

Attachment A

AGREEMENT FOR SERVICES OF INDEPENDENT CONTRACTOR

THIS AGREEMENT (hereafter Agreement) is made by and between the Laguna County Sanitation District, a dependent special district of the County of Santa Barbara, a political subdivision of the State of California (hereafter DISTRICT) and Carollo Engineers, Inc., having its principal place of business at 3150 Bristol Street, Suite 500, Costa Mesa, California, 92626 (hereafter ENGINEER) wherein ENGINEER agrees to provide and DISTRICT agrees to accept the services specified herein.

WHEREAS, ENGINEER represents that it is specially trained, skilled, experienced, and competent to perform the special services required by DISTRICT and DISTRICT desires to retain the services of ENGINEER pursuant to the terms, covenants, and conditions herein set forth;

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, the parties agree as follows:

1. DESIGNATED REPRESENTATIVE

Martin Wilder, P.E., at phone number (805) 739-8755 is the representative of DISTRICT and will administer this Agreement for and on behalf of DISTRICT. Toby Weissert, P.E., at phone number (714) 593-5100 is the authorized representative for ENGINEER. Changes in designated representatives shall be made only after advance written notice to the other party.

2. NOTICES

Any notice or consent required or permitted to be given under this Agreement shall be given to the respective parties in writing, by personal delivery or facsimile, or with postage prepaid by first class mail, registered or certified mail, or express courier service, as follows:

To DISTRICT: Martin Wilder, P.E.
 Laguna County Sanitation District
 620 West Foster Road
 Santa Maria, CA 93455
 Ph: (805) 739-8755
 Fax: (805) 739-8753
 Email: mwilder@cosbpw.net

To ENGINEER: Toby Weissert, P.E.
 Carollo Engineers, Inc.
 3150 Bristol Street, Suite 500
 Costa Mesa, CA 92626
 Ph: (714) 593-5100
 Fax: (714) 593-5101
 Email: tweissert@carollo.com

or at such other address or to such other person that the parties may from time to time designate in accordance with this Notices section. If sent by first class mail, notices and consents under this section shall be deemed to be received five (5) days following their deposit in the U.S. mail. This Notices section shall not be construed as meaning that either party agrees to service of process except as required by applicable law.

3. SCOPE OF SERVICES

ENGINEER agrees to provide services to DISTRICT in accordance with EXHIBIT A attached hereto and incorporated herein by reference.

4. TERM

ENGINEER shall commence performance on September 22, 2015 and end performance upon completion, but no later than December 31, 2017 unless otherwise directed by DISTRICT or unless earlier terminated.

5. COMPENSATION OF ENGINEER

In full consideration for ENGINEER's services, ENGINEER shall be paid for performance under this Agreement in accordance with the terms of EXHIBIT B attached hereto and incorporated herein by reference. Billing shall be made by invoice, which shall include the contract number assigned by COUNTY and which is delivered to the address given in Section 2 NOTICES above following completion of the increments identified on EXHIBIT B. Unless otherwise specified on EXHIBIT B, payment shall be net thirty (30) days from presentation of invoice.

6. INDEPENDENT ENGINEER

It is mutually understood and agreed that ENGINEER (including any and all of its officers, agents, and employees), shall perform all of its services under this Agreement as an independent ENGINEER as to DISTRICT and not as an officer, agent, servant, employee, joint venture, partner, or associate of DISTRICT. Furthermore, DISTRICT shall have no right to control, supervise, or direct the manner or method by which ENGINEER shall perform its work and function. However, DISTRICT shall retain the right to administer this Agreement so as to verify that ENGINEER is performing its obligations in accordance with the terms and conditions hereof. ENGINEER understands and acknowledges that it shall not be entitled to any of the benefits of a DISTRICT employee, including but not limited to vacation, sick leave, administrative leave, health insurance, disability insurance, retirement, unemployment insurance, workers' compensation and protection of tenure. ENGINEER shall be solely liable and responsible for providing to, or on behalf of, its employees all legally-required employee benefits. In addition, ENGINEER shall be solely responsible and save DISTRICT harmless from all matters relating to payment of ENGINEER's employees, including compliance with Social Security withholding and all other regulations governing such matters. It is acknowledged that during the term of this Agreement, ENGINEER may be providing services to others unrelated to the DISTRICT or to this Agreement.

7. STANDARD OF PERFORMANCE

ENGINEER represents that it has the skills, expertise, and licenses/permits necessary to perform the services required under this Agreement. Accordingly, ENGINEER shall perform all such services in the manner and according to the standards observed by a competent practitioner of the same profession in which ENGINEER is engaged. All products of whatsoever nature, which ENGINEER delivers to DISTRICT pursuant to this Agreement, shall be prepared in a first class and workmanlike manner and shall conform to the standards of quality normally observed by a person practicing in ENGINEER's profession. ENGINEER shall correct or revise any errors or omissions, at DISTRICT's request without additional compensation. Permits and/or licenses shall be obtained and maintained by ENGINEER without additional compensation. In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for potential projects, ENGINEER has no control over cost or price of labor and material; unknown or latent conditions of existing equipment or structures that may affect operation and maintenance costs; competitive bidding procedures and market conditions; time or quality of performance of third parties; quality, type, management, or direction of operating personnel; and other economic and operational factors that may materially affect the ultimate project cost or schedule. Therefore, ENGINEER makes no warranty that DISTRICT's actual project costs, financial aspects, economic feasibility, or schedules will not vary from ENGINEER's opinions, analyses, projections, or estimates.

8. DEBARMENT AND SUSPENSION

ENGINEER certifies that it and its employees and principals are not debarred, suspended, or otherwise excluded from or ineligible for, participation in federal, state, or county government contracts. ENGINEER certifies that it shall not contract with a subcontractor that is so debarred or suspended.

9. TAXES

ENGINEER shall pay all taxes, levies, duties, and assessments of every nature due in connection with any work under this Agreement and shall make any and all payroll deductions required by law. DISTRICT shall not be responsible for paying any taxes on ENGINEER's behalf, and should DISTRICT be required to do so by state, federal, or local taxing agencies, ENGINEER agrees to promptly reimburse DISTRICT for the full value of such paid taxes plus interest and penalty, if any. These taxes shall include, but not be limited to, the following: FICA (Social Security), unemployment insurance contributions, income tax, disability insurance, and workers' compensation insurance.

10. CONFLICT OF INTEREST

ENGINEER covenants that ENGINEER presently has no employment or interest and shall not acquire any employment or interest, direct or indirect, including any interest in any business, property, or source of income, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. ENGINEER further covenants that in the performance of this Agreement, no person having any such interest shall be employed by ENGINEER. DISTRICT retains the right to waive a conflict of interest disclosed by ENGINEER if DISTRICT determines it to be immaterial, and such waiver is only effective if provided by DISTRICT to ENGINEER in writing.

11. OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY

DISTRICT shall be the owner of the following items incidental to this Agreement upon production, whether or not completed: all data collected, all documents of any type whatsoever, all photos, designs, sound or audiovisual recordings, software code, inventions, technologies, and other materials, and any material necessary for the practical use of such items, from the time of collection and/or production whether or not performance under this Agreement is completed or terminated prior to completion. Any reuse of completed documents or use of partially completed documents without written verification or concurrence by ENGINEER for the specific purpose intended will be at DISTRICT's sole risk and without liability or legal exposure to ENGINEER. ENGINEER shall not release any of such items to other parties except after prior written approval of DISTRICT.

ENGINEER's instruments of service hereunder are the printed hard copy drawings and specifications issued for the Project, whereas electronic media, including CAD files, are tools for their preparation. As a convenience to DISTRICT, ENGINEER shall furnish to DISTRICT both printed hard copies and electronic media. In the event of a conflict in their content, the printed hard copies shall take precedence over the electronic media. Because data stored in electronic media form can be altered, inadvertently, it is agreed that DISTRICT shall hold ENGINEER harmless from liability arising out of changes or modifications to ENGINEER's data in electronic media form in DISTRICT's possession or released to others by DISTRICT.

Unless otherwise specified in Exhibit A, ENGINEER hereby assigns to DISTRICT all copyright, patent, and other intellectual property and proprietary rights to all data, documents, reports, photos, designs, sound or audiovisual recordings, software code, inventions, technologies, and other materials prepared or provided by ENGINEER pursuant to this Agreement (collectively referred to as "Copyrightable Works and Inventions"). DISTRICT shall have the unrestricted authority to copy, adapt, perform, display, publish, disclose, distribute, create derivative works from, and otherwise use in whole or in part, any Copyrightable Works and Inventions. ENGINEER agrees to take such actions and execute and deliver such documents as may be needed to validate, protect and confirm the rights and assignments provided hereunder. ENGINEER warrants that any Copyrightable Works and Inventions and other items provided under this Agreement will not infringe upon any intellectual property or proprietary rights of

any third party. ENGINEER at its own expense shall defend, indemnify, and hold harmless DISTRICT against any claim that any Copyrightable Works or Inventions or other items provided by ENGINEER hereunder infringe upon intellectual or other proprietary rights of a third party, and ENGINEER shall pay any damages, costs, settlement amounts, and fees (including attorneys' fees) that may be incurred by DISTRICT in connection with any such claims. This Ownership of Documents and Intellectual Property provision shall survive expiration or termination of this Agreement.

12. NO PUBLICITY OR ENDORSEMENT

ENGINEER shall not use DISTRICT's name or logo or any variation of such name or logo in any publicity, advertising or promotional materials. ENGINEER shall not use DISTRICT's name or logo in any manner that would give the appearance that the DISTRICT is endorsing ENGINEER. ENGINEER shall not in any way contract on behalf of or in the name of DISTRICT. ENGINEER shall not release any informational pamphlets, notices, press releases, research reports, or similar public notices concerning the DISTRICT or its projects, without obtaining the prior written approval of DISTRICT.

13. DISTRICT PROPERTY AND INFORMATION

All of DISTRICT's property, documents, and information provided for ENGINEER's use in connection with the services shall remain DISTRICT's property, and ENGINEER shall return any such items whenever requested by DISTRICT and whenever required according to the Termination section of this Agreement. ENGINEER may use and rely on such items only in connection with providing the services. ENGINEER shall not disseminate any DISTRICT property, documents, or information without DISTRICT's prior written consent.

14. RECORDS, AUDIT, AND REVIEW

ENGINEER shall keep such business records pursuant to this Agreement as would be kept by a reasonably prudent practitioner of ENGINEER's profession and shall maintain such records for at least four (4) years following the termination of this Agreement. All accounting records shall be kept in accordance with generally accepted accounting principles. DISTRICT shall have the right to audit and review all such documents and records at any time during ENGINEER's regular business hours or upon reasonable notice. In addition, if this Agreement exceeds ten thousand dollars (\$10,000.00), ENGINEER shall be subject to the examination and audit of the California State Auditor, at the request of the DISTRICT or as part of any audit of the DISTRICT, for a period of three (3) years after final payment under the Agreement (Cal. Govt. Code Section 8546.7). ENGINEER shall participate in any audits and reviews, whether by DISTRICT or the State, at no charge to DISTRICT.

If federal, state or DISTRICT audit exceptions are made relating to this Agreement, ENGINEER shall reimburse all costs incurred by federal, state, and/or DISTRICT governments associated with defending against the audit exceptions or performing any audits or follow-up audits, including but not limited to: audit fees, court costs, attorneys' fees based upon a reasonable hourly amount for attorneys in the community, travel costs, penalty assessments and all other costs of whatever nature. Immediately upon notification from DISTRICT, ENGINEER shall reimburse the amount of the audit exceptions and any other related costs directly to DISTRICT as specified by DISTRICT in the notification.

15. INDEMNIFICATION AND INSURANCE

ENGINEER agrees to the indemnification and insurance provisions as set forth in EXHIBIT C attached hereto and incorporated herein by reference.

16. NONDISCRIMINATION

DISTRICT hereby notifies ENGINEER that DISTRICT's Unlawful Discrimination Ordinance (Article XIII of Chapter 2 of the Santa Barbara County Code) applies to this Agreement and is incorporated herein by this reference

with the same force and effect as if the ordinance were specifically set out herein and ENGINEER agrees to comply with said ordinance.

17. NONEXCLUSIVE AGREEMENT

ENGINEER understands that this is not an exclusive Agreement and that DISTRICT shall have the right to negotiate with and enter into contracts with others providing the same or similar services as those provided by ENGINEER as the DISTRICT desires.

18. NON-ASSIGNMENT

ENGINEER shall not assign, transfer or subcontract this Agreement or any of its rights or obligations under this Agreement without the prior written consent of DISTRICT and any attempt to so assign, subcontract or transfer without such consent shall be void and without legal effect and shall constitute grounds for termination.

19. TERMINATION

A. By DISTRICT. DISTRICT may, by written notice to ENGINEER, terminate this Agreement in whole or in part at any time, whether for DISTRICT's convenience, for nonappropriation of funds, or because of the failure of ENGINEER to fulfill the obligations herein.

1. **For Convenience.** DISTRICT may terminate this Agreement in whole or in part upon thirty (30) days written notice. During the thirty (30) day period, ENGINEER shall, as directed by DISTRICT, wind down and cease its services as quickly and efficiently as reasonably possible, without performing unnecessary services or activities and by minimizing negative effects on DISTRICT from such winding down and cessation of services.

2. **For Nonappropriation of Funds.** Notwithstanding any other provision of this Agreement, in the event that no funds or insufficient funds are appropriated or budgeted by federal, state or DISTRICT governments, or funds are not otherwise available for payments in the fiscal year(s) covered by the term of this Agreement, then DISTRICT will notify ENGINEER of such occurrence and DISTRICT may terminate or suspend this Agreement in whole or in part, with or without a prior notice period. Subsequent to termination of this Agreement under this provision, DISTRICT shall have no obligation to make payments with regard to the remainder of the term.

3. **For Cause.** Should ENGINEER default in the performance of this Agreement or materially breach any of its provisions, DISTRICT may, at DISTRICT's sole option, terminate or suspend this Agreement in whole or in part by written notice. Upon receipt of notice, ENGINEER shall immediately discontinue all services affected (unless the notice directs otherwise) and notify DISTRICT as to the status of its performance. The date of termination shall be the date the notice is received by ENGINEER, unless the notice directs otherwise.

B. By ENGINEER. Should DISTRICT fail to pay ENGINEER all or any part of the payment set forth in EXHIBIT B, ENGINEER may, at ENGINEER's option terminate this Agreement if such failure is not remedied by DISTRICT within thirty (30) days of written notice to DISTRICT of such late payment.

C. Upon termination, ENGINEER shall deliver to DISTRICT all data, estimates, graphs, summaries, reports, and all other property, records, documents or papers as may have been accumulated or produced by ENGINEER in performing this Agreement, whether completed or in process, except such items as DISTRICT may, by written permission, permit ENGINEER to retain. Notwithstanding any other payment provision of this Agreement, DISTRICT shall pay ENGINEER for satisfactory services performed to the date of termination to include a prorated amount of compensation due hereunder less payments, if any,

previously made. In no event shall ENGINEER be paid an amount in excess of the full price under this Agreement nor for profit on unperformed portions of service. ENGINEER shall furnish to DISTRICT such financial information as in the judgment of DISTRICT is necessary to determine the reasonable value of the services rendered by ENGINEER. In the event of a dispute as to the reasonable value of the services rendered by ENGINEER, the decision of DISTRICT shall be final. The foregoing is cumulative and shall not affect any right or remedy which DISTRICT may have in law or equity.

20. SECTION HEADINGS

The headings of the several sections, and any Table of Contents appended hereto, shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof.

21. SEVERABILITY

If any one or more of the provisions contained herein shall for any reason be held to be invalid, illegal or unenforceable in any respect, then such provision or provisions shall be deemed severable from the remaining provisions hereof, and such invalidity, illegality or unenforceability shall not affect any other provision hereof, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

22. REMEDIES NOT EXCLUSIVE

No remedy herein conferred upon or reserved to DISTRICT is intended to be exclusive of any other remedy or remedies, and each and every such remedy, to the extent permitted by law, shall be cumulative and in addition to any other remedy given hereunder or now or hereafter existing at law or in equity or otherwise.

23. TIME IS OF THE ESSENCE

Time is of the essence in this Agreement and each covenant and term is a condition herein.

24. NO WAIVER OF DEFAULT

No delay or omission of DISTRICT to exercise any right or power arising upon the occurrence of any event of default shall impair any such right or power or shall be construed to be a waiver of any such default or an acquiescence therein; and every power and remedy given by this Agreement to DISTRICT shall be exercised from time to time and as often as may be deemed expedient in the sole discretion of DISTRICT.

25. ENTIRE AGREEMENT AND AMENDMENT

In conjunction with the matters considered herein, this Agreement contains the entire understanding and agreement of the parties and there have been no promises, representations, agreements, warranties or undertakings by any of the parties, either oral or written, of any character or nature hereafter binding except as set forth herein. This Agreement may be altered, amended or modified only by an instrument in writing, executed by the parties to this Agreement and by no other means. Each party waives their future right to claim, contest or assert that this Agreement was modified, canceled, superseded, or changed by any oral agreements, course of conduct, waiver or estoppel.

26. SUCCESSORS AND ASSIGNS

All representations, covenants and warranties set forth in this Agreement, by or on behalf of, or for the benefit of any or all of the parties hereto, shall be binding upon and inure to the benefit of such party, its successors and assigns.

27. COMPLIANCE WITH LAW

ENGINEER shall, at its sole cost and expense, comply with all District, County, State and Federal ordinances and statutes now in force or which may hereafter be in force with regard to this Agreement. The judgment of any court of competent jurisdiction, or the admission of ENGINEER in any action or proceeding against ENGINEER, whether DISTRICT is a party thereto or not, that ENGINEER has violated any such ordinance or statute, shall be conclusive of that fact as between ENGINEER and DISTRICT.

28. CALIFORNIA LAW AND JURISDICTION

This Agreement shall be governed by the laws of the State of California. Any litigation regarding this Agreement or its contents shall be filed in the County of Santa Barbara, if in state court, or in the federal district court nearest to Santa Barbara County, if in federal court.

29. EXECUTION OF COUNTERPARTS

This Agreement may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original; and all such counterparts, or as many of them as the parties shall preserve undestroyed, shall together constitute one and the same instrument.

30. AUTHORITY

All signatories and parties to this Agreement warrant and represent that they have the power and authority to enter into this Agreement in the names, titles and capacities herein stated and on behalf of any entities, persons, or firms represented or purported to be represented by such entity(ies), person(s), or firm(s) and that all formal requirements necessary or required by any state and/or federal law in order to enter into this Agreement have been fully complied with. Furthermore, by entering into this Agreement, ENGINEER hereby warrants that it shall not have breached the terms or conditions of any other contract or agreement to which ENGINEER is obligated, which breach would have a material effect hereon.

31. SURVIVAL

All provisions of this Agreement which by their nature are intended to survive the termination or expiration of this Agreement shall survive such termination or expiration.

32. PRECEDENCE

In the event of conflict between the provisions contained in the numbered sections of this Agreement and the provisions contained in the Exhibits, the provisions of the Exhibits shall prevail over those in the numbered sections.

33. THIRD PARTIES

The services to be performed by ENGINEER are intended solely for the benefit of DISTRICT. No person or entity not a signatory to this Agreement shall be entitled to rely on ENGINEER's performance of its services hereunder, and no right to assert a claim against ENGINEER by assignment of indemnity rights or otherwise shall accrue to a third party as a result of this Agreement or the performance of ENGINEER's services hereunder.

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Agreement for Services of Independent Contractor between the **Laguna County Sanitation District** and **Carollo Engineers, Incorporated.**

IN WITNESS WHEREOF, the parties have executed this Agreement to be effective on the date executed by COUNTY.

ATTEST:
Mona Miyasato
County Executive Officer
Ex-Officio Clerk of the Board

DISTRICT:
LAGUNA COUNTY SANITATION DISTRICT


By: _____
Deputy Clerk

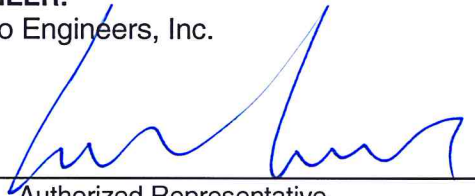
By: _____
Chair, Board of Supervisors
Ex-Officio Chair, Board of Directors

Date: _____

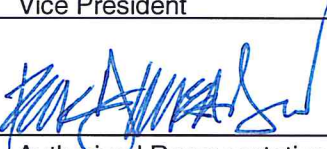
RECOMMENDED FOR APPROVAL:
Public Works Department

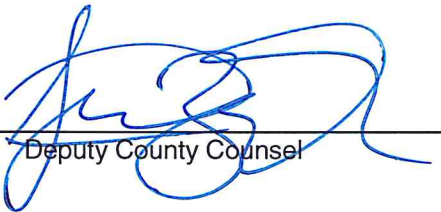
ENGINEER:
Carollo Engineers, Inc.

By:  _____
Department Head

By:  _____
Authorized Representative
Name: Graham Juby, P.E.
Title: Vice President


APPROVED AS FORM:
Michael C. Ghizzoni
County Counsel

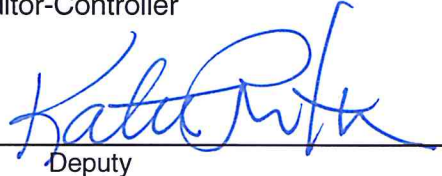
By:  _____
Authorized Representative
Name: Rick Wheadon, P.E.
Title: Senior Vice President

By:  _____
Deputy County Counsel

APPROVED AS FORM:
Ray Aromatorio, ARM, AIC
Risk Manager

APPROVED AS TO ACCOUNTING FORM:
Robert W. Geis, CPA
Auditor-Controller

By:  _____
Risk Manager

By:  _____
Deputy

**Exhibit A
Scope of Services
Final Design**

**Phase I Plant Upgrade Project
Wastewater Reclamation Plant
Laguna County Sanitation District**

1.0 INTRODUCTION

The purpose of this Exhibit is to provide details of the scope of services for the preliminary and final design of the Phase I Plant Upgrade Project for the Laguna County Sanitation District Wastewater Reclamation Plant (WWRP). The scope is based on the following:

1. Workshops and other work performed in order to develop the Phase I Plant Upgrade Project Development Report.

2.0 BACKGROUND

The existing WWRP consists of two parallel plants: a low total dissolved solids (TDS) plant and a high TDS plant. All of the effluent from the parallel plants is treated to Title 22 standards, blended, and distributed as recycled water to local customers. The primary and secondary elements of the low TDS plant are nearing the end of their useful lives and need to be replaced. At the same time, additional treatment capacity is needed to treat future influent flows that are projected to increase to 3.7 mgd for the Phase I Upgrade. Influent flow is processed through the WWRP as described below.

Flow enters the WWRP through two gravity trunk sewers to an aerated grit chamber and, depending upon electro-conductivity (EC) readings, the flow is conveyed to either the high or low TDS plant.

Flow that is diverted to the high TDS plant is pumped from the grit chamber to the high TDS equalization pond once the influent EC exceeds a predetermined set point. This occurs for approximately 5 hours each day from about 5 AM until 10 AM. From the high TDS equalization pond, the effluent is pumped to the MBR plant, after 1 mm screening, where it receives biological treatment. MBR permeate is fed to the RO plant for desalination. The RO permeate goes to UV disinfection. The WAS from the MBR system is pumped to the grit sump from which it flows through the grit chamber, the bar screens, and to the primary clarifiers in the low TDS plant. The RO reject is disposed of in a USEPA permitted Class I non-hazardous injection well at approximately 5,100 feet below ground.

The RO facilities in the high TDS plant have a rated capacity of 0.5 mgd according to the Master Plan. However, District staff indicated that the capacity is 0.45 mgd with all three units in service, due to hydraulic limitations. They also indicated that the system operates more efficiently at a flow of approximately 0.35 mgd with all three units in service.

Flow for the low TDS plant passes through a Huber step screen, downstream of the grit chamber. Downstream of the step screen is the influent pump station. The pump station pumps flow to the primary clarifiers in the low TDS plant where settleable solids are separated from the flow. After the low TDS primary clarifiers, flow is pumped to the trickling filter where biological treatment occurs. The effluent from the trickling filter is either recycled to the trickling filter, to

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Final Design**

**Phase I Plant Upgrade Project
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maintain enough flow to keep the filters wet or gravitates to the secondary clarifier, where any solids dislodged from the trickling filter settles out. Flow from the secondary clarifier is by gravity to Equalization Ponds A, B, and C. The secondary effluent is pumped from the Ponds, after going through a 1 mm strainer, to the tertiary membrane filters, where the bulk of the remaining suspended solids are removed. The filtered effluent combines with the RO permeate from the high TDS plant, before undergoing UV disinfection. The disinfected effluent is dosed with chlorine to control growth in the pipelines, prior to being pumped to users as recycled water. Membrane filter backwash is fed to the low TDS equalization pond, from where it is pumped to the primary clarifiers when effluent is diverted to the high TDS plant. Currently, the backwash is enough flow to keep the low TDS plant operating for the whole time influent flow is diverted to the high TDS plant. The settled solids from the secondary clarifier are pumped to the primary clarifier feed.

The primary sludge, which includes WAS from the MBR and secondary solids from the trickling filters, is pumped to the primary anaerobic digester for stabilization. Digested sludge flows by gravity to the secondary digester, which is unheated and unmixed, and serves as a sludge storage and settling tank. Excess liquid in the sludge storage tank is decanted and pumped to one of the unlined sludge drying beds. Solids from the sludge storage tank are pumped to a separate unlined sludge drying bed. A project is currently underway to line the sludge drying beds, which would return sludge drying bed filtrate to the low TDS plant. This filtrate will contain high concentrations of ammonia-nitrogen.

The following is a list of the major items that are proposed to be added, modified, or upgraded as part of the project. Details of these items are outlined in the Project Development report. ***(refer to Section B "Scope of Services" of this Exhibit for detailed scope):***

1. Headworks: A new headworks will be installed to replace the existing headworks. The new headworks will include influent metering, mechanical bar screens (one existing screen will be reused), influent pumping, and a vortex grit chamber.
2. Secondary Treatment: Three new aeration basins and three new clarifiers will replace the existing primary and secondary treatment system for the low TDS plant. The secondary facilities will include a return activated sludge (RAS)/waste activated sludge (WAS) pump station, splitter boxes, and blower facilities.
3. UV Break Tank: The existing south primary clarifier is to be converted to a UV Disinfection (UV) Break Tank. This work will also include upgrades to the Trickling Filter Pump Station to allow the equalized flow to be pumped to the UV system.
4. Low TDS Pond Pump Station: The low TDS pump station is to be upgraded to allow for equalized flow to be pumped back to the aeration basins.
5. Electrical Building: An electrical building to house the electrical appurtenances for the items listed above, is to be provided.

**Exhibit A
Scope of Services
Final Design**

**Phase I Plant Upgrade Project
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6. Flood control improvements to key facilities.

B. SCOPE OF SERVICES

Performance of necessary engineering work to develop contract documents for construction of the "Phase I Plant Upgrade Project" at the WWRP, specifically detailed as follows:

Task 1 - Preliminary Design

Complete preliminary design for the Phase I Upgrade Project expansion of the WWRP including the following:

1. Gather background information including:
 - a. Current and previous record drawings.
 - b. Record documents for previous projects.
2. Prepare three design information memoranda (DIM) for upgrade of the WWRP. Where decisions have been made in the Project Development Report, dated May 2015, only summarize the process design criteria and enhance the information to complete the design criteria. Prepare the DIMs as follows:
 - a. Updated Design Criteria - a DIM outlining the updated design criteria for all of the following new and retrofitted unit processes will be provided:
 - 1) Headworks facilities including influent metering, mechanical bar screens (one existing screen will be reused), influent pumping, and a vortex grit chamber.
 - 2) Secondary Treatment including three new aeration basins and three new clarifiers to replace the existing primary and secondary treatment system for the low TDS plant. The secondary facilities will include a return activated sludge (RAS)/waste activated sludge (WAS) pump station, splitter boxes, and blower facilities.
 - 3) UV Break Tank including conversion of the existing south primary clarifier to a UV Disinfection (UV) Break Tank, and various upgrades to the Trickling Filter Pump Station to allow the equalized flow to be pumped to the UV system.
 - 4) Low TDS Pond Pump Station including upgrades to the existing low TDS pump station to allow for equalized flow to be pumped back to the aeration basins.
 - 5) Electrical Building including a new electrical building to house the electrical appurtenances for the items listed above.

The DIM will include updated process models and an updated site plan and process schematic, as well as design criteria tables for the new and retrofitted facilities.

- b. A DIM outlining the electrical requirements including:
 - 1) Primary Power - Capacity, Distribution, and Other Design Criteria.
 - 2) Standby Power - Capacity, Distribution, and Other Design Criteria. This will include an analysis of the adequacy of the existing standby generators.

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- 3) Electrical Hazardous Area Classification of All Areas.
- c. A DIM outlining the instrumentation requirements including:
 - 1) SCADA Block Diagram including SCADA and PLCs.
 - 2) Tag Numbering System.
 - 3) Preliminary Control Strategies. The following control strategies are anticipated.
 - a) Headworks barscreens
 - b) Headworks influent metering
 - c) Headworks influent pumps
 - d) Screenings washer compactor units
 - e) Vortex grit chamber
 - f) Grit pumping
 - g) Grit washer/classifier
 - h) Splitter box for low and high TDS plants with split controlled by conductivity readings
 - i) Splitter box for aeration basins and low TDS pond with TDS pond split controlled by flow
 - j) Aeration basin mixing
 - k) Aeration basin air flow control
 - l) Blowers and appurtenances
 - m) Secondary clarifiers
 - n) RAS pumping
 - o) WAS pumping
 - p) Scum pumping
 - q) UV break tank pump station
 - r) Low TDS pond pump station
 - 4) Preliminary Process Flow Diagrams. The following process flow diagrams (PFDs) are anticipated.
 - a) Headworks barscreens
 - b) Headworks influent metering
 - c) Headworks influent pumps
 - d) Screenings washer compactor units
 - e) Vortex grit chamber
 - f) Grit pumping
 - g) Grit washer/classifier
 - h) Aeration basin mixing
 - i) Aeration basin air flow control
 - j) Blowers and appurtenances

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- k) Secondary clarifiers
 - l) RAS pumping
 - m) WAS pumping
 - n) scum pumping
 - o) UV break tank pump station
 - p) Low TDS pond pump station
3. Submit 5 copies of the draft DIMs for the District review and comments.
 4. Meet with the District staff to present findings and obtain comments.
 5. Update the draft DIMs to incorporate District comments.
 6. Submit 10 copies of the final DIMs in a three-ring binder to serve as the Basis of Design for the plant expansion.

Task 2 - Final Design

Prepare technical specifications in CSI format (in MS Word 2013), drawings (in AutoCAD format), and typical details (in AutoCAD format) for construction of the following project elements. Drawings will be submitted in both full size and 1/2 size sheets and typical details will be submitted on 8.5-inch by 11-inch sheets for intermediate submittals. As part of the final submittal, typical details will be put on the drawings. Carollo's boiler plate front end documents, which are based on the Engineer's Joint Contract Documents Committee (EJCDC) will be used for the project. A preliminary drawing list is included in Attachment A.

Only facilities highlighted below will be included in the Final Design. All other facilities at the treatment plant are excluded from the Final Design.

1. Headworks
 - a. Influent metering using a Parshall flume and ultrasonic level measurement.
 - b. Two new mechanical bar screens with one screen being the relocated existing Huber "Step-Screen-Vertical SSV." The second screen will be the same type as the existing screen but upsized to handle the future peak flow. Each screen will have a dedicated screenings washer/compactor unit.
 - c. Four new submersible pumps in a 3 + 1, duty/standby configuration for influent pumping to the grit chamber.
2. Preliminary Treatment
 - a. One new vortex grit basin.
 - b. New grit pumping in a 1 + 1, duty/standby configuration.
 - c. A grit washer/classifier unit.

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- d. A separate splitter box that will automatically split flows between the low and high TDS plants, based on conductivity readings.
3. Secondary Treatment
- a. An integral or separate splitter box to split flows to the aeration basins and to send flow to the low TDS pond for equalization.
 - b. Three new aeration basins and all equipment within aeration basins, including mixers, air piping and air flow controls, foam spray system, diffusers, and isolation gates. The basins will be set up in a biological nitrogen removal scheme and be planned for potential future biological phosphorus removal and additional nitrogen removal.
 - c. New aeration blowers in a new Blower Building.
 - d. Three new circular secondary clarifiers.
 - e. New RAS system.
 - f. New WAS system.
 - g. New secondary scum system.
4. UV Break Tank
- a. Modifications of the existing south primary clarifier to convert it to a UV break tank with a new aluminum cover.
 - b. Addition of new pumps to pump flow from the UV break tank to the UV system. The pumps will be placed in the existing control house. Three new pumps in a 2 + 1 duty/standby configuration will replace the existing trickling filter pumps. The existing pumps will be demolished.
 - c. Modifications of the existing piping headers to accommodate the new pumps.
5. Low TDS Pond Pump Station
- a. The existing pumps for the low TDS pond pump station will be replaced as required to pump equalized flow from the low TDS pond to the aeration basins during times when high TDS flow is diverted to the high TDS pond.
 - b. Modifications of the existing piping headers to accommodate the new pumps.
6. Standby Power Facility
- a. It is assumed that the existing standby generators will be relocated to a new concrete pad and a new steel canopy will be installed. The generators will be tied into the new electrical system.
7. Electrical Building
- a. One new electrical building or a separate electrical room in the new blower building will be provided.
8. Flood control improvements to existing structures to protect them from the 100-year flood.

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- a. In general, the improvements are anticipated to consist of stem walls constructed around the structures that are subject to flooding. Access through the stem walls will be through openings at existing grade at the current access points to each structure. The access points can then be closed off by slide gates or sandbags in anticipation of a rain event that would cause flooding. Specific structures that will be protected include the following:
 - 1) ZenoGem MBR Slab
 - 2) ZenoGem MBR Threshold
 - 3) Sump Structure Chemical Building
 - 4) Chemical Building/UV Facility Slab
 - 5) RO Units Slab
 - 6) Operations Building Finish Floor
 - 7) Effluent Pump Station Slab
 - 8) Zee Weed Membrane Filtration Slab
 - 9) Clear Well Slab at Threshold
 - 10) Recycled Water Tank Slab
 - 11) New Emergency Generator
9. Yard paving and grading, yard piping, electrical, instrumentation, and controls associated with construction of the project elements mentioned above.

Task 3 - Project Management, Meetings, Quality Control, District Review, Submittals, Estimates, Bidding, Etc.

1. Project management includes routine management activities for the duration of the project. The routine management activities include:
 - a. At the start of the project, a project plan will be developed that lays out the approach to completing the project. The plan will include work assignments, scope, schedule, and budget information. It will also include communications, quality management, and risk management approaches for the project.
 - b. Review and oversight of all technical issues
 - c. Developing and tracking communication channels
 - d. Monitoring and overseeing the status of the schedule and budget
 - e. Monitoring and logging project decisions
 - f. Tracking out-of-scope work items
 - g. A monthly progress report will be completed and submitted to the District delineating the project progress in relation to scope, schedule, and budget for the past month and the plan for the next month.
2. Meet with District staff approximately every 6 weeks or as needed to present design information, submit progress prints, and receive design review comments. It is anticipated

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that 16 meetings will be required. The meeting total includes meetings during the preliminary design, final design, and the bid period.

3. Submit preliminary drawings and draft specifications for District review at approximately 30, 60, and 90 percent level of completion. Three sets of full size drawings, five sets of 1/2 size drawings and specifications will be provided at the 30%, 60%, and 90% review stages. Five sets of full size drawings, five sets of 1/2 size drawings and specifications will be provided at the final drawing stage along with the mylars and file copies described below.
4. Incorporate revisions from the District review comments in the drawings and specifications
5. Complete 90 percent in-house check of the plans and specifications by an independent in-house team.
6. Complete and deliver sealed and photo-ready final drawings and specifications to the District ready for final reproduction and bidding by the District, following receipt of comments from the District on the 90 percent submittal. The final drawings will include a full size mylar set, a pdf file of the drawings for 1/2 size reproduction by the District, and an unbound copy of the specifications for reproduction by the District.
7. Submit one electronic copy of final drawings and specifications on a flash drive.
8. Prepare project's construction cost projection based on the 90 percent submittal and final drawings and specifications. Submit the estimate to the District within 3 weeks of the 90 percent and final submittal. Also, provide an updated cost estimate to the project development report estimate at the 30 percent and 60 percent design levels.
9. Assist the District in responding to technical questions received from contractors during the bid period.
10. Assist the District in preparing the addenda during bidding.
11. Assist the District in preparing the conformed documents to include the addenda issued during the bidding period in the base bid documents. The conformed drawings and specifications will consist of a file copy for the District to create full size mylars of the drawings that were changed by addendum, as well as a file copy of the conformed specifications.

Task 4 - Pre-Negotiated Proposals and Pre-purchase Assistance

1. Provide documents and coordination as required to allow the District to receive cost and scope proposals from up to 3 sole-sourced suppliers. The scope and cost proposals received from the sole-sourced suppliers will be included in the final bid documents. At the time of submittal of this proposal no specific items are assumed to be sole sourced. This subtask is therefore a place holder for sole source items that come up during design.

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2. Provide documents and coordination as required to allow the District to pre-purchase three pieces of equipment. Pre-purchase documents will be included in the final bid documents. It is assumed that the bar screens, washer compactor units, diffusers, and the blowers will be procured by the District via pre-purchase contracts.
3. Provide shop drawing review of one original submittal and one resubmittal for each of the four pieces of pre-purchase equipment.

Task 5 - Subconsultants

1. Surveying: The District has provided a copy of a topographic survey for the site. It is assumed that this will be adequate to create backgrounds for the project plans. Supplemental survey shots required will be performed by the District.
2. Geotechnical: Provide services of a geotechnical subconsultant for the project elements included in Task 2. Geotechnical services will include the following:
 - a. Field investigation and information gathering including data review and subsurface exploration.
 - b. Field and laboratory testing of soil samples.
 - c. Preparation of a draft and final geotechnical report.
 - d. Review of project drawings and specifications submitted as part of 90% submittal.

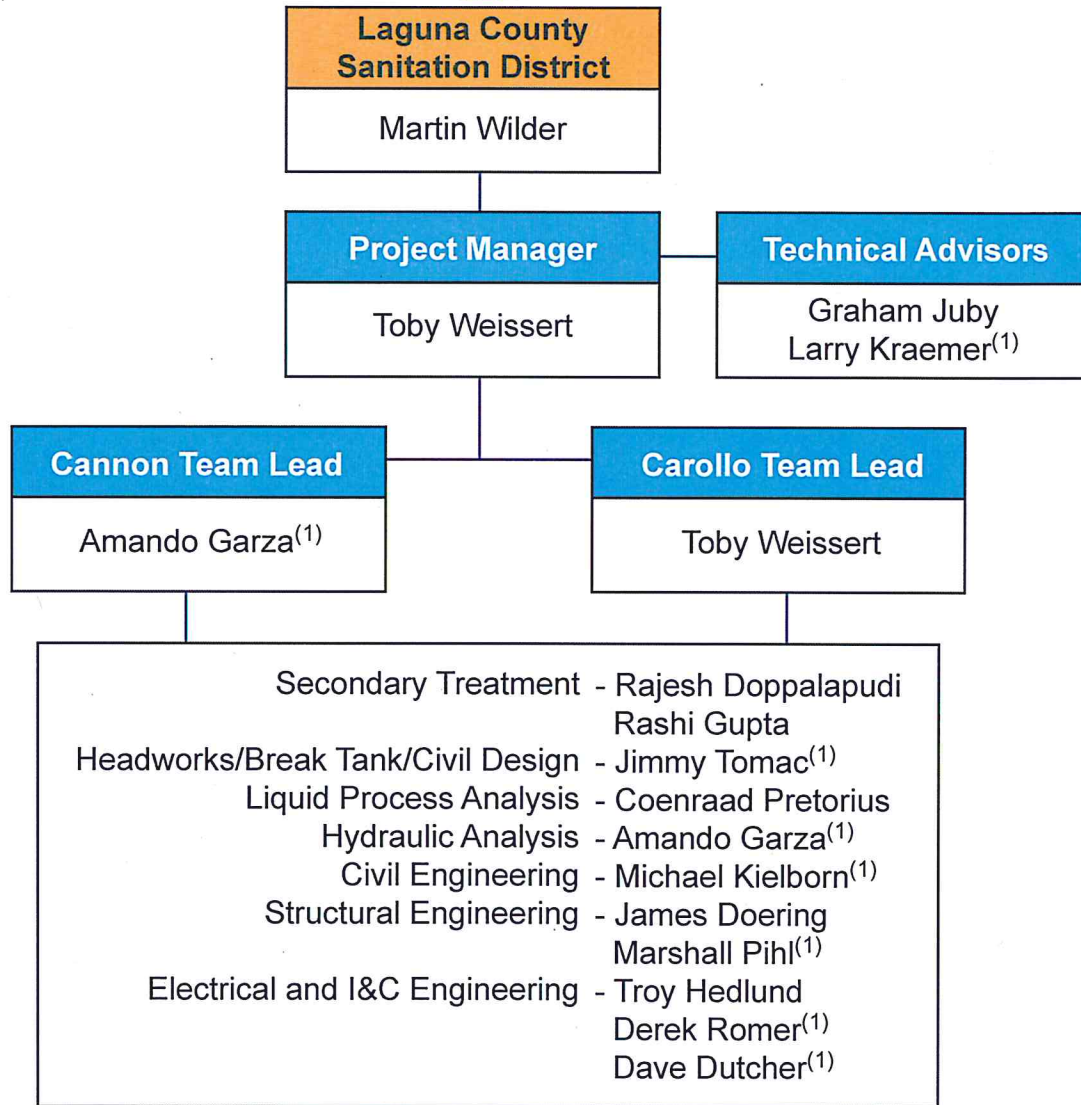
C. OPTIONAL ITEMS NOT INCLUDED

1. The scope does not include effort for obtaining AQMD, NPDES, and any other permits required for the project.
2. Future capacity expansions to accommodate growth beyond 3.7 mgd.
3. Design for additional standby generator capacity other than relocation of the existing units. An evaluation of the existing units is part of the electrical DIM.
4. Design for demolition and retrofit of existing facilities except for the UV Break Tank and pump station and the Low TDS Pond Pump Station.
5. Preliminary design, preparation of preliminary P&IDs, and final design effort for facilities not specifically described above is not included.
6. It is anticipated that public hearing and/or Board presentations will not be required. Consequently, work effort to support public hearings and Board presentations was not included within this scope of work for this project.
7. Purchase of modeling software or licenses.

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8. Work effort for other items not specifically listed in Tasks 1 through 5 in Section B.



(1) Cannon Staff

Attachment A
Preliminary Drawing List
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<u>Sheet</u>	<u>Area / Drawing Description</u>
General Drawings	
1	01 G - 1 Cover Sheet
2	01 G - 2 Sheet Index
3	01 G - 3 Abbreviations
4	01 G - 4 Piping Symbols
5	01 G - 5 Design Criteria
6	01 G - 6 Overall Site Plan
7	01 G - 7 Process Schematic
8	01 G - 8 Hydraulic Profile
9	01 G - 9 General Structural Notes
10	01 G - 10 General Mechanical & HVAC Notes
11	01 G - 11 General Architectural Notes and Schedules
Yard Drawings	
12	01 Y - 1 Yard Area Index and General Yard Notes
13	01 Y - 2 Yard Area A-1 Paving & Grading Plan
14	01 Y - 3 Yard Area A-2 Paving & Grading Plan
15	01 Y - 4 Yard Area B-1 Paving & Grading Plan
16	01 Y - 5 Yard Area B-2 Paving & Grading Plan
17	01 Y - 6 Yard Area A-1 Piping Plan
18	01 Y - 7 Yard Area A-2 Piping Plan
19	01 Y - 8 Yard Area B-1 Piping Plan
20	01 Y - 9 Yard Area B-2 Piping Plan
21	01 Y - 10 Yard Piping Profiles
22	01 Y - 11 Yard Piping Profiles
23	01 Y - 12 Yard Piping Profiles
24	01 Y - 13 Yard Piping Profiles
25	01 Y - 14 Yard Piping Profiles
26	01 Y - 15 Yard Piping Profiles
27	01 Y - 16 Yard Plans and Sections (Primary Clarifier Splitter Box STR and MEC Plans)
28	01 Y - 17 Yard Plans and Sections (Primary Clarifier Splitter Box STR and MEC Plans)
29	01 Y - 18 Yard Plans and Sections (Primary Clarifier Splitter Box STR and MEC Plans)
30	01 Y - 19 Yard Plans and Sections (Primary Clarifier Splitter Box STR and MEC Plans)
31	01 Y - 20 Yard Plans and Sections (Aeration Basin Splitter Box STR and MEC Plans)
32	01 Y - 21 Yard Plans and Sections (Aeration Basin Splitter Box STR and MEC Plans)
33	01 Y - 22 Yard Plans and Sections (Aeration Basin Splitter Box STR and MEC Plans)

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Sheet	Area / Drawing Description	
34	01 Y - 23	Yard Plans and Sections (Aeration Basin Splitter Box STR and MEC Plans)
35	01 Y - 24	Yard Details
36	01 Y - 25	Yard Details
37	01 Y - 26	Yard Details
38	01 Y - 27	Yard Piping Cathodic Protection Plans
39	01 Y - 28	Yard Piping Cathodic Protection Plans
40	01 Y - 29	Yard Piping Cathodic Protection Sections and Details
41	01 Y - 30	Yard Piping Cathodic Protection Sections and Details

Headworks Drawings

Structural Drawings

42	11 S	1	Foundation Plan
43	11 S	2	Top Plan
44	11 S	3	Sections
45	11 S	4	Sections
46	11 S	5	Sections and Details
47	11 S	6	Sections and Details
48	11 S	7	Sections and Details

Mechanical Drawings

49	11 M	1	Bottom Plan
50	11 M	2	Top Plan
51	11 M	3	Sections
52	11 M	4	Sections
53	11 M	5	Sections and Details

Grit Chamber Drawings

Structural Drawings

54	12 S - 1	Bottom and Top Plan
55	12 S - 2	Sections and Details

Mechanical Drawings

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<u>Sheet</u>	<u>Area / Drawing Description</u>
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56	12 M - 1	Bottom and Top Plan
57	12 M - 2	Sections and Details
58	12 M - 3	Sections and Details

**Low TDS Pond Pump Station Drawings
Structural Drawings**

59	18 S - 1	Plans and Sections
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Mechanical Drawings

60	18 M - 1	Plan and Sections
61	18 M - 2	Sections and Details

**Aeration Basins Drawings
Structural Drawings**

62	21 S 1	Foundation Plan
63	21 S 2	Top Plan
64	21 S 3	Partial Plans
65	21 S 4	Partial Plans
66	21 S 5	Sections
67	21 S 6	Sections and Details
68	21 S 7	Sections and Details
69	21 S 8	Details
70	21 S 9	Add Bars Bottom Plan

Mechanical Drawings

71	21 M - 1	Top Plan
72	21 M - 2	Bottom Plan
73	21 M - 3	Sections and Details
74	21 M - 4	Sections and Details
75	21 M - 5	Spray Water System
76	21 M - 6	Diffusers Layout Plan

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Sheet **Area / Drawing Description**

Blower Building Drawings

Structural/Architectural Drawings

77	22 A - 1	Architectural Elevations
78	22 A - 2	Architectural Elevations / Roof Plan
79	22 S - 1	Foundation / Floor Plans
80	22 S - 2	Roof Framing Plans
81	22 S - 3	Sections and Details

Mechanical Drawings

82	22 M - 1	Floor Plan
83	22 M - 2	Roof Plan
84	22 M - 3	Sections and Details
85	22 M - 4	Details

Secondary Clarifiers, Sludge, and Scum Pump Stations Drawings

Structural Drawings

86	24 S - 1	Foundation Plan
87	24 S - 2	Top Plan
88	24 S - 3	Sections
89	24 S - 4	Sections
90	24 S - 5	Sections and Details
91	24 S - 6	RAS/WAS Pump Station Plans
92	24 S - 7	RAS/WAS Pump Station Sections and Details
93	24 S - 8	Scum Pump Station Plans
94	24 S - 9	Scum Pump Station Sections and Details

Mechanical Drawings

95	24 M - 1	Bottom Plan
96	24 M - 2	Top Plan
97	24 M - 3	Sections and Details
98	24 M - 4	Sections and Details

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Sheet	Area / Drawing Description	
99	24 M - 5	RAS/WAS Pump Station Plan
100	24 M - 6	RAS/WAS Pump Station Sections and Details
101	24 M - 7	Scum Pump Station Plan
102	24 M - 8	Scum Pump Station Sections and Details

UV Break Tank Drawings

Structural Drawings

103	26 S - 1	Demolition
104	26 S - 2	Plan
105	26 S - 3	Sections & Details
106	26 S - 4	Pump Station Sections and Details

Mechanical Drawings

107	26 M - 1	Plan, Sections and Details
108	26 M - 2	Pump Station Sections and Details

Generator Relocation

Structural Drawings

109	65 S - 1	Plans, Sections, and Details
110	65 S - 2	Plans, Sections, and Details

Mechanical Drawings

111	65 M - 1	Plan
112	65 M - 2	Plans, Sections, and Details

Electrical Buildings Drawings

Structural Drawings

113	70 A - 1	Architectural Elevations / Roof Plan
114	70 S - 1	Plans, Sections, and Details

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Sheet **Area / Drawing Description**

Mechanical Drawings

115 70 M - 1 HVAC Plans, Sections, and Details

Electrical Drawings

116 01 E - 01 Electrical Symbols
117 01 E - 02 Electrical Abbreviations
118 01 E - 03 Overall Electrical Site Plan
119 01 E - 04 Electrical Site Plan - Area A-1
120 01 E - 05 Electrical Site Plan - Area A-2
121 01 E - 06 Electrical Site Plan - Area B-1
122 01 E - 07 Electrical Site Plan - Area B-2
123 01 E - 08 Duct Bank Sections 1
124 01 E - 09 Duct Bank Sections 2
125 01 E - 10 Duct Bank Sections 3
126 01 E - 11 Overall One-Line Diagram
127 01 E - 12 Panel Schedules 1
128 01 E - 13 Panel Schedules 2
129 01 E - 14 Luminaire, Disconnect, & Manhole Schedules
130 11 E - 01 Headworks MCC One-Line Diagram
131 11 E - 02 Headworks MCC Elevation
132 11 E - 03 Headworks Hazardous Area Classification
133 11 E - 04 Headworks Bottom Level Lighting, Receptacle, & Grounding Plan
134 11 E - 05 Headworks Bottom Level Power & Control Plan
135 11 E - 06 Headworks Top Level Lighting, Receptacle, & Grounding Plan
136 11 E - 07 Headworks Top Level Power & Control Plan
137 11 E - 08 Headworks Electrical Sections & Details 1
138 11 E - 09 Headworks Electrical Sections & Details 2
139 12 E - 01 Grit Chamber MCC One-Line Diagram
140 12 E - 02 Grit Chamber MCC Elevation
141 12 E - 03 Grit Chamber Hazardous Area Classification
142 12 E - 04 Grit Chamber Top & Bottom Level Lighting, Receptacle, & Grounding Plans
143 12 E - 05 Grit Chamber Top & Bottom Level Power & Control Plans
144 12 E - 06 Grit Chamber Electrical Sections & Details
145 18 E - 01 Low TDS Pond P.S. MCC One-Line Diagram
146 18 E - 02 Low TDS Pond P.S. MCC Elevation

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Sheet	Area / Drawing Description
147	18 E - 03 Low TDS Pond P.S. Hazardous Area Classification
148	18 E - 04 Low TDS Pond P.S. Lighting, Receptacle, & Grounding Plan
149	18 E - 05 Low TDS Pond P.S. Power & Control Plan
150	21 E - 01 Aeration Basin MCC One-Line Diagram
151	21 E - 02 Aeration Basin MCC Elevation
152	21 E - 03 Aeration Basin Hazardous Area Classification
153	21 E - 04 Aeration Basin Bottom Level Lighting, Receptacle, & Grounding Plan
154	21 E - 05 Aeration Basin Bottom Level Power & Control Plan
155	21 E - 06 Aeration Basin Top Level Lighting, Receptacle, & Grounding Plan
156	21 E - 07 Aeration Basin Top Level Power & Control Plan
157	21 E - 08 Aeration Basin Electrical Sections & Details 1
158	21 E - 09 Aeration Basin Electrical Sections & Details 2
159	22 E - 01 Blower Building MCC One-Line Diagram
160	22 E - 02 Blower Building MCC Elevation
161	22 E - 03 Blower Building Lighting, Receptacle, & Grounding Plan
162	22 E - 04 Blower Building Power & Control Plan 1
163	22 E - 05 Blower Building Power & Control Plan 2
164	24 E - 01 Sec. Clarifiers, Sludge & Scum Pump Stations MCC One-Line Diagram
165	24 E - 02 Sec. Clarifiers, Sludge & Scum Pump Stations MCC Elevation
166	24 E - 03 Sec. Clarifiers, Sludge & Scum Pump Stations Hazardous Area Classification
167	24 E - 04 Sec. Clarifiers Top & Bottom Lighting, Receptacle, & Grounding Plans
168	24 E - 05 Sec. Clarifiers Top & Bottom Power & Control Plans
169	24 E - 06 RAS/WAS Pump Station Lighting, Receptacle, & Grounding Plan
170	24 E - 07 RAS/WAS Pump Station Power & Control Plan
171	24 E - 08 Scum Pump Station Lighting, Receptacle, & Grounding Plan
172	24 E - 09 Scum Pump Station Power & Control Plan
173	24 E - 10 Sec. Clarifiers, Sludge & Scum Pump Stations Electrical Sections & Details
174	26 E - 01 UV Break Tank MCC One-Line Diagram
175	26 E - 02 UV Break Tank MCC Elevation
176	26 E - 03 UV Break Tank Lighting, Receptacle, & Grounding Plan
177	26 E - 04 UV Break Tank Power & Control Plan
178	65 E - 01 Standby Generator Power Plan
179	65 E - 02 Standby Generator Switchgear
180	65 E - 03 Standby Generator Single Line
181	70 E - 01 Electrical Building Main Switchgear One-line Diagram
182	70 E - 02 Electrical Building Main Switchgear Elevation
183	70 E - 03 Electrical Building Lighting, Receptacle, & Grounding Plan
184	70 E - 04 Electrical Building Power & Control Plan

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<u>Sheet</u>	<u>Area / Drawing Description</u>
185	70 E - 05 Electrical Building Electrical Sections & Details
Instrumentation and Controls Drawings	
186	01 N - 01 Instrumentation Symbols & Abbreviations 1
187	01 N - 02 Instrumentation Symbols & Abbreviations 2
188	01 N - 03 Instrumentation Symbols & Abbreviations 3
189	01 N - 04 Instrumentation Symbols & Abbreviations 4
190	01 N - 05 Instrumentation Equipment Tagging System
191	01 N - 06 Instrumentation Control Schematic Symbols
192	01 N - 07 Instrumentation Sample Loop Diagram
193	01 N - 08 Control System Block Diagram
194	01 N - 09 Control System Network Routing Diagram Diagram
195	01 N - 10 Control Panel Typical Elevation 1
196	01 N - 11 Control Panel Typical Elevation 2
197	01 N - 12 Network Panel Typical Elevation
198	01 N - 13 Local Control Panel Typical Elevations
199	01 N - 14 Control Panel Typical Wiring Diagrams
200	01 N - 15 Control Schematics 1
201	01 N - 16 Control Schematics 2
202	01 N - 17 Control Schematics 3
203	01 N - 18 Control Schematics 4
204	01 N - 19 Control Schematics 5
205	01 N - 20 Control Schematics 6
206	01 N - 21 Control Schematics 7
207	01 N - 22 Control Schematics 8
208	01 N - 23 Control Schematics 9
209	01 N - 24 Control Schematics 10
210	11 N - 01 P&ID - Primary Clarifier Splitter Box
211	11 N - 02 P&ID - Aeration Basin Splitter Box
212	11 N - 03 P&ID - Barscreen 1
213	11 N - 04 P&ID - Barscreen 2
214	11 N - 05 P&ID - Washer/Compactor 1
215	11 N - 06 P&ID - Washer/Compactor 2
216	11 N - 07 P&ID - Influent Pumps 1 & 2
217	11 N - 08 P&ID - Influent Pumps 3 & 4
218	11 N - 09 P&ID - Headworks Control Panel & MCC Power Monitoring

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Sheet	Area / Drawing Description	
219	11 N - 10	P&ID - Headworks Miscellaneous Monitoring
220	12 N - 01	P&ID - Grit Chamber
221	12 N - 02	P&ID - Grit Screenings Washer 1
222	12 N - 03	P&ID - Grit Screenings Washer 2
223	12 N - 04	P&ID - Grit Pump 1
224	12 N - 05	P&ID - Grit Pump 2
225	12 N - 06	P&ID - Grit Chamber Control Panel & MCC Power Monitoring
226	12 N - 07	P&ID - Grit Chamber Miscellaneous Monitoring
227	18 N - 01	P&ID - Low TDS Pump Pumps 1 & 2
228	18 N - 02	P&ID - Low TDS Pump Pump Station Control Panel & MCC Power Monitoring
229	18 N - 03	P&ID - Low TDS Pump Pump Station Miscellaneous Monitoring
230	21 N - 01	P&ID - Aeration Basin 1
231	21 N - 02	P&ID - Aeration Basin 2
232	21 N - 03	P&ID - Aeration Basin 3
233	21 N - 04	P&ID - Aeration Basin Control Panel & MCC Power Monitoring
234	21 N - 05	P&ID - Aeration Basin Miscellaneous Monitoring
235	22 N - 01	P&ID - Aeration Blower 1
236	22 N - 02	P&ID - Aeration Blower 1 Oil Lubrication and Cooling System
237	22 N - 03	P&ID - Aeration Blower 2
238	22 N - 04	P&ID - Aeration Blower 2 Oil Lubrication and Cooling System
239	22 N - 05	P&ID - Aeration Blower 3
240	22 N - 06	P&ID - Aeration Blower 3 Oil Lubrication and Cooling System
241	22 N - 07	P&ID - Aeration Blower Control Panel & MCC Power Monitoring
242	22 N - 08	P&ID - Aeration Blower Miscellaneous Monitoring 1
243	22 N - 09	P&ID - Aeration Blower Miscellaneous Monitoring 2
244	24 N - 01	P&ID - Secondary Clarifier 1
245	24 N - 02	P&ID - Secondary Clarifier 2
246	24 N - 03	P&ID - Secondary Clarifier 3
247	24 N - 04	P&ID - RAS Pumps 1 & 2
248	24 N - 05	P&ID - RAS Pumps 3 & 4
249	24 N - 06	P&ID - WAS Pumps 1 & 2
250	24 N - 07	P&ID - Secondary Scum Pumps 1 & 2
251	24 N - 08	P&ID - Secondary Clarifier/RAS/WAS/Scum Control Panel & MCC Power Monito
252	24 N - 09	P&ID - Secondary Clarifier/RAS/WAS/Scum Miscellaneous Monitoring
253	26 N - 01	P&ID - UV Break Tank
254	26 N - 02	P&ID - UV Break Tank Pumps 1 & 2
255	26 N - 03	P&ID - UV Break Tank Pump 3
256	26 N - 04	P&ID - UV Break Tank Control Panel & MCC Power Monitoring

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Sheet	Area / Drawing Description	
257	26 N - 05	P&ID - UV Break Tank Miscellaneous Monitoring
258	65 N - 01	Standby Generator
259	65 N - 02	Standby Generator
260	70 N - 01	P&ID - Electrical Building Control Panel & Power Monitoring
261	70 N - 02	P&ID - Electrical Building Miscellaneous Monitoring 1
262	70 N - 03	P&ID - Electrical Building Miscellaneous Monitoring 2

Typical Details

263	01 T - 1	Architectural Typical Details
264	01 T - 2	Architectural Typical Details
265	01 T - 3	Architectural Typical Details
266	01 T - 4	Architectural Typical Details
267	01 T - 5	Civil/Mechanical/Piping Typical Details
268	01 T - 6	Civil/Mechanical/Piping Typical Details
269	01 T - 7	Civil/Mechanical/Piping Typical Details
270	01 T - 8	Civil/Mechanical/Piping Typical Details
271	01 T - 9	Civil/Mechanical/Piping Typical Details
272	01 T - 10	Civil/Mechanical/Piping Typical Details
273	01 T - 11	Civil/Mechanical/Piping Typical Details
274	01 T - 12	Civil/Mechanical/Piping Typical Details
275	01 T - 13	Civil/Mechanical/Piping Typical Details
276	01 T - 14	Civil/Mechanical/Piping Typical Details
277	01 T - 15	Civil/Mechanical/Piping Typical Details
278	01 T - 16	Civil/Mechanical/Piping Typical Details
279	01 T - 17	Structural Typical Details
280	01 T - 18	Structural Typical Details
281	01 T - 19	Structural Typical Details
282	01 T - 20	Structural Typical Details
283	01 T - 21	Structural Typical Details
284	01 T - 22	Structural Typical Details
285	01 T - 23	Structural Typical Details
286	01 T - 24	Structural Typical Details
287	01 T - 25	Electrical Typical Details 1
288	01 T - 26	Electrical Typical Details 2
289	01 T - 27	Electrical Typical Details 3
290	01 T - 28	Electrical Typical Details 4

Attachment A
Preliminary Drawing List
Final Design

Phase I Upgrade
Wastewater Reclamation Plant
Laguna County Sanitation District

<u>Sheet</u>	<u>Area / Drawing Description</u>
291	01 T - 29 Electrical Typical Details 5
292	01 T - 30 Electrical Typical Details 6
293	01 T - 31 P&ID - Instrumentation Typical Details 1
294	01 T - 32 P&ID - Instrumentation Typical Details 2
295	01 T - 33 P&ID - Instrumentation Typical Details 3
296	01 T - 34 P&ID - Instrumentation Typical Details 4
297	01 T - 35 P&ID - Instrumentation Typical Details 5
298	01 T - 36 P&ID - Instrumentation Typical Details 6
299	01 T - 37 P&ID - Instrumentation Typical Details 7
300	01 T - 38 P&ID - Instrumentation Typical Details 8

Estimated Costs
Preliminary and Final Design

Phase I Upgrade
Wastewater Reclamation Plant
Laguna County Sanitation District

Labor Costs

<u>Work Item</u>	Carollo Portion of Hours/Costs	Cannon Portion of Hours/Costs	Totals
Drawing Hours	6,816	4,555	11,371
Design Information Memoranda (DIM 1 & 2)	374	90	464
Control Descriptions/Preliminary Flow Diagrams (DIM 3)	408	80	488
Construction Cost Estimates	220	88	308
Front End Documents	100	0	100
Meetings (16)	832	186	1,018
Project Management	620	206	826
Bid Period Services	217	91	308
Pre-purchase Assistance (3)	49	144	193
Pre-purchase Equipment Submittals Review (3)	49	24	73
Sole Source Equipment Items	54	18	72
Conformed Plans and Specs	434	40	474
Subtotal Labor Hours	10,173	5,522	15,695
Average Labor Rate	\$172.75	\$164.98	
Subtotal Labor Cost	\$1,757,386	\$911,016	\$2,668,401
Other Direct Costs			
PECE Charges	\$ 119,024	\$ 16,565	\$135,589
Travel & Subsistence	\$ 7,375	\$ 3,920	\$11,295
Reproduction for Review Only (Bid Sets by District)	\$ 31,548	\$ 1,200	\$32,748
Geotechnical	\$ 58,300		\$58,300
			\$0
Subtotal of Other Direct Costs	\$ 216,247	\$ 21,685	\$237,932
Subtotal	\$1,973,633	\$932,700	
Suconsultant Markup @ 8%		\$74,616	
Total Costs	\$1,973,633	\$1,007,316	\$2,980,949

**Estimated Time Schedule
Preliminary and Final Design**

**Phase I Upgrade
Wastewater Reclamation Plant
Laguna County Sanitation District**

ENGINEER shall commence work immediately following the kick-off meeting or notice to proceed, whichever is later. ENGINEER has reviewed the job with the DISTRICT and agrees that the following schedule is a reasonable time frame within which to accomplish the work.

<u>Milestone</u>	<u>Duration in Weeks</u>	<u>Weeks after Kick-off Meeting or NTP</u>	<u>No of Meeting s/Site Trips</u>
Notice to Proceed	0	0	
Develop Project Plan	2	2	
Kickoff Meeting	1	3	1
Get Geotech and Surveying Completed	9	12	1
Present Draft TM Information to District	0	12	1
Prepare Draft TMs	3	15	
Receive District Comments	3	18	
Final TMs	3	21	
Submit 30% drawings and specifications to DISTRICT	15	36	3
District Review	3	39	
Meet to go over District Comments	0	39	1
Submit 60% drawings and specifications to DISTRICT	15	54	2
District Review	3	57	
Meet to go over District Comments	0	57	1
Submit 90% drawings and specifications to DISTRICT	15	72	2
District Review	3	75	
Meet to go over District Comments	0	75	1
Submit 100% drawings and specifications to DISTRICT	8	83	1
Meet to prepare for bid period	3	86	1
Bid Period	12	98	1
Start Construction	0	98	16

ENGINEER/DISTRICT mutually agree that they will work earnestly toward meeting the above tentative schedule. Should the scope of work be changed and/or should problems arise during the course of the work effort that could affect the above schedules, it is understood that both the DISTRICT and ENGINEER would develop a revised schedule, if required, to address such scope changes and/or problems. The costing reflected in this Task Order assumes that all work will be completed by December 31, 2017. Should the job be delayed for any reason beyond the ENGINEER's control past this date or the above schedule, the ENGINEER reserves the right to renegotiate the agreement to cover actual cost increases.

EXHIBIT B

PAYMENT ARRANGEMENTS

Periodic Compensation

- A. For ENGINEER services to be rendered under this contract, ENGINEER shall be paid a total contract amount, including cost reimbursements, not to exceed \$2,980,949.
- B. Extra work required to compensate the work may be authorized only if ENGINEER receives written approval by the Public Works Director or designated representative identified in paragraph 1 of the Agreement at the same billing rates per unit as included in the Fee Estimate of Exhibit A. The total amount of this contingency fund is 10% of the agreement amount of \$298,095.
- C. Payment for services and /or reimbursement of costs shall be made upon ENGINEER's satisfactory performance, based upon the scope and methodology contained in **EXHIBIT A** as determined by DISTRICT.
- D. Monthly, ENGINEER shall submit to the DISTRICT DESIGNATED REPRESENTATIVE an invoice or certified claim on the County Treasury for the service performed over the period specified. These invoices or certified claims must cite the assigned Board Contract Number. DESIGNATED REPRESENTATIVE shall evaluate the quality of the service performed and if found to be satisfactory shall initiate payment processing. DISTRICT shall pay invoices or claims for satisfactory work within 30 days of presentation.
- E. DISTRICT's failure to discover or object to any unsatisfactory work or billings prior to payment will not constitute a waiver of DISTRICT's right to require ENGINEER to correct such work or billings or seek any other legal remedy.

EXHIBIT C

Indemnification and Insurance Requirements (For Design Professional Contracts)

INDEMNIFICATION PERTAINING TO OTHER THAN PROFESSIONAL SERVICES

ENGINEER agrees to indemnify, defend (with counsel reasonably approved by DISTRICT) and hold harmless DISTRICT and its officers, officials, employees, agents and volunteers from and against any and all claims, actions, losses, damages, judgments and/or liabilities arising out of this Agreement from any cause whatsoever, including the acts, errors or omissions of any person or entity and for any costs or expenses (including but not limited to attorneys' fees) incurred by DISTRICT on account of any claim except where such indemnification is prohibited by law. ENGINEER's indemnification obligation applies to DISTRICT's active as well as passive negligence but does not apply to DISTRICT's sole negligence or willful misconduct.

INDEMNIFICATION PERTAINING TO DESIGN PROFESSIONAL SERVICES

ENGINEER agrees to indemnify, defend (with counsel reasonably approved by DISTRICT) and hold harmless DISTRICT and its officers, officials, employees, agents and volunteers from and against any and all claims, actions, losses, damages, costs, expenses (including but not limited to attorneys' fees), judgments and/or liabilities arising out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the ENGINEER and its employees or agents in the performance of services under this contract, but this indemnity does not apply to liability for damages arising from the sole negligence, active negligence, or willful acts of the DISTRICT.

NOTIFICATION OF ACCIDENTS AND SURVIVAL OF INDEMNIFICATION PROVISIONS

ENGINEER shall notify DISTRICT immediately in the event of any accident or injury arising out of or in connection with this Agreement. The indemnification provisions in this Agreement shall survive any expiration or termination of this Agreement.

INSURANCE

ENGINEER shall procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the ENGINEER, his agents, representatives, employees or subcontractors.

A. Minimum Scope of Insurance

Coverage shall be at least as broad as:

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

If the ENGINEER maintains higher limits than the minimums shown above, the DISTRICT requires and shall be entitled to coverage for the higher limits maintained by the ENGINEER. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the DISTRICT.

B. Other Insurance Provisions

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

1. **Additional Insured** – DISTRICT, its officers, officials, employees, agents and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the ENGINEER including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the ENGINEER insurance at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10 and CG 20 37 if a later edition is used).
2. **Primary Coverage** – For any claims related to this Agreement, the ENGINEER's insurance coverage shall be primary insurance as respects the DISTRICT, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the DISTRICT, its officers, officials, employees, agents or volunteers shall be excess of the ENGINEER's insurance and shall not contribute with it.
3. **Notice of Cancellation** – Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the DISTRICT
4. **Waiver of Subrogation Rights** – ENGINEER hereby grants to DISTRICT a waiver of any right to subrogation which any insurer of said ENGINEER may acquire against the DISTRICT by virtue of the payment of any loss under such insurance. ENGINEER agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the DISTRICT has received a waiver of subrogation endorsement from the insurer.
5. **Deductibles and Self-Insured Retention** – Any deductibles or self-insured retentions must be declared to and approved by the DISTRICT. The DISTRICT may require the ENGINEER to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention
6. **Acceptability of Insurers** – Unless otherwise approved by Risk Management, insurance shall be written by insurers authorized to do business in the State of California and with a minimum A.M. Best's Insurance Guide rating of "A- VII".
7. **Verification of Coverage** – ENGINEER shall furnish the DISTRICT with proof of insurance, original certificates and amendatory endorsements as required by this Agreement. The proof of insurance, certificates and endorsements are to be received and approved by the DISTRICT before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the ENGINEER's obligation to provide them. The DISTRICT reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time
8. **Failure to Procure Coverage** – In the event that any policy of insurance required under this Agreement does not comply with the requirements, is not procured, or is canceled and not replaced, DISTRICT has the right but not the obligation or duty to terminate the Agreement.
9. **Claims Made Policies** – If any of the required policies provide coverage on a claims-made basis:
 - i. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
 - ii. Insurance must be maintained and evidence of insurance must be provided for at least three (3) years after completion of the contract of work.

- iii. 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 ENGINEER must purchase "extended reporting" coverage for a minimum of three (3) years after completion of contract work.

10. **Special Risks or Circumstances** – DISTRICT reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

Any change requiring additional types of insurance coverage or higher coverage limits must be made by amendment to this Agreement. ENGINEER agrees to execute any such amendment within thirty (30) days of receipt.

Any failure, actual or alleged, on the part of DISTRICT to monitor or enforce compliance with any of the insurance and indemnification requirements will not be deemed as a waiver of any rights on the part of DISTRICT.