

**AGREEMENT WITH 4LEAF, INC.  
FOR PROFESSIONAL CONSULTANT SERVICES  
FOR  
North Shoreview Flood Improvement Project**

This Agreement, made and entered into this day of \_\_\_\_\_, by and between the **CITY OF SAN MATEO**, a municipal corporation existing under the laws of the State of California ("CITY"), and 4LEAF, a corporation, ("CONSULTANT"), whose address is 2126 Rheem Drive Pleasanton, CA 94588.

**RECITALS:**

- A. CITY desires certain construction management services hereinafter described.
- B. CITY desires to engage CONSULTANT to provide these construction management services by reason of its qualifications and experience for performing such services and CONSULTANT has offered to provide the required services on the terms and in the manner set forth herein.

**NOW, THEREFORE, IT IS AGREED** as follows:

**SECTION 1 - SCOPE OF SERVICES**

The scope of services to be performed by CONSULTANT under this Agreement is as described in Exhibit A to this Agreement, attached and incorporated by reference.

**SECTION 2 - DUTIES OF CONSULTANT**

CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of all work furnished by CONSULTANT under this Agreement. CONSULTANT shall, without additional compensation, correct or revise any errors or deficiencies in its work.

CONSULTANT represents that it is qualified to furnish the services described under this Agreement.

CONSULTANT shall be responsible for employing or engaging all persons necessary to perform the services of CONSULTANT.

**SECTION 3 - DUTIES OF CITY**

CITY shall provide pertinent information regarding its requirements for the project.

CITY shall examine documents submitted by CONSULTANT and shall render decisions pertaining thereto promptly, to avoid unreasonable delay in the progress of CONSULTANT's work.

#### **SECTION 4 - TERM**

The services to be performed under this Agreement shall commence on 5/1/2020 and be completed on or about 11/1/2022.

#### **SECTION 5 - PAYMENT**

Payment shall be made by CITY only for services rendered and upon submission of a payment request upon completion and CITY approval of the work performed. In consideration for the full performance of the services set forth in Exhibit A, CITY agrees to pay CONSULTANT a fee in an amount of \$2,693,541, pursuant to rates stated in Exhibit B to this Agreement, attached and incorporated by reference.

#### **SECTION 6 - TERMINATION**

Without limitation to such rights or remedies as CITY shall otherwise have by law, CITY shall have the right to terminate this Agreement or suspend work on the Project for any reason, upon ten (10) days' written notice to CONSULTANT. CONSULTANT agrees to cease all work under this Agreement upon receipt of said written notice.

Upon termination and upon CITY's payment of the amount required to be paid, documents become the property of CITY, and CONSULTANT shall transfer them to CITY upon request without additional compensation.

#### **SECTION 7 - OWNERSHIP OF DOCUMENTS**

All documents prepared by CONSULTANT in the performance of this Agreement, although instruments of professional service, are and shall be the property of CITY, whether the project for which they are made is executed or not.

#### **SECTION 8 - CONFIDENTIALITY**

All reports and documents prepared by CONSULTANT in connection with the performance of this Agreement are confidential until released by CITY to the public. CONSULTANT shall not make any such documents or information available to any individual or organization not employed by CONSULTANT or CITY without the written consent of CITY before any such release.

#### **SECTION 9 - INTEREST OF CONSULTANT**

CONSULTANT covenants that it presently has no interest, and shall not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the services under this Agreement.

## **SECTION 10 - CONSULTANT'S STATUS**

It is expressly agreed that in the performance of the professional services required under this Agreement, CONSULTANT shall at all times be considered an independent contractor as defined in Labor Code Section 3353, under control of the CITY as to the result of the work but not the means by which the result is accomplished. Nothing herein shall be construed to make CONSULTANT an agent or employee of CITY while providing services under this Agreement.

## **SECTION 11 - INDEMNITY**

CONSULTANT agrees to hold harmless and indemnify CITY, its elected and appointed officials, employees, and agents from and against any and all claims, loss, liability, damage, and expense arising out of CONSULTANT's performance of this Agreement, except those claims arising out of CITY's sole negligence or willful misconduct. CONSULTANT agrees to defend City, its elected and appointed officials, employees, and agents against any such claims.

## **SECTION 12 - INSURANCE**

CONSULTANT shall procure and maintain for the duration of the contract and three years thereafter (five years for building or major improvements) the insurance specified in Exhibit C to this Agreement.

## **SECTION 13 - NON-ASSIGNABILITY**

Both parties hereto recognize that this Agreement is for the personal services of CONSULTANT and cannot be transferred, assigned, or subcontracted by CONSULTANT without the prior written consent of CITY.

## **SECTION 14 - RELIANCE UPON PROFESSIONAL SKILL OF CONSULTANT**

It is mutually understood and agreed by and between the parties hereto that CONSULTANT is skilled in the professional calling necessary to perform the work agreed to be done under this Agreement and that CITY relies upon the skill of CONSULTANT to do and perform the work in the most skillful manner, and CONSULTANT agrees to thus perform the work. The acceptance of CONSULTANT's work by CITY does not operate as a release of CONSULTANT from said obligation.

## **SECTION 15 - WAIVERS**

The waiver by either party of any breach or violation of any term, covenant, or condition of this Agreement or of any provisions of any ordinance or law shall not be deemed to be a waiver of such term, covenant, condition, ordinance or law or of any subsequent breach or violation of the same or of any other term, covenant, condition, ordinance or law or of any subsequent breach or violation of the same or of any other term, condition, ordinance, or law. The subsequent acceptance by either party of any fee or other money which may become due hereunder shall not be deemed to be a waiver of any preceding breach or violation by the other party of any term, covenant, or condition of this Agreement or of any applicable law or ordinance.

## **SECTION 16 - SEVERABILITY**

If any term or portion of this Agreement is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Agreement shall continue in full force and effect.

## **SECTION 17 - COSTS AND ATTORNEY FEES**

Attorney fees in total amount not exceeding \$5000, shall be recoverable as costs (by the filing of a cost bill) by the prevailing party in any action or actions to enforce the provisions of this Agreement. The above \$5000 limit is the total of attorney fees recoverable whether in the trial court, appellate court, or otherwise, and regardless of the number of attorneys, trials, appeals, or actions. It is the intent of this Agreement that neither party shall have to pay the other more than \$5000 for attorney fees arising out of an action, or actions to enforce the provisions of this Agreement.

## **SECTION 18 - NON-DISCRIMINATION**

CONSULTANT warrants that it is an Equal Opportunity Employer and shall comply with applicable regulations governing equal employment opportunity. Neither CONSULTANT nor any of its subcontractors shall discriminate in the employment of any person because of race, color, national origin, ancestry, physical handicap, medical condition, marital status, sex, or age, unless based upon a bona fide occupational qualification pursuant to the California Fair Employment and Housing Act.

## **SECTION 19 - MEDIATION**

Should any dispute arise out of this Agreement, any party may request that it be submitted to mediation. The parties shall meet in mediation within 30 days of a request. The mediator shall be agreed to by the mediating parties; in the absence of an agreement, the parties shall each submit one name from mediators listed by either the American Arbitration Association, the State Mediation and Conciliation Service, or other agreed-upon service. The mediator shall be selected by a blind draw.

The cost of mediation shall be borne equally by the parties. Neither party shall be deemed the prevailing party. No party shall be permitted to file a legal action without first meeting in mediation and making a good faith attempt to reach a mediated settlement. The mediation process, once

commenced by a meeting with the mediator, shall last until agreement is reached by the parties but not more than 60 days, unless the maximum time is extended by the parties.

## **SECTION 20 - LITIGATION**

CONSULTANT shall testify at CITY'S request if litigation is brought against CITY in connection with CONSULTANT's services under this Agreement. Unless the action is brought by CONSULTANT, or is based upon CONSULTANT's wrongdoing, CITY shall compensate CONSULTANT for preparation for testimony, testimony, and travel at CONSULTANT's standard hourly rates at the time of actual testimony.

## **SECTION 21 - NOTICES**

All notices hereunder shall be given in writing and mailed, postage prepaid, addressed as follows:

To CITY: Brad Underwood  
Public Works Director  
City of San Mateo  
330 W 20th Avenue  
San Mateo, CA 94403

To CONSULTANT: 4LEAF, Inc.  
Attn: Tricia Baxter  
Senior Engineer  
4 Leaf, Inc.  
2126 Rheem Drive  
Pleasanton, CA 94588

## **SECTION 22 - AGREEMENT CONTAINS ALL UNDERSTANDINGS; AMENDMENT**

This document represents the entire and integrated agreement between CITY and CONSULTANT and supersedes all prior negotiations, representations, and agreements, either written or oral.

This document may be amended only by written instrument, signed by both CITY and CONSULTANT.

## **SECTION 23 - AUTHORITY TO ENTER INTO AGREEMENT**

CONSULTANT has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and to bind each respective party.

**SECTION 24 - GOVERNING LAW AND VENUE**

This Agreement shall be governed by the laws of the State of California and, in the event of litigation, venue will be in the County of San Mateo.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, CITY OF SAN MATEO and 4LEAF, Inc. have executed this Agreement the day and year first above written.

CITY OF SAN MATEO

CONSULTANT

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Brad B. Underwood  
Public Works Director

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<Insert Name>  
Its Authorized Agent  
<Insert Title>

If a Corporation, can be either 1) President or 2) Vice President plus an additional corporate officer (i.e., Secretary, Treasurer) who shall sign below.

APPROVED AS TO FORM

ADDITIONAL CORPORATE OFFICER  
(if necessary per the above)

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Caio Arellano  
Assistant City Attorney

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<Insert Name>  
<Insert Title>

**Attachments:**

Exhibit A: Scope of Services  
Exhibit B: Fee Rates  
Exhibit C: Insurance Requirements

## **Exhibit A – Scope of Service**

4LEAF will provide the City of San Mateo with Construction Management services for the North Shoreview Flood Improvement project. At a minimum, 4LEAF shall provide one (1) dedicated Construction Manager (CM), at least one (1) full-time, on-site inspector for the duration of the project, and any additional supporting staff necessary to provide full inspection coverage and construction management services for tasks described below.

4LEAF will retain all necessary sub-consultants to provide specialty services and inspection to include but not limited to environmental permit compliance, biological surveys, construction surveys, material testing, electrical/structural inspection, and SWPPP compliance.

### **Task 1 – Preconstruction Phase**

- a. Project Review
  - i. 4LEAF and its subconsultants will review all project plans, specifications, permits, agreements, correspondence, and any other relevant project documents available.
- b. Meetings
  - i. 4LEAF's team will coordinate, prepare agendas for, chair, and provide minutes for all meetings including the weekly progress meetings, periodic meetings with the City, as well as any additional stakeholder meetings that may be necessary to successfully complete the project.
    - 1. Attend kick-off meeting with City project team
    - 2. Conduct a pre-construction conference with the project team including City staff, the contractor and subcontractors, stakeholders and representatives from federal, state and local agencies, design engineers, and other interested parties on project details, procedures, special permit requirements, coordination, scheduling, and other pertinent information.
    - 3. Coordinate and conduct weekly progress meetings
- c. Evaluate the Construction Contractor's contract schedule for actual versus planned progress and document all scheduling discrepancies and deviations. To do this 4LEAF will do the following:
  - i. We will continually review the schedule to ensure they include long lead items, as well as potential impacts to the schedule from local venues, such as the Poplar Creek Golf Course and Coyote Point Yacht Club.
  - ii. We will consistently review and monitor the project schedule to ensure the contractor is updating the schedule frequently and providing 3-week look-ahead schedules. We will request updates as appropriate, and track delays or accelerations based on actual contractor operations.
  - iii. We will continually assess critical project items to assist in determining the best use of schedule float in the contractors' critical path method (CPM) schedules to avoid down time.
  - iv. We will coordinate regularly with the City regarding all construction activities and impacts to the baseline and 3-week look-ahead schedules.
  - v. We will recommend introducing various phasing options to deal with potential worst-case scenarios in scheduling for the project; such as concurrent project delays, inclement weather delays, etc.



- vi. We will include “what if” meetings as the project progresses; for example, what if we accelerate a portion of construction- how would that affect the overall CPM.
- d. Records can be kept and maintained using hardcopies or e-copy or both. Baseline records including permits and permits status, required pre-bid activities, addenda and pre-bid meeting agenda and notes, conformed bid documents, bid documents, bonds and insurances, notice of awards and notice to proceed records will be kept.
- e. Prepare and submit construction monthly progress reports along with monthly CM payment invoice. Monthly progress reports shall include the following:
  - i. Overview of work accomplished, including photos;
  - ii. Work to be completed the following month;
  - iii. Updated schedule of work;
  - iv. Explanations for deviations from the initial schedule;
  - v. Explanation of any upcoming risks/problem areas and corrective action to be taken; and
  - vi. Status of submittals, RFIs, change orders, and claims.
- f. Review of Construction Contractor’s work for compliance with contract documents, environmental documents, state laws, regulations, etc.
  - i. The first order of work for the 4LEAF team will be to understand the project scope and site and review the contract documents, including the construction drawings and specifications, addenda, cost estimates and quantities, design reports and studies, resource agency permits, utility relocations plans, etc.
- g. Review Construction Contractor submittals for compliance with contract documents and coordinate Project Manager and Design Engineer review.
  - i. 4LEAF will prepare and maintain a detailed checklist and submittal log of required shop drawings, submittals, samples, required factory or shop inspections, certifications, operation and maintenance manuals, training, spare parts and special tools. 4LEAF will perform a timely, thorough review of all submittals and scope drawings for completeness and conformity as they are submitted by the contractor prior to either approving the submittal for use on the project or prior to forwarding them on to the designer of record for their review and approval.
- h. Review Construction Contractor Requests for Information (RFIs) and coordinate with Design Engineer for resolution and response. Log all RFIs and associated response.
- i. Review Construction Contractor monthly invoices and recommend payment requests. 4LEAF will submit a monthly Budget Analysis Report with their monthly invoice. These reports will be updated monthly, submitted to the City’s designated Project Manager, and reviewed in a monthly update meeting, if necessary. The frequency of reporting/meeting and content of each report will be discussed in detail with City staff following contract award. The content of the report is outlined as follows:
  - i. Original Budget Amount
  - ii. Percent Complete
  - iii. Percent Expended
  - iv. Percent of Project Completed
  - v. Amount Invoiced to Date
  - vi. Remaining Budget to Date
  - vii. Pertinent Comments

viii. Dates Performed

- j. Provide Construction Contractor with acceptability or deficiencies in work and required actions for contract compliance.
- k. Maintain project documents files in the format and location specified by the City.

## **2. Public Outreach**

- a. The project must minimize the impact to the community in order to gain their trust in meeting the City's commitment to them.
- b. 4LEAF will communicate the schedule of when the individual businesses and residences in the area will be directly impacted.
- c. 4LEAF will listen and recognize comments and suggestions from the community to avoid conflicts that could affect the project and the City.
- d. We recommend that in addition to providing safe access to the Peninsula Humane Society and SPCA for its staff and the public, the area between the Peninsula Humane Society and SPCA and the construction site should include a barrier for noise and visibility to avoid prolonged disturbance to the animals.

## **3. Traffic Control**

- a. 4LEAF's Construction inspector will continuously monitor the contractor's traffic control measures and ensure they are in place before the start of each work day, maintained throughout the work day, and in place at the end of each work day. This will include ensuring the contractor provides all the required notification signage and the appropriate number of flagmen.
- b. 4LEAF will regularly monitor the implementation of traffic control plans for consistency and safety for the construction crews, vehicular traffic, and the public, in general.

## **4. Construction Observation/Inspection**

- a. Using digital and/or video camera, the 4LEAF team will record the existing conditions of the project site and area(s) of new construction before the contractor starts work, during construction, and then again at the completion of construction activities. This documentation will be a useful tool in identifying and/or assigning ownership of any damage to existing City-or privately-owned facilities once work begins.
- b. Inspect and observe Construction Contractor's work daily for compliance with the contract documents.
- c. Maintain daily inspection reports of work, including photos, descriptions of daily activities, weather, shift hours, traffic controls, SWPPP erosion control measure conditions, dust control mitigations, permit compliance, labor and equipment hours, quantities, any corrective actions to be taken by Construction Contractor, persons and equipment onsite, and work to be completed the following day(s).
- d. Review of materials and equipment delivered to site for compliance with submittals and contract documents.
  - i. Inspection of materials and equipment deliveries will be completed while the material and equipment are still on the truck. As controlling operations are performed, 4LEAF's Construction Inspector will collect certificates of compliance, AC weight tags, and bills of lading for materials delivered to the site.
- e. 4LEAF's Construction Manager will complete separate independent reports with photos and information related to change order analysis, monthly schedule review and analysis, progress payment evaluation, and Weekly Statement of Working Days.

- f. Coordinate and provide material testing and specialty inspections as required.
  - i. 4LEAF's team firm, Construction Testing Services (CTS), will perform special inspections and materials testing per Caltrans Standard Specifications, American Concrete Institute (ACI) and ASTM Standards, and additional project specific quality assurance requirements.
- g. Review of Construction Contractor's compliance with all permits, stormwater regulations and permits (Stormwater Pollution Prevention Plan (SWPPP)), environmental documents, and mitigation measures.
- h. Review of Construction Contractor's compliance with health and safety standards and regulations and reporting of non-compliance.
- i. Monitor record documents to ensure proper maintenance and completion by Contractor.
- j. Environmental Compliance Construction Activities
  - i. Biological Monitoring
    - 1. This task includes time for a qualified biological monitor to check for stranded aquatic life as the water level in the dewatering area drops. The biological monitor will remain on site while the cofferdam (or similar structure) is installed and the work area is dewatered in order to ensure that no aquatic life is stranded in the dry work area. This scope of work assumes that the cofferdam for each project will take one day to install (CDFW LSAA Condition 2.26); therefore, only two 8-hour days will be required for fish relocation. This scope of work also includes time for a qualified biological monitor to remain on-site during all vegetation removal activities, work on the northern side of the Bayfront Levee to monitor for Ridgway's rail, and concrete work. This scope of work assumes that no more than 46 8-hour days will be required for vegetation removal, work on the northern side of the Bayfront Levee, and concrete work. The biological monitor will also be on-site daily to inspect the construction contractor's work daily for compliance with the permit conditions, including, but not limited to, maintenance of silt fencing and checking for wildlife under stockpiles and other construction material, as well as to attend morning pre-construction meetings. This scope of work assumes that daily biological monitoring could be required for up to 382 weekdays and 88 Saturday 4-hour work days (i.e., 5 days a week and Saturdays less the full days above).
  - ii. Client/Contractor Coordination
    - 1. In our experience, it is essential that the biological monitor stay informed of project activities and be available to answer any questions that may come up regarding the permit measures. Therefore, this task includes time to update the permit matrix; attend a 1-hour weekly telephone call with the project team; coordinate on a weekly basis with the contractor for up to 40 hours, including regarding the low tide window (CDFW LSAA Condition 2.7) and weather forecast (CDFW LSAA 2.8); and coordinate with the City for up to 20 hours
  - iii. Post-Construction Monitoring Report
    - 1. MIG will prepare draft and final reports for both projects for the City. The reports will identify the monitoring tasks, the dates they were completed, and results. The applicable permit conditions and before and after photographs of the project site will be attached as an appendix to the

report. This task includes time to address comments from the City and respond to one round of comments/report revision. This task assumes that the City and/or contractor will provide the as-built drawings.

## **5. Change Order Management**

- a. Coordinate, review, and evaluate potential change orders and cost estimates/quotations.
- b. Coordinate, review, evaluate, and recommend course of action for contract change order requests and submittals
- c. Inspect and evaluate site conditions that are perceived to be different than shown in contract documents.
- d. Review, gather, and evaluate information for resolution of potential claims or disputes.
  - i. A log of Notices of Potential Claims will be prepared and updated for discussion at regular City meetings and/or weekly progress meetings.
- e. 4LEAF will take no action without the review and approval of the city.

## **6. Project closeout and Acceptance Services**

- a. The post-construction and contract closeout phase consists of three distinct closeout elements: physical closeout, document closeout, and fiscal closeout as follows:
  - i. Physical closeout consists of a series of inspections performed to document that the work is complete to one of two levels: (1) Substantial Completion – when work, or a designated portion of the work, is sufficiently complete that the client or the public may utilize it; or (2) Final Completion – acceptance by the client that the project is completed in full. Applicable certificates will be issued at each stage of completion, and punch lists will be updated during each inspection.
  - ii. Document closeout is the process of assembling and transferring the required contract files from 4LEAF to the City when the contract is complete. A final construction completion report will be prepared and submitted to the City that includes a summary of the schedule, budget and costs, as-built records prepared by 4LEAF's Inspector, operations and maintenance manuals, compact discs and / or USB copies, training sign-offs, equipment representative contact information, warranties, payment and lien releases from suppliers and subcontractors, permit sign offs, and locks and keys to structures, panels and enclosures.
  - iii. Fiscal closeout includes the review of contract administration (submittal log, RFI log, punch lists, etc.), accounting, and financial functions to confirm they are coordinated with physical closeout functions to ensure that no outstanding financial liability is present after the final payments / retentions are made to the contractor.
- b. Perform site inspection(s) to determine if facilities are complete and in compliance with contract documents.
- c. Develop corrective item work lists (punch lists) and inspection of corrective actions performed.
- d. Recommend retention release to Construction Contractor
- e. Verify all O&M Manual submittals as well as spare parts as required by the contract documents.
- f. Coordinate final submittal of organized and complete record drawings in accordance with contract documents,

- g. Verify Construction Contractor has made all payments and that all required releases including warrant release, lien release(s), and release of claims have been submitted by Construction Contractor.
- h. Prepare and submit final construction report.

## 7. Environmental Compliance Pre-Construction Activities

The Project has been issued a final LSAA from CDFW, a USACE Nationwide Permit, USFWS Not Likely to Adversely Affect Concurrence for impacts to California Ridgway's Rail (*Rallus obsoletus obsoletus*), National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) Not Likely to Adversely Affect Concurrence for impacts to central California coast steelhead (*Oncorhynchus mykiss*), North American green sturgeon (*Acipenser medirostris*), and Essential Fish Habitat, and a RWQCB Water Quality Certification. As mentioned earlier, the 4LEAF team includes MIG to perform environmental compliance and biological monitoring and, in-house 4LEAF staff to provide environmental compliance in support of the Project.

- a. Agency Coordination
  - i. MIG will prepare and submit MIG biologists' resumes to the USFWS, NOAA Fisheries, and/or CDFW for approval prior to construction. MIG will contact agencies in the event questions about permit conditions come up in the course of monitoring, in the event a special-status species is found and the permit conditions require agency notification, or in the event that the work period needs to be extended.
- b. Worker Education Program
  - i. In accordance with CDFW LSAA Condition 2.15, MIG will prepare an environmental education program for workers that includes a description of special-status species, regulations protecting the species, measures that should be implemented to protect the species, and penalties for non-compliance of conditions. As part of the training, MIG will prepare and provide handouts, including colored photographs for species identification and contact phone numbers for key project personnel. A qualified MIG biologist will conduct the training for all employees, contractors, or other personnel working on the project site prior to them starting work. Upon completion of the training, the MIG biologist will ensure that all employees, contractors, or other personnel working at the project site sign a form stating they attended the training program and understand all protection measures. These sign-in sheets will be kept on site and in the MIG biologist's project binder. This scope of work assumes only two trainings (one training for each project) will be performed by MIG and that each training can be conducted in one 4-hour field visit (including travel time).
- c. Fencing/Flagging and Photo Documentation
  - i. In accordance with CDFW LSAA Condition 2.14, MIG biologists will work with the construction crew to delineate the project area with flagging, silt fencing, and/or 5-foot tall bright orange plastic fencing. MIG will also clearly mark/flag any areas that should be avoided during construction (e.g., wetland areas or trees adjacent to the work area not identified in the permit application) prior to construction. We assume that the construction crew will flag or fence the work area and we can work with that crew to assure sensitive resources are avoided in that process. As part of this task, MIG will also establish photo documentation points in accordance with RWQCB WQC Monitoring Requirements 6.6.28. This scope of work assumes

that flagging and pre-construction photo documentation can be conducted at the same time as the pre-construction surveys; therefore, an additional site visit will not be required for this task. Hours associated with this task are included in the Pre-construction survey tasks.

d. Permit Binder Preparation

- i. Condition 1.1 and Condition 1.2 of the CDFW LSAA requires that a copy of the project permits be provided to all contractors, subcontractors, inspectors, and monitors and be kept on the project site at all times. MIG will prepare permit binders to comply with this condition. In addition, based on our past experience, we have found that preparing a permit matrix has ensured projects are kept on track since the permit conditions can be easily referenced and compliance with the permit conditions can be easily documented. As a result, MIG will prepare a permit matrix to include in the permit binder. This scope of work assumes no more than five permit binders will be required.

e. Ridgway's Rail Survey

- i. Condition 2.2 of the CDFW LSAA requires that work on the northern side of the Bayfront Levee for the outfall structure be confined to the period of September 1 to October 31 to avoid potential impacts to Ridgway's rail. This scope of work assumes that any work within the San Francisco Bay, including the outfall structure, can be conducted between September 1 and October 31. As a result, protocol-level Ridgway's rail surveys will not be required. Condition 2.5 of the CDFW LSAA requires that a qualified biologist conduct surveys in appropriate habitat for rails within the work area, including staging areas and access routes no more than seven days prior to initiation of construction. If rails are observed within or near the work area, the biologist will implement a no disturbance buffer of a minimum of 50 feet. This scope of work assumes that rails will not be routinely observed on-site; therefore, a species avoidance plan in accordance with CDFW LSAA Condition 2.6 will not be required. The biologist will remain on-site during work within or near the San Francisco Bay to ensure rails are not present and appropriate buffers are implemented.

f. Nesting Bird Surveys

- i. Condition 2.19 of the CDFW LSAA requires a survey for nesting birds within 15 days prior to construction work if the work will occur in the avian breeding season (generally between February 15 and September 15). Construction is anticipated to start in summer 2019; therefore, a nesting bird survey will be required. This scope of work assumes that construction will not lapse for more than 15 days; therefore, only one nesting bird survey will be required for each project site. If a nest is found, the CDFW LSAA requires no disturbance buffers be implemented around the nest. The MIG biologist will flag the area of the no disturbance buffer to ensure that construction crews are aware of the no disturbance area immediately after an active nest is found. This scope of work assumes that the no disturbance buffer can be implemented and consultation with CDFW to reduce the buffers will not be required. The budget assumes that any additional follow-up monitoring of the nests can be conducted during the daily inspections. Results of the survey will be documented in a brief memo report that will be submitted to CDFW (CDFW LSAA Condition 4.1). This task includes time to address comments from the City and respond to one round of comments/memo revision.

g. Bat Survey

- i. Condition 2.16 of the CDFW LSAA requires a qualified biologist conduct a survey for nesting/roosting bats 48 hours prior to commencement of the project. The biologist will check all suitable habitat for bats (e.g., cavities, crevices, exfoliating bark, and bark fissures) within 200 feet of the project site using roof-prism binoculars supplemented with a flashlight or spotlight, as needed. When possible, the biologist will examine the features by looking directly inside them. If any trees that will be disturbed are found to have suitable habitat or bats/evidence of bats are found, the biologist will mark the area with flagging. The biologist will also contact the CDFW prior to commencement of the project if any roosting features, evidence of bats, or bats are found and determine the appropriate mitigation measures (e.g., removal, seasonal work restrictions). This scope of work assumes that no bats or evidence of bats will be observed; therefore, additional measures will not be required. Results of the survey will be documented in a brief memo report that will be submitted to the CDFW (CDFW LSAA Condition 4.1).
- h. Focused Plant Survey
  - i. Condition 2.17 of the CDFW LSAA requires a qualified biologist conduct a protocol-level survey for sensitive plant species during the peak blooming period for each plant that could be present in the project area prior to project activities. Based on a review of the project permits, Davidson's bushmallow (*Malacothamnus davidsonii*) is the only plant expected to be present in the project area. MIG will conduct a focused floristic survey within the blooming period for Davidson's bushmallow (June-January) in accordance with the CDFW's Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and SpecialStatus Communities (CDFW 2018) and the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 1996). If any special-status plant species is observed during the survey, the qualified biologist will determine the number of individuals present and the limits of the area occupied by the population will be marked with flagging and geo-located. This scope of work assumes that special-status plants can be avoided; therefore, additional measures to protect or compensate for special-status plants will not be required. Results of the survey will be documented in a brief memo report that will be submitted to CDFW (CDFW LSAA Condition 4.1). This task includes time to address comments from the City and respond to one round of comments/memo revision.

Estimated Fees to Provide CM Services  
for the North Shoreview Flood Improvement Project for the City of San Mateo  
(Hours for float days removed per City)

Task	Sub Task	Task Description	Project Manager (4LEAF)	Construction Manager (4LEAF) (RT)	Project Engineer (4LEAF) (RT)	Construction Inspector - LEVEE AND COYOTE PUMP STATION (4LEAF) (RT)	Construction Inspector - LEVEE AND COYOTE PUMP STATION (4LEAF) (Sat. - OT)	Construction Inspector - POPLAR PUMP STATION (4LEAF) (RT)	Construction Inspector - POPLAR PUMP STATION (4LEAF) (OT / Sat.)	Electrical / Structural Inspector (4LEAF) (RT)	Public Works Inspector Apprentice	Total Hours Per Task	Cost Per Task	Notes
		Hourly Rate	\$150	\$155	\$147	\$141	\$190	\$141	\$190	\$130	\$92			See Notes (a), (b), & (c).
1		Preconstruction Phase	Hours	Hours	Hours	Hours	Hours	Hours		Hours		Hours		
	1a	Review Existing, Available Project Documents.	4	100	8	24	0	24	0	4		164	\$24,564	See Note (d).
	1b	Attend Kick-off Meeting.	3	3	0	3	0	3	0	0		12	\$1,761	
	1c	Document Existing Site Conditions.	4	8	8	8	0	8	0	0		36	\$5,272	
	1d	Coordination Meetings.	18	18	18	18	0	0	0	0		72	\$10,674	See Note (e).
	1e	Prepare for and Attend Pre-Construction Meeting.	16	24	4	4	0	4	0	0		52	\$7,836	
	1f	Review Contractor Submittals.	0	100	80	0	0	0	0	0		180	\$27,260	
	1g	Project Management.	32	0	0	0	0	0	0	0		32	\$4,800	
		Task 1 Subtotal:	77	253	118	57	0	39	0	4		548	\$82,167	
2		Construction Phase	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours		Hours		
	2a	Perform Construction Management.	0	4,240	0	0	0	0		0		4,240	\$657,200	See Note (f).
	2b	Perform Construction Inspection.	0	0	0	3,280	744	1,280	256	0		5,560	\$833,310	See Note (f).
	2c	Perform Environmental Permit Compliance Support.	0	0	528	0	0	0	0	0		528	\$77,616	See Note (g).
	2d	Perform Electrical and Structural Inspections.	0	0	0	0	0	0	0	739		739	\$96,096	See Note (h).
	2e	Materials Testing & Special Inspection (CTS).											\$313,091	See Note (i).
	2f	Environmental Permit Compliance and Biological Monitoring (MIG).											\$386,982	See Note (j).
	2g	Quality Assurance Survey (Bellecci).											\$37,344	See Note (k).
	2h	Mark-up on Subconsultant (5%).											\$36,871	
	2i	Project Management.	336	0	0	0	0	0	0	0		336	\$50,400	See Note (l).
		Task 2 Subtotal:	336	4,240	528	3,280	744	1,280	256	739		11,403	\$2,488,910	
3		Post Construction Phase	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours		Hours		
	3a	Construction Management - Project Closeout.	0	80	0	0	0	0	0	0		80	\$12,400	
	3b	Final Inspections and Provide Red-Lined Set of Plans.	0	0	0	80	0	80	0	0		160	\$22,560	
	3c	Project Management.	24	0	0	0	0	0	0	0		24	\$3,600	
		Task 3 Subtotal:	24	80	0	80	0	80	0	0		264	\$38,560	
		TOTAL (4LEAF + CTS + MIG + Bellecci):	437	4,573	646	3,417	744	1,399	256	743		12,215	\$2,609,637	
4		Public Works Inspection Apprenticeship (if Required)	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours		
	4a	Provide Public Works Inspection Apprentice	0	0	0	0	0	0	0	0	912	912	\$83,904	See Notes (a) and (b).
		Task 4 Subtotal (Apprentice Only)	0	0	0	0	0	0	0	0	912	912	\$83,904	
		TOTAL (4LEAF + CTS+MIG+Bellecci + Apprentice if required)	437	4,573	646	3,417	744	1,399	256	743	912	13,127	\$2,693,541	

Notes:

- (a) Assumes project will require compliance with California Prevailing Wage rate requirements under SB 854, and the Client will be required to file a PWC-100 Form to the California Department of Industrial Relations for the project.
- (b) Per the new requirements being enforced under SB 854 and because it is assumed that a PWC-100 Form will be filed by the City to the CA DIR, 4LEAF is required to notify an authorized Apprenticeship Committee through submittal of a DAS-140 form. We are then required to make an official request to an authorized Apprenticeship Committee for an apprentice by submitting a DAS-142 form. We are not assured the apprenticeship committee will be able to provide a suitable / qualified apprentice for the project. Per the apprenticeship requirements, the hours worked by the apprentice must be in a ratio of 1:5 for apprentice to journeyman hours. Hours are included as a placeholder in the event that an apprenticeship for a public works inspector is required and dispatched by the apprenticeship committee. We have assumed the public works apprentice assigned to the project will be classified as a Period 1 Apprentice as defined by the DIR's Wage Determination dated 8/17. In the event that a higher classification apprentice is assigned to the project, we will contact the City to request a change order for this line item.
- (c) 4LEAF staff will be supplied with typical tools of the trade to perform their daily tasks (e.g. cell phone, laptop computer, and PPE).
- (d) Not intended as a Biddability and Constructability Review. Only includes hours for project team to review existing documents to become familiar with the project. Hours included per recommendation by City.
- (e) Assumes Project Manager, Construction Manager, Project Engineer, and Inspector will attend (6) coordination meetings at (3) hours each (includes (1) hour each meeting for driving to/from meeting.)
- (f) **Per email correspondence with the City (5/10/19)**, the estimated construction schedule defines the duration for the entire project between 9/3/19 and 5/20/21 (21 months). Per the contractor's draft schedule provided by the City, the Construction Phase of the Coyote Point PG&E task (Task 2) will begin September 3, 2019. It is assumed the construction inspector for the Coyote Point Levee and Pump Station will work 410 WD for 8 hours/day and AND 93 WD at 8 hours/day at Saturday (OT) rate between September 3, 2019 and July 29, 2020 AND September 1, 2020 and May 20, 2021. The contractor's draft schedule includes 120 days of float. **Per email correspondence with the City (7/12/19)**, City requested removal of float days from the 4LEAF team's cost proposal. It is assumed the construction inspector for the Poplar Pump Station (Task 5) will work 160 WD for 8 hours /day at regular time rate and 32 WD at 8 hours/day at Saturday (OT) rate between 2/10/2020 and 9/23/2020. It is assumed 4LEAF's Construction Manager will work 530 WD for 8 hours per day. Does not include any allowance for any weekday overtime, nighttime, Sunday, or holiday work. If Contractor's schedule indicates weekday overtime, nighttime, Sunday, or holiday work is necessary, hours provided in this estimate may be adjusted and the requirements for these hours will be billed in accordance with California Prevailing Wage Law. If construction duration extends past 21 months, or Contractor's schedule indicates a different number of hours per working day or additional weekend or holiday work will be necessary, 4LEAF will submit a budget amendment request to the City and hours will be billed in accordance with 4LEAF's 2019 Standard Fee Schedule.
- (g) **Per City meeting on 4/21/19**, it is assumed the construction durations of the Coyote Point and Poplar Pump Stations will be 14 months. It is assumed 4LEAF's Electrical / Structural Inspector will be available 30% of the time during the 14 month duration for construction of the Coyote Point and Poplar Pump Stations. If Contractor's schedule indicates the duration of construction for the two pump stations extends past 14 months, 4LEAF will submit a budget amendment request to the City and hours will be billed in accordance with 4LEAF's 2019 Standard Fee Schedule.
- (i) See detailed cost estimate provided by CTS.
- (j) See detailed cost estimate provided by MIG, dated 5/14/19.
- (k) For **budgetary purposes only**. See attached estimate from Bellecci. The exact level of effort for this task has not been defined at this time.
- (l) Assumes 16 hours per month for 21 months (September 2019 - May 2021) for Project Manager to coordinate with 4LEAF Construction Manager and Inspector and City's Project Manager.



## Cost Estimate

The budget for the environmental consulting services is summarized in the Cost Table Summary below. A detailed breakdown of labor allocation per task is attached in the Detailed Cost Table following this letter. The cost proposal is based on our understanding of the project and our assumptions. If unforeseen conditions are encountered, such as an issue with potential impacts to a special-status species or other protected resource that requires more than the estimated amount of time to address, we will notify you immediately to discuss modifications to the scope of services and/or project fees.

This is an estimate; we will bill only the time and expenses spent. We will not exceed this amount without prior approval from you, and any future request for additional funds will be substantiated with a written explanation of tasks and estimated budget.

### Cost Table Summary

Tasks	Cost
1. Agency Coordination	\$6,900
2. Preconstruction Activities	<b>\$33,005</b>
3. Construction Monitoring	<b>\$288,080</b>
4. Project Administration	\$39,150
<i>Labor Cost</i>	\$367,135
<i>Expenses</i>	<b>\$19,847</b>
<b>Total Cost</b>	<b>\$386,982</b>

## Assumptions

- 1. Field Assistance.** We have assumed that the construction contractor will flag the project area and that MIG will be present to assist with this effort to ensure sensitive resources are avoided. This scope of work assumes that flagging can be conducted at the same time as the pre-construction surveys; therefore, an additional site visit will not be required for this task. An additional site visit can be conducted under an amended budget.
- 2. Access.** This scope of work assumes that all permission for site access will be provided by the City.
- 3. Project Plans.** This scope of work does not include preparation or review of the Dewatering Plan, Stormwater Pollution and Erosion Control Plan, and Site Plans.
- 4. Additional Biological Measures.** This scope of work assumes that no additional biological measures are included in the San Francisco Bay Conservation and Development Commission (BCDC) permit or any other project permits that have not been issued for the project at the time this scope of work was prepared.
- 5. Agency Coordination.** This scope of work assumes that no more than 40 hours will be required for agency coordination prior to and during construction.
- 6. Revegetation and Revegetation Monitoring.** The Request for Proposal (RFP) was not clear if post-construction tasks, including revegetation monitoring, should be included in this scope of work. In addition, the RWQCB WQC indicates a Mitigation and Monitoring Plan was prepared for the project that was not included in the RFP attachments. As a result, this scope of work does not include preparation of a Mitigation and Monitoring Plan or implementation of revegetation monitoring in accordance with the plan. MIG has extensive experience providing these services and can provide them under an amended budget.
- 7. Preconstruction Surveys.** The cost estimate allows for each pre-construction survey to occur on two separate days to accommodate the two separate projects. If one or more complex biological issues arise from the pre-construction surveys such as a bat roost is found in a tree or structures marked for removal; or an active bird nest cannot be avoided by implementing the designated buffer, then a budget augment may be required to address this/these issue(s). In addition, if construction remains inactive for more than 15 days during the avian breeding season, a budget augment may be required to conduct additional nesting surveys in accordance with Condition 2.19 of the CDFW LSAA.
- 8. Environmental Training.** This scope of work assumes only two trainings (one training for each project) will be performed by MIG and that each training can be conducted in one 4-hour field visit (including travel time). Additional trainings for new project personnel can be provided under an amended budget.

- 9. Work Window.** This scope of work assumes that construction work within the creek on the southern side of the Bayfront levee and/or waters of the State will be restricted to the dry season (April 15 to October 31), as required by CDFW LSAA Condition 2.1 and RWQCB WQC Regulatory and Compliance Work Window Condition 6.1.6. This scope of work also assumes that work on the San Francisco Bay side of the levee will be restricted to low tide when there is low or no flow, in accordance with CDFW LSAA Condition 2.7 and RWQCB WQC Regulatory and Compliance Work Window Condition 6.1.8.
- 10. Biological Monitoring.** The scope of work assumes the project will occur 5 8-hour days a week for a total of 18 months for both projects. However, this cost estimate assumes no more than 42 8-hour days (336 hours) and no more than 318 4-hour (1,272 hours) days will be required for a biological monitor. As a result, this scope of work assumes no more than 1,608 hours could be required for biological construction monitoring. Additional time has been added for organization and completion of the daily monitoring reports. If the project takes longer to construct, a budget augment will be needed for additional days of monitoring.
- 11. Native American Monitoring.** This scope of work does not include assistance from a Native American monitor, as required by USACE NWP Special Condition 3. This service can be provided under an amended budget.
- 12. Fish Relocation.** This scope of work assumes that the cofferdam for each project will take one day to install (CDFW LSAA Condition 2.26); therefore, only two 8-hour days have been included for fish relocation. This scope of work also assumes electrofishing will not be required to move fish from the dewatered area.
- 13. Bat Survey.** This scope of work assumes that bat surveys can be conducted at each project site during one 8-hour day (16 hours). This scope of work assumes that no bats or evidence of bats will be observed; therefore, additional measures will not be required. Additional measures can be implemented under an amended budget.
- 14. Nesting Bird Survey.** This scope of work assumes that nesting bird surveys can be conducted at each project site during one 8-hour day (16 hours). This scope of work assumes that construction will not lapse for more than 15 days; therefore, only one nesting bird survey will be required for each project site. This scope of work also assumes that the no disturbance buffer can be implemented and consultation with CDFW to reduce the buffers will not be required. Finally, the budget assumes that any additional follow-up monitoring of the nests can be conducted during the daily inspections (Task 4). Additional surveys and/or monitoring can be implemented under an amended budget.
- 15. Rare Plant Survey.** Based on a review of the project permits, this scope of work assumes that Davidson's bushmallow is the only plant expected to be present in the project area. Therefore, MIG will conduct a focused floristic survey within the blooming period for Davidson's bushmallow, which is June-January. This scope of work also assumes that special-status plants can be avoided; therefore, additional measures to protect or compensate for special-status plants will not be required. Additional measures can be implemented under an amended budget.
- 16. Ridgway's Rail.** This scope of work assumes that work on the outfall structure and any other structures on the San Francisco Bay side of the project area can be confined to the period of September 1 to October 31, which is outside the Ridgway's rail breeding season. As a result, protocol-level Ridgway's rail surveys will not be required. In addition, this scope of work assumes that rails will not be routinely observed on-site outside the breeding season; therefore, a species avoidance plan in accordance with CDFW LSAA Condition 2.6 will not be required. These services can be provided under an amended budget.
- 17. Expense Estimates.** The expense estimate is based on estimated mileage for round trips from our Berkeley office to the project site for our biologists. All expense estimates are typical estimates; actual expenses are billed at cost and may exceed or be less than the amounts shown.
- 18. Permit Applications.** The scope does not include assistance with permit amendments or extensions. In addition, this scope of work does not include assistance with mitigation negotiations or implementation. This assistance can be provided under an amended budget.
- 19. Post-Construction Report.** This scope of work assumes that the City and/or contractor will provide the as-built drawings and any other technical information needed for the post-construction report.
- 20. Document Revisions.** This scope of work assumes only one round of review and revisions will be required to finalize deliverables.
- 21. Meetings.** One weekly phone meeting for a total of 18 months (i.e., the anticipated duration of project activities) are included in this scope. If additional meetings are required, these will be subject to additional compensation.

[illegible]

**DATE:** 02/13/19  
**PROPOSAL No.:** P15724  
**CLIENT:** CITY OF SAN MATEO C/O 4LEAF, INC.  
**PROJECT:** POPLAR AVENUE PUMP STATION REPLACEMENT  
**LOCATION:** SAN MATEO, CA

ITEM: I ONSITE TESTING & INSPECTIONS		ESTIMATED DAYS	ESTIMATED HOURS	UNIT PRICE	ESTIMATED TOTAL
<b>CONCRETE</b>					
	MAT SLAB	5	8	\$125	\$5,000
	FOOTINGS/GRADE BEAMS	5	8	\$125	\$5,000
	WALLS & COLUMNS	5	8	\$125	\$5,000
	SLAB ON GRADE	5	8	\$125	\$5,000
	ELEVATED DECK POURS (REBAR/CONCRETE)	4	8	\$125	\$4,000
	OTHER - MISC CONCRETE	5	8	\$125	\$5,000
	CELL - CRETE INSPECTION	2	8	\$125	\$2,000
<b>MASONRY - LEVEL 1</b>					
	MASONRY UNIT PLACEMENT	3	8	\$125	\$3,000
	GROUT PLACEMENT	3	8	\$125	\$3,000
<b>STRUCTURAL STEEL</b>					
	FIELD WELDING/UT/MT	3	8	\$130	\$3,120
	MISC STEEL/STAIRS - PERIODIC INSPECTION	3	8	\$125	\$3,000
<b>SEISMIC ASSEMBLY - WOOD</b>					
	SHEAR WALL NAILING/FRAMING	2	8	\$125	\$2,000
	ROOF/FLOOR DIAPHRAGM NAILING	2	8	\$125	\$2,000
<b>MISC FIELD TESTING SERVICES</b>					
	EPOXY BOLTS - INSTALL OBSERVATION	2	8	\$125	\$2,000
	EPOXY BOLTS - PROOF LOADING/PULL TESTING (PORTAL TO PORTAL)	2	8	\$125	\$2,000
	EXPANSION ANCHOR - INSTALL OBSERVATION	2	8	\$125	\$2,000
	EXPANSION ANCHOR - TORQUE TESTING (PORTAL TO PORTAL)	2	8	\$125	\$2,000
	PORTAL TO PORTAL TRAVEL TIME - PROOF LOAD/PULL TESTING/TORQUE TESTING EQUIPMENT	4	1.5	\$125	\$750
	PORTAL TO PORTAL MILEAGE - PROOF LOAD/PULL TESTING/TORQUE TESTING EQUIPMENT	4	72	\$0.58	\$167
<b>GEOTECHNICAL SERVICES</b>					
	BUILDING PAD	5	8	\$125	\$5,000
	TRENCH BACKFILL	5	8	\$125	\$5,000
	RETAINING WALL BACKFILL	5	8	\$125	\$5,000
	SITEWORK SUBGRADE AND/OR BASEROCK	5	8	\$125	\$5,000
	FOOTING INSPECTION (MICROPILES)	8	8	\$175	\$11,200
	PORTAL TO PORTAL TRAVEL TIME FOR NUCLEAR GAUGE USE	20	1.5	\$125	\$3,750
	PORTAL TO PORTAL MILEAGE FOR NUCLEAR GAUGE USE	20	72	\$0.58	\$835
<i>Preliminary Sub-Total of Onsite Testing &amp; Inspection (approx.)</i>					<b>\$91,822</b>

ITEM: II OFFSITE TESTING & INSPECTIONS		ESTIMATED DAYS	ESTIMATED HOURS	UNIT PRICE	ESTIMATED TOTAL
	STEEL SHOP - DAY SHIFT *	5	8	\$130	\$5,200
	MISCELLANEOUS STEEL/STAIRS *	2	8	\$125	\$2,000
<i>Preliminary Sub-Total of Offsite Testing &amp; Inspection (approx.)</i>					<b>\$7,200</b>

ITEM: III LABORATORY TESTING & ENGINEERING		ESTIMATED UNITS/HOURS	UNIT PRICE	ESTIMATED TOTAL
	CONCRETE COMPRESSION TESTS	116	\$40	\$4,640
	LIGHTWEIGHT CONCRETE COMPRESSION TESTS	50	\$60	\$3,000
	MASONRY PRISM COMPRESSION TESTS - PRE CONSTRUCTION	5	\$100	\$500
	MASONRY PRISM COMPRESSION TESTS - PRODUCTION	3	\$100	\$300
	MASONRY GROUT COMPRESSION TESTS	12	\$50	\$600
	MASONRY MORTAR COMPRESSION TESTS	9	\$50	\$450
	PARTICLE SIZE ANALYSIS (ASTM D422) W/O HYDROMETER	5	\$375	\$1,875
	MOISURE CONTENT (ASTM D2216)	10	\$100	\$1,000
	PLASTIC INDEX	5	\$350	\$1,750
	COMPACTION CURVES	10	\$300	\$3,000
	SAMPLE PICK-UPS	225	\$26	\$5,850
	WPS REVIEW	2	\$300	\$600
	MIX DESIGN REVIEW	3	\$300	\$900
	FINAL LETTER	1	\$300	\$300
	CERTIFIED PAYROLL	10	\$100	\$1,000
<i>Preliminary Subtotal of Laboratory Testing &amp; Engineering (approx.)</i>				<b>\$25,765</b>
<i>Preliminary Estimated Fees</i>				<b>\$124,787</b>
<i>Project Administration 10%</i>				<b>\$12,479</b>
<i>Total Preliminary Estimated Fees</i>				<b>\$137,266</b>

\* Steel shop price based on work being done in Northern California in one shop and one shift. If work is performed at night a 12.5% differential will be charged.

A 10% project administration fee will be charged monthly per invoice.

No contingency is budgeted by CTS for uncontrollable overtime, union or prevailing wage increases and unforeseen requirements that may arise in the specifications, as well as for work over the estimated hours. Owner should budget appropriate amount for budgetary purposes.

Estimate based on plans by Schuff & Wheeler, dated 10/5/16. No geotechnical report or construction schedule was available at the time this estimate was prepared. See attached fee schedule for basis of charges.

The liability of Construction Testing Services (CTS) is limited to CTS's contract value.

Estimate includes portal to portal travel time for nuclear gauge transport from laboratory per requirements of the CA Radiological Health Branch.



DATE: 02/13/19  
PROPOSAL No.: P15724  
CLIENT: CITY OF SAN MATEO C/O 4LEAF, INC.  
PROJECT: COYOTE POINT LEVEE IMPROVEMENTS AND PUMP STATION REPLACEMENT  
LOCATION: SAN MATEO, CA

ITEM: I	ESTIMATED DAYS	ESTIMATED HOURS	UNIT PRICE	ESTIMATED TOTAL
<b>ONSITE TESTING &amp; INSPECTIONS</b>				
<b>CONCRETE</b>				
MAT SLAB	6	8	\$125	\$6,000
FOOTINGS/GRADE BEAMS	9	8	\$125	\$9,000
WALLS & COLUMNS	12	8	\$125	\$12,000
SLAB ON GRADE	6	8	\$125	\$6,000
ELEVATED DECK POURS (REBAR/CONCRETE)	4	8	\$125	\$4,000
OTHER - MISC CONCRETE	5	8	\$125	\$5,000
CELL - CRETE INSPECTION	2	8	\$125	\$2,000
<b>MASONRY - LEVEL I</b>				
MASONRY UNIT PLACEMENT	3	8	\$125	\$3,000
GROUT PLACEMENT	3	8	\$125	\$3,000
<b>STRUCTURAL STEEL</b>				
FIELD WELDING/UT/MT	3	8	\$130	\$3,120
MISC STEEL/STAIRS - PERIODIC INSPECTION	3	8	\$125	\$3,000
<b>SEISMIC ASSEMBLY - WOOD</b>				
SHEAR WALL NAILING/FRAMING	2	8	\$125	\$2,000
ROOF/FLOOR DIAPHRAGM NAILING	2	8	\$125	\$2,000
<b>MISC FIELD TESTING SERVICES</b>				
EPOXY BOLTS - INSTALL OBSERVATION	2	8	\$125	\$2,000
EPOXY BOLTS - PROOF LOADING/PULL TESTING (PORTAL TO PORTAL)	2	8	\$125	\$2,000
EXPANSION ANCHOR - INSTALL OBSERVATION	2	8	\$125	\$2,000
EXPANSION ANCHOR - TORQUE TESTING (PORTAL TO PORTAL)	2	8	\$125	\$2,000
PORTAL TO PORTAL TRAVEL TIME - PROOF LOAD/PULL TESTING/TORQUE TESTING EQUIPMENT	4	1.5	\$125	\$750
PORTAL TO PORTAL MILEAGE - PROOF LOAD/PULL TESTING/TORQUE TESTING EQUIPMENT	4	72	\$0.58	\$167
<b>GEOTECHNICAL SERVICES</b>				
BUILDING PAD	5	8	\$125	\$5,000
SUBGRADE AND ROUGH GRADING	5	8	\$125	\$5,000
TRENCH BACKFILL	5	8	\$125	\$5,000
RETAINING WALL BACKFILL	5	8	\$125	\$5,000
SITEWORK SUBGRADE AND/OR BASEROCK	5	8	\$125	\$5,000
LEVEE SUBGRADE	3	8	\$125	\$3,000
LEVEE BASEROCK	3	8	\$125	\$3,000
A/C COMPACTION	1	8	\$125	\$1,000
FOOTING INSPECTION (MICROPILES)	8	8	\$150	\$9,600
PORTAL TO PORTAL TRAVEL TIME FOR NUCLEAR GAUGE USE	32	1.5	\$125	\$6,000
PORTAL TO PORTAL MILEAGE FOR NUCLEAR GAUGE USE	32	72	\$0.58	\$1,336
<i>Preliminary Sub-Total of Onsite Testing &amp; Inspection (approx.)</i>				<i>\$117,973</i>

ITEM: II	ESTIMATED DAYS	ESTIMATED HOURS	UNIT PRICE	ESTIMATED TOTAL
<b>OFFSITE TESTING &amp; INSPECTIONS</b>				
STEEL SHOP - DAY SHIFT *	5	8	\$130	\$5,200
MISCELLANEOUS STEEL/STAIRS *	2	8	\$125	\$2,000
<i>Preliminary Sub-Total of Offsite Testing &amp; Inspection (approx.)</i>				<i>\$7,200</i>

ITEM: III	ESTIMATED UNITS/HOURS	UNIT PRICE	ESTIMATED TOTAL
<b>LABORATORY TESTING &amp; ENGINEERING</b>			
CONCRETE COMPRESSION TESTS	168	\$40	\$6,720
LIGHTWEIGHT CONCRETE COMPRESSION TESTS	50	\$60	\$3,000
MASONRY PRISM COMPRESSION TESTS - PRE CONSTRUCTION	5	\$100	\$500
MASONRY PRISM COMPRESSION TESTS - PRODUCTION	3	\$100	\$300
MASONRY GROUT COMPRESSION TESTS	12	\$50	\$600
MASONRY MORTAR COMPRESSION TESTS	9	\$50	\$450
PARTICLE SIZE ANALYSIS (ASTM D422) W/O HYDROMETER	10	\$375	\$3,750
MOISURE CONTENT (ASTM D2216)	20	\$100	\$2,000
PLASTIC INDEX	10	\$350	\$3,500
COMPACTION CURVES	10	\$300	\$3,000
A/C - THEORETICAL MAX DENSITY	1	\$300	\$300
SAMPLE PICK-UPS	298	\$26	\$7,748
WPS REVIEW	2	\$300	\$600
MIX DESIGN REVIEW	3	\$300	\$900
FINAL LETTER	1	\$300	\$300
CERTIFIED PAYROLL	10	\$100	\$1,000
<i>Preliminary Subtotal of Laboratory Testing &amp; Engineering (approx.)</i>			<i>\$34,668</i>
<b>Preliminary Estimated Fees</b>			
<i>Project Administration 10%</i>			<i>\$15,984</i>
<b>Total Preliminary Estimated Fees</b>			<b>\$175,825</b>

\* Steel shop price based on work being done in Northern California in one shop and one shift. If work is performed at night a 12.5% differential will be charged.

A 10% project administration fee will be charged monthly per invoice.

No contingency is budgeted by CTS for uncontrollable overtime, union or prevailing wage increases and unforeseen requirements that may arise in the specifications, as well as for work over the estimated hours. Owner should budget appropriate amount for budgetary purposes.

Estimate based on 95% plans by Schaff & Wheeler, dated 9/30/16. No geotechnical report or construction schedule was available at the time this estimate was prepared. See attached fee schedule for basis of charges.

The liability of Construction Testing Services (CTS) is limited to CTS's contract value.

Estimate includes portal to portal travel time for nuclear gauge transport from laboratory per requirements of the CA Radiological Health Branch.

**2019 FEE SCHEDULE - P15724 2/13/19**  
**PERSONNEL FEES AND BASIS OF CHARGES**  
**INSPECTIONS, ENGINEERING & SPECIAL SERVICES**

	<b>Standard Rate/Hour</b>	<b>Discounted Rate/Hour</b>
<b>* FIELD INSPECTION AND LABORATORY SERVICE</b>		
Steel	<del>\$248.00</del>	\$125.00
Nondestructive - UT, MT, PT	<del>\$223.00</del>	\$130.00
Steel Visual/UT Combination	<del>\$223.00</del>	\$130.00
Concrete ACI	<del>\$248.00</del>	\$125.00
Concrete ICC	<del>\$248.00</del>	\$125.00
Masonry	<del>\$248.00</del>	\$125.00
Fireproofing	<del>\$218.00</del>	
Soil Technician w/Nuclear Gauge and/or Sand Cone ( <i>portal-to-portal</i> )	<del>\$248.00</del>	\$125.00
Asphalt Technician ( <i>portal-to-portal</i> )	\$218.00	
Shoring/Soldier Piers	\$218.00	
Roofing & Waterproofing	\$218.00	
Multi-Disciplined Inspector	\$218.00	
Inspector Requiring G1 Pay Grade	\$253.00	
Specialty Inspector or Where Formal Certification is Required	\$218.00	
Field Inspector with Special Enhancement	\$218.00	
Laboratory Technician	\$218.00	
Technician Typist	\$218.00	
<b>**PROFESSIONAL ENGINEERING SERVICES</b>		
Principal Engineer (Civil/Structural)	\$353.00	
Geotechnical Engineer	\$303.00	
Consulting Engineer (Civil/Structural)	\$273.00	
Associate Engineer, Licensed	\$248.00	
Project Manager	\$218.00	
Staff Engineer	<del>\$248.00</del>	\$175.00
Field Supervision	\$193.00	
ASNT Level III	\$258.00	
Drafting	\$153.00	
Quality Control Manager	QOR	
<b>SPECIAL SERVICES</b>		
Portable and Mobile Laboratories, NDT and Soils	QOR	
* Epoxy Bolt/Expansion Anchor - Installation Observation	<del>\$248.00</del>	\$125.00
* Epoxy Bolt/Expansion Anchor Proof Load Testing ( <i>portal-to-portal</i> )	<del>\$248.00</del>	\$125.00
* Coring, 1 Person (including equipment) ( <i>portal-to-portal</i> )	\$278.00	
* Coring, 2 Persons (including equipment) ( <i>portal-to-portal</i> )	\$443.00	
* Asphalt Coring ( <i>portal-to-portal</i> )	\$303.00	
Project Research	QOR	
Ultrasonic Testing for Non-Metallic Materials	QOR	
Pavement Rehabilitation Analysis Using Deflections	QOR	
Roof Moisture Survey	QOR	
Soil Drilling Equipment	QOR	
Geotechnical Site Investigations/Foundation Reports	QOR	
Pachometer, Schmidt Hammer, Windsor Probe, Skidmore - Equipment Fee \$115/Day ( <i>portal-to-portal</i> )	\$288.00	
Floor Flatness Testing FF/FL - Equipment Fee \$115/Day ( <i>portal-to-portal</i> )	\$288.00	
Measuring Moisture Vapor Emission Rate (Calcium Chloride) - \$55/Kit ( <i>portal-to-portal</i> )	\$288.00	
Relative Humidity Testing - \$75/Kit ( <i>portal-to-portal</i> )	\$288.00	
Ferrosan - Equipment Fee \$115/day ( <i>portal-to-portal</i> )	\$288.00	
GPR - Equipment Fee \$115/day ( <i>portal-to-portal</i> )	\$343.00	
Administration, Secretarial, Special Projects, Notary, Certified Payroll	<del>\$463.00</del>	\$100.00
Concrete/Grout/Mortar Mix Design Review (less than 48 hours notice - \$500)	<del>\$345.00</del>	\$300.00
Welding Procedure Review (less than 48 hours notice - \$500)	<del>\$345.00</del>	\$300.00
Welder Qualification Test Record (WQTR)	\$250.00	
DSA Interim Reports	\$178.00	
Geotechnical Pad Letter (less than 48 hours notice - \$550)	\$345.00	
Final Letter (less than 48 hours notice - \$550)	<del>\$345.00</del>	\$300.00
<b>EXPERT WITNESS TESTIMONY</b>		
Court appearance, per day	\$2,420.00	
Court appearance, per half day	\$1,210.00	

\* Field inspection and laboratory technician services will be billed in accordance with minimums shown on Basis of Charges.

\*\*Professional engineering services will be billed in two hour increments.

## BASIS OF CHARGES

### GENERAL

Fees for tests and inspection include cost of technician, normal equipment and regular reports. Engineering services will be charged at applicable rates and will require travel and mileage charges for equipment transport and storage per code (portal to portal) from the nearest CTS laboratory. Soils testing with nuclear gauge and/or sand cone equipment and inspections requiring equipment will require applicable travel and mileage charges for equipment transport and storage per code (portal-to-portal) from the nearest CTS laboratory. Fees for special projects, services overseas, or elsewhere in the United States, will be quoted on request. With prior notification to Client; charges are subject to change at any time. Construction Testing Services reserves the right to adjust the rates quoted in this contract based upon any Union or prevailing wage increases and/or changes in any industry requirements.

### MINIMUM HOURLY CHARGES – INSPECTION

Technician personnel and the following minimum charges are contractual commitment:

One-half day or less	4 Hours
Over one-half day	8 Hours
Show-up time (less than 2 hours notice = 4 hour charge)	2 Hours

### WORKING HOURS AND PREMIUM TIME

Regular workday is the first 8 hours between 6:00 am and 6:00 pm Monday through Friday. Premium time is as follows:

Overtime, Weekdays and Saturdays (first 8 hours)	1.5 x quoted hourly rate
Overtime Saturdays (over 8 hours) and Sundays (first 8 hours)	2 x quoted hourly rate
Overtime Sundays (over 8 hours) and Holidays	3 x quoted hourly rate
Shift differential, swing and graveyard - (Work performed between 2:00 pm and 4:00 am)	12.5%/hour additional to base or quoted rate.

### MISCELLANEOUS CHARGES - *Only Where Applicable*

Notary Services Fee	\$40.00/each
Facsimile Charges. Plus \$1.00/page (n/c for cover page)	\$7.00/minimum
Wireless Router/Data Card for Jobsite Internet	\$135.00/day
iPad Monthly Rental Fee	\$100.00/month
Electronic Reporting Fees/Subscriptions (PlanGrid, BIM, etc.)	At Cost
Parking Fees	At Cost
Air Travel	Cost Plus 10%
Outside Services	Cost Plus 20%
Subsistence (per union contract)	\$130.00/day
Mileage	Standard Federal Rate
Sample Pickup	\$26.00/each
Weekend Sample Pickup	\$105.00/each
Project Administration	10% of Monthly Invoice
Samples Made by Others: Concrete Cylinders	\$130 + Test
Samples Made by Others: All Other Tests	\$55.00 + Test
Laboratory Sample Witness Fee	\$130.00
Laboratory Sample Storage Fee (per sample)	\$120.00
EZ Cure Boxes (Thermostatically Controlled Curing Boxes)	QOR
Returned Check Fee	\$150.00

### TESTS

Testing fees shown include normal time for performing test. Samples requiring special preparation will be charged at the laboratory technician rate. Fees for tests not listed will be quoted upon request. There will be a minimum charge of \$100.00 for any engineering report. Please note some tests may be tested by subconsultants. Samples delivered to the laboratory after 3:00pm or samples needing results within 24 hours will incur a 50% mark-up.

### INSURANCE

The liability of Construction Testing Services (CTS) is limited to CTS's contract value.

### PAYMENT

Invoices will be submitted monthly or bimonthly for services performed during the preceding month and are payable on receipt. Interest of 1.5% per month (but not exceeding the maximum rate allowable by law) will be payable on any amounts not paid within 30 days, payment thereafter to be applied first to accrued interest and then to the principle unpaid amount. Attorney's fees or other costs incurred in collecting any delinquent amount shall be paid by client. Visa, MasterCard and American Express payments are accepted however fees will apply. Visa and MasterCard payments require an additional 3% on top of the amount of the invoice being paid. American Express payments require an additional 4% on top of the amount of the invoice being paid.





**CONCRETE AND MASONRY TESTS**

<b>CONCRETE</b>		<b>Standard Rate/Each</b>	<b>Discounted Rate/Each</b>
Compressive Strength of Cylindrical Concrete Specimens (6x12)	ASTM C39	\$84.00	
Compressive Strength of Cylindrical Concrete Specimens (4x8)	ASTM C39	<del>\$84.00</del>	\$40.00
Compressive Strength of Cylindrical Concrete Specimens (Over 8000 PSI)	ASTM C39	\$143.00	
Cylinder molds. 6" x 12" and 4" x 8"	ASTM C470	\$72.00	
Compressive Strength of Lightweight Insulating Concrete	ASTM C495	\$94.00	
Obtaining and Testing Sawed Beams and Drilled Cores of Concrete (Cores)	ASTM C42	\$121.00	
Flexural Toughness of Fiber Reinforced Concrete (Round Panel)	ASTM C1550	\$440.00	
Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)	ASTM C78	\$308.00	
Flex Beams per Caltrans Test Methods	CT523 and CT524	\$308.00	
Length Change of Hardened Hydraulic-Cement Mortar and Concrete (Shrinkage, 1 Sample)	ASTM C157	\$150.00	
Shotcrete Nozzleman Qualification Letter (Per Nozzleman, Per Position)	ACI 506, ASTM C42 and C1140	\$440.00	
Shotcrete Pre-Qualification Cores (Compression and Visual)	ACI 506, ASTM C42 and C1140	\$110.00	
Shotcrete Production Cores	ASTM C1140	\$110.00	
Coefficient of Thermal Expansion	AASHTO T336	\$535.00	
Determining Density of Structural Lightweight Concrete (Cylinders)	ASTM C567	\$405.00	
Standard Specification for Concrete Made by Volumetric Batching and Mixing	ASTM C685	\$965.00	
Cement Quality Sampling	CBC 2010	\$667.00	
Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete	ASTM C472	\$55.00	
Splitting Tensile Strength of Cylindrical Concrete Specimens	ASTM C496	\$253.00	
Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression	ASTM C469	\$215.00	
Grab Sample, Sealing and Storing in a Humidity and Temperature Controlled Room	CBC	\$150.00	
Density of Hydraulic Cement	ASTM C188	\$195.00	
Testing of Controlled Low Strength Material (CLSM) Test Cylinders	ASTM D4832	<del>\$150.00</del>	\$60.00
GFRC Pull Test	PCI	\$374.00	
GFRC Flexural Test	PCI	\$374.00	
Foaming Agents for Use in Producing Cellular Concrete Using Preformed Foam (Cell-Crete)	ASTM C796	\$525.00	
<b>MASONRY</b>			
Compressive Testing of Grout (Masonry)	ASTM C1019	<del>\$121.00</del>	\$50.00
Compressive Strength of Hydraulic Cement Mortars Using 2" Cube Specimens	ASTM C109	\$121.00	
Compressive Strength of Masonry Prisms	ASTM C1314	<del>\$187.00</del>	\$100.00
Testing Concrete Masonry Units and Related Units (Core Compression)	CBC 2105A.4	\$187.00	
Compressive Strength of Molded Masonry Mortar Cylinders and Cubes (2" Sample)	ASTM C780 A7.6	\$121.00	
Testing Concrete Masonry Units (CMU) and Related Units (Full Unit)	ASTM C140	\$184.00	
Linear Drying Shrinkage of Concrete Masonry Units (Per Unit)	ASTM C426	\$270.00	
Masonry Core Shear Testing	CBC 2105A.4	\$270.00	
Testing Concrete Masonry Units (Absorption, Moisture Content, Unit Weight)	ASTM C140	\$340.00	
Brick and Clay Tile (modulus of rupture, compression, saturation coefficient, suction rate, efflorescence)*	ASTM C67	\$1,000.00	
Mortar Molds. 2" x 4". Single Use		\$121.00	
Mortar or Grout, Stored and Cured, Not Tested (Including Mold)		\$121.00	
<b>AGGREGATES (SOILS AND CONCRETE)</b>			
Determining Sieve Analysis of Fine and Coarse Aggregates (Coarse Only)	CT202/ASTM C136	\$220.00	
Sieve Analysis of Fine and Coarse Aggregates (Fine Only)	CT202/ASTM C136	\$295.00	
Sieve Analysis of Fine and Coarse Aggregates (Wash Included)	CT202/ASTM C117	\$370.00	
Sieve Analysis of Fine and Coarse Aggregates (200 Wash Only)	ASTM C117	\$220.00	
Evaluating Cleanness of Coarse Aggregate	CT227	\$370.00	
Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	ASTM C88/CT214	\$275.00	
Unit Weight of Aggregate	CT212	\$158.00	
Clay Lumps and Friable Particles in Aggregates	ASTM C142	\$215.00	
Flat Particles, Elongated Particles or Flat and Elongated Particles in Coarse Aggregate	ASTM D4791/CT235	\$370.00	
Organic Impurities in Fine Aggregates for Concrete	CT213/ASTM C40	\$336.00	
Density, Relative Density(Specific Gravity), and Absorption of Coarse Aggregate	ASTM C127/CT206	\$336.00	
Density, Relative Density(Specific Gravity), and Absorption of Fine Aggregate	ASTM C128/CT207	\$336.00	
Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	ASTM C131(535) and C211	\$535.00	
Percentage of Crushed Particles/Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate	ASTM D5821/CT205	\$405.00	
Uncompacted Void Content of Fine Aggregate (as Influenced by Particle Shape, Surface Texture, and Grading)	ASTM C1252/AASHTO T304A	\$405.00	
Sand Equivalent Value of Soils and Fine Aggregate	ASTM D2419/CT217	\$270.00	
Durability Index (Fine)	ASTM D3744/CT229	\$405.00	
Durability Index (Coarse)	ASTM D3744/CT229	\$405.00	
Durability Index (Fine and Coarse)	ASTM D 3744/CT229	\$405.00	
Lightweight Particles in Aggregate	ASTM C123/AASHTO T113	QOR	
Resistance of Rock to Wetting and Drying	CRD-C169	\$590.00	

\*Unusual sample preparation for brick specimen will be charged at the established hourly rate.



### SOILS, AGGREGATE, ASPHALTIC CONCRETE SERVICES & TESTS

<b>SOILS</b>		<b>Standard Rate/Each</b>	<b>Discounted Rate/Each</b>
Direct Shear Test of Soils Under Consolidated Drained Conditions	ASTM D3080	\$535.00	
Caltrans Corrosivity Package		\$505.00	
Determining Field and Laboratory Resistivity and pH Measurements for Soil and Water	CT643	QOR	
Soils and Waters for Sulfate Content	CT417	QOR	
Soils and Waters for Chloride Content	CT422	QOR	
Particle-Size Analysis of Soils (with Hydrometer)	ASTM D422	\$590.00	\$375.00
Pore Water Extraction and Determination of the Soluble Salt Content of Soils by Refractometer	ASTM D4542	\$625.00	
Standard Test Method for Particle-Size Analysis of Soils (without Hydrometer)	ASTM D422	\$535.00	
Liquid Limit, Plastic Limit, and Plasticity Index of Soils	ASTM D4318/CT204	<del>\$535.00</del>	\$350.00
Laboratory Compaction Characteristics of Soil Using Modified/Standard Effort	ASTM D1557/D698	<del>\$502.00</del>	\$300.00
Hydrometer Only	ASTM D422	\$535.00	
pH of Soils	ASTM D4972	\$467.00	
Relative Compaction of Untreated and Treated Soils and Aggregates	CT216	\$590.00	
Determining the Resistance "R" Value of Treated and Untreated Bases, Subbases, and Basement Soils by the Stabilometer	ASTM D2844/CT301	\$590.00	
Laboratory Determination of Water(*moisture) Content of Soil and Rock by Mass	ASTM D2216/CT226	<del>\$150.00</del>	\$100.00
Density of Soil in Place by the Drive-Cylinder Method	D2937	\$116.00	
Expansion Index of Soils	ASTM D4829	\$405.00	
Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter (Permeability)	ASTM D5084/CT220	\$550.00	
Lab Compaction Characteristics of Soil 1 Point Proctor (Check Point)	ASTM D698/D1557	\$337.00	
Maximum Index Density and Unit Weight of Soils Using a Vibratory Table	ASTM D4253	\$285.00	
Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density	ASTM D4254	\$285.00	
Density of Hydraulic Cement	ASTM C188	\$253.00	
Volatile Organic Content	EPA 8260B	QOR	
Semi Volatile Organics by GC/MS (Basic Target List)	EPA 8270C	QOR	
Total Organic Carbon	ASTM 2974/EPA 5310Bm	QOR	
ICP Metals Concentration	EPA 6020 - CAM/CCR 17	QOR	
Total Extractable Petroleum Hydrocarbons: TPH, MTBE, Benzene, Toluene, Ethylbenzene, Zylenes, %SS	EPA 8015B	QOR	
ICP Metals Concentration	EPA 6020	QOR	
pH	EPA 9045D	\$535.00	
Sequential Batch Extraction of Waste with Acidic Extraction Fluid	ASTM D5284	QOR	
Chromium Soluble	EPA 7196A	QOR	
Moisture, Ash and Organic Matter of Peat and Other Organic Soils (Organic Content)	ASTM D2974	\$270.00	
Universal Soil Classification System (USCS) Test	ASTM D2487	\$300.00	
California Bearing Ratio Test	ASTM D1883	\$370.00	
Unconfined Compressive Strength of Cohesive Soil	ASTM D2166/CT221	\$187.00	
<b>ASPHALT</b>			
Quantitative Extraction of Bitumen from Bituminous Paving Mixtures (Solvent)	ASTM D2172/CT310	\$732.00	
Determining Low Temperature Performance Grade (PG) of Asphalt Binders	ASTM 6816	QOR	
Thickness/Height of Compacted Bituminous Paving Mixture Specimens (Cores)	ASTM D3549/CT308	\$270.00	
Method of Prep of Bituminous Mixture Test Specimens	ASTM D6926/CT304	\$270.00	
Bulk Specific Gravity and Density of Compacted Bituminous Mixtures (LTMD)	ASTM D1188 and D2726/CT308	\$990.00	
Indirect Tensile (IDT) Strength of Bituminous Mixtures (TSR)	ASTM D6931/CT371	\$3,146.00	
Mechanical Size Analysis (Coarse and Fine) of Extracted Aggregate	ASTM D5444/CT202	\$405.00	
Marshall Stability and Flow of Bituminous Mixtures	ASTM D6927	\$990.00	
Theoretical Maximum Specific Gravity and Density (Rice)	ASTM D2041/CT309	<del>\$405.00</del>	\$300.00
Measuring the Permeability of Bituminous Pavements and Seal Coats	CT341		
Swell of Bituminous Mixtures	CT305	\$370.00	
Moisture Vapor Susceptibility of Bituminous Mixtures/Moisture or Volatile Distillates in Asphalt	ASTM D1461/CT307	\$930.00	
Stabilometer Value (1 sample)	CT366	\$370.00	
Determination of Asphalt Content of Bituminous Paving Mixtures by the Ignition Method	CT382/ASTM D6307	\$405.00	
Determination of Correction Factor of Bituminous Paving Mixtures by the Ignition Method	CT382/ASTM D6307	\$405.00	
Determination of Asphalt and Moisture Contents of Bituminous Mixtures by Microwave Oven	CT370	\$405.00	
Effect of Water on Compressive Strength of Compacted Bituminous Mixtures (Set of 6)	ASTM D1075	\$3,330.00	
Compressive Strength of Bituminous Mixtures	ASTM D1074	\$270.00	
Hamburg Wheel Track	AASHTO T324	\$3,630.00	
Moisture Susceptibility	AASHTO T283	\$3,630.00	

\* Unusual sample preparation (dried clays, saturated clays, etc.) and all other tests for treated or untreated soils, aggregate subbase and aggregate base will be charged at established rates for laboratory technician.

\*\* Does not include sample preparation or sieve analysis



		<b>Standard Rate/Each</b>
<b>MATERIALS MECHANICAL TESTS</b>		
Mechanical Testing of Steel Products (General Tensile)	ASTM A370	\$470.00
Fillet Weld Break Test for Qualification (Welding)	AWS B4.0	\$205.00
Tension Testing of Metallic Materials, Tension Testing Wrought and Cast Aluminum and Magnesium-Alloy Products, (Welding Coupon Tensile)	ASTM E8, B557 and AWS B4.0	\$470.00
Mechanical Testing of Steel Products (Couplers)	ASTM A370	\$460.00
Impact Testing of Miniaturized Charpy V-Notch Specimens, Notched Bar Impact Testing of Metallic Materials	ASTM E2248 and ASTM E23	QOR
Testing, Practices, and Terminology for Chemical Analysis of Steel Products	ASTM A751	\$336.00
Mechanical Testing of Steel Products & Bend Testing of Material for Ductility; #3-#8	ASTM A370 and E290	\$370.00
Mechanical Testing of Steel Products & Bend Testing of Material for Ductility; #9-#11	ASTM A370 and E290	\$440.00
Mechanical Testing of Steel Products & Bend Testing of Material for Ductility; #14+	ASTM A370 and E290	QOR
Mechanical Testing of Steel Products, Standard Specification for Steel Wire, Plain, for Concrete Reinforcement	ASTM A370, A82 and A185	\$440.00
Guided Bend Test for Ductility of Welds, Mechanical Testing of Welds	ASTM E190 and AWS B4.0	\$270.00
Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Anchor Bolts Only (Tension and Yield)	ASTM F307, F1554 and F606	\$528.00
Rockwell Hardness of Metallic Materials	ASTM E18	\$150.00
Proof Test for Carbon and Alloy Steel (Nuts Only)	ASTM A194 or A563	\$337.00
Radiographic Examination of Metallic Castings/Weldments	ASTM E94, E1030 and E1032	QOR
Macroetching Metals and Alloys	ASTM E340, E381 and AWS	\$337.00
Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Washers, Direct Tension Indicators, and Rivets (HSB Assemblies)	ASTM F606	\$370.00
Mechanical Testing of Steel Products (Terminators Tensile)	ASTM A370	\$370.00
Strength for Sewn or Bonded Seams of Geotextiles	ASTM D4884	\$336.00
Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure	ASTM D2261	\$336.00
Breaking Strength and Elongation of Textile Fabrics (Grab Test)	ASTM D5034	\$270.00
Tensile Properties of Fiber Reinforced Polymer Matrix Composite Bars	ASTM D3039	\$990.00
Steel Strand, Uncoated Seven-Wire for Prestressed Concrete	ASTM A416 and A1061	\$1,463.00
<b>FIREPROOFING</b>		
Thickness and Density of Sprayed Fire-Resistive Material (SFRM)	ASTM E605	\$270.00
Cohesion/Adhesion of Sprayed Fire-Resistive Materials (Test Kit Only)	ASTM E736	\$77.00

**CONTACT INFORMATION**

**Headquarters:** 2118 Rheem Drive • Pleasanton, CA 94588 • P 925.462.5151 • F 925.462.5183  
**Peninsula:** One Embarcadero Center, Suite 535 • San Francisco, CA 94111 • P 415.334.4747 • F 415.438.2357  
**Oakland:** 246 30th Street, Suite 101 • Oakland, CA 94601 • P 510.444.4747 • F 510.835.1825  
**San Jose:** 2033 Gateway Place, #500 • San Jose, CA 95110 • P 408.573.6992 • F 408.437.1201  
**Stockton:** 343 East Main Street, #711 • Stockton, CA 95202 • P 209.507.7555 • F 209.507.7554  
**Rocklin:** 4400 Yankee Hill Road • Rocklin, CA 95677 • P 916.419.4747 • F 916.419.4774  
**Las Vegas:** 3842 E. Post Road • Las Vegas, NV 89120 • P 702.257.4747 • F 702.257.4718

## FEE PROPOSAL



**City of San Mateo**

**Survey Proposal QA/QC (Poplar Ave PS, Coyote Creek PS & Levee)**

February 20, 2019

PROJECT BUDGET ESTIMATE									
TASK	RATE	206	170	138	175	278	198		
#	TASKS DESCRIPTION	Professional LS	Survey Coord.	Survey Tech	Travel Time	2M Survey Crew	1M Survey Crew	HRS. /TASK	TOTAL COST
<b>Tasks - Surveying (QA/QC)</b>									
1	<b>Poplar Ave Pump Station QA/QC Surveying-</b> Consultant shall collect the x,y,z coordinates of the contractor's field staking for the improvements and check that the measurements match the current plan provided by the City to the Consultant. The City (or 4Leaf) shall provide the consultant CAD files of the approved plan set. Listed here are the proposed components to conduct QA/QC survey services to locate control lines, transformer pad, retaining walls,outfall structure, electrical building, pump station pumps, paving and underground electrical.	2	4	16	5	40	0	67	\$15,295
2	<b>Coyote Creek Pump Station QA/QC Surveying -</b> Consultant shall collect the x,y,z coordinates of the contractor's field staking for the improvements and check that the measurements match the current plan provided by the City to the Consultant. The City (or 4Leaf) shall provide the consultant CAD files of the approved plan set. The components described here are those proposed to provide QA/QC survey services to locate control lines, transformer pad, retaining walls,outfall structure, electrical building, pump station pumps, paving and underground electrical.	2	4	16	5	40	0	67	\$15,295
3	<b>Levee Construction QA/QC Surveying -</b> Consultant shall collect the x,y,z coordinates of the contractor's field staking for the improvements and check that the measurements match the current plan provided by the City (or 4Leaf) to the Consultant. The city shall provide the consultant CAD files of the approved plan set.	2	2	8	2	16	0	30	\$6,654
<b>Sub-Total</b>		6	10	40	12	96	0	164	\$37,244
Miscellaneous Expenses (Mileage, Prints, Postage, etc.)									\$100
<b>PROJECT TOTALS</b>		<b>6</b>	<b>10</b>	<b>40</b>	<b>12</b>	<b>96</b>	<b>0</b>	<b>164</b>	<b>\$37,344</b>

NOTE: BREAKDOWN OF HOURS SHOWN IS FOR ACCOUNTING PURPOSES ONLY. DISTRIBUTION OF HOURS WILL VARY. TOTAL PROJECT FEES WILL NOT BE EXCEEDED WITHOUT APPROVAL OF A CONTRACT CHANGE ORDER BY THE CITY OF SAN MATEO or 4LEAF. **Additional time required by the contractor will be invoiced on a T&M basis per the shown rates. Print costs are not included in the above. Please note, Bellecci & Associates utilizes union field crews. Proposal assumes that electronic CAD files will be made available to the Bellecci & Associates.**

BELLECCI & ASSOCIATES INC (CONCORD OFFICE)

2290 Diamond Blvd, Suite 100  
Concord, CA 94520  
925-685-4569  
[ccapp@bellecci.com](mailto:ccapp@bellecci.com)

## EXHIBIT C

### INSURANCE REQUIREMENTS

#### MINIMUM SCOPE OF INSURANCE

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Office (ISO) Form CG 00 01 12 07 covering CGL on an "occurrence" basis, including products-completed operations, personal & advertising injury, with limits no less than **\$2,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability:** ISO Form Number CA 00 01 covering any auto (Code 1), or if CONSULTANT has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than **\$1,000,000** per accident for bodily injury and property damage.
3. **Workers' Compensation:** as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than **\$1,000,000** per accident for bodily injury or disease.
4. **Professional Liability (Errors and Omissions):** Insurance appropriate to the CONSULTANT's profession, with limit no less than **\$1,000,000** per occurrence or claim, **\$2,000,000** aggregate

If the CONSULTANT maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the CONSULTANT.

#### Other Insurance Provisions

The insurance policies are to contain, or be endorsed to contain, the following provisions:

##### ***Additional Insured Status***

**The City, its elected and appointed officials, employees, and agents are to be covered as insureds** on the auto policy for liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the CONSULTANT; and on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the CONSULTANT including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the CONSULTANT's insurance (at least as broad as ISO Form CG 20 10, 11 85 or both CG 20 10 and CG 20 37 forms if later revisions used).

##### ***Primary Coverage***

For any claims related to this contract, the **CONSULTANT's insurance coverage shall be primary** insurance as respects the City, its elected and appointed officials, employees, and agents. Any insurance or self-insurance maintained by the City, its elected and appointed officials, employees, or agents shall be excess of the CONSULTANT's insurance and shall not contribute with it.

***Notice of Cancellation***

Each insurance policy required above shall provide that **coverage shall not be canceled, except after thirty (30) days' prior written notice** (10 days for non-payment) has been given to the City.

***Waiver of Subrogation***

CONSULTANT hereby grants to City a waiver of any right to subrogation which any insurer of said CONSULTANT may acquire against the City by virtue of the payment of any loss under such insurance. CONSULTANT agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.

***Deductibles and Self-Insured Retentions***

Any deductibles or self-insured retentions must be declared to and approved by the City. The City may require the CONSULTANT to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

***Acceptability of Insurers***

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City.

***Verification of Coverage***

CONSULTANT shall furnish the City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the CONSULTANT's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.