



City of Palo Alto

City Council Staff Report

(ID # 9485)

Report Type: Consent Calendar

Meeting Date: 10/1/2018

Summary Title: Design Services for RWQCP Secondary Treatment Process Upgrades

Title: Approval of Contract Number C19171565 With Brown and Caldwell in the Total Amount Not-to-Exceed \$2,923,357 to Provide Design Services for Secondary Treatment Process Upgrades (WQ-19001) at the Regional Water Quality Control Plant

From: City Manager

Lead Department: Public Works

Recommendation

Staff recommends that Council approve and authorize the City Manager or his designee to execute the attached contract with Brown and Caldwell (Attachment A) in an amount not to exceed \$2,923,357 for the design services for Secondary Treatment Process Upgrades funded by the Capital Improvement Program (project WQ-19001) at the Regional Water Quality Control Plant. The contract amount includes \$2,657,597 for basic services and \$265,760 for related, additional but unforeseen work that may develop during the project.

Background

The Regional Water Quality Control Plant (RWQCP) treats and disposes of wastewater for Palo Alto, Mountain View, Los Altos, Los Altos Hills, East Palo Alto Sanitary District, and Stanford University. The service area is a mix of institutional, residential, and commercial uses consisting of approximately 241,187 residents.

The plant's existing secondary treatment process consists of fixed film reactors (FFRs) installed in 1980 followed by an activated sludge process installed in 1972. Both systems are at the end of their useful lives, needing upgrades and/or replacement to maintain reliability and safety of wastewater treatment.

Discussion

The San Francisco Regional Water Quality Control Board is expected to establish new nutrient regulatory requirements in 2019, limiting the total nitrogen load discharging from regional wastewater treatment plants into the San Francisco Bay in 2024. The current wastewater treatment system does not remove nitrogen.

The Secondary Upgrades will be based on the anticipated new regulatory requirements, field inspections, preliminary design evaluations, RWQCP staff recommendations, the recommendations of the 2017 Secondary Treatment Evaluation Technical Memorandum, and [2012 Long Range Facilities Plan \(LRFP\)](#). Upgrading to a biological nutrient removal process (nitrogen removal), with anoxic and aerated zones will improve final water quality, ensure the plant continues to meet effluent discharge permit limits, and allow for the ultimate decommissioning and removal of the aging FFRs.

Scope of Services Description

The consultant will provide engineering services to design the secondary treatment process upgrades during all phases of the project from preliminary design, design, bid period services, engineering services during construction, and support during commissioning and start-up. The design includes: re-configuration of the aeration basins to accommodate the new biological nutrient removal process; design of baffle walls; sizing and specification of new air blowers, air diffusers, and mixing equipment; recirculation pumping systems; modifications to the intermediate pump station to move wet-weather flows; modifications to return activated sludge pump stations; specifications to allow for decommissioning of the FFRs; and detailed sequencing plans for piping and electrical tie-ins needed to integrate the new process into the existing RWQCP operational process.

Summary of Solicitation Process

On April 4, 2018, a notice for Request for Proposals (RFP No. 171565) for design services for the Secondary Treatment Process Upgrades project was posted to the City's website through Planet Bids:

<https://www.planetbids.com/portal/portal.cfm?CompanyID=25569&BidID=49588>

A total of 50 design firms, vendors, and contractors downloaded the RFP documents and attachments related to the project through Planet Bids (see link below). Three (3) proposals were received on May 15, 2018.

Proposal Description/Number:	Design Services for Secondary Treatment Upgrades/ RFP No. 171565
Proposed Length of Project:	<ul style="list-style-type: none"> • 18 months of design services • 24 months of construction support services
Number of Proposals emailed and/or downloaded through Planet Bids:	50
Total Days to Respond to Proposal:	41
Pre-Proposal Meeting Date:	April 11, 2018
Number of Company Attendees at Pre-Proposal Meeting	8 firms
Number of Proposals Received	3
Range of Proposal Amounts Submitted:	\$2,650,000 to \$2,750,000

Evaluation of Proposals

An evaluation committee consisting of Public Works engineering staff reviewed the proposals. The committee carefully reviewed each firm's qualifications and submittal in response to the criteria identified in the RFP, including quality and completeness of the proposal, quality and effectiveness of services, experience with projects of similar scope and complexity, prior record of performance, cost, proposer’s financial stability, and ability to provide future maintenance and/or services.

All three firms that submitted proposals were invited to participate in oral interviews on June 13 and 14, 2018. Brown and Caldwell was selected because its proposed team met the experience requirements, has a good record on similar projects, and demonstrated a clear understanding of the constructability to implement an efficient and innovative approach to the project. Brown and Caldwell’s design base service is \$2,657,597 with an additional services budget of \$265,760.

Timeline

If approved, the base design work is estimated to begin in October 2018 and be completed in 18 months. Following the design process, construction of the project is estimated to be completed approximately 24 months after the issuance of a notice to proceed.

Resource Impact

The funds for the first half of this design contract were appropriated in the FY2019 Wastewater Treatment Fund Capital Improvement Program project WQ-19001. Since the City Council only appropriates funding for a single year of the Capital Improvement Program, funding for the second half of the design contract will be brought forward as part of the development of the FY 2020 Capital Improvement Program Budget. When the design work is completed, staff will return to Council for approval of a construction contract.

Policy Implications

Authorization of this project does not represent a change in existing policies.

Environmental Review

The design phase of the project does not require review under the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Sections 15061(b)(3) and 15262 because the design work will not result in a significant environmental impact and does not commit the City to constructing the project. The project will be reviewed consistent with CEQA prior to initiation of the construction phase of the project. The project is anticipated to be exempt under CEQA Guidelines Section 15301(b) and documentation will be completed separately by the City.

Attachments:

- C19171565 Brown and Caldwell (Signed by B&C)

CITY OF PALO ALTO CONTRACT NO. C19171565**AGREEMENT BETWEEN THE CITY OF PALO ALTO AND
BROWN AND CALDWELL FOR PROFESSIONAL SERVICES**

This Agreement is entered into on this 10th day of September, 2018, (“Agreement”) by and between the CITY OF PALO ALTO, a California chartered municipal corporation (“CITY”), and **Brown and Caldwell** a California corporation, located at 201 N. Civic Dr. Suite 300, Walnut Creek, CA 94596 (“CONSULTANT”).

RECITALS

The following recitals are a substantive portion of this Agreement.

A. CITY intends to upgrade its existing two-stage secondary treatment system at the Regional Water Quality Control Plant (“Project”) and desires to engage a consultant to provide design and engineering services as outlined in Exhibit “A” in connection with the Project (“Services”).

B. CONSULTANT has represented that it has the necessary professional expertise, qualifications, and capability, and all required licenses and/or certifications to provide the Services.

C. CITY in reliance on these representations desires to engage CONSULTANT to provide the Services as more fully described in Exhibit “A”, attached to and made a part of this Agreement.

NOW, THEREFORE, in consideration of the recitals, covenants, terms, and conditions, in this Agreement, the parties agree:

AGREEMENT

SECTION 1. SCOPE OF SERVICES. CONSULTANT shall perform the Services described at Exhibit “A” in accordance with the terms and conditions contained in this Agreement. The performance of all Services shall be to the reasonable satisfaction of CITY.

Optional On-Call Provision (This provision only applies if checked and only applies to on-call agreements.)

Services will be authorized by CITY, as needed, with a Task Order assigned and approved by CITY’s Project Manager. Each Task Order shall be in substantially the same form as Exhibit A-1. Each Task Order shall designate a CITY Project Manager and shall contain a specific scope of work, a specific schedule of performance and a specific compensation amount. The total price of all Task Orders issued under this Agreement shall not exceed the amount of Compensation set forth in Section 4 of this Agreement. CONSULTANT shall only be compensated for work performed under an authorized Task Order and CITY may elect, but is not required, to authorize work up to the maximum compensation amount set forth in Section 4.

SECTION 2. TERM.

The term of this Agreement shall be from the date of its full execution through completion of the services in accordance with the Schedule of Performance attached at Exhibit "B" unless terminated earlier pursuant to Section 19 of this Agreement.

SECTION 3. SCHEDULE OF PERFORMANCE. Time is of the essence in the performance of Services under this Agreement. CONSULTANT shall complete the Services within the term of this Agreement and in accordance with the schedule set forth in Exhibit "B", attached to and made a part of this Agreement. Any Services for which times for performance are not specified in this Agreement shall be commenced and completed by CONSULTANT in a reasonably prompt and timely manner based upon the circumstances and direction communicated to the CONSULTANT. CONSULTANT shall not be responsible for delays caused by circumstances beyond its reasonable control, including, but not limited to (1) strikes, lockouts, work slowdowns or stoppages, or (2) acts of God. CONSULTANT shall not be liable for damages arising out of any such delay, nor shall the CONSULTANT be deemed to be in breach of this Agreement as a result thereof, provided that the CONSULTANT provides prompt notice to the CITY of the occurrence resulting in the delay and uses reasonable efforts to overcome the effects of such occurrence.

SECTION 4. NOT TO EXCEED COMPENSATION. The compensation to be paid to CONSULTANT for performance of the Services described in Exhibit "A" ("Basic Services"), and reimbursable expenses, shall not exceed Two Million Six Hundred Fifty-Seven Thousand Five Hundred Ninety-Seven Dollars (\$2,657,597). CONSULTANT agrees to complete all Basic Services, including reimbursable expenses, within this amount. In the event Additional Services are authorized, the total compensation for Basic Services, Additional Services and reimbursable expenses shall not exceed Two Million Nine Hundred Twenty-Three Thousand Three Hundred Fifty-seven Dollars (\$2,923,357). The applicable rates and schedule of payment are set out at Exhibit "C-1", entitled "HOURLY RATE SCHEDULE," which is attached to and made a part of this Agreement. Any work performed or expenses incurred for which payment would result in a total exceeding the maximum amount of compensation set forth herein shall be at no cost to the CITY.

Additional Services, if any, shall be authorized in accordance with and subject to the provisions of Exhibit "C". CONSULTANT shall not receive any compensation for Additional Services performed without the prior written authorization of CITY. Additional Services shall mean any work that is determined by CITY to be necessary for the proper completion of the Project, but which is not included within the Scope of Services described at Exhibit "A".

SECTION 5. INVOICES. In order to request payment, CONSULTANT shall submit monthly invoices to the CITY describing the services performed and the applicable charges (including an identification of personnel who performed the services, hours worked, hourly rates, and reimbursable expenses), based upon the CONSULTANT's billing rates (set forth in Exhibit "C-1"). If applicable, the invoice shall also describe the percentage of completion of each task. The information in CONSULTANT's payment requests shall be subject to verification by CITY. CONSULTANT shall send all invoices to the City's project manager at the address specified in Section 13 below. The City will generally process and pay invoices within thirty (30) days of receipt.

SECTION 6. QUALIFICATIONS/STANDARD OF CARE. All of the Services shall be performed by CONSULTANT or under CONSULTANT's supervision. CONSULTANT represents that it possesses the professional and technical personnel necessary to perform the Services required by this Agreement and that the personnel have sufficient skill and experience to perform the Services assigned to them. CONSULTANT represents that it, its employees and subconsultants, if permitted, have and shall maintain during the term of this Agreement all licenses, permits, qualifications, insurance and approvals of whatever nature that are legally required to perform the Services.

All of the services to be furnished by CONSULTANT under this agreement shall meet the professional standard and quality that prevail among professionals in the same discipline and of similar knowledge and skill engaged in related work throughout California under the same or similar circumstances.

SECTION 7. COMPLIANCE WITH LAWS. CONSULTANT shall keep itself informed of and in compliance with all federal, state and local laws, ordinances, regulations, and orders that may affect in any manner the Project or the performance of the Services or those engaged to perform Services under this Agreement. CONSULTANT shall procure all permits and licenses, pay all charges and fees, and give all notices required by law in the performance of the Services.

SECTION 8. ERRORS/OMISSIONS. CONSULTANT is solely responsible for costs, including, but not limited to, increases in the cost of Services, arising from or caused by CONSULTANT's errors and omissions, including, but not limited to, the costs of corrections such errors and omissions, any change order markup costs, or costs arising from delay caused by the errors and omissions or unreasonable delay in correcting the errors and omissions.

SECTION 9. COST ESTIMATES. CONSULTANT shall submit estimates of probable construction costs at the 30% design effort, followed by a much tighter cost estimate at the 90% design submittal, followed by the final cost estimate when the 100% (final) design is submitted. If the total estimated construction cost at the 90% or 100% design level exceeds ten percent (10%) of CITY's stated construction budget, CONSULTANT shall make recommendations to CITY for aligning the PROJECT design with the budget, incorporate CITY approved recommendations, and revise the design to meet the Project budget, at no additional cost to CITY to the extent consistent with the PROJECT requirements and sound engineering practices.

SECTION 10. INDEPENDENT CONTRACTOR. It is understood and agreed that in performing the Services under this Agreement CONSULTANT, and any person employed by or contracted with CONSULTANT to furnish labor and/or materials under this Agreement, shall act as and be an independent contractor and not an agent or employee of CITY.

SECTION 11. ASSIGNMENT. The parties agree that the expertise and experience of CONSULTANT are material considerations for this Agreement. CONSULTANT shall not assign or transfer any interest in this Agreement nor the performance of any of CONSULTANT's obligations hereunder without the prior written consent of the city manager. Consent to one assignment will not be deemed to be consent to any subsequent assignment. Any assignment made without the approval of the city manager will be void.

SECTION 12. SUBCONTRACTING.

Option A: No Subcontractor: CONSULTANT shall not subcontract any portion of the work to be performed under this Agreement without the prior written authorization of the city manager or designee.

Option B: Subcontracts Authorized: Notwithstanding Section 11 above, CITY agrees that subconsultants may be used to complete the Services. The subconsultants authorized by CITY to perform work on this Project are:

Cal Engineering & Geology, Inc., R.E.Y. Engineers, Saylor Consulting, Inc.,
Corrosion Probe, Inc., Scheidegger & Associates, Voss Laboratories, Inc.,
HKIT Architects

CONSULTANT shall be responsible for directing the work of any subconsultants and for any compensation due to subconsultants. CITY assumes no responsibility whatsoever concerning compensation. CONSULTANT shall be fully responsible to CITY for all acts and omissions of a subconsultant. CONSULTANT shall change or add subconsultants only with the prior approval of the city manager or his designee.

SECTION 13. PROJECT MANAGEMENT. CONSULTANT will assign Mike Walkowiak as the Project Manager to have supervisory responsibility for the performance, progress, and execution of the Services and Jeff Kivett as the project Principal-in-Charge to represent CONSULTANT during the day-to-day work on the Project. If circumstances cause the substitution of the project director, project coordinator, or any other key personnel for any reason, the appointment of a substitute project director and the assignment of any key new or replacement personnel will be subject to the prior written approval of the CITY's project manager. CONSULTANT, at CITY's request, shall promptly remove personnel who CITY finds do not perform the Services in an acceptable manner, are uncooperative, or present a threat to the adequate or timely completion of the Project or a threat to the safety of persons or property.

CITY's project manager is Tom Kapushinski, Public Works Department, Environmental Services Division, RWQCP, Palo Alto, CA 94303, Telephone: 650-617-3130. The project manager will be CONSULTANT's point of contact with respect to performance, progress and execution of the Services. CITY may designate an alternate project manager from time to time.

SECTION 14. OWNERSHIP OF MATERIALS. Upon delivery, all work product, including without limitation, all writings, drawings, plans, reports, specifications, calculations, documents, other materials and copyright interests developed under this Agreement shall be and remain the exclusive property of CITY without restriction or limitation upon their use. CONSULTANT agrees that all copyrights which arise from creation of the work pursuant to this Agreement shall be vested in CITY, and CONSULTANT waives and relinquishes all claims to copyright or other intellectual property rights in favor of the CITY. Neither CONSULTANT nor its contractors, if any, shall make any of such materials available to any individual or organization without the prior written approval of the City Manager or designee. CONSULTANT makes no representation of the suitability of the work product for use in or application to circumstances not

contemplated by the scope of work. CITY's alteration of CONSULTANT's work product or its use by CITY for any other purpose shall be at CITY's sole risk, and without liability to CONSULTANT.

SECTION 15. AUDITS. CONSULTANT will permit CITY to audit, at any reasonable time during the term of this Agreement and for three (3) years thereafter, CONSULTANT's records pertaining to matters covered by this Agreement. CONSULTANT further agrees to maintain and retain such records for at least three (3) years after the expiration or earlier termination of this Agreement.

SECTION 16. INDEMNITY.

16.1. To the fullest extent permitted by law, CONSULTANT shall protect, indemnify, defend and hold harmless CITY, its Council members, officers, employees and agents (each an "Indemnified Party") from and against any and all demands, claims, or liability of any nature, including death or injury to any person, property damage or any other loss, including all costs and expenses of whatever nature including attorney's fees, experts fees, court costs and disbursements ("Claims") that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of CONSULTANT, its officers, employees, agents or contractors under this Agreement, regardless of whether or not it is caused in part by an Indemnified Party.

16.1. To the fullest extent permitted by law, CONSULTANT shall protect, indemnify, defend and hold harmless CITY, its Council members, officers, employees and agents (each an "Indemnified Party") from and against any and all demands, claims, or liability of any nature, including death or injury to any person, property damage or any other loss, including all costs and expenses of whatever nature including attorney's fees, experts fees, court costs and disbursements ("Claims") resulting from, arising out of or in any manner related to performance or nonperformance by CONSULTANT, its officers, employees, agents or contractors under this Agreement, regardless of whether or not it is caused in part by an Indemnified Party.

16.2. Notwithstanding the above, nothing in this Section 16 shall be construed to require CONSULTANT to indemnify an Indemnified Party from Claims arising from the active negligence, sole negligence or willful misconduct of an Indemnified Party.

16.3. The acceptance of CONSULTANT's services and duties by CITY shall not operate as a waiver of the right of indemnification. The provisions of this Section 16 shall survive the expiration or early termination of this Agreement.

SECTION 17. WAIVERS. The waiver by either party of any breach or violation of any covenant, term, condition or provision of this Agreement, or of the provisions of any ordinance or law, will not be deemed to be a waiver of any other term, covenant, condition, provisions, ordinance or law, or of any subsequent breach or violation of the same or of any other term, covenant, condition, provision, ordinance or law.

SECTION 18. INSURANCE.

18.1. CONSULTANT, at its sole cost and expense, shall obtain and maintain, in

full force and effect during the term of this Agreement, the insurance coverage described in Exhibit "D". CONSULTANT and its contractors, if any, shall obtain a policy endorsement naming CITY as an additional insured under any general liability or automobile policy or policies.

18.2. All insurance coverage required hereunder shall be provided through carriers with AM Best's Key Rating Guide ratings of A-VII or higher which are licensed or authorized to transact insurance business in the State of California. Any and all contractors of CONSULTANT retained to perform Services under this Agreement will obtain and maintain, in full force and effect during the term of this Agreement, identical insurance coverage, naming CITY as an additional insured under such policies as required above.

18.3. Certificates evidencing such insurance shall be filed with CITY concurrently with the execution of this Agreement. The certificates will be subject to the approval of CITY's Risk Manager and will contain an endorsement stating that the insurance is primary coverage and will not be canceled, or materially reduced in coverage or limits, by the insurer except after filing with the Purchasing Manager thirty (30) days' prior written notice of the cancellation or modification. If the insurer cancels or modifies the insurance and provides less than thirty (30) days' notice to CONSULTANT, CONSULTANT shall provide the Purchasing Manager written notice of the cancellation or modification within two (2) business days of the CONSULTANT's receipt of such notice. CONSULTANT shall be responsible for ensuring that current certificates evidencing the insurance are provided to CITY's Chief Procurement Officer during the entire term of this Agreement.

18.4. The procuring of such required policy or policies of insurance will not be construed to limit CONSULTANT's liability hereunder nor to fulfill the indemnification provisions of this Agreement. Notwithstanding the policy or policies of insurance, CONSULTANT will be obligated for the full and total amount of any damage, injury, or loss caused by or directly arising as a result of the Services performed under this Agreement, including such damage, injury, or loss arising after the Agreement is terminated or the term has expired.

SECTION 19. TERMINATION OR SUSPENSION OF AGREEMENT OR SERVICES.

19.1. The City Manager may suspend the performance of the Services, in whole or in part, or terminate this Agreement, with or without cause, by giving ten (10) days prior written notice thereof to CONSULTANT. Upon receipt of such notice, CONSULTANT will immediately discontinue its performance of the Services.

19.2. CONSULTANT may terminate this Agreement or suspend its performance of the Services by giving thirty (30) days prior written notice thereof to CITY, but only in the event of a substantial failure of performance by CITY.

19.3. Upon such suspension or termination, CONSULTANT shall deliver to the City Manager immediately any and all copies of studies, sketches, drawings, computations, and other data, whether or not completed, prepared by CONSULTANT or its contractors, if any, or given to CONSULTANT or its contractors, if any, in connection with this Agreement. Such

materials will become the property of CITY.

19.4. Upon such suspension or termination by CITY, CONSULTANT will be paid for the Services rendered or materials delivered to CITY in accordance with the scope of services on or before the effective date (i.e., 10 days after giving notice) of suspension or termination; provided, however, if this Agreement is suspended or terminated on account of a default by CONSULTANT, CITY will be obligated to compensate CONSULTANT only for that portion of CONSULTANT’s services which are of direct and immediate benefit to CITY as such determination may be made by the City Manager acting in the reasonable exercise of his/her discretion. The following Sections will survive any expiration or termination of this Agreement: 14, 15, 16, 19.4, 20, and 25.

19.5. No payment, partial payment, acceptance, or partial acceptance by CITY will operate as a waiver on the part of CITY of any of its rights under this Agreement.

SECTION 20. NOTICES.

All notices hereunder will be given in writing and mailed, postage prepaid, by certified mail, addressed as follows:

To CITY: Office of the City Clerk
City of Palo Alto
Post Office Box 10250
Palo Alto, CA 94303

With a copy to the Purchasing Manager

To CONSULTANT: Attention of the project director
at the address of CONSULTANT recited above

SECTION 21. CONFLICT OF INTEREST.

21.1. In accepting this Agreement, CONSULTANT covenants that it presently has no interest, and will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the Services.

21.2. CONSULTANT further covenants that, in the performance of this Agreement, it will not employ subconsultants, contractors or persons having such an interest. CONSULTANT certifies that no person who has or will have any financial interest under this Agreement is an officer or employee of CITY; this provision will be interpreted in accordance with the applicable provisions of the Palo Alto Municipal Code and the Government Code of the State of California.

21.3. If the Project Manager determines that CONSULTANT is a “Consultant” as that term is defined by the Regulations of the Fair Political Practices Commission, CONSULTANT shall be required and agrees to file the appropriate financial disclosure documents required by the Palo Alto Municipal Code and the Political Reform Act.

SECTION 22. NONDISCRIMINATION. As set forth in Palo Alto Municipal Code section 2.30.510, CONSULTANT certifies that in the performance of this Agreement, it shall not discriminate in the employment of any person because of the race, skin color, gender, age, religion, disability, national origin, ancestry, sexual orientation, housing status, marital status, familial status, weight or height of such person. CONSULTANT acknowledges that it has read and understands the provisions of Section 2.30.510 of the Palo Alto Municipal Code relating to Nondiscrimination Requirements and the penalties for violation thereof, and agrees to meet all requirements of Section 2.30.510 pertaining to nondiscrimination in employment.

SECTION 23. ENVIRONMENTALLY PREFERRED PURCHASING AND ZERO WASTE REQUIREMENTS. CONSULTANT shall comply with the CITY's Environmentally Preferred Purchasing policies which are available at CITY's Purchasing Department, incorporated by reference and may be amended from time to time. CONSULTANT shall comply with waste reduction, reuse, recycling and disposal requirements of CITY's Zero Waste Program. Zero Waste best practices include first minimizing and reducing waste; second, reusing waste and third, recycling or composting waste. In particular, CONSULTANT shall comply with the following zero waste requirements:

- (a) All printed materials provided by CCONSULTANT to CITY generated from a personal computer and printer including but not limited to, proposals, quotes, invoices, reports, and public education materials, shall be double-sided and printed on a minimum of 30% or greater post-consumer content paper, unless otherwise approved by CITY's Project Manager. Any submitted materials printed by a professional printing company shall be a minimum of 30% or greater post-consumer material and printed with vegetable based inks.
- (b) Goods purchased by CONSULTANT on behalf of CITY shall be purchased in accordance with CITY's Environmental Purchasing Policy including but not limited to Extended Producer Responsibility requirements for products and packaging. A copy of this policy is on file at the Purchasing Division's office.
- (c) Reusable/returnable pallets shall be taken back by CONSULTANT, at no additional cost to CITY, for reuse or recycling. CONSULTANT shall provide documentation from the facility accepting the pallets to verify that pallets are not being disposed.

SECTION 24. COMPLIANCE WITH PALO ALTO MINIMUM WAGE ORDINANCE. CONSULTANT shall comply with all requirements of the Palo Alto Municipal Code Chapter 4.62 (Citywide Minimum Wage), as it may be amended from time to time. In particular, for any employee otherwise entitled to the State minimum wage, who performs at least two (2) hours of work in a calendar week within the geographic boundaries of the City, CONSULTANT shall pay such employees no less than the minimum wage set forth in Palo Alto Municipal Code section 4.62.030 for each hour worked within the geographic boundaries of the City of Palo Alto. In addition, CONSULTANT shall post notices regarding the Palo Alto Minimum Wage Ordinance in accordance with Palo Alto Municipal Code section 4.62.060.

SECTION 25. NON-APPROPRIATION

25.1. This Agreement is subject to the fiscal provisions of the Charter of the

City of Palo Alto and the Palo Alto Municipal Code. This Agreement will terminate without any penalty (a) at the end of any fiscal year in the event that funds are not appropriated for the following fiscal year, or (b) at any time within a fiscal year in the event that funds are only appropriated for a portion of the fiscal year and funds for this Agreement are no longer available. This section shall take precedence in the event of a conflict with any other covenant, term, condition, or provision of this Agreement.

SECTION 26. PREVAILING WAGES AND DIR REGISTRATION FOR PUBLIC WORKS CONTRACTS

26.1 **This Project is not subject to prevailing wages.** CONSULTANT is not required to pay prevailing wages in the performance and implementation of the Project in accordance with SB 7 if the contract is not a public works contract, if the contract does not include a public works construction project of more than \$25,000, or the contract does not include a public works alteration, demolition, repair, or maintenance (collectively, ‘improvement’) project of more than \$15,000.

OR

26.1 **CONSULTANT is required to pay general prevailing wages** as defined in Subchapter 3, Title 8 of the California Code of Regulations and Section 16000 et seq. and Section 1773.1 of the California Labor Code. Pursuant to the provisions of Section 1773 of the Labor Code of the State of California, the City Council has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in this locality for each craft, classification, or type of worker needed to execute the contract for this Project from the Director of the Department of Industrial Relations (“DIR”). Copies of these rates may be obtained at the Purchasing Division’s office of the City of Palo Alto. CONSULTANT shall provide a copy of prevailing wage rates to any staff or subcontractor hired, and shall pay the adopted prevailing wage rates as a minimum. CONSULTANT shall comply with the provisions of all sections, including, but not limited to, Sections 1775, 1776, 1777.5, 1782, 1810, and 1813, of the Labor Code pertaining to prevailing wages.

26.2 CONSULTANT shall comply with the requirements of Exhibit “E” for any contract for public works construction, alteration, demolition, repair or maintenance.

SECTION 27. MISCELLANEOUS PROVISIONS.

27.1. This Agreement will be governed by the laws of the State of California.

27.2. In the event that an action is brought, the parties agree that trial of such action will be vested exclusively in the state courts of California in the County of Santa Clara, State of California.

27.3. The prevailing party in any action brought to enforce the provisions of this Agreement may recover its reasonable costs and attorneys' fees expended in connection with that action. The prevailing party shall be entitled to recover an amount equal to the fair market value

of legal services provided by attorneys employed by it as well as any attorneys' fees paid to third parties.

27.4. This document represents the entire and integrated agreement between the parties and supersedes all prior negotiations, representations, and contracts, either written or oral. This document may be amended only by a written instrument, which is signed by the parties.

27.5. The covenants, terms, conditions and provisions of this Agreement will apply to, and will bind, the heirs, successors, executors, administrators, assignees, and consultants of the parties.

27.6. If a court of competent jurisdiction finds or rules that any provision of this Agreement or any amendment thereto is void or unenforceable, the unaffected provisions of this Agreement and any amendments thereto will remain in full force and effect.

27.7. All exhibits referred to in this Agreement and any addenda, appendices, attachments, and schedules to this Agreement which, from time to time, may be referred to in any duly executed amendment hereto are by such reference incorporated in this Agreement and will be deemed to be a part of this Agreement.

27.8 In the event of a conflict between the terms of this Agreement and the exhibits hereto or CONSULTANT's proposal (if any), the Agreement shall control. In the case of any conflict between the exhibits hereto and CONSULTANT's proposal, the exhibits shall control.

27.9 If, pursuant to this contract with CONSULTANT, CITY shares with CONSULTANT personal information as defined in California Civil Code section 1798.81.5(d) about a California resident ("Personal Information"), CONSULTANT shall maintain reasonable and appropriate security procedures to protect that Personal Information, and shall inform City immediately upon learning that there has been a breach in the security of the system or in the security of the Personal Information. CONSULTANT shall not use Personal Information for direct marketing purposes without City's express written consent.

27.10 All unchecked boxes do not apply to this agreement.

27.11 The individuals executing this Agreement represent and warrant that they have the legal capacity and authority to do so on behalf of their respective legal entities.

27.12 This Agreement may be signed in multiple counterparts, which shall, when executed by all the parties, constitute a single binding agreement.

CONTRACT No. C19171565 SIGNATURE PAGE

IN WITNESS WHEREOF, the parties hereto have by their duly authorized representatives executed this Agreement on the date first above written.

CITY OF PALO ALTO

BROWN AND CALDWELL

City Manager or Designee

Officer 1

DocuSigned by:

By: *Jeff Kivett*

Name: 869C6E77568B44B Jeff Kivett

Title: Vice President

APPROVED AS TO FORM:

City Attorney or designee

Officer 2 (Required for Corp. or LLC)

DocuSigned by:

By: *Grace Chow*

Name: 7A9DD95B538E4AB Grace Chow

Title: vice president

Attachments:

- EXHIBIT "A": SCOPE OF SERVICES
- EXHIBIT "B": SCHEDULE OF PERFORMANCE
- EXHIBIT "C": COMPENSATION
- EXHIBIT "C-1": SCHEDULE OF RATES
- EXHIBIT "D": INSURANCE REQUIREMENTS

EXHIBIT "A"
SCOPE OF SERVICES

**Palo Alto Regional Water Quality Control Plant
Design Services for Secondary Treatment Process
Upgrade**

I. INTRODUCTION

The City of Palo Alto Department of Public Works (City) intends to upgrade its existing two-stage secondary treatment system at the Regional Water Quality Control Plant (RWQCP, or the Plant), which consists of fixed film reactors (FFRs) followed by activated sludge aeration basins. The upgrade will be to a biological nutrient removal (BNR) process. A preliminary assessment of the secondary treatment process was conducted by a consultant that evaluated several process alternatives. The study concluded that the Modified Ludzack-Ettinger (MLE) process might be the best overall alternative from an operations standpoint, ease of implementation in the existing infrastructure, as well as being the most cost effective option.

The City strongly encourages designs for innovative BNR treatment options to MLE (e.g., step feed). The Consultant should provide details and justification for alternatives to the default option of MLE. A life cycle cost analysis will be required before choosing an option other than MLE. The City values cost efficiency, energy efficiency, effective and sustainable O&M, technologies resilient for future regulatory changes, and reasonable implementation (i.e., ease of constructability) that ensures the capability of meeting NPDES permit requirements during the entire construction phase, startup, and commissioning. This project will provide the City cost savings upon decommissioning the aging FFRs. It will provide O&M enhancements upon the upgrade of the entire secondary treatment process including ancillary systems. It will prepare the City for potential future regulatory changes.

II. BACKGROUND

The City owns and operates the RWQCP, which encompasses a 25-acre site within the Palo Alto Baylands located between Highway 101 and San Francisco Bay. The RWQCP receives and treats wastewater from Palo Alto, Mountain View, Los Altos, Stanford University, Los Altos Hills, and East Palo Alto Sanitary District. The service areas are a mix of institutional, residential, and commercial uses consisting of approximately 223,100 residents. The Plant has a design capacity of 39 mgd, average treated flow of 19 mgd, and a wet weather capacity of 80 mgd. Peak daily flow to the outfall during dry weather is 30 to 39 mgd and the morning low flow is typically about 5 to 10 mgd.

Following headwork screening and primary treatment (via gravity sedimentation), secondary treatment of the influent wastewater is achieved via two (2) FFRs

(roughing filters for CBOD removal) followed by four (4) activated sludge aeration basins (suspended growth, complete nitrification). The FFRs were installed as part of the plant's Advanced Wastewater Treatment process upgrade in 1980 to remove ammonia. The two FFRs contain 305,000 ft³ total media volume. The aeration basins (240,000 ft³) were installed as part of the plant's main structure in 1972. The original electric agitators were removed and replaced by a fine bubble aeration system in 1988 with ceramic dome diffusers. The aeration system blowers vary in style and age with the oldest blower installed in 1980. They consist of multi-stage centrifugal, positive displacement, and single-stage radial type with inlet guide vanes and variable diffusers.

Over the years, the FFRs have sustained structural concrete and steel damage and are in need of repairs or retirement. MLSS piping and mixer platforms in the aeration basins are in need of re-coating or replacement. The MLSS piping header supports are not anchored very well. The aging blowers and fine bubble diffusers are in need of replacement. Several sluice gates cannot be operated and need to be replaced. Mud valves are in need of rehabilitation. Structural concrete damage (cracks and spalling) is visible at various locations across the aeration basins.

The upgrade to the existing aeration basins to a BNR system is expected to improve the Plant's process unit reliability, ensure that the Plant continues to meet effluent discharge permit limits, establish a path toward meeting potential future nutrient regulatory requirements, and allow for decommissioning of the aging FFR towers.

III. **SCOPE OF SERVICES**

The City intends to upgrade its existing secondary treatment process. Intentions are to upgrade to a Modified Ludzack-Ettinger (MLE) activated sludge process, however alternatives to MLE are encouraged (e.g., step feed). Alternatives already screened in the tech memo should not be recommended (e.g., IFAS, membrane bioreactors, and traditional rehab of the two stage FFRs and activated sludge system).

The Consultant (also referred herein as the "Engineer") shall provide engineering services during all phases of the project from preliminary design, design, bid period services, engineering services during construction, and support during commissioning and start-up. Services shall include but are not limited to:

- Confirmation or update of flow and load projections through 2054, based on projections provided by the City.
- Evaluation of hydraulic improvements for potential decommissioning of the Intermediate Pump Station (IPS).
- Development of the plant's hydraulic grade line for daily flow conditions and peak flow conditions with necessary capital equipment to ensure grade line can be met.
- Review and update the hydraulic profile of the entire RWQCP.

- Assessment of existing blowers to assess remaining life and capacity
- Comparative evaluation of different types of baffle walls.
- Comparative evaluation of different types of blowers, air diffusers, and mixer options.
- Type of carbon addition options and planning for future carbon addition should it be required.
- Coring and non-destructive testing techniques of the concrete in the existing aeration basins.
- Recommendations for repair and rehabilitation of the concrete and structural elements.
- Upgrade the existing aeration basins to accommodate an MLE or alternative process including but not limited to replacement of the aeration system and installation of new mixers, baffles, recirculation system, DO monitors, and instrumentation and controls.
- Evaluation of options for phosphorus removal solutions should phosphorus regulations be implemented.
- Evaluation of operational improvements needed for peak wet weather flows.
- Replacing or upgrading associated mechanical components including but not limited to blowers, piping, mud valves, influent and effluent flow control, and miscellaneous valves and gates.
- Replacing or upgrading associated electrical components including but not limited to the MCC and VFDs.
- Develop specifications and the scope of FFR decommissioning for use by City staff.
- Development of a phasing plan for upgrades associated with schedule of increasing flows and loads, and target dates for nutrient requirements.
- Development of control strategies.
- Development of construction sequencing requirements.
- Update of Standard Operating Procedures (SOPs) for the O&M Manual for the new process.
- Technical support of regulatory and financial coordination, as required (e.g., technical documents related to BNR efficiency to establish early action credit for Palo Alto with future RWQCB nutrient watershed permits, SRF loan application and / or WIFIA application, energy efficiency alternative funding applications, CEQA+ documents, etc.).
- Evaluation of new WAS and RAS loads and adequacy of existing pump systems.
- Determination, through BioWin modeling, if the secondary clarifiers will be overloaded due to the changes associated with process upgrade and recommendations for potential improvements, if any, to improve performance of the four (4) square clarifiers.
- The potential effects on the process from digester return flows, should digesters be added at some point in the future.
- Wastewater characterization and field testing – development and execution of a sampling plan, and analysis / evaluation of the data.

- **Preparation of documents for compliance with CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND CLEAN WATER STATE REVOLVONG FUND (SRF)**

At this time, the City anticipates that the project will be categorically exempt (Cat Ex) under CEQA Guidelines Section 15301(b), Existing Services, as it involves the repair of an existing publicly-owned utility used to provide sewerage services. Moreover, the construction work planned for this project is within the RWQCP fence line and is anticipated to have no significant environmental impacts to habitat or the public.

However, in the event that the City determines that an Initial Study (IS) is necessary to evaluate any possible significant impacts, the Consultant shall prepare the Initial Study and related CEQA documents, if authorized by the City. The City will be the lead agency for completing the CEQA process before or concurrent with the SRF application process.

Consultant shall retain a subconsultant specializing in preparing CEQA + documentation, to prepare the Cat Ex or, if necessary, the IS, documents and perform the CEQA related tasks under this provision. The documents prepared shall meet the CEQA + requirements of the State Water Resources Control Board (SWRCB) CA Clean Water State Revolving Fund (CCWSRF) or (SRF) Program.

For the construction phase of this project, the City intends to seek financing through the State Water Resources Control Board (SWRCB) CA Clean Water State Revolving Fund (CCWSRF) or (SRF) Program. In the case of SRF application, the City will be the lead agency for planning and submitting the SRF application package -- which includes General, Financial Security, Technical and Environmental packages -- to the SWRCB Division of Finance Assistance (DFA). If an SRF loan cannot be obtained, the City intends to finance the project through a revenue bond.

IV. PROJECT BASIS OF DESIGN

The basis of design is to upgrade the existing two-stage secondary treatment system to a BNR process while including provisions for future expansion needs. The design of the secondary treatment upgrades should meet a target of 15 mg/L for total nitrogen under 2054 flow and load conditions. Designs that can exceed this limit for marginal additional cost are encouraged. Upgrades are envisioned to be phased to meet regulatory schedules as well as flow and load needs. Current and projected future flows and loads are presented in Table 1 below.

Table 1. Flow and Load Projections

	Current (2012-2017 Average)	2054 Projections (to be Provided by Consultant during Preliminary Design [Task 1])
Flows		
Per Capita ADWF, gpcd	18.6	
ADWF, mgd	20.2	
AAF, mgd	23.2	
ADMMF, mgd	81	
Loadings		
ADW BOD, ppd	49,869	
ADW TSS, ppd	45,073	
ADW NH3-N, ppd	6,043	
MM BOD, ppd	55,666	
MM TSS, ppd	51,755	
MM NH3-N, ppd	6,527	
Concentrations		
ADW BOD, mg/L	322	
ADW TSS, mg/L	291	
ADW NH3-N, mg/L	39.1	
MM BOD, mg/L	288	
MM TSS, mg/L	268	

MM NH3-N, mg/L	33.8	
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V. **CONSULTANT SCOPE OF SERVICES (BASIC SERVICES)**

The Consultant's scope of work shall include, but not be limited to, the tasks described in the following sections. All deliverables including drawings, graphics, schedules, reports and technical memoranda shall be provided in hard copy and in their original software version (Excel, Word, AutoCAD, PowerPoint, etc.) and PDF version (if requested by the City). The City will have ownership rights and rights to use any of the documentation developed under this Project.

Task 1 – Preliminary Design

Preliminary design activities will include the following:

- Kickoff meeting and workshops with RWQCP staff to define the scope of condition assessment and discuss rehabilitation and improvement options.
- Review available record drawings and documentation including plant's maintenance records, Long Range Facility Plan (LRFP) and Facility Condition Assessment (FCA) Report's recommendations for structural rehabilitation of aeration basins and ancillary systems. Assess and quantify needed repairs/rehabilitation.
- Review LRFP and FCA structural rehabilitation recommendations for aeration basins. Assess and quantify needed repairs/rehabilitation.
- Conduct visual assessments of all accessible areas
- Conduct a comprehensive field assessment of the aeration basins and supporting structures/facilities including:
 - o Mechanical equipment
 - o Electrical equipment
 - o Instrumentation and controls
 - o Yard piping
 - o All concrete and metal structures associated with:
 - Aeration Basins
 - Intermediate Pump Station (IPS)
 - FFR
- Perform a structural analysis of the pertinent secondary treatment structures to confirm structural integrity, and identify seismic retrofit options that would be needed.
- Develop a sampling / analysis plan for wastewater characterization, execute the plan, and provide analysis and recommendations to further refine the design of the treatment process to meet the future targeted regulatory limitations.
- Prepare a Preliminary Design Report which includes the following content, as a minimum:
 - o Results of all field inspections, including estimates of quantities, types, and costs of rehabilitation and repairs.

- Evaluation of associated electrical and instrumentation systems and recommendations for improvements and integration of new equipment.
- Recommendations for repair and rehabilitation of concrete and structural elements.
- Update hydraulic profile for the entire plant for daily and peak flow conditions with and without any needed wet-weather flow pump station in operation.
- Confirm population growth projections and update flow and load projections through 2054.
- Recommendations to meet a potential nitrogen target of 15 mg/L.
- Hydraulic analysis and evaluation of primary effluent to BNR process (i.e. upgrade existing IPS or alternative approach).
- Evaluation and recommendation for baffles.
- Evaluation and recommendations for blowers and air diffusers and other mechanical improvements.
- Evaluation of supplemental carbon addition options.
- Preliminary sequencing of improvements, bypasses, temporary shutdowns, and other temporary measures needed to keep the plant operational during the construction.
- Identify and evaluate facilities / equipment / infrastructure that enhance operational flexibility.
- Overall schedule and phasing approach and notation of any equipment that requires long lead times.
- 30% drawings set.

Deliverables:

Kickoff Meeting

- Meeting Agenda
- Meeting Minutes (draft and final)

Field Assessment Documentation

- Field Notes and Pictures

30% Design Review Workshop

- Meeting Agenda
- Slide Presentation

Pre-Design Report

- Draft Preliminary Design Report with Recommendations – 4 hard copy sets, 1 electronic set in pdf format and 1 electronic set in MS Word
- Final Preliminary Design Report with Recommendations – 4 hard copy sets, 1 electronic set in pdf format and 1 electronic set in MS Word
- Preliminary Cost Estimate – OPCC accuracy range of +30% / -15% conforming to the AACE International's standard for a Class 3 Estimate
- Preliminary Construction Schedule (presented in MS Project)

Task 2 – Detailed Design

Consultant shall develop Design Documents (including Plans, Specifications,

Schedule, and Costs) for a MLE activated sludge process and decommissioning of the FFRs. The design shall be based on the Preliminary Design Report and consultation with RWQCP staff. Consultant will develop 60%, 90%, and 100% design documents. Consultant shall conduct design review workshops with Plant staff at the 60% and 90% design stages to review progress, obtain input, and confirm decisions during the design development. All design shall go through the proper quality assurance and quality control reviews prior to issuing to the City for review.

The design shall sequence construction such that plant performance and operations are maintained on a continuous basis except as allowed under special circumstances. A construction sequence shall be established in sufficient detail which meets the RWQCP's ability to comply with NPDES discharge permit requirements.

General Coordination - Consultant shall provide for overall coordination of engineering (including structural, mechanical, electrical, instrumentation and controls, etc.) and other disciplines required for the successful development of a consolidated set of detailed design documents that will result in final construction bid document.

Site/Civil design - Survey and review the existing site conditions. There are multiple underground (UG) utilities such as pipes, electrical conduits, duct banks and structures at and in the proximity of the site. The site is in FEMA Base Flood Zone Elevation (10.5 feet NAVD 1988).

Structural Design – Structural design shall be in accordance with all jurisdictional requirements including the California Building Code. Structural design shall include field verification and structural improvements and may include miscellaneous foundation, handrail, and platform rehabilitation of the aeration basins.

Mechanical Design – Mechanical design shall include field verification, process schematics, design, layout of mechanical equipment and appurtenances, piping, and other related systems. Existing conditions shall be field verified where possible.

Electrical Design – The electrical design shall include the determination of power requirements, cable and conduit sizing, controls, alarms, and area lighting. Existing conditions shall be field verified. The new electrical equipment shall be above the flood zone.

Instrumentation and Control – Design shall be compatible with existing SCADA and PLC systems. Where appropriate, control shall utilize a local PLC with remote control parameters provided through the existing SCADA system. Automation of system control shall be used where most appropriate. Alarm and status shall be supplied to the SCADA system. Coordinate with City staff to identify standards that have been established or to modify the existing standards as necessary.

California Environmental Quality Act (CEQA) and SRF Documentation - The City requires that Consultant retain a sub-consultant specializing in preparing CEQA documentation to prepare the CEQA Cat Ex documentation and perform related CEQA tasks. The documents prepared shall meet the CEQA + requirements of

the State Water Resources Control Board (SWRCB) CA Clean Water State Revolving Fund (CCWSRF) or (SRF) Program.

In the event that the project requires an Initial Study (IS), the CEQA sub-consultant shall prepare the IS and Mitigated Negative Declaration (MND) unless the City determines other CEQA review is required. In addition, should the project funding source come from the SRF, a CEQA document will be required as part of the loan application package, which is to be developed by the CEQA sub-consultant, that meets the CEQA + requirements of the SRF Program. The CEQA subconsultant shall coordinate its activities with City's CEQA review team within the Planning and Community Environment Department.

Deliverables:

Consultant shall submit the design deliverables in both electronic and hard copy formats. Specifications shall conform to CSI 2016 Master Format.

60% Design Deliverable – 4 hard copies plus electronic copy

- 60% Design documents (plans and specifications)
- Design Review Workshop (include Meeting Agenda & Slide Presentation)

90% Design Deliverable – 2 hard copies plus electronic copy

- 90% Design documents
- Design Review Workshop (include Meeting Agenda & Slide Presentation)
- Cost Estimate - OPCC accuracy range of +15% / -5% conforming to the AACE International's standard for a Class 1 Estimate
- Updated Construction Schedule (presented in MS Project)

Final Design Deliverable – 2 hard copies plus electronic copy

- Final specifications (electronic copies in PDF and MS Word formats)
- Final drawings (electronic copy in PDF AutoCAD formats)
- Final Cost Estimate - OPCC accuracy range of +10% / -5% conforming to the AACE International's standard for a Class 1 Estimate
- Final Construction Schedule (presented in MS Project)

Task 3 – Bid Period Services

Services during Bidding will include the following:

- Consultant shall assist the City in preparation of construction bid packages. The City will assemble and issue the bid packages. The City has standard front-end specifications that will be issued as part of the construction bid package. Consultant will review the front-end specifications to ensure that there are no conflicts between the front-end specs and Detailed Design specs.
- Consultant shall provide responses to Request for Clarification (RFC) from prospective bidders.
- Consultant shall assist the City with preparation of Project addenda.
- Consultant shall attend and assist the City at the pre-bid conference and the walk through.

- Consultant shall prepare conformed design package (drawings and specifications) incorporating information issued as addenda and Responses to RFC during the bid period.

Deliverables:

- Response to Request for Clarifications on Bid Package
- Project Addenda
- Pre-Bid Conference (Agenda and materials, meeting minutes)
- Conformed specifications – 2 hard copies, 1 digital copy in PDF and 1 MS Word format
- Conformed drawings – 2 hard copies, 1 digital copy in PDF format, and 1 copy in AutoCAD format

Task 4 – Engineering Services during Construction

During construction phase, estimated to take up to 24 months, the Consultant shall provide the following services:

- Consultant will review submittals from the construction contractor for conformance with the construction contract documents. The Consultant shall review and return the submittal comments to the City within ten working calendar days.
- Consultant will prepare written response to the Request for Information (RFI) submitted by the contractor. The Consultant shall review, comment, and return the RFI responses within seven (7) calendar days.
- Consultant will review and validate the Contract Change Order requests submitted by the contractor for accuracy and correctness, as requested by the City.
- As requested, the Consultant will attend the construction progress meetings with the Contractor during construction phase. Please allow one meeting per month during the construction phase.
- The Consultant shall provide the technical support to the City during testing of the new treatment process. The Consultant shall assist the City in monitoring, documenting and/or validating any testing required by the permitting agencies.
- Consultant will review the “as-built” or “red-line” drawings and documents maintained by the Contractor during construction. Upon construction completion, the Consultant shall prepare record drawings. The record drawings shall consist of annotated contract drawings and electronic files showing changes in design and construction.
- Consultant shall update the City’s O&M manual to reflect the changes to the normal and abnormal modes of operations, equipment additions, process control descriptions, etc.

Deliverables:

- Submittal review comments
- RFI responses
- Contract change order review comments, as needed

- Record drawings – 1 hard copy (full size and half-size), 1 digital copy in PDF format, 1 copy in AutoCAD format
- Updated O&M Manual for upgraded facilities - 1 hard copy (full size and half-size), 1 digital copy in PDF format.
- Assist in updating the RWQCP Intranet O&M Manual to reflect the changes to the upgraded process.

Task 5 – Project Management

Consultant will provide a competent project manager to supervise and provide direction to each design team members including sub-consultants. Consultant will provide necessary administration, project controls, quality assurance and professional oversight of the project. At the initiation of the Project, Consultant will meet with the City Project Manager to coordinate work. Project staffing will be maintained at acceptable levels to keep the project on schedule, ensure continuity of information, and satisfy the requirements of the CONTRACT. At the minimum, Consultant shall deliver the following to the City Project Manager.

- Prepare a baseline project schedule with milestones, and update monthly
- Conduct monthly progress meetings with the City Project Manager
- Monitor project budget for effort versus progress and keep City Project Manager informed of the status. Identify and mitigate potential overruns in a timely manner.
- Submit monthly invoices, including monthly Progress Reports for payment.

Task 6 – Wastewater Characterization

Consultant will develop a test plan and coordinate with the City to conduct 10-days of wastewater characterization sampling. Sampling results will be used to determine the composition of the influent COD (e.g., soluble or particulate, biodegradable or unbiodegradable fractions) and incorporated into the BioWin simulator model to help determine design aeration demands, mixed liquor suspended solids (MLSS) concentrations, supplemental carbon dosages for nutrient reduction (if required), and final effluent quality. This task includes:

- Sampling, 10-days of daily composite and grab samples. Consultant will use results from the previous diurnal sampling event to determine diurnal variations in loading.
- The City's influent composite sampler will be used to collect influent samples. Since the City's primary effluent sampler is not flow-weighted, Consultant will include a rented sampler with 12 bottles for primary effluent, so that a flow-weighted daily sample can be manually composited. Other samples will be grab samples.
- Consultant to provide a test plan and a brief technical memorandum summarizing the sample locations and coordination issues. A pre-sampling meeting is required to discuss the draft test plan and finalize it with the City's input. Consultant staff will meet with City Lab staff to review

sampling locations, bench space, and coordination with laboratory activities.

- Consultant will provide two (2) staff on the first day, but only one (1) Consultant staff will be present on each of the subsequent nine days to grab samples, conduct filtrations, and prepare samples for pick-up by the contract lab. Consultant will provide filtration equipment.
- During each day, one RWQCP staff member will be available to assist Consultant staff in sample collection, filtration, and preparation of samples by the contract lab.
- Consultant will contract with a contract lab (Caltest) for the sample analyses. Consultant will coordinate with Caltest for sample logistics and sample bottles. Table 2 shows the list of samples and type of analyses that are to be included in the sampling / analyses plan.
- City will provide bench space with power and a sink for Consultant staff use during the sampling event.
- City will provide the characterization data to Consultant in Excel format. City will also provide hourly flow rates and pH and temperature data during the sampling period.
- Results of the sampling / analyses will be incorporated into the Preliminary Design Report.

Table 2 Summary of Wastewater Characterization Sampling						
Sample	Analytical Method	Composite Samples		Grab Samples[e]		
		Raw Influent	Primary Effluent	Primary Effluent Grab Sample	Thickener Overflow	Scrubber Drainage and Belt Press Filtrate
Unfiltered						
COD	SM 5220 B., C., or D.	10	10	7	7	7
BOD	SM 5210 B.	10	10	---	7	7
TSS	SM 2540 D.	10	10	---	7	7
VSS	SM 2540 E.	10	10	---	7	7
TKN	SM 4500-Norg B. or C.	10	10	---	7	7
TP	SM 4500-P B./C.	10	10	---	7	7
Alkalinity	SM 2320 B	10	10	---	7	7
Filtered [b]						
sCOD	SM 5220 B., C., or D.	10	10	7	7	7
sBOD	SM 5210 B.	10	10	---	---	---
sTKN	SM 4500-Norg B. or C.	10	---	---	---	---
sTP	SM 4500-P B./C.	10	---	---	---	---
Filtered [c]						
NH3	SM 4500-NH3 C.	10	10	---	7	7
OP	SM 4500-P C.	10	10	---	---	---

Flocculated/Filtered [d]						
ffCOD	SM 5220 B., C., or D.	10	10	7	7	7
Volatile Fatty Acids						
VFAs (low concentration)	---	---	---	7	---	---

Notes:

[a] - Sampling should be performed during normal plant operation that represents typical operation. Samples shown as 10 are collected once per day for 10 days (including weekends). Samples shown as 7 are collected every day for the first 7 days.

[b] - Filtered through 1.2 to 1.5 micron glass fiber filter (the same as those typically used to measure plant TSS/VSS). Filtration should occur immediately after collection.

[c] - Filtered through 0.45 micron Millipore filter. Filtration should occur immediately after collection. Prior to filtration, filters should be triple rinsed with DI water.

[d] - Sample preparation per Mamais, D; Jenkins, D; and Pitt, P. "A Rapid Physical-Chemical Method for the Determination of Readily Biodegradable Soluble COD in Municipal Wastewater", Water Research, 27(1), pp. 195 - 197, 1993.

[e] - note time of sample collection and flow at time of sample collection

VI. TIME OF COMPLETION

The project is budgeted for an estimated start date in Q3 2018, with a design duration timeline of 18 months. The Consultant shall propose a timeline for completing this work in their proposal considering completion of the final design.

It should be noted that should the construction funding be delayed from the funding sources, the construction of the project could be delayed or temporarily halted, affecting the engineering services during construction timetable.

END OF SCOPE OF SERVICES

EXHIBIT "B"
SCHEDULE OF PERFORMANCE

CONSULTANT shall perform the Services so as to complete each milestone within the number of days/weeks specified below. The time to complete each milestone may be increased or decreased by mutual written agreement of the project managers for CONSULTANT and CITY so long as all work is completed within the term of the Agreement. CONSULTANT shall provide a detailed schedule of work consistent with the schedule below within 2 weeks of receipt of the notice to proceed (NTP).

Milestones	Completion No. of Days/Weeks From NTP
1. Design Kick-Off Meeting	02
2. Submit Draft PDR	38
3. Submit 60% Design	70
4. Submit 100% Design (Bid Documents)	86
5. Services During Bidding	98
6. Services During Construction	210

EXHIBIT "C" COMPENSATION

The CITY agrees to compensate the CONSULTANT for professional services performed in accordance with the terms and conditions of this Agreement, and as set forth in the budget schedule below. Compensation shall be calculated based on the hourly rate schedule attached as exhibit C-1 up to the not to exceed budget amount for each task set forth below.

CONSULTANT shall perform the tasks and categories of work as outlined and budgeted below. The CITY's Project Manager may approve in writing the transfer of budget amounts between any of the tasks or categories listed below provided the total compensation for Basic Services, including reimbursable expenses, and the total compensation for Additional Services do not exceed the amounts set forth in Section 4 of this Agreement.

BUDGET SCHEDULE	NOT TO EXCEED AMOUNT
Task 1 - (Preliminary Design)	\$793,816
Task 2 - (Final Design)	\$1,059,642
Task 3 - (Bid Period Services)	\$52,125
Task 4 - (Eng. Services during Construction)	\$551,227
Task 5 - (Project Management)	\$132,709
Task 6 - (Wastewater Characterization)	\$53,211
Sub-Total Basic Services:	\$2,464,730
Reimbursable Expenses:	\$14,867
Total Basic Services & Reimbursable Expenses:	\$2,657,597
Additional Services (Not to Exceed):	\$265,760
Maximum Total Compensation:	\$2,923,357

REIMBURSABLE EXPENSES

The administrative, overhead, secretarial time or secretarial overtime, word processing, photocopying, in-house printing, insurance and other ordinary business expenses are included within the scope of payment for services and are not reimbursable expenses. CITY shall reimburse CONSULTANT for the following reimbursable expenses at cost. Expenses for which CONSULTANT shall be reimbursed are:

A. Travel outside the San Francisco Bay area, including transportation and meals, will be reimbursed at actual cost subject to the City of Palo Alto's policy for reimbursement of travel and meal expenses for City of Palo Alto employees.

B. Long distance telephone service charges, cellular phone service charges, facsimile transmission and postage charges are reimbursable at actual cost.

All requests for payment of expenses shall be accompanied by appropriate backup information. Any expense anticipated to be more than \$1,000.00 shall be approved in advance by the CITY's project manager.

ADDITIONAL SERVICES

The CONSULTANT shall provide additional services only by advanced, written authorization from the CITY. The CONSULTANT, at the CITY's project manager's request, shall submit a detailed written proposal including a description of the scope of services, schedule, level of effort, and CONSULTANT's proposed maximum compensation, including reimbursable expense, for such services based on the rates set forth in Exhibit C-1. The additional services scope, schedule and maximum compensation shall be negotiated and agreed to in writing by the CITY's Project Manager and CONSULTANT prior to commencement of the services. Payment for additional services is subject to all requirements and restrictions in this Agreement

Work required because the following conditions are not satisfied or are exceeded shall be considered as additional services:

Should an Environmental Impact Report (EIR) be required, the additional services fund may be considered for use on this task, depending upon the estimated cost to perform this service.

**EXHIBIT “C-1”
SCHEDULE OF RATES**

Brown and Caldwell Schedule of Hourly Billing Rates

Proposal: Design Services for Secondary Treatment Upgrades (CIP Number WQ-19001)

Level	Engineering	Technical/Scientific	Administrative	Hourly Rate
A			Office/Support Services I	\$73
B	Drafter Trainee	Field Service Technician I	Word Processor I Office/Support Services II	\$76
C	Assistant Drafter	Field Service Technician II	Word Processor II Office/Support Services III	\$89
D	Drafter Engineering Aide Inspection Aide	Field Service Technician III	Accountant I Word Processor III Office/Support Services IV	\$92
E	Engineer I Senior Drafter Senior Illustrator Inspector I	Geologist/Hydrogeologist I Scientist I Senior Field Service Technician	Accountant II Word Processor IV	\$99
F	Engineer II Inspector II Lead Drafter Lead Illustrator	Geologist/Hydrogeologist II Scientist II	Accountant III Area Business Operations Mgr Technical Writer Word Processing Supervisor	\$121
G	Engineer III Inspector III Senior Designer Supervising Drafter Supervising Illustrator	Geologist/Hydrogeologist III Scientist III	Accountant IV Administrative Manager	\$141
H	Senior Engineer Principal Designer Senior Construction Engineer Senior Engineer	Senior Geologist/Hydrogeologist Senior Scientist	Senior Technical Writer	\$162
I	Principal Engineer Principal Construction Engineer Supervising Designer	Principal Geologist/Hydrogeologist Principal Scientist	Corp.Contract Administrator	\$200
J	Supervising Engineer Supervising Constr. Engineer Supervising Engineer	Supervising Scientist Supervising Geologist/ Hydrogeologist	Assistant Controller	\$230
K	Managing Engineer	Managing Geologist/Hydrogeologist Managing Scientist	Area Bus Ops Mgr IV	\$271
L	Chief Engineer Executive Engineer	Chief Scientist Chief Geologist/Hydrogeologist	Corp Marketing Comm. Mgr.	\$291
M	Vice President			\$291

(Effective May 15th through December 31st, 2018)

EXHIBIT "D" INSURANCE REQUIREMENTS

CONTRACTORS TO THE CITY OF PALO ALTO (CITY), AT THEIR SOLE EXPENSE, SHALL FOR THE TERM OF THE CONTRACT OBTAIN AND MAINTAIN INSURANCE IN THE AMOUNTS FOR THE COVERAGE SPECIFIED BELOW, **AFFORDED BY COMPANIES WITH AM BEST'S KEY RATING OF A-VII, OR HIGHER, LICENSED OR AUTHORIZED TO TRANSACT INSURANCE BUSINESS IN THE STATE OF CALIFORNIA.**

AWARD IS CONTINGENT ON COMPLIANCE WITH CITY'S INSURANCE REQUIREMENTS, AS SPECIFIED, BELOW:

REQUIRED	TYPE OF COVERAGE	REQUIREMENT	MINIMUM LIMITS	
			EACH OCCURRENCE	AGGREGATE
YES YES	WORKER'S COMPENSATION EMPLOYER'S LIABILITY	STATUTORY STATUTORY		
YES	GENERAL LIABILITY, INCLUDING PERSONAL INJURY, BROAD FORM PROPERTY DAMAGE BLANKET CONTRACTUAL, AND FIRE LEGAL LIABILITY	BODILY INJURY	\$1,000,000	\$1,000,000
		PROPERTY DAMAGE	\$1,000,000	\$1,000,000
		BODILY INJURY & PROPERTY DAMAGE COMBINED.	\$1,000,000	\$1,000,000
YES	AUTOMOBILE LIABILITY, INCLUDING ALL OWNED, HIRED, NON-OWNED	BODILY INJURY	\$1,000,000	\$1,000,000
		- EACH PERSON	\$1,000,000	\$1,000,000
		- EACH OCCURRENCE	\$1,000,000	\$1,000,000
		PROPERTY DAMAGE	\$1,000,000	\$1,000,000
		BODILY INJURY AND PROPERTY DAMAGE, COMBINED	\$1,000,000	\$1,000,000
YES	PROFESSIONAL LIABILITY, INCLUDING, ERRORS AND OMISSIONS, MALPRACTICE (WHEN APPLICABLE), AND NEGLIGENT PERFORMANCE			
		ALL DAMAGES		\$1,000,000
YES	THE CITY OF PALO ALTO IS TO BE NAMED AS AN ADDITIONAL INSURED: CONTRACTOR, AT ITS SOLE COST AND EXPENSE, SHALL OBTAIN AND MAINTAIN, IN FULL FORCE AND EFFECT THROUGHOUT THE ENTIRE TERM OF ANY RESULTANT AGREEMENT, THE INSURANCE COVERAGE HEREIN DESCRIBED, INSURING NOT ONLY CONTRACTOR AND ITS SUBCONSULTANTS, IF ANY, BUT ALSO, WITH THE EXCEPTION OF WORKERS' COMPENSATION, EMPLOYER'S LIABILITY AND PROFESSIONAL INSURANCE, NAMING AS ADDITIONAL INSURED CITY, ITS COUNCIL MEMBERS, OFFICERS, AGENTS, AND EMPLOYEES.			

I. INSURANCE COVERAGE MUST INCLUDE:

A. A PROVISION FOR CONSULTANT TO PROVIDE A WRITTEN THIRTY (30) DAY ADVANCE NOTICE TO CITY OF CHANGE IN COVERAGE OR OF COVERAGE CANCELLATION.

II. CONTACTOR MUST SUBMIT CERTIFICATES(S) OF INSURANCE EVIDENCING REQUIRED COVERAGE AT THE FOLLOWING URL: <https://www.planetbids.com/portal/portal.cfm?CompanyID=25569>.

III. ENDORSEMENT PROVISIONS, WITH RESPECT TO THE INSURANCE AFFORDED TO "ADDITIONAL INSURED"

A. PRIMARY COVERAGE

WITH RESPECT TO CLAIMS ARISING OUT OF THE OPERATIONS OF THE NAMED INSURED, INSURANCE AS AFFORDED BY THIS POLICY IS PRIMARY AND IS NOT ADDITIONAL TO OR CONTRIBUTING WITH ANY OTHER INSURANCE CARRIED BY OR FOR THE BENEFIT OF THE ADDITIONAL INSURED.

B. CROSS LIABILITY

THE NAMING OF MORE THAN ONE PERSON, FIRM, OR CORPORATION AS INSURED UNDER THE POLICY SHALL NOT, FOR THAT REASON ALONE, EXTINGUISH ANY RIGHTS OF THE INSURED AGAINST ANOTHER, BUT THIS ENDORSEMENT, AND THE NAMING OF MULTIPLE INSURED, SHALL NOT INCREASE THE TOTAL

LIABILITY OF THE COMPANY UNDER THIS POLICY.

C. NOTICE OF CANCELLATION

1. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR ANY REASON OTHER THAN THE NON-PAYMENT OF PREMIUM, THE CONSULTANT SHALL PROVIDE CITY AT LEAST A THIRTY (30) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.
2. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR THE NON-PAYMENT OF PREMIUM, THE CONSULTANT SHALL PROVIDE CITY AT LEAST A TEN (10) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.

**VENDORS ARE REQUIRED TO FILE THEIR EVIDENCE OF INSURANCE
AND ANY OTHER RELATED NOTICES WITH THE CITY OF PALO ALTO
AT THE FOLLOWING URL:**

<HTTPS://WWW.PLANETBIDS.COM/PORTAL/PORTAL.CFM?COMPANYID=25569>

OR

HTTP://WWW.CITYOFPALOALTO.ORG/GOV/DEPTS/ASD/PLANET_BIDS_HOW_TO.ASP