

**City and County of San Francisco
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 8th Floor
San Francisco, California 94102**

**First Amendment
Between the City and County of San Francisco and
Brown and Caldwell
Planning & Engineering Services, Southeast Plant Biosolids Digester Facilities
(CS-235)**

THIS AMENDMENT (this “Amendment”) is made as of **March 30, 2017**, in San Francisco, California, by and between **Brown and Caldwell** (“Contractor”), and the City and County of San Francisco, a municipal corporation (“City”), acting by and through the San Francisco Public Utilities Commission. .

RECITALS

WHEREAS, City and Contractor have entered into the Agreement (as defined below); and

WHEREAS, City and Contractor desire to modify the Agreement on the terms and conditions set forth herein extend the performance period, increase the contract amount, and update standard contractual clauses; and

WHEREAS, approval for this Amendment was obtained when the Civil Service Commission approved Contract number **4110-12/13** on **April 17, 2017**; and

WHEREAS, approval for this Amendment was obtained when the San Francisco Public Utilities Commission approved Resolution number **17-0058** on **March 28, 2017**; and

WHEREAS, approval for this Agreement was obtained from the San Francisco Board of Supervisors by Resolution Number [insert resolution number] on [insert date of Board of Supervisors’ action];

NOW, THEREFORE, Contractor and the City agree as follows:

1. Definitions. The following definitions shall apply to this Amendment:

1a. Agreement. The term “Agreement” shall mean the Agreement dated **June 13, 2013** between Contractor and City.

1b. Contract Monitoring Division. Effective July 28, 2012, with the exception of Sections 14B.9(D) and 14B.17(F), all of the duties and functions of the Human Rights Commission under Chapter 14B of the Administrative Code (LBE Ordinance) were transferred to the City Administrator, Contract Monitoring Division (“CMD”). Wherever “Human Rights Commission” or “HRC” appears in the Agreement in reference to Chapter 14B of the Administrative Code or its implementing Rules and Regulations, it shall be construed to mean “Contract Monitoring Division” or “CMD” respectively.

1c. Other Terms. Terms used and not defined in this Amendment shall have the meanings assigned to such terms in the Agreement.

2. Modifications to the Agreement. The Agreement is hereby modified as follows:

2a. Section 2. Section 2. Term of the Agreement of the Agreement currently reads as follows:

2. Term of the Agreement. Subject to Section 1, the term of this Agreement shall be **ten (10) years from July 29, 2013 to July 28, 2023.**

Such section is hereby amended in its entirety to read as follows:

2. Term of the Agreement. Subject to Section 1, the term of this Agreement shall be **twelve (12) years from July 29, 2013 to December 31, 2025.**

2b. Section 5. Section 5. Compensation of the Agreement currently reads as follows:

5. Compensation. Compensation shall be made in monthly payments on or before the thirtieth day of each month for work, as set forth in Section 4 of this Agreement, that the General Manager of the Public Utilities Commission, in his or her sole discretion, concludes has been performed as of the last day of the immediately preceding month. In no event shall the amount of this Agreement exceed **Eighty Million Dollars (\$80,000,000)**. The breakdown of costs associated with this Agreement appears in Appendix B, “Calculation of Charges,” attached hereto and incorporated by reference as though fully set forth herein. No charges shall be incurred under this Agreement nor shall any payments become due to Contractor until reports, services, or both, required under this Agreement are received from Contractor and approved by the San Francisco Public Utilities Commission as being in accordance with this Agreement. If Contractor fails to provide Services in accordance with Contractor's obligations under this Agreement, the City may, in addition to any other remedies allowed by law and/or this Agreement, withhold any and all payments due Contractor until such failure is cured. In no event shall Contractor stop work as a result of the City's withholding of payments.

In no event shall City be liable for interest or late charges for any late payments.

The Controller is not authorized to pay invoices submitted by Contractor prior to Contractor's submission of CMD Progress Payment Form. If Progress Payment Form is not

submitted with Contractor's invoice, the Controller will notify the department, the Director of CMD and Contractor of the omission. If Contractor's failure to provide CMD Progress Payment Form is not explained to the Controller's satisfaction, the Controller will withhold 20% of the payment due pursuant to that invoice until CMD Progress Payment Form is provided. Following City's payment of an invoice, Contractor has ten days to file an affidavit using CMD Payment Affidavit verifying that all subcontractors have been paid and specifying the amount.

Such section is hereby amended in its entirety to read as follows:

5. Compensation. Compensation shall be made in monthly payments on or before the thirtieth day of each month for work, as set forth in Section 4 of this Agreement, that the General Manager of the Public Utilities Commission, in his or her sole discretion, concludes has been performed as of the last day of the immediately preceding month. In no event shall the amount of this Agreement exceed **One Hundred Fifty Three Million Five Hundred Thousand Dollars (\$153,500,000)**. The breakdown of costs associated with this Agreement appears in Appendix B, "Calculation of Charges," attached hereto and incorporated by reference as though fully set forth herein. No charges shall be incurred under this Agreement nor shall any payments become due to Contractor until reports, services, or both, required under this Agreement are received from Contractor and approved by the San Francisco Public Utilities Commission as being in accordance with this Agreement. If Contractor fails to provide Services in accordance with Contractor's obligations under this Agreement, the City may, in addition to any other remedies allowed by law and/or this Agreement, withhold any and all payments due Contractor until such failure is cured. In no event shall Contractor stop work as a result of the City's withholding of payments.

In no event shall City be liable for interest or late charges for any late payments.

The Controller is not authorized to pay invoices submitted by Contractor prior to Contractor's submission of CMD Progress Payment Form. If Progress Payment Form is not submitted with Contractor's invoice, the Controller will notify the department, the Director of CMD and Contractor of the omission. If Contractor's failure to provide CMD Progress Payment Form is not explained to the Controller's satisfaction, the Controller will withhold 20% of the payment due pursuant to that invoice until CMD Progress Payment Form is provided. Following City's payment of an invoice, Contractor has ten days to file an affidavit using CMD Payment Affidavit verifying that all subcontractors have been paid and specifying the amount.

2c. Sugar-Sweetened Beverage Prohibition. Section 58 is hereby replaced in its entirety to read as follows:

58. Sugar-Sweetened Beverage Prohibition. Contractor agrees that it will not sell, provide, or otherwise distribute Sugar-Sweetened Beverages, as defined by San Francisco Administrative Code Chapter 101, as part of its performance of this Agreement.

2d. Insurance. Section 15 is hereby replaced in its entirety to read as follows:

15. Insurance.

a. Without in any way limiting Contractor's liability pursuant to the "Indemnification" section of this Agreement, Contractor must maintain in force, during the full term of the Agreement, insurance in the following amounts and coverages:

1) Workers' Compensation, in statutory amounts, with Employers' Liability Limits not less than \$1,000,000 each accident, injury, or illness; and

2) Commercial General Liability Insurance with limits not less than \$10,000,000 each occurrence and \$20,000,000 general aggregate which shall be renewed annually with Combined Single Limits for Bodily Injury and Property Damage, including Contractual Liability, Personal Injury, Products and Completed Operations. These limits shall be dedicated to this project; and

3) Commercial Automobile Liability Insurance with limits not less than \$2,000,000 each occurrence, "Combined Single Limit" for Bodily Injury and Property Damage, including Owned, Non-Owned and Hired auto coverage, as applicable.

4) Professional liability insurance, applicable to Contractor's profession, with limits not less than \$10,000,000 each claim with respect to negligent acts, errors or omissions in connection with the Services.

b. Commercial General Liability and Commercial Automobile Liability Insurance policies must be endorsed to provide:

1) Name as Additional Insured the City and County of San Francisco, its Officers, Agents, and Employees.

2) That such policies are primary insurance to any other insurance available to the Additional Insureds, with respect to any claims arising out of this Agreement, and that insurance applies separately to each insured against whom claim is made or suit is brought.

c. All policies shall be endorsed to provide thirty (30) days' advance written notice to the City of cancellation for any reason, intended non-renewal, or reduction in coverages. Notices shall be sent to the City address set forth in the Section entitled "Notices to the Parties."

d. Should any of the required insurance be provided under a claims-made form, Contractor shall maintain such coverage continuously throughout the term of this Agreement and, without lapse, for a period of three years beyond the expiration of this Agreement, to the effect that, should occurrences during the contract term give rise to claims made after expiration of the Agreement, such claims shall be covered by such claims-made policies.

e. Should any required insurance lapse during the term of this Agreement, requests for payments originating after such lapse shall not be processed until the City receives satisfactory evidence of reinstated coverage as required by this Agreement, effective as of the lapse date. If insurance is not reinstated, the City may, at its sole option, terminate this Agreement effective on the date of such lapse of insurance.

f. Before commencing any Services, Contractor shall furnish to City certificates of insurance and additional insured policy endorsements with insurers with ratings comparable to A-, VIII or higher, that are authorized to do business in the State of California, and that are satisfactory to City, in form evidencing all coverages set forth above. Approval of the insurance by City shall not relieve or decrease Contractor's liability hereunder.

g. The Workers' Compensation policy(ies) 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.

h. If Contractor will use any subcontractor(s) to provide Services, Contractor shall require the subcontractor(s) to provide all necessary insurance and to name the City and County of San Francisco, its officers, agents and employees and the Contractor as additional insureds.

2e. Replacing Section 32. Section 32 is hereby replaced in its entirety to read as follows:

32. Consideration of Criminal History in Hiring and Employment Decisions.

a. Contractor agrees to comply fully with and be bound by all of the provisions of Chapter 12T “City Contractor/Subcontractor Consideration of Criminal History in Hiring and Employment Decisions,” of the San Francisco Administrative Code (Chapter 12T), including the remedies provided, and implementing regulations, as may be amended from time to time. The provisions of Chapter 12T are incorporated by reference and made a part of this Agreement as though fully set forth herein. The text of the Chapter 12T is available on the web at www.sfgov.org/olse/fco. A partial listing of some of Contractor’s obligations under Chapter 12T is set forth in this Section. Contractor is required to comply with all of the applicable provisions of 12T, irrespective of the listing of obligations in this Section. Capitalized terms used in this Section and not defined in this Agreement shall have the meanings assigned to such terms in Chapter 12T.

b. The requirements of Chapter 12T shall only apply to a Contractor’s or Subcontractor’s operations to the extent those operations are in furtherance of the performance of this Agreement, shall apply only to applicants and employees who would be or are performing work in furtherance of this Agreement, shall apply only when the physical location of the employment or prospective employment of an individual is wholly or substantially within the City of San Francisco, and shall not apply when the application in a particular context would conflict with federal or state law or with a requirement of a government agency implementing federal or state law.

c. Contractor shall incorporate by reference in all subcontracts the provisions of Chapter 12T, and shall require all subcontractors to comply with such provisions. Contractor’s failure to comply with the obligations in this subsection shall constitute a material breach of this Agreement.

d. Contractor or Subcontractor shall not inquire about, require disclosure of, or if such information is received, base an Adverse Action on an applicant’s or potential applicant for employment’s, or employee’s: (1) Arrest not leading to a Conviction, unless the Arrest is undergoing an active pending criminal investigation or trial that has not yet been resolved; (2) participation in or completion of a diversion or a deferral of judgment program; (3) a Conviction that has been judicially dismissed, expunged, voided, invalidated, or otherwise rendered inoperative; (4) a Conviction or any other adjudication in the juvenile justice system; (5) a Conviction that is more than seven years old, from the date of sentencing; or (6) information pertaining to an offense other than a felony or misdemeanor, such as an infraction.

e. Contractor or Subcontractor shall not inquire about or require applicants, potential applicants for employment, or employees to disclose on any employment application the facts or details of any conviction history, unresolved arrest, or any matter identified in subsection 32(d), above. Contractor or Subcontractor shall not require such disclosure or make such inquiry until either after the first live interview with the person, or after a conditional offer of employment.

f. Contractor or Subcontractor shall state in all solicitations or advertisements for employees that are reasonably likely to reach persons who are reasonably likely to seek employment to be performed under this Agreement, that the Contractor or Subcontractor will consider for employment qualified applicants with criminal histories in a manner consistent with the requirements of Chapter 12T.

g. Contractor and Subcontractors shall post the notice prepared by the Office of Labor Standards Enforcement (OLSE), available on OLSE's website, in a conspicuous place at every workplace, job site, or other location under the Contractor or Subcontractor's control at which work is being done or will be done in furtherance of the performance of this Agreement. The notice shall be posted in English, Spanish, Chinese, and any language spoken by at least 5% of the employees at the workplace, job site, or other location at which it is posted.

h. Contractor understands and agrees that if it fails to comply with the requirements of Chapter 12T, the City shall have the right to pursue any rights or remedies available under Chapter 12T, including but not limited to, a penalty of \$50 for a second violation and \$100 for a subsequent violation for each employee, applicant or other person as to whom a violation occurred or continued, termination or suspension in whole or in part of this Agreement.

2f. Limitations on Contributions. Section 42 is hereby replaced in its entirety as follows:

42. Limitations on Contributions. Through execution of this Agreement, Contractor acknowledges that it is familiar with section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with the City for the rendition of personal services, for the furnishing of any material, supplies, or equipment, for the sale or lease of any land or building, or for a grant, loan, or loan guarantee, from making any campaign contribution to (1) an individual holding a City elective office if the contract must be approved by the individual, a board on which that individual serves, or a board on which an appointee of that individual serves, or the board of a state agency on which an appointee of that individual serves, (2) a candidate for the office held by such individual, or (3) a committee controlled by such individual, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for such contract or six months after the date the contract is approved. Contractor acknowledges that the foregoing restriction applies only if the contract or a combination or series of contracts approved by the same individual or board in a fiscal year have a total anticipated or actual value of \$50,000 or more. Contractor further acknowledges that the prohibition on contributions applies to each prospective party to the contract; each member of Contractor's board of directors; Contractor's chairperson, chief executive officer, chief financial officer, and chief operating officer; any person with an

ownership interest of more than 20 percent in Contractor; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Contractor. Additionally, Contractor acknowledges that Contractor must inform each of the persons described in the preceding sentence of the prohibitions contained in Section 1.126. Contractor further agrees to provide to City the names of each person, entity, or committee described above.

2g. Notices to the Parties. Section 25 is hereby replaced in its entirety to read as follows:

25. Notices to the Parties. Unless otherwise indicated elsewhere in this Agreement, all written communications sent by the parties may be by U.S. mail, or by e-mail, and shall be addressed as follows:

To City: **Carolyn Chiu, Project Manager
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102
(tel.) 415-554-0791
email: cchiu@sfwater.org**

To Contractor: **Tracy Stigers, PE, BCEE
Brown and Caldwell
1390 Market Street, Suite 1025
San Francisco, CA 94102
(tel.) 415-552-5849
(fax) 925-937-9020
email: tstigers@bnwcald.com**

Any notice of default must be sent by registered mail.

2h. Replacing Appendix A Services to be provided by Contractor. Appendix A is hereby replaced in its entirety to read as follows:

Appendix A
Services to be provided by Contractor

Contractor (Brown and Caldwell) agrees to perform the services described below in accordance with the terms and conditions of this Agreement, implementing task orders, the RFP, and Contractor's proposal dated May 13, 2013, and Overhead and Profit Schedule (OPS) for Phase 1 dated May 30, 2013. An OPS for Phase 2 will be submitted at the initiation of Phase 2. The RFP, Contractor's proposal and OPS are incorporated by reference as though fully set forth herein. Should there be a conflict of terms or conditions, this Agreement and its implementing task orders shall control over the RFP and the Contractor's proposal.

1. Description of Services

The proposed Southeast Plant Biosolids Digester Facilities Project (BDFP or Project) is one of the largest and most complex projects in the Sewer System Improvement Program (SSIP). The objectives of this Project are to fully replace the existing aged and failing facility with new biosolids digester facilities that reliably meet the SSIP Goals and Levels of Service (LOS) and provide continued compliance with present and anticipated future regulations. Once completed, the SEP BDFP, would minimize plant impacts to the neighborhood with respect to aesthetics (visual), odors, noise and traffic, and will be a positive enhancement to the local community.

New biosolids/solids handling treatment processes are anticipated to include solids thickening, anaerobic digestion, gas handling, energy generation/recovery, dewatering, odor control, control systems and related ancillary processes. Thermal hydrolysis as a digestion pretreatment may be included. The new facility will be designed to promote energy recovery, onsite/offsite use for sustainability, and economic and environmental benefits. The production of advanced biosolids products will be considered if viable and sustainable markets are realized for the use of SFPUC's biosolids.

The planning and design of the SEP BDFP will proceed in two consecutive phases:

Phase 1 – Planning and Preliminary Engineering

Phase 2 – Detailed Design, Procurement and Engineering Construction Support

The delivery of the BDFP will be implemented by a City led team of City and Contractor staff. In Phase 1, the Contractor will lead most of the tasks. City and Contractor roles and responsibilities in Phase 2 will be dependent on the outcome of Phase 1 and the project delivery methods ultimately chosen by the SFPUC. Given the Project's schedule constraints, it is likely that the BDFP will be implemented through alternative project delivery methods. The Contractor's specific scope of work in Phase 2 should be considered as "as-needed" until project delivery methods are selected by the SFPUC and the performance of the Contractor in Phase 1 is evaluated. The Contractor should be prepared to provide:

Specialized expertise;

Detailed design resources;
Contract management;
Pre-construction services;
Construction support services;
Commissioning, startup and training support; and
Other resources that are considered necessary to augment the City's team.

Any information, data, models, and graphics related to the Southeast Biosolids Digester Facilities Project that will be used in any publications, industry research, industry awards, or publicity shall be reviewed and approved by the SFPUC Project Manager or Design Manager prior to the submission of any abstracts, forms, applications, presentations, papers, documents and/or shared media.

2. Task Orders

Performance of the service under this Agreement will be executed according to a task order process, and the Contractor is required to provide adequate quality control processes and deliverables in conformance with the technical requirements of the task order. The SFPUC Project Manager will initially identify tasks and request the Contractor to propose a project scope, sub tasks, staffing plan, LBE utilization, schedule, specific deliverables, budget and costs to complete the task in accordance with Appendix B. All costs associated with the development of the scope of work shall be borne by the Contractor. A final task order will be negotiated between the SFPUC Project Manager and the Contractor and then submitted to the Bureau Manager for approval. However, as provided in the RFP, the budget, if applicable, identified for tasks is an estimate, and the City reserves the right to modify the applicable budget allocated to any task as more specific information concerning the task order scope becomes available.

The task order request will be processed for Controller certification of funding, after which a *Notice to Proceed* will be issued. The Contractor is hereby notified that work cannot commence until the Contractor receives a written Notice to Proceed in accordance with the San Francisco Administrative Code. ***Any work performed without a Notice to Proceed will be at the Contractor's own commercial risk.*** The calculations of costs and methods of compensation for all task orders under this Agreement shall be in accordance with Appendix B.

These following tasks provide general guidance to the Contractor as to the anticipated scope of work which the SFPUC reserves the right to modify or delete:

TASK 1: PROJECT MANAGEMENT AND COORDINATION OF CONTRACTOR SERVICES

Provide overall project coordination for keeping project participants informed of progress, technical issues, planned activities, and events. Project participants include City and Contractor staff in project management, engineering, environmental planning, construction management, operations, maintenance, and public outreach, as well as independent experts and other parties such as public agencies and community groups. Perform coordination activities described below.

- 1.1 Prepare a Draft and Final Project Management Plan for review and acceptance by SFPUC staff. The Project Management Plan is intended to lay the groundwork for efficient execution of contracted engineering services. The Plan shall include the following information:
 - 1.1.1. Project Team organization and responsibility including all contact information for key team members;
 - 1.1.2. Contractor's contract administration procedures;
 - 1.1.3. Cost and schedule control procedures;
 - 1.1.4. List of tasks and corresponding staff and budget;
 - 1.1.5. Detailed schedule of tasks, milestones, and deliverable due dates;
 - 1.1.6. File management for project record sharing/keeping and coordination guidelines to allow integration with project team members within SFPUC, San Francisco Department of Public Works (SFPD), Contractor firms, the Sewer System Improvement Program (SSIP) Program Management Contractor (PMC) and others. A common web-based document management platform specifically Microsoft SharePoint, will be used by project team members, to store, manage and share documents and files. Microsoft Sharepoint will allow for efficient file management and staff collaboration.
 - 1.1.7. The Contractor shall implement the SFPUC change control/management procedure for tracking and controlling changes, particularly those affecting the project scope, schedule and construction cost estimate. This change control will be applied at a 35% design estimate. The Contractor shall identify and communicate scope, schedule and cost impacts to the SFPUC in a timely fashion.
- 1.2. Prepare for and attend project kick-off meeting to review tasks, milestones, roles, communication, and coordination processes with the extended team. The Project Management Plan will be discussed during this kick-off meeting.
- 1.3. Submit a Draft and Final Phase 1 Work Plan including deliverables and resource loading for the Planning phase, for review and acceptance by SFPUC staff. The Plan shall include the following information:

- 1.3.1. A cost loaded work breakdown structure. At a minimum, the breakdown will be at a subtask level and may be further broken down by discipline at the City's request. The City will provide a format for the work breakdown structure. Costs shall be loaded by month.
 - 1.3.2. A detailed list of deliverables (including but not limited to reports, technical memorandums, geotechnical data, process and hydraulic models, calculations, drawings, and specifications) with the proposed deliverable schedule.
- 1.4. Submit a Draft and Final Phase 2 Work Plan, including deliverables and resource loading for the Design phase once the project delivery method(s) have been determined. The Design Engineering Work Plan shall include the following information:
 - 1.4.1. A cost loaded work breakdown structure. At a minimum, the breakdown will be at a subtask level and may be further broken down by discipline at the City's request. The City will provide a format for the work breakdown structure. Costs shall be loaded by month.
 - 1.4.2. A detailed list of deliverables (including but not limited to reports, technical memorandums, geotechnical data, process and hydraulic models, calculations, drawings, and specifications) with the proposed deliverable schedule.
- 1.5. Prepare for and attend bi-weekly (or other routine interval) technical coordination progress meetings for the duration of the Agreement. Contractor shall document the meetings by producing project meeting minutes for distribution. Sharepoint shall be used for the storage and communication of all project documents.
- 1.6. Prepare and make presentations as required by SFPUC's Infrastructure Division Procedures. Typically, the presentations occur at the end of the NAR, AAR, the CER, the establishment of the design criteria, and every design milestone (e.g., 35%, 65%, etc.). Other presentations may be warranted if an alternative project delivery method is implemented. In addition, value engineering presentations and presentations to the SSIP Steering Committee will also be required. The Contractor may be required to lead these presentations and will be required to prepare all necessary graphics and PowerPoint slides. Contractor shall document the meetings by producing project meeting minutes for distribution.
- 1.7. Prepare for and participate in coordination workshops to reconcile comments after each presentation. The Contractor will be required to lead these workshops. Contractor shall document the workshop by producing project meeting minutes for distribution.
- 1.8. Prepare for and participate in public outreach meetings/ workshops, as needed. It is anticipated that routine meetings will be held with the community-based Digester Task Force or equivalent committee/organization.

- 1.9. Participate in partnering sessions with the successful bidders of the construction packages and the construction management teams.
- 1.10. Submit monthly progress reports, with highlights of work achievements during the past month (including the community benefit effort), issues requiring action and proposed solutions, work planned and important milestones for the upcoming month, summary of design work hours by discipline, and a decision log showing significant decisions approved over the life of the contract. Also for each task, provide: (1) suggested updates to schedule (for discussion); (2) estimate of actual (not based on budget) percent complete; (3) summary of current expenditures (person-hours, dollars expended, and percent of task budget expended); (4) remaining task budget; and (5) estimated expenditures for the following month. The report shall identify any issues or scope changes that may affect overall cost and/or schedule of planning/design phases.
- 1.11. Provide information and updates for SSIP quarterly reporting, SSIP quarterly Commission updates, and programmatic schedules. As part of a quarterly meeting, this will be reviewed by the SSIP management team.
- 1.12. Maintain both hard copy and electronic project files (utilizing SharePoint) including all plans, reports, correspondences, calculations, and other documents pertaining to the planning and design efforts. All calculations shall be stamped and signed by a Professional Engineer licensed in the State of California. All documents shall be fully checked and signed off in accordance with Quality Assurance/Quality Control procedures.
- 1.13. Coordinate review comments provided by others on reports, memoranda, project documents, and other work products. Document and disseminate responses to review comments. Contractor will provide responses to all comments in a tabular format as provided by the SFPUC.

Task 1 Key Deliverables:

- 1.A. Draft Project Management Plans (one for each phase),;
- 1.B. Final Project Management Plans (one for each phase),;
- 1.C. Draft Phase 1 Work Plan,;
- 1.D. Final Phase 1 Work Plan,;
- 1.E. Draft Phase 2 Work Plan,;
- 1.F. Final Phase 2 Work Plan,;

- 1.G. Meeting summaries documenting key decisions and action items from project meetings, presentations and workshops;
- 1.H. Monthly Progress Reports,;
- 1.I. Monthly invoices in accordance with City requirements;
- 1.J. Copies of all project correspondence, calculations, references, photographs, graphics, AutoCAD files, and other project records;
- 1.K. Responses to review comments.
- 1.L. All deliverables will be signed off by the City.

TASK 2: QUALITY ASSURANCE/ QUALITY CONTROL

- 2.1 Prepare Draft and Final Quality Assurance (QA) Plan for review and acceptance by SFPUC staff. The QA Plan shall be aligned with the SFPUC QA/QC Program and shall identify the Contractor's requirements and procedures for ongoing QA efforts, including but not limited to the following:
 - 2.1.1 Ensuring all work complies with applicable codes and standards and industry practices;
 - 2.1.2 Planning and executing systematic activities necessary to provide the City confidence that the contract documents will meet the given requirements and objectives and are prepared in accordance with all applicable SFPUC policies and procedures.
- 2.2 Implement QA Plan - The Contractor shall implement QA procedures uniformly for all phases of the project resulting in high-quality deliverables with minimal construction change orders. At a minimum, internal QA shall be conducted prior to presenting deliverables to the SFPUC. Established QA procedures, to be employed by all team members, shall address the use of quality control review, calculation checking, design checking, AutoCAD (latest City version) reference to City Standards, interference checking, construction and operation issues, and other measures necessary to maintain a consistent, complete, high quality, and compatible design. Establish QA procedures for successfully interfacing planning and design with other related projects and their City/Contractor staff.
- 2.3 Prepare Quality Control (QC) Plan - The Contractor shall prepare and submit a Draft QC Plan for review and acceptance by SFPUC staff. The QC Plan shall be aligned with the SFPUC QA/QC Program and shall identify the Contractor's requirement and procedures for ongoing QC efforts including but not limited to the following:

- 2.3.1 Operational techniques and individual activities aimed at controlling or regulating the planning and design processes to fulfill requirements for quality. The focus is on preventing ineffective contract documents that can lead to defective construction of the project's infrastructure.
 - 2.3.2 Procedures for reviewing, distributing, checking, tracking, controlling, and cataloguing all documents;
 - 2.3.3 Procedures for reviewing and checking work performed by subcontractors to ensure consistency and coordination of the overall project. Provide list of specific team members performing the QC check;
 - 2.3.4 Procedures for resolving review comments; and
 - 2.3.5 Procedures for coordinating with the City Project Team and any independent Technical Advisory Panel and Value Engineering Panel.
- 2.4 Implement QC Plan - The Contractor shall implement QC procedures uniformly for all phases of the project resulting in high-quality deliverables with minimal construction change orders. At a minimum, internal QC shall be conducted prior to presenting deliverables to the SFPUC. Established QC procedures, to be employed by all team members, shall address the use of quality control review, calculation checking, design checking, AutoCAD (latest City version) reference to City Standards, interference checking, construction and operation issues, and other measures necessary to maintain a consistent, complete, high quality, and compatible design. Establish QC procedures for successfully interfacing planning and design with other related projects and their City/Contractor staff.

Task 2 Key Deliverables:

- 2.A. Draft QA Plan.
- 2.B. Final QA Plan.
- 2.C. Draft QC Plan.
- 2.D. Final QC Plan.
- 2.E. Monthly reports that document compliance with both the QA and the QC plans (i.e. QC reviewer names and signatures on forms for key project deliverables, etc.)

TASK 3: REVIEW BACKGROUND INFORMATION

This task shall include the review of relevant available project documents from available resources. The following contain a partial list of documents for the Contractor to review.

3.1. At a minimum, the Contractor shall review the following:

- 3.1.1. SSIP Endorsed Goals, LOS and Strategies
- 3.1.2. Relevant record drawings of SEP
- 3.1.3. Sewer System Master Plan reports and technical memorandums, 2008 - 2010
- 3.1.4. 2010 Digester Task Force Report
- 3.1.5. Biosolids and reuse agreements
- 3.1.6. Regional Biosolids Reports
- 3.1.7. Regulatory and operating permits for the treatment plant and biosolids operation, excluding resource agency permits for construction
- 3.1.8. Available geotechnical and hazardous materials investigation reports for the areas located in the vicinity of this project from the SFPUC and other City agencies such as San Francisco Department of Building Inspection (SFDBI) and SFDPW. Also any available geotechnical and hazardous material investigation reports from other public/private projects/entities
- 3.1.9. Available utilities information for the areas located in the vicinity of this project from SFDBI, SFPUC, and SFDPW libraries
- 3.1.10. Record drawings of other facilities located in close proximity to this project, e.g. Caltrain, Caltrans, PG&E, etc., to locate all existing utilities and structures within the project area
- 3.1.11. General Plan, Zoning, Community Plan, other applicable plans and environmental documents (to be compiled by City staff)
- 3.1.12. SFPUC Health and Safety Guidelines
- 3.1.13. General Seismic Requirements for Design of New Facilities and Upgrade of Existing Facilities, Revision 2 (EMB, October 2009 and any subsequent revisions)

Additional materials available for review include, but are not limited to, surveying data; aerial photos; topographic maps; right-of-way (ROW) maps; impact avoidance and

mitigation studies; design and as-built drawings related to the existing facilities; and information related to environmental studies.

- 3.2. It is anticipated that the following documents may be available in draft or final versions by the time the SFPUC issues the Phase 1 NTP. The reports/plans are being initiated and/or developed by PMC and/or SFPUC staff.
 - 3.2.1. SSIP Validation Report and SEP Technical Memorandum 2013
 - 3.2.2. SEP Baseline Report, 2013
 - 3.2.3. SEP Needs Assessment Report (NAR), 2013
 - 3.2.4. SEP Condition Assessment Report, 2013
 - 3.2.5. Biosolids End Use Market Assessment and High-Strength Waste Utilization Business Plan, 2013
 - 3.2.6. Biogas Utilization Alternatives Evaluation, 2013
 - 3.2.7. Urban design guidelines or other local land use criteria documents, if available
 - 3.2.8. Community Outreach and Participation Plans addressing Project stakeholders

Task 3 Key Deliverables:

- 3.A. Draft and Final Technical Memoranda confirming the adequacy and applicability of information presented in the background documentation; identifying any data gaps that must be completed during planning and design phases of the project; and presenting a schedule and plan for addressing the data gaps. If necessary, a recommended scope of work and budget to obtain additional data shall be submitted with the plan.

TASK 4: LAND NEEDS AND PROPERTY ACQUISITION

SFPUC will lead the effort as it relates to property acquisition, right-of-way and real estate services. SFPUC staff has conducted an evaluation of land needs and an assessment of properties adjacent and near the SEP for the BDFP. A list of viable site alternatives has been developed. This information was presented to the Digester Task Force for their input and concurrence in 2009-1010. The Digester Task Force is a specially formed group of local Bayview community stakeholders. Contractor is to provide technical support with respect to land evaluation and real estate services, as described herein:

4.1. Confirm amount of acreage needed in the vicinity of the SEP to accommodate:

Construction staging and material laydown area
Temporary facilities
New permanent facilities
Other Future needs

4.2. Review the viable site alternatives identified previously for the SEP BDFP. Ensure previous land evaluations considered other nearby improvements and developments sponsored by the City/SFPUC (e.g. Other SEP Capital Improvement Projects, Central Bayside System Improvement Project, Eastside Recycled Water Facility), and/or other public federal or state agencies and private developers. Land evaluation criteria should address ease of acquisition and steps to finalization of site control, purchase costs, right-of-way and easement requirements, ease of access and vehicular traffic through/near site, need for relocation of existing tenant, property transfer, current site use, geological and soil conditions, flood potential, City zoning or re-zoning limitations, other agency jurisdictions, and other requirements.

4.3. Provide as-needed assistance as directed by SFPUC and City Real Estate staff in developing various property-related documents such as:

4.4. Prepare land appraisals and cost estimates for purchase

4.5. Provide right-of-way (ROW) assistance

4.6. Prepare official maps

4.7. Provide letters of understanding regarding acquisition, relocation and purchase of new locations and cost.

4.8. Provide legal descriptions for new property and establishing temporary (construction) easements, subsurface easements, and final easements.

4.9. Terms and conditions for Letters of Agreement and Memorandums of Understanding (MOUs)

Task 4 Key Deliverables:

4.A. Draft and Final Technical Memoranda summarizing land need, property evaluation and land acquisition activities supported by the Contractor.

4.B. Final and Draft documents relating to real estate/property assessments, as needed.

TASK 5: SURVEYING INFORMATION

This task will be implemented with guidance and in coordination with City surveying staff. It should be assumed that some of the surveying work will be performed by City staff.

- 5.1. As requested by the City, develop Survey Information. Perform land surveys and aerial surveys and prepare maps for areas within the boundaries of the SEP and all additional property to be obtained for the Project. Develop topographic information for inclusion in background/contract drawings for the Project facilities for construction bids. Contractor to determine and work with City for appropriate datum, grid size, scale, and resolution.
- 5.2. As requested by the City, coordinate and obtain necessary approvals from local agencies, private owners, and utilities through City representatives for survey work. Obtain access and/or permits required to accomplish necessary surveying by completing and processing permit applications, and by providing technical support, as needed, to secure these permits. Any costs for permits will be reimbursed back to the Contractor with proper receipts/documentations via progress payments. City staff will help support this task, but overall responsibility of this task remains with the Contractor.

Task 5 Key Deliverables:

- 5.A. Background Drawings – As requested by the City, provide background drawings containing topographic information.
- 5.B. Land and Aerial Survey Information - As requested by the City, provide survey field notes and data and other backup information used in developing background drawings.

TASK 6: UTILITY INFORMATION

Contractor shall gather, identify, and document all utility information within and surrounding the SEP. Contractor will also identify all utility information within and surrounding any site identified under additional land needs and property acquisition. Contractor will work with City staff to coordinate with utilities to obtain existing utility records. The following are the responsibilities of the Contractor under this task during Planning and Design Phases.

- 6.1. Prepare a Pothole sampling plan that identifies the utilities or underground facilities to be verified. Include information on the methodologies (shallow versus deep) to be used to perform the potholing.
- 6.2. Perform field inspection/subsurface investigations as needed to verify location of utilities and facilities that may conflict with the proposed project elements. This includes but is not limited to all the facilities associated with the SEP BDFP. This will require pothole investigations of both City and private utilities/facilities.
- 6.3. Prepare AutoCAD maps/layers showing the location of the existing utilities. This will be part of the overall site drawings for the SEP improvements.

- 6.4. Coordinate and provide design or design support for any required relocation of utilities or facilities (public or private).

Task 6 Key Deliverables:

- 6.A. Pothole sampling plan.
- 6.B. Utilities and Facilities Coordination Technical Memorandum - Prepare and submit a technical memorandum package summarizing the results of utilities and facilities field location work. The technical memorandum and accompanying documents shall record field information on utilities and facilities that may conflict with the proposed project elements. It shall identify and record existing and abandoned utilities and facilities, utilities and facilities requiring relocation, and proposed utilities and facilities that would be impacted by the proposed project elements. The TM should provide at a minimum an overall site map of all the potholing locations; a table listing the pothole identification number, pothole coordinates, depth of pothole activity, and utility or underground facility identified; any pictures related to the potholing activities.
- 6.C. AutoCAD maps/layers showing the type, size, and location of active and abandoned utilities. These maps will be submitted to the owners of the utilities and returned for confirmation.

TASK 7: GEOTECHNICAL AND HAZARDOUS MATERIAL INVESTIGATION

The overall task will be to assess the geology, geotechnical, and groundwater conditions at the existing and preferred project sites and to determine the required design parameters. Contractor shall define and conduct/implement a geotechnical investigation and hazardous material site characterization program for the potential site alternatives near/adjacent SEP. The Contractor shall acquire, assemble, and review all available geotechnical information within the project limits, identify the missing geotechnical/hazardous material information, and develop a work plan to obtain the missing information. The Contractor shall obtain the necessary geotechnical/hazardous material information. The findings will be taken into consideration in the site planning for the Project. In evaluation of the existing and newly acquired geotechnical/hazardous material information, the Contractor shall determine the site-specific design criteria to use as the basis of design, including all geotechnical and seismic hazards information. The Contractor shall determine and identify all geotechnical design information and seismic hazards information related to the project. This includes, but is not limited to, depth of piles, lateral spread, site-specific ground motion, and liquefaction potential. The analysis shall provide all geotechnical information needed by the design team to complete the design.

The geotechnical investigation and site characterization program for the entire project, including City's/other agencies' ROW shall include, but not be limited to, the items listed below. Due to possible hazardous underground soil, groundwater issues, and the monitoring wells, the

Contractor shall prepare a report in accordance with the standard engineering practices and shall present alternative recommendations to mitigate geotechnical and hazmat issues as needed.

- 7.1. Site exploration shall include, but is not limited to, drilling and sampling boreholes, cone penetration tests, sampling and testing for soil and groundwater corrosivity, sampling and testing for presence of hazardous materials in soil and groundwater, seismic refraction survey, and installation and monitoring of groundwater observation wells as required to measure seasonal variability. Site services shall also include in-situ testing and monitoring including, but not limited to, groundwater monitoring, hazardous gas monitoring and testing, hazardous materials testing, and hydraulic conductivity testing. Contractor shall perform initial assessment as directed by the City.
- 7.2. Laboratory testing shall include, but is not limited to, material gradation and strength, index property testing, and testing for hazardous materials to assess soil and groundwater handling and disposal requirements.
- 7.3. Provide assessment of seismicity to the retrofit of existing infrastructures and the design of new infrastructures. Provide detailed design parameters to the design team.
- 7.4. Perform all related necessary investigations, administrative applications, submittals, and reporting in accordance with the Maher Ordinance requirements within areas of the Maher Ordinance. This work includes, but is not limited to, site history and records review; soil sampling and analysis program to characterize soil according to the San Francisco Maher Ordinance requirements; compaction study to evaluate re-use of excavated fill materials; and compliance with all sections of the San Francisco Maher Ordinance. Documented information shall be evaluated and formatted such that potential requirements for off-site disposal of soil generated during future construction activities at the site are identified with recommended mitigation measures during construction if necessary, to protect workers and the public from exposure to hazardous chemicals.

Contractor shall provide the necessary project information to the SFPUC Bureau of Environmental Management to obtain the necessary approvals for the field boring work and groundwater well drilling and abandonment.

Task 7 Key Deliverables:

- 7.A. Draft and Final Data Report on Previous Investigations - The report shall include a summary graphic showing the location of all previous borings and geotechnical information collected to date and shall summarize all available geotechnical, hazardous material, and groundwater information pertaining to the proposed alternative locations. In addition, all the complete existing reports, data, and information used to compile the summary report shall be provided as appendixes in electronic format.
- 7.B. Draft and Final Geotechnical & Hazardous Material Investigation and Site Characterization Work Plan - This Work Plan shall describe the geotechnical,

groundwater, and hazardous material investigation and site characterization program necessary for the identified alternatives. The Plan will include the number of borings and wells, the necessary depths, boring and well locations testing methods and protocols, and a number of contingency borings in case additional boring and groundwater information is required during Planning. Applicable portions of the Plan shall provide sufficient detail for obtaining permits for fieldwork and for use by public information staff to notify affected public in advance of fieldwork. This Work Plan shall be reviewed and accepted by the City prior to proceeding with the program work.

- 7.C. Draft and Final Geotechnical and Hazardous Material Investigation and Site Characterization Data Report (GDR) – The report shall provide factual data and information obtained from the geotechnical, groundwater, and hazmat investigation efforts. The location of any soils or groundwater that contains hazardous constituents and underground fuel tanks shall be identified. The report must characterize the soil to be removed or reused on site and shall include a soil balance analysis. The report shall also provide information for developing methods and locating sites for handling, treatment, storage, and disposal of any contaminated materials. Descriptions of any areas requiring special handling, such as capping, grout injection, or other methods, shall be provided. The GDR is to provide information for screening and site layout of alternatives.
- 7.D. Draft and Final Geotechnical Interpretive Report (GIR) - This report is to provide interpretation of information and recommendations to be used in project design. The report shall document site-specific conditions related to seismic sources, ground motions and fault offset; assessment of liquefaction and lateral spreading; design ground motions; methods of analysis. Furthermore, geotechnical recommendations shall be provided for design of all project components, including underground work, pile depth, dewatering, shallow and deep foundations, any shoring constraints necessary to prevent settling of adjacent buildings/basins/facilities, monitoring necessary to detect any settling, excavation compaction, grading and sub-grade preparation. Geotechnical recommendations for various alternative construction methods shall be provided and reviewed.

The reports and data listed above are expected to be made available for construction bidder's review as a part of the contract documents. It is therefore critical that the documents go through multiple quality checks before they are finalized.

TASK 8: ARCHITECTURE AND LAND USE PLANNING

Surrounding land use, facility architectural design and visual mitigation are critical factors for positive acceptance of the SEP BDFP, and shall be developed in coordination with the planning and design of the treatment improvements. The land use and architectural design for the SEP will be consistent with existing and anticipated land planning requirements and architectural guidelines for the City and/or Bayview community. Local urban design guidelines may be proposed by others for reference in this Project. The visual theme should be consistent with other future developments (including other SFPUC projects) in the vicinity with input and consensus from neighboring community. This task may be conducted by a City-led team of Contractor and City staff from Architecture and Landscape Architecture.

- 8.1. Describe existing aesthetic setting and neighborhood concerns.
- 8.2. Conduct workshops with stakeholders and community members and gain input on preferred types of visual, odor and noise mitigation or land use features.
- 8.3. Develop modes to mitigate noise, sound and visual impacts from constructed treatment processes and associated structures, taking into consideration inputs from the Constraints and Opportunities analyses, and environmental impact avoidance.
- 8.4. Develop architectural design standards, features and landscaping theme for SEP, including lighting, fencing, type of materials and colors.
- 8.5. Prepare graphic, computer models (3-D walkthrough), and videos as development and presentation tools.
- 8.6. Prepare a physical model of final design.
- 8.7. Provide any drawings, information and presentation material to the San Francisco Arts Commission review, as required.

Task 8 Key Deliverables:

- 8.A. Draft and Final Technical Memorandum on Architecture and Land Use Plans to be implemented as a part of the SEP BDFP.
- 8.B. Develop presentation material and full-size drawings or sketches to describe architectural and landscape themes and visual enhancements/mitigations.
- 8.C. Provide presentation graphics, computer models, and videos.

TASK 9: ALTERNATIVES ANALYSIS REPORT

Prepare an Alternatives Analysis Report (AAR) for the SEP BDFP in accordance with SFPUC standards.

The AAR, to be developed by the Contractor, will focus only on the scope of the SEP BDFP (solids handling facilities). In the AAR, the Contractor will develop and thoroughly evaluate viable alternative solutions to meet the SSIP Level of Service (LOS) objectives. For each key process alternative, a single recommended technology will be selected using decision analysis criteria developed with input from the SFPUC and moved forward. Ultimately, the recommended technologies selected for each key process will form the basis of the Recommended Alternative for Conceptual Engineering and Detailed Design.

9.1. Biosolids Treatment Process Evaluation and Selection

It has been established that the SFPUC, at a minimum will upgrade its solids handling treatment to produce a Class A biosolids product. The feed stream may include solids from wastewater/stormwater, fats, oils, grease (FOG), food waste and any other waste stream amenable to anaerobic digestion with the proper pre-treatment processes. Each waste stream will require additional characterization to determine impact to the overall process. Other treatment processes producing advanced biosolids products may be evaluated if they are found to be sustainable and viable use options for the SFPUC based on a cost/benefit market analyses.

Conduct treatment process selection evaluations of the viable technology alternatives that address at a minimum the following: objective of the project, benefit, maturity of technology, disadvantages, operating criteria, ease of maintenance, reliability, instrumentation and controls, associated equipment appurtenances, life cycle cost, capital cost and risk. The goal of the evaluations is to reach a consensus for a recommended treatment process for each key process in the SEP BDFP. Under the SSIP, standard Triple Bottom Line (TBL) criteria are being developed. Using the SSIP TBL criteria as a basis (if applicable), the Contractor will develop agreed-upon evaluation criteria with the SFPUC prior to commencement of the selection analysis. Extensive workshops will be conducted with SFPUC staff to solicit input and provide information exchange and consensus building. The solids process modeling must be integrated into the City's BioWIN model. Any process model(s) used in the analysis shall be transferred to the City following completion of the Project.

The treatment processes to be evaluated as part of this project include, but are not limited to:

- Thermal hydrolysis;
- Thickening;
- Digestion (separate and/or co-digestion);
- Dewatering;
- Thermal drying technologies;
- Other processes producing Class A biosolids products;
- Other processes producing advanced biosolids products; and
- Other associated processes for handling of any byproducts or waste streams.

9.2. Biosolids Market Assessment and Business Plan

One of the SSIP LOS is to beneficially use 100% of the biosolids generated by the WWE. PMC has been issued a task order to conduct a Biosolids End-Use Market Assessment and High Strength Waste Utilization Business Plan. High Strength Waste (HSW) includes fats, oils and grease (FOG) and food waste.

9.2.1. Review the PMC work for completeness and verify the information provided, which should include, but not limited to:

- Identification of regulatory and non-regulatory drivers as it relates to treatment and generation of biosolids and advanced biosolids products
- Business Plan for High Strength Waste (HSW) that addresses:
 - Types and volumes of HSW that could be treated by the SFPUC (SEP);
 - Identify treatment process, environmental and social impacts;
 - Regulatory implications;
 - Capital and lifecycle costs;
 - Other costs and fees; and
 - Contractual agreements and with whom; and
- Biosolids end-use options and business markets for Class B, Class A and other biosolids products that addresses:
 - Specific markets that the SFPUC should consider, including advanced products such as agricultural or construction amendments or other;
 - Long term viability and sustainability;
 - Annual and cumulative capacity;
 - Contracting mechanisms;
 - Capital and lifecycle costs;
 - Revenue sources;
 - Public acceptance; and
 - Hauling distance and cost.

9.2.2. Address any data gaps and provide missing information or level of details, as related to biosolids/HSW market assessment and business plan that are not found in available reports and/or documents, but are deemed necessary to proceed with the Project

9.3. Biogas Energy Recovery

Biogas that is rich in methane is a byproduct of the biosolids digestion process. The intent of the SSIP LOS is to beneficially use all the biogas and convert it to bioenergy for use at the SEP

or offsite. PMC has been issued a task order to evaluate and recommend the best use of SEP biogas.

9.3.1. Review the PMC work for completeness and verify the information provided, which should include, but not limited to:

- The volume and quality of the biogas to be produced. Consider input of wastewater solids, FOG, food waste and other waste streams into the digestion process;
- Long-term sustainable biogas utilization alternatives for the SFPUC's WWE with respect to facility heat demand, energy recovery/reuse and power generation. Consider WWE LOS goals and capital and life cycle costs. Consider benefits, requirements, Green House gas generation, and operating risk;
- Recommendations address the best beneficial use of the biogas generated, and at a minimum answers the following questions:
 - Should the biogas be sold back to PG&E or others as biomethane?
 - Is it desired and reasonably feasible that that the SEP eventually generates sufficient power to operate the entire plant with the biogas produced to negate Hetch Hetchy power usage?
 - Should the biogas be converted and used as vehicle fuel?
- A market assessment/ feasibility and business plan for the biogas utilization. Consider use, delivery, capital and lifecycle costs and the impacts to operational strategies at the SEP;
- A utilization strategy for the biogas energy recovery. Address biogas storage, gas pretreatment, cogeneration or other power production alternative, and/or fuel delivery for a biomethane option. Identify any appurtenances for a functional system. Estimate operations and maintenance costs, specialty skills and labor needs. Discuss opportunities for SFPUC to reduce overall Hetch Hetchy electricity usage and natural gas purchases with the various technologies;
- Major capital infrastructure needed to support biogas energy recovery. Address storage, gas pretreatment, cogeneration or other power production alternative, and fuel delivery. Identify any appurtenances. Provide estimates of capital costs;
- Any operational regulatory requirements or limitations;

- Available outside funding sources from Federal and/or State incentives and grant programs to subsidize capital and lifecycle costs through cap and trade, and other; and
- Carbon footprint, greenhouse gas (GHG) emissions, and potential cap and trade opportunities.

9.3.2. Address any data gaps and provide missing information or level of details, as related to biogas handling, treatment and use that are not found in available reports and/or documents, but are deemed necessary to proceed with the Project.

9.4. Odor Control

9.4.1. Develop long-term goals for odor control within the new Biosolids Digester Facilities based on the SSIP LOS goals. Consider staff working conditions, existing and future safety regulations and impact to neighboring community adjacent to the SEP. Establish measurable criteria.

9.4.2. Discuss and evaluate possible treatment technologies to contain, treat and vent odors from the SEP Biosolids Digester Facilities. Parameters to address include odor characteristics, power usage, chemical usage, size requirements, potential air emissions, air changeovers, maintenance needs, noise, and lifecycle costs.

9.4.3. Perform site specific odor characterization and dispersion modeling.

9.5. Integrated Alternatives

Develop integrated alternatives that will meet the LOS objectives, and requirements defined in the NAR. Alternatives should be described with sufficient detail and should include, but not limited to:

- How goals/objectives are met. Provide measurable criteria;
- Scope of work and approach;
- Type and quantity of waste streams (biosolids, FOG, food waste, other);
- Treatment process technologies (including footprint, height, specialized support);
- Treatment process performance criteria;
- Design criteria;
- Resource recovery and reuse;
- Power and natural gas usage;
- Reliable power feed to the treatment plant;
- Odor Management;
- Chemical usage;

- List of major equipment;
- Expertise required for operate and maintain selected technology;
- Staffing needs;
- Benefit – reliability, efficiency;
- Disadvantages;
- Operating strategy. Wet weather and dry weather;
- Preliminary process and instrumentation diagrams (P&IDs);
- Distributed Control System integration;
- Process control strategy (planning level);
- Operations and Maintenance issues. Special staff training or certification;
- Regulatory compliance and/or permit exemptions;
- Implementation schedule;
- Feasibility of construction. List temporary facilities that need to be constructed;
- Plant shutdowns required and associated constraints;
- Cost – Potential impact to sewer rates;
- Life cycle costs;
- Risk;
- Site constraints including staging and laydown requirements;
- Site Layout;
- Truck traffic access;
- Environmental Constraints and Opportunities Analysis (this analysis will be provided by SFPUC staff);
- Real estate requirements;
- Land Use and architectural design;
- Interdependencies within selected treatment processes;
- Interdependencies with other activities and projects;
- Community benefits; and
- Other projects that could impact the SEP BDF.

- 9.6. Develop evaluation criteria and a decision-making process upon which the proposed alternatives will be evaluated. TBL criteria developed under the SSIP should be used as a basis. Contractor will be required to refine the criteria to meet the needs of the Project. Alternatives meeting the SSIP LOS will be compared using the TBL.
- 9.7. Facilitate an alternatives analysis process that will result in a Recommended Alternative. Conduct staff and stakeholder workshops to promote information exchange and consensus. Assist the City to refine the TBL model developed by PMC to be applicable to the BDFP.

Task 9 Key Deliverables:

- 9.A Draft and Final Technical Memorandums on TBL and decision analysis methodology, criteria, and weighting; specific treatment process technology evaluations for key technologies; seismic reliability approach; odor control strategy and goals; and biogas energy recovery strategy and goals.

- 9.B Draft and Final Alternatives Analysis Report with Recommended Alternative - All reference information (NAR, reports, technical memorandums, drawings, etc.) shall be included electronically as reference material for the AAR. The AAR shall be stamped and signed by a Professional Engineer licensed in the State of California.
- 9.C Solids Process Model, BioWin model integrated with the Solids Process Model, and any hydraulic models (if needed). The actual modeling programs must be provided. Model outputs are not acceptable. The City must be able to modify the models to run different scenarios independently.

TASK 10: CONSTRUCTION PACKAGING AND DELIVERY METHODS

TASK 11:

Identify, and analyze options to possible implementation strategies for the Recommended Alternative from the AAR. Recommend how best to divide up the improvements to be built under this Project into design/construction contract packages to be issued by the SFPUC. Make specific recommendations on the number of contracts to be issued and the scope of each contract. Furthermore, identify pros, cons and risks of various project delivery methods for each of the design/construction contract packages. Project delivery methods/strategies to be analyzed will include, at a minimum, Design-Bid-Build (DBB) [per Article II of Chapter 6 of the Administrative Code], Design-Build (DB) [per section 6.61 of the Administrative Code], and Integrated Project Delivery such as Construction Manager/General Contractor (CM/GC) [per section 6.68 of the Administrative Code]. The Contractor is to identify all viable implementation strategies for the SFPUC staff to consider. Contractor will consider performance, benefits, disadvantages, schedule, cost, site constraints, project/construction management, contracting agreements, and SFPUC risk to achieve project goals for each of the design/construction contract packages and/or project delivery method(s).

The SFPUC will select the construction contract packaging and associated alternative delivery method(s) that will cost-effectively deliver a fully functioning new Biosolids Digester Facilities.

Task 10 Key Deliverables:

- 10.A Draft and Final Technical Memorandum on Project Construction Contract Packaging and Contracting and Implementation Strategy.

TASK 11: CONCEPTUAL ENGINEERING REPORT (CER)

The Conceptual Engineering Report (CER) will contain preliminary design criteria and preliminary site layouts to document the basis of design for the Recommended Alternative. The

CER will be structured in accordance with the multiple design/construction packages, as defined by the outcome of Task 10, and should clearly show the design and construction delineation between the multiple packages. Key coordination issues between the construction packages shall be identified as part of the CER. The CER will serve as the basis for the Detailed Design.

11.1. Prepare a Conceptual Engineering Report for the SEP Biosolids Digester Project, in accordance with SFPUC standards. The CER, at a minimum should address:

- Project history, goals, and summary;
- Description of the various design and construction contract packages based on the selected alternative delivery method;
- Preliminary design criteria (civil, seismic, pipelines, electrical, architectural, mechanical, HVAC, fire protection, instrumentation);
- Critical equipment list and associated equipment data information (capacity, horsepower, type, etc.);
- Design chemical doses;
- Description of proposed project elements;
- Process operating descriptions and strategies (incorporating input from WWE);
- Permit requirements;
- Key coordination issues between various construction contract packages;
- Construction sequencing;
- Testing and startup concept;
- Project schedule;
- Construction and O&M cost estimates for each construction contract package;
- Draft specifications section list for each construction contract package;
- Draft drawing list for each construction contract package;
- Preliminary Drawings (process flow diagrams, site plan, site access, preliminary plans and elevations, preliminary single line diagrams, preliminary P&IDs, etc.) for each construction contract package; and
- CER CEQA Checklist.

Task 11 Key Deliverables:

- 11.A. Draft and Final Conceptual Engineering Report - All reference information (NAR, AAR, reports, technical memorandums, drawings, etc.) shall be included electronically as reference material for the CER. The CER shall be stamped and signed by a Professional Engineer licensed in the State of California.
- 11.B. BioWin models, solids process models, solids process models/spreadsheets, and any hydraulic models (if necessary).

TASK 12: DESIGN CRITERIA

SFPUC policies and procedures dictate that each project must establish Design Criteria to define the requirements needed to develop the design recommended in the Conceptual Engineering Report (CER). The Design Criteria provides the design basis, specific site conditions, functional and operational requirements, extent of the design, loads, codes and standards for the design, and particular methodologies (including software) to be used for design. Design Criteria must be finalized by the time the 35% Design package is issued. Once established, the Design Criteria serve both to guide the designers' work and as the most fundamental basis for quality review of the design and design products (i.e., Drawings and Specifications).

The Design Criteria shall be based on inclusion and expansion of criteria supplied by the SFPUC, most particularly the seismic requirements as defined by the *General Seismic Requirements For Design of New Facilities and Upgrade of Existing Facilities, Revision 2* dated October 6, 2009 as issued by the SFPUC Infrastructure Division Engineering Management Bureau and any subsequent revisions .

12.1. Develop a Design Criteria document that conforms to the SFPUC policies and procedures. The design criteria should contain at a minimum the following categories:

- Project purpose;
- Site Description;
- Project Background;
- Summary of Project Goals and Improvements;
- Existing Constraints;
- General codes, references, and project criteria;
- Demolition;
- Process Design;
- Geotechnical Design;
- Seismic Design;
- Civil Design;
- Electrical Design;
- Pipeline Design;
- Instrumentation (P&IDs);
- Corrosion Control;
- Supervisory Control and Data Acquisition (SCADA) and DCS integration;
- Process Mechanical Design;
- HVAC;
- Plumbing;
- Fire Protection;
- Fire Alarm;
- Structural Design;
- Architectural Design;
- Landscape Architecture Design;

- Safety;
- Security;
- Noise and Vibration Criteria; and
- Constructability.

Task 12 Key Deliverables:

- 12.A. Draft and Final Design Criteria - The Design Criteria shall be stamped and signed by a Professional Engineer licensed in the State of California.

TASK 13: PROCUREMENT RFQ/RFP PACKAGES FOR ALTERNATIVE DELIVERY METHODS

If the project implementation strategy, as defined by the outcome of Task 10, includes one or more of the construction packages being delivered via DB, CM/GC or other similar alternative delivery methods, the Contractor will assist in the development of the necessary procurements documents.

If a DB delivery method is selected, the Contractor would assist the SFPUC in preparing a DB RFQ and/or RFP to pre-qualify and procure a design-builder. The Contractor will develop a design package up to 50% design level with performance based specifications necessary for the procurement of a qualified DB team.

- 13.1. If a CM/GC delivery method is selected, the Contractor would assist the SFPUC in preparing a RFQ and/or RFP for a General Contractor for construction. The Contractor will assist in the development of a RFQ/RFP necessary for the procurement of a qualified CM/GC.

Task 13 Key Deliverables:

- 13.A. If required, Draft and Final DB RFQ.
- 13.B. If required, Draft and Final DB RFP.
- 13.C. If required, Draft and Final RFQ for a General Contractor.
- 13.D. If required, Draft and Final RFP for a General Contractor.

TASK 14: ENGINEERING SUPPORT DURING BID AND AWARD

14.1. Contractor shall attend and assist at pre-bid conferences and pre-bid site walks for each bid package. Contractor will prepare all material related to the pre-bid site walks. Contractor shall review and respond to bidders (general contractors, subcontractors, and manufacturer's representatives) questions on bid documents (QBD). Contractor shall prepare addenda text and drawings (in AutoCAD) describing clarifications and revisions to the design as required. Contractor shall provide revised AutoCAD drawings showing all changes outlined in the addenda to the City as part of the addenda. All addenda drawings and sketches shall be stamped and signed by a Professional Engineer licensed in the State of California. Contractor may be asked to assist the City in reviewing and analyzing received bids.

Task 14 Key Deliverables:

- 14.A. Responses to QBDs
- 14.B. Addendums
- 14.C. Technical Memorandum on bid evaluation – if requested by the City

TASK 15: ENGINEERING SUPPORT DURING CONSTRUCTION (ESDC) AND CLOSEOUT

This task will be applicable when the construction is implemented using a traditional DBB and/or CM/GC (integrated project delivery) approach, in which the Contractor is the design engineer on record for the construction.

- 15.1. Provide engineering support to the City for each package during the construction and closeout phases for work in which the Contractor is the Engineer on Record. This includes, but is not limited to the following:
- Attend Partnering sessions;
 - Review and provide written responses to shop drawings, submittals, request for information (RFIs), change orders requests (CORs), and substitution requests from the Contractor through the City;
 - Provide revised drawings (in AutoCAD) for design or owner requested changes;
 - Assist the Construction Management (CM) staff in responding to and negotiating claims and developing proposed change orders;
 - Attend and participate in project progress meetings at the site and issue-specific meetings at job sites and City offices (as needed);

- Identify construction phase items requiring presence of engineer in the field and coordinate with the Project Engineer. Provide field engineering support to CM team during construction.
- Review value engineering proposals from the contractor.
- Review contractor submitted operations manuals.
- Develop a final combined operation manual for the facility.
- Provide startup and testing support

Task 15 Key Deliverables:

- 15.A. Responses to inquires as related to shop drawings, submittals, RFIs, change orders and/or substitution requests
- 15.B. Revised drawings and/or specifications
- 15.C. Technical Memorandums and meeting summaries
- 15.D. Written responses to issues that may arise during construction.

TASK 16: ENGINEERING SUPPORT AS OWNER’S TECHNICAL REPRESENTATIVE

This task will be applicable when the construction is implemented using a DB or other alternative project delivery method, in which the Contractor is not the design engineer on record for the construction. As the Owner’s Representative, the Contractor will ensure design criteria and performance specifications are met.

- 16.1. During the RFP Bid and Award phase, Contractor shall attend and assist at the RFP pre-bid conference and pre-submittal site walks for each package. Contractor will prepare all material related to pre-submittal site walks. Contractor shall review and respond to QBDs. Contractor shall prepare addenda text and drawings (in AutoCAD) describing clarifications and revisions to the design as required. Contractor shall provide revised AutoCAD drawings showing all changes outlined in the addenda to the City as part of the addenda. All addenda drawings and sketches shall be stamped and signed by a Professional Engineer licensed in the State of California. Contractor may be asked to assist the City in reviewing and analyzing received bids.
- 16.2. Following the Award phase, the Contractor shall provide engineering support to the City during the design and construction phases. This includes, but is not limited to the following:
 - Review and provide written responses to design drawing reviews, design specification reviews, equipment selection, and construction schedule and sequence from the Contractor through the City;

- Attend partnering sessions;
- Review and provide written responses to shop drawings, submittals, RFIs, change orders requests, and substitution requests from the Contractor through the City;
- Assist the Construction Management (CM) staff in responding to and negotiating claims and developing proposed change orders;
- Attend and participate in project progress meetings at the site and issue-specific meetings at job sites and City offices (as needed);
- Identify construction phase items requiring presence of engineer in the field and coordinate with the Project Engineer. Provide field engineering support to CM team during construction.
- Oversee project and construction schedule
- Review value engineering proposals from the contractor.
- Review contractor submitted operations manuals.
- Develop a final combined operation manual for the facility.
- Provide startup and testing support

Task 16 Key Deliverables:

- 16.A. Responses to QBDs
- 16.B. RFP Addendums
- 16.C. Technical Memorandum on bid evaluation – if requested by the City
- 16.D. Written responses to issues that may arise during design/construction.

TASK 17: TRAINING AND TECHNOLOGY TRANSFER

The Contractor shall conduct training sessions in areas related to the scope of services in this RFP, with the objective of transferring technical design knowledge and skills to City staff. While training topics will be determined jointly with City, potential training topics may include but are not limited to the following: alternative contract delivery methodologies, biosolids treatment technologies, design and construction of biosolids treatment and energy recovery processes, process modeling (e.g., BioWIN model), facility operation and start-up, public communication strategies, and/or lessons learned.

- 17.1. Services to be provided under this task include preparing, coordinating, and providing training sessions, both in the field (SEP) and in the office. These training sessions (field visits and in-office seminars) shall be independent of the other workshops held for this project and other services provided for other tasks. Parts of the documents developed under other tasks can be used as some of the training material. Training sessions will take place in a location as designated by the City.

Task 17 Key Deliverables:

17.A. Training material

17.B. Handouts, diagrams, etc. to be used in classroom and/or field

TASK 18: COMMUNICATIONS AND PUBLIC OUTREACH

The City will implement a comprehensive public information effort to inform and educate the external and internal stakeholders on the SEP BDFP from planning through construction. SFPUC Communications will be the lead entity on this effort. The Contractor, under the direction of the SFPUC, and in coordination with the SSIP Program Management Consultant, will provide support to the communication and stakeholder outreach effort for this Project, ensuring alignment and synergy with all SFPUC projects in the Southeast Plant area. Tasks will include, but are not limited to:

18.1. Develop a comprehensive Strategic Communications Plan for the SEP BDFP, that at a minimum should include:

- Near-term and long term outreach strategies and objectives that consider and are consistent with other City, SFPUC and SSIP priorities (e.g. green infrastructure projects, community benefits, workforce development);
- Communication strategies and outreach activities/campaigns that should be undertaken;
- Measurement tools to gauge success or failure of outreach activities/campaigns
- Tailored stakeholder engagement approaches to identify internal and external stakeholders and how to effectively share information and receive feedback (e.g., outreach strategy for the Bayview-Hunters Point community – Supervisor District 10, outreach strategy for the Southeast Community Facility Commission);
- Development of a stakeholder database and identification of new voices and leadership within District 10;
- Identification of stakeholder issues and concerns;
- Development of strategy of stakeholder engagement tied to success of SEP BDFP;
- Key messages to be conveyed;
- Crisis management strategy;
- Modes of communication (i.e., how will the SFPUC convey and receive information); and/or
- Resource-loaded schedule that includes tasks and milestones that takes into consideration the SEP BDFP project phases and other City/SFPUC/SSIP projects occurring in Project vicinity.

- 18.2. Develop implementation tools for the Strategic Communication Plan (contingent upon SFPUC acceptance of proposed Final Strategic Communications Plan)
- 18.2.1. Develop informational collateral material such as, but not limited to:
- Fact sheets and brochures;
 - Southeast Plant and Project focused newsletters;
 - Website content;
 - Videos;
 - Graphic art;
 - Illustrative posters and displays;
 - Construction notifications;
 - Advertisements for print, television and/or radio; and/or
 - Electronic communication via social media such as Facebook and Twitter.
- 18.2.2. Provide support to Event Planning and Public Meetings
- Logistical support for the planning, organization and coordination of public meetings, press conferences, special events;
 - Identify and secure meeting location and venue needs;
 - Provide agendas and meeting facilitation;
 - Provide note-taking during the meeting/event, produce meeting summaries, and follow-up documents; and/or
 - Provide written transcripts of meetings, if required.
- 18.2.3. Provide Notification/ Direct Mail Service/ Media Placement.
- Mail notices, newsletters, notifications, etc. to residents, businesses and other stakeholders;
 - Placement of advertisements in print, television or radio formats; and/or
 - Use of Social media.
- 18.2.4. Provide Translation Services. Provide oral and written translation capabilities for project materials and meetings
- 18.2.5. Provide editing services on all materials
- 18.2.6. Provide talking points and power point presentations for all public presentations on project and neighborhood engagement efforts related to the Project.
- 18.2.7. Provide Print Services. Provide specialty printing services, for mailed notices, newsletters, project displays, banners, decals, billboards, etc.
- 18.2.8. Help develop a Project website with blogging capabilities.

Task 18 Key Deliverables:

- 18.A. Draft Strategic Communications Plan.
- 18.B. Final Strategic Communications Plan.
- 18.C. Other Deliverables as described in Task 18.2, as directed by City staff.

TASK 19: COMMUNITY BENEFITS COMMITMENTS

Jeff Kivett shall serve as the Executive in Charge to manage the Contractor's community benefits commitments and provide fiduciary oversight. The Executive in Charge shall ensure that the community benefits commitments listed in the community benefits table below are delivered to the communities that they are intended to benefit in a transparent and accountable manner. The Executive in Charge shall work with Jann Yamauchi, Community Benefits Coordinator, to organize, plan, track, measure, and report on Contractor's community benefits commitments. The Executive in Charge shall coordinate the senior management of Contractor's subconsultants to ensure the team participates in providing benefits to the San Francisco community.

- 19.1 Performance Following issuance of the Notice-to-Proceed (NTP) for the first task to be performed by Contractor under this Agreement, Contractor commits to providing the Community Benefits Commitments detailed below during the term of the Agreement. Contractor's commitments shall be funded independently by Contractor and shall not be tied to or dependent upon SFPUC funds or sources of funding, receivables from SFPUC, or retention associated with this Project. The representations, warranties and other terms contained in this Community Benefit Commitments section have been designed by Contractor as the basis for a Community Benefit Plan, but are for the sole benefit of the parties hereto and shall not be construed as conferring any rights on any other persons or entities.

Community Benefits is a deliverable, zero-dollar task. No hours or dollars should be allotted or included in contractor's costs for this Project in order to perform or deliver the voluntarily proposed Community Benefits Commitments. If the contractor commits any funds to delivering the Community Benefits Commitments it proposes, all such funds must be independent of SFPUC funding or any dollars associated with this Project. If the contractor commits to contributing any funds to performing or delivering its commitments related to this task, such funds may not be dependent in any way upon receipt of SFPUC funding, including release of retention, etc.

Contractor's Community Benefits Commitments shall be performed prospectively during the term of the Agreement, after the award of the Agreement and following issuance of NTP on the first task assigned to Contractor under this Agreement. Commitments performed as part of previous contracts or prior to Contractor being awarded the Agreement cannot be used as part of Contractor's Community Benefits Commitments

under this Agreement. If a contractor has established programs or plans that are consistent with the Community Benefits areas described in the RFP, they may continue those programs as part of their community benefits commitments and will be given credit for activities that are performed after the contract is awarded by the SFPUC.

- 19.2 Community Benefits Plan and Timeline Contractor shall develop a Community Benefits Plan and Timeline within three (3) months of issuance of the first NTP of the Agreement. The Community Benefits Plan and Timeline will provide details regarding expenditures, a schedule, and timelines related to the Community Benefits Commitments outlined in the Community Benefits Table.

Contractor is invited to meet once a year, or as needed, with the External Affairs Community Benefits and Social Responsibility Manager during the term of the Agreement to discuss the work plan and associated timelines, and make any adjustments or updates regarding timing, expenditure of funds, partners, strategic delivery, scale, and performance necessary to ensure the commitments maximize the collective resources and positive impact.

- 19.3 Community Benefits Commitments - The contractor will deliver the proposed Community Benefits Commitments in the community benefits table which provides a description of the community benefit activity, expected outcomes, the timetable and duration of the commitments, the dollar amount of direct contributions, the number and cost of volunteer hours, and trainee hours that will be committed to the each specific initiative, as well as for the total project amount for the duration of the contract. Contractor shall provide \$862,500 in direct financial contributions and \$862,500 in volunteer hours. Contractor commits to a minimum contribution of \$1,725,000 over the life of this contract as stated in the community benefits table below. Any changes that occur to the Community Benefits commitments must be submitted in writing to the Community Benefits and Social Responsibility Manager for review.

Community Benefits Summary Table

| | (A) | (B) | (C) | (D) | (E) |
|-----------------------------------|--------------------------------------|------------------------|---|---|------------------------------------|
| Community Benefit Category | Direct Financial Contribution | Volunteer Hours | Volunteer Hourly Rate (rate is standardized) | Total Value of Volunteer Hours (B x C) | Total Contributions (A + D) |
| Workforce Development | \$172,500 | 1150 | \$150/hr | \$172,500 | \$345,000 |
| Economic Development | \$0 | 2300 | \$150/hr | \$345,000 | \$345,000 |
| Education | \$172,500 | 1150 | \$150/hr | \$172,500 | \$345,000 |

| | | | | | |
|------------------------------|------------------|-------------|-----------------|------------------|--------------------|
| Environmental Justice | \$345,000 | 0 | \$150/hr | \$0 | \$345,000 |
| Social Innovation | \$172,500 | 1150 | \$150/hr | \$172,500 | \$345,000 |
| TOTAL | \$862,500 | 5750 | | \$862,500 | \$1,725,000 |

Reporting requirements:

- Contractors should provide detailed descriptions of accountability methods and measures that will be implemented to ensure that the proposed Community Benefits Commitments will be delivered to the communities they are intended to benefit in a transparent and accountable manner. To maximize transparency and accountability, a process or mechanism must be proposed that will assist the SFPUC in independently verifying that such funds and resources were actually delivered to the intended beneficiaries.
- Contractor shall submit progress reports to the SFPUC External Affairs Community Benefits and Social Responsibility Manager, which should detail factors such as total number of hours, dollars, etc. contributed to-date. Reports are submitted on the last business day of the month following the close of the 2nd and 4th quarter. As part of the progress reports, the contractor will also be required to submit documents to substantiate that the Community Benefits commitments and any funds associated thereto were in fact delivered to the communities they were intended to benefit.
- Contractor shall also submit an annual report and newsletter to the SFPUC External Affairs Community Benefits and Social Responsibility Manager documenting the culmination of the community benefit commitments, beneficiaries, and outcomes for the year.

Statements of Understandings

Contractor acknowledges that they agree with the following statements:

- Any of the community benefits commitments that the contractor voluntary commits to should directly benefit the communities, neighborhoods, and/or residents served by or impacted by the SFPUC.
- Commitments must support nonprofit and charitable activities.
- Commitments shall not go to, nor benefit any SFPUC employee of or entities associated with the SFPUC.
- Commitments must be delivered at zero cost to the SFPUC.

- Commitments are separate from and in addition to any regulatory or legal requirements related to the contract.
- Commitments are considered binding once they are included in the final agreement.
- Commitments must be delivered progressively over the life of the agreement.
- Only activities commenced following issuance of Notice to Proceed (NTP) will count towards fulfillment of the community benefits commitments.
- Contractor commits to complying with SFPUC's reporting requirements.

Contractor's Community Benefits Commitments Proposal is incorporated herein. Contractor shall provide all of the Commitments, consistent with all of the terms of Contractor's attached Proposal. Where and if there are any conflicts or discrepancies between the language of this Agreement and the attached Proposal, the terms of the language of the Agreement shall prevail as Contractor and SFPUC's final mutual understanding and agreement.

TASK 20: ENVIRONMENTAL PLANNING SERVICES (OPTIONAL)

*****The SFPUC may choose to self-perform all or most of the work included in this task.*****

*****The Contractor should not propose to meet the LBE subconsulting requirements using this task*****

Environmental Planning services to be provided as part of this contract may include preparing an Environmental Constraints and Opportunities Analysis Report for preliminary alternatives to be analyzed in the AAR and for the selected preferred alternative to be recommended in the CER. Services may include reconnaissance site visits and review of published documents, as well as attending community meetings that may be held during preliminary phases of the project. **Services will NOT include preparing the CEQA documents for the project or coordinating with the Planning Department's Environmental Planning Division.** Those services will be provided under a separate contract. The Contractor may provide support to SFPUC's Bureau of Environmental Management's (BEM's) Environmental Project Manager and Permitting Manager to refine the proposed methodology, finalize the work plan for this work, attend any meetings with other City departments or outside agencies, and/or attend community meetings. The Contractor may be requested to recommend methodologies for the environmental evaluations for the AAR and the CER, including criteria for identifying potential effects (impacts) and ranking as to severity, as well as the criteria for evaluating the need for and the feasibility of potential avoidance measures and mitigation measures. The Contractor may support the Environmental Project Manager to collaboratively integrate environmental findings into the alternatives evaluation and definition of the preferred alternative.

- 20.1. Environmental Constraints and Opportunities Analysis Report for the AAR - The Contractor may provide support to the Environmental Project Manager in the preparation of a reconnaissance level environmental analysis of all identified preliminary alternatives and the alternatives selected for evaluation in the AAR.

This reconnaissance level review will provide a general understanding of existing conditions for the key resource areas, covering all project components in each alternative, within and immediately adjacent to the alternative alignments. At least five resource areas: Land Use, Biology, Hazardous Materials, Traffic, and Cultural Resources will be covered in this analysis. In addition, the review will include a reconnaissance level evaluation of potential magnitude of effects for each alternative and compare the alternatives and components of each alternative on the basis of the severity of potential impacts and the relative feasibility of mitigating them for each resource area. The need to acquire resource agency or other construction permits will be identified. The analysis will include a literature search and reconnaissance level site visits by land use, archeology, historic resources, and other environmental specialists as deemed appropriate. Although it is anticipated that the Contractor will be familiar with the MEA Archaeological Guidance and Historic Resources guidance, preparing the specific reports required under this guidance will not be part of this task but may be prepared at a later phase as part of the separate CEQA documentation preparation effort. Any mapping that is produced for the environmental constraints survey report shall be produced in a GIS format using protocols compatible with the City's GIS system.

- 20.2. Environmental Constraints and Opportunities Analysis Report for the CER - The Contractor will support the Environmental Project Manager in following a similar process of environmental analysis as in the AAR phase but in greater depth and detail. The purpose of this analysis and recommendations will be to inform the planning and design teams of specific potential environmental constraints and opportunities as conceptual design of the preferred project/alignment develops. This may involve ROW recommendations, avoidance measures, methods of construction, construction details (e.g. types/number of equipment, number of workers, truck traffic, etc.), mitigation requirements and alternatives, and measures that can be incorporated as part of the project design. This work may also involve coordination with BEM's Permitting Manager and preliminary discussions with resource agencies as well as include a number of working sessions and coordination meetings with the Project Manager and Design Manager.
- 20.3. Attend meetings for environmental review with BEM and MEA.
- 20.4. Submit timely Requests for Information for preparation of the environmental document.

Task 20 Key Deliverables:

- 20.A. Draft and Final Environmental Constraints and Opportunities Report for the AAR, including appendices containing all recorded data, methodology, and supporting materials, and a summary of the report for inclusion into the AAR.

- 20.B. Draft and Final Environmental Constraints and Opportunities Report for the CER, including appendices containing all recorded data, methodology, and supporting materials, and a summary of the report for inclusion into the CER.

TASK 21: GENERAL OBLIGATIONS

This task applies in full when the Contractor is asked to provide “standard engineering design” (i.e., Contractor assumes lead designer role) and it applies as appropriate when Contractor is asked to contribute to SFPUC designs (i.e., SFPUC assumes lead designer role). All documents generated by the Contractor as part of the SEP BDFP will be in conformance with SFPUC standards and formats. For example, specification sections shall be prepared in accordance with the Construction Specifications Institute (CSI). All deliverables shall be submitted, depending on their type, separately in draft and final document format. Final documents shall be inclusive of all comments and/or issues raised during the review of draft documents.

A City led design team may perform a portion of the design work. The Contractor who has the lead designer role, will coordinate with the City Design Manager and City design team to produce a coordinated package.

Based on the overall CEQA evaluation (performed by others), incorporate all applicable environmental mitigation requirements within the project boundaries in the design and construction contract documents (plans and specifications). Include as appropriate language to ensure construction contractor compliance with mitigation requirements contained in environmental review and permit documents.

Where interim submittals for review are called for, a red-lined copy shall be submitted showing checker comments as proof of QA/QC adherence. The following descriptions indicate the content of those interim design submittals to be presented to the SFPUC.

A. 35% Design

Following acceptance of the CER, Contractor will produce a 35% design progress set of construction contract documents (drawings and specification list) for the SEP BDFP.

SFPUC will prepare, customize, and coordinate Division 0 and 1 specifications. Contractor will provide input into the preparation of the Division 0 and 1 specifications.

Documents shall encompass the following:

- Definition of the facility that sufficiently identifies all major elements required, and the verification of feasibility of the design; and a list of permit requirements;
- Definition of construction contract packaging, if required;
- Preliminary horizontal (plans) and vertical alignments (sections) of the elements being designed; excavation and excavation/shoring support methods; methods of groundwater control, handling, and treatment; identification of any road relocations and traffic control; utility search;
- Provide a basemap drawing showing existing conditions and abandoned

- utilities/infrastructure based on a utility search, potholing work, and survey work;
- Coordination with City design team to establish location of near-surface and surface facilities associated with the elements being designed;
 - Summary of design approach, and identification of design issues; outline of specifications;
 - Drawings, in conformance with SFPUC standards, a preliminary construction schedule taking into account construction sequencing of major work elements; and a construction cost estimate. The 35% construction cost estimate will be used as a baseline estimate for monitoring design development impacts;
 - Preliminary drawing list and a specification list detailing the drawings and specification sections believed to be required in the 100% design package;
 - A draft equipment list and equipment data sheets shall also be provided;
 - Preliminary drawings, sketches and other information developed by the Contractor (Architect) for submission to the San Francisco Arts Commission for approval. Contractor will prepare any presentation materials necessary, and will be the lead presenter(s) with SFPUC staff to the San Francisco Arts Commission;
 - Constructability analysis based on the 35% design contract documents;
 - Technical information and other CEQA-related documents, needed for the project's environmental review per the direction of SFPUC's BEM. This effort may include meetings with BEM staff and their environmental Contractor; and
 - Design drawings shall include at a minimum:
 - General site plan
 - Symbols, abbreviations, and standard legends
 - Process design criteria tabulation and process flow diagrams
 - Architectural plan and elevations
 - Civil site plans and typical civil details
 - Structural notes, plans, sections and details
 - Process mechanical plans, sections and details
 - Pipeline plans and profiles
 - Electrical plans, and single line diagrams
 - Process, instrumentation and control system diagrams.

Design elements will be frozen at the completion of the 35% design package. Only design refinements that do not impact schedule and budget will be addressed in subsequent design packages. Following completion of the 35% design package, any significant design changes that impact schedule and budget will go through the SFPUC change control/management procedure.

B. 65% Design

The 65% design documents shall address comments from the 35% design. A Construction Manager/General Contractor (CM/GC) project delivery method is anticipated. The Contractor shall coordinate with the CM/GC construction contractor and respond to comments as directed. Documents shall encompass the following:

- Response to Comment Log documenting the 35% comments and corresponding response

in the 65% Design;

- Integration of drawings and specifications with those produced by the City Design Team, including appropriate drawing numbers, match lines, and cross referencing on all drawings;
- Updated technical specifications; contract plans/drawings; and bid item descriptions including method of payment to integrate with SFPUC standard descriptions;
- Updated detailed construction cost estimates and construction schedule;
- Updated drawing list and a specification list detailing the drawings and specification sections believed to be required in the 100% design package;
- The 35% draft equipment list and equipment data sheets shall also be updated to reflect the design refinements made in the 65% design package. Include a preliminary list of material and equipment to be pre-purchased;
- Drawings, sketches and other information, developed by the Contractor (Architect) for submission to the San Francisco Arts Commission for approval. Contractor will prepare any presentation materials necessary, and will be the lead presenter(s) with SFPUC staff to the San Francisco Arts Commission;
- In coordination/collaboration with the CM/GC construction contractor, constructability analysis based on the 65% design contract documents;
- Technical information and other CEQA-related documents, needed for the project's environmental review per the direction of SFPUC's Bureau of Environmental Management. This effort may include meetings with BEM staff and their environmental Contractor; and
- Design drawings shall include at a minimum:
 - General site plan;
 - Symbols, abbreviations, and standard legends;
 - Process design criteria tabulation and process flow diagrams;
 - Architectural plan and elevations;
 - Hydraulic profiles;
 - Demolition plans;
 - Civil grading, paving and drainage plans for site;
 - Civil yard piping plans;
 - Civil site plans and typical civil details;
 - Structural notes, plans, sections and details;
 - Process mechanical plans, sections and details;
 - Pipeline plans and profiles;
 - Electrical plans, and single line diagrams;
 - Process, instrumentation and control system diagrams; and
 - Typical instrumentation details

C. 95% Design

The 95% design documents shall address comments from the 65% design. A Construction Manager/General Contractor (CM/GC) project delivery method is anticipated. The Contractor shall coordinate with the CM/GC construction contractor and respond to comments as directed.

Documents shall encompass the following:

- Response to Comment Log documenting the 65% comments and corresponding response in the 95% Design;
 - Incorporation of design interfaces and coordination issues relevant to designs performed by the SFPUC;
 - Updated detailed construction cost estimates and construction schedule based on the 95% design contract documents. The construction schedule should clearly identify the system shutdown and operational constraint windows to be imposed as part of the contract;
 - All drawings and specification sections necessary for a biddable construction document shall be provided;
 - Updated drawing list and a specification section listing of those drawings/sections that have been submitted;
- in coordination/collaboration with the CM/GC construction contractor, Updated equipment list and equipment data sheets shall also be provided. Include a final list of material and equipment to be pre-purchased and/or require long lead times for procurement;
- Contractor shall incorporate all mitigation measures identified in the CEQA documents into the design documents; and
 - Completion of construction documents and packages for integration with contract plans/drawings and specifications produced by the SFPUC Design Team. The package shall be ready for stamping and signatures by the Engineer of Record and for review by SFPUC contract preparation staff.

D. 100% Design

The 100% design documents shall address comments from the 95% design.

The 100% design documents shall include a complete biddable construction document.

Documents shall include the following:

- Response to Comment Log documenting the 95% comments and corresponding response in the 100% Design;
- Incorporation of final environmental mitigation measures;
- Finalized, stamped and signed plans and specifications inclusive of all comments generated by SFPUC contract preparation staff, reflecting SFPUC and Project Team comments on 95% design documents, and final QA/QC audit;
- The 100% construction package shall be stamped and signed by a Professional Engineer licensed in the State of California. All structural drawings must be stamped and signed by a Structural Engineer (SE) licensed in the State of California;
- A detailed itemized final construction cost estimate for the construction;

- All final signed and wet stamped analysis results, design calculations, design report, geotechnical, hydraulic, survey and other reports submittals as described within the Scope of Services;
- Necessary permit applications supporting documents to SFPUC for review and acceptance prior to sending to the appropriate agency as required; and
- Submittals shall be compatible with the SFPUC standards to allow easy entry into the SFPUC Document Control System.

3. Performance Evaluation

Performance evaluations support the SFPUC's objective of continuously improving the quality of Contractor services. The SFPUC, at its sole discretion may conduct evaluation/s of Contractor's performance. Ratings are ultimately the decision of the SFPUC and are not subject to negotiation with the Contractor. However, the Contractor may provide comments on a performance evaluation form if an evaluation is performed. When the SFPUC conducts performance evaluation(s) of the Contractor, such performance evaluation(s) shall not confer any express or implied rights upon Contractor, nor shall they shift any liability to the SFPUC for the Contractor's performance of the contract.

SFPUC's Infrastructure Division Procedures Manual, Volume 4, Program and Project Management, Section 3: Contract Management, Procedure: PM 3.16, Consultant Services Performance Evaluation requires that a contract manager evaluate a consultant's performance on engineering, environmental and construction management projects and complete the Consultant Services Performance Evaluation Form (CSPE) during the contract term. A final end of year CSPE will be kept on file with the SFPUC for three years after contract completion. Completed end-of-contract CSPEs, including any consultant responses, will be forwarded to the evaluation panel for future RFPs, where a proposer identifies the evaluated project as a qualifying project reference under the RFP. If a proposer responding to a future RFP identifies an ongoing SFPUC project as a qualifying project reference (and the ongoing project complies with RFP reference requirements), SFPUC staff will forward the most recent annual CSPE for the qualifying project, if any, to the RFP evaluation panel. (Include if contract is engineering design, environmental analysis services and construction management).

4. Reports

Contractor shall submit written reports as requested by the **SFPUC**. Format for the content of such reports shall be determined by the Project Manager. The timely submission of all reports is a necessary and material term and condition of this Agreement. The reports, including any copies, shall be submitted on recycled paper and printed on double-sided pages to the maximum extent possible.

5. Department Liaison

In performing the services provided for in this Agreement, Contractor's liaison with the SFPUC will be: Carolyn Chiu

6. Standard Care for Design Professional Services

Contractor acknowledges and agrees that Contractor shall perform its services under this Agreement in accordance with the professional standard of care applicable to professionals providing similar services for projects of similar type, size and complexity in the San Francisco Bay Area.

/// End of Appendix A ///

3. Effective Date. Each of the modifications set forth in Section 2 shall be effective on and after **the date of this Amendment.**

4. Legal Effect. Except as expressly modified by this Amendment, all of the terms and conditions of the Agreement shall remain unchanged and in full force and effect.

DRAFT

IN WITNESS WHEREOF, Contractor and City have executed this Amendment as of the date first referenced above.

CITY

CONTRACTOR

Recommended by:

BROWN & CALDWELL

Harlan L. Kelly, Jr.
General Manager
San Francisco Public Utilities Commission

Signature of Authorized Representative

Name of Authorized Representative

Approved as to Form:

Title

Dennis J. Herrera
City Attorney

City vendor number: 03786

By:

Julia H. Veit
Deputy City Attorney