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-3	B1-GW-1	Total/NA	Water	3510C	
MB 570-98016/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-98016/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-98016/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Eurofins TestAmerica, Pleasanton

QC Association Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

GC Semi VOA

Analysis Batch: 98246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-3	B1-GW-1	Total/NA	Water	8015B	98016
MB 570-98016/1-A	Method Blank	Total/NA	Water	8015B	98016
LCS 570-98016/2-A	Lab Control Sample	Total/NA	Water	8015B	98016
LCSD 570-98016/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	98016

Metals

Prep Batch: 97345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	Total/NA	Solid	3050B	
720-99942-2	B1-7	Total/NA	Solid	3050B	
MB 570-97345/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 570-97345/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-97345/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
720-99942-1 MS	B1-2	Total/NA	Solid	3050B	
720-99942-1 MSD	B1-2	Total/NA	Solid	3050B	

Prep Batch: 97346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	Total/NA	Solid	7471A	
720-99942-2	B1-7	Total/NA	Solid	7471A	
MB 570-97346/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-97346/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-97346/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
720-99942-1 MS	B1-2	Total/NA	Solid	7471A	
720-99942-1 MSD	B1-2	Total/NA	Solid	7471A	

Analysis Batch: 97729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	Total/NA	Solid	7471A	97346
720-99942-2	B1-7	Total/NA	Solid	7471A	97346
MB 570-97346/1-A	Method Blank	Total/NA	Solid	7471A	97346
LCS 570-97346/2-A	Lab Control Sample	Total/NA	Solid	7471A	97346
LCSD 570-97346/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	97346
720-99942-1 MS	B1-2	Total/NA	Solid	7471A	97346
720-99942-1 MSD	B1-2	Total/NA	Solid	7471A	97346

Analysis Batch: 97731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	Total/NA	Solid	6010B	97345
720-99942-2	B1-7	Total/NA	Solid	6010B	97345
MB 570-97345/1-A	Method Blank	Total/NA	Solid	6010B	97345
LCS 570-97345/2-A	Lab Control Sample	Total/NA	Solid	6010B	97345
LCSD 570-97345/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	97345
720-99942-1 MS	B1-2	Total/NA	Solid	6010B	97345
720-99942-1 MSD	B1-2	Total/NA	Solid	6010B	97345

Lab Chronicle

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Client Sample ID: B1-2

Date Collected: 09/23/20 07:52

Date Received: 09/23/20 14:00

Lab Sample ID: 720-99942-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.04 g	5 mL	96832	09/24/20 14:59	P4DI	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	96790	09/24/20 18:01	MGX6	ECL 2
Total/NA	Prep	5030C			5.04 g	5 mL	96832	09/24/20 14:59	P4DI	ECL 2
Total/NA	Analysis	8260B/CA_LUFTV S		1	5 mL	5 mL	96789	09/24/20 18:01	MGX6	ECL 2
Total/NA	Prep	3545			20.05 g	2 mL	97164	09/25/20 07:42	F7UI	ECL 1
Total/NA	Analysis	8270C SIM		1			97943	09/29/20 13:07	ULLI	ECL 1
Total/NA	Prep	3550C			9.95 g	10 mL	97240	09/25/20 12:43	UFLU	ECL 1
Total/NA	Analysis	8015B		1			97221	09/26/20 03:16	I9H5	ECL 1
Total/NA	Prep	3050B			1.97 g	100 mL	97345	09/25/20 18:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			97731	09/26/20 12:22	OYW3	ECL 1
Total/NA	Prep	7471A			0.59 g	100 mL	97346	09/25/20 18:00	SP7J	ECL 1
Total/NA	Analysis	7471A		1			97729	09/28/20 14:46	MD3A	ECL 1

Client Sample ID: B1-7

Date Collected: 09/23/20 08:20

Date Received: 09/23/20 14:00

Lab Sample ID: 720-99942-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.12 g	5 mL	96832	09/24/20 14:59	P4DI	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	96790	09/24/20 18:27	MGX6	ECL 2
Total/NA	Prep	5030C			5.12 g	5 mL	96832	09/24/20 14:59	P4DI	ECL 2
Total/NA	Analysis	8260B/CA_LUFTV S		1	5 mL	5 mL	96789	09/24/20 18:27	MGX6	ECL 2
Total/NA	Prep	3545			20.01 g	2 mL	97164	09/25/20 07:42	F7UI	ECL 1
Total/NA	Analysis	8270C SIM		1			97943	09/29/20 13:25	ULLI	ECL 1
Total/NA	Prep	3550C			10.10 g	10 mL	97240	09/25/20 12:43	UFLU	ECL 1
Total/NA	Analysis	8015B		1			97221	09/26/20 03:36	I9H5	ECL 1
Total/NA	Prep	3050B			2.06 g	100 mL	97345	09/25/20 18:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			97731	09/26/20 12:28	OYW3	ECL 1
Total/NA	Prep	7471A			0.61 g	100 mL	97346	09/25/20 18:00	SP7J	ECL 1
Total/NA	Analysis	7471A		1			97729	09/28/20 14:52	MD3A	ECL 1

Client Sample ID: B1-GW-1

Date Collected: 09/23/20 08:50

Date Received: 09/23/20 14:00

Lab Sample ID: 720-99942-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	97566	09/28/20 07:23	UJHB	ECL 2
Total/NA	Analysis	8260B/CA_LUFTV S		1	5 mL	5 mL	97368	09/26/20 04:33	NET3	ECL 2
Total/NA	Prep	3510C			886.8 mL	2 mL	97735	09/28/20 13:23	SAL	ECL 1
Total/NA	Analysis	8270C SIM		1			98024	09/29/20 15:58	N8CZ	ECL 1
Total/NA	Prep	3510C			541.5 mL	2.5 mL	98016	09/29/20 11:52	N5Y3	ECL 1
Total/NA	Analysis	8015B		1			98246	09/30/20 13:29	N5Y3	ECL 1

Eurofins TestAmerica, Pleasanton

Lab Chronicle

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494



Accreditation/Certification Summary

Job ID: 720-99942-1

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Laboratory: Eurofins Calscience LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2944	09-30-20

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Method Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8260B/CA_LUFTM S	Volatile Organic Compounds by GC/MS	SW846	ECL 2
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	ECL 1
8015B	Diesel Range Organics (DRO) (GC)	SW846	ECL 1
6010B	Metals (ICP)	SW846	ECL 1
7471A	Mercury (CVAA)	SW846	ECL 1
3050B	Preparation, Metals	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
3545	Pressurized Fluid Extraction	SW846	ECL 1
3550C	Ultrasonic Extraction	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2
7471A	Preparation, Mercury	SW846	ECL 1

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
720-99942-1	B1-2	Solid	09/23/20 07:52	09/23/20 14:00	
720-99942-2	B1-7	Solid	09/23/20 08:20	09/23/20 14:00	
720-99942-3	B1-GW-1	Water	09/23/20 08:50	09/23/20 14:00	

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phone 925.484.1919 fax 925.600.3002

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Ninnyo & Moore 2020 Challenger Drive, Suite 103 Alameda, California 94501 Phone (510) 343 3000 FAX (510) 343-3001 Project Name: CAT RAMP Sampling Site: _____ P O # 403773001		Project Manager: Helen Hild Email: hhild@ninnyoandmoore.com Tel/Fax: _____		Site Contact: Madeleine Little Lab Contact: Justinn Gonzales Date: 9/23/20 Carrier: _____		COC No: _____ of _____ COCs TALS Project #: _____ Sampler: Madeleine Little For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____																					
Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Sample Identification <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=Grab)</th> <th>Matrix</th> <th># of Cont</th> </tr> </thead> <tbody> <tr> <td>9/23/20</td> <td>0752</td> <td>G</td> <td>S</td> <td>1</td> </tr> <tr> <td>9/23/20</td> <td>0820</td> <td>G</td> <td>S</td> <td>1</td> </tr> <tr> <td>9/24/20</td> <td>0850</td> <td>G</td> <td>G</td> <td>8</td> </tr> </tbody> </table>				Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont	9/23/20	0752	G	S	1	9/23/20	0820	G	S	1	9/24/20	0850	G	G	8
Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont																							
9/23/20	0752	G	S	1																							
9/23/20	0820	G	S	1																							
9/24/20	0850	G	G	8																							
Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other _____ Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown Special Instructions/QC Requirements & Comments:																							
Relinquished by: <u>Madeleine Little</u> Relinquished by: <u>Lee S. Luna</u> Relinquished by: <u>Justinn Gonzales</u>				Received by: <u>Justinn Gonzales</u> Received by: <u>Justinn Gonzales</u> Received in Laboratory by: <u>Justinn Gonzales</u>																							
Relinquished by: <u>Madeleine Little</u> Relinquished by: <u>Lee S. Luna</u> Relinquished by: <u>Justinn Gonzales</u>				Received by: <u>Justinn Gonzales</u> Received by: <u>Justinn Gonzales</u> Received in Laboratory by: <u>Justinn Gonzales</u>																							

Form No. CA-C-WI-002, Rev. 4.34, dated 8/3/2020



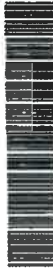
1220 Quarry Lane

Pleasanton. CA 94586

Phone: 925-494-1919 F

Phone: 925-494-1919 Fax: 925-800-3002

Chain of Custody Record



**Environment Testing
America**

[illegible]

Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-99942-1

Login Number: 99942

List Number: 1

Creator: Mullen, Joan

List Source: Eurofins TestAmerica, Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-99942-1

Login Number: 99942

List Number: 2

Creator: Cruise, Noel

List Source: Eurofins Calscience

List Creation: 09/24/20 12:18 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

Laboratory Job ID: 720-99942-2
Client Project/Site: CAT RAMP Sampling

For:
Ninyo & Moore
2020 Challenger Drive
Suite 103
Alameda, California 94501

Attn: Helen Hild

Authorized for release by:
10/29/2020 11:12:56 AM

Justin Gonzales, Project Manager I
(925)484-1919
Justin.Gonzales@Eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▣	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-2

Job ID: 720-99942-2

Laboratory: Eurofins TestAmerica, Pleasanton

Narrative

Job Narrative
720-99942-2

Comments

No additional comments.

Receipt

The samples were received on 9/23/2020 2:00 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-2

Client Sample ID: B1-2

Lab Sample ID: 720-99942-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-2

Client Sample ID: B1-2

Lab Sample ID: 720-99942-1

Date Collected: 09/23/20 07:52

Matrix: Solid

Date Received: 09/23/20 14:00

Method: 6010B - Metals (ICP) - STLC Citrate

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.50		mg/L		10/28/20 15:00	10/28/20 20:35	1

QC Sample Results

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-2

Method: 6010B - Metals (ICP)

Lab Sample ID: LB4 570-104746/1-B
Matrix: Solid
Analysis Batch: 105497

Client Sample ID: Method Blank
Prep Type: STLC Citrate
Prep Batch: 105289

Analyte	LB4 Result	LB4 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.50		mg/L		10/28/20 15:00	10/28/20 20:08	1

Lab Sample ID: LCS 570-104746/2-B
Matrix: Solid
Analysis Batch: 105497

Client Sample ID: Lab Control Sample
Prep Type: STLC Citrate
Prep Batch: 105289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	5.00	5.11		mg/L		102	80 - 120

Lab Sample ID: LCSD 570-104746/3-B
Matrix: Solid
Analysis Batch: 105497

Client Sample ID: Lab Control Sample Dup
Prep Type: STLC Citrate
Prep Batch: 105289

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD RPD Limit
Chromium	5.00	5.11		mg/L		102	80 - 120	0 20

QC Association Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-2

Metals

Leach Batch: 104746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	STLC Citrate	Solid	CA WET Citrate	
LB4 570-104746/1-B	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 570-104746/2-B	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
LCSD 570-104746/3-B	Lab Control Sample Dup	STLC Citrate	Solid	CA WET Citrate	

Prep Batch: 105289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	STLC Citrate	Solid	Dilution	104746
LB4 570-104746/1-B	Method Blank	STLC Citrate	Solid	Dilution	104746
LCS 570-104746/2-B	Lab Control Sample	STLC Citrate	Solid	Dilution	104746
LCSD 570-104746/3-B	Lab Control Sample Dup	STLC Citrate	Solid	Dilution	104746

Analysis Batch: 105497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-99942-1	B1-2	STLC Citrate	Solid	6010B	105289
LB4 570-104746/1-B	Method Blank	STLC Citrate	Solid	6010B	105289
LCS 570-104746/2-B	Lab Control Sample	STLC Citrate	Solid	6010B	105289
LCSD 570-104746/3-B	Lab Control Sample Dup	STLC Citrate	Solid	6010B	105289

Lab Chronicle

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-2

Client Sample ID: B1-2

Date Collected: 09/23/20 07:52

Date Received: 09/23/20 14:00

Lab Sample ID: 720-99942-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.01 g	500 mL	104746	10/26/20 14:30	QZW6	ECL 3
STLC Citrate	Prep	Dilution			5 mL	50 mL	105289	10/28/20 15:00	QZW6	ECL 1
STLC Citrate	Analysis	6010B		1			105497	10/28/20 20:35	OYW3	ECL 1

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 3 = Eurofins Calscience LLC Knott, 11380 Knott Street, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-2

Laboratory: Eurofins Calscience LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2944	09-30-21

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	ECL 1
CA WET Citrate	California - Waste Extraction Test with Citrate Leach	CA-WET	ECL 3
Dilution	Preparation / Dilution Process	None	ECL 1

Protocol References:

CA-WET = California Waste Extraction Test, from Title 22

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 3 = Eurofins Calscience LLC Knott, 11380 Knott Street, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Ninyo & Moore
Project/Site: CAT RAMP Sampling

Job ID: 720-99942-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
720-99942-1	B1-2	Solid	09/23/20 07:52	09/23/20 14:00	

- 1
- 2
- 3
- 4
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- 9
- 10
- 11
- 12
- 13
- 14

Gonzales, Justinn

From: Helen Hild <hhild@ninyoandmoore.com>
Sent: Thursday, October 22, 2020 10:31 AM
To: Gonzales, Justinn
Subject: RE: Eurofins TestAmerica EDD and report files from 720-99942-1 CAT RAMP Sampling

Follow Up Flag: Follow up
Flag Status: Flagged

EXTERNAL EMAIL*

Hi Justinn,

Can you please run the following on a standard TAT:

- Chromium STLC B1-2

Thank you,
Helen

Helen Hild
Project Geologist
Ninyo & Moore
510.343.3000 (x15206) | 510.221.1439 (Cell)

From: Justinn Gonzales [mailto:Justinn.Gonzales@Eurofinset.com]
Sent: Wednesday, September 30, 2020 5:51 PM
To: Helen Hild <hhild@ninyoandmoore.com>
Subject: Eurofins TestAmerica EDD and report files from 720-99942-1 CAT RAMP Sampling

Hello,

Attached please find the EDD and report files for job 720-99942-1; CAT RAMP Sampling

Please feel free to contact me if you have any questions.

Thank you.

Justinn Gonzales
Project Manager

TestAmerica Laboratories, Inc.
Phone: 925-484-1919

Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-99942-2

Login Number: 99942

List Source: Eurofins TestAmerica, Pleasanton

List Number: 1

Creator: Mullen, Joan

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-99942-2

Login Number: 99942

List Number: 2

Creator: Cruise, Noel

List Source: Eurofins Calscience

List Creation: 09/24/20 12:18 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ ($1/4''$).	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





2020 Challenger Drive, Suite 103 | Alameda, California 94501 | p. 510.343.3000

ARIZONA | CALIFORNIA | COLORADO | NEVADA | TEXAS | UTAH

ninyoandmoore.com

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

ATTACHMENT “G”

City of Alameda Marsh Crust Permit Application



MARSH CRUST PERMIT APPLICATION

Community Development • Planning & Building
2263 Santa Clara Ave., Rm. 190
Alameda, CA 94501-4477
alamedaca.gov
510.747.6800 • F: 510.865.4053 • TDD: 510.522.7538
Hours: 7:30 a.m.–3:30 p.m., M–Th

Service Number: _____

Date: _____

Submit application in duplicate. Indicate location fully below or attach separate sheet showing location.

Application is hereby made to perform work in the public right-of-way on the _____
(north, east, etc.)

side of _____ feet from house number _____
(street name) (distance)

owned by _____
(owner name)

for the purpose of _____

Applicant name: _____ Phone: _____

Address: _____

Contractor's License #: _____ City Business License #: _____

Please note the following:

- Urban runoff program requires that no contaminants, including dirt, enter the storm drain system. Contractor is required to protect inlets. *Failure to comply is subject to a \$200/day fine.*
- 48 hour advance is required for inspection. Contact Engineering division, Construction Inspection office at (510) 747-7930. Required inspections: Trenching, backfill, concrete, traffic/pedestrian detours, urban runoff, final inspection. *Failure to obtain inspection prior to work may result in rejection of said work.*
- All striping, painted graphics, and pavement markers damaged or destroyed by street excavation work must be restored by the permittee.
- All construction within the public right-of-way must have barricades with flashers for night time protection.
- All work involved is to be done in accordance with standard City of Alameda specifications and City of Alameda practices, all to the satisfaction of the City Engineer. Standard details are attached. Inspection charges shall be paid to the City monthly.
- Processing time for routine permits is 5 days. Permits requiring extensive research may require up to 15 days.
- *Failure to obtain inspections prior to completion of work is subject to additional inspection costs at a rate of \$32.70 per hour.*

Acceptance of this permit constitutes acceptance of the conditions included.

Applicant signature

Date

Special Conditions

- ☐ No open trench cutting
- ☐ State permit required
- ☐ Additional sets of plans and specifications to the engineering division prior to construction, # _____ of sets.
- ☐ Other: _____

FOR OFFICE USE ONLY

Permit Number: _____

Received date: _____ Signed: _____

Approved date: _____ Signed: _____

Issued date: _____ Signed: _____



CERTIFICATION

Excavation into marsh crust/subtidal zone at the former Naval Air Station Alameda and Fleet Industrial Supply Center Alameda Annex and Facility

As required by Alameda Municipal Code sub0section 13-56.6, the undersigned acknowledges the following:

1. The property to be excavated may be in the area of the marsh crust/subtidal zone. Hazardous materials may be encountered during excavation.
2. Federal and state hazardous materials laws and regulations will apply to storage, transportation, and disposal of any hazardous materials excavated from the marsh curst/subtidal zone.
3. The undersigned will be liable for disturbing and removing all materials from the marsh crust. subtidal zone pursuant to any special handling requirements, materials, and best management practices and in accordance with the requirements of Alameda Municipal Code section 13-56 and the permit for excavation.

The undersigned acknowledges that he or she has read and understands these provisions.

Permit Number: _____

Signature

Date

Print name

Greg McFann, Building Official, City of Alameda

Date

APPLICANT NOTICE – RIGHT OF WAY PERMITS

In the past two years, the City has experienced a dramatic increase in the number of companies seeking permits to install telecommunications-related facilities in the rights-of-way, resulting in a proliferation of street cuts and the installation of associated equipment, which, among other things, have had an adverse impact on the life and quality of the rights-of-way within the City.

As a result, the City is currently re-evaluating its current right-of-way management policies, and is in the process of preparing a revised, comprehensive ordinance that will establish and/or reinforce policies and procedures designed to enable the City to more effectively manage and control its rights-of-ways.

The City does not wish to hold-up new permit applications during this process, thus, the City has decided not to issue a blanket moratorium on new street-cut permits at this time. However, effective immediately, each new street cut permit issued shall contain the following condition:

By accepting this permit, the holder warrants and agrees that it shall comply with each and every provision of the right-of-way management ordinance that the City is currently preparing. The permit-holder further acknowledges and agrees that compliance with the provisions of the future right-of-way management ordinance is a condition to the continued effectiveness of the permit. Nothing herein is intended to prevent the permit-holder from claiming that a particular provision of the ordinance is prohibited by applicable law, provided that by accepting this permit, the permit-holder agrees that in the event that it raises such a claim, it will nevertheless comply with the subject ordinance provision unless and until permit-holder has been released from the obligation to comply by the City or by a court of competent jurisdiction.

This condition shall be attached to and become a part of each new street-cut permit issued by the City, with the exception of permits for maintenance and/or repair requested by our existing franchised cable providers and the other utilities maintaining or repairing their existing facilities.

I have read and acknowledge the condition to the Permit #. _____

Company: _____

Authorized agent

Signature

Date

Print name



INDEMNITY AND HOLD HARMLESS AGREEMENT (SE1)

Community Development • Planning & Building
2263 Santa Clara Ave., Rm. 190
Alameda, CA 94501-4477
alamedaca.gov

510.747.6800 • F: 510.865.4053 • TDD: 510.522.7538
Hours: 7:30 a.m.–3:30 p.m., M–Th

whose address is _____

(hereinafter "Indemnitor") in consideration of _____

agrees to the following terms and conditions:

Indemnitor shall defend, indemnify, and hold harmless the City of Alameda, its City Council, Boards and Commissions, officers, and employees from and against any and all loss, damages, liability, claims, suits, costs, and expenses whatsoever, including reasonable attorney's fees, regardless of the merit of outcome of any such claim or suit arising from or in any manner connected to the event, services, or work conducted or performed pursuant to this Agreement and Permit.

Indemnitor shall defend, indemnify and hold harmless the City of Alameda, its City Council, Boards and Commissions, officers, and employees from and against any and all loss, damages, liability, claims, suits, costs, and expenses whatsoever, including reasonable attorney's fees, accruing or resulting to any and all persons, firms, or corporations, furnishing or supplying work, services, materials, equipment, or supplies arising from or in any manner connected to the services or work conducted or performed pursuant to this Agreement and Permit.

By the signature below, Indemnitor agrees that it has read this Indemnity and Hold Harmless Agreement and accepts and agrees to each and every term and condition herein.

The signatory below warrants that he/she is authorized by the Indemnitor to execute on its behalf this Indemnity and Hold Harmless Agreement.

INDEMNITOR:

Date: _____

By: _____

Print Name: _____

Title: _____



INSURANCE REQUIREMENTS

Planning & Building • 2263 Santa Clara Ave., Rm. 190
Alameda, CA 94501-4477

alamedaca.gov

510.747.6800 • F: 510.865.4053 • TDD: 510.522.7538

Hours: M, W, Th – 7:30 am – 4:30 pm

T – 7:30 am – 4:00 pm

For all designated coverages, the City of Alameda requires a Certificate of Insurance signed by the party authorized by the insurance company to bind the company to the coverage shown, as well as an Additional Insured Endorsement to the Policy.

Sample Information:

1) **Certificate of Insurance (sample attached)**

Designated Insurance Requirements:

- **General Liability:** \$2,000,000
- **Company Rating:** A.M. Best "A" or better

Provide the City of Alameda thirty (30) days in advance written notice of cancellation, non-renewal or reduction in limits or coverage including the name of the contract or event.

Signed by the party authorized by the insurance company to bind the company to the coverage shown.

Other insurance coverage may be required based on the type of contract and scope of services.

2) **Endorsement to the Policy (sample attached)**

This endorsement must:

- Name the "City of Alameda, its Council, Officers, Employees, Volunteers, Board and Commissions" as additional insureds; and
- Include the policy number and type of coverage. **Please note: A statement included on the Certificate that the City is an additional insured, is NOT sufficient.**

3) **Forward the Certificate of Insurance and the Endorsement to the Policy to the Department Representative with whom you are conducting business.**

Please ask your insurance broker or agent to provide both documents to the City of Alameda ten (10) days prior to the event taking place since several departments must sign off on the entire request package before your participation in the event.

ACORD CERTIFICATE OF LIABILITY INSURANCE		DATE (MM/DD/YYYY)												
PRODUCER	FAX	<p>THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 80%;">INSURERS AFFORDING COVERAGE</th> <th style="width: 20%;">NAIC #</th> </tr> <tr> <td>INSURER A:</td> <td></td> </tr> <tr> <td>INSURER B:</td> <td></td> </tr> <tr> <td>INSURER C:</td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> </table>	INSURERS AFFORDING COVERAGE	NAIC #	INSURER A:		INSURER B:		INSURER C:		INSURER D:		INSURER E:	
INSURERS AFFORDING COVERAGE	NAIC #													
INSURER A:														
INSURER B:														
INSURER C:														
INSURER D:														
INSURER E:														
INSURED														

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR	ADD'L	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS								
A		GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJ. JECT <input type="checkbox"/> LOC				EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 1,000,000								
		AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$								
		GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$								
		EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$ \$								
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below OTHER				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">W/C STATU-TORY LIMITS</th> <th style="width: 50%;">OTH-ER</th> </tr> <tr> <td>E L EACH ACCIDENT</td> <td>\$</td> </tr> <tr> <td>E L DISEASE - EA EMPLOYEE</td> <td>\$</td> </tr> <tr> <td>E L DISEASE - POLICY LIMIT</td> <td>\$</td> </tr> </table>	W/C STATU-TORY LIMITS	OTH-ER	E L EACH ACCIDENT	\$	E L DISEASE - EA EMPLOYEE	\$	E L DISEASE - POLICY LIMIT	\$
W/C STATU-TORY LIMITS	OTH-ER													
E L EACH ACCIDENT	\$													
E L DISEASE - EA EMPLOYEE	\$													
E L DISEASE - POLICY LIMIT	\$													

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

CERTIFICATE HOLDER

CANCELLATION

2263 SANTA CLARA AVENUE, ALAMEDA, CA 94501	<p>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.</p> <p>AUTHORIZED REPRESENTATIVE</p>
--------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



POLICY NUMBER: CLA1018387

COMMERCIAL GENERAL LIABILITY
CG 20 11 01 96

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – MANAGERS OR LESSORS OF PREMISES

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

1. Designation of Premises (Part Leased to You): Albert H. DeWitt OClub
2. Name of Person or Organization (Additional Insured): US DEPARTMENT OF THE NAVY, ALAMEDA REUSE/REDEVELOPMENT AUTHORITY, ALAMEDA MUNICIPAL POWER, CITY OF ALAMEDA, and its members, officers, directors, agents, volunteers, employees and officials.
3. Additional Premium: NONE

(If no entry appears above, the information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule but only with respect to liability arising out of the ownership, maintenance or use of that part of the premises leased to you and shown in the Schedule and subject to the following additional exclusions:

This insurance does not apply to:

1. Any "occurrence" which takes place after you cease to be a tenant in that premises.
2. Structural alterations, new construction or demolition operations performed by or on behalf of the person or organization shown in the Schedule.