

SERVICE CONTRACT
Trickling Filter 480 Volt Cable Replacement at Plant No. 1 (FR1-0008)
SPECIFICATION NO. S-2021-1272BD

THIS CONTRACT is made and entered into as of the date fully executed below, by and between Orange County Sanitation District, with a principal place of business at 10844 Ellis Avenue, Fountain Valley, CA 92708 (hereinafter referred to as "OC San") and Baker Electric, Inc. with a principal place of business at 1298 Pacific Oaks Place, Escondido, CA 92029 (hereinafter referred to as "Contractor") collectively referred to as the "Parties".

WITNESSETH

WHEREAS, OC San desires to temporarily retain the services of Contractor to provide Trickling Filter 480 Volt Cable Replacement at Plant No. 1 "Services", as described in Exhibit "A"; and

WHEREAS, OC San has chosen Contractor to conduct Services in accordance with Ordinance No. OC SAN-56; and

WHEREAS, on December 15, 2021, the Board of Directors of OC San, by minute order, authorized execution of this Contract between OC San and Contractor; and

WHEREAS, Contractor is qualified by virtue of experience, training, and expertise to accomplish such Services,

NOW, THEREFORE, in consideration of the mutual promises and mutual benefits exchanged between the Parties, the Parties mutually agree as follows:

1. Introduction

1.1 This Contract and all exhibits hereto is made by OC San and the Contractor. The terms and conditions herein exclusively govern the purchase of Services as described in Exhibit "A".

1.2 Exhibits to this Contract are incorporated by reference and made a part of this Contract as though fully set forth at length herein.

Exhibit "A" Scope of Work
Exhibit "B" Bid Price Form
Exhibit "C" Determined Insurance Requirement Form
Exhibit "D" Contractor Safety Standards
Exhibit "E" Human Resources Policies
Exhibit "F" General Conditions

1.3 In the event of any conflict or inconsistency between the provisions of this Contract and any of the provisions of the exhibits hereto, the provisions in the document highest in precedence shall be controlling. The order of precedence of the Contract is set forth below:

- a. Service Contract
- b. Exhibit "F" General Conditions
- c. Exhibit "C" Determined Insurance Requirement Form
- d. Exhibit "D" Contractor Safety Standards
- e. Permits and other regulatory requirements

- f. Exhibit "E" Human Resources Policies
- g. Exhibit "A" Scope of Work
- h. Exhibit "B" Bid Price Form

- 1.4 The provisions of this Contract may be amended or waived only by a writing executed by authorized representatives of both Parties hereto.
- 1.5 The various headings in this Contract are inserted for convenience only and shall not affect the meaning or interpretation of this Contract or any paragraph or provision hereof.
- 1.6 The term "hours", when used in this Contract, shall be Monday through Friday, 7:00 AM to 3:30 PM.
- 1.7 Contractor shall provide OC San with all required premiums and/or overtime work at no charge beyond the price provided under "Compensation" below.
- 1.8 Except as expressly provided otherwise, OC San accepts no liability for any expenses, losses, or action incurred or undertaken by Contractor as a result of Work performed in anticipation of purchases of said services by OC San.
- 2. **Compensation** Compensation to be paid by OC San to Contractor for the Services provided under this Contract shall be a total amount not to exceed Two Hundred Fifty-one Thousand, Five Hundred Eighty-six Dollars (\$251,586.00).
- 3. **California Department of Industrial Relations (DIR) Registration and Record of Wages**
 - 3.1 To the extent Contractor's employees and/or its subcontractors who will perform Work during the design and preconstruction phases of a construction contract or perform work under a maintenance contract for which Prevailing Wage Determinations have been issued by the DIR and as more specifically defined under Labor Code Section 1720 et seq, Contractor and its subcontractors shall comply with the registration requirements of Labor Code Section 1725.5. Pursuant to Labor Code Section 1771.4, the Work is subject to compliance monitoring and enforcement by the DIR.
 - 3.2 The Contractor and its subcontractors shall maintain accurate payroll records and shall comply with all the provisions of Labor Code Section 1776, and shall submit payroll records to the Labor Commissioner pursuant to Labor Code 1771.4(a)(3). Penalties for non-compliance with the requirements of Section 1776 may be deducted from progress payments per Section 1776.
 - 3.3 Pursuant to Labor Code Section 1776, the Contractor and its subcontractors shall furnish a copy of all certified payroll records to OC San and/or general public upon request, provided the public request is made through OC San, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the Department of Industrial Relations.
 - 3.4 The Contractor and its subcontractors shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulation Section 16461(e).
 - 3.5 In addition, refer to General Conditions, Exhibit "F", GC-4, LAWS TO BE OBSERVED.
- 4. **Payments and Invoicing**
 - 4.1 OC San shall pay, net thirty (30) days, upon receipt and approval, by OC San's Project Manager or designee, of itemized invoices submitted for Services completed in accordance

with Exhibit "A". OC San, at its sole discretion, shall be the determining party as to whether the Services have been satisfactorily completed.

- 4.2 Invoices shall be emailed by Contractor to OC San Accounts Payable at APStaff@OCSan.gov and "INVOICE" with the Purchase Order Number shall be referenced in the subject line.
- 4.3 In addition, refer to General Conditions, Exhibit "F", PAYMENT FOR WORK.
5. **Audit Rights** Contractor agrees that, during the term of this Contract and for a period of three (3) years after its termination, OC San shall have access to and the right to examine any directly pertinent books, documents, and records of Contractor relating to the invoices submitted by Contractor pursuant to this Contract.
6. **Scope of Work** Subject to the terms of this Contract, Contractor shall perform the Services identified in Exhibit "A". Contractor shall perform said Services in accordance with generally accepted industry and professional standards.
7. **Modifications to Scope of Work** Requests for modifications to the Scope of Work hereunder can be made by OC San at any time. All modifications must be made in writing and signed by both Parties.
8. **Contract Term** The Services provided under this Contract shall be completed within two hundred seventy (270) calendar days from the effective date of the Notice to Proceed.
9. **Extensions** The term of this Contract may be extended only by written instrument signed by both Parties. In addition, refer to General Conditions, Exhibit "F", GC-27, EXTENSION OF TIME FOR DELAY.
10. **Performance** Time is of the essence in the performance of the provisions hereof.
11. **Termination**
 - 11.1 OC San reserves the right to terminate this Contract for its convenience, with or without cause, in whole or in part, at any time, by written notice from OC San of intent to terminate. Upon receipt of a termination notice, Contractor shall immediately discontinue all Work under this Contract (unless the notice directs otherwise). OC San shall thereafter, within thirty (30) days, pay Contractor for Work performed (cost and fee) to the date of termination. Contractor expressly waives any claim to receive anticipated profits to be earned during the uncompleted portion of this Contract. Such notice of termination shall terminate this Contract and release OC San from any further fee, cost or claim hereunder by Contractor other than for Work performed to the date of termination.
 - 11.2 OC San reserves the right to terminate this Contract immediately upon OC San's determination that Contractor is not complying with the Scope of Work requirements, if the level of service is inadequate, or any other default of this Contract.
 - 11.3 OC San may also immediately cancel for default of this Contract in whole or in part by written notice to Contractor:
 - if Contractor becomes insolvent or files a petition under the Bankruptcy Act; or
 - if Contractor sells its business; or
 - if Contractor breaches any of the terms of this Contract; or
 - if total amount of compensation exceeds the amount authorized under this Contract.

11.4 All OC San property in the possession or control of Contractor shall be returned by Contractor to OC San upon demand, or at the termination of this Contract, whichever occurs first.

12. **Insurance** Contractor and all subcontractors shall purchase and maintain, throughout the life of this Contract and any periods of warranty or extensions, insurance in amounts equal to the requirements set forth in the signed Determined Insurance Requirement Form (attached hereto and incorporated herein as Exhibit "C"). Contractor shall not commence Work under this Contract until all required insurance is obtained in a form acceptable to OC San, nor shall Contractor allow any subcontractor to commence service pursuant to a subcontract until all insurance required of the subcontractor has been obtained. Failure to maintain required insurance coverage shall result in termination of this Contract.

13. **Bonds – Not Used**

14. **Indemnification and Hold Harmless Provision** Contractor shall assume all responsibility for damages to property and/or injuries to persons, including accidental death, which may arise out of or be caused by Contractor's Services under this Contract, or by its subcontractor(s) or by anyone directly or indirectly employed by Contractor, and whether such damage or injury shall accrue or be discovered before or after the termination of the Contract. Except as to the sole active negligence of or willful misconduct of OC San, Contractor shall indemnify, protect, defend and hold harmless OC San, its elected and appointed officials, officers, agents and employees, from and against any and all claims, liabilities, damages or expenses of any nature, including attorneys' fees: (a) for injury to or death of any person or damage to property or interference with the use of property, arising out of or in connection with Contractor's performance under the Contract, and/or (b) on account of use of any copyrighted or uncopyrighted material, composition, or process, or any patented or unpatented invention, article or appliance, furnished or used under the Contract, and/or (c) on account of any goods and Services provided under this Contract. This indemnification provision shall apply to any acts or omissions, willful misconduct, or negligent misconduct, whether active or passive, on the part of Contractor or anyone employed by or working under Contractor. To the maximum extent permitted by law, Contractor's duty to defend shall apply whether or not such claims, allegations, lawsuits, or proceedings have merit or are meritless, or which involve claims or allegations that any of the parties to be defended were actively, passively, or concurrently negligent, or which otherwise assert that the parties to be defended are responsible, in whole or in part, for any loss, damage, or injury. Contractor agrees to provide this defense immediately upon written notice from OC San, and with well qualified, adequately insured, and experienced legal counsel acceptable to OC San.

15. **Contractor Safety Standards and Human Resources Policies** OC San requires Contractor and its subcontractor(s) to follow and ensure their employees follow all Federal, State, and local regulations as well as Contractor Safety Standards while working at OC San locations. If during the course of the Contract it is discovered that Contractor Safety Standards do not comply with Federal, State, or local regulations, then the Contractor is required to follow the most stringent regulatory requirement at no additional cost to OC San. Contractor and all of its employees and subcontractors, shall adhere to the Safety requirements in Exhibit "A", all applicable Contractor Safety Standards attached hereto in Exhibit "D" and the Human Resources Policies in Exhibit "E".

16. **Warranties - Refer to General Conditions, Exhibit "F", GC-19 WARRANTY (CONTRACTOR'S GUARANTEE).**

17. **Liquidated Damages – Not Used**

18. **Force Majeure** Neither party shall be liable for delays caused by accident, flood, acts of God, fire, labor trouble, war, acts of government or any other cause beyond its control, but said party shall use reasonable efforts to minimize the extent of the delay. Work affected by a Force Majeure condition may be rescheduled by mutual consent or may be eliminated from the Contract.
19. **Freight (F.O.B. Destination)** Contractor assumes full responsibility for all transportation, transportation scheduling, packing, handling, insurance, and other services associated with delivery of all products deemed necessary under this Contract.
20. **Familiarity with Work** By executing this Contract, Contractor warrants that: 1) it has investigated the Work to be performed; and 2) it understands the facilities, difficulties and restrictions of the Work under this Contract. Should Contractor discover any latent or unknown conditions materially differing from those inherent in the Work or as represented by OC San, it shall immediately inform OC San of this and shall not proceed, except at Contractor's risk, until written instructions are received from OC San.
21. **Regulatory Requirements** Contractor shall perform all Work under this Contract in strict conformance with applicable Federal, State, and local regulatory requirements including, but not limited to, 40 CFR 122, 123, 124, 257, 258, 260, 261, and 503, Title 22, 23, and California Water Codes Division 2. In addition, refer to General Conditions, Exhibit "F", GC-35, STORMWATER REQUIREMENTS.
22. **Environmental Compliance** Contractor shall, at its own cost and expense, comply with all Federal, State, and local environmental laws, regulations, and policies which apply to the Contractor, its subcontractors, and the Services, including, but not limited to, all applicable Federal, State, and local air pollution control laws and regulations.
23. **Licenses, Permits, Ordinances and Regulations** Contractor represents and warrants to OC San that it has obtained all licenses, permits, qualifications, and approvals of whatever nature that are legally required to engage in this Work. Any and all fees required by Federal, State, County, City and/or municipal laws, codes and/or tariffs that pertain to the Work performed under the terms of this Contract will be paid by Contractor.
24. **Applicable Laws and Regulations** Contractor shall comply with all applicable Federal, State, and local laws, rules, and regulations. Contractor also agrees to indemnify and hold harmless from any and all damages and liabilities assessed against OC San as a result of Contractor's noncompliance therewith. Any permission required by law to be included herein shall be deemed included as a part of this Contract whether or not specifically referenced.
25. **Contractor's Employees Compensation - In addition, refer to General Conditions, Exhibit "F", GC-4, LAWS TO BE OBSERVED**
 - 25.1 **Davis-Bacon Act** – Contractor will pay and will require all subcontractors to pay all employees on said project a salary or wage at least equal to the prevailing rate of per diem wages as determined by the Secretary of Labor in accordance with the Davis-Bacon Act for each craft or type of worker needed to perform the Contract. The provisions of the Davis-Bacon Act shall apply only if the Contract is in excess of two thousand dollars (\$2,000.00) and when twenty-five percent (25%) or more of the Contract is funded by Federal assistance. If the aforesaid conditions are met, a copy of the provisions of the Davis-Bacon Act to be complied with are incorporated herein as a part of this Contract and referred to by reference.
 - 25.2 **General Prevailing Rate** – OC San has been advised by the State of California Director of Industrial Relations of its determination of the general prevailing rate of per diem wages and

the general prevailing rate for legal holiday and overtime work in the locality in which the Work is to be performed for each craft or type of work needed to execute this Contract, and copies of same are on file in the Engineering Department. The Contractor agrees that not less than said prevailing rates shall be paid to workers employed on this Contract as required by Labor Code Section 1774 of the State of California. Per California Labor Code 1773.2, OC San will have on file copies of the prevailing rate of per diem wages at its principal office and at each project site, which shall be made available to any interested party upon request.

25.3 Forfeiture For Violation – Contractor shall, as a penalty to OC San, forfeit fifty dollars (\$50.00) for each calendar day or portion thereof for each worker paid (either by the Contractor or any subcontractor under it) less than the prevailing rate of per diem wages as set by the Director of Industrial Relations, in accordance with Sections 1770-1780 of the California Labor Code for the Work provided for in this Contract, all in accordance with Section 1775 of the Labor Code of the State of California.

25.4 Apprentices – Sections 1777.5, 1777.6, 1777.7 of the Labor Code of the State of California, regarding the employment of apprentices are applicable to this Contract and the Contractor shall comply therewith if the prime contract involves thirty thousand dollars (\$30,000.00) or more or twenty (20) working days or more; or if contracts of specialty contractors not bidding for work through the general or prime Contractor are two thousand dollars (\$2,000.00) or more or five (5) working days or more.

25.5 Workday – In the performance of this Contract, not more than eight (8) hours shall constitute a day's work, and the Contractor shall not require more than eight (8) hours of labor in a day from any person employed by it hereunder. Contractor shall conform to Article 3, Chapter 1, Part 7 (Section 1810 et seq.) of the Labor Code of the State of California and shall forfeit to OC San as a penalty, the sum of twenty-five dollars (\$25.00) for each worker employed in the execution of this Contract by Contractor or any subcontractor for each calendar day during which any worker is required or permitted to labor more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one (1) week in violation of said Article. Contractor shall keep an accurate record showing the name and actual hours worked each calendar day and each calendar week by each worker employed by Contractor in connection with the project.

25.6 Record of Wages; Inspection – Contractor agrees to maintain accurate payroll records showing the name, address, social security number, work classification, straight-time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by it in connection with the project and agrees to require that each of its subcontractors do the same. All payroll records shall be certified as accurate by the applicable Contractor or subcontractor or its agent having authority over such matters. Contractor further agrees that its payroll records and those of its subcontractors shall be available to the employee or employee's representative, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards and shall comply with all of the provisions of Labor Code Section 1776, in general. Penalties for non-compliance with the requirements of Section 1776 may be deducted from project payments per the requirements of Section 1776.

26. **South Coast Air Quality Management District's (SCAQMD) Requirements** It is Contractor's responsibility that all equipment furnished and installed be in accordance with the latest rules and regulations of the South Coast Air Quality Management District (SCAQMD). All Contract Work practices, which may have associated emissions such as sandblasting, open field spray painting or demolition of asbestos containing components or structures, shall comply with the appropriate rules and regulations of the SCAQMD.

27. **Governing Law** This Contract shall be governed by and interpreted under the laws of the State of California and the Parties submit to jurisdiction in the County of Orange, in the event any action is brought in connection with this Contract or the performance thereof.
28. **Breach** The waiver of either party of any breach or violation of, or default under, any provision of this Contract, shall not be deemed a continuing waiver by such party of any other provision or of any subsequent breach or violation of this Contract or default thereunder. Any breach by Contractor to which OC San does not object shall not operate as a waiver of OC San's rights to seek remedies available to it for any subsequent breach.
29. **Remedies** In addition to other remedies available in law or equity, if the Contractor fails to make delivery of the goods or Services or repudiates its obligations under this Contract, or if OC San rejects the goods or Services or revokes acceptance of the goods or Services, OC San may (1) cancel the Contract; (2) recover whatever amount of the purchase price OC San has paid, and/or (3) "cover" by purchasing, or contracting to purchase, substitute goods or Services for those due from Contractor. In the event OC San elects to "cover" as described in (3), OC San shall be entitled to recover from Contractor as damages the difference between the cost of the substitute goods or Services and the Contract price, together with any incidental or consequential damages.
30. **Dispute Resolution - Refer to General Conditions, Exhibit "F", GC-25, DISPUTES**
31. **Attorney's Fees - Refer to General Conditions, Exhibit "F", GC-24, CLAIMS**
32. **Survival** The provisions of this Contract dealing with Payment, Warranty, Indemnity, and Forum for Enforcement, shall survive termination or expiration of this Contract.
33. **Severability** If any section, subsection, or provision of this Contract, or any agreement or instrument contemplated hereby, or the application of such section, subsection, or provision is held invalid, the remainder of this Contract or instrument in the application of such section, subsection or provision to persons or circumstances other than those to which it is held invalid, shall not be affected thereby, unless the effect of such invalidity shall be to substantially frustrate the expectations of the Parties.
34. **Damage to OC San's Property** Any of OC San's property damaged by Contractor, any subcontractors or by the personnel of either will be subject to repair or replacement by Contractor at no cost to OC San. In addition, refer to General Conditions, Exhibit "F", GC-9, PRESERVATION OF PROPERTY.
35. **Disclosure** Contractor agrees not to disclose, to any third party, data or information generated from this project without the prior written consent from OC San.
36. **Independent Contractor** The legal relationship between the parties hereto is that of an independent contractor, and nothing herein shall be deemed to make Contractor an OC San employee. During the performance of this Contract, Contractor and its officers, employees, and agents shall act in an independent capacity and shall not act as OC San's officers, employees, or agents. Contractor and its officers, employees, and agents shall obtain no rights to any benefits which accrue to OC San's employees.
37. **Limitations upon Subcontracting and Assignment** Contractor shall not delegate any duties nor assign any rights under this Contract without the prior written consent of OC San. Any such attempted delegation or assignment shall be void.

38. **Third Party Rights** Nothing in this Contract shall be construed to give any rights or benefits to anyone other than OC San and Contractor.
39. **Non-Liability of OC San Officers and Employees** No officer or employee of OC San shall be personally liable to Contractor, or any successor-in-interest, in the event of any default or breach by OC San or for any amount which may become due to Contractor or to its successor, or for breach of any obligation for the terms of this Contract.
40. **Read and Understood** By signing this Contract, Contractor represents that he has read and understood the terms and conditions of the Contract.
41. **Authority to Execute** The persons executing this Contract on behalf of the Parties warrant that they are duly authorized to execute this Contract and that by executing this Contract, the Parties are formally bound.
42. **Entire Agreement** This Contract constitutes the entire agreement of the Parties and supersedes all prior written or oral and all contemporaneous oral agreements, understandings, and negotiations between the Parties with respect to the subject matter hereof.
43. **Notices** All notices under this Contract must be in writing. Written notice shall be delivered by personal service or sent by registered or certified mail, postage prepaid, return receipt requested, or by any other overnight delivery service which delivers to the noticed destination and provides proof of delivery to the sender. Rejection or other refusal to accept or the inability to deliver because of changed address for which no notice was given as provided hereunder shall be deemed to be receipt of the notice, demand or request sent. All notices shall be effective when first received at the following addresses:

OC San: Jackie Lagade, Principal Buyer
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708

Contractor: Ted N. Baker, President
Baker Electric, Inc.
1298 Pacific Oaks Place
Escondido, CA 92029

Each party shall provide the other party written notice of any change in address as soon as practicable.

[Intentionally left blank. Signatures follow on the next page.]

IN WITNESS WHEREOF, intending to be legally bound, the Parties hereto have caused this Contract to be signed by the duly authorized representatives.

ORANGE COUNTY SANITATION DISTRICT

Dated: _____

By: _____

John B. Withers
Chair, Board of Directors

Dated: _____

By: _____

Kelly A. Lore
Clerk of the Board

Dated: _____

By: _____

Ruth Zintzun
Purchasing & Contracts Manager

BAKER ELECTRIC, INC.

Dated: _____

By: _____

Print Name and Title of Officer

CMM

EXHIBIT A
SCOPE OF WORK
For
Trickling Filter 480 Volt Cable Replacement at Plant 1 (FR1-0008)

EXHIBIT A
SCOPE OF WORK
Trickling Filter 480 Volt Cable Replacement at Plant No. 1 (FR1-0008)
SPECIFICATION NO. S-2021-1272BD

1 Location of Work

The work covered under this Contract will take place at the Orange County Sanitation District's (OC San): Plant No. 1 located at 10844 Ellis Avenue, Fountain Valley, CA 92708.

2 General

The Contractor shall furnish all labor, equipment, materials, machinery, tools, supplies, insurance, permits, licenses, transportation, and other incidentals necessary to complete all tasks and items of work described within here and within other portions of the Contract Documents and Drawings and as more specifically described below. The Work shall be complete, and all Work, materials, and services not expressly indicated in the Contract Documents, which may be necessary for the complete and proper construction of the Work in good faith, shall be provided by the Contractor.

3 Description of the Work

The work involves furnishing and replacing the low voltage power and control conductors at Plant 1 Trickling Filter Area and Solids Scrubber Area. Equipment circuits that share the same conduit or in the same area are grouped into Tasks as shown below:

TASK A

- i. TF Effluent Box Slide Gate No. 1 – 12BGAT035
- ii. TF Effluent Box Sluice Gate No. 1 – 12BGAT036
- iii. TF Effluent Box Sluice Gate No. 2 – 12BGAT037
- iv. TF Effluent Box Sluice Gate No. 3 – 12BGAT038

TASK B

- i. Secondary Effluent Junction Box No. 1 Sluice Gate No. 1 – 12BGAT063
- ii. Secondary Effluent Junction Box No. 1 Weir Gate No. 1 – 12BGAT091
- iii. Secondary Effluent Junction Box No. 1 Weir Gate No. 3 – 12BGAT092

TASK C

- i. Sludge Pump No. 2 Isolation MOV – 12BPV119
- ii. Sludge Pump Station Ventilation Fan - 12BFAN178

TASK D

- i. Junction Box No. 4 Sluice Gate No. 1 – 12BGAT181
- ii. Junction Box No. 4 Sluice Gate No. 2 – 12BGAT180

TASK E

- i. Clarifier No. 1 Arm Drive – 12BCLR060
- ii. Clarifier No. 2 Arm Drive – 12BCLR070

TASK F

i. Solids Scrubbers Facility - Outdoor receptacles and lighting

- Refer to the Drawings (markup construction set of P1-76 and P1-101, associated loop drawings and cable & conduit schedule) and the attached specifications.
- OC San Inspection and Maintenance staff shall witness all tasks performed by Contractor.
- OC San shall de-energize the circuits for associated loads prior to starting any work.
- Work includes:
 - i. Coordinating shutdowns and startups with OC San Electrical Inspection, Operations and Maintenance staff.
 - ii. Preparing an outage plan for District's review to identify the affected loads to minimize any interruption to Plant Operations prior to any cable replacement.
 - iii. Entry and work inside energized electrical manholes.
 - iv. Identifying and verifying the faulty feeder circuits and their location in the duct banks, as well as identifying and verifying remaining functional circuits occupying the same duct.
 - v. Unwrapping of existing cable fireproofing in manholes. Carefully removing and documenting existing wiring and retaining that wiring for detailed inspection by OC San Maintenance staff.
 - vi. Inspecting/Investigating of underground ducts (spare conduits) prior to installing new cables.
 - vii. Mandrelling and cleaning all conduit runs being used for this work, whether by spare conduits or reuse of existing runs.
 - viii. Furnishing and installing new feeders and control wiring. Retag spare ducts used to install new conductors and cables and tag new conductors and cables.
 - ix. Dressing of new conductors in all manholes and equipment, including fireproofing of new cables.
 - x. Furnishing and installing conductor terminations and splices.
 - xi. Electrical testing and commissioning of new conductors and final functionality of the circuits.
 - xii. Providing start-up assistance to Operations and Maintenance to recommission affected equipment.
 - xiii. Complying with NEC 500 and 501 installation in hazardous area (including conduit seal-offs).
 - xiv. Removing existing conduit seal offs for cable replacement and installing new replacement seal-offs as applicable.
 - xv. Providing redline markups of as-built conditions including any splice connections.

4 Project/Work Elements

4.1 General

1. TASK A:

The power conductors from DS-TFA to the following loads have failed. Disconnect and remove existing power conductors. Cap and relabel existing conduit "P-59" as a spare conduit "FR1-0008-X0359". Furnish, install, and test new multi-conductor jacketed cable (4/C#12 cable) from DS-TFA to these loads using existing spare 2" conduit (total of 5 sets including a spare as shown on plan drawings). Existing spare conduit SP-108 shall be extended to the existing wireway and relabeled as "FR1-0008-P0359". Spare cable shall be neatly coiled both in Power Building 8 floor trench and field-mounted wireway and identified for future termination. Conduct electrical inspection and test of entire length of circuits once installed. Witness the opening and closing of each gate to verify proper operation.

- i. TF Effluent Box Slide Gate No. 1 – 12BGAT035
- ii. TF Effluent Box Sluice Gate No. 1 – 12BGAT036
- iii. TF Effluent Box Sluice Gate No. 2 – 12BGAT037
- iv. TF Effluent Box Sluice Gate No. 3 – 12BGAT038

2. TASK B:

The power conductors from DS-TFA to the following loads have failed. Disconnect and remove existing power conductors. Cap and relabel existing conduit "P-62" as a spare conduit "FR1-0008-X0262". Furnish, install, and test new multi-conductor jacketed cable (4/C#12 cable) from DS-TFA to these loads using existing spare 2" conduit (total of 4 sets including a spare as shown on plan drawings). Existing spare conduit SP-88 shall be extended to the existing wireway and relabeled as "FR1-0008-P0262". Spare cable shall be neatly coiled both in Power Building 8 floor trench and field-mounted wireway and identified for future termination. Conduct electrical inspection and test of entire length of circuits once installed. Witness the opening and closing of each gate to verify proper operation.

- i. Secondary Effluent Junction Box No. 1 Sluice Gate No. 1 – 12BGAT063
- ii. Secondary Effluent Junction Box No. 1 Weir Gate No. 1 – 12BGAT091
- iii. Secondary Effluent Junction Box No. 1 Weir Gate No. 3 – 12BGAT092

3. TASK C:

The power conductors from DS-TFB to Sludge Pump No. 2 Isolation MOV – 12BPV119 and 12BPV159 have failed. Disconnect and remove all existing power conductors to affected loads in existing conduit "P-76". Cap and relabel existing conduit "P-76" as spare conduit "FR1-0008-X0676". Scum Pump No.2 Isolation MOV – 12BPV159 to be demolished by others in the future. Furnish, install, and test new multi-conductor jacketed cable (4/C#12 cable) from DS-TFA to 12BPV119 using existing spare 2" conduit (total of 3 sets including two spares as shown on plan drawings). Existing spare conduit SP-94 shall be relabeled as "FR1-0008-P0676". Spare cables shall be neatly coiled both in Power Building 8 floor trench and field-mounted wireway and identified for future termination. Conduct electrical inspection and test of entire length of circuits once installed. Witness the opening and closing of the MOV to verify proper operation.

i. Sludge Pump No. 2 Isolation MOV 12BPV119

The power conductors from MCC-TFA to Sludge Pump Station Ventilation Fan - 12BFAN178 has failed. Disconnect and remove existing power and control conductors to affected load in existing conduit "PC-26". Furnish, install, and test new XHHW-2 conductors (Power: 3#12, 1#12G, Control: 6#12) from MCC-TFA to this load using existing 1" conduit. Recommission the existing equipment to verify proper operation of new cables.

ii. Sludge Pump Station Ventilation Fan - 12BFAN178

4. TASK D:

The power conductors from DS-TFA and DS-TFB to the following loads have failed. Disconnect and remove existing power conductors from existing conduit. Furnish, install, and test new multi-conductor jacketed cable (4/C#12 cable) each from DS-TFA and DS-TFB to these loads in existing conduits. Conduct electrical inspection and test of entire length of circuits once installed. Witness the operation of the gates to verify proper operation.

- i. Junction Box No. 4 Sluice Gate No. 1 – 12BGAT181 (DS-TFA) – Conduit P-64
- ii. Junction Box No. 4 Sluice Gate No. 2 – 12BGAT180 (DS-TFB) – Conduit P-80

5. TASK E:

The power and control conductors from MCC-TFA and MCC-TFB to the following loads have failed. Disconnect and remove existing power and control conductors in existing conduits "PC-28" and "PC-48". Trace the quantity and routing of existing conductors. Disconnect and remove existing conductors to the drive, torque switches, and control stations located at the Clarifiers as shown on the plan drawing E5-1070 and associated details. Furnish, install, and test new XHHW-2 conductors (Power: 3#10, 1#12G, Control: 16#12) from MCC-TFA and MCC-TFB to the equipment using existing conduits. Recommission the existing equipment to verify proper operation of new cables.

- i. Clarifier No. 1 Arm Drive – 12BCLR060 (MCC-TFA) – Conduit PC-28
- ii. Clarifier No. 2 Arm Drive – 12BCLR070 (MCC-TFB) – Conduit PC-48

6. TASK F:

The power conductors from Panel SHC-3 at Solids Scrubbers Facility to outdoor receptacles have failed. The receptacle branch circuitry shares a common conduit with lighting branch circuitry. Disconnect and remove existing power conductors in existing conduits "P1101-P". Trace the quantity and routing of existing conductors. Furnish, install, and test new XHHW-2 conductors (Power: 4#10, 1#10G) from Panel SHC-3 (Circuits 13 and 14) to lighting and receptacles using existing conduit as shown on the plan drawings. Recommission the existing equipment to verify proper operation of new cables.

5 Project Requirements

A. Work Sequence - The following Work activities shall be performed in the order listed. Contractor shall proceed from one step to the next, as outlined below. This sequence shall be performed for each circuit listed in Work Elements.

- (1) Identify the grounded circuit as outlined in Paragraph 4, Work Elements of this document (Work Elements), routing of grounded circuit from MCC or panel

- board to final location, and source for power for Lock Out Tag Out (LOTO).
- (2) Identify loads that share raceway/conduit with grounded circuits. Prepare Outage Plan and matrix of feeder replacement for approval by Operations & Maintenance.
 - (3) LOTO grounded circuit. Field verify the cable prior to starting any work.
 - (4) LOTO other circuits that share the same raceway/conduit as the grounded circuit.
 - (5) Contractor shall clear any obstructions within the empty conduits that are currently assigned as spare. Mandrel and clean existing conduits before new wires are installed.
 - (6) Replace the grounded circuit as outlined in Work Elements.
 - (7) Install and commission new conductor and cables as outlined in the Work Elements.
 - (8) Contractor shall remove any existing conductors as noted in the Work Elements. Contractor shall retain the existing conductors to be inspected by OC San to identify the cause of conductor damage. Once the conductor damage has been identified and documented by OC San, Contractor shall dispose of the damaged conductors.
 - (9) Megger-test the entire circuit and document the test results.
 - (10) Contractor shall provide conduit seal-offs in areas classified as Hazardous.
 - (11) Contractor shall re-seal all duct openings of ducts in all affected manholes that were disturbed in progression of work in this Contract.
 - (12) Remove LOTO and return circuits back to service.
 - (13) Provide startup assistance to Operations & Maintenance to recommission the affected equipment.

B. Shutdown

- Request for outages shall be made 21 days in advance. OC San's Project Manager acceptance shall be obtained for the outage.
- The operation (closing and opening) of all electrical circuits shall be performed by OC San personnel only. No exceptions allowed.

C. Work by Others

- Contractor shall be aware of on-going work near the area of this Project performed by others under separate contracts. The following projects may have on-going construction activities simultaneously with this Project:
 1. P1-105
 2. FE19-03
- Cooperate and coordinate with others to minimize conflicts and delays including Work by OC San staff and other OC San contractors.

D. Safety

- While working on energized circuits during Commissioning, the Contractor shall wear appropriate personal protective equipment per NFPA 70E.
- Contractor shall use appropriate personal protective equipment while working within energized electrical vaults. Installation in hazardous areas shall comply with NEC 500 and 501 (including conduit seal-offs). Contractor shall remove existing conduit seal-offs for cable replacement and install new replacement seal-offs as applicable.

6 Stormwater Requirements

Not used

7 Submittals

A General

Contractor shall submit, for Project Manager's review and acceptance, all required shop drawings and other Work-related submittals in accordance with the section entitled "Shop Drawing Submittals", and applicable individual Specifications sections.

B. Electronic Format/Submittal Identification System

Contractor shall submit all submittals electronically for review. Electronic submittals shall be in PDF format with security restrictions set to enable commenting so that Project Manager's comments can be added to the document using Adobe Reader or Bluebeam Revu. PDF files shall be searchable and include Bookmarks/Tabs identifying specific sections/sub-sections to separate each product and system.

C. Submittal Transmittal

Each submittal shall be accompanied by a dedicated transmittal signed by the Contractor. OC San will provide Contractor a sample transmittal following Notice to Proceed. If the Contractor proposes to provide material, equipment, or method of Work which deviates from the Contract Documents, the Contractor shall indicate so under "deviations" on the Submittal Transmittal Form accompanying the submittal copies.

D. Shop Drawing Submittals

- a. General - Shop drawings are drawings, schedules, brochures, and other data that are prepared by the Contractor, Subcontractors, manufacturers, suppliers, and/or distributors, and which illustrate some portion of the Work.
- b. Shop Drawing Review - Contractor shall review, mark with Contractor's approval, and submit for OC San review and acceptance. Shop drawings shall show the name of the Project, the Contractor, and, if any, the names of Suppliers, manufacturers, and Subcontractors.
- c. Shop Drawing Submittal Return Status - Along with submittal comments, OC San will return each submittal with a status as defined below:
 1. RESUBMITTAL NOT REQUIRED (RNR)
 2. RESUBMITTAL REQUIRED, AS NOTED (RRN)
 3. REVISE AND RESUBMIT (R&R)
 4. NOT ACCEPTABLE (NA)

"RESUBMITTAL NOT REQUIRED" - the submittal is in general conformance with the design concept of the Project and general compliance with the Contract Documents.

"RESUBMITTAL REQUIRED, AS NOTED" - Contractor shall address and incorporate all OC San comments and resubmit within 10 days including responses to all OC San comments.

“REVISE AND RESUBMIT” implies there was a significant amount of missing or illegible information, errors on multiple documents, or a significant amount of comments were made such that the entire packet needs to be resubmitted and reviewed again. A “REVISE AND RESUBMIT” response does not mean the entire submittal was reviewed and all possible comments have been provided.

“NOT ACCEPTABLE” means the Contractor has either submitted an item that is significantly not per specifications, the submittal lacked even the bare minimum of information to begin a review, or there were significant errors or illegible information provided within the submittal.

If the submittal is returned to the Contractor marked “NOT ACCEPTABLE” or “REVISE AND RESUBMIT,” Contractor shall correct the shop drawings to conform to Project Manager’s comments and resubmit. The complete shop drawing(s) shall be resubmitted in its entirety to include a copy of the Contractor’s responses to all comments received on the submittal series.

No portion of the Work requiring a shop drawing submittal shall be commenced until the submittal has been reviewed by the Project Manager and returned to the Contractor with a notation indicating “RESUBMITTAL NOT REQUIRED” or “RESUBMITTAL REQUIRED, AS NOTED” where the noted comments do not affect the Work for which Contractor is commencing. No payment for facilities constructed and/or installed will be made until the final submittal has received a “RESUBMITTAL NOT REQUIRED” response and is considered accepted as complete.

If Contractor believes that any shop drawing or communication relative thereto calls for changes in the Work for which the Contract Amount or time or completion should be changed, Contractor shall immediately notify the Project Manager and request a Change Order in accordance with the Section on Change Management of these Specifications.

- d. Contractor Approval - Contractor shall obtain and review the manufacturer’s shop drawings and other pertinent data for conformance with all requirements of the Contract Documents prior to forwarding submittals to Project Manager for review. Contractor, at its sole expense, shall make any necessary changes in the shop drawings to make them conform to the Contract Documents. After completion of the review, verification and revisions, Contractor shall stamp and sign the shop drawings indicating compliance with the Contract Documents and the Contractor’s approval.

8 Permits/Licenses

Contractor shall possess and maintain a current, valid C-10 Electrical Contractor License, issued by the California Contractors State License Board, for the required work.

9 Testing and Commissioning

Refer to attached Specification Section 16080 Electrical Testing, 16120 Conductors and Cables, and Section 01810 Commissioning.

10 Deliverables/As Built Drawings/Manufacturer's Documentation – Refer to Attachment "F" General Conditions GC-30 FINAL COMPLETION AND FINAL ACCEPTANCE.

- A. Contractor Work Plan
- B. Construction Schedule
- C. All submittals as required per Specifications
- D. Deliverables/As Built Drawings/Manufacturer's Documentation
- E. Redline markups of FR1-0008 drawings
- F. Updated Conduit and Cable Schedule in Excel

11 Resources Available

- Laydown and Staging Area
- Temporary Power and Utilities – Including Water

12 Project Management

- A minimum of one week prior to start of work, a meeting with OC San staff shall be held to establish appropriate contacts and review the Contractor's plan to implement this work.
- Progress meetings with OC San staff may be held once a week throughout the duration of the project at OC San offices or via Teams Meeting to keep OC San apprised of the job, review work in progress and review 3-week look-ahead schedule, discuss outstanding items and coordinate activities. All notes and decision items shall be captured by the Contractor and reported in electronic format. The formal agenda shall be submitted with the previous meeting notes at least 2 days prior to each meeting.

13 Change Management – Refer to Attachment "F" General Conditions GC-22 REQUEST FOR CHANGE (CHANGES AT CONTRACTOR'S REQUEST).

Appendices:

Specification Number 01140, WORK RESTRICTIONS

Specification Number 01701 PROJECT CONTROL MANAGEMENT SYSTEM

Specification Number 01810 COMMISSIONING

Specification Number 16075 ELECTRICAL IDENTIFICATION NAMEPLATES AND WARNING SIGNS

Specification Number 16080 ELECTRICAL TESTING

Specification Number 16120 CONDUCTORS AND CABLES

FR1-0008 Drawings