

**DRAFT CONSULTANT SERVICES AGREEMENT BETWEEN CITY OF
SUNNYVALE AND AECOM TECHNICAL SERVICES INC. FOR THE SUNNYVALE
CLEAN WATER PROGRAM FACILITY CONDITION ASSESSMENT PROJECT**

THIS AGREEMENT, dated _____, is by and between the CITY OF SUNNYVALE, a municipal corporation ("CITY"), and AECOM Technical Services Inc., a California corporation ("CONSULTANT").

WHEREAS, CITY desires to secure professional services necessary to conduct a condition assessment of several Water Pollution Control Plant assets and related services for a project known as Sunnyvale Clean Water Program Facility Condition Assessment; and

WHEREAS, CONSULTANT represents that it, and its sub-consultants, if any, possess the professional qualifications and expertise to provide the required services and are licensed by the State of California to practice engineering in the required disciplines;

NOW, THEREFORE, THE PARTIES ENTER INTO THIS AGREEMENT.

1. Services by CONSULTANT

CONSULTANT shall provide services in accordance with Exhibit "A" entitled "Scope of Work." All exhibits referenced in this Agreement are attached hereto and are incorporated herein by reference. To accomplish that end, CONSULTANT agrees to assign Sheba Hafiz to this project, to act in the capacity of Project Manager and personally direct the professional services to be provided by CONSULTANT.

Except as specified in this Agreement, CONSULTANT shall furnish all technical and professional services, including labor, material, equipment, transportation, supervision and expertise to perform all operations necessary and required to satisfactorily complete the services required in this Agreement.

2. Notice to Proceed/Completion of Services

- (a) CONSULTANT shall commence services upon receipt of a Notice to Proceed from CITY. Notice shall be deemed to have occurred three (3) calendar days after deposit in the regular course of the United States mail.
- (b) When CITY determines that CONSULTANT has satisfactorily completed the services defined in Exhibit "A," CITY shall give CONSULTANT written Notice of Final Acceptance, and CONSULTANT shall not incur any further costs hereunder. CONSULTANT may request this determination of completion when, in its opinion, it has satisfactorily completed the Scope of Work (Exhibit "A"), and if so requested, CITY shall make this determination within fourteen (14) days of such request.

3. Project Schedule

The Project Schedule is set forth in the attached Exhibit "A-1."

4. Payment of Fees and Expenses

Payments shall be made to CONSULTANT on a monthly basis as set forth in the attached Exhibit "B" entitled "Compensation Schedule." All compensation will be based on monthly billings as provided in Exhibit "B." Compensation will not be due until said detailed billing is submitted to CITY within a reasonable time before payment is expected to allow for normal CITY processing. An

estimate of the percent of total completion associated with the various categories of the services shall be furnished by CONSULTANT with said billing. When applicable, copies of pertinent financial records will be included with the submission of billing(s) for all direct reimbursables. Compensation shall not exceed the amounts set forth in Exhibit "B" for each phase and shall include base services as identified in Exhibit "A" an amount not-to-exceed Seven Hundred Seventy Nine Thousand Nine Hundred Eighty Four and No/Dollars (\$779,984.00), for the duration of the contract, and optional services in an amount not to exceed One Hundred Seventy Three Thousand One Hundred Ninety Three and No/Dollars (\$173,193.00) for the duration of the contract. In no event shall the total amount of compensation payable under this agreement exceed the sum of Nine Hundred Fifty Three Thousand One Hundred Seventy Seven and No/Dollars (\$953,177.00) unless upon written modification of this Agreement. All invoices, including detailed backup, shall be sent to City of Sunnyvale, attention Accounts Payable, P.O. Box 3707, Sunnyvale, CA 94088-3707.

CONSULTANT will be reimbursed as promptly as fiscal procedures will permit upon receipt by the CITY of itemized invoices in triplicate. Invoices shall be submitted no later than 45 calendar days after the performance of work for which CONSULTANT is billing. Invoices shall detail the work performed on each milestone and each project as applicable. Invoices shall follow the format stipulated in the Compensation Schedule and shall reference the project title. The final invoice must contain the final cost and all credits due CITY. The final invoice should be submitted within 60 calendar days after completion of CONSULTANT's work.

5. No Assignment of Agreement

CONSULTANT bind themselves, their partners, successors, assigns, executors, and administrators to all covenants of this Agreement. Except as otherwise set forth in this Agreement, no interest in this Agreement or any of the work provided for under this Agreement shall be assigned or transferred, either voluntarily or by operation of law, without the prior written approval of CITY. However, claims for money due to or to become due to CONSULTANT from CITY under this Agreement may be assigned to a bank, trust company or other financial institutions, or to a trustee in bankruptcy, provided that written notice of any such assignment or transfer shall be first furnished to CITY. In case of the death of one or more members of CONSULTANT's firm, the surviving member or members shall complete the services covered by this Agreement. Any such assignment shall not relieve CONSULTANT from any liability under the terms of this Agreement.

6. Consultant is an Independent Contractor

CONSULTANT is not an agent or employee of CITY but is an independent contractor with full rights to manage its employees subject to the requirements of the law. All persons employed by CONSULTANT in connection with this Agreement will be employees of CONSULTANT and not employees of CITY in any respect. CONSULTANT is responsible for obtaining statutory Workers' Compensation coverage for its employees.

7. Consultant's Services to be Approved by a Registered Professional

All reports, costs estimates, plans and other documents which may be submitted or furnished by CONSULTANT shall be approved and signed by a qualified registered professional in the State of California. The title sheet for calculations, specifications and reports, and each sheet of plans, shall bear the professional seal, certificate number, registration classification, expiration date of certificate and signature of the professional responsible for their preparation.

8. Standard of Workmanship

CONSULTANT represents and maintains that it is skilled in the professional calling necessary to perform the services and its duties and obligations, expressed and implied, contained

herein, and CITY expressly relies upon CONSULTANT's representations regarding its skills and knowledge. CONSULTANT shall perform such services and duties in conformance to and consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California.

The plans, designs, specifications, estimates, calculations reports and other documents furnished under the Scope of Work (Exhibit "A") shall be of a quality acceptable to CITY. The criteria for acceptance of the work provided under this Agreement shall be a product of neat appearance, well-organized, technically and grammatically correct, checked and having the maker and checker identified. The minimum standard of appearance, organization and content of the drawings shall be that used by CITY for similar projects.

9. Responsibility of CONSULTANT

CONSULTANT shall be responsible for the professional quality, technical accuracy and the coordination of the services furnished by it under this Agreement. Neither CITY's review, acceptance nor payment for any of the services required under this Agreement shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement and CONSULTANT shall be and remain liable to CITY in accordance with applicable law for all damages to CITY caused by CONSULTANT's negligent performance of any of the services furnished under this Agreement.

Any acceptance by CITY of plans, specifications, calculations, construction contract documents, reports, diagrams, maps and other material prepared by CONSULTANT shall not, in any respect, absolve CONSULTANT for the responsibility CONSULTANT has in accordance with customary standards of good engineering practice in compliance with applicable Federal, State, County and/or municipal laws, ordinances, regulations, rules and orders.

10. Right of CITY to Inspect Records of CONSULTANT

CITY, through its authorized employees, representatives, or agents, shall have the right, at any and all reasonable times, to audit the books and records including, but not limited to, invoices, vouchers, canceled checks, time cards of CONSULTANT for the purpose of verifying any and all charges made by CONSULTANT in connection with this Agreement. CONSULTANT shall maintain for a minimum period of three (3) years from the date of final payment to CONSULTANT or for any longer period required by law, sufficient books and records in accordance with generally accepted accounting practices to establish the correctness of all charges submitted to CITY by CONSULTANT. Any expenses not so recorded shall be disallowed by CITY.

11. Confidentiality of Material

All ideas, memoranda, specifications, plans, calculations, manufacturing procedures, data, drawings, descriptions, documents, discussions or other information developed or received by or for CONSULTANT and all other written information submitted to CONSULTANT in connection with the performance of this Agreement shall be held confidential by CONSULTANT and shall not, without the prior written consent of CITY be used for any purposes other than the performance of the Project services, nor be disclosed to an entity not connected with the performance of the Project services. Nothing furnished to CONSULTANT which is otherwise known to CONSULTANT or is or becomes generally known to the related industry shall be deemed confidential. CONSULTANT shall not use CITY's name, insignia or distribute exploitative publicity pertaining to the services rendered under this Agreement in any magazine, trade paper, newspaper or other medium without the express written consent of CITY.

12. No Pledging of CITY's Credit

Under no circumstances shall CONSULTANT have the authority or power to pledge the credit of CITY or incur any obligation in the name of CITY.

13. Ownership of Material

All material, including information developed on computer(s), which shall include, but not be limited to, data, sketches, tracings, drawings, plans, diagrams, quantities, estimates, specifications, proposals, tests, maps, calculations, photographs, reports and other material developed, collected, prepared or caused to be prepared, under this Agreement shall be the property of CITY, but CONSULTANT may retain and use copies thereof.

CITY shall not be limited, in any way, in its use of said material, at any time, for work associated with Project. However, CONSULTANT shall not be responsible for damages resulting from the use of said material for work other than Project, including, but not limited to the release of this material to third parties for work other than on Project.

14. Hold Harmless/Indemnification

To the extent permitted by law (including, without limitation, California Civil Code section 2782.8), CONSULTANT agrees to indemnify, defend and hold harmless CITY, its officers and employees from any and all claims, demands, actions, causes of action, losses, damages, liabilities, known or unknown, and all costs and expenses, including reasonable attorneys' fees in connection with any injury or damage to persons or property to the extent arising out of any negligence, recklessness or willful misconduct of CONSULTANT, its officers, employees, agents, contractor, subcontractors or any officer, agent or employee thereof in relation to CONSULTANT's performance under this Agreement. Such defense and indemnification shall not apply in any instance of and to the extent caused by the sole negligence, recklessness or willful misconduct of CITY, its officers, employees, agents or representatives.

15. Insurance Requirements

CONSULTANT shall take out and maintain during the life of this Agreement policies of insurance as specified in Exhibit "C" attached and incorporated by reference, and shall provide all certificates and/or endorsements as specified in Exhibit "C."

16. No Third Party Beneficiary

This Agreement shall not be construed or deemed to be an agreement for the benefit of any third party or parties and no third party or parties shall have any claim or right of action hereunder for any cause whatsoever.

17. Notices

All notices required by this Agreement, other than invoices for payment which shall be sent directly to Accounts Payable, shall be in writing, and sent by first class with postage prepaid, or sent by commercial courier, to address below.

Nothing in this provision shall be construed to prohibit communication by more expedient means, such as by email or fax, to accomplish timely communication. Each party may change the address by written notice in accordance with this paragraph. Notices delivered personally shall be deemed communicated as of actual receipt; mailed notices shall be deemed communicated as of three business days after mailing.

To CITY: Manuel Pineda, Director of Public Works
Department of Public Works
CITY OF SUNNYVALE
P. O. Box 3707
Sunnyvale, CA 94088-3707

To CONSULTANT: AECOM Technical Services Inc.
Attn: Sheba Hafiz
300 Lakeside Drive
Oakland, CA 94612

18. Waiver

CONSULTANT agrees that waiver by CITY of any one or more of the conditions of performance under this Agreement shall not be construed as waiver(s) of any other condition of performance under this Agreement.

19. Amendments

No alterations or changes to the terms of this Agreement shall be valid unless made in writing and signed by both parties.

20. Integrated Agreement

This Agreement embodies the agreement between CITY and CONSULTANT and its terms and conditions. No verbal agreements or conversation with any officer, agent or employee of CITY prior to execution of this Agreement shall affect or modify any of the terms or obligations contained in any documents comprising this Agreement. Any such verbal agreement shall be considered as unofficial information and in no way binding upon CITY.

21. Conflict of Interest

CONSULTANT shall avoid all conflicts of interest, or appearance of conflict, in performing the services and agrees to immediately notify CITY of any facts that may give rise to a conflict of interest. CONSULTANT is aware of the prohibition that no officer of CITY shall have any interest, direct or indirect, in this Agreement or in the proceeds thereof. During the term of this Agreement CONSULTANT shall not accept employment or an obligation which is inconsistent or incompatible with CONSULTANT'S obligations under this Agreement.

22. Governing Law, Jurisdiction and Venue

This Agreement shall be governed by and construed in accordance with the laws of the State of California, excluding its conflict of law principles. Proper venue for legal actions will be exclusively vested in a state court in the County of Santa Clara. The parties agree that subject matter and personal jurisdiction are proper in state court in the County of Santa Clara, and waive all venue objections.

23. Records, Reports and Documentation

CONSULTANT shall maintain complete and accurate records of its operation, including any

and all additional records required by CITY in writing. CONSULTANT shall submit to CITY any and all reports concerning its performance under this Agreement that may be requested by CITY in writing. CONSULTANT agrees to assist CITY in meeting CITY's reporting requirements to the state and other agencies with respect to CONSULTANT's work hereunder. All records, reports and documentation relating to the work performed under this Agreement shall be made available to City during the term of this Agreement.

24. Termination of Agreement

- A. If CONSULTANT defaults in the performance of this Agreement, or materially breaches any of its provisions, CITY at its option may terminate this Agreement by giving written notice to CONSULTANT. In the event of such termination, CONSULTANT shall be compensated in proportion to the percentage of satisfactory services performed or materials furnished (in relation to the total which would have been performed or furnished) through the date of receipt of notification from CITY to terminate. CONSULTANT shall present CITY with any work product completed at that point in time.
- B. Without limitation to such rights or remedies as CITY shall otherwise have by law, CITY also shall have the right to terminate this Agreement for any reason upon ten (10) days' written notice to CONSULTANT. In the event of such termination, CONSULTANT shall be compensated in proportion to the percentage of services performed or materials furnished (in relation to the total which would have been performed or furnished) through the date of receipt of notification from CITY to terminate. CONSULTANT shall present CITY with any work product completed at that point in time.
- C. If CITY fails to pay CONSULTANT, CONSULTANT at its option may terminate this Agreement if the failure is not remedied by CITY within (30) days after written notification of failure to pay.

25. Subcontracting

None of the services covered by this Agreement shall be subcontracted without the prior written consent of CITY. Such consent may be issued with notice to proceed if subcontract consultants are listed in the project work plan.

26. Fair Employment

CONSULTANT shall not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, condition of physical handicap, religion, ethnic background or marital status, in violation of state or federal law.

27. Changes

CITY or CONSULTANT may, from time to time, request changes in the terms and conditions of this Agreement. Such changes, which are mutually agreed upon by CITY and CONSULTANT, shall be incorporated in amendments to this Agreement.

28. Other Agreements

This Agreement shall not prevent either Party from entering into similar agreements with others.

29. Severability Clause.

In case any one or more of the provisions contained herein shall, for any reason, be held invalid, illegal or unenforceable in any respect, it shall not affect the validity of the other provisions which shall remain in full force and effect.

30. Captions

The captions of the various sections, paragraphs and subparagraphs, of the contract are for convenience only and shall not be considered nor referred to for resolving questions of interpretation.

31. Entire Agreement; Amendment

This writing constitutes the entire agreement between the parties relating to the services to be performed or materials to be furnished hereunder. No modification of this Agreement shall be effective unless and until such modification is evidenced by writing signed by all parties.

32. Miscellaneous

Time shall be of the essence in this Agreement. Failure on the part of either party to enforce any provision of this Agreement shall not be construed as a waiver of the right to compel enforcement of such provision or any other provision.

IN WITNESS WHEREOF, the parties have executed this Agreement.

ATTEST:

CITY OF SUNNYVALE ("CITY")

By _____
City Clerk

By _____
City Manager

AECOM TECHNICAL SERVICES INC. ("CONSULTANT")

APPROVED AS TO FORM:

By _____

Name/Title

City Attorney

By _____

Name/Title

Exhibit A

SCOPE OF WORK FOR Sunnyvale Clean Water Program Facility Condition Assessment Project

I. Project Information

A. Description

Program Description

The City has prepared a Master Plan for the Sunnyvale Clean Water Program (Program) to guide improvements to the Water Pollution Control Plant (Plant) facilities and operations over the next 30 or more years. The Master Plan was developed to address several challenges facing the Plant today and into the future, as well as to support City policies. These challenges include; aging infrastructure; changes in regulatory requirements; and increases in population, flows and loads. The Master Plan identifies capital improvement projects, estimates costs, and recommends implementation approaches to achieve the planning objectives. The City has adopted a final program environmental impact report (PEIR) for the Master Plan in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

Currently, the Plant is already proceeding with the replacement of the Headworks and Primary Treatment under a separate Mitigated Negative Declaration. Construction of the Primary Treatment facility is expected to be underway for the duration of the Facility Condition Assessment project.

Project Description

The City has recently completed a Master Plan for the Plant, which consists of more than 30 capital improvement projects. Prior to procurement of the facilities rehabilitation projects, the City wishes to conduct additional detailed condition assessment activities to further quantify the existing condition of several Plant assets.

Due to the age of overall facilities at the Plant, key elements of the existing treatment process need to be rehabilitated or replaced to maintain permit compliance. These include elements of the existing influent piping and the secondary and tertiary treatment processes. Rehabilitation of these treatment processes will be required to keep them operational until they are fully replaced with final build out of all the conventional activated sludge (CAS) facilities. Given the expected period over which the split flow operation (combined use of oxidation ponds and new partial CAS facilities) could occur, major upgrades are anticipated to keep the existing secondary treatment facilities operational until they are fully replaced with CAS facilities in 2035±.

B. Location

The project is located at the intersection of Carl Road and Borregas Avenue, at the existing Water Pollution Control Plant, at 1444 Borregas Avenue, Sunnyvale, Santa Clara County, California.

C. Existing Conditions

The City is engaged in a Program to renovate the existing Plant to a new facility suitable to treat and dispose of municipal sewage, over the next 30 or more years. Portions of the existing Plant were built in the 1950s. With additions over the years, including the oxidation ponds in 1966 and the tertiary plant in 1978 it has grown to a tertiary treatment facility with an average dry weather flow rate of 14 Million Gallons per Day (MGD) and a permitted average dry weather flow rate of 29.5 MGD. An asset condition assessment conducted in 2005 identified several critical Plant structures as at-risk and in need of rehabilitation.

II. Consultant Scope of Services

All on-site condition assessment activities or other work performed by the Consultant shall be scheduled and coordinated with the City and Plant staff. Note that the continual operation of the Plant and permit compliance is of greatest importance. Any work done on site must be done in a manner not to disrupt the concurrent and ongoing operation of the Plant. Paramount will be the planning of projects and coordination with continued operations of the Plant and the City's National Pollutant Discharge Elimination System (NPDES) permit, as well as other permits.

As related to the field activities, the City will perform the services necessary to shut down and isolate facilities for inspection. Securing equipment, opening of access locations and gravity draining of structures and/or piping will be conducted by the City unless otherwise noted. City Staff will also dewater and hose down facilities to the best of their ability in an effort to reduce contractor costs and enhance efficiency of work execution. This work will be coordinated with Plant operations and maintenance staff and is subject to staff availability, current construction requirements, proper lead time, and maintaining proper wastewater treatment requirements. The City's procedures to secure specific wastewater treatment equipment/processes will be discussed at the kick-off meeting (includes entry to the WPCP, system shutdown requests, and various on-site safety requirements, etc.) and the need to follow these procedures to allow for the proper lead time, use of forms for shutdowns (minimum of 2 weeks in advance), and communication/coordination efforts cannot be overstated. The use of a 3 week "look-ahead" schedule will be required to keep everyone on task and up to date on progress and expected near term work requirements. During shutdowns of major systems the City expects the consultant to make every effort to gather as much information as possible in those areas/systems/equipment to be inspected in order to minimize the number of shutdowns while maximizing the amount of relative information that is available.

The consultant will perform all engineering and project management related work necessary to prepare a condition assessment report suitable for use as the guiding document for the future facilities rehabilitation project. The scope of work includes physical assessment of the specified treatment processes, recommendations for repairs (to include repair cost

estimates/budget and schedule/duration), and a priority based recommendation and phasing for replacement or rehabilitation. Information gathered during the condition assessment will be used to support procurement for the future rehabilitation project at the Plant. It is anticipated that the assessment will be completed within a 6 month period. Consultant shall be mindful of weather forecast constraints and available facility shutdown windows during development of the work schedule.

Consultant services shall include, but are not limited to the following tasks:

- Task 1.0 Health and Safety Plan and Condition Assessment Work Plan
- Task 2.0 Condition Assessment
- Task 3.0 Project Management
- Task 4.0 Optional Services

Task 1.0 – Health and Safety Plan and Condition Assessment Work Plan

Consultant must describe how the execution of the project will be coordinated and communicated to Plant staff in a Health and Safety Plan and Condition Assessment Work Plan.

Health and Safety Plan

Consultant shall identify qualified condition assessment team members consisting of engineers and technicians from the primary engineering disciplines. Consultant shall describe how resources will be deployed to allow for the safe, effective and efficient assessment of Plant assets. The Consultant shall communicate the approach to access facilities for inspection and coordinate with the City if shutdowns are required to conduct inspections. Some of the facilities identified for condition assessment are considered to be permit required confined spaces. Consultant must provide proof of confined space certification for all personnel participating in confined space related activities. The consultant shall conduct a workshop with Plant staff to coordinate the sequencing of facility shutdown(s) to allow for assessment of structures requiring confined space entry.

Condition Assessment Work Plan

Consultant's Work Plan must describe the tools and resources to be used in the assessment of the Plant assets to complete this project. Consultant shall identify qualified condition assessment team members consisting of engineers and technicians from the primary engineering disciplines.

Consultant shall demonstrate appropriate tools and techniques to be used in obtaining field data for the project. Tools and techniques may include (but not be limited to) the following:

- a. Visual observations documented with digital photographs and videos
- b. CCTV inspection
- c. Coating assessments
- d. Qualitative concrete tests such as pH, hardness, sounding, etc.
- e. Ultrasonic thickness tests for major metallic mechanical piping and structures
- f. Concrete surface penetration radar (SPR) investigations to validate reinforcing steel placement and embedment depth
- g. Structural assessments may include:
 - i. Verification of structure dimensions at select locations and within the inspection time constraints
- h. Concrete coring for laboratory analysis of:
 - i. Compressive strength
 - ii. Chloride migration
 - iii. Depth of carbonation
- i. Electrical and instrumentation assessments may include:
 - i. Documentation of age of equipment and availability of spare parts and localized service
 - ii. Infrared thermal inspection/imaging
 - iii. Medium voltage cable testing
 - iv. Transformer condition testing

Consultant's Work Plan to include the following items (at a minimum):

- a. Review and acknowledgement of the following:
 - i. Record drawings
 - ii. Existing utility plan
 - iii. Previous condition assessments, if any
- b. Field investigation approach
- c. Prioritization of items for Condition Assessment
- d. Procedures for Condition Assessment activities to include:
 - i. Proposed access locations
 - ii. Anticipated tools, techniques, equipment, labor, resources, etc.
 - iii. Duration/schedule
 - iv. Inspection forms
 - v. Testing and reporting plan
- e. Scoring methodology and criteria

Deliverables:

- Site Specific Health and Safety Plan (Draft and Final)
- Condition Assessment Work Plan (Draft and Final)

Task 2.0 – Condition Assessment

Consultant shall perform the Condition Assessment per their Work Plan prepared under Task 1.0 for the following items:

1. Plant Influent Piping

The sanitary sewer influent pipelines deliver raw sewage to the Plant. The extent of pipelines to be assessed is as follows:

- a. 18-inch sewer from Manhole 11 continuing 400 feet west
- b. 18-inch sewer between Manhole 11 and Manhole 12
- c. 24-inch sewer from Manhole 11 to Manhole 18
- d. 48-inch sewer between Manhole 15 and 16
- e. 48-inch sewer between Manhole 17 and 18
- f. 33-inch sewers between Manholes 15, 13 and 12
- g. 33-inch sewer from Manhole 10 to Manhole 14
- h. 24-inch sewer from Manhole 11 to Manhole 6
- i. 24-inch sewer from Manhole 6 continuing 200 ft south
- j. 33-inch sewer from Manhole 25 to un-named manhole at intersection of Caribbean Drive and Borregas Avenue.

Influent pipelines will be inspected using CCTV to the extent permissible given flow and debris conditions. Flow information for some influent pipes were not available for review. An allowance of \$140,000 is included in the budget for bypass pumping per Optional Service 4.0, B.

2. Secondary and Tertiary Treatment Process - facility elements of the (ponds/FGRs/AFTs/DMFs/CCTs) requiring assessment include the following:

- a. Oxidation ponds
 - i. Pond Recirculation Pump Station: All pumps, motors, gates, screens, rakes, electrical, instrumentation, structure, etc. A visual inspection of the pump station and associated equipment visible above the water line will be carried out. Material testing and dive inspections of submerged portions of the pump station and equipment are not included in the scope of work.

Plant staff will pull one pump for visual inspection.

- ii. Pond Effluent Pump Station: All pumps, motors, check valves, electrical, pier, pond boom, boom anchor, etc. A visual inspection of the pump station and associated equipment visible above the water line will be carried out. Material testing and dive inspections of submerged portions of the pump station and equipment are not included in the scope of work.

Plant staff will provide overhaul report for one pump that was recently inspected.

- iii. 36-inch pond effluent pipeline (approximately 1,000 ft) from the oxidation ponds to the fixed growth reactor distribution structure (Distribution Structure): Specialized robotic visual inspection of the effluent line will be carried out. An allowance for this inspection is included in the cost.

An extended shutdown will be required for this work. Consultant will coordinate with Plant staff for the shutdown timing and efforts.

- iv. Pond influent/effluent cross-over tubes (these tubes are typically submerged and may require special equipment / personnel to inspect): Cross over tubes will be observed from the levees. Visual observation of cross-over tube conditions, observable flow through the tubes (i.e. eddies), and levee settlement which may indicate tube failure will be documented.

b. Air Floatation Tanks (AFT) (4 total)

- i. Concrete structure: A confined space manned inspection of 2 of the 4 AFTs will be carried out. Plant staff will drain the AFTs to the extent possible. Concrete core samples will be taken from one (1) AFT tank at a location agreed upon in the field with Plant staff.
- ii. Concrete coating: Coating will be inspected during the confined space entry
- iii. Concrete effluent channel, which supports the distributor arm: This channel will be visually inspected.
- iv. AFT Influent/Effluent Pipes: The influent and effluent pipes to/from the AFTs are approximately 55 feet and 40 feet in length, respectively, and are 30 inches in diameter. There are four sets of influent/effluent pipes (eight pipes total, 380 total lineal feet). Due to the size of the pipes, manned entry is not feasible. CCTV is the proposed method of inspection and will be contingent on the pipe geometry (there is an approximately 45 degree bend in each pipe). Testing is not included in the scope. An allowance for CCTV inspection is included. Inspection would be performed concurrent with the confined space entry inspection of the AFT Distribution Structure.

- v. Walkways (visual inspection, document observed signs of settling, and corrosion)
- vi. Float pump station – structure, pumps, piping, well, mixers, electrical, instrumentation, etc.: A visual inspection of the float pump station will be carried out. The wetwell will be observed from the top with no confined space entry.
- vii. Polymer storage and dosing systems: A visual inspection of the polymer equipment and tanks in the polymer area will be carried out.
- viii. AFT Distribution structure: A confined space entry, visual inspection and non-destructive (penetration and SPR) testing of the structure will be conducted, and may occur during the shutdown of the AFT distribution structure under the Hypochlorite Project.
- ix. AFT Sluice gates: A visual inspection of the gates to observe and document corrosion and operational issues will be carried out during the confined space entry inspection of the AFT distribution structure inspections.

For the purposes of identifying improvements, the conditions of the 2 AFTs inspected will be assumed to apply to the 2 AFTs not inspected. AECOM will work with Plant staff to identify and agree upon the 2 AFTs to be inspected.

- c. Fixed Growth Reactors (FGR) (3 total, work listed below is for all 3 FGRs unless otherwise noted)
 - i. Concrete structure: A confined space manned inspection of the three (3) FGR units will be carried out. It is assumed that the plant staff will take the FGRs offline and allow each unit to adequately drain prior to the inspection to allow safe and effective inspection. Concrete core samples will be taken from one (1) FGR tank at a location that can safely accommodate the core drilling operation and as agreed upon with Plant staff in the field.
 - ii. Media & Media support structures: Due to the age of the media, testing is not recommended as it will not yield conclusive results. Media support structure will be visually inspected during the confined space entry.
 - iii. Fiberglass Reinforced Plastic ducts: Visible portions of FRP ducts will be observed during the FGR inspection.
 - iv. Distribution arms and support structures: An allowance is included in the cost for manufacturer's field services to inspect the distribution arms and appurtenances. If original manufacturer is not able to perform the inspection, AECOM structural and mechanical engineers will perform the inspection.

- v. FGR Distribution structure (including return lines, supply lines and plenums): A confined space manned entry inspection of this facility will be conducted. Visual inspection and non-destructive testing (penetration and SPR) will be performed.
- vi. 36-inch vertical influent pipe (center column) 24-inch and 27-inch horizontal influent piping: Exterior portions of the piping visible during the confined space entry inspection of the FGR media support structures will be inspected. Separate inspection and testing of the piping is not included in the scope.
- vii. FGR gates, operators, actuators, electrical, and instrumentation equipment: Equipment will be visually inspected. Condition of equipment located in confined spaces that are not entered as part of the manned inspection in the distribution structure will be observed from outside of the confined space.
- viii. 60" combined FGR return pipeline: The portion of this pipeline which is visible from the FGR distribution structure will be inspected while the confined space team is in the FGR Distribution structure. A separate manned entry into or CCTV inspection for this pipeline is not included in this scope of work.
- ix. 48-inch pipeline from FGR structure to DMF Applied Water Channel: The portion of this pipeline which is visible from the FGR distribution structure will be inspected while the confined space team is in the FGR Distribution structure. A separate manned entry into or CCTV inspection of this pipeline is not included in this scope of work.
- x. Rectangular transfer channels between AFT Distribution Box and FGR Distribution structure: These channels will be inspected during the confined space entry inspection of the 42-inch pipeline from AFT Structure to DMF Applied Water Channel. Visual inspection and non-destructive testing (penetration and SPR) will be performed.
- xi. FGR Central Collection Box: A visual observation will be carried out from the top of the box. A manned entry into the box is not included in this scope.
- xii. 30-inch FGR Return Pipelines (3): CCTV, manned entry or robotic inspection of these pipelines is NOT included in this scope of work. Where visible, observations of the conditions of these pipelines incidental to the inspection of the FGRs will be documented.
- xiii. Assessment of plumbing seals at the rotating mechanism: Visual assessment of the condition of plumbing seals will be conducted during the inspection of the other assets under item c, iv.

d. Chlorine Contact Tanks (CCT) (4 total)

- i. Assessment of chlorine contact tank protective coating (1 tank total; Tank 1): Visual assessment of the condition of the tank coating will be performed during the structural inspection of the CCTs.
- ii. Structural integrity of chlorine contact tank walls (including seismic stability): A confined space entry inspection of the all tanks will be carried out. It is assumed that the plant staff will drain and clean the tanks to allow entry. Non-destructive testing (penetration and SPR) of the walls as well as concrete coring and testing at 2 locations will be conducted as agreed upon with Plant staff in the field. Structural integrity and seismic stability checks for key components of the CCT facility will be performed based on ASCE 41 criteria.
- iii. Structural integrity of chlorine channel structure influent and effluent channels: Visual inspection and non-destructive testing (penetration and SPR) of the walls and coatings will be conducted during the confined space entry inspection of the CCTs. A structural engineer will carry out inspection of the walls.
- iv. Chlorine contact tank effluent channel: Visual inspection and non-destructive testing (penetration and SPR) of the walls and coatings will be conducted during the confined space entry inspection of the CCTs. A structural engineer will carry out inspection of the walls.
- v. Gates, operators, actuators, electrical, and instrumentation: Mechanical equipment will be visually inspected during the confined space entry inspection of the CCTs. Electrical and instrumentation equipment will be inspected from outside of the confined space.
- vi. Backwash pumping station: The pump station equipment will be visually inspected. Spot ultrasonic thickness measurements will be taken at several locations on the piping. No confined space entry or other materials testing is included in the scope. A one-day allowance for spot ultrasonic thickness measurements on accessible piping is included for the backwash pump station, 3W pump station, filtered water pump station, 24-inch and 48-inch effluent (filtered water) piping to Filtered Water Sump, and backwash water piping 30-inch and 24-inch in the DMF gallery.
- vii. 3W pumping station: The pump station equipment will be visually inspected. Spot ultrasonic thickness measurements will be taken at several locations on the piping. No confined

- space entry or other materials testing is included in the scope.
 - viii. Filtered water pumping station: The pump station equipment will be visually inspected. Spot ultrasonic thickness measurements will be taken at several locations on the piping. No confined space entry or other materials testing is included in the scope.
 - ix. Safety railing along the CCT will be visually inspected for corrosion, rail size, height and structural integrity.
- e. Dual Media Filter (DMF) Beds (2 total, numbers 3 and 4) and DMF process piping
- x. Gates, operators, actuators, electrical, controls, and instrumentation: Mechanical equipment will be visually inspected during the confined space entry inspection of the DMFs. Electrical and instrumentation equipment will be inspected from outside of the confined space.
 - xi. 24-inch and 48-inch effluent (filtered water) piping to Filtered Water Sump: Exposed piping will be visually inspected and spot ultrasonic thickness measurements will be taken at several locations on the piping.
 - xii. Tertiary Control Building exterior brick wall: Will be visually inspected by a structural engineer.
 - xiii. Blowers and air scouring systems: Mechanical equipment that is above grade or visible during the confined space entry inspection of the DMFs will be visually inspected.
 - xiv. DMF Other Not Listed – Gallery: A visual inspection of the gallery, equipment and piping will be performed.
 - xv. Backwash water piping 30-inch and 24-inch: Portions of the piping visual from above grade or the gallery will be visually inspected. Spot ultrasonic thickness measurements will be taken at several locations on the piping.
- f. Drainage Pump Station Structure: An external inspection of the drainage pump station will be conducted. Confined space entry inspection and testing is not included.
- i. Gates: Will be visually inspected
 - ii. Controls: Will be visually inspected.
- g. Yard Piping not otherwise listed (refer to Tertiary Plant Dwg G6)
- i. 48-inch AFT, FGR, and DMF overflow lines to Pond Return Line: A confined space entry inspection of these pipelines will be carried out. Plant staff will gravity drain the pond return line to the extent

possible. Visual assessment and non-destructive testing (penetration and SPR) (where applicable) will be performed.

- ii. 48-inch Pond Return Line (DMFs to Drainage Pumping Station): A confined space entry inspection of this pipeline will be carried out concurrent with inspection of the overflow lines from the AFTs, FGRs and DMFs. Plant staff will gravity drain the pond return line to the extent possible. Visual assessment and non-destructive testing (penetration and SPR) (where applicable) will be performed.
- iii. 48-inch Pond Return Line (Drainage Pumping Station to Pond Recirculation Channel). Inspection of this line is NOT included in this scope of work.
- iv. 6" AFT Float Disposal Line (to ponds): Above grade visible portions of this line will be inspected. Visual observation of condition will be performed. Testing is not included in the scope of work.

h. Electrical Equipment Testing

- i. Six (6) medium voltage transformers, to be selected and agreed upon with Plant Staff, will be tested. Testing will include oil samples, insulation resistance, winding resistance, TTR & power factor testing.
- ii. Very low frequency (VLF) testing will be performed on eight (8) medium voltage cable runs to be selected and agreed upon with Plant Staff.

Plant staff is responsible for any utility shutdown and equipment switching and isolation that may be required prior to testing of electrical equipment.

i. Unfunded Tasks

- i. Underdrain: A confined space entry inspection of the two filter underdrains will be carried out which includes air piping and supports. It is assumed that Plant staff will drain the tanks and isolate to allow entry. Visual inspection and non-destructive testing (penetration and SPR) will be conducted. Concrete coring is not included in the scope of work.
- ii. 48-inch bypass piping from overflow box to Filtered Water Sump: The portion of this pipeline which is visible from the DMF structure will be inspected while the confined space team is in the DMF structure. A separate manned entry into or CCTV inspection of this pipeline is not included in this scope of work.

Condition Assessment Report to include the following items (at a minimum):

- a. Brief description of existing facilities based on information provided by the City
- b. Approach for condition assessment activities (including assessment technologies used)
- c. Inspection forms
- d. Test Results
- e. Discussion of assessment test results (including scoring methodology and criteria used to assign a physical condition rating to each asset tied towards the development of remaining useful life estimates)
- f. Conclusions and priority based recommendations (including remaining useful life)
- g. Suggested repair methods
- h. Planning level budget/estimate of future repair work
- i. Future improvement plan schedule (including prioritization of repairs and method used for prioritization of recommended improvements and phasing of repair work)

Assumptions:

- i. Inspections will be conducted contingent upon safe access and conditions of the facilities.
- ii. Plant staff will provide safe access and drain and dewater facilities to be inspected to the extent possible. To minimize cleaning efforts, Consultant will work with Plant Staff to determine the minimum cleaning required to complete the inspections. An allowance of \$10,000 is included in the consultant budget for facility cleaning to augment pre-inspection cleaning if needed.
- iii. Inspections will require facility shutdowns. Consultant will work with Plant staff to plan and coordinate shutdowns with adequate advance notice. Plant and equipment operations associated with inspections will be performed by Plant staff, including shutdowns, equipment operation and equipment lockout-tagouts.
- iv. Inspections and testing not identified above are not included in the scope of work.
- v. Inspections are contingent on Plant operations and existing conditions. Schedule may need to shift to accommodate unforeseen events.

Deliverables:

- Condition Assessment Report (Draft and Final)

Task 3.0 – Project Management

The Consultant will be the primary responsible party for managing the project's schedule and Consultant contract budget. In addition, the Consultant is expected to attend a bimonthly progress meeting and prepare action item logs for subsequent follow-up. The

Consultant is expected to maintain frequent and timely communication with City staff throughout the duration of the project.

The City has engaged a program management consultant (PMC) who provides management services to the City's Public Works Department and oversight of master planning efforts to evaluate treatment and equipment options, oversee and coordinate multiple design and construction contracts, and coordinate the rehabilitation/reconstruction program with ongoing Plant operations. This project will be managed by City staff and the Consultant will also be required to coordinate with the PMC as necessary.

Consultant shall be responsible for the following items:

- Meeting Management: Meeting agendas should be prepared prior to all meetings with City staff and e-mailed at least three days prior to each meeting. Agendas should identify the purpose of each meeting and who is required (or optional) to attend from City staff. Meeting minutes should be provided by the consultant within one week of each meeting and e-mailed to all meeting participants. Consultant shall prepare a final set of meeting minutes that incorporate any comments and shall distribute them to all meeting participants.
- Project Schedules: All project schedules shall be prepared in Gantt chart format, utilizing Microsoft Project software. The schedule shall identify deliverable due dates and any other critical milestones. Two weeks shall be allowed for City review of all deliverables. Delay of deliverable due dates or other milestones requires submittal and approval of a revised schedule. Schedule updates shall be provided at all progress meetings or at a minimum monthly.
- Quality Assurance/Quality Control: The Consultant's own team should have provisions for quality assurance/quality control over work product prepared for the City.
- Document Management: Unifier is the records management system for the Program. Consultant shall use Unifier to submit invoices and deliverables, and to log action items and design decisions made during meetings and ad hoc communications. One hour of training and licenses for up to 2 users will be provided to Consultant by the PMC. Training will be scheduled on a day that coincides with other project meeting(s).
- Pay Applications: Consultant shall submit monthly invoices. Invoices shall include complete back-up of all project costs and include a cover page listing the total budget, amount authorized by NTP, previous billed-to-date, current billing, and total billed-to-date for each task. Invoice shall be accompanied by a brief progress report which lists the work accomplished in the previous month.

Deliverables:

- Minutes from kickoff meeting, work plan workshop and monthly meetings
- Monthly invoice, progress report, and schedule update

Task 4.0 – Optional Services

The following services are not included in the base scope but the Consultant shall include pricing in Attachment C in the event these optional services are required during the Project:

- A. Pre-design meeting – attend one pre-design meeting with the rehabilitation design engineer to allow for knowledge transfer and respond to any outstanding questions regarding the findings and recommendations outlined in the Condition Assessment Report. The meeting will be scheduled on a day that coincides with other project meeting(s).
- B. Bypass pumping/unforeseeable events – it is not anticipated that bypass pumping will be required. However, the consultant shall be responsible for the sourcing and procurement of a bypass pumping contractor as needed. The City has allocated an allowance of up to \$140,000 for bypass pumping activities and unforeseeable events.

IV. Available Documents

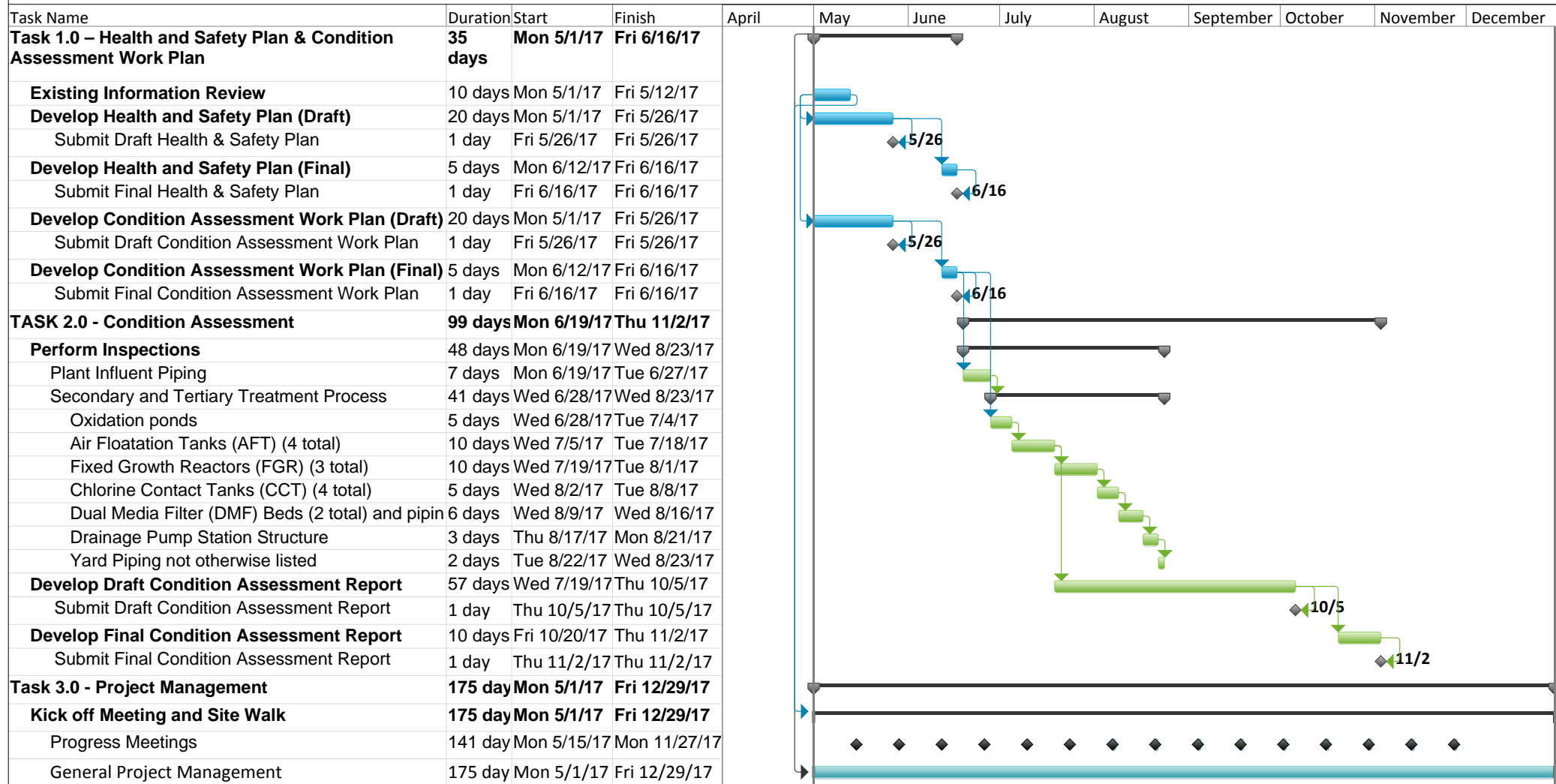
Attachment 1: Overall Water Pollution Control Plant layout figures, including locations of items listed within the Condition Assessment Scope of Work.

The list below is available for information only at the Sunnyvale Clean Water website (www.sunnyvalecleanwater.com).

- City of Sunnyvale Asset Condition Assessment; Carollo Engineers; August 2006.
- Record drawings. The City does not guarantee the accuracy or completeness of record drawings. Consultant shall verify any information related to this project and relied upon for execution of this work to their professional satisfaction.
 - Drawings for Oxidation Pond, Brown & Caldwell. October 1965 (Construction of pond berms, channels, and transfer pipes).
 - Oxidation Pond Additions, Brown & Caldwell, January 1966 (Pond Recirculation Pumping Station)
 - WPCP Tertiary Facilities, Brown & Caldwell, July 1975. As-Built version (not dated) includes 22 sheets only. (includes most of the existing Tertiary Plant plus oxidation pond effluent pumps & effluent structure)
 - Tertiary Facilities Capacity Expansion & Process Improvements, Contract C-1 (AFT #4, CCT#4), James M. Montgomery, 1982. Record drawings dated April 1985
 - Addition of Dual Media Filter #4, Brown & Caldwell, December 1980. Record Drawings (not dated)
 - WPCP Polymer Feed System Polymer Feed System Improvements, Kennedy/Jenks Consultants and EOA, Inc., July 1997. (Record drawings dated Jan 1988).
 - WPCP Tertiary Plant Improvements, Kennedy/Jenks Consultants and EOA, Inc., July 1997. (Chlorine Contact Tank modifications for recycled water production. Record drawings dated Sept 2000).

- WPCP Sodium Bisulfite System, UY-09/01-10, RMC Water and Environment, November 4, 2009.

WPCP Electrical System Overview, November 2011.



City of Sunnyvale
WPCP Facility Condition Assessment Program

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

Exhibit B

City of Sunnyvale Water Pollution Control Plan - Facility Condition Assessment Project AECOM-Level of Effort													
Tasks	Labor Costs										5% Sub Markup	ODCs	Total
	AECOM Labor	V&A	Rain For Rent	Safety Compl Mgmt	Voss Laboratories	Power Systems Testing Company	Underwater Resources	Cleaning sub	M. Lee Corp.	Redzone Robotics			
Task 1 - Health and Safety Plan & Condition Assessment Work Plan	\$62,481	\$25,000		\$1,500	\$200		\$700			\$400	\$1,390		\$91,671
1.1 Existing Information Review	\$8,725	\$4,000									\$200		\$12,925
1.2 Health and Safety Plan (Draft)	\$10,169	\$10,000		\$1,000	\$200		\$200			\$200	\$580		\$22,349
Health and Safety Plan (Final)	\$1,853	\$2,000									\$100		\$3,953
1.3 CA Work Plan (Draft) and Shutdown Pre-inspection Meetings	\$34,431	\$7,000		\$500			\$500			\$200	\$410		\$43,041
CA Work Plan	\$7,303	\$2,000									\$100		\$9,403
Task 2 - Condition Assessment	\$247,203	\$162,219		\$6,000	\$28,300	\$22,000			\$19,000	\$130,000	\$18,376		\$633,098
2.1 Perform Inspections													
1. Plant Influent Piping													
18-inch sewer from Manhole 11 continuing (400 ft)	\$340									\$10,000	\$500		\$10,840
18-inch sewer between Manhole 11 and Manhole 12 (50 ft)	\$340									\$5,000	\$250		\$5,590
24-inch sewer from Manhole 11 to Manhole 18 (60 ft)	\$573									\$5,000	\$250		\$5,823
48-inch sewer between Manhole 15 and 16 (60 ft)	\$1,371									\$5,000	\$250		\$6,621
48-inch sewer between Manhole 17 and 18 (80 ft)	\$1,371									\$5,000	\$250		\$6,621
33-inch sewers between Manholes 15, 13 and 12 (80 ft)	\$1,031									\$5,000	\$250		\$6,281
33-inch sewer from Manhole 10 to Manhole 14 (70 ft)	\$1,031									\$5,000	\$250		\$6,281
24-inch sewer from Manhole 11 to Manhole 6 (400 ft)	\$573									\$10,000	\$500		\$11,073
24-inch sewer from Manhole 6 continuing 200 ft south (200 ft)	\$573									\$10,000	\$500		\$11,073
33-inch sewer from Manhole 25 to un-named manhole at intersection of Caribbean Drive and Borregas Avenue. (380 ft)	\$573									\$10,000	\$500		\$11,073
2. Secondary and Tertiary Treatment Process													
a. Oxidation ponds													
i. Pond Recirculation Pump Station – All pumps, motors, gates, screens, rakes, electrical, instrumentation, structures, etc.	\$3,318												\$3,318
ii. Pond Effluent Pump Station - All pumps, motors, check valves, electrical, pier, pond boom, boom anchor, etc.	\$3,318												\$3,318
iii. 36-inch pond effluent pipeline from the oxidation ponds to the fixed growth reactor distribution structure (Distribution Box)	\$2,534									\$25,000	\$1,250		\$28,784
iv. Pond influent/effluent cross-over tubes	\$1,361												\$1,361
b. Air Floatation Tanks (AFT) (4 total)													
i. AFT Concrete structure	\$5,309	\$17,370			\$7,900						\$1,264		\$31,843
ii. AFT mechanical distribution structure													
iii. Concrete coating													
iv. Concrete effluent channel, which supports the distributor arm													
v. AFT other Not Listed - Infl/Effl Pipes	\$1,801									\$35,000	\$1,750		\$38,551
vi. Walkways (document observed settling)	\$1,401	\$1,000									\$50		\$2,451
vii. Float pump station – structure, pumps, piping, well, mixers, electrical, instrumentation, etc.	\$2,127												\$2,127
viii. Polymer storage and dosing systems	\$2,464												\$2,464
ix. AFT other Not Listed - AFT Distr Structure	\$3,243	\$9,130									\$457		\$12,830
x. AFT other Not Listed - Sluice Gates #1-6	\$1,226												\$1,226
xi. 42-inch pipeline from AFT Structure to DMF Applied Water Channel													
c. Fixed Growth Reactors (FGR) (3 total)													
i. FGR Concrete structure	\$9,579	\$33,356			\$7,900						\$2,063		\$52,898
ii. Media & Media support structures	\$1,442												\$1,442
iii. Fiberglass Reinforced Plastic ducts													
iv. Distribution arms and support structures	\$2,667												\$2,667
v. Drainage structure (including return lines, supply lines and plenums)	\$3,054												\$3,054
vi. 36-inch vertical influent pipe (center column) 24-inch and 27-inch horizontal influent piping	\$680												\$680
vii. FGR gates, operators, actuators, electrical, and instrumentation.	\$5,161												\$5,161
viii. 60" combined FGR return pipeline													
ix. 48-inch pipeline from FGR structure to DMF Applied Water Channel													
x. Rectangular transfer channels between AFT Distribution Box and FGR Distribution structure	\$1,041												\$1,041
xi. FGR Collection Box	\$1,240												\$1,240
xii. 30-inch FGR Return Pipelines (3)	\$340												\$340
xiii. Assessment of plumbing seals													
xiv. FGR Other Not Listed [exclude all]													
d. Chlorine Contact Tanks (CCT) (4 total)													
i. Assessment of chlorine contact tank protective coating (1 tank total; Tank 1)		\$17,206									\$860		\$18,067
ii. Structural integrity of chlorine contact tank walls (including seismic stability)	\$30,176				\$12,500						\$625		\$43,301
iii. Structural integrity of chlorine channel structure influent and effluent channels	\$721												\$721
iv. Chlorine contact tank effluent channel	\$1,442												\$1,442
v. All gates, operators, actuators, electrical, and instrumentation.	\$2,853												\$2,853
vi. Backwash pumping stations	\$1,120	\$1,000									\$50		\$2,170
vii. 3W pumping station	\$1,120												\$1,120
viii. Filtered water pumping station	\$1,120												\$1,120
ix. Safety Railing	\$514												\$514
e. Dual Media Filter (DMF) Beds (2 total, numbers 3 and 4) and DMF process piping													
i. Underdrain													
ii. 48-inch bypass piping from overflow box to Filtered Water Sump													
iii. DMF gates, operators, actuators, electrical, controls, and instrumentation.	\$3,534												\$3,534
iv. 24-inch and 48-inch effluent (filtered water) piping to Filtered Water Sump	\$680												\$680
iv. Tertiary Control Building exterior brick wall	\$360												\$360
v. Blowers and air scouring systems	\$783												\$783
vi. DMF Other Not Listed - Gallery	\$657												\$657
vii. Backwash water piping 30-inch and 24-inch	\$340	\$5,025									\$251		\$5,617
f. Drainage Pump Station Structure													
i. Pumps													
ii. Gates	\$1,788												\$1,788
iii. Controls	\$1,628												\$1,628
iv. Drainage Pump Station Other Not Listed [exclude all]													
g. Yard Piping not otherwise listed													
i. 48-inch AFT, FGR, and DMF overflow lines to Pond Return Line	\$1,121	\$9,130		\$6,000							\$757		\$17,008
ii. 48-inch Pond Return Line (DMFs to Drainage Pumping Station)	\$1,121												\$1,121
iii. 48-inch Pond Return Line (Drainage Pumping Station to Pond Recirculation Channel)													
iv. 48-inch effluent outfall line from CCTs to discharge point													
v. 6" AFT Float Disposal Line (to ponds)	\$680												\$680
h. Electrical Testing													
Electrical Testing						\$22,000					\$1,100		\$23,100
2.2 Condition Assessment Report (Draft) , Data Analysis, CIP Planning													
Analyze Results	\$28,351												\$28,351
Develop Recommendations and R&R Projects	\$24,114								\$14,000		\$700		\$38,814
Condition Assessment Report (Draft)	\$61,851	\$54,000									\$2,700		\$118,551
Condition Assessment Report (Final)	\$20,047	\$15,000							\$5,000		\$1,000		\$41,047
Task 3 - Project Management	\$18,715	\$10,000									\$500		\$29,215
3.1 KOM and Progress Meetings and Workshops	\$12,525	\$10,000									\$500		\$23,025
3.2 Schedule	\$2,342												\$2,342
3.3 QA/QC	\$2,753												\$2,753
3.4 Document Management-Unifier System	\$1,096												\$1,096
Other Direct Costs (ODCs)													\$26,000
ODC-1 AECOM Reimbursables												\$20,000	\$20,000
ODC-2 Manufacturer's Field Services												\$6,000	\$6,000
Subtotal	\$328,400	\$197,219		\$7,500	\$28,500	\$22,000	\$700	\$10,000	\$19,000	\$130,400	\$20,266		\$779,984
Optional & Unforeseeable Services													
Pre-Design Meeting													
Bypass Pumping/unforeseeable events			\$140,000										\$140,000
Tank and Pipeline Cleaning Allowance								\$10,000					\$10,000
DMF-Confined Space Inspections													
-Underdrain	\$10,804	\$8,433									\$422		\$19,659
-48-inch bypass piping from overflow box to Filtered Water Sump	\$3,534												\$3,534
Total Optional Services	\$14,338	\$8,433	\$140,000					\$10,000			\$422		\$173,193
Total Including ODCs and Optional Services	\$342,738	\$205,652	\$140,000	\$7,500	\$28,500	\$22,000	\$700	\$10,000	\$19,000	\$130,400	\$20,688	\$26,000	\$953,177

AECOM STAFF CATEGORY		RATE
Principal In Charge	Eric Zagol, PE	\$ 250
QA/QC	Craig Smith, PE	\$ 240
Project Manager	Sheba Hafiz, PE	\$ 208
Condition Assessment Lead	Derrick Wong, PE	\$ 233
Project Engineer	Nader Gorji, PE, LEED A	\$ 170
Health & Safety Lead	Shannon Couch, CSP	\$ 146
Structural Engineer	D. Scherschel, PE, SE/ T	\$ 180
Process Engineer	Bob Stallings, PE	\$ 236
Mechanical Engineer	Lock Kwan, PE	\$ 153
Electrical Engineer	Allen Randall, PE	\$ 245
Instrumentation & Controls Engineer	Efrem Sorkin, PE	\$ 162
Safety/Security Inspector	Jack Moyer	\$ 186
Asset Management Technical Advisor	Chris Lombard, PE, MBA	\$ 185
Condition Assessment Technical Advisor	James Marx, PE	\$ 239
Linear Assets Technical Advisor	Chris Macey, P.Eng	\$ 250
Admin		\$ 85
V&A STAFF CATEGORY		RATE
Principal Incharge		\$ 282
Senior Project Engineer		\$ 220
Project Engineer 1		\$ 205
Project Engineer 2		\$ 184
Project Engineer 3		\$ 164
Project Engineer 4		\$ 134
Engineering Assistant		\$ 124
Admin		\$ 82

AECOM	Item	Amount
	lform Licence (6 mo)	\$ 5,000
	Tablets-iOS or Android	\$ 3,000
	Travel and Mileage	\$ 10,000
	Repro and Misc	\$ 2,000
		<hr/>
		\$ 20,000
	Hotel Rate/Night (Max)	\$ 175
	Mileage	Per IRS
Other		
	Manufacturer field Svcs	\$ 6,000
		<hr/>
		\$ 6,000
TOTAL ODCs		\$ 26,000

Exhibit "C"

INSURANCE REQUIREMENTS FOR CONSULTANTS

Consultant shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work by the Consultant, his agents, representatives, or employees.

Minimum Scope and Limits of Insurance: Consultant shall maintain limits no less than:

1. **Commercial General Liability:** \$1,000,000 per occurrence and \$2,000,000 aggregate for bodily injury, personal injury and property damage. ISO Occurrence Form CG 0001 is required.
2. **Automobile Liability:** \$1,000,000 per accident for bodily injury and property damage. ISO Form CA 0001 is required.
3. **Workers' Compensation** and **Employer's Liability:** \$1,000,000 per accident for bodily injury or disease.
4. **Errors and Omissions** Liability Insurance appropriate to the Consultants Profession: \$1,000,000 per occurrence and \$2,000,000 aggregate.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared and approved by the City of Sunnyvale. The consultant shall guarantee payment of any losses and related investigations, claim administration and defense expenses within the deductible or self-insured retention.

Other Insurance Provisions

The **general liability** and **automobile liability** policies are to contain, or be endorsed to contain, the following provisions:

1. The City of Sunnyvale, its officials, employees, agents and volunteers are to be covered as additional insureds with respects to liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of the Consultant; premises owned, occupied or used by the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the City of Sunnyvale, its officers, employees, agents or volunteers.
2. For any claims related to this project, the Consultant's insurance shall be primary. Any insurance or self-insurance maintained by the City of Sunnyvale, its officers, officials, employees, agents and volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the City of Sunnyvale, its officers, officials, employees, agents or volunteers.

4. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by mail has been given to the City of Sunnyvale.

Claims Made Coverage

If the General Liability and/or Errors & Omissions coverages are written on a claims-made form:

1. The retroactive date must be shown, and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided for at least five years after completion of the contract work.
3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, the Consultant must purchase an extended period coverage for a minimum of five years after completion of contract work.
4. A copy of the claims reporting requirements must be submitted to the City of Sunnyvale for review.

Acceptability of Insurers

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

Verification of Coverage

Consultant shall furnish the City of Sunnyvale with original a Certificate of Insurance effecting the coverage required. The certificates are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates are to be received and approved by the City of Sunnyvale prior to commencement of work.