



ORANGE COUNTY SANITATION DISTRICT SPECIAL NOTICE REGARDING CORONAVIRUS (COVID-19) AND ATTENDANCE AT PUBLIC MEETINGS

Governor Newsom signed Assembly Bill (AB) 361 on September 16, 2021, which, in part, addresses the conduct of public meetings in light of the continued State of Emergency order.

Effective October 1, 2021, AB 361 suspends the requirements located in California Government Code, Section 54953, Subdivision (b), Paragraph (3) specifically pertaining to the conduct of public meetings. As such, the Orange County Sanitation District (OC San) Board of Directors has determined that due to the size of OC San's Board of Directors (25), and the health and safety of the members, the Board of Directors will be participating in meetings of the Board telephonically and via Internet accessibility.

PUBLIC PARTICIPATION

Your participation is always welcome. OC San offers several ways in which to interact during meetings. You will find information as to these opportunities below.

ONLINE MEETING PARTICIPATION

You may join the meeting live via Teams on your computer or similar device or web browser by using the link below:

[Click here to join the meeting](#)

We suggest testing joining a Teams meeting on your device prior to the commencement of the meeting. For recommendations, general guidance on using Teams, and instructions on joining a Teams meeting, [please click here](#).

Please mute yourself upon entry to the meeting. Please raise your hand if you wish to speak during the public comment section of the meeting. The Clerk of the Board will call upon you by using the name you joined with.

Meeting attendees are not provided the ability to make a presentation during the meeting. Please contact the Clerk of the Board at least 48 hours prior to the meeting if you wish to present any items. Additionally, camera feeds may be controlled by the meeting moderator to avoid inappropriate content.

HOW TO PARTICIPATE IN THE MEETING BY TELEPHONE

To join the meeting from your phone: Dial (213) 279-1455
When prompted, enter the Phone Conference ID: 745 241 468#

All meeting participants may be muted during the meeting to alleviate background noise. If you are muted, please use *6 to unmute. You may also mute yourself on your device.

Please raise your hand to speak by use *5, during the public comment section of the meeting. The Clerk of the Board will call upon you by using the last 4 digits of your phone number as identification.

NOTE: All attendees will be disconnected from the meeting at the beginning of Closed Session. If you would like to return to the Open Session portion of the meeting, please login or dial-in to the Teams meeting again and wait in the Lobby for admittance.

VIEW THE MEETING ONLINE ONLY

The meeting will be available for online viewing only at:

<https://ocsd.legistar.com/Calendar.aspx>

HOW TO SUBMIT A COMMENT

You may provide verbal comment in real time during the meeting. In order to provide a verbal comment, please raise your hand as described above or alert the Clerk of the Board before or during the public comment period.

You may also submit your comments and questions in writing for consideration in advance of the meeting by using the eComment feature available online at: <https://ocsd.legistar.com/Calendar.aspx> or sending them to OCSanClerk@ocsan.gov with the subject line "PUBLIC COMMENT ITEM # (insert the item number relevant to your comment)" or "PUBLIC COMMENT NON-AGENDA ITEM".

You may also submit comments and questions for consideration during the meeting by using the eComment feature available online at: <https://ocsd.legistar.com/Calendar.aspx>. The eComment feature will be available for the duration of the meeting.

All written public comments will be provided to the legislative body and may be read into the record or compiled as part of the record.

TECHNICAL SUPPORT PRIOR TO AND DURING MEETINGS

For technical assistance before and during the meeting, please call 714-593-7431. For any other questions and/or concerns, please contact the Clerk of the Board's office at 714-593-7433. Thank you, in advance, for your patience in working with these technologies. We appreciate your interest in OC San!

May 25, 2022

NOTICE OF REGULAR MEETING

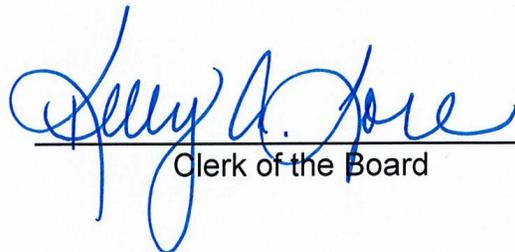
**OPERATIONS COMMITTEE
ORANGE COUNTY SANITATION DISTRICT**

Wednesday, June 1, 2022 – 5:00 P.M.

ACCESSIBILITY FOR THE GENERAL PUBLIC

Your participation is always welcome. Specific information as to how to participate in this meeting is detailed in the Special Notice attached to this agenda. In general, OC San offers several ways in which to interact during meetings: you may join the meeting live via Teams on your computer or similar device or web browser, join the meeting live via telephone, view the meeting online, and/or submit comments for consideration before or during the meeting.

The Regular Meeting of the Operations Committee of the Orange County Sanitation District will be held at the above location and in the manner indicated on Wednesday, June 1, 2022 at 5:00 p.m.



Clerk of the Board

- Serving:*
- Anaheim
 - Brea
 - Buena Park
 - Cypress
 - Fountain Valley
 - Fullerton
 - Garden Grove
 - Huntington Beach
 - Irvine
 - La Habra
 - La Palma
 - Los Alamitos
 - Newport Beach
 - Orange
 - Placentia
 - Santa Ana
 - Seal Beach
 - Stanton
 - Tustin
 - Villa Park
 - County of Orange
 - Costa Mesa Sanitary District
 - Midway City Sanitary District
 - Irvine Ranch Water District
 - Yorba Linda Water District

OPERATIONS COMMITTEE MEETING DATE	BOARD MEETING DATE
06/01/22	06/22/22
07/06/22	07/27/22
AUGUST DARK	08/24/22
09/07/22	09/28/22
10/05/22	10/26/22
11/02/22	11/16/22 *
12/07/22	12/21/22 *
JANUARY DARK	01/25/23
02/01/23	02/22/23
03/01/23	03/22/23
04/05/23	04/26/23
05/03/23	05/24/23

**** Meeting will be held on the third Wednesday of the month***

ROLL CALL

OPERATIONS COMMITTEE Engineering and Operations & Maintenance

Meeting Date: June 1, 2022

Time: 5:00 p.m.

Adjourn: _____

COMMITTEE MEMBERS (14)

Brooke Jones (Chair)	
Ryan Gallagher (Vice-Chair)	
Stephen Faessel	
Johnathan Ryan Hernandez	
Steve Jones	
Sandra Massa-Lavitt	
Paulo Morales	
Kim Nichols	
Bob Ooten	
Jesus J. Silva	
Donald P. Wagner	
Chad Zimmerman	
John Withers (Board Chair)	
Chad Wanke (Board Vice-Chair)	

OTHERS

Brad Hogin, General Counsel	

STAFF

Jim Herberg, General Manager	
Rob Thompson, Assistant General Manager	
Lorenzo Tyner, Assistant General Manager	
Celia Chandler, Director of Human Resources	
Kathy Millea, Director of Engineering	
Riaz Moinuddin, Director of Operations & Maintenance	
Lan Wiborg, Director of Environmental Services	
Kelly Lore, Clerk of the Board	

ORANGE COUNTY SANITATION DISTRICT
BOARD OF DIRECTORS
Complete Roster

Effective 03/07/2022

AGENCY/CITIES	ACTIVE DIRECTOR	ALTERNATE DIRECTOR
Anaheim	Stephen Faessel	Gloria Ma'ae
Brea	Glenn Parker	Cecilia Hupp
Buena Park	Art Brown	Connor Traut
Cypress	Paulo Morales	Anne Hertz-Mallari
Fountain Valley	Patrick Harper	Ted Bui
Fullerton	Jesus J. Silva	Nick Dunlap
Garden Grove	Steve Jones	John O'Neill
Huntington Beach	Kim Carr	Dan Kalmick
Irvine	Anthony Kuo	Farrah N. Khan
La Habra	Rose Espinoza	Steve Simonian
La Palma	Marshall Goodman	Nitesh Patel
Los Alamitos	Ron Bates	NONE
Newport Beach	Brad Avery	Joy Brenner
Orange	Kim Nichols	Chip Monaco
Placentia	Chad Wanke	Ward Smith
Santa Ana	Johnathan Ryan Hernandez	Nelida Mendoza
Seal Beach	Sandra Massa-Lavitt	Schelly Sustarsic
Stanton	David Shawver	Carol Warren
Tustin	Ryan Gallagher	Austin Lumbard
Villa Park	Chad Zimmerman	Robert Collacott

Sanitary/Water Districts

Costa Mesa Sanitary District	Bob Ooten	Art Perry
Midway City Sanitary District	Andrew Nguyen	Mark Nguyen
Irvine Ranch Water District	John Withers	Douglas Reinhart
Yorba Linda Water District	Brooke Jones	Ted Lindsey

County Areas

Board of Supervisors	Donald P. Wagner	Doug Chaffee
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OPERATIONS COMMITTEE
Regular Meeting Agenda
Wednesday, June 1, 2022 - 5:00 PM
Board Room
Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

ACCOMMODATIONS FOR THE DISABLED: If you require any special disability related accommodations, please contact the Orange County Sanitation District (OC San) Clerk of the Board's office at (714) 593-7433 at least 72 hours prior to the scheduled meeting. Requests must specify the nature of the disability and the type of accommodation requested.

AGENDA POSTING: In accordance with the requirements of California Government Code Section 54954.2, this agenda has been posted outside the main gate of the OC San's Administration Building located at 10844 Ellis Avenue, Fountain Valley, California, and on the OC San's website at www.ocsan.gov not less than 72 hours prior to the meeting date and time above. All public records relating to each agenda item, including any public records distributed less than 72 hours prior to the meeting to all, or a majority of the Board of Directors, are available for public inspection in the office of the Clerk of the Board.

AGENDA DESCRIPTION: The agenda provides a brief general description of each item of business to be considered or discussed. The recommended action does not indicate what action will be taken. The Board of Directors may take any action which is deemed appropriate.

MEETING AUDIO: An audio recording of this meeting is available within 24 hours after adjournment of the meeting at <https://ocsd.legistar.com/Calendar.aspx> or by contacting the Clerk of the Board at (714) 593-7433.

NOTICE TO DIRECTORS: To place items on the agenda for a Committee or Board Meeting, the item must be submitted in writing to the Clerk of the Board: Kelly A. Lore, MMC, (714) 593-7433 / klore@ocsan.gov at least 14 days before the meeting.

FOR ANY QUESTIONS ON THE AGENDA, BOARD MEMBERS MAY CONTACT STAFF AT:

General Manager: Jim Herberg, jherberg@ocsan.gov / (714) 593-7300
Asst. General Manager: Lorenzo Tyner, ltyner@ocsan.gov / (714) 593-7550
Asst. General Manager: Rob Thompson, rthompson@ocsan.gov / (714) 593-7310
Director of Human Resources: Celia Chandler, cchandler@ocsan.gov / (714) 593-7202
Director of Engineering: Kathy Millea, kmillea@ocsan.gov / (714) 593-7365
Director of Environmental Services: Lan Wiborg, lwiborg@ocsan.gov / (714) 593-7450
Director of Operations & Maintenance: Riaz Moinuddin, rmoinuddin@ocsan.gov / (714) 593-7269

CALL TO ORDER**PLEDGE OF ALLEGIANCE****ROLL CALL AND DECLARATION OF QUORUM:**

Clerk of the Board

PUBLIC COMMENTS:

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REPORTS:

The Committee Chairperson and the General Manager may present verbal reports on miscellaneous matters of general interest to the Directors. These reports are for information only and require no action by the Directors.

CONSENT CALENDAR:

Consent Calendar Items are considered to be routine and will be enacted, by the Committee, after one motion, without discussion. Any items withdrawn from the Consent Calendar for separate discussion will be considered in the regular order of business.

1. APPROVAL OF MINUTES**[2022-2299](#)****RECOMMENDATION:**

Approve Minutes of the Regular Meeting of the Operations Committee held May 4, 2022.

Originator: Kelly Lore

Attachments: [Agenda Report](#)
[05-04-2022 Operations Committee Minutes](#)

2. ENGINEERING PROGRAM CONTRACT PERFORMANCE REPORT [2022-2203](#)

RECOMMENDATION: Recommend to the Board of Directors to:

Receive and file the Engineering Program Contract Performance Report for the period ending March 31, 2022.

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[CIP Contract Report 03-31-2022](#)

3. BUILDING B FLOOR REPLACEMENT, JIB CRANE AND FORKLIFT PAD, PROJECT NO. FR1-0012 [2022-2262](#)

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for Building B Floor Replacement, Jib Crane and Forklift Pad, Project No. FR1-0012;
- B. Award a Construction Contract to Vicon Enterprise for Building B Floor Replacement, Jib Crane and Forklift Pad, Project No. FR1-0012 for an amount not to exceed \$220,000; and
- C. Approve a contingency of \$22,000 (10%).

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[FR1-0012 Contract Agreement](#)

4. PLANT NO. 2 TRICKLING FILTER “A” ROTARY DISTRIBUTOR MAST REPLACEMENT [2022-2309](#)

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Sole Source Purchase Order Contract to Ovivo USA, LLC (Ovivo) for a direct replacement Center Mast assembly for the Plant No. 2 Trickling Filter “A” solids contact, Secondary Treatment, in an amount not to exceed \$461,500, plus applicable sales tax and shipping; and
- B. Approve a contingency of \$46,150 (10%).

Originator: Riaz Moinuddin

Attachments: [Agenda Report](#)

5. **SERVICE CONTRACT FOR PLANT NOS. 1 AND 2 CENTRAL GENERATION FACILITIES' CARBON MEDIA CHANGE-OUT** [2022-2321](#)

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Service Contract to Carbon Bulk Sales LLC to install and dispose of activated carbon media for Plant Nos. 1 and 2 Cen-Gen Facilities, Specification No. S-2022-1289BD, for a total amount not to exceed \$420,972 for the period beginning July 1, 2022 through June 30, 2023, with four (4) one-year renewal options; and
- B. Approve an annual contingency of \$42,097 (10%).

Originator: Riaz Moinuddin

Attachments: [Agenda Report](#)
[S-2022-1289BD General Services Contract](#)

NON-CONSENT:

6. **ENERGY AND DIGESTER GAS MASTER PLAN, PROJECT NO. PS21-04** [2022-2230](#)

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Professional Services Agreement with Brown and Caldwell to provide engineering services for the Energy and Digester Gas Master Plan, Project No. PS21-04, for an amount not to exceed \$1,438,037; and
- B. Approve a contingency of \$143,804 (10%).

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[PS21-04 PSA Agreement & Attachment A Scope of Work Presentation - PS21-04 Energy Master Plan PSA](#)

7. **REDHILL RELIEF SEWER RELOCATION AT STATE ROUTE 55, PROJECT NO. FE18-13** [2021-1944](#)

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for Redhill Relief Sewer Relocation at State Route 55, Project No. FE18-13;
- B. Award a Construction Contract to SRK Engineering, Inc. for Redhill Relief Sewer Relocation at State Route 55, Project No. FE18-13 for an amount not to exceed \$2,213,000; and

C. Approve a contingency of \$331,950 (15%).

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[FE18-13 Contract Agreement Package](#)

8. BUSHARD DIVERSION STRUCTURE REPAIR, PROJECT NO. MP-307 [2022-2141](#)

RECOMMENDATION: Recommend to the Board of Directors to:

A. Receive and file Bid Tabulation and Recommendation for Bushard Diversion Structure Repair, Project No. MP-307;

B. Award a Construction Contract to Abhe & Svoboda, Inc. for Bushard Diversion Structure Repair, Project No. MP-307 for an amount not to exceed \$1,762,545; and

C. Approve a contingency of \$176,255 (10%).

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[MP-307R Contract Agreement](#)
[Presentation - MP-307 Construction Award](#)

INFORMATION ITEMS:

9. FY 2022-23 AND FY 2023-24 BUDGET PRESENTATION [2022-2340](#)

RECOMMENDATION:

Information Item.

Originator: Lorenzo Tyner

Attachments: [Agenda Report](#)
[Presentation - Proposed FY 2022-23 & FY 2023-24 Budget](#)

10. ORANGE COUNTY SANITATION DISTRICT ENVIRONMENTAL SERVICES LABORATORY AND OCEAN MONITORING UPDATE [2022-2193](#)

RECOMMENDATION:

Information Item.

Originator: Lan Wiborg

Attachments: [Agenda Report](#)
[Presentation - Environmental Lab & Ocean Monitoring](#)

DEPARTMENT HEAD REPORTS:

CLOSED SESSION:

None.

OTHER BUSINESS AND COMMUNICATIONS OR SUPPLEMENTAL AGENDA ITEMS, IF ANY:

BOARD OF DIRECTORS INITIATED ITEMS FOR A FUTURE MEETING:

At this time Directors may request staff to place an item on a future agenda.

ADJOURNMENT:

Adjourn the Committee meeting until the Regular Meeting of the Operations Committee on July 6, 2022 at 5:00 p.m.



OPERATIONS COMMITTEE

Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

Agenda Report

File #: 2022-2299

Agenda Date: 6/1/2022

Agenda Item No: 1.

FROM: James D. Herberg, General Manager
Originator: Kelly A. Lore, Clerk of the Board

SUBJECT:

APPROVAL OF MINUTES

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

Approve Minutes of the Regular Meeting of the Operations Committee held May 4, 2022.

BACKGROUND

In accordance with the Board of Directors Rules of Procedure, an accurate record of each meeting will be provided to the Directors for subsequent approval at the following meeting.

RELEVANT STANDARDS

- Resolution No. OC SAN 21-04

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

- Minutes of the Operations Committee meeting held May 4, 2022



CALL TO ORDER

A regular meeting of the Operations Committee of the Orange County Sanitation District was called to order by Committee Vice-Chair Ryan Gallagher on Wednesday, May 4, 2022 at 5:02 p.m. in the Administration Building of the Orange County Sanitation District. Vice-Chair Gallagher stated that the meeting was being held telephonically and via Internet accessibility in accordance with new provisions in California Government Code Section 54953 and Resolution No. OC SAN 22-13, due to the continued State of Emergency Order. Vice-Chair Gallagher announced the teleconference meeting guidelines and led the flag salute.

ROLL CALL AND DECLARATION OF QUORUM:

Roll call was taken and a quorum was declared present, as follows:

- PRESENT:** Ryan Gallagher, Stephen Faessel, Johnathan Ryan Hernandez, Steve Jones, Paulo Morales, Kim Nichols, Robert Ooten, Jesus Silva, Donald Wagner, Chad Wanke, John Withers, Chad Zimmerman, Ted Lindsey (Alternate) and Schelly Sustarsic (Alternate)
- ABSENT:** None

STAFF PRESENT: Kelly Lore, Clerk of the Board, and Mo Abiodun were present in the Board Room. Jim Herberg, General Manager; Rob Thompson, Assistant General Manager; Lorenzo Tyner, Assistant General Manager; Celia Chandler, Director of Human Resources; Kathy Millea, Director of Engineering; Riaz Moinuddin, Director of Operations and Maintenance; Jennifer Cabral; Tanya Chong; Raul Cuellar; Mike Dorman; Brian Engeln; April Frost; Tina Knapp; Rob Michaels; Jeff Mohr; Adam Nazaroff; Wally Ritchie; Thomas Vu; Eros Yong; and Ruth Zintzun were in attendance telephonically.

OTHERS PRESENT: Brad Hogin, General Counsel, and James H. Clark, Black & Veatch, were in attendance telephonically.

PUBLIC COMMENTS:

No public comments were received.

Clerk of the Board Kelly Lore stated that a revised PowerPoint presentation for Item No. 10 had been emailed to the Directors today and was also made available to the public.

REPORTS:

Vice-Chair Gallagher and General Manager Jim Herberg did not provide reports.

CONSENT CALENDAR:**1. APPROVAL OF MINUTES**[2022-2283](#)**Originator:** Kelly Lore

MOVED, SECONDED, AND DULY CARRIED TO:

Approve Minutes of the Regular Meeting of the Operations Committee held April 6, 2022.

AYES: Ryan Gallagher, Stephen Faessel, Paulo Morales, Kim Nichols, Robert Ooten, Jesus Silva, Donald Wagner, Chad Wanke and John Withers**NOES:** None**ABSENT:** Johnathan Ryan Hernandez, Steve Jones, Chad Zimmerman and Schelly Sustarsic (Alternate)**ABSTENTIONS:** Ted Lindsey (Alternate)**2. INSTALLATION AND DISPOSAL OF ACTIVATED CARBON FOR PLANT NO. 1 T&D ODOR CONTROL SYSTEM, SPECIFICATION NO. S-2022-1316BD**[2022-2279](#)**Originator:** Riaz Moinuddin

MOVED, SECONDED, AND DULY CARRIED TO: Recommend to the Board of Directors to:

A. Approve a Purchase Order Contract to Karbonous, Inc. to provide Installation and Disposal of Activated Carbon for Plant No. 1 T&D Odor Control System, Specification No. S-2022-1316BD, for a total annual amount not to exceed \$202,920 for the period beginning August 1, 2022 through July 31, 2023, with four one-year renewal options; and

B. Approve an annual contingency of \$20,292 (10%).

AYES: Ryan Gallagher, Stephen Faessel, Paulo Morales, Kim Nichols, Robert Ooten, Jesus Silva, Donald Wagner, Chad Wanke, John Withers and Ted Lindsey (Alternate)**NOES:** None**ABSENT:** Johnathan Ryan Hernandez, Steve Jones, Chad Zimmerman and Schelly Sustarsic (Alternate)**ABSTENTIONS:** None**3. QUARTERLY ODOR COMPLAINT REPORT**[2022-2257](#)**Originator:** Riaz Moinuddin

MOVED, SECONDED, AND DULY CARRIED TO:

Receive and file the Fiscal Year 2021-22 Third Quarter Odor Complaint Report.

AYES: Ryan Gallagher, Stephen Faessel, Paulo Morales, Kim Nichols, Robert Ooten, Jesus Silva, Donald Wagner, Chad Wanke, John Withers and Ted Lindsey (Alternate)

NOES: None

ABSENT: Johnathan Ryan Hernandez, Steve Jones, Chad Zimmerman and Schelly Sustarsic (Alternate)

ABSTENTIONS: None

4. SEAL BEACH PUMP STATION REPLACEMENT, PROJECT NO. 3-67 [2022-2235](#)

Originator: Kathy Millea

MOVED, SECONDED, AND DULY CARRIED TO: Recommend to the Board of Directors to:

Approve a Monitoring Wells Relocation Agreement between the Orange County Sanitation District and Orange County Water District for Seal Beach Pump Station Replacement, Project No. 3-67, in a form approved by General Counsel.

AYES: Ryan Gallagher, Stephen Faessel, Paulo Morales, Kim Nichols, Robert Ooten, Jesus Silva, Donald Wagner, Chad Wanke, John Withers and Ted Lindsey (Alternate)

NOES: None

ABSENT: Johnathan Ryan Hernandez, Steve Jones, Chad Zimmerman and Schelly Sustarsic (Alternate)

ABSTENTIONS: None

5. PLANT NO. 2 OXYGEN REACTOR PURGE VALVE AND ACTUATOR ASSEMBLIES REPLACEMENT [2022-2265](#)

Originator: Riaz Moinuddin

MOVED, SECONDED, AND DULY CARRIED TO: Recommend to the Board of Directors to:

A. Approve a Sole Source Purchase Order to Integrated Process Technologies for the purchase of four DeZurik 20" 316 SST Oxygen Cleaned Purge Air Control Valves and Limitorque Actuator assemblies for the Plant No. 2 Activated Sludge Plant in an amount not to exceed \$200,597; and

B. Approve a contingency of \$20,059 (10%).

AYES: Ryan Gallagher, Stephen Faessel, Paulo Morales, Kim Nichols, Robert Ooten, Jesus Silva, Donald Wagner, Chad Wanke, John Withers and Ted Lindsey (Alternate)

NOES: None

ABSENT: Johnathan Ryan Hernandez, Steve Jones, Chad Zimmerman and Schelly Sustarsic (Alternate)
ABSTENTIONS: None

Director Chad Zimmerman arrived at the meeting at approximately 5:08 p.m.

NON-CONSENT:

6. DIRECT ACCESS ENERGY PURCHASE CONTRACT [2022-2273](#)

Originator: Riaz Moinuddin

MOVED, SECONDED, AND DULY CARRIED TO: Recommend to the Board of Directors to:

- A. Approve Master Service Agreements with two additional energy service providers:
- Constellation NewEnergy and
 - NRG/Direct Energy; and
- B. Delegate to the General Manager and Purchasing Manager the authority to enter into Transaction Agreements, in a form approved by General Counsel, with the following energy service providers:
- Shell Energy Solutions, or
 - Constellation NewEnergy, or
 - NRG/Direct Energy.

AYES: Ryan Gallagher, Stephen Faessel, Paulo Morales, Kim Nichols, Robert Ooten, Jesus Silva, Donald Wagner, Chad Wanke, John Withers, Chad Zimmerman and Ted Lindsey (Alternate)

NOES: None

ABSENT: Johnathan Ryan Hernandez, Steve Jones and Schelly Sustarsic (Alternate)

ABSTENTIONS: None

7. SODIUM HYDROXIDE (CAUSTIC SODA) 50%, SPECIFICATION NO. C-2018-915BD - CONTINGENCY INCREASE [2022-2247](#)

Originator: Riaz Moinuddin

MOVED, SECONDED, AND DULY CARRIED TO: Recommend to the Board of Directors to:

Approve a unit price contingency increase of \$44.40 per dry ton (an additional 6% of the base cost) to the Liquid Caustic Soda (50%) contract with Brenntag Pacific for the term July 1, 2022 through June 30, 2023, for a new total contingency amount not to exceed \$112.80 per dry ton (16%) with a total estimated usage of \$481,153.

AYES: Ryan Gallagher, Stephen Faessel, Paulo Morales, Kim Nichols, Robert Ooten, Jesus Silva, Donald Wagner, Chad Wanke, John Withers, Chad Zimmerman and Ted Lindsey (Alternate)

NOES: None

ABSENT: Johnathan Ryan Hernandez, Steve Jones and Schelly Sustarsic (Alternate)

ABSTENTIONS: None

Director Steve Jones arrived at the meeting at approximately 5:18 p.m.

8. LIQUID FERRIC CHLORIDE SPECIFICATION NO. C-2019-1037BD [2022-2266](#)
CONTINGENCY INCREASE

Originator: Riaz Moinuddin

MOVED, SECONDED, AND DULY CARRIED TO: Recommend to the Board of Directors to:

- A. Approve a unit price contingency of \$175 per dry ton (26%) to the liquid Ferric Chloride Agreement with Pencoco, Inc., Specification No.C-2019-1037BD, for the period beginning July 1, 2022 through June 30, 2023. New unit cost not to exceed \$849 per dry ton, for a total estimated annual amount of \$3,947,024;
- B. Approve a unit price contingency of \$277 per dry ton (40%) to the liquid Ferric Chloride Agreement with Kemira, Inc., Specification No.C-2019-1037BD, for the period beginning July 1, 2022 through June 30, 2023. New dry ton unit cost not to exceed \$965 per dry ton, for a total estimated annual amount of \$1,936,062; and
- C. Approve a fuel surcharge of 2.5% on Ferric Chloride deliveries from Kemira, Inc. with quarterly Consumer Price Index (CPI) adjustments.

AYES: Ryan Gallagher, Stephen Faessel, Steve Jones, Paulo Morales, Kim Nichols, Robert Ooten, Jesus Silva, Donald Wagner, Chad Wanke, John Withers, Chad Zimmerman and Ted Lindsey (Alternate)

NOES: None

ABSENT: Johnathan Ryan Hernandez and Schelly Sustarsic (Alternate)

ABSTENTIONS: None

9. REGIONAL ODOR AND CORROSION CONTROL SERVICES (ROCCS) PROGRAM, SPECIFICATION NO. C-2017-899BD - CONTINGENCY INCREASE [2022-2246](#)

Originator: Riaz Moinuddin

MOVED, SECONDED, AND DULY CARRIED TO: Recommend to the Board of Directors to:

- A. Approve a chemical unit price contingency increase of \$146 per dry ton (an additional 20% of the base price) to the Ferrous Chloride Contract with Hill Brothers Chemical Company for the term July 1, 2022 through June 30, 2023, for a new total unit price contingency of \$257.30 per dry ton (35%) for total estimated usage of \$3,028,675;
- B. Approve a unit price contingency increase of 15% for application and field services fees for Ferrous Chloride with Hill Brothers Chemical Company for a new total unit price contingency of \$7.50 (30%);
- C. Approve a fuel surcharge of 4% on Ferrous Chloride deliveries with Hill Brothers Chemical Company, with quarterly Consumer Price Index (CPI) adjustments;
- D. Approve a chemical unit price contingency increase of \$65 per dry ton (an additional 12% of the base price) to the Magnesium Hydroxide Contract with Hill Brothers Chemical Company for the term July 1, 2022 through June 30, 2023, for a new total unit price contingency of \$146.26 per dry ton (27%) for total estimated usage of \$2,637,031; and
- E. Approve a chemical unit price contingency increase of \$0.58/gal (an additional 17% of the base price) to the Calcium Nitrate Contract with USP Technologies for the term July 1, 2022 through June 30, 2023, for a new total unit price contingency of \$1.06/gal (32%) a total estimated usage of \$847,427.

AYES: Ryan Gallagher, Stephen Faessel, Steve Jones, Paulo Morales, Kim Nichols, Robert Ooten, Jesus Silva, Donald Wagner, Chad Wanke, John Withers, Chad Zimmerman and Ted Lindsey (Alternate)

NOES: None

ABSENT: Johnathan Ryan Hernandez and Schelly Sustarsic (Alternate)

ABSTENTIONS: None

Alternate Director Schelly Sustarsic arrived at the meeting at approximately 5:36 p.m. during the presentation of Item No. 10.

INFORMATION ITEMS:

10. CAPITAL IMPROVEMENT PROGRAM (CIP) PROPOSED BUDGET FOR FY 2022-23 & 2023-24 [2022-2229](#)

Originator: Kathy Millea

Engineering Manager Eros Yong provided a PowerPoint presentation regarding the capital improvement program proposed budget for FY2022-23 and FY2023-24. The presentation included an overview of the FY2021-22 CIP activities, performance, 10-year net outlay, the total budget authority, a review of new projects, the top budget increases and decreases, as well as the projected FY2022-23 net CIP outlay, the annual CIP outlay for the next 20 years, proposed construction management staff positions. Assistant General Manager Lorenzo Tyner provided information related to the growth of operating expenses with inflation, a budget summary, an expense overview, projected rates and projected inflation, and an overview of annual single family residential rates.

ITEM RECEIVED AS AN:

Information Item.

Board Vice-Chair Chad Wanke departed the meeting at approximately 5:46 p.m.

Board Chair John Withers departed the meeting at approximately 5:59 p.m.

Director Johnathan Ryan Hernandez arrived at the meeting at approximately 6:01 p.m.

**11. OPERATIONS & MAINTENANCE: WASTEWATER 101 PART 2: [2022-2189](#)
TREATMENT AND RECYCLING**

Originator: Riaz Moinuddin

Plant No.1 Chief Plant Operator April Frost provided a PowerPoint presentation regarding the Orange County Sanitation District's wastewater treatment which included an overview of the water reclamation process, the metering and diversion structure, the preliminary, primary, and secondary treatment process, the effectiveness of water treatment, the solids recovery process, the dewatering operation process, information regarding truckloading, central generation engines, a review of the evolution of ocean discharge, agency partnerships, environmental compliance and reporting governance, and a review of the FY2020-21 operating costs.

ITEM RECEIVED AS AN:

Information Item.

DEPARTMENT HEAD REPORTS:

Director of Engineering Kathy Millea provided a brief report on the status of the Headquarters Complex and displayed photos of the steel being erected.

CLOSED SESSION:

None.

OTHER BUSINESS AND COMMUNICATIONS OR SUPPLEMENTAL AGENDA ITEMS, IF ANY:

None.

BOARD OF DIRECTORS INITIATED ITEMS FOR A FUTURE MEETING:

None.

ADJOURNMENT:

Vice-Chair Gallagher declared the meeting adjourned at 6:22 p.m. to the next Regular Operations Committee meeting to be held on Wednesday, June 1, 2022 at 5:00 p.m.

Submitted by:

Kelly A. Lore, MMC
Clerk of the Board



OPERATIONS COMMITTEE

Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

Agenda Report

File #: 2022-2203

Agenda Date: 6/1/2022

Agenda Item No: 2.

FROM: James D. Herberg, General Manager
Originator: Kathy Millea, Director of Engineering

SUBJECT:

ENGINEERING PROGRAM CONTRACT PERFORMANCE REPORT

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

Receive and file the Engineering Program Contract Performance Report for the period ending March 31, 2022.

BACKGROUND

The Engineering Program involves awarding and managing many construction and consulting contracts. In 2008, the Orange County Sanitation District (OC San) Board of Directors began awarding contingencies along with construction and consulting contracts for the General Manager to approve construction change orders and amendments to consulting contracts up to the amount of the approved contingency. This practice reduces administrative costs, expedites resolution of project issues that arise, helps avoid contractor delay claims, and facilitates efficient management of many contracts.

The Engineering Program Contract Performance Report summarizes construction and consulting contract performance and activities for the quarter ending March 31, 2022. This report is updated quarterly.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

- Engineering Program Contract Performance Report for the period ending March 31, 2022

JM: jw

DATE: May 5, 2022

TO: Orange County Sanitation District
Board of Directors

FROM: James D. Herberg, General Manager
Through: Kathy Millea, Director of Engineering

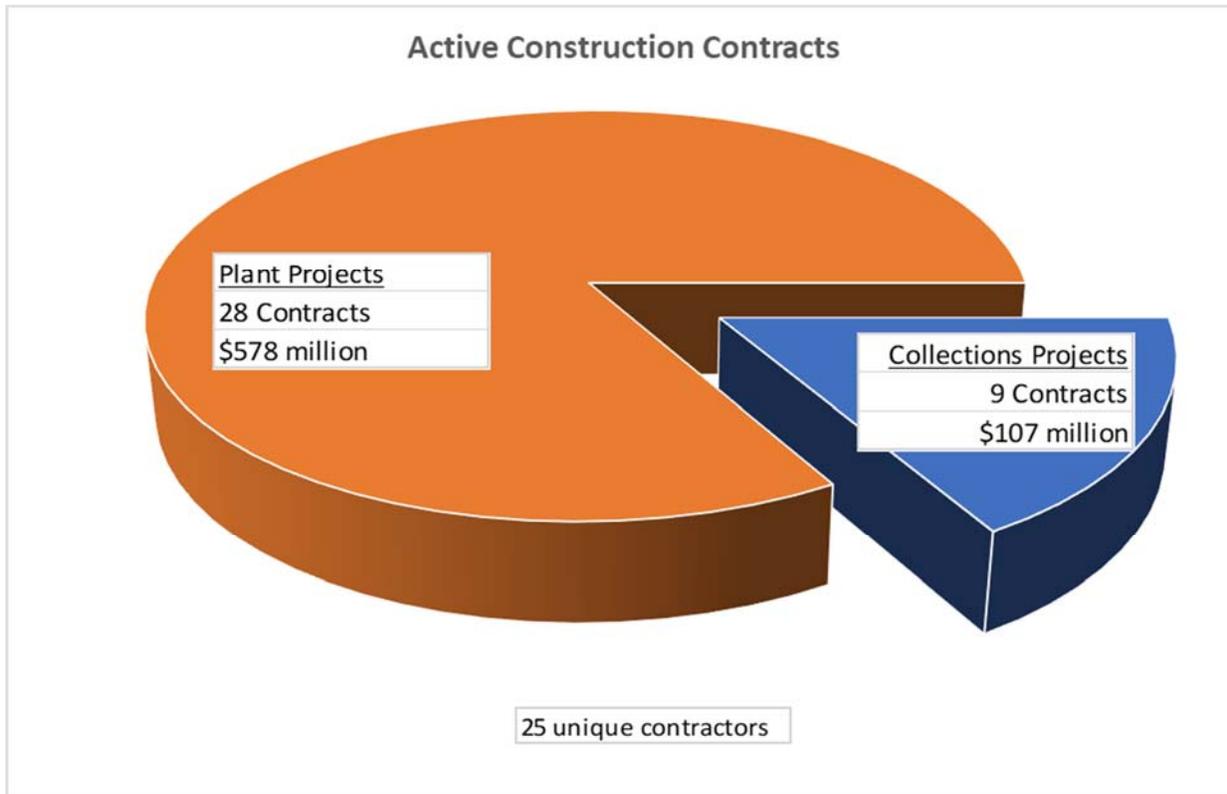
This report summarizes the status, activities, and performance of construction contracts and consultant agreements. This report also identifies the names and status of projects being performed under master budgets for planning studies, research, small construction projects, O&M capital projects, and information technology projects.

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PART 1 - CONSTRUCTION CONTRACTS

Table 1 lists the Board-awarded construction contracts active as of March 31, 2022, while Table 2 lists the General Manager-awarded construction contracts. The General Manager may award contracts up to \$100,000 and task orders up to \$300,000. The graph below shows the number and total value of projects broken down by plant and collections.



Two Board-awarded construction contract were closed in this quarter, as listed in Table 3. No construction contract awarded by the General Manager was closed in this quarter, as listed in Table 4.

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 1 - Active Board-Awarded Construction Contracts as of 3/31/2022

Project / Contract	Contractor	Award Date	% Spent	Board Award Amount	Change Orders	Current Contract Amount	Original Contingency	Current Contingency	Contingency Used	Contingency Remaining
2-72 Newhope-Placentia Trunk Replacement 2-72B Newhope-Placentia Trunk Replacement, Segment B	OHL USA, INC.	06/15/2018	99%	\$58,242,000	\$5,885,108	\$64,127,108	6.5%	12.0%	10.1%	1.9%
3-62 Westminster Blvd Force Main Replacement 3-62 Westminster Blvd Force Main Replacement	Teichert Energy & Utilities Group, Inc.	12/18/2019	72%	\$27,743,000	\$971,036	\$28,714,036	10.0%	10.0%	3.5%	6.5%
3-64 Rehabilitation of Western Regional Sewers 3-64B Los Alamitos Trunk Sewer Rehabilitation Ocean Outfall System Rehabilitation	Steve P. Rados, Inc.	05/26/2021	18%	\$17,775,000	\$0	\$17,775,000	10.0%	10.0%	0.0%	10.0%
J-117 Process Control Systems Upgrades J-117B Outfall Low Flow Pump Station	Shimmick Construction Co., Inc.	12/19/2018	69%	\$90,200,000	\$675,585	\$90,875,585	8.0%	8.0%	0.7%	7.3%
J-120 Process Control Systems Upgrades J-120 Process Control Systems Upgrades	ABB Inc.	07/20/2021	0%	\$11,818,480	\$0	\$11,818,480	10.0%	10.0%	0.0%	10.0%
J-127 Natural Gas Pipelines Replacement at Plant Nos. 1 and 2 J-127 Natural Gas Pipelines Replacement at Plant Nos. 1 and 2	Innovative Construction Solutions	07/22/2020	79%	\$745,500	\$0	\$745,500	10.0%	10.0%	0.0%	10.0%
J-135 Central Generation Engine Overhauls at Plant No. 1 and 2 J-135A Central Generation Engine Overhaul at Plant No. 1	Cooper Machinery Services LLC	03/24/2021	76%	\$3,705,932	\$187,330	\$3,893,262	20.0%	20.0%	5.1%	14.9%
MI-FE Small Construction Projects Program FE10-21 Area 02 Craig Regional Park Manhole Improvements	Deark E&C, Inc.	07/28/2021	0%	\$427,400	\$0	\$427,400	9.9%	9.9%	0.0%	9.9%
FE18-11 Headworks Explosive Gas Monitoring Systems at Plant No. 1 and No. 2	Baker Electric, Inc.	03/25/2020	100%	\$223,984	\$0	\$223,984	10.0%	10.0%	0.0%	10.0%
FE18-14 Plant Water Pipeline Replacement in Kinnison, Lindstrom, and Scott Tunnels at Plant No. 2	MMC, Inc.	12/16/2020	0%	\$1,134,000	\$0	\$1,134,000	15.0%	15.0%	0.0%	15.0%
FE18-15 Plant Boiler System Relief at Plant No. 2	MMC, Inc.	04/21/2021	0%	\$230,000	\$0	\$230,000	15.0%	15.0%	0.0%	15.0%
FE18-16 Truck Loading Basement Drain Modifications at Plant No. 1	Mehta Mechanical Company, Inc.	10/27/2021	0%	\$162,500	\$0	\$162,500	10.0%	10.0%	0.0%	10.0%
FE18-19 12KV Distribution B and East RAS Pump Station Roofing Replacement	O'Connell Engineering & Construction, Inc.	05/27/2020	100%	\$674,800	\$16,664	\$691,464	10.0%	10.0%	2.5%	7.5%
FE19-01 Pump Station Portable Generator Connectors	Pacific Industrial Electric	09/22/2021	0%	\$1,207,479	\$0	\$1,207,479	10.0%	10.0%	0.0%	10.0%
FE19-04 Sunflower Pump Replacement at Plant No. 1	GSE Construction Company, Inc.	10/27/2021	0%	\$2,123,200	\$0	\$2,123,200	10.0%	10.0%	0.0%	10.0%
FE19-03 Trickling Filter Sludge and Scum Pumps Replacement at Plant No. 1	Garney Pacific, Inc.	02/02/2022	0%	\$778,000	\$0	\$778,000	10.0%	10.0%	0.0%	10.0%
FE19-13 VFD Replacements at Seal Beach Pump Station	Energy Management Corporation	02/15/2022	0%	\$138,650	\$0	\$138,650	20.0%	20.0%	0.0%	20.0%
FE19-08 Secondary Treatment VFD Replacements at Plant No. 2	ACS Engineering	3/23/2022	0%	\$1,433,000	\$0	\$1,433,000	10.0%	10.0%	0.0%	10.0%
FE20-06 Thickening and Dewatering Building Pipe Support Improvements at Plant No. 1	Garney Pacific, Inc.	02/23/2022	0%	\$793,000	\$0	\$793,000	10.0%	10.0%	0.0%	10.0%
MI-SM-CAP Operations & Maintenance Capital Program SC19-03 Return Activated Sludge Pump Station Elevator Rehabilitation at Plant No. 2	OTIS	12/16/2020	5%	\$432,400	\$0	\$432,400	20.0%	20.0%	0.0%	20.0%
Operationally-Funded Projects FR1-0007 Control Center Offices and Day Training Room Remodeling at Plant No. 1	Thomas Solar Energy	05/26/2021	18%	\$256,790	\$0	\$256,790	10.0%	10.0%	0.0%	10.0%
FR1-0014 Laboratory Building HVAC Controls Replacement at Plant No. 1	Retrofit Service Company	02/02/2022	0%	\$176,847	\$0	\$176,847	10.0%	10.0%	0.0%	10.0%
FR1-0016 Waste Sidesream Pump Station VFD replacements at Plant No.1	Lead Electric, Inc.	03/23/2022	0%	\$344,889	\$0	\$344,889	10.0%	10.0%	0.0%	10.0%
FRC-0002 Bay Bridge Pump Station Valve Replacement	Innovative Construction Solutions	11/18/2020	47%	\$598,000	\$33,647	\$631,647	10.0%	55.0%	5.6%	49.4%
FRC-0004 Seal Beach Pump Station Isolation Valve Replacement	J.R. Filanc Construction Company, Inc.	12/16/2020	82%	\$466,830	\$0	\$466,830	20.0%	20.0%	0.0%	20.0%

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 1 - Active Board-Awarded Construction Contracts as of 3/31/2022

Project / Contract	Contractor	Award Date	% Spent	Board Award Amount	Change Orders	Current Contract Amount	Original Contingency	Current Contingency	Contingency Used	Contingency Remaining
FRC-0013 Bay Bridge Pump Station Forcemain Isolation Valve Replacement	Charles King Company, Inc.	08/25/2021	95%	\$289,585	\$0	\$289,585	50.0%	68.0%	0.0%	68.0%
MP-305 Cengen Supply Air Fan Support Replacement at Plant No. 2	J.R. Filanc Construction Company, Inc.	12/16/2020	95%	\$297,000	\$27,878	\$324,878	15.0%	15.0%	9.4%	5.6%
P1-105 Headworks Rehabilitation at Plant 1										
P1-105 Headworks Rehabilitation at Plant 1	Kiewit Infrastructure West Co.	02/24/2021	10%	\$222,330,000	\$62,251	\$222,392,251	4.0%	4.0%	0.0%	4.0%
P1-128 Headworks Complex										
P1-128A Headworks Complex at Plant No. 1	Swinerton Builders	05/26/2021	14%	\$102,544,973	\$77,872	\$102,622,845	5.0%	5.0%	0.1%	4.9%
P1-134 South Perimeter Security and Utility Improvements at Plant No.1										
P1-134 South Perimeter Security and Utility Improvements at Plant No.1	Tovey/Shultz Construction, Inc.	07/28/2021	10%	\$4,396,779	\$0	\$4,396,779	10.0%	10.0%	0.0%	10.0%
P1-135 Digester Ferric Chloride Piping Replacement at Plant No. 1										
P1-135 Digester Ferric Chloride Piping Replacement at Plant No. 1	PPM Contracting (PPM)	02/02/2021	57%	\$515,000	\$0	\$515,000	10.0%	10.0%	0.0%	10.0%
P2-98 Primary Treatment Rehabilitation at Plant No. 2										
P2-98A A-Side Primary Clarifiers Replacement at Plant 2	PCL CONSTRUCTION, INC.	05/26/2021	5%	\$111,405,880	\$0	\$111,405,880	6.0%	6.0%	0.0%	6.0%
P2-122 Headworks Modifications at Plant No. 2 for GWRS Final Expansion										
P2-122 Headworks Modifications at Plant No. 2 for GWRS Final Expansion	Shimmick Construction Co., Inc.	03/25/2020	77%	\$14,487,735	\$364,676	\$14,852,411	10.0%	10.0%	2.5%	7.5%
P2-123 Return Activated Sludge Piping Replacement at Plant 2										
P2-123 Return Activated Sludge Piping Replacement at Plant 2	Shimmick Construction Co., Inc.	09/25/2019	79%	\$6,042,110	\$228,873	\$6,270,983	10.0%	10.0%	3.8%	6.2%
Total				\$684,140,743	\$8,530,920	\$692,671,663				

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 2 - Active GM-Awarded Construction Contracts and Task Orders as of 3/31/2022

Project / Contract	Contractor	Award Date	% Spent	Original Award Amount	Change Orders	Current Contract Amount
Operationally-Funded Projects						
FR1-0008 Tricking Filter 480 Volt Cable Replacement at Plant No. 1	Baker Electric, In.	12/22/2021	0%	\$251,586	\$0	\$251,586
FR2-0024 Headworks 480V Cable Replacement at Plant No. 2	J.R. Filanc Construction Company, Inc.	6/3/21	0%	\$259,150	\$0	\$259,150
Total				\$510,736	\$0	\$510,736

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 3 - Board-Awarded Construction Contracts Closed in Last Quarter

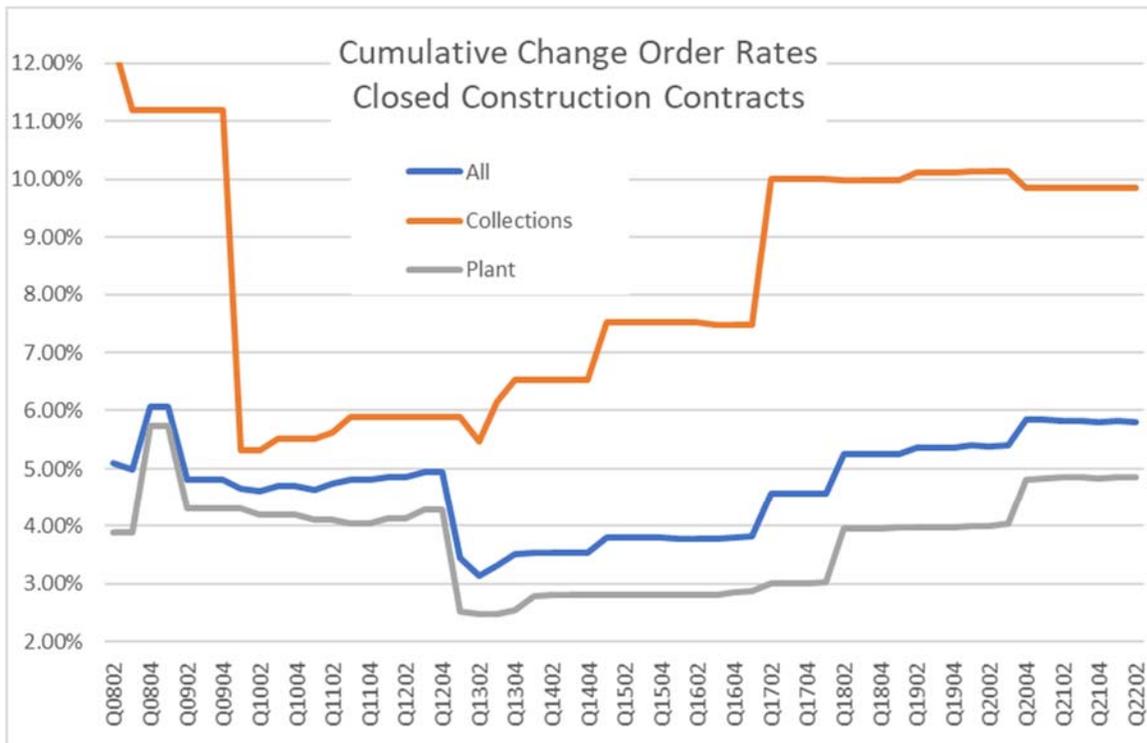
Project / Contract	Contractor	Award Date	Date Closed	Board Award Amount	Change Orders	Final Contract Amount	Original Contingency	Final Contingency	Final Change Order Rate	Unused Contingency
M-FE										
Small Construction Projects Program										
FE18-12	Erosion Control at Santa Ana River and Hamilton Ave	09/01/2021	2/28/22	\$162,281	\$0	\$162,281	15.0%	15.0%	0.0%	15.0%
Operationally-Funded Projects										
FR2-0013	P2 Trickling Filter Sludge Pump Room Exhaust Fan Relocation at Plant No.2	04/21/2021	2/28/22	\$184,000	\$0	\$184,000	20.0%	20.0%	0.0%	20.0%
			Total	\$346,281	\$0	\$346,281				

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 4 - GM-Awarded Construction Contracts and Task Order Closed in Last Quarter

Project / Contract	Contractor	Award Date	Date Closed	Original Award Amount	Change Orders	Final Contract Amount	Final Change Order Rate
No GM-awarded construction contract or task order closed this quarter							
Total				\$0	\$0	\$0	\$0

When the Orange County Sanitation District (OC San) Board awards a construction contract, they also approve a contingency which allows the General Manager to approve contract change orders up to the amount of the contingency. One purpose of this report is to document how much of the contingency is utilized. A contract's change order rate is only meaningful when the work is completed. As such, the change order performance charts in this report are based only on contracts closed since the Board began approving contingencies in 2008. The following chart shows how cumulative change order rates have changed for plant, collections, and all contracts since the contingency system was implemented.



PART 2 – ENGINEERING SERVICES AGREEMENTS

OC San engages engineering consultants through Professional Service Agreements (PSAs), Professional Design Services Agreements (PDSAs), Professional Construction Services Agreements (PCSAs), and Master Professional Services Agreements (Master Agreements). PDSAs are used to obtain design engineering services, and PCSAs are a subsequent agreement with the design consultant to provide support services during construction. PSAs are used for planning studies and other consultant assignments. There are currently 18 firms with active engineering services agreements, not including firms with Master Agreements.

Master Agreements are issued to a pool of pre-qualified consultants for smaller projects. On those smaller projects, OC San solicits task order proposals from interested firms and awards a task order to the most qualified consultant. There are currently four sets of Master Agreements.

- 2012 Master Design Agreements (expired)
- 2017 Master Agreements for Wastewater Treatment Planning Studies (expired)
- 2018 Master Design Agreements (expired)
- 2020 Master Agreements for On-Call Planning Studies
- 2021 Master Design Agreements

The two Master Design Agreement from 2012 and 2018, and the 2018 Master Agreements for Wastewater Planning Studies have expired, meaning no new task orders can be issued under them, but previously-issued task orders remain active until completed. Task Orders are limited by OC San Ordinance No. OCSD-56 to \$300,000 per task order.

A status table for all Active Engineering Services Agreements (PDSAs and PCSAs) is attached under Table 5, and a status table for all Active Task Orders by Master Agreement is attached under Table 6 (Master Agreements).

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 5 - Active Engineering Services Agreements as of 3/31/2022

Project / Contract	Type	Consultant	Award Date	% Spent	Board Award Amount	Amendments	Current Contract Amount	Original Contingency	Current Contingency	Contingency Used	Contingency Remaining
2-49 Taft Branch Improvements											
2-49 Taft Branch Improvements	PDSA	Woodward and Curran	02/03/2021	10%	\$2,200,000	\$26,000	\$2,226,000	10.0%	10.0%	1.2%	8.8%
2-72 Newhope-Placencia Trunk Replacement											
2-72 Newhope-Placencia Trunk Replacement	PCSA	Lee & Ro	03/23/2016	92%	\$3,253,946	\$0	\$3,253,946	10.0%	10.0%	0.0%	10.0%
3-62 Westminster Blvd Force Main Replacement											
3-62 Westminster Blvd Force Main Replacement	PCSA	Stantec Consulting Services, Inc.	12/18/2019	38%	\$1,183,000	\$0	\$1,183,000	10.0%	10.0%	0.0%	10.0%
3-64 Rehabilitation of Western Regional Sewers											
3-64 Rehabilitation of Western Regional Sewers	PDSA	AECOM Technical Services, Inc.	01/27/2016	87%	\$17,639,250	\$195,850	\$17,835,100	10.0%	10.0%	1.1%	8.9%
3-64B Los Alamitos Trunk Sewer Rehabilitation	PCSA	AECOM Technical Services, Inc.	05/26/2021	19%	\$610,000	\$0	\$610,000	10.0%	10.0%	0.0%	10.0%
3-67 Seal Beach Pump Station Replacement											
3-67 Seal Beach Pump Station Replacement	PDSA	Lee & Ro	12/18/2019	88%	\$5,947,850	\$317,032	\$6,264,882	10.0%	10.0%	5.3%	4.7%
5-67 Bay Bridge Pump Station Replacement											
5-67 Bay Bridge Pump Station Replacement	PDSA	Arcadis US Inc.	10/25/2017	38%	\$7,137,000	\$1,750,315	\$8,887,315	10.0%	85.0%	24.5%	60.5%
5-68 Newport Beach Pump Station Pressurization Improvements											
5-68 Newport Beach Pump Station Pressurization Improvements	PDSA	Dudek	05/06/2020	77%	\$542,988	\$0	\$542,988	10.0%	10.0%	0.0%	10.0%
7-65 Gisler - Red Hill Interceptor Rehabilitation											
7-65 Gisler - Red Hill Interceptor Rehabilitation	PDSA	CDM Smith Inc.	09/23/2020	79%	\$1,754,000	\$140,312	\$1,894,312	10.0%	10.0%	8.0%	2.0%
7-66 Sunflower and Red Hill Interceptor Repairs											
7-66 Sunflower and Red Hill Interceptor Repairs	PCSA	GHD	07/28/2021	19%	\$166,000	\$0	\$166,000	10.0%	10.0%	0.0%	10.0%
7-68 MacArthur Force Main Improvements											
7-68 MacArthur Force Main Improvements	PDSA	Michael Baker International, Inc.	05/26/2021	0%	\$500,000	\$0	\$500,000	10.0%	10.0%	0.0%	10.0%
J-117 Ocean Outfall System Rehabilitation											
J-117 Ocean Outfall System Rehabilitation	PCSA	Brown and Caldwell	12/19/2018	47%	\$8,563,913	\$692,120	\$9,256,033	10.0%	10.0%	8.1%	1.9%
J-124 Digester Gas Facilities Replacement											
J-124 Digester Gas Facilities Replacement	PDSA	Brown and Caldwell	11/15/2017	95%	\$11,770,000	\$1,101,466	\$12,871,466	10.0%	10.0%	9.4%	0.6%
J-98 Electrical Power Distribution System Improvements											
J-98 Electrical Power Distribution System Improvements	PDSA	Brown and Caldwell	01/29/2020	61%	\$2,240,000	\$92,078	\$2,332,078	10.0%	10.0%	4.1%	5.9%
J-98 Electrical Power Distribution System Improvements	PSA	SEL Engineering Services, Inc.	02/26/2020	8%	\$1,296,878	\$0	\$1,296,878	10.0%	10.0%	0.0%	10.0%
M-FR-830 Master Operationally Funded											
FR1-0007 Control Center Offices and Day Training Room Remodeling at Plant No. 1	PSA	AECOM Technical Services, Inc.	01/15/2020	9%	*** \$81,351	\$0	\$81,351	0.0%	0.0%	0.0%	0.0%
M-STUDIES Planning Studies Program											
PS17-03 Active Fault Location Study at Plant No. 2	PSA	Lettis Consultants International, Inc.	03/06/2019	0%	\$868,286	\$12,500	\$880,786	10.0%	10.0%	1.4%	8.6%
PS18-09 Ocean Outfall Condition Assessment and Scoping Study	PSA	Carollo Engineers, Inc.	03/25/2020	0%	\$2,744,000	\$885,661	\$3,629,661	10.0%	40.0%	32.3%	7.7%
P1-105 Headworks Rehabilitation at Plant 1											
P1-105 Headworks Rehabilitation at Plant 1	PCSA	Carollo Engineers, Inc.	03/02/2021	9%	\$16,500,000	\$0	\$16,500,000	10.0%	10.0%	0.0%	10.0%
P1-128 Headquarters Complex											
P1-128 Headquarters Complex	PDSA	HDR Engineering, Inc.	06/22/2016	93%	\$11,785,709	\$1,148,553	\$12,934,262	10.0%	10.0%	9.7%	0.3%
P1-128A Headquarters Complex at Plant No. 1	PCSA	HDR Engineering, Inc.	05/26/2021	18%	\$4,900,000	\$96,700	\$4,996,700	10.0%	10.0%	2.0%	8.0%
P1-128A Headquarters Complex at Plant No. 1	PSA	AECOM Technical Services, Inc.	04/28/2021	14%	\$6,750,000	\$0	\$6,750,000	10.0%	10.0%	0.0%	10.0%
P1-132 Uninterruptable Power Supply Improvements at Plant 1											
P1-132 Uninterruptable Power Supply Improvements at Plant 1	PDSA	Tetra Tech, Inc.	10/23/2019	89%	\$784,680	\$62,755	\$847,435	10.0%	10.0%	8.0%	2.0%
P1-133 Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1											
P1-133 Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1	PDSA	Carollo Engineers, Inc.	09/25/2019	98%	\$1,219,667	\$0	\$1,219,667	10.0%	10.0%	0.0%	10.0%
P1-133 Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1	PCSA	Carollo Engineers, Inc.	3/23/22	0%	\$530,000	\$0	\$530,000	10.0%	10.0%	0.0%	10.0%
P1-134 South Perimeter Security and Utility Improvements at Plant No.1											
P1-134 South Perimeter Security and Utility Improvements at Plant No.1	PCSA	HDR Engineering, Inc.	07/28/2021	17%	\$235,000	\$0	\$235,000	10.0%	10.0%	0.0%	10.0%
P2-122 Headworks Modifications at Plant No. 2 for GWRS Final Expansion											
P2-122 Headworks Modifications at Plant No. 2 for GWRS Final Expansion	PCSA	CDM Smith Inc.	01/15/2020	55%	\$2,200,000	\$0	\$2,200,000	10.0%	10.0%	0.0%	10.0%

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 5 - Active Engineering Services Agreements as of 3/31/2022

Project / Contract	Type	Consultant	Award Date	% Spent	Board Award Amount	Amendments	Current Contract Amount	Original Contingency	Current Contingency	Contingency Used	Contingency Remaining
P2-123 Return Activated Sludge Piping Replacement at Plant 2	PCSA	SPEC Services, Inc.	09/25/2019	98%	\$252,329	\$0	\$252,329	10.0%	10.0%	0.0%	10.0%
P2-124 Interim Food Waste Receiving Facility	PDSA	Kennedy/Jenks Consultants	09/05/2018	100%	\$695,000	\$31,168	\$726,168	10.0%	10.0%	4.5%	5.5%
P2-128 TPAD Digester Facility at Plant No.2	PDSA	Brown and Caldwell	06/23/2020	20%	\$39,300,000	\$93,380	\$39,393,380	10.0%	10.0%	0.2%	9.8%
P2-98 Primary Treatment Rehabilitation at Plant No. 2	PCSA	Black & Veatch	05/26/2021	6%	\$8,400,000	\$0	\$8,400,000	10.0%	10.0%	0.0%	10.0%
P2-98A A-Side Primary Clarifiers Replacement at Plant 2	PCSA	Black & Veatch	01/23/2019	56%	\$549,534	\$0	\$549,534	10.0%	10.0%	0.0%	10.0%
P2-98B B/C-Side Primary Clarifiers Interim Repair at Plant 2	PCSA	Black & Veatch									
			Total		\$162,600,381	\$6,645,890	\$169,246,271				

*** This PSA was awarded by the General Manager because it is less than \$100,000.

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 6 - Active Task Orders by Master Agreement as of 3/31/2022

Master Agreement / Project	Consultant	Award Date	Original Task Order Value	Amendments	Current Task Order Value
2012 Master Professional Design Service Agreements (Expired)					
FE10-21 Area 02 Craig Regional Park Manhole Improvements	GHD	10/8/2012	\$58,440	\$41,560	\$100,000
2017 Master Agreements for Wastewater Treatment Planning Studies					
PS18-11 ETAP Model Updates for Plant Nos 1 and 2	Brown and Caldwell	3/17/2020	\$227,412	\$0	\$227,412
PS19-03 Laboratory Rehabilitation Feasibility Study	HDR Engineering, Inc.	10/20/2020	\$274,888	\$0	\$274,888
2018 Master Professional Design Service Agreements					
FR2-0013 Trickling Filter Sludge Pump Room Exhaust Fan Relocation at Plant No. 2	AECOM	11/6/2019	\$75,120	\$0	\$75,120
FE19-02 Cengen Plant Water Pipe Replacement at Plant No. 1	AECOM	04/30/2020	\$156,498	\$0	\$156,498
FE19-11 Primary Clarifiers Nos. 6-31 Lighting and Alarm Improvements at Plant No. 1	AECOM	9/15/2020	\$226,685	\$6,137	\$232,822
FE19-13 VFD Replacements at Seal Beach Pump Station	AECOM	3/12/2021	\$78,033	\$0	\$78,033
FE20-01 Wastehauler Station Safety and Security Improvements	AECOM	3/12/2021	\$161,012	\$0	\$161,012
FR2-0022 Digester O Structural Repairs at Plant No. 2	AECOM	4/6/2021	\$46,115	\$0	\$46,115
J-127 Natural Gas Pipelines Replacement at Plant Nos. 1 and 2	Black & Veatch	1/21/2019	\$271,964	\$28,036	\$300,000
FE19-03 Trickling Filter Sludge and Scum Pumps Replacement at Plant No. 1	Black & Veatch	9/1/2020	\$244,728	\$55,272	\$300,000
FR1-0011 VFD Replacements at Plant No. 1	Black & Veatch	3/30/2021	\$283,000	\$17,000	\$300,000
FE18-14 Plant Water Pipeline Replacement in Kinnison, Lindstrom, and Scott Tunnels at Plant No. 2	Dudek	11/6/2019	\$108,308	\$0	\$108,308
P1-135 Digester Ferric Chloride Piping Replacement at Plant No. 1	Dudek	2/19/2020	\$127,174	\$0	\$127,174
FE20-04 Cengen Cooling Water Pipe Replacement at Plant No. 2	Dudek	5/18/2021	\$240,000	\$0	\$240,000
FE20-08 Olive Sub-Trunk Siphon Rehabilitation at Santa Ana River	Dudek	6/15/2021	\$240,000	\$0	\$240,000
FE18-16 Truck Loading Basement Drain Modifications at Plant No. 1	GHD, Inc.	12/4/2019	\$70,130	\$18,365	\$88,495
FE18-13 Redhill Relief Sewer Relocation at State Route 55	GHD, Inc.	3/27/2020	\$168,612	\$54,883	\$223,495
FE19-10 Digesters C, D, F, G, and I Gas Balance Lines Replacement at Plant No. 2	GHD, Inc.	1/19/2021	\$25,000	\$58,000	\$83,000
FE20-07 Santa Ana Trunk Rehabilitation at Plant No. 1	GHD, Inc.	5/4/2021	\$100,625	\$0	\$100,625

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 6 - Active Task Orders by Master Agreement as of 3/31/2022

Master Agreement / Project	Consultant	Award Date	Original Task Order Value	Amendments	Current Task Order Value
FE20-03 Return Activated Sludge Discharge Piping Replacement at Activated Sludge Plant No. 1	GHD, Inc.	6/15/2021	\$249,000	\$0	\$249,000
FRC-0009 Bitter Point Trunk Sewer Repair at Bitter Point Pump Station	GHD, Inc.	6/15/2021	\$159,451	\$0	\$159,451
FE18-19 12KV Distribution Center B and East RAS Pump Station Roof Replacement	HDR Engineering, Inc.	09/16/2019	\$74,771	\$8,672	\$83,443
FE18-20 Blower Building No. 1 Air Compressors at Plant No. 1	HDR Engineering, Inc.	8/18/2020	\$243,954	\$11,982	\$255,936
FE20-02 Digester C, D, F, and G Mechanical Rehabilitation at Plant No. 2	HDR Engineering, Inc.	3/2/2021	\$188,212	\$22,396	\$210,608
FE18-15 Plant Boiler System Relief at Plant No. 2	IDS Group, Inc.	10/22/2019	\$23,299	\$0	\$23,299
FE18-06 CenGen Instrument Air Compressors Replacement at Plant No. 1 and No. 2	IDS Group, Inc.	04/28/2020	\$89,876	\$0	\$89,876
FE19-06 EPSA Motor Cooling Improvements at Plant No. 2	IDS Group, Inc.	05/05/2020	\$88,206	\$0	\$88,206
FE20-09 CenGen Smoke Detection Improvements at Plant No. 1 and No. 2	IDS Group, Inc.	6/15/2021	\$63,275	\$0	\$63,275
FE20-05 Plant Water Piping Replacement at Secondary Clarifiers 1-26 at Plant No. 1	IDS Group, Inc.	6/15/2021	\$186,626	\$0	\$186,626
FRC-0010 Warner Avenue Vault Cover Improvements	Kleinfelder, Inc.	11/10/2021	\$205,000	\$0	\$205,000
2020 Master Agreements for On-Call Planning Studies					
PS20-01 Collections Yard Relocation Feasibility Study	AECOM	4/30/2020	\$147,181	\$0	\$147,181
PS20-04 Power Generation Overhaul Feasibility Study	Brown and Caldwell	4/6/2021	\$122,748	\$101,518	\$224,266
RE20-02 Chemical Resilience Study	Hazen and Sawyer	6/1/2021	\$278,784	\$0	\$278,784
PS20-03 Truck Loading Bay Odor Control Improvements Study at Plant No. 2	Hazen and Sawyer	7/20/2021	\$226,021	\$0	\$226,021
2021 Master Professional Design Service Agreements					
FRC-0010 Warner Avenue Vault Cover Improvements	Kleinfelder, Inc.	11/10/2021	\$205,000	\$0	\$205,000
SC19-06 EPSA Standby Power Generator Control Upgrades at Plant No. 2	SPEC Services, Inc.	11/2/2021	\$241,153	\$0	\$241,153
Total					\$5,976,301
				\$423,821	\$6,400,122

PART 3 – MASTER BUDGET PROJECTS

The Board-adopted budget for Fiscal Years 2020-21 and 2021-22 includes master program budgets that allow staff to more quickly initiate, execute, and manage smaller projects that fit within the scope of a particular program. The projects chartered under these program budgets are referred to as sub-projects and are managed to the same standards as projects specifically listed in the adopted budget. A status table for each of these programs listing the sub-projects is attached.

Master Program Title	Status Table
Planning Studies Program	Table 7
Research Program	Table 8
Small Construction Projects Program	Table 9
Information Technology Capital Program	Table 10
Operations & Maintenance Capital Program	Table 11

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022
Table 7 - Planning Studies Status Report**

Project Number	Project Name	Status	Allocated Budget
PS17-03	Active Fault Location Study at Plant No. 2	Active	\$ 1,300,000
PS18-06	Go/No-Go Lights and Signage	Active	\$ 495,000
PS18-09	Ocean Outfall Condition Assessment and Scoping Study	Active	\$ 4,205,117
PS19-03	Laboratory Rehabilitation Feasibility Study	Active	\$ 450,000
PS20-01	Collections Yard Relocation Feasibility Study	Active	\$ 375,000
PS20-02	Collection System Flow Level Monitoring Study	Active	\$ 743,218
PS20-03	Truck Loading Bay Odor Control Improvements Study at Plant No. 2	Active	\$ 383,682
PS20-04	Power Generation Overhaul Feasibility Study	Active	\$ 320,000
PS20-05	Cen Gen Pressure Vessel Integrity Assessment at Plant Nos. 1 and 2	Active	\$ 400,000
PS20-07	College Pump Station Wet Well Condition Assessment Study	Active	\$ 365,000
PS20-08	Euclid Trunk Sewer Hydraulic Modeling and Odor Control Analyses	Active	\$ 500,000
PS20-09	Thickening & Dewatering Plant Water Study at Plant No. 1	Active	\$ 400,000
PS21-01	Exterior Lighting Study at Plant Nos. 1 and 2	Active	\$ 550,000
PS21-03	Process Model for Denitrification Alternatives at Activated Sludge 1	Active	\$ 47,500
PS21-04	Energy and Digester Gas Master Plan	Active	\$ 1,102,000
Grand Total			\$ 12,136,517
Number of Chartered Projects			15
Board Approved Program Budget		\$	28,652,000
Remaining Unallocated Budget		\$	16,515,483

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 8 - Research Program Status Report

Project Number	Project Name	Status	Allocated Budget
RE19-01	Primary Scum Equipment Evaluation at Plant No. 1	Active	\$ 69,853
RE20-01	Co-Thickened Sludge Density Meter Trial atl Plant No. 1	Active	\$ 121,000
RE20-02	Chemical Resilience Study at Plant No.1 and 2	Active	\$ 329,996
RE20-04	Holding Digester 6 Solids Shredder Study at Plant No. 1	Active	\$ 95,000
RE20-06	Co-Thickened Sludge Pump Trial at Plant No. 1	Active	\$ 160,000
RE21-01	Supercritical Water Oxidation Demonstration at Plant No. 1	Active	\$ 6,890,000
Grand Total			\$ 7,665,849
Number of Chartered Projects			6
Board Approved Program Budget			\$ 8,500,000
Remaining Unallocated Budget			\$ 834,151

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 9 - Small Construction Projects Program Status Report

Project Number	Project Name	Status	Allocated Budget
FE10-21	Area 02 Craig Regional Park Manhole Improvements	Active	\$ 1,359,000
FE17-03	Battery Storage System at Plant No. 1	Active	\$ 650,000
FE17-05	Plant 1 ICS Network Extension	Active	\$ 1,050,000
FE18-06	CenGen Instrument Air Compressors Replacement at Plant No. 1	Active	\$ 1,150,000
FE18-08	West Trunk Bypass Sewer Realignment	Active	\$ 158,000
FE18-11	Headworks Explosive Gas Monitoring Systems at Plant No. 1 and No. 2	Active	\$ 605,000
FE18-12	Erosion Control at Santa Ana River and Hamilton Ave	Active	\$ 445,000
FE18-13	Redhill Relief Sewer Relocation at State Route 55	Active	\$ 3,470,000
FE18-14	Plant Water Pipeline Replacement in Kinnison, Lindstrom, and Scott Tunnels at Plant No. 2	Active	\$ 1,895,000
FE18-15	Plant Boiler System Relief at Plant No. 2	Active	\$ 560,000
FE18-16	Truck Loading Basement Drain Modifications at Plant No. 1	Active	\$ 592,000
FE18-19	12KV Distribution B and East RAS Pump Station Roofing Replacement	Active	\$ 1,188,000
FE18-20	DAFT Air Compressors Replacement at Plant No. 1	Active	\$ 1,360,000
FE19-01	Pump Station Portable Generator Connectors	Active	\$ 2,570,000
FE19-02	Cengen Plant Water Pipe Replacement at Plant No. 1	Active	\$ 2,250,000
FE19-03	Trickling Filter Sludge and Scum Pumps Replacement at Plant No. 1	Active	\$ 3,200,000
FE19-04	Sunflower Pump Replacement at Plant No. 1	Active	\$ 6,300,000
FE19-06	EPSA Motor Cooling Improvements at Plant No. 2	Active	\$ 1,475,000
FE19-08	Secondary Treatment VFD Replacements at Plant No. 2	Active	\$ 2,900,000
FE19-09	Newhope - Placentia Trunk Grade Separation Replacement Repairs	Active	\$ 500,000
FE19-10	Digesters C, D, F, G and I Gas Balance Lines Replacement at Plant No. 2	Active	\$ 1,200,000
FE19-11	Primary Clarifiers Nos. 6-31 Lighting and Alarm Improvements at Plant No. 1	Active	\$ 1,250,000
FE19-12	Rebuild Shop Fume Extractor Installation at Plant No 1	Active	\$ 560,000
FE19-13	VFD Replacements at Seal Beach Pump Station	Active	\$ 520,000
FE20-01	Wastehauler Station Safety and Security Improvements	Active	\$ 1,510,000
FE20-02	Digester C, D, F, and G Mechanical Rehabilitation at Plant No. 2	Active	\$ 2,800,000
FE20-03	Return Activated Sludge Discharge Piping Replacement at Activated Sludge Plant No. 1	Active	\$ 4,250,000
FE20-04	Cengen Cooling Water Pipe Replacement at Plant No. 2	Active	\$ 3,500,000
FE20-05	Plant Water Piping Replacement at Secondary Clarifiers 1-26 at Plant No. 1	Active	\$ 1,545,000
FE20-06	Thickening and Dewatering Building Pipe Support Improvements at Plant No. 1	Active	\$ 1,500,000
FE20-07	Santa Ana Trunk Rehabilitation at Plant No. 1	Active	\$ 1,240,000
FE20-08	Olive Sub-Trunk Siphon Rehabilitation at Santa Ana River	Active	\$ 1,850,000
FE20-09	CenGen Smoke Detection Improvements at Plant No. 1 and No. 2	Active	\$ 600,000
FE20-10	Adolfo Lopez Chemical Dosing Station Installation	Active	\$ 1,000,000
FE21-01	Plasma Cutting Fume Extractor installation at Plant No. 1 Rebuild Shop	Active	\$ 277,000
FE21-02	Lighting Improvements Boiler and Sludge Dewatering Areas at Plant No. 1	Active	\$ 320,000
FE21-04	Thickening and Dewatering Facility Handrail Installation at Plant No. 1	Active	\$ 230,000
Grand Total			\$ 57,829,000
Number of Chartered Projects			37
Board Approved Program Budget		\$	90,000,000
Remaining Unallocated Budget		\$	32,171,000

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022
Table 10 - Information Technology Capital Program Status Report**

Project Number	Project Name	Status	Allocated Budget
IT18-09	Records Management Information System	Active	\$ 246,215
IT19-01	IT Safety VPP Systems (IT19-01)	Active	\$ 210,000
IT19-05	IT P1 & P2 Data Refresh (IT19-05)	Active	\$ 1,200,000
IT20-05	Client Management Modernization (ICE-69_IT20-05) 6520005	Active	\$ 99,000
IT20-06	Nintex Workflow Cloud Implementation (ICE-75_IT20-06) 6520006	Active	\$ 350,000
IT20-07	Professional Services for Valo/SharePoint (ICE-74_IT20-07) 6520007	Active	\$ 100,000
IT20-08	Field Computer for Nerissa and Interface with LIMS(ICE-68_IT20-07) 6520008	Active	\$ 121,000
IT20-09	ITSM Migration (ICE-70_IT20-09) 6520009	Active	\$ 797,000
IT20-10	Digitize Quality Assurance Tracking Processes /TNI/ELAP Standards(ICE-76_IT20-10) 6520010	Active	\$ 145,700
IT20-12	Web-based Cloud Proxy Security with an Isolation Platform (ICE-78_6520012)	Active	\$ 50,000
IT21-01	Access Network Equipment Obsolescence Replacement (ICE-79_IT21-01) 6521001	Active	\$ 1,249,500
IT21-02	Hyper Converged Infrastructure for Plant 1 ICS network (ICE-80 IT21-02) 6521002	Active	\$ 610,000
IT21-03	Door Access Control System for P2 Construction Management Trailers (ICE-83_IT21-03652100.	Active	\$ 79,706
IT21-04	Databridge Scale Management Software (ICE - 84_IT21-04)	Active	\$ 39,263
Grand Total			\$ 5,297,384
Number of Chartered Projects			14
Board Approved Program Budget			\$ 10,000,000
Remaining Unallocated Budget			\$ 4,702,616

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022
Table 11 - Operations & Maintenance Capital Program Status Report**

Project Number	Project Name	Status	Allocated Budget
SC19-03	Return Activated Sludge Pump Station Elevator Rehabilitation at Plant No. 2	Active	\$ 890,000
SC19-06	EPSA Standby Power Generator Control Upgrades at Plant No. 2	Active	\$ 1,600,000
SC20-02	Ocean Outfall Booster Station Elevator Rehabilitator	Active	\$ 410,000
Grand Total			\$ 2,900,000
Number of Chartered Projects			3
Board Approved Program Budget			\$ 15,622,000
Remaining Unallocated Budget			\$ 12,722,000

PART 4 – SUPPLEMENTAL ENGINEERING SERVICES CONTRACT

In May 2016, OC San Board of Directors approved a \$41 million professional services agreement with Jacobs Project Management Co. to provide supplemental engineering and support staff services for a four-year term with the option of three one-year renewals. The benefits of using a supplemental engineering services contract, as opposed to hiring full-time staff or limited-term employees, include rapid mobilization of highly skilled/technical staff, flexibility to change the mix of staff positions on an immediate and as-needed basis, the ability to reduce staff as workloads decrease, access to technical experts to support special tasks, and access to staff with wastewater project experience.

A status table for the supplemental engineering services contract summary is attached under Table 12, and the supplemental engineering services labor summary can be found under Table 13.

Table 12 – Supplemental Engineering Services Contract Status

	Total Fees	Time
Contract	\$41,000,000	86 months ⁽¹⁾
Actuals to Date	\$28,862,907 70%	68 months 79%
Remaining	\$12,137,093 30%	18 months 21%

⁽¹⁾ Assuming one more 1-year extension

Table 13 - Supplemental Engineering Services Labor Summary

	This Quarter	Inception to Date
Labor Hours	9,621	210,607
Full Time Equivalentents	21.4	20.6
Labor Costs (no expenses)	\$1,535,350	\$28,181,186
Average Hourly Rate	\$160	\$134

This existing contract can be extended through June 2023. Staff will be requesting Board approval of two new supplemental engineering services agreements on April 27, 2022. All new resource requests will utilize these two new agreements, while the existing resource requests will either be completed prior under the existing contract or transferred some time in the next year to the new contracts.

PART 5 – ON-CALL SERVICES AGREEMENTS

OC San uses three sets of on-call services agreements for Coating inspection and corrosion testing; surveying; and materials testing, inspection, and other geotechnical testing. Services are typically requested by inspection supervisors as needs arise, and the work is generally spread among the available firms.

Table 14 lists the contract limits and funds expended to date for each of the agreements which became effective in May 2019 and expired on April 30, 2022. The contract limit for Ninyo & Moore was increased from \$300,000 to \$600,000 in April 2020 because that firm was conducting all the associated testing for Newhope-Placentia Trunk Sewer Replacement Project, Project No. 2-72 B&C, and the original contract limit was not adequate. For each of these services, OC San typically uses a single firm for a particular construction contract.

Three new sets of contracts were approved by the Board on March 23, 2022 and expire on April 30, 2025. The status of those contracts will be included in the next quarterly report.

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022
Table 14 - On-Call Services Agreements Status Report**

Consultant	Contract Limit	Total Costs Incurred
Coating Inspection and Corrosion Testing Services (PSA2019-001)		
On-Site Technical Services, Inc.	\$200,000	\$158,809
Corrpro Companies, Inc.	\$200,000	\$18,400
CSI Services, Inc.	\$200,000	\$77,974
Surveying Services (PSA2019-002)		
Michael Baker International, Inc.	\$200,000	\$170,422
Stantec Consulting Services, Inc.	\$200,000	\$98,237
D. Woolley & Associates	\$200,000	\$71,261
Bush and Associates, Inc.	\$200,000	\$10,846
Cannon Corporation	\$200,000	\$109,438
Materials Testing, Inspection, & Geotech Testing Services (PSA2019-003)		
Ninyo & Moore	\$600,000	\$560,955
Atlas Technical Consultants	\$300,000	\$169,282
Koury Engineering and Testing, Inc.	\$300,000	\$167,075



OPERATIONS COMMITTEE

Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

Agenda Report

File #: 2022-2262

Agenda Date: 6/1/2022

Agenda Item No: 3.

FROM: James D. Herberg, General Manager
Originator: Kathy Millea, Director of Engineering

SUBJECT:

BUILDING B FLOOR REPLACEMENT, JIB CRANE AND FORKLIFT PAD, PROJECT NO. FR1-0012

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for Building B Floor Replacement, Jib Crane and Forklift Pad, Project No. FR1-0012;
- B. Award a Construction Contract to Vicon Enterprise for Building B Floor Replacement, Jib Crane and Forklift Pad, Project No. FR1-0012 for an amount not to exceed \$220,000; and
- C. Approve a contingency of \$22,000 (10%).

BACKGROUND

Orange County Sanitation District's (OC San) Maintenance Division uses Building B at Plant No. 1 as a Rebuild Shop for repairs of heavy equipment, welding, and fabrication of new equipment and parts.

RELEVANT STANDARDS

- Comply with California Public Contract Code Section 20103.8, award construction contract to lowest responsive, responsible bidder
- Provide a safe and collegial workplace

PROBLEM

Approximately 25% of the flooring in Building B has a 3-inch-thick layer of wood flooring inset into the concrete base slab. The wood pieces have shrunk with age and are broken at various locations causing safety concerns. The wood also contains creosote which poses a health hazard.

Working on heavy equipment sometimes requires a crane to lift loads up to 1,000 pounds, which is greater than the crane's available load in the building. The weight of a forklift used to move equipment and materials has damaged the asphalt where it is parked just outside the building.

PROPOSED SOLUTION

Award a construction contract for Building B Floor Replacement, Jib Crane and Forklift Pad, Project No. FR1-0012. This project will replace the wood flooring with concrete, install a base for a heavy jib crane, and install a concrete slab where the forklift is parked.

TIMING CONCERNS

The problems that the project will be addressing will continue until the work is completed.

RAMIFICATIONS OF NOT TAKING ACTION

If the Project does not proceed, the Rebuild Shop functionality will be limited, and the work environment will continue to be vulnerable to potential health and safety issues.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

OC San advertised Building B Floor Replacement, Jib Crane and Forklift Pad, Project No. Project No. FR1-0012 for bids on March 8, 2022 and three sealed bids were received. A summary of the bid opening follows:

Engineer's Estimate	\$ 102,000
<u>Bidder</u>	<u>Amount of Bid</u>
IE General Engineering Inc.	\$98,000
Vicon Enterprise	\$220,000
Tharsos Inc	\$222,844

The bids were evaluated in accordance with the OC San's policies and procedures. During the bid evaluation process, the apparent low bidder, IE General Engineering Inc., was non-responsive as they did not submit required OSHA logs and safety documentation and did not respond to multiple emails and phone calls. The next lowest bidder, Vicon Enterprise, was found responsive and responsible.

Staff had reviewed the plan holder list prior to bid opening and had expected five or six bids, so competitive bids were expected.

The two responsive bids were more than twice the Engineer's estimate. Using additional bid information Vicon Enterprise provided to OC San, staff found items that had been missed or underestimated in the Engineer's estimate. These included underestimated costs for certain specific items and a missed cost for the wood flooring removal. Work restrictions specified to protect equipment and activities in the building may have increased indirect costs by extending the time required to complete the work. The fact that the two valid bids were so close suggests that the price is fair and reasonable for the work involved.

OC San staff recommends awarding a Construction Contract to the lowest responsive and responsible bidder, Vicon Enterprise, for a total amount not to exceed \$220,000.

CEQA

The project is exempt from CEQA under the Class 1 categorical exemptions set forth in California Code of Regulations Section 15301. A Notice of Exemption will be filed with the OC Clerk-Recorder after OC San Board of Directors approval of the construction contract.

FINANCIAL CONSIDERATIONS

This request complies with the authority levels of OC San's Purchasing Ordinance. This item is budgeted in the Budget Update FY 2022-2023, Operations and Maintenance Department, Repairs and Maintenance, Page 45, and the available funding is sufficient for this action.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

- Construction Contract

DD: jw

PART A
CONTRACT AGREEMENT

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CONTRACT AGREEMENT
ORANGE COUNTY SANITATION DISTRICT

PROJECT NO. FR1-0012

BUILDING B FLOOR REPLACEMENT, JIB CRANE AND FORKLIFT PAD

THIS AGREEMENT is made and entered into, to be effective, this June 22, 2022, by and between Vicon Enterprise, hereinafter referred to as "CONTRACTOR" and the Orange County Sanitation District, hereinafter referred to as "OC SAN".

WITNESSETH

That for and in consideration of the promises and agreements hereinafter made and exchanged, OC SAN and CONTRACTOR agree as follows:

SECTION – 1 GENERAL

CONTRACTOR certifies and agrees that all the terms, conditions and obligations of the Contract Documents as hereinafter defined, the location of the job site, and the conditions under which the Work is to be performed have been thoroughly reviewed, and enters into this Contract based upon CONTRACTOR's investigation of all such matters and is in no way relying upon any opinions or representations of OC SAN. It is agreed that this Contract represents the entire agreement. It is further agreed that the Contract Documents are each incorporated into this Contract by reference, with the same force and effect as if the same were set forth at length herein, and that CONTRACTOR and its Subcontractors, if any, will be and are bound by any and all of said Contract Documents insofar as they relate in any part or in any way, directly or indirectly, to the Work covered by this Contract.

A. Contract Documents Order of Precedence

"Contract Documents" refers to those documents identified in the definition of "Contract Documents" in the General Conditions, "Definitions".

1. In the event of a conflict between one Contract Document and any of the other Contract Documents, the provisions in the document highest in precedence shall be controlling. The order of precedence of the Contract Documents is as follows:
 - a. Supplemental Agreements – the last in time being the first in precedence
 - b. Addenda issued prior to the date for submittal of Bids – the last in time being the first in precedence
 - c. Contract Agreement
 - d. Permits and other regulatory requirements
 - e. Special Provisions
 - f. General Conditions (GC)
 - g. Notice Inviting Bids and Instruction to Bidders
 - h. Geotechnical Baseline Report (GBR), if attached as a Contract Document
 - i. Plans and Specifications – in these documents the order of precedence shall be:
 - i. Specifications (Divisions 01-17)
 - ii. Plans
 - iii. General Requirements (GR)
 - iv. Standard Drawings and Typical Details
 - j. CONTRACTOR's Bid
2. In the event of a conflict between terms within an individual Contract Document, the conflict shall be resolved by applying the following principles as appears applicable:
 - a. Figured dimensions on the Contract Documents shall govern. Dimensions not specified shall be as directed by the ENGINEER. Details not shown or specified shall be the same as similar parts that are shown or specified, or as directed. Full-size details shall take precedence over scale Drawings as to

shape and details of construction. Specifications shall govern as to material and workmanship.

- b. The Contract Documents calling for the higher quality material or workmanship shall prevail. Materials or Work described in words, which so applied, have a well-known technical or trade meaning shall be deemed to refer to such recognized standards. In the event of any discrepancy between any Drawings and the figures thereon, the figures shall be taken as correct.
- c. Scale Drawings, full-size details, and Specifications are intended to be fully complementary and to agree. Should any discrepancy between Contract Documents come to the CONTRACTOR's attention, or should an error occur in the efforts of others, which affect the Work, the CONTRACTOR shall notify the ENGINEER, in writing, at once. In the event any doubts or questions arise with respect to the true meaning of the Contract Documents, reference shall be made to the ENGINEER whose written decision shall be final. If the CONTRACTOR proceeds with the Work affected without written instructions from the ENGINEER, the CONTRACTOR shall be fully responsible for any resultant damage or defect.
- d. Anything mentioned in the Specifications and not indicated in the Plans, or indicated in the Plans and not mentioned in the Specifications, shall be of like effect as if indicated and mentioned in both. In case of discrepancy in the Plans or Specifications, the matter shall be immediately submitted to OC SAN's ENGINEER, without whose decision CONTRACTOR shall not adjust said discrepancy save only at CONTRACTOR's own risk and expense. The decision of the ENGINEER shall be final.

In all matters relating to the acceptability of material, machinery or plant equipment; classifications of material or Work; the proper execution, progress or sequence of the Work; and quantities interpretation of the Contract Documents, the decision of the ENGINEER shall be final and binding, and shall be a condition precedent to any payment under the Contract, unless otherwise ordered by the Board of Directors.

B. Definitions

Capitalized terms used in this Contract are defined in the General Conditions, "Definitions". Additional terms may be defined in the Special Provisions.

SECTION – 2 MATERIALS AND LABOR

CONTRACTOR shall furnish, under the conditions expressed in the Plans and Specifications, at CONTRACTOR'S own expense, all labor and materials necessary, except such as are mentioned in the Specifications to be furnished by OC SAN, to construct and complete the Project, in good workmanlike and substantial order. If CONTRACTOR fails to pay for labor or materials when due, OC SAN may settle such claims by making demand upon the Surety to this Contract. In the event of the failure or refusal of the Surety to satisfy said claims, OC SAN may settle them directly and deduct the amount of payments from the Contract Price and any amounts due to CONTRACTOR. In the event OC SAN receives a stop payment notice from any laborer or material supplier alleging non-payment by CONTRACTOR, OC SAN shall be entitled to deduct all of its costs and expenses incurred relating thereto, including but not limited to administrative and legal fees.

SECTION – 3 PROJECT

The Project is described as:

PROJECT NO. FR1-0012

BUILDING B FLOOR REPLACEMENT, JIB CRANE AND FORKLIFT PAD

SECTION – 4 PLANS AND SPECIFICATIONS

The Work to be done is shown in a set of Plans and Specifications entitled:

PROJECT NO. FR1-0012

BUILDING B FLOOR REPLACEMENT, JIB CRANE AND FORKLIFT PAD

Said Plans and Specifications and any revision, amendments and addenda thereto are attached hereto and incorporated herein as part of this Contract and referred to by reference.

SECTION – 5 TIME OF COMMENCEMENT AND COMPLETION

CONTRACTOR agrees to commence the Project within 15 calendar days from the date set forth in the “Notice to Proceed” sent by OC SAN, unless otherwise specified therein and shall diligently prosecute the Work to completion within one hundred eighty (180) calendar days from the date of the “Notice to Proceed” issued by OC SAN, excluding delays caused or authorized by OC SAN as set forth in Sections 7, 8, and 9 hereof, and applicable provisions in the General Conditions. The time for completion includes five (5) calendar days determined by OC SAN likely to be inclement weather when CONTRACTOR will be unable to work.

SECTION – 6 TIME IS OF THE ESSENCE

Time is of the essence of this Contract. As required by the Contract Documents, CONTRACTOR shall prepare and obtain approval of all shop drawings, details and samples, and do all other things necessary and incidental to the prosecution of CONTRACTOR’s Work in conformance with an approved construction progress schedule. CONTRACTOR shall coordinate the Work covered by this Contract with that of all other contractors, subcontractors and of OC SAN, in a manner that will facilitate the efficient completion of the entire Work and accomplish the required milestone(s), if any, by the applicable deadline(s) in accordance with Section 5 herein. OC SAN shall have the right to assert complete control of the premises on which the Work is to be performed and shall have the right to decide the time or order in which the various portions of the Work shall be installed or the priority of the work of subcontractors,

and, in general, all matters representing the timely and orderly conduct of the Work of CONTRACTOR on the premises.

SECTION – 7 EXCUSABLE DELAYS

CONTRACTOR shall only be excused for any delay in the prosecution or completion of the Project as specifically provided in General Conditions, “Extension of Time for Delay”, and the General Requirements, “By CONTRACTOR or Others – Unknown Utilities during Contract Work”. Extensions of time and extra compensation arising from such excusable delays will be determined in accordance with the General Conditions, “Extension of Time for Delay” and “Contract Price Adjustments and Payments”, and extensions of time and extra compensation as a result of incurring undisclosed utilities will be determined in accordance with General Requirements, “By CONTRACTOR or Others – Unknown Utilities during Contract Work”. OC SAN's decision will be conclusive on all parties to this Contract.

SECTION – 8 EXTRA WORK

The Contract Price as set forth in Section 11, includes compensation for all Work performed by CONTRACTOR, unless CONTRACTOR obtains a Change Order signed by a designated representative of OC SAN specifying the exact nature of the Extra Work and the amount of extra compensation to be paid all as more particularly set forth in Section 9 hereof and the General Conditions, “Request for Change (Changes at CONTRACTOR’s Request)”, “OWNER Initiated Changes”, and “Contract Price Adjustments and Payments”.

In the event a Change Order is issued by OC SAN pursuant to the Contract Documents, OC SAN shall extend the time fixed in Section 5 for completion of the Project by the number of days, if any, reasonably required for CONTRACTOR to perform the Extra Work, as determined by OC SAN’s ENGINEER. The decision of the ENGINEER shall be final.

SECTION – 9 CHANGES IN PROJECT

OC SAN may at any time, without notice to any Surety, by Change Order, make any changes in the Work within the general scope of the Contract Document, including but not limited to changes:

1. In the Specifications (including Drawings and designs);
2. In the time, method or manner of performance of the Work;
3. In OC SAN-furnished facilities, equipment, materials, services or site; or
4. Directing acceleration in the performance of the Work.

No change of period of performance or Contract Price, or any other change in the Contract Documents, shall be binding until the Contract is modified by a fully executed Change Order.

All Change Orders shall be issued in accordance with the requirements set forth in the General Conditions, “Request for Change (Changes at CONTRACTOR’s Request)” and “OWNER Initiated Changes”.

SECTION – 10 LIQUIDATED DAMAGES FOR DELAY

Liquidated Damages shall be payable in the amounts and upon the occurrence of such events or failure to meet such requirements or deadlines as provided in the Special Provisions, “Liquidated Damages and Incentives.”

SECTION – 11 CONTRACT PRICE AND METHOD OF PAYMENT

- A. OC SAN agrees to pay and the CONTRACTOR agrees to accept as full consideration for the faithful performance of this Contract, subject to any additions or deductions as provided in approved Change Orders, the sum of Two Hundred Twenty Thousand Dollars (\$220,000) as itemized on the attached Exhibit “A”.

Upon satisfaction of the conditions precedent to payment set forth in the General Requirements, Additional General Requirements, and General Conditions (including but

not limited to Sections entitled “Mobilization Payment Requirements” and “Payment Itemized Breakdown of Contract Lump Sum Prices”), there shall be paid to the CONTRACTOR an initial Net Progress Payment for mobilization. OC SAN shall issue at the commencement of the job a schedule which shows:

1. A minimum of one payment to be made to the CONTRACTOR for each successive four (4) week period as the Work progresses, and
2. The due dates for the CONTRACTOR to submit requests for payment to meet the payment schedule.

After the initial Net Progress Payment, and provided the CONTRACTOR submits the request for payment prior to the end of the day required to meet the payment schedule, the CONTRACTOR shall be paid a Net Progress Payment on the corresponding monthly payment date set forth in the schedule.

Payments shall be made on demands drawn in the manner required by law, accompanied by a certificate signed by the ENGINEER, stating that the Work for which payment is demanded has been performed in accordance with the terms of the Contract Documents, and that the amount stated in the certificate is due under the terms of the Contract.

Payment applications shall also be accompanied with all documentation, records, and releases as required by the Contract; Exhibit A, Schedule of Prices; and General Conditions, “Payment for Work – General”. The Total amount of Progress Payments shall not exceed the actual value of the Work completed as certified by OC SAN's ENGINEER. The processing of payments shall not be considered as an acceptance of any part of the Work.

- B. As used in this Section, the following defined terms shall have the following meanings:
1. **“Net Progress Payment”** means a sum equal to the Progress Payment less the Retention Amount and other qualified deductions (Liquidated Damages, stop payment notices, etc.).
 2. **“Progress Payment”** means a sum equal to:
 - a. the value of the actual Work completed since the commencement of the Work as determined by OC SAN;
 - b. plus the value of material suitably stored at the worksite, treatment plant or approved storage yards subject to or under the control of OC SAN since the commencement of the Work as determined by OC SAN;
 - c. less all previous Net Progress Payments;
 - d. less all amounts of previously qualified deductions;
 - e. less all amounts previously retained as Retention Amounts.
 3. **“Retention Amount”** for each Progress Payment means the percentage of each Progress Payment to be retained by OC SAN to assure satisfactory completion of the Contract. The amount to be retained from each Progress Payment shall be determined as provided in the General Conditions, “Retained Funds; Substitution of Securities.”

SECTION – 12 SUBSTITUTION OF SECURITIES IN LIEU OF RETENTION OF FUNDS

Pursuant to Public Contract Code Section 22300 et seq., the CONTRACTOR may, at its sole expense, substitute securities as provided in General Conditions, “Retained Funds; Substitution of Securities.”

SECTION – 13 COMPLETION

Final Completion and Final Acceptance shall occur at the time and in the manner specified in the General Conditions, “Final Acceptance and Final Completion”, “Final Payment”; and Exhibit A, Schedule of Prices.

Upon receipt of all documentation, records, and releases as required by the Contract from the CONTRACTOR, OC SAN shall proceed with the Final Acceptance as specified in General Conditions.

SECTION – 14 CONTRACTOR’S EMPLOYEES COMPENSATION

A. 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.

B. 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 the same are on file in the Office of the ENGINEER of OC SAN. The CONTRACTOR agrees that not less than said prevailing rates shall be paid to workers employed on this

public works 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 job site, which shall be made available to any interested party upon request.

C. Forfeiture for Violation:

CONTRACTOR shall, as a penalty to OC SAN, forfeit Two Hundred Dollars (\$200.00) 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.

D. 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.

E. 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 him hereunder except as provided in paragraph (B) above. 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 calendar day and forty

(40) hours in any one 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.

F. Registration; Record of Wages; Inspection:

CONTRACTOR 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 by the California Department of Industrial Relations. CONTRACTOR shall maintain accurate payroll records and shall submit payroll records to the Labor Commissioner pursuant to Labor Code Section 1771.4(a)(3). Penalties for non-compliance with the requirements of Section 1776 may be deducted from progress payments per Section 1776.

CONTRACTOR shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulations Section 16461(e).

SECTION – 15 SURETY BONDS

CONTRACTOR shall, before entering upon the performance of this Contract, furnish Bonds approved by OC SAN's General Counsel – one in the amount of one hundred percent (100%) of the Contract amount, to guarantee the faithful performance of the Work, and the other in the amount of one hundred percent (100%) of the Contract amount to guarantee payment of all claims for labor and materials furnished. As changes to the Contract occur via approved Change Orders, the CONTRACTOR shall assure that the amounts of the Bonds are adjusted to maintain 100% of the Contract Price. This Contract shall not become effective until such Bonds are supplied to and approved by OC SAN. Bonds must be issued by a Surety authorized by the State Insurance Commissioner to do business in California. The Performance Bond shall remain in full force and effect through the warranty period, as specified in Section 19 below. All Bonds required to be submitted relating to this Contract must comply with California Code of

Civil Procedure Section 995.630. Each Bond shall be executed in the name of the Surety insurer under penalty of perjury, or the fact of execution of each Bond shall be duly acknowledged before an officer authorized to take and certify acknowledgments, and either one of the following conditions shall be satisfied:

- A. A copy of the transcript or record of the unrevoked appointment, power of attorney, by-laws, or other instrument, duly certified by the proper authority and attested by the seal of the insurer entitling or authorizing the person who executed the Bond to do so for and on behalf of the insurer, is on file in the Office of the County Clerk of the County of Orange; or
- B. A copy of a valid power of attorney is attached to the Bond.

SECTION – 16 INSURANCE

CONTRACTOR shall purchase and maintain, for the duration of the Contract, insurance against claims for injuries to persons, or damages to property which may arise from or in connection with the performance of the Work hereunder, and the results of that Work by CONTRACTOR, its agents, representatives, employees, or Subcontractors, in amounts equal to the requirements set forth below. CONTRACTOR shall not commence Work under this Contract until all insurance required under this Section is obtained in a form acceptable to OC SAN, nor shall CONTRACTOR allow any Subcontractor to commence Work on a subcontract until all insurance required of the Subcontractor has been obtained. CONTRACTOR shall maintain all of the foregoing insurance coverages in force through the point at which the Work under this Contract is fully completed and accepted by OC SAN pursuant to the provisions of the General Conditions, "Final Acceptance and Final Completion". Furthermore, CONTRACTOR shall maintain all of the foregoing insurance coverages in full force and effect throughout the warranty period, commencing on the date of Final Acceptance. The requirement for carrying the foregoing insurance shall not derogate from the provisions for indemnification of OC SAN by CONTRACTOR under Section 17 of this Contract. Notwithstanding nor diminishing the

obligations of CONTRACTOR with respect to the foregoing, CONTRACTOR shall subscribe for and maintain in full force and effect during the life of this Contract, inclusive of all changes to the Contract Documents made in accordance with the provisions of the General Conditions, "Request for Change (Changes at CONTRACTOR's Request)" and/or "OWNER Initiated Changes", the following insurance in amounts not less than the amounts specified. OC SAN reserves the right to amend the required limits of insurance commensurate with the CONTRACTOR's risk at any time during the course of the Project. No vehicles may enter OC SAN premises/worksites without possessing the required insurance coverage.

CONTRACTOR's insurance shall also comply with all insurance requirements prescribed by agencies from whom permits shall be obtained for the Work and any other third parties from whom third party agreements are necessary to perform the Work (collectively, the "Third Parties"). The Special Provisions may list such requirements and sample forms and requirements from such Third Parties may be included in an attachment to the General Requirements. CONTRACTOR bears the responsibility to discover and comply with all requirements of Third Parties, including meeting specific insurance requirements, that are necessary for the complete performance of the Work. To the extent there is a conflict between the Third Parties' insurance requirements and those set forth by OC SAN herein, the requirement(s) providing the more protective coverage for both OC SAN and the Third Parties shall control and be purchased and maintained by CONTRACTOR.

If CONTRACTOR maintains higher limits than the minimums shown in this Section, OC SAN requires and shall be entitled to coverage for the higher limits maintained by the CONTRACTOR.

Where permitted by law, CONTRACTOR hereby waives all rights of recovery by subrogation because of deductible clauses, inadequacy of limits of any insurance policy, limitations or exclusions of coverage, or any other reason against OC SAN, its or their officers, agents, or

employees, and any other contractor or subcontractor performing Work or rendering services on behalf of OC SAN in connection with the planning, development and construction of the Project. In all its insurance coverages (except for Professional Liability/Errors and Omissions coverages, if applicable) related to the Work, CONTRACTOR shall include clauses providing that each insurer shall waive all of its rights of recovery by subrogation against OC SAN, its or their officers, agents, or employees, or any other contractor or subcontractor performing Work or rendering services at the Project. Where permitted by law, CONTRACTOR shall require similar written express waivers and insurance clauses from each of its Subcontractors of every tier. A waiver of subrogation shall be effective as to any individual or entity, even if such individual or entity (a) would otherwise have a duty of indemnification, contractual or otherwise, (b) did not pay the insurance premium, directly or indirectly, and (c) whether or not such individual or entity has an insurable interest in the property damaged.

A. Limits of Insurance

1. General Liability: Two Million Dollars (\$2,000,000) per occurrence and a general aggregate limit of Four Million Dollars (\$4,000,000) for bodily injury, personal injury and property damage. If aggregate limits apply separately to this contract (as evidenced by submission of ISO form CG 25 03 or CG 25 04), then the aggregate limit may be equivalent to the per occurrence limit. Coverage shall include each of the following:
 - a. Premises-Operations.
 - b. Products and Completed Operations, with limits of at least Two Million Dollars (\$2,000,000) per occurrence and a general aggregate limit of Two Million Dollars (\$2,000,000) which shall be in effect at all times during the warranty period set forth in the Warranty section herein, and as set forth in the General Conditions, "Warranty (CONTRACTOR's Guarantee)", plus any additional

extension or continuation of time to said warranty period that may be required or authorized by said provisions. If aggregate limits apply separately to this contract (as evidenced by submission of ISO form CG 25 03 or CG 25 04), then the aggregate limit may be equivalent to the per occurrence limit.

- c. Broad Form Property Damage, expressly including damage arising out of explosion, collapse, or underground damage.
- d. Contractual Liability, expressly including the indemnity provisions assumed under this Contract.
- e. Separation of Insured Clause, providing that coverage applies separately to each insured, except with respect to the limits of liability.
- f. Independent CONTRACTOR's Liability.

To the extent first dollar coverage, including defense of any claim, is not available to OC SAN or any other additional insured because of any SIR, deductible, or any other form of self insurance, CONTRACTOR is obligated to assume responsibility of insurer until the deductible, SIR or other condition of insurer assuming its defense and/or indemnity has been satisfied.

CONTRACTOR shall be responsible to pay any deductible or SIR.

- g. If a crane will be used, the general liability insurance will be endorsed to add Riggers Liability coverage or its equivalent to cover the usage of the crane and exposures with regard to the crane operators, riggers and others involved in using the crane.
- h. If divers will be used, the general liability insurance will be endorsed to cover marine liability or its equivalent to cover the usage of divers.

- 2. Automobile Liability: The CONTRACTOR shall maintain a policy of automobile liability insurance on a comprehensive form covering all owned, non-owned, and

hired automobiles, trucks, and other vehicles providing the following minimum limit of liability coverage: combined single limit of One Million Dollars (\$1,000,000) for bodily injury, personal injury, and property damage.

3. **Umbrella Excess Liability:** The minimum limits of general liability and automobile liability insurance required, as set forth above, shall be provided for either in a single policy of primary insurance or a combination of policies of primary and umbrella excess coverage. Excess liability coverage shall be issued with limits of liability which, when combined with the primary insurance, will equal the minimum limits for general liability and automobile liability.
4. **Drone Liability Insurance:** If a drone will be used, drone liability insurance must be maintained by CONTRACTOR in the amount of One Million Dollars (\$1,000,000) in a form acceptable to OC SAN.
5. **Workers' Compensation/Employer's Liability:** CONTRACTOR shall provide such workers' compensation insurance as required by the Labor Code of the State of California, including employer's liability with a minimum limit of One Million Dollars (\$1,000,000) per accident for bodily injury or disease. If an exposure to Jones Act liability may exist, the insurance required herein shall include coverage with regard to Jones Act claims.

B. **Deductibles and Self-Insured Retentions**

Any deductibles or self-insured retentions must be declared to and approved by OC SAN. At the option of OC SAN, either: the Insurer shall reduce or eliminate such deductibles or self-insured retentions as respects OC SAN, its Directors, officers, agents, consultants, and employees; or CONTRACTOR shall provide a financial guarantee satisfactory to OC SAN guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

C. Other Insurance Provisions

1. Each such policy of general liability insurance and automobile liability insurance shall be endorsed to contain, the following provisions:
 - a. OC SAN, its directors, officers, agents, consultants, and employees, and all public agencies from whom permits will be obtained, and their directors, officers, agents, and employees are hereby declared to be additional insureds under the terms of this policy, but only with respect to the operations of CONTRACTOR at or from any of the sites of OC SAN in connection with this Contract, or acts and omissions of the additional insured in connection with its general supervision or inspection of said operations related to this Contract.
 - b. Insurance afforded by the additional insured endorsement shall apply as primary insurance, and other insurance maintained by OC SAN shall be excess only and not contributing with insurance provided under this policy.
2. Cancellation and Policy Change Notice.

The CONTRACTOR is required to notify OC SAN in writing of any insurance cancellation notice it receives or other knowledge of pending or actual insurance policy cancellation within two (2) working days of receipt of such notice or acquisition of such knowledge. Additionally, the CONTRACTOR is required to notify OC SAN in writing of any change in the terms of insurance, including reduction in coverage or increase in deductible/SIR, within two (2) working days of receipt of such notice or knowledge of same.

Said notices shall be mailed to OC SAN at:

ORANGE COUNTY SANITATION DISTRICT
10844 Ellis Avenue
Fountain Valley, CA 92708
Attention: Contracts, Purchasing & Materials Management Division

3. Coverage shall not extend to any indemnity coverage for the active negligence of any additional insured in any case where an agreement to indemnify the additional insured would be invalid under California Civil Code Section 2782(b).
4. If required by a public agency from whom permit(s) will be obtained, each policy of general liability insurance and automobile liability insurance shall be endorsed to specify by name the public agency and its legislative members, officers, agents, consultants, and employees, to be additional insureds.

D. Acceptability of Insurers

Insurers must have an "A-", or better, Policyholder's Rating, and a Financial Rating of at least Class VIII, or better, in accordance with the most current A.M. Best Rating Guide. OC SAN recognizes that State Compensation Insurance Fund has withdrawn from participation in the A.M. Best Rating Guide process. Nevertheless, OC SAN will accept State Compensation Insurance Fund for the required policy of worker's compensation insurance, subject to OC SAN's option, at any time during the term of this Contract, to require a change in insurer upon twenty (20) days written notice. Further, OC SAN will require CONTRACTOR to substitute any insurer whose rating drops below the levels herein specified. Said substitution shall occur within twenty (20) days of written notice to CONTRACTOR by OC SAN or its agent.

E. Verification of Coverage

CONTRACTOR shall furnish OC SAN with original certificates and mandatory endorsements affecting coverage. Said policies and endorsements shall conform to the requirements herein stated. All certificates and endorsements are to be received and approved by OC SAN before Work commences. OC SAN reserves the right to require complete, certified copies of all required insurance policies, including endorsements, affecting the coverage required by these Specifications at any time.

F. Subcontractors

CONTRACTOR shall be responsible to establish insurance requirements for any Subcontractors hired by CONTRACTOR. The insurance shall be in amounts and types reasonably sufficient to deal with the risk of loss involving the Subcontractor's operations and work. OC SAN and any public agency issuing permits for the Project must be named as "Additional Insured" on any general liability or automobile liability policy obtained by a Subcontractor. The CONTRACTOR must obtain copies and maintain current versions of all Subcontractors' policies, certificate of liability and mandatory endorsements effecting coverage. Upon request, CONTRACTOR must furnish OC SAN with the above referenced required documents.

G. Required Forms and Endorsements

1. Required ACORD Form

- a. Certificate of Liability ACORD Form 25 or other equivalent certificate of insurance form

2. Required Insurance Services Office, Inc. Endorsements (when alternative forms are shown, they are listed in order of preference)

In the event any of the following forms are cancelled by Insurance Services Office, Inc. (ISO), or are updated, the ISO replacement form or equivalent must be supplied.

- a. Commercial General Liability Form CG 00 01
- b. Additional Insured Including Products-Completed Operations Form CG 20 10 **and** Form CG 20 37
All other additional insured endorsements must be submitted for approval by OC SAN, and OC SAN may reject alternatives that provide different or less coverage to OC SAN.
- c. Waiver of Transfer of Rights of Recovery Against Others to Us/
Waiver of Subrogation Form CG 24 04

SECTION – 19 WARRANTY

The CONTRACTOR agrees to perform all Work under this Contract in accordance with the Contract Documents, including OC SAN's designs, Drawings and Specifications.

The CONTRACTOR guarantees for a period of at least one (1) year from the date of Final Acceptance of the Work, pursuant to the General Conditions, "Final Acceptance and Final Completion" that the completed Work is free from all defects due to faulty materials, equipment or workmanship and that it shall promptly make whatever adjustments or corrections which may be necessary to cure any defects, including repairs of any damage to other parts of the system resulting from such defects. OC SAN shall promptly give notice to the CONTRACTOR of observed defects. In the event that the CONTRACTOR fails to make adjustments, repairs, corrections or other work made necessary by such defects, OC SAN may do so and charge the CONTRACTOR the cost incurred. The CONTRACTOR's warranty shall continue as to any corrected deficiency until the later of (1) the remainder of the original one-year warranty period; or (2) one year after acceptance by OC SAN of the corrected Work. The Performance Bond and the Payment Bond shall remain in full force and effect through the guarantee period.

The CONTRACTOR's obligations under this clause are in addition to the CONTRACTOR's other express or implied assurances under this Contract, including but not limited to specific manufacturer or other extended warranties specified in the Plans and Specifications, or state law and in no way diminish any other rights that OC SAN may have against the CONTRACTOR for faulty materials, equipment or Work.

SECTION – 20 ASSIGNMENT

No assignment by the CONTRACTOR of this Contract or any part hereof, or of funds to be received hereunder, will be recognized by OC SAN unless such assignment has had prior written approval and consent of OC SAN and the Surety.

SECTION – 21 RESOLUTION OF DISPUTES

OC SAN and the CONTRACTOR shall comply with the provisions of California Public Contract Code Section 20104 et. seq., regarding resolution of construction claims for any Claims which arise between the CONTRACTOR and OC SAN, as well as all applicable dispute and Claims provisions as set forth in the General Conditions and as otherwise required by law.

SECTION – 22 SAFETY & HEALTH

CONTRACTOR shall comply with all applicable safety and health requirements mandated by federal, state, city and/or public agency codes, permits, ordinances, regulations, and laws, as well as these Contract Documents, including but not limited to the General Requirements, Section entitled “Safety” and Exhibit B Contractor Safety Standards.

SECTION – 23 NOTICES

Any notice required or permitted under this Contract shall be sent by certified mail, return receipt requested, at the address set forth below. Any party whose address changes shall notify the other party in writing.

TO OC SAN: Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, California 92708-7018
Attn: Clerk of the Board

Copy to: Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, California 92708-7018
Attn: Construction Manager

Bradley R. Hogin, Esquire
Woodruff, Spradlin & Smart
555 Anton Boulevard, Suite 1200
Costa Mesa, California 92626

TO CONTRACTOR: Vicon Enterprise
5433 E Spyglass Way
Anaheim, CA 92807

Copy to: Telvis Artis, President
Vicon Enterprise
5433 E Spyglass Way
Anaheim, CA 92807

IN WITNESS WHEREOF, the parties hereto have executed this Contract Agreement as the date first hereinabove written.

CONTRACTOR: Vicon Enterprise
5433 E Spyglass Way
Anaheim, CA 92807

By _____ Date _____

Printed Name

Its _____

CONTRACTOR's State License No. 1079004 (Expiration Date 07/31/2023)

OC SAN: Orange County Sanitation District

By _____ Date _____

John B. Withers
Board Chairman

By _____ Date _____

Kelly A. Lore
Clerk of the Board

By _____ Date _____

Ruth Zintzun
Purchasing & Contracts Manager

EXHIBIT A
SCHEDULE OF PRICES

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SCHEDULE OF PRICES

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EXHIBIT A

SCHEDULE OF PRICES

EXA-1 BASIS OF COMPENSATION

CONTRACTOR will be paid the Contract Price according to the Schedule of Prices, and all other applicable terms and conditions of the Contract Documents.

EXA-2 PROGRESS PAYMENTS

Progress payments will be made in accordance with all applicable terms and conditions of the Contract Documents, including, but not limited to:

1. Contract Agreement – Section 11 – “Contract Price and Method of Payment;”
2. General Conditions – “Payment – General”;
3. General Conditions – “Payment – Applications for Payment”;
4. General Conditions – “Payment – Mobilization Payment Requirements;”
5. General Conditions – “Payment – Itemized Breakdown of Contract Lump Sum Prices”;
6. General Conditions – “Contract Price Adjustments and Payments”;
7. General Conditions – “Suspension of Payments”;
8. General Conditions – “OC SAN’s Right to Withhold Certain Amounts and Make Application Thereof”; and
9. General Conditions – “Final Payment.”

EXA-3 RETENTION AND ESCROW ACCOUNTS

A. Retention:

OC SAN shall retain a percentage of each progress payment to assure satisfactory completion of the Work. The amount to be retained from each progress payment shall be determined as provided in General Conditions – “Retained Funds; Substitution of Securities”. In all contracts between CONTRACTOR and its Subcontractors and/or Suppliers, the retention may not exceed the percentage specified in the Contract Documents.

B. Substitution of Securities:

CONTRACTOR may, at its sole expense, substitute securities as provided in General Conditions – “Retained Funds; Substitution of Securities.” Payment of Escrow Agent:

In lieu of substitution of securities as provided above, the CONTRACTOR may request and OC SAN shall make payment of retention earned directly to the escrow agent at the expense of the CONTRACTOR. At the expense of the CONTRACTOR, the CONTRACTOR may direct the investment of the payments into securities consistent with Government Code §16430 and the CONTRACTOR shall receive the interest earned on the investments upon the same terms provided for in this article for securities deposited by the CONTRACTOR. Upon satisfactory completion of the Contract, the CONTRACTOR shall receive from the escrow agent all securities, interest and payments received by the escrow agent from OC SAN, pursuant to the terms of this article. The CONTRACTOR shall pay to each Subcontractor, not later than twenty (20) calendar days after receipt of the payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount of retention withheld to ensure the performance of the Subcontractor. The escrow agreement used by the escrow agent pursuant to this article shall be substantially similar to the form set forth in §22300 of the California Public Contract Code.

C. Release of Retention:

Upon Final Acceptance of the Work, the CONTRACTOR shall submit an invoice for release of retention in accordance with the terms of the Contract.

D. Additional Deductibles:

In addition to the retentions described above, OC SAN may deduct from each progress payment any or all of the following:

1. Liquidated Damages that have occurred as of the date of the application for progress payment;
2. Deductions from previous progress payments already paid, due to OC SAN's discovery of deficiencies in the Work or non-compliance with the Specifications or any other requirement of the Contract;
3. Sums expended by OC SAN in performing any of the CONTRACTOR'S obligations under the Contract that the CONTRACTOR has failed to perform, and;
4. Other sums that OC SAN is entitled to recover from the CONTRACTOR under the terms of the Contract, including without limitation insurance deductibles and assessments.

The failure of OC SAN to deduct any of the above-identified sums from a progress payment shall not constitute a waiver of OC SAN's right to such sums or to deduct them from a later progress payment.

EXA-4 STOP PAYMENT NOTICE

In addition to other amounts properly withheld under this article or under other provisions of the Contract, OC SAN shall retain from progress payments otherwise due the CONTRACTOR an amount equal to one hundred twenty-five percent (125%) of the amount claimed under any stop payment notice under Civil Code §9350 et. seq. or other lien filed against the CONTRACTOR for labor, materials, supplies, equipment, and any other thing of value claimed to have been furnished to and/or incorporated into the Work; or for any other alleged contribution thereto. In addition to the foregoing and in accordance with Civil Code §9358 OC SAN may also satisfy its duty to withhold funds for stop payment notices by refusing to release funds held in escrow pursuant to public receipt of a release of stop payment notice executed by a stop payment notice claimant, a stop payment notice release bond, an order of a court of competent jurisdiction, or other evidence satisfactory to OC SAN that the CONTRACTOR has resolved such claim by settlement.

EXA-5 PAYMENT TO SUBCONTRACTORS

Requirements

1. The CONTRACTOR shall pay all Subcontractors for and on account of Work performed by such Subcontractors, not later than seven (7) days after receipt of each progress payment as required by the California Business and Professions Code §7108.5. Such payments to Subcontractors shall be based on the measurements and estimates made pursuant to article progress payments provided herein.
2. Except as specifically provided by law, the CONTRACTOR shall pay all Subcontractors any and all retention due and owing for and on account of Work performed by such Subcontractors not later than seven (7) days after CONTRACTOR'S receipt of said retention proceeds from OC SAN as required by the California Public Contract Code §7107.

EXA-6 PAYMENT OF TAXES

Unless otherwise specifically provided in this Contract, the Contract Price includes full compensation to the CONTRACTOR for all taxes. The CONTRACTOR shall pay all federal, state, and local taxes, and duties applicable to and assessable against any Work, including but not limited to retail sales and use, transportation, export, import, business, and special taxes. The CONTRACTOR shall ascertain and pay the taxes when due. The CONTRACTOR will maintain auditable records, subject to OC SAN reviews, confirming that tax payments are current at all times.

EXA-7 FINAL PAYMENT

After Final Acceptance of the Work, as more particularly set forth in the General Conditions, "Final Acceptance and Final Completion", and after Resolution of the Board authorizing final payment and satisfaction of the requirements as more particularly set forth in General Conditions – "Final Payment", a final payment will be made as follows:

1. Prior to Final Acceptance, the CONTRACTOR shall prepare and submit an application for Final Payment to OC SAN, including:
 - a. The proposed total amount due the CONTRACTOR, segregated by items on the payment schedule, amendments, Change Orders, and other bases for payment;
 - b. Deductions for prior progress payments;
 - c. Amounts retained;
 - d. A conditional waiver and release on final payment for each Subcontractor (per Civil Code Section 8136);
 - e. A conditional waiver and release on final payment on behalf of the CONTRACTOR (per Civil Code Section 8136);
 - f. List of Claims the CONTRACTOR intends to file at that time or a statement that no Claims will be filed,
 - g. List of pending unsettled claims, stating claimed amounts, and copies of any and all complaints and/or demands for arbitration received by the CONTRACTOR; and
 - h. For each and every claim that resulted in litigation or arbitration which the CONTRACTOR has settled, a conformed copy of the Request for Dismissal with prejudice or other satisfactory evidence the arbitration is resolved.
2. The application for Final Payment shall include complete and legally effective releases or waivers of liens and stop payment notices satisfactory to OC SAN, arising out of or filed in connection with the Work. Prior progress payments shall be subject to correction in OC SAN's review of the application for Final Payment. Claims filed with the application for Final Payment must be otherwise timely under the Contract and applicable law.
3. Within a reasonable time, OC SAN will review the CONTRACTOR'S application for Final Payment. Any recommended changes or corrections will then be forwarded to the CONTRACTOR. Within ten (10) calendar days after receipt of recommended changes from OC SAN, the CONTRACTOR will make the changes, or list Claims that will be filed as a result of the changes, and shall submit the revised application for Final Payment. Upon

acceptance by OC SAN, the revised application for Final Payment will become the approved application for Final Payment.

4. If no Claims have been filed with the initial or any revised application for Final Payment, and no Claims remain unsettled within thirty-five (35) calendar days after Final Acceptance of the Work by OC SAN, and agreements are reached on all issues regarding the application for Final Payment, OC SAN, in exchange for an executed release, satisfactory in form and substance to OC SAN, will pay the entire sum found due on the approved application for Final Payment, including the amount, if any, allowed on settled Claims.
5. The release from the CONTRACTOR shall be from any and all Claims arising under the Contract, except for Claims that with the concurrence of OC SAN are specifically reserved, and shall release and waive all unreserved Claims against OC SAN and its officers, directors, employees and authorized representatives. The release shall be accompanied by a certification by the CONTRACTOR that:
 - a. It has resolved all Subcontractors, Suppliers and other Claims that are related to the settled Claims included in the Final Payment;
 - b. It has no reason to believe that any party has a valid claim against the CONTRACTOR or OC SAN which has not been communicated in writing by the CONTRACTOR to OC SAN as of the date of the certificate;
 - c. All warranties are in full force and effect, and;
 - d. The releases and the warranties shall survive Final Payment.
6. If any claims remain open, OC SAN may make Final Payment subject to resolution of those claims. OC SAN may withhold from the Final Payment an amount not to exceed one hundred fifty percent (150%) of the sum of the amounts of the open claims, and one hundred twenty-five percent (125%) of the amounts of open stop payment notices referred to in article entitled stop payment notices herein.
7. The CONTRACTOR shall provide an unconditional waiver and release on final payment from each Subcontractor and Supplier providing Work under the Contract (per Civil Code Section 8138) and an unconditional waiver and release on final payment on behalf of the CONTRACTOR (per Civil Code Section 8138) within thirty (30) days of receipt of Final Payment.

EXA-8 DISCOVERY OF DEFICIENCIES BEFORE AND AFTER FINAL PAYMENT

Notwithstanding OC SAN's acceptance of the application for Final Payment and irrespective of whether it is before or after Final Payment has been made, OC SAN shall not be precluded from subsequently showing that:

1. The true and correct amount payable for the Work is different from that previously accepted;

2. The previously accepted Work did not in fact conform to the Contract requirements, or;
3. A previous payment or portion thereof for Work was improperly made.

OC SAN also shall not be stopped from demanding and recovering damages from the CONTRACTOR, as appropriate, under any of the foregoing circumstances as permitted under the Contract or applicable law.

ATTACHMENT 1 – CERTIFICATION FOR REQUEST FOR PAYMENT

I hereby certify under penalty of perjury as follows:

That the claim for payment is in all respects true, correct; that the services mentioned herein were actually rendered and/or supplies delivered to OC SAN in accordance with the Contract.

I understand that it is a violation of both the federal and California False Claims Acts to knowingly present or cause to be presented to OC SAN a false claim for payment or approval.

A claim includes a demand or request for money. It is also a violation of the False Claims Acts to knowingly make use of a false record or statement to get a false claim paid. The term "knowingly" includes either actual knowledge of the information, deliberate ignorance of the truth or falsity of the information, or reckless disregard for the truth or falsity of the information. Proof of specific intent to defraud is not necessary under the False Claims Acts. I understand that the penalties under the Federal False Claims Act and State of California False Claims Act are non-exclusive, and are in addition to any other remedies which OC SAN may have either under contract or law.

I hereby further certify, to the best of my knowledge and belief, that:

1. The amounts requested are only for performance in accordance with the Specifications, terms, and conditions of the Contract;
2. Payments to Subcontractors and Suppliers have been made from previous payments received under the Contract, and timely payments will be made from the proceeds of the payment covered by this certification;
3. This request for progress payments does not include any amounts which the prime CONTRACTOR intends to withhold or retain from a Subcontractor or Supplier in accordance with the terms and conditions of the subcontract; and
4. This certification is not to be construed as Final Acceptance of a Subcontractor's performance.

Name

Title

Date

ATTACHMENT 2 – SCHEDULE OF PRICES

See next pages for Bid Submittal Forms: Vicon Enterprise

BF-14 SCHEDULE OF PRICES, Pages 1 – 2

BF-14 SCHEDULE OF PRICES

INSTRUCTIONS

A. General

For Unit Prices, it is understood that the following quantities are approximate only and are solely for the purpose of estimating the comparison of Bids, and that the actual value of Work will be computed based upon the actual quantities in the completed Work, whether they be more or less than those shown. CONTRACTOR's compensation for the Work under the Contract Documents will be computed based upon the lump sum amount of the Contract at time of award, plus any additional or deleted costs approved by OC SAN via approved Change Orders, pursuant to the Contract Documents.

Bidder shall separately price and accurately reflect costs associated with each line item, leaving no blanks. Any and all modifications to the Bid must be initialed by an authorized representative of the Bidder in accordance with the Instructions to Bidders, Preparation of Bid.

Bidders are reminded of Instruction to Bidders, Discrepancy in Bid Items, which, in summary, provides that the total price for each item shall be based on the Unit Price listed for each item multiplied by the quantity; and the correct Total Price for each item shall be totaled to determine the Total Amount of Bid.

All applicable costs including overhead and profit shall be reflected in the respective unit costs and the TOTAL AMOUNT OF BID. The Bid price shall include all costs to complete the Work, including profit, overhead, etc., unless otherwise specified in the Contract Documents. All applicable sales taxes, state and/or federal, and any other special taxes, patent rights or royalties shall be included in the prices quoted in this Bid.

B. Basis of Award

AWARD OF THE CONTRACT WILL BE MADE ON THE BASIS OF THE LOWEST RESPONSIVE AND RESPONSIBLE BID.

Note 1: Base Bid. Includes all costs necessary to furnish all labor, materials, equipment and services for the construction of the Project per the Contract Documents.

Bid Submitted By: Vicon Enterprise

(Name of Firm)

SCHEDULE OF PRICES

BASE BID ITEMS (Refer to Note 1 in the Instructions):

Item No.	Description	Unit of Measurement	Extended Price
1.	Mobilization: Initial progress payment for all fees, labor, materials and equipment required for mobilization, staging area, surety bonds, and other activities in conformance with the Contract Documents, for a fixed amount of...	Lump Sum	\$ 15,000
2.	Permits: Allowance for permits, City of Fountain Valley inspection and other fees and charges required to complete the Work, in conformance with the Contract Documents.	Allowance	\$ 5,000
3.	Completion of Work: Furnish all labor, materials and equipment necessary for the completion of the Contract Work, except for the Work specified for Bid Items 1 and 2, in conformance with the Contract Documents, for a lump sum price of...	Lump Sum	\$ 200,000.00

TOTAL AMOUNT OF BID (BASIS OF AWARD)

\$ 220,000.00



OPERATIONS COMMITTEE

Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

Agenda Report

File #: 2022-2309

Agenda Date: 6/1/2022

Agenda Item No: 4.

FROM: James D. Herberg, General Manager
Originator: Riaz Moinuddin, Director of Operations & Maintenance

SUBJECT:

PLANT NO. 2 TRICKLING FILTER “A” ROTARY DISTRIBUTOR MAST REPLACEMENT

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Sole Source Purchase Order Contract to Ovivo USA, LLC (Ovivo) for a direct replacement Center Mast assembly for the Plant No. 2 Trickling Filter “A” solids contact, Secondary Treatment, in an amount not to exceed \$461,500, plus applicable sales tax and shipping; and
- B. Approve a contingency of \$46,150 (10%).

BACKGROUND

The Orange County Sanitation District (OC San) Trickling Filters at Plant No. 2 consist of three 150-foot diameter. This Trickling Filter process provides secondary treatment rated at 60 MGD average during dry weather and approximately 182 MGD during peak wet weather capacities. The trickling filters are engineered to remove the organic content in wastewater utilizing micro-organisms living on the filter media. Each trickling filter is equipped with a motor-operated rotary distributor assembly to uniformly distribute the primary treated flow over the media.

RELEVANT STANDARDS

- Commitment to safety and reducing risk in all operations
- Maintain a proactive asset management program
- Maintain a culture of improving efficiency to reduce the cost to provide the current service level or standard

PROBLEM

During scheduled repair activities on the Trickling Filter A rotating gear mechanism, significant damage was found with the Trickling Filter A rotary distributor arm assembly. Trickling Filter A is not available to provide treatment until these structural failures are addressed.

PROPOSED SOLUTION

Staff recommends a sole source purchase order contract to replace the Trickling Filter A Center Mast Assembly by the original equipment manufacturer (OEM), Ovivo.

TIMING CONCERNS

The Trickling Filters at Plant No. 2 are critical assets that support secondary treatment requirements. With Trickling Filter A not available, there exists significant risk of not being able to provide the required secondary treatment at the Plant No. 2 trickling filter secondary process. In addition, this trickling filter process will provide all the secondary treatment for the Ground Water Replenishment System when the final expansion project comes on-line in early 2023.

RAMIFICATIONS OF NOT TAKING ACTION

Failure to act increases the risk to provide required secondary treatment at the Plant No. 2 trickling filter process.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

Ovivo is the Board of Directors Approved OEM for Plant No. 2 Trickling Filter parts and repairs.

A 10% contingency is requested due to potential delays due to additional unforeseen repairs that may become known. The center mast is covered by the hard filter media so that only the top portion is visible. The exact cause of the failure is not known. Additional repairs may be needed once the mast assembly has been removed and further assessments made, which cannot be performed until the filter media is removed.

CEQA

N/A

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted in the Adopted Budget Update Fiscal Year 2021-2022, Plant No. 2 Maintenance, Page 44 and the budget is sufficient for the recommended action.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

N/A



OPERATIONS COMMITTEE

Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

Agenda Report

File #: 2022-2321

Agenda Date: 6/1/2022

Agenda Item No: 5.

FROM: James D. Herberg, General Manager
Originator: Riaz Moinuddin, Director of Operations & Maintenance

SUBJECT:

SERVICE CONTRACT FOR PLANT NOS. 1 AND 2 CENTRAL GENERATION FACILITIES' CARBON MEDIA CHANGE-OUT

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Service Contract to Carbon Bulk Sales LLC to install and dispose of activated carbon media for Plant Nos. 1 and 2 Cen-Gen Facilities, Specification No. S-2022-1289BD, for a total amount not to exceed \$420,972 for the period beginning July 1, 2022 through June 30, 2023, with four (4) one-year renewal options; and
- B. Approve an annual contingency of \$42,097 (10%).

BACKGROUND

Orange County Sanitation District (OC San) Plant Nos. 1 and 2 Cen-Gen facilities use granular activated carbon to remove siloxane, volatile organic carbon (VOC), and sulfur compounds from digester gas. Removal of these constituents is necessary to meet air compliance standards and maintenance requirements. Specifically, failure to remove these compounds will damage both the reductive and oxidation catalysts necessary to control engine emissions.

Two vessels are used in series at Plant No. 1 and three vessels are used at Plant No. 2. The first vessel is the primary tank for roughing and the second vessel is for polishing the residual compounds from the biogas. The third vessel at Plant No. 2 is a standby vessel. Each vessel has three layers of activated carbon media with different specifications recommended by the system manufacturer to remove targeted components from biogas.

RELEVANT STANDARDS

- Maintain a proactive asset management program
- 24/7/365 treatment plant reliability
- Protect OC San assets

PROBLEM

The granular activated carbon removes targeted contaminants from digester gas before utilizing the gas for combustion in the Cen-Gen facilities. The carbon media has a limited capacity to absorb the contaminants. When the carbon material is fully consumed, the medium is exhausted and must be replaced to comply with the AQMD facility permits and operational requirements.

PROPOSED SOLUTION

Staff recommends approving a Service Contract with Carbon Bulk Sales LLC to replace the carbon media utilized to clean digester gas at Plant Nos.1 and 2 Cen-Gen facilities.

TIMING CONCERNS

With the exhaustion of the carbon media in the biogas cleaning system, siloxane, and hydrogen sulfide break-through will occur, and the Cen-Gen facilities will not be able to meet air quality permit requirements when using biogas.

RAMIFICATIONS OF NOT TAKING ACTION

The inability to clean digester gas will result in the inability to meet AQMD air permit requirements using digester gas at both Central Generation Plants. Digester gas will be flared at both plants.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

Staff developed a scope of work and invited vendors to submit bids. Three bids were received, as listed below.

<u>Company</u>	<u>Bid Amount (include tax)</u>	<u>Comments</u>
Carbon Bulk Sales LLC	\$420,972	Bid Award - Responsive
Carbon Activated Corp.	\$476,746	Non-Responsive
Advanced Chemical Transport, Inc.	\$766,140	Responsive

Staff has identified Carbon Bulk Sales LLC as the lowest responsive and responsible bidder.

CEQA

N/A

FINANCIAL CONSIDERATIONS

This request complies with OC San's Purchasing Ordinance authority levels. This item has been budgeted in the FY 2021-22 Budget, Divisions 830 and 840, line item 65 Operating Budget.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

- Service Contract

RS:cf

GENERAL SERVICES CONTRACT
Installation and Disposal of Activated Carbon for P1 & P2 Co-Gen Facilities
Specification No. S-2022-1289BD

This GENERAL SERVICES CONTRACT (hereinafter referred to as "Contract"), is made and entered into as of the date fully executed below, by and between Orange County Sanitation District (hereinafter referred to as "OC San") and Carbon Bulk Sales LLC (hereinafter referred to as "Contractor"), and collectively referred to herein as the "Parties."

RECITALS

WHEREAS, OC San desires the Installation and Disposal of Activated Carbon for P1 & P2 Co-Gen Facilities as described in Exhibit "A" attached hereto and incorporated herein by this reference ("Services"); and

WHEREAS, Contractor is qualified to perform the Services by virtue of experience, training, and expertise; and

WHEREAS, OC San desires to engage Contractor to render the Services as provided herein; and

WHEREAS, OC San selected Contractor to perform the Services in accordance with Ordinance No. OC SAN-56; and

WHEREAS, on June 22, 2022, OC San's Board of Directors, by minute order, authorized execution of this Contract.

NOW, THEREFORE, in consideration of the above recitals and the mutual promises and benefits specified below, the Parties agree as follows:

1. General.

1.1 This Contract and all exhibits hereto are made by OC San and the Contractor.

1.2 The following exhibits, in order of precedence, are incorporated by reference and made part of this Contract.

Exhibit "A" – Scope of Work

Exhibit "B" – Bid

Exhibit "C" – Determined Insurance Requirement Form

Exhibit "D" – Contractor Safety Standards

Exhibit "E" – Human Resources Policies

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 Contract shall control and thereafter the provisions in the document highest in precedence shall be controlling.

1.4 Except as expressly provided otherwise, OC San accepts no liability for any expenses, losses, or actions incurred or undertaken by Contractor as a result of work performed in anticipation of purchases of the Services by OC San.

1.5 Work Hours: All work shall be scheduled Monday through Thursday, between the hours of 7:00 a.m. and 4:00 p.m.

- 1.6 Days: Shall mean calendar days, unless otherwise noted.
- 1.7 OC San holidays (non-working days) are as follows: New Year's Day, Lincoln's Birthday, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving, Christmas Eve, and Christmas Day.
- 1.8 The provisions of this Contract may be amended or waived only by an amendment executed by authorized representatives of both Parties.
- 1.9 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.

2. Scope of Work.

- 2.1 Contractor shall perform the Services identified in Exhibit "A" in accordance with generally accepted industry and professional standards.
- 2.2 Modifications to Scope of Work. OC San shall have the right to modify the Scope of Work at any time. All modifications must be made by an amendment signed by both Parties.
- 2.3 Product Availability. In the event the specified product becomes unavailable for any reason, including but not limited to supply chain issues, OC San reserves the right to negotiate pricing with the Contractor, for a substitute product acceptable to OC San.
- 2.4 Familiarity with Work. By executing this Contract, Contractor warrants that: (a) it has investigated the work to be performed; and (b) it understands the facilities, difficulties, and restrictions of the work under this Contract. Should Contractor discover any latent or unknown condition 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.
- 2.5 Performance. Time is of the essence in the performance of the provisions hereof.

3. Contract Term.

- 3.1 The term of this Contract shall be for one (1) year commencing on July 1, 2022 and continuing through June 30, 2023.
- 3.2 Renewals. At its sole discretion, OC San may exercise the option to renew this Contract for up to four (4) one-year periods. This Contract may be renewed by an OC San Purchase Order. OC San shall have no obligation to renew the Contract nor to give a reason if it elects not to renew it.
- 3.3 Extensions. The term of this Contract may be extended only by an amendment signed by both Parties.

4. Compensation.

- 4.1 As compensation for the Services provided under this Contract, OC San shall pay Contractor a total amount not to exceed Four Hundred Twenty Thousand, Nine Hundred Seventy-two Dollars (\$420,972.00).
- 4.2 Contractor shall provide OC San with all required premiums and/or overtime work at no charge beyond the amount specified above.

5. Payments and Invoicing.

- 5.1 OC San shall pay itemized invoices for work completed in accordance with Exhibit "A", at the prices identified in Exhibit "B", thirty (30) days from receipt of the invoice and after approval by OC San's Project Manager or designee. OC San shall be the determining party, in its sole discretion, as to whether the Services have been satisfactorily completed.
- 5.2 Contractor shall submit its invoices to OC San Accounts Payable by electronic mail to APStaff@OCSan.gov. In the subject line include "INVOICE" and the Purchase Order Number.

6. California Department of Industrial Relations Registration and Record of Wages.

- 6.1 Pursuant to Labor Code sections 1720 et seq., and as specified in Title 8, California Code of Regulations section 16000, prevailing wages are required to be paid for all work under this Contract. It is Contractor's responsibility to interpret and implement any prevailing wage requirements and Contractor agrees to pay any penalty or civil damages resulting from a violation of the prevailing wage laws.
- 6.2 Contractor and its subcontractors shall comply with the registration requirements of Labor Code section 1725.5. Pursuant to Labor Code section 1771.4(a)(1), the work is subject to compliance monitoring and enforcement by the California Department of Industrial Relations (DIR).
- 6.3 Pursuant to Labor Code section 1773.2, a copy of the prevailing rate of per diem wages is available upon request at OC San's principal office. The prevailing rate of per diem wages may also be found at the DIR website for prevailing wage determinations at <http://www.dir.ca.gov/DLSR/PWD>.
- 6.4 Contractor and its subcontractors shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulations section 16461(e). Pursuant to Labor Code sections 1773.2 and 1771.4(a)(2), Contractor shall post a copy of the prevailing rate of per diem wages at the job site.
- 6.5 Contractor and its subcontractors shall maintain accurate payroll records and shall comply with all the provisions of Labor Code section 1776. Contractor and its subcontractors shall submit payroll records to the Labor Commissioner pursuant to Labor Code section 1771.4(a)(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 the 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. Pursuant to Labor Code section 1776(h), penalties for non-compliance with a request for payroll records may be deducted from progress payments.
- 6.5.1 As a condition to receiving payments, Contractor agrees to present to OC San, along with any request for payment, all applicable and necessary certified payrolls and other required documents for the period covering such payment request. Pursuant to Title 8, California Code of Regulations section 16463, OC San shall withhold any portion of a payment, up to and including the entire payment amount, until certified payroll forms and any other required documents are properly submitted. In the event certified payroll forms do not comply with the

requirements of Labor Code section 1776, OC San may continue to withhold sufficient funds to cover estimated wages and penalties under the Contract.

6.6 The Contractor and its subcontractors shall comply with Labor Code section 1774 and section 1775. Pursuant to Labor Code section 1775, the Contractor and any of its subcontractors shall forfeit to OC San a penalty of not more than two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the DIR for the work or craft in which the worker is employed for any work.

6.6.1 In addition to the penalty and pursuant to Labor Code section 1775, the difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor or its subcontractor.

6.7 Contractor and its subcontractors shall comply with Labor Code sections 1810 through 1815. Contractor and its subcontractors shall restrict working hours to eight (8) hours per day and forty (40) hours per week, except that work performed in excess of those limits shall be permitted upon compensation for all excess hours worked at not less than one and one-half (1.5) times the basic rate of pay, as provided in Labor Code section 1815. The Contractor shall forfeit, as a penalty to OC San, twenty-five dollars (\$25) per worker per calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of Labor Code sections 1810 through 1815.

6.8 Contractor and its subcontractors shall comply with Labor Code sections 1777.5, 1777.6, and 1777.7 concerning the employment of apprentices by Contractor or any subcontractor.

6.9 Contractor shall include, at a minimum, a copy of the following provisions in any contract it enters into with any subcontractor: Labor Code sections 1771, 1771.1, 1775, 1776, 1777.5, 1810, 1813, 1815, 1860, and 1861.

6.10 Pursuant to Labor Code sections 1860 and 3700, the Contractor and its subcontractors will be required to secure the payment of compensation to employees. Pursuant to Labor Code section 1861, Contractor, by accepting this contract, certifies that:

“I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers’ compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.”

Contractor shall ensure that all its contracts with its subcontractors provide the provision above.

7. **Damage to OC San’s Property.** Any of OC San’s property damaged by Contractor, any subcontractor, or by the personnel of either will be subject to repair or replacement by Contractor at no cost to OC San.

8. **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.
9. **Audit Rights.** Contractor agrees that, during the term of this Contract and for a period of three (3) years after its expiration or 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.
10. **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, the Contractor is required to follow the most stringent regulatory requirement at no additional cost to OC San. Contractor, its subcontractors, and all of their employees shall adhere to the safety requirements in Exhibit "A," all applicable Contractor Safety Standards in Exhibit "D," and the Human Resources Policies in Exhibit "E."
11. **Insurance.** Contractor and all its subcontractors shall purchase and maintain, throughout the term of this Contract and any periods of warranty or extensions, insurance in amounts equal to the requirements set forth in the signed Exhibit "C" – Determined Insurance Requirement Form. 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 obtain and maintain the required insurance coverage shall result in termination of this Contract.
12. **Bonds.** Not used.
13. **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 may 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. This section shall survive the expiration or early termination of the Contract.

14. **Independent Contractor.** The 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.
15. **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.
16. **Disclosure.** Contractor agrees not to disclose, to any third party, data or information generated from this Contract without the prior written consent from OC San.
17. **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 under the terms of this Contract.
18. **Third-Party Rights.** Nothing in this Contract shall be construed to give any rights or benefits to anyone other than OC San and Contractor.
19. **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 OC San harmless from any and all damages and liabilities assessed against OC San as a result of Contractor's noncompliance therewith. Any provision required by law to be included herein shall be deemed included as a part of this Contract whether or not specifically included or referenced.
20. **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 provide the Services. 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 this Contract will be paid by Contractor.
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 Water Codes Division 2.
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. **South Coast Air Quality Management District's Requirements.** It is Contractor's responsibility to ensure 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 SCAQMD.

- 24. Warranties.** In addition to the warranties stated in Exhibit "A," the following shall apply:
- 24.1 Manufacturer's standard warranty shall apply. All manufacturer warranties shall commence on the date of acceptance by the OC San Project Manager or designee of the work as complete.
- 24.2 Contractor's Warranty (Guarantee): If within a one (1) year period of completion of all work as specified in Exhibit "A," OC San informs Contractor that any portion of the Services provided fails to meet the standards required under this Contract, Contractor shall, within the time agreed to by OC San and Contractor, take all such actions as are necessary to correct or complete the noted deficiency(ies) at Contractor's sole expense.
- 25. Dispute Resolution.**
- 25.1 In the event of a dispute as to the construction or interpretation of this Contract, or any rights or obligations hereunder, the Parties shall first attempt, in good faith, to resolve the dispute by mediation. The Parties shall mutually select a mediator to facilitate the resolution of the dispute. If the Parties are unable to agree on a mediator, the mediation shall be conducted in accordance with the Commercial Mediation Rules of the American Arbitration Agreement, through the alternate dispute resolution procedures of Judicial Arbitration through Mediation Services of Orange County ("JAMS"), or any similar organization or entity conducting an alternate dispute resolution process.
- 25.2 In the event the Parties are unable to timely resolve the dispute through mediation, the issues in dispute shall be submitted to arbitration pursuant to Code of Civil Procedure, Part 3, Title 9, sections 1280 et seq. For such purpose, an agreed arbitrator shall be selected, or in the absence of agreement, each party shall select an arbitrator, and those two (2) arbitrators shall select a third. Discovery may be conducted in connection with the arbitration proceeding pursuant to Code of Civil Procedure section 1283.05. The arbitrator, or three (3) arbitrators acting as a board, shall take such evidence and make such investigation as deemed appropriate and shall render a written decision on the matter in question. The arbitrator shall decide each and every dispute in accordance with the laws of the State of California. The arbitrator's decision and award shall be subject to review for errors of fact or law in the Superior Court for the County of Orange, with a right of appeal from any judgment issued therein.
- 26. Liquidated Damages.** Not used.
- 27. 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 (a) cancel the Contract; (b) recover whatever amount of the purchase price OC San has paid, and/or (c) "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 (c), 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.

28. **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 the affected 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 of the Parties.

29. **Termination.**

29.1 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. 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) through 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 through the date of termination.

29.2 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 for any other default of this Contract.

29.3 OC San may also immediately terminate this Contract for default, 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 the total amount of compensation exceeds the amount authorized under this Contract.

29.4 All OC San's property in the possession or control of Contractor shall be returned by Contractor to OC San on demand or at the expiration or early termination of this Contract, whichever occurs first.

30. **Attorney's Fees.** If any action at law or in equity or if any proceeding in the form of an Alternative Dispute Resolution (ADR) is necessary to enforce or interpret the terms of this Contract, the prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which the prevailing party may be entitled.

31. **Waiver.** The waiver by 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.

32. **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.

IN WITNESS WHEREOF, intending to be legally bound, the Parties hereto have caused this Contract to be signed by their 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

CARBON BULK SALES LLC

Dated: _____

By: _____

Print Name and Title of Officer

CMM

Exhibit “A”
SCOPE OF WORK

EXHIBIT A
SCOPE OF WORK
Installation and Disposal of Activated Carbon for P1&P2 Co-Gen Facilities
Specification No. S-2022-1289BD

A. PURPOSE

This scope of work describes the materials, and installation and disposal requirements for one change out of the digester gas fuel filter system media located at the Orange County Sanitation District's (OC San) Plant No. 1 (10844 Ellis Ave. Fountain Valley, CA) & Plant No. 2 (22212 Brookhurst, Huntington Beach, CA). Services are to be performed up to twelve (12) times per year.

Plant No. 1 gas cleaning system consists of two (2) vessels. The vessels normally operate in series (primary vessel and polisher vessel). Plant No. 2 gas cleaning system consists of three (3) vessels. Two vessels normally operate in series (primary vessel and polisher vessel), and the third vessel is a standby vessel. Appendix A includes the system pictures and Appendix B has the system drawings.

B. SCOPE OF WORK

The change out of filter media will occur as soon as possible after contract award. The Contractor shall be responsible for providing a Certificate of Analysis for the carbon prior to installation. The delivery process shall include the following steps:

1. Delivery of the media to the OC San plant
2. Purging the storage vessel with nitrogen prior to opening
3. Removal of the existing spent media with vacuum truck
4. Installation of the new media in order as specified below
5. Resealing of vessel, purging of the vessel with Nitrogen, and checking for leaks
6. Inspect and replace tank gasket, as needed.
7. Testing of the spent media for suitability for transport and disposal (if required by Contractor)
8. Removal and disposal of spent media

The Contractor is required to equip their worksite staff with the following safety equipment:

1. One keyed lock per employee
2. Hard hat
3. Safety Glasses
4. Steel Toed Shoes
5. Hand protection
6. Safety Vest
7. Full Body Harness
8. Proper length Lanyard
9. 4-gas personal monitors

The Contractor is also required to provide the nitrogen required for purging the Carbon vessel, a vacuum truck capable of holding all 9900lbs, a man lift and a

forklift to facilitate the work. The equipment shall be on site prior to the start of work. The Contractor shall coordinate the schedule and the work with OC San and shall make every effort to minimize the total time for the change out.

C. THE ORDER OF INSTALL FOR EACH VESSEL WILL BE AS FOLLOWS:

1. 80, 4mm will be on the bottom of the vessel
2. 70, 4x8 Coconut shell will be in the center of the vessel
3. 70, 4mm will be the top layer of the vessel

D. FILTER MATERIAL FOR EACH VESSEL SHALL BE:

1. 3300 pounds of 4mm pelletized 70 CTC Virgin based Coal based activated carbon (Top)
2. 3300 pounds of 4x8 70 CTC Virgin based Coconut shell activated carbon (Middle)
3. 3300 pounds of 4mm pelletized 80 CTC Virgin based Coal based activated carbon (Bottom)

It shall have the following physical properties:

1. Carbon Tetrachloride Active noted above)	(ASTM D3467)	70-80% min. (as
2. Density	(ASTM D2854)	0.5 ± 0.03 g/cc
3. Moisture Content	(ASTM D2867)	2-5%
4. Ash	(ASTM D2866)	12% max
5. Hardness	(ASTM D3802)	87-90 minimum
6. Mesh size	(4mm and 4X8 as noted above)	

The filter media shall be clean and free from all dirt, wood, plastic particulate matter or foreign substances. The Certificate of Analysis from an independent laboratory indicating above physical properties as well as Material Safety Data Sheet (MSDS) sheet must be submitted with the bill of lading. The Certificate of Analysis shall contain the analysis date, Bill of Lading number, and above properties. The Carbon Tetrachloride Activity Test may be replaced by Butane Activity Test (ASTM D5742) by the certified laboratory. Analysis of product samples and product troubleshooting analysis are the responsibility of the Contractor. OC San reserves the right to verify product quality using the methods above, as needed, at the Contractor's expense.

OC San may reject any delivery of the filter material which does not meet the product specifications. The Contractor shall remove the rejected material immediately following telephone notification. The Contractor shall replace the volume of removed material immediately.

E. STAFF ASSISTANCE

An OC San Project Manager will be assigned to work with the Contractor for this project. All work will be scheduled through the Project Manager or a designee.

Appendix “A”

Plant 1 - Gas Cleaning System



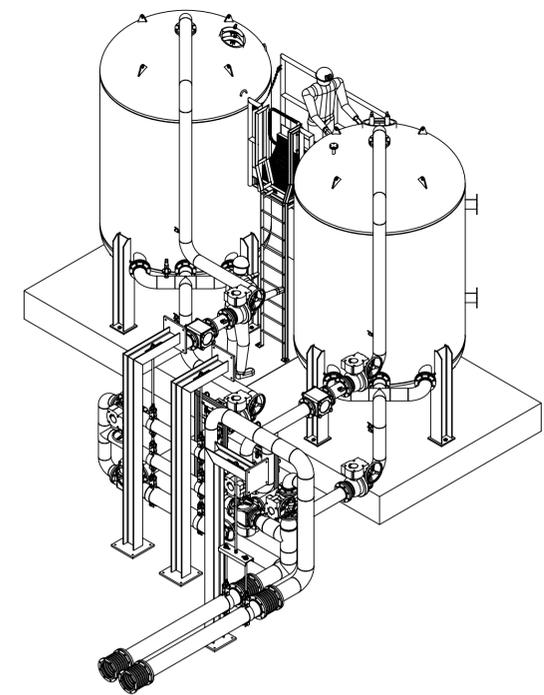
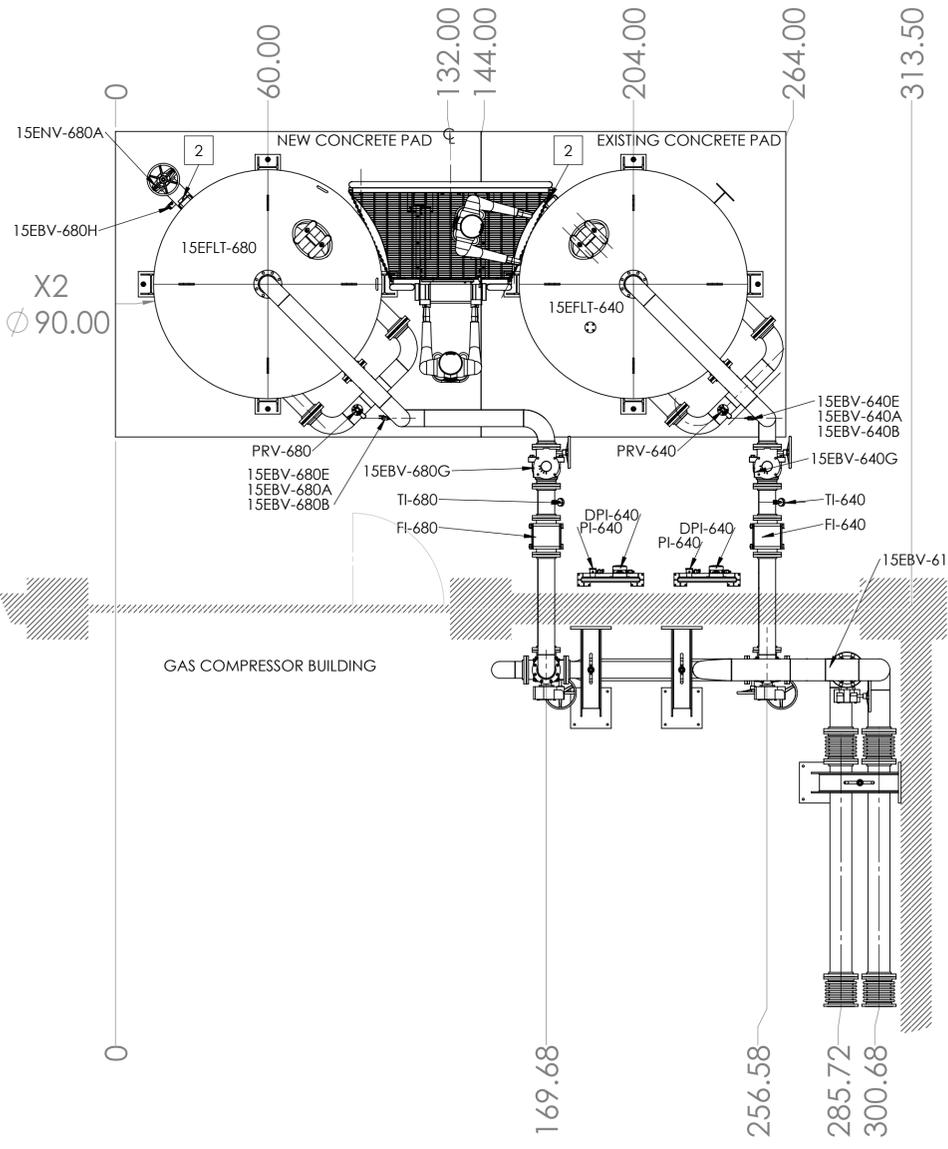
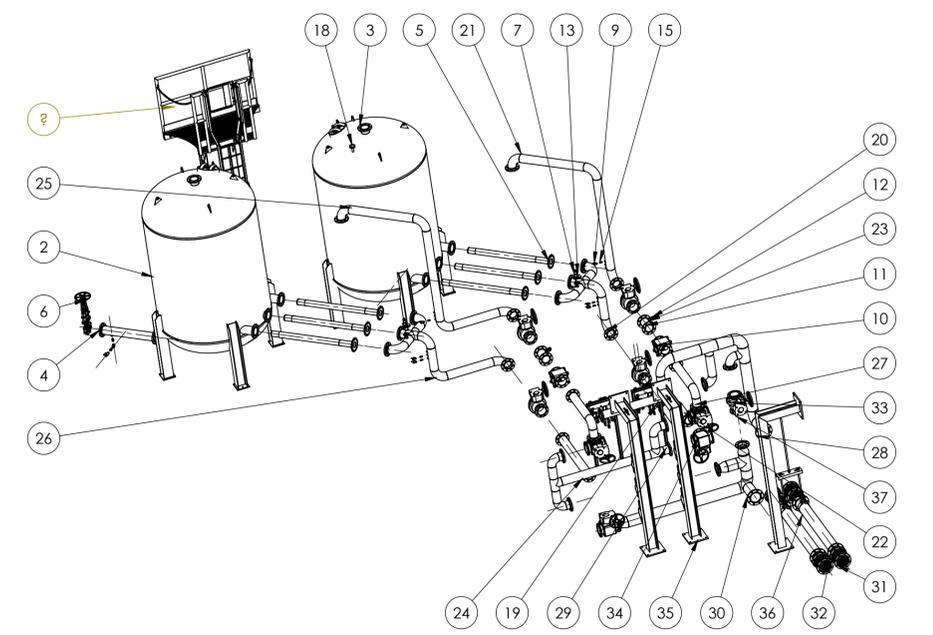
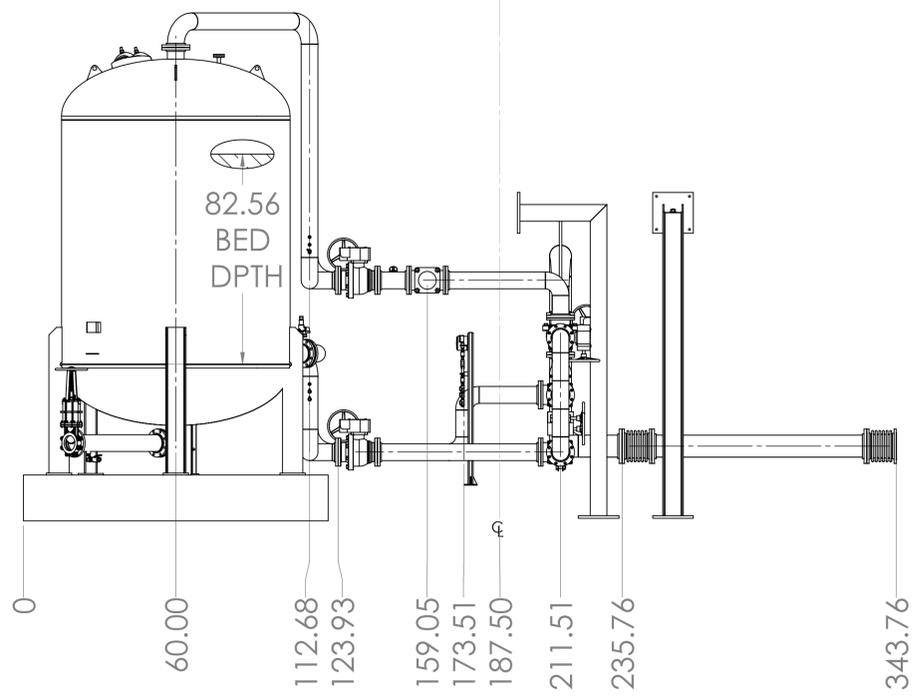
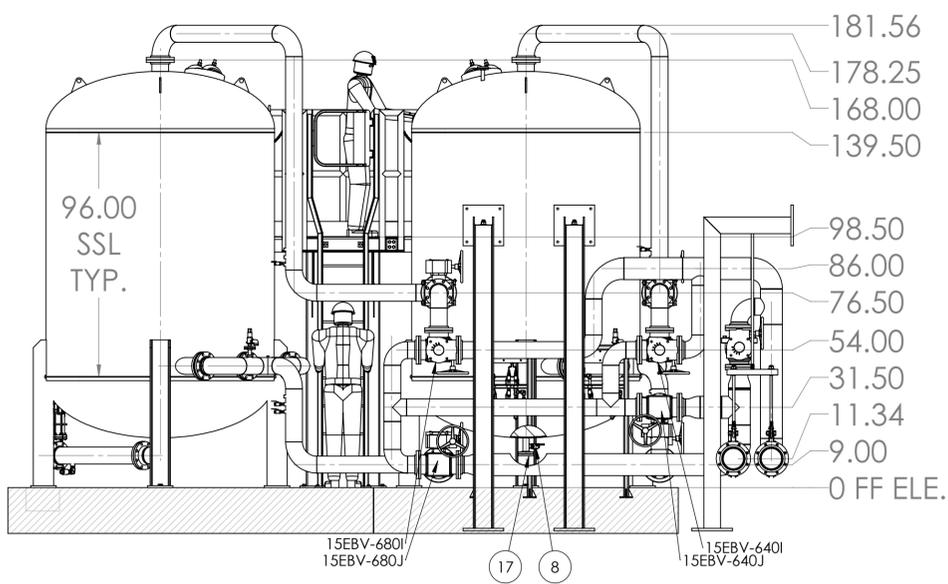
Plant 2 - Gas Cleaning System



Appendix “B”

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

NOTES:
 1. WEIGHT LISTED IS FULLY LADEN, WITH VESSELS FILLED WITH 9900 LB'S OF SAG MEDIA PER VESSEL
 2. VESSEL GROUNDING LUG LOCATIONS



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	502102 WORK PLATFORM ASSY	B&V PLATFORM ASSY	1
2	500063 90IN DIA. X 96IN SSL VESSEL ASSY_AS_BUILT	Right Hand Vessel	1
3	500063 90IN DIA. X 96IN SSL VESSEL ASSY_AS_BUILT	Existing Vessel	1
4	Pipe_5-502100 OCSD SITE 2, 3 VESSEL SAG ASSEMBLY	PIPE SPOOL	1
5	502101 SEPTA FILTER	Septa, 6" 150# x 82"	6
6	800640 6in 150LB KNIFE GATE VALVE	Fabricast FV 150-BB	1
7	800447 Pressure Relief Valve, 1in x 1in	Kunkle 916, 1in inlet X 1in outlet	2
8	800216 1 IN FNPT BALL VALVE	Valve, ball, 1" SS thd, APOLLO	2
9	800022 .5in ball valve	304 SS Ball .5in Valve	6
10	Flowmeter, 6in 150LB Flanged.	John C. Ernst #216 Flow indicator	2
11	800486 THERMOWELL, .75in	.75in NPT X .5in NPT X 6in U Dim.	2
12	800488 Temp Indicator	6IN STEM LENGTH, STD MOUNT	2
13	4452K476	1in MNPT x FNPT Elbow.	2
14	Threaded Pipe 1 in, Sch 40-2	1IN, SCH 40, CLOSE, PIPE NIPPLE	3
15	Threaded Pipe 0.5 in, Sch 40-2	SCH 40 Threaded Pipe	6
16	CLASS 150 THREADED ELBOW, 1.00 IN	1" Threaded Elbow	1
17	Fig. Bld, NPS 2in, CLASS ASME 150, RF	BLIND FLANGE	1
18	Fig. Bld, NPS 1in, CLASS ASME 150, RF	BLIND FLANGE	1
19	502104 OUTDOOR INSTRUMENTATION PANEL	PI/DPI INST. PANEL	2
20	Pipe_14-502105 OCSD SITE 1 ASSEMBLY	Vessel Outlet Header Spool	1
21	Pipe_17-502105 OCSD SITE 1 ASSEMBLY	GAS INLET SPOOL	1
22	Pipe_13-502105 OCSD SITE 1 ASSEMBLY	PIPE SPOOL	1
23	Pipe_15-502105 OCSD SITE 1 ASSEMBLY	PIPE SPOOL	2
24	Pipe_12-502105 OCSD SITE 1 ASSEMBLY	PIPE SPOOL	1
25	Pipe_9-502105 OCSD SITE 1 ASSEMBLY	GAS INLET SPOOL	1
26	Pipe_10-502105 OCSD SITE 1 ASSEMBLY	Vessel Outlet Header Spool	1
27	Pipe_16-502105 OCSD SITE 1 ASSEMBLY	PIPE SPOOL	2
28	Pipe_18-502105 OCSD SITE 1 ASSEMBLY	PIPE SPOOL	1
29	Pipe_19-502105 OCSD SITE 1 ASSEMBLY	PIPE SPOOL	1
30	Pipe_20-502105 OCSD SITE 1 ASSEMBLY-001	PIPE SPOOL	1
31	800638 FLEX JOINT, 8INCH 150LB	8IN 150LB FLEXIBLE COUPLING	4
32	Pipe_21-502105 OCSD SITE 1 ASSEMBLY	PIPE SPOOL	2
33	800632 6in, 150LB Flanged Ball Valve	Ball Valve, 6inch 150lb RFSO	5
34	800641 6in, 150LB, 3 WAY BALL VALVE	6IN, 150LB, 3 WAY BALL VALVE	4
35	502109 CONSTANT SUPPORT ASSY	CONSTANT SUPPORT ASSY	2
36	502110 CONSTANT SUPPORT ASSY	CONSTANT SUPPORT ASSY	1
37	800643 GEAR OPERATOR,	SHARPE SG-16, GEAR OPERATOR	9

ROBINSON GROUP LLC
 20203 95th AVE
 TUALATIN OR 97062
 (425)420-1979

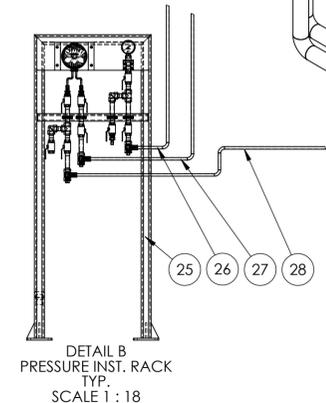
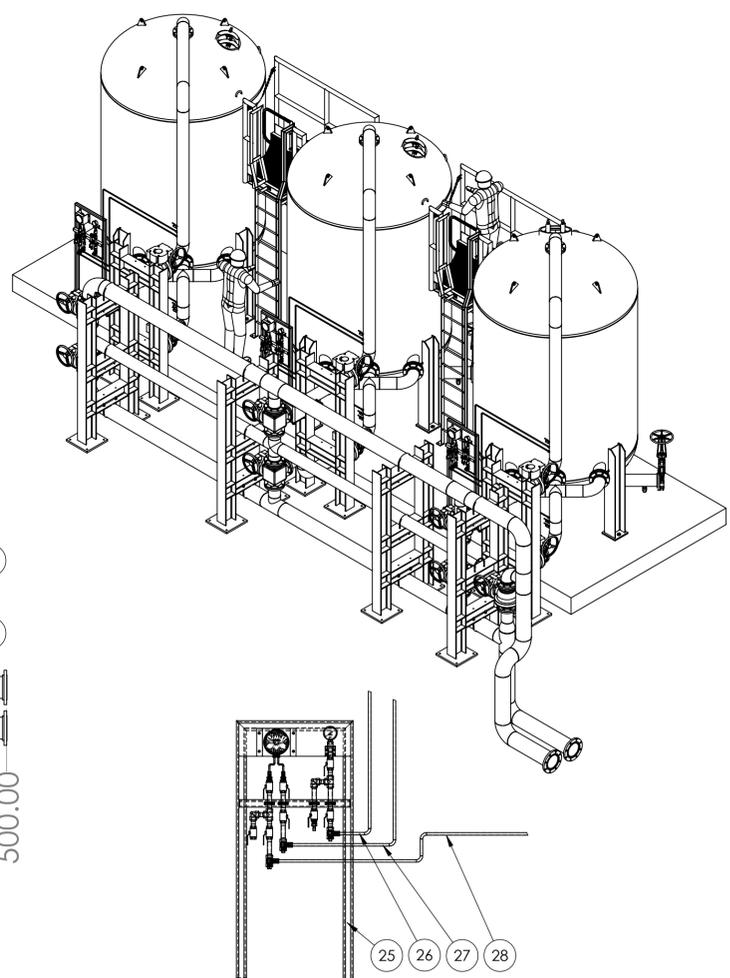
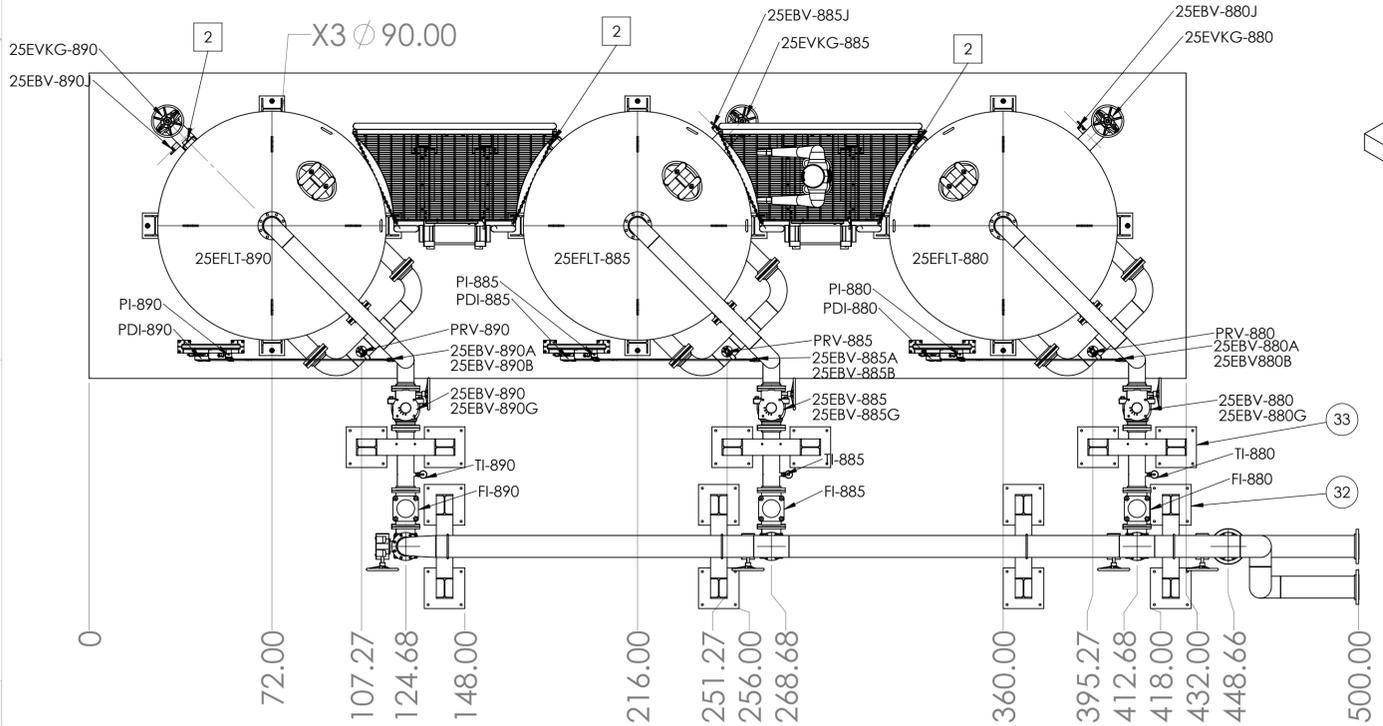
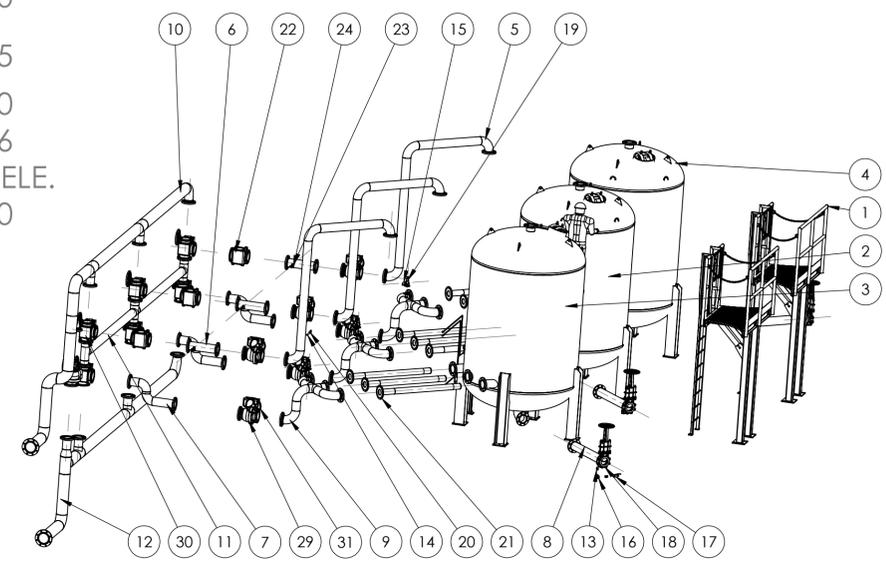
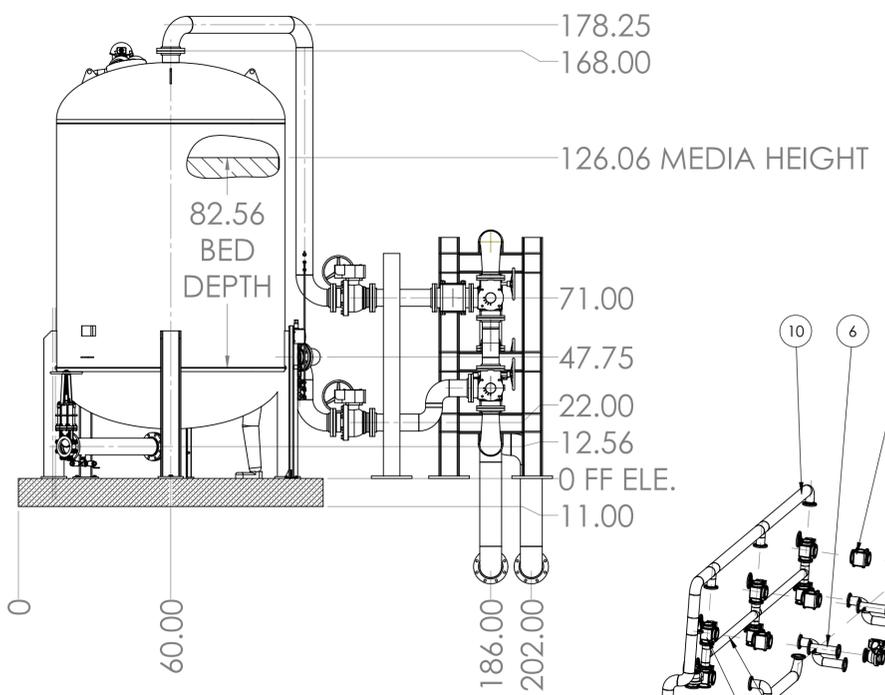
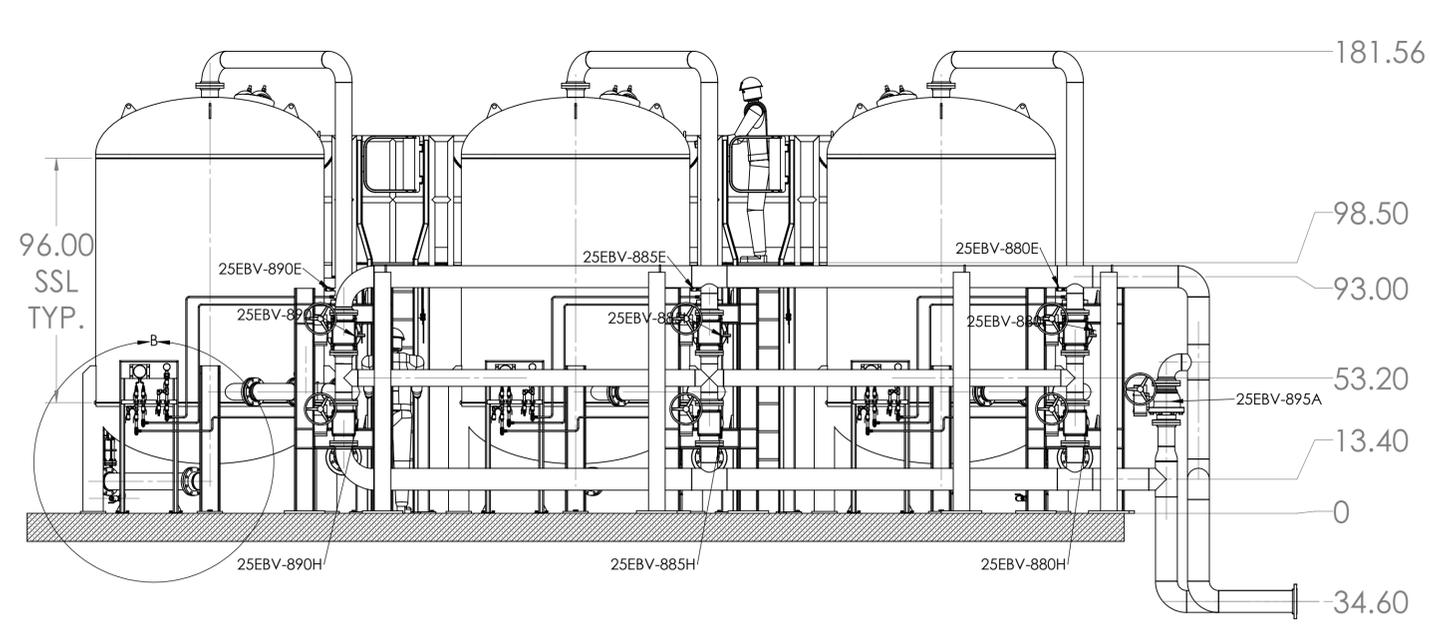
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 ASME Y14.5-2009

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DATE: 7/24/2014
 NAME: MRH
 TITLE: OCSD SITE 1
 TITLE: 502105 OCSD SITE 1 ASSEMBLY
 TITLE: SITE 1, 2 VESSEL ARRANGEMENT
 SIZE: DWG. NO. 1
 SCALE: 1:48 WEIGHT: 139162 SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

NOTES:
 1. WEIGHT LISTED IS FULLY LADEN, WITH VESSELS FILLED WITH 9900 LB'S OF SAG MEDIA PER VESSEL
 2. VESSEL GROUNDING LUGS.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	502102 WORK PLATFORM ASSY	B&V PLATFORM ASSY	1
2	500063 90IN DIA. X 96IN SSL VESSEL ASSY_AS_BUILT	Right Hand Vessel Alt Drain	2
3	500063 90IN DIA. X 96IN SSL VESSEL ASSY_AS_BUILT	Left Hand Vessel	1
4	500063 90IN DIA. X 96IN SSL VESSEL ASSY_AS_BUILT	Right Hand Vessel	1
5	Pipe_2-502100 OCSD SITE 2, 3 VESSEL ASSEMBLY	GAS INLET SPOOL	3
6	Pipe_3-502100 OCSD SITE 2, 3 VESSEL ASSEMBLY	PIPE SPOOL	3
7	Pipe_4-502100 OCSD SITE 2, 3 VESSEL ASSEMBLY	PIPE SPOOL	3
8	Pipe_5-502100 OCSD SITE 2, 3 VESSEL SAG ASSEMBLY	PIPE SPOOL	3
9	Pipe_6-502100 OCSD SITE 2, 3 VESSEL ASSEMBLY	Vessel Outlet Header Spool	3
10	Pipe_7-502100 OCSD SITE 2, 3 VESSEL ASSEMBLY	PIPE SPOOL	1
11	Pipe_8-502100 OCSD SITE 2, 3 VESSEL ASSEMBLY	PIPE SPOOL	1
12	Pipe_9-502100 OCSD SITE 2, 3 VESSEL ASSEMBLY	PIPE SPOOL	1
13	Threaded Pipe 1 in, Sch 40-2	1IN, SCH 40, CLOSE, PIPE NIPPLE	6
14	Threaded Pipe 0.5 in, Sch 40-1.5	.5IN SCH40, CLOSE, PIPE NIPPLE	9
15	4452K476	1in MNPT x FNPT Elbow.	3
16	CLASS 3000 THREADED ELBOW, 1.00 IN	90 degree elbow, threaded	3
17	800216 1 IN FNPT BALL VALVE	Valve, ball, 1" SS thd, APOLLO	3
18	800640 6in 150LB KNIFE GATE VALVE	Fabricast FV 150-BB	3
19	800447 Pressure Relief Valve, 1in x 1in	Kunkle 916, 1in inlet X 1in outlet	3
20	800022 .5in ball valve	304 SS Ball .5in Valve	9
21	502101 SEPTA FILTER	Septa, 6" 150# x 82"	9
22	Flowmeter, 6in 150LB Flanged.	John C. Ernst #216 Flow indicator	3
23	800486 THERMOWELL, .75in	.75in NPT X .5in NPT X 6in U Dim.	3
24	800488 Temp Indicator	6IN STEM LENGTH, STD MOUNT	3
25	502104 OUTDOOR INSTRUMENTATION PANEL	PI/DPI INST. PANEL	3
26	Tube_3-502100 OCSD SITE 2, 3 VESSEL SAG ASSEMBLY	PI TUBING ASSY	3
27	Tube_4-502100 OCSD SITE 2, 3 VESSEL SAG ASSEMBLY	HI DPI TUBING	3
28	Tube_5-502100 OCSD SITE 2, 3 VESSEL SAG ASSEMBLY	LOW DPI TUBING	3
29	800632 6in, 150LB Flanged Ball Valve	Ball Valve, 6inch 150lb RFSO	7
30	800641 6in, 150LB, 3 WAY BALL VALVE	6IN, 150LB, 3 WAY BALL VALVE	6
31	800643 GEAR OPERATOR,	SHARPE SG-16, GEAR OPERATOR	13
32	502110 PIPE SUPPORT RACK	FIXED PIPE SUPPORT RACK, SITE 2	4
33	502112 PIPE SUPPORT RACK ASSY	W8X28 PIPE RACK SUPPORT	3

ROBINSON GROUP LLC
 20203 95th AVE
 TUALATIN OR 97062
 (425)420-1979

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 TOLERANCES:
 FRACTIONAL ±
 ANGULAR: MACH ±
 BEND ±
 TWO PLACE DECIMAL ±
 THREE PLACE DECIMAL ±
 INTERPRET GEOMETRIC TOLERANCES PER:
 ASME Y14.5-2009

PROPRIETARY AND CONFIDENTIAL
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DATE: 7/25/2014
 NAME: MRH
 DRAWN: MRH
 CHECKED: MRH
 ENG APPR: MRH
 MFG APPR: MRH
 P&ID REF #
 COMMENTS:

OCSD SITE 2
 TITLE: 502100 OCSD SITE 2, 3 VESSEL SAG ASSEMBLY
 3 VESSEL, DOWNFLOW, LEAD LAG, SAG ASSY, 90IN DIA X 96IN SSL

SIZE DWG. NO. 1
 REV 0
 SCALE: 1:48 WEIGHT: SHEET 1 OF 1

Exhibit “B”

BID

Bid Results

Bidder Details

Vendor Name Carbon Bulk Sales
Address 1791 Kaiser Ave
Irvine, California 92614
United States
Respondee Joseph Hunter
Respondee Title Account Manager
Phone 949-732-3318
Email jhunter@carbonbulksales.com
Vendor Type
License #
CADIR

Bid Detail

Bid Format Electronic
Submitted 04/26/2022 1:07 PM (PDT)
Delivery Method
Bid Responsive Yes
Bid Status Submitted
Confirmation # 289183

Respondee Comment

Buyer Comment

Attachments

File Title	File Name	File Type
OSCD Bid - Exhibit M.pdf	OSCD Bid - Exhibit M.pdf	Exhibit M
OCSD Bid - Exhibit_ K,L.pdf	OCSD Bid - Exhibit_ K,L.pdf	Exhibits K,L
OCSD Bid - Exhibit_ C,G,H,I,J.pdf	OCSD Bid - Exhibit_ C,G,H,I,J.pdf	Exhibits C,G,H,I,J

Line Items

Discount Terms No Discount

Item #	Item Code	Type	Item Description	UOM	QTY	Unit Price	Line Total	Response	Comment
Total Lump Sum Cost for up to Twelve (12) Service/Change-Outs of the Digester Gas Fuel Filter System Media at Plants 1 & 2 including Labor, Materials, Installation, Disposal, CA Sales Tax, Supplies, Misc. Cost and Freight (F.O.B. Destination). OC San Does Not Guarantee Usage.							\$420,972.00		
1			Total Cost for One (1) Service/Change-Out of the Digester Gas Fuel Filter System Media at Plant 1 (Fountain Valley) including Labor, Materials, Installation, Disposal, CA Sales Tax, Supplies, Misc. Cost and Freight (F.O.B. Destination). Estimated at 5 change outs per year	Per Service/Change Out	5	\$35,081.00	\$175,405.00	Yes	
2			Total Cost for One (1) Service/Change-Out of the Digester Gas Fuel Filter System Media at Plant 2 (Huntington Beach) including Labor, Materials, Installation, Disposal, CA Sales Tax, Supplies, Misc. Cost and Freight (F.O.B. Destination). Estimated at 7 change outs per year	Per Service/Change Out	7	\$35,081.00	\$245,567.00	Yes	

Line Item Subtotals

Section Title	Line Total
Total Lump Sum Cost for up to Twelve (12) Service/Change-Outs of the Digester Gas Fuel Filter System Media at Plants 1 & 2 including Labor, Materials, Installation, Disposal, CA Sales Tax, Supplies, Misc. Cost and Freight (F.O.B. Destination). OC San Does Not Guarantee Usage.	\$420,972.00
<p style="text-align: right;">Grand Total</p>	\$420,972.00



OPERATIONS COMMITTEE

Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

Agenda Report

File #: 2022-2230

Agenda Date: 6/1/2022

Agenda Item No: 6.

FROM: James D. Herberg, General Manager
Originator: Kathy Millea, Director of Engineering

SUBJECT:

ENERGY AND DIGESTER GAS MASTER PLAN, PROJECT NO. PS21-04

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A Approve a Professional Services Agreement with Brown and Caldwell to provide engineering services for the Energy and Digester Gas Master Plan, Project No. PS21-04, for an amount not to exceed \$1,438,037; and
- B. Approve a contingency of \$143,804 (10%).

BACKGROUND

In the early 1990s, Orange County Sanitation District (OC San), constructed eight internal combustion engines at the Central Generation facilities at Plant Nos. 1 and 2 to generate electricity using digester gas with the waste heat used for digester heating, building cooling, and power generation. During normal operating conditions, the Central Generation facilities supply approximately 60% of the electricity at Plant No. 1 and 95% of the electricity at Plant No. 2.

OC San staff performs routine and regular maintenance based on hours of run-time per the manufacturer's recommendations. Recently, Engine No. 1 underwent its first bottom-end overhaul at 120,000 hours of run-time. The first two overhaul attempts on this engine using a contractor selected by a request for proposal process were unsuccessful. Using the original equipment manufacturer, the third overhaul was successful. OC San is planning to complete the overhaul of four more engines across both Plants to provide reliable operations for another 15-20 years.

During a utility power outage, OC San utilizes standby generators to provide primary treatment and keep water flowing through the treatment plants. The Central Generation facilities provide standby power for the remaining select treatment processes. Recently, the Regional Water Quality Control Board requested that OC San provide a standby power source to the Plant No. 2 Trickling Filter Solids Contact Facility, to prevent the bypassing of primary effluent flow during a power outage.

OC San's 2021 Strategic Plan includes an Energy Independence Policy. With this policy in place, OC San strives to be a net energy exporter by maximizing electrical, thermal and methane gas generation while minimizing energy utilization.

RELEVANT STANDARDS

- Comply with environmental permit requirements
- 24/7/365 treatment plant reliability
- Protect OC San assets
- Sustain 1, 5, 20-year planning horizons

PROBLEM

Although the Central Generation facilities can be maintained for another 15 to 20 years, there are concerns that critical parts needed to maintain these engines may not be available over time. South Coast Air Quality Management District's (SCAQMD) air quality discharge requirements continue to become more stringent and there may be a time when the Central Generation facilities will no longer meet these evolving standards.

OC San's National Pollutant Discharge Elimination System (NPDES) permit requires permit compliance during a power outage. OC San does not have a standby power policy that addresses the latest probable outage durations based on recent utility grid risks and which secondary and solids treatment processes need to have standby power and for what power outage duration.

PROPOSED SOLUTION

Develop an Energy and Digester Gas Master Plan that will provide a road map with options for OC San's beneficial use of digester gas. This study will look at long-term options if the engines can no longer be maintained due to lack of parts, or if SCAQMD regulations become more stringent. This study will also establish a standby power policy, update OC San's power outage response plan and procedures, and evaluate alternative power generation and energy storage methods.

TIMING CONCERNS

Conducting this study now will provide a road map that includes options with implementation triggers to guide timely future Capital Improvement Program (CIP) projects that will address the beneficial use of digester gas and standby power needs.

RAMIFICATIONS OF NOT TAKING ACTION

If the Central Generation engines can no longer be maintained due to unavailability of parts, or if the engines can no longer meet SCAQMD requirements, OC San would need to find another means to beneficially use digester gas, construct additional backup power facilities, and purchase additional electricity. OC San could also face potential permit violations due to not meeting treatment requirements during a power outage due to the lack of a defined standby power policy.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATIONConsultant Selection:

OC San requested and advertised for proposals for the Energy and Digester Gas Master Plan, Project No. PS21-04 on December 10, 2021. The following evaluation criteria were described in the Request for Proposals (RFP) and used to determine the most qualified Consultant.

CRITERION	WEIGHT
Project Understanding and Approach	40%
Related Project Experience	25%
Project Team and Staff Qualifications	35%

Three proposals were received on February 8, 2022 and evaluated in accordance with the evaluation process set forth in OC San's Purchasing Ordinance by a pre-selected Evaluation Team consisting of OC San staff: Engineering Manager, Engineering Supervisor, and Maintenance Manager. The Evaluation Team also included one non-voting representative from the Contracts Administration Division and one non-voting technical advisor. The Evaluation Team scored the proposal on the established criteria as summarized in the table below:

	Firm	Approach (Max 40)	Related Experience (Max 25)	Team (Max 35)	Total Score (Max 100)
1	Brown and Caldwell	37	18	23	78
2	Arcadis US, Inc.	25	20	28	73
3	Carollo Engineers, Inc.	24	20	28	72

Based on this scoring, all Consultants were shortlisted for interviews on March 17, 2022. Following the interview, each member of the Evaluation Team scored the Consultants based on both the proposals and interviews using the evaluation criteria and weighting described above. Based on the scoring shown below, Brown and Caldwell was selected as the most qualified Consultant.

	Firm	Approach (Max 40)	Related Experience (Max 25)	Team (Max 35)	Total Score (Max 100)
1	Brown and Caldwell	35	19	26	80
2	Arcadis US, Inc.	31	19	28	78
3	Carollo Engineers, Inc.	23	19	27	69

The selected team demonstrated clear understanding of the goals of the study and presented a clear approach to performing the work, including the development of a process-based standby power policy. In addition, they showed a wide range of experience using digester gas in beneficial ways along with key regulations that need to be addressed. They are also offering a team with experience preparing master plans that focus on energy, digester gas, and standby power requirements based on process needs.

Review of Fee Proposal and Negotiations:

Proposals were accompanied by sealed fee proposals. In accordance with OC San’s Purchasing Ordinance, the fee proposal of only the highest-ranked firm was opened after approval by the Director of Engineering of the Evaluation Committee’s recommendation.

Staff conducted negotiations with Brown and Caldwell to clarify the requirements of the Scope of Work, the assumptions used for the estimated level of effort, and the proposed approach to meet the goals and objectives for the project. These discussions occurred over three negotiation meetings with the main outcome listed below:

- The level of effort was reduced based on clarifications to the scope of work and reduced efforts that are required to update standard operating procedures for power outages and emergency responses. Reduced efforts were also applied to evaluation for future Central Generation facility replacement alternatives.
- The effort for senior level support was reduced for some tasks and transferred to support staff based on clarifications to the scope of work.
- Brown and Caldwell had included hours for a vendor solicitation task, which was not part of the Scope of Work. These hours were removed after clarification.

	Original Fee Proposal	Negotiated Fee
Total Hours	6,149	5,794
Total Fee	\$1,544,691.50	\$1,438,036.90

The Consultant’s fringe and overhead costs, which factor into the billing rate, have been substantiated. The agreement profit is 7.79%, which is based on an established formula based on OC San’s standard design agreements.

Based on the above, staff has determined that the final negotiated fee is fair and reasonable for the level of effort required for this project and recommends award of the Professional Design Services Agreement to Brown and Caldwell.

CEQA

The project is exempt from CEQA under the statutory exemptions set forth in CEQA Guidelines Section 15262. A Notice of Exemption will be filed with the OC Clerk-Recorder after OC San’s Board of Directors approval of the Professional Services Agreement.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San’s Purchasing Ordinance. This item has been budgeted (Budget Update, Fiscal Year 2021-2022, Appendix A, Page 9, Master Planning Studies, M-STUDIES) and the budget is sufficient for the recommended action.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

- Professional Services Agreement
- Presentation

PROFESSIONAL SERVICES AGREEMENT

This PROFESSIONAL SERVICES AGREEMENT, (hereinafter referred to as "Agreement"), is made and entered into to be effective the 22nd day of June, 2022, by and between the ORANGE COUNTY SANITATION DISTRICT, (hereinafter referred to as "OC SAN"), and BROWN AND CALDWELL, (hereinafter referred to as "CONSULTANT"). OC SAN and CONSULTANT are referred to herein collectively as the "Parties" or individually as a "Party."

WHEREAS, OC SAN desires to engage CONSULTANT for PS21-04 Energy and Digester Gas Master Plan to provide for OC SAN an Energy and Digester Gas Master Plan; and

WHEREAS, CONSULTANT is qualified to provide the necessary services in connection with these requirements and has agreed to provide the necessary professional services; and

WHEREAS, OC SAN has adopted procedures for the selection of professional services and has proceeded in accordance with said procedures to select CONSULTANT to perform this work; and

WHEREAS, at its regular meeting on June 22, 2022 the Board of Directors, by Minute Order, accepted the recommendation of the Operations Committee to approve this Agreement.

NOW, THEREFORE, in consideration of the promises and mutual benefits, which will result to the parties in carrying out the terms of this Agreement, it is mutually agreed as follows:

1. SCOPE OF WORK

CONSULTANT agrees to furnish necessary professional services to accomplish those project elements outlined in the Scope of Work attached hereto as Attachment "A", and by this reference made a part of this Agreement.

- A. The CONSULTANT shall be responsible for the professional quality, technical accuracy, and completeness and coordination of the work and services furnished by the CONSULTANT under this Agreement, including the work performed by its subconsultants (Subconsultants). Where approval by OC SAN is indicated, it is understood to be conceptual approval only and does not relieve the CONSULTANT of responsibility for complying with all applicable laws, regulations, codes, industry standards, and liability for damages caused by errors, omissions, noncompliance with industry standards, and/or negligence on the part of the CONSULTANT or its Subconsultants.
- B. CONSULTANT is responsible for the quality of work prepared under this Agreement and shall perform its work in accordance with engineering standards in effect for clarity, uniformity, and completeness. CONSULTANT shall timely respond to all of OC SAN's questions, comments, suggestions, corrections, and recommendations. All comments from OC SAN, or its agent, shall be incorporated into the work prior to the next review deadline or addressed, in writing, as to why the comment(s) has/have not been incorporated.

CONSULTANT shall ensure that each submittal is 100% accurate for the level of work submitted (i.e., correct references, terms, capitalization, or equal status, spelling, punctuation, etc.).

- C. In the event that CONSULTANT's services and/or work product(s) is not to the satisfaction of OC SAN and/or does not conform to the requirements of this Agreement or the applicable industry standards, the CONSULTANT shall, without additional compensation, promptly correct or revise any errors or deficiencies in its work product(s) within the timeframe specified by the Project Manager. OC SAN may charge to CONSULTANT all costs, expenses and damages associated with any such corrections or revisions.
- D. Any CADD drawings, figures, and other work produced by CONSULTANT and Subconsultants using OC SAN CAD Manual. Conversion of CADD work from any other non-standard CADD format to OC SAN format shall not be acceptable in lieu of this requirement.

Electronic files shall conform to OC SAN specifications. Any changes to these specifications by the CONSULTANT are subject to review and require advance written approval of OC SAN.

Electronic files shall be subject to an acceptance period of Number thirty (30) calendar days during which OC SAN shall perform appropriate reviews and including CAD Manual compliance. CONSULTANT shall correct any discrepancies or errors detected and reported within the acceptance period at no additional cost to OC SAN.

- E. All professional services performed by the CONSULTANT, including, but not limited to, all drafts, data, correspondence, proposals, and reports compiled or composed by the CONSULTANT, pursuant to this Agreement, are for the sole use of OC SAN, its agents and employees. Neither the documents nor their contents shall be released to any third party without the prior written consent of OC SAN. This provision does not apply to information that (a) was publicly known, or otherwise known to the CONSULTANT, at the time that it was disclosed to the CONSULTANT by OC SAN, or (b) subsequently becomes publicly known to the CONSULTANT other than through disclosure by OC SAN.
- F. The OC SAN shall furnish the CONSULTANT available studies, reports and other data pertinent to the CONSULTANT's service and not otherwise confidential or restricted from disclosure; obtain or authorize the CONSULTANT to obtain or provide additional reports and data as required; furnish to the CONSULTANT services of others required for the performance of the CONSULTANT's services hereunder, and the CONSULTANT shall be entitled to use and rely upon all such information and services provided by the OC SAN or others in performing the CONSULTANT's services under this Agreement.
- G. CONSULTANT shall not be responsible for delays caused by circumstances beyond its reasonable control, including, but not limited to (1) strikes, lockouts, work slowdowns or stoppages or accidents, and (2) acts of God. While CONSULTANT has made reasonable efforts to incorporate into its plan for the Project any known current project impacts of the COVID-19 pandemic, CONSULTANT has not accounted for, and is not responsible for, unknown future changes due to the COVID-19 pandemic, including, without limitation, additional restrictions by government agencies or others (such as the availability of the site

for access or client or consultant staff or others) to the extent they delay or otherwise impact the Project. In that event, CONSULTANT will notify OC SAN and work in good faith to equitably address any unexpected impacts therefrom.

2. COMPENSATION

Total compensation shall be paid to CONSULTANT for the services in accordance with the following provisions:

A. Total Compensation

Total compensation shall be in an amount not to exceed One Million Four Hundred Thirty-eight Thousand Thirty-six Dollars (\$1,438,036.00). Total compensation to CONSULTANT including burdened labor (salaries plus benefits), overhead, profit, direct costs, and Subconsultant(s) fees and costs shall not exceed the sum set forth in Attachment "E" - Fee Proposal.

B. Labor

As a portion of the total compensation to be paid to CONSULTANT, OC SAN shall pay to CONSULTANT a sum equal to the burdened salaries (salaries plus benefits) actually paid by CONSULTANT charged on an hourly-rate basis to this project and paid to the personnel of CONSULTANT. Upon request of OC SAN, CONSULTANT shall provide OC SAN with certified payroll records of all employees' work that is charged to this project.

C. Overhead

As a portion of the total compensation to be paid to CONSULTANT, OC SAN shall compensate CONSULTANT and Subconsultants for overhead at the rate equal to the percentage of burdened labor as specified in Attachment "E" - Fee Proposal.

D. Profit

Profit for CONSULTANT and Subconsultants shall be a percentage of consulting services fees (Burdened Labor and Overhead). When the consulting or subconsulting services amount is \$250,000 or less, the maximum Profit shall be 10%. Between \$250,000 and \$2,500,000, the maximum Profit shall be limited by a straight declining percentage between 10% and 5%. For consulting or subconsulting services fees with a value greater than \$2,500,000, the maximum Profit shall be 5%. Addenda shall be governed by the same maximum Profit percentage after adding consulting services fees.

As a portion of the total compensation to be paid to CONSULTANT and Subconsultants, OC SAN shall pay profit for all services rendered by CONSULTANT and Subconsultants for this project according to Attachment "E" - Fee Proposal.

E. Subconsultants

For any Subconsultant whose fees for services are greater than or equal to \$100,000 (excluding out-of-pocket costs), CONSULTANT shall pay to Subconsultant total compensation in accordance with the Subconsultant amount specified in Attachment “E” - Fee Proposal.

For any Subconsultant whose fees for services are less than \$100,000, CONSULTANT may pay to Subconsultant total compensation on an hourly-rate basis per Attachment “J” – Minor Subconsultant Hourly Rate Schedule and as specified in the Scope of Work. OC SAN shall pay to CONSULTANT the actual costs of Subconsultant fees and charges in an amount not to exceed the sum set forth in Attachment “E” - Fee Proposal.

F. Direct Costs

OC SAN shall pay to CONSULTANT and Subconsultants the actual costs of permits and associated fees, travel and licenses for an amount not to exceed the sum set forth in Attachment “E” - Fee Proposal. OC SAN shall also pay to CONSULTANT actual costs for equipment rentals, leases or purchases with prior approval of OC SAN. Upon request, CONSULTANT shall provide to OC SAN receipts and other documentary records to support CONSULTANT’s request for reimbursement of these amounts, see Attachment “D” - Allowable Direct Costs. All incidental expenses shall be included in overhead pursuant to Section 2 - COMPENSATION above.

G. Other Direct Costs

Other Direct Costs incurred by CONSULTANT and its Contractor due to modifications to the Scope of Work resulting from field investigations and field work required by the Agreement. These items may include special equipment, test equipment and tooling and other materials and services not previously identified. Refer to attachment “D” Allowable Direct Costs for payment information.

H. Reimbursable Direct Costs

OC SAN will reimburse the CONSULTANT for reasonable travel and business expenses as described in this section and further described in Attachment “D” - Allowable Direct Costs to this Agreement. The reimbursement of the above-mentioned expenses will be based on an “accountable plan” as considered by Internal Revenue Service (IRS). The plan includes a combination of reimbursements based upon receipts and a “per diem” component approved by IRS. The most recent schedule of the per diem rates utilized by OC SAN can be found on the U.S. General Service Administration website at <http://www.gsa.gov/portal/category/104711#>.

The CONSULTANT shall be responsible for the most economical and practical means or management of reimbursable costs inclusive but not limited to travel, lodging and meals arrangements. OC SAN shall apply the most economic and

practical method of reimbursement which may include reimbursements based upon receipts and/or “per diem” as deemed the most practical.

CONSULTANT shall be responsible for returning to OC SAN any excess reimbursements after the reimbursement has been paid by OC SAN.

Travel and travel arrangements – Any travel involving airfare, overnight stays or multiple day attendance must be approved by OC SAN in advance.

Local Travel is considered travel by the CONSULTANT within OC SAN geographical area which includes Orange, Los Angeles, Ventura, San Bernardino, Riverside, San Diego, Imperial, and Kern Counties. Automobile mileage is reimbursable if CONSULTANT is required to utilize personal vehicle for local travel.

Lodging – Overnight stays will not be approved by OC SAN for local travel. However, under certain circumstances overnight stay may be allowed at the discretion of OC SAN based on reasonableness of meeting schedules and the amount of time required for travel by the CONSULTANT. Such determination will be made on a case-by-case basis and at the discretion of OC SAN.

Travel Meals – Per-diem rates as approved by IRS shall be utilized for travel meals reimbursements. Per diem rates shall be applied to meals that are appropriate for travel times. Receipts are not required for the approved meals.

Additional details related to the reimbursement of the allowable direct costs are provided in the Attachment “D” - Allowable Direct Costs of this Agreement.

I. Limitation of Costs

If, at any time, CONSULTANT estimates the cost of performing the services described in CONSULTANT’s Proposal will exceed seventy-five percent (75%) of the not-to-exceed amount of the Agreement, including approved additional compensation, CONSULTANT shall notify OC SAN immediately, and in writing. This written notice shall indicate the additional amount necessary to complete the services. Any cost incurred in excess of the approved not-to-exceed amount, without the express written consent of OC SAN’s authorized representative shall be at CONSULTANT’s own risk. This written notice shall be provided separately from, and in addition to any notification requirements contained in the CONSULTANT’s invoice and monthly progress report. Failure to notify OC SAN that the services cannot be completed within the authorized not-to-exceed amount is a material breach of this Agreement.

3. REALLOCATION OF TOTAL COMPENSATION

OC SAN, by its Director of Engineering, shall have the right to approve a reallocation of the incremental amounts constituting the Total Compensation, provided that the Total Compensation is not increased.

4. PAYMENT

- A. Monthly Invoice: CONSULTANT shall include in its monthly invoice, a detailed breakdown of costs associated with the performance of any corrections or revisions of the work for that invoicing period, in a format acceptable to OC SAN. CONSULTANT shall warrant and certify the accuracy of these costs and provide all support documentation required by OC SAN. CONSULTANT understands that submitted costs are subject to Section 12 Audit Provisions.
- B. CONSULTANT will submit monthly statements covering services and/or work performed for payment for those items included in Section 2 hereof no later than the second Wednesday of the following month and in the format required by OC SAN. The format must include, as a minimum: 1) current billing period invoicing, 2) current billing period "total percent invoiced to date", 3) future activities, 4) previous billing period "total invoiced to date", 5) potential items that are not included in the Scope of Work, 6) concerns and possible delays, 7) percentage of completion to date, and 8) budget status and amount remaining. Such requests shall be accompanied by such supporting data as may be required by OC SAN.

Upon approval of such payment request by OC SAN, payment shall be made to CONSULTANT as soon as practicable of one hundred percent (100%) of the invoiced amount on a per-project element basis.

If OC SAN determines that the work under this Agreement, or any specified project element hereunder, is incomplete and that the amount of payment is in excess of:

- i. The amount considered by OC SAN's Director of Engineering to be adequate for the protection of OC SAN; or
- ii. The percentage of the work accomplished for each project element.

OC SAN may, at the discretion of the Director of Engineering, retain an amount equal to that which ensures that the total amount paid to that date does not exceed the percentage of the completed work for each project element or the Project in its entirety.

- C. CONSULTANT may submit periodic payment requests for each 30-day period of this Agreement for the profit as set forth in Section 2 - COMPENSATION above. Said profit payment request shall be proportionate to the work actually accomplished to date on a per-project-element basis. In the event OC SAN's Director of Engineering determines that no satisfactory progress has been made since the prior payment, or in the event of a delay in the work progress for any reason, OC SAN shall have the right to withhold any scheduled proportionate profit payment.

- D. Upon satisfactory completion by CONSULTANT of the work called for under the terms of this Agreement, and upon acceptance of such work by OC SAN, CONSULTANT will be paid the unpaid balance of any money due for such work based on the monthly statements, including any retained percentages relating to this portion of the work.
- E. Upon satisfactory completion of the work performed hereunder and prior to final payment under this Agreement for such work, or prior settlement upon termination of this Agreement, and as a condition precedent thereto, CONSULTANT shall execute and deliver to OC SAN a release of all claims against OC SAN arising under or by virtue of this Agreement other than such claims, if any, as may be specifically exempted by CONSULTANT from the operation of the release in stated amounts to be set forth therein.
- F. Pursuant to the California False Claims Act (Government Code sections 12650-12655), any CONSULTANT that knowingly submits a false claim to OC SAN for compensation under the terms of this Agreement may be held liable for treble damages and up to a \$10,000 civil penalty for each false claim submitted. This section shall also be binding on all Subconsultants.

A CONSULTANT or Subconsultant shall be deemed to have submitted a false claim when the CONSULTANT or Subconsultant: (a) knowingly presents or causes to be presented to an officer or employee of OC SAN a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by OC SAN; (c) conspires to defraud OC SAN by getting a false claim allowed or paid by OC SAN; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to OC SAN; or (e) is a beneficiary of an inadvertent submission of a false claim to OC SAN, and fails to disclose the false claim to OC SAN within a reasonable time after discovery of the false claim.

5. PREVAILING WAGES

- A. To the extent CONSULTANT intends to utilize employees who will perform work during the contract, as more specifically defined under Labor Code Section 1720, CONSULTANT shall be subject to prevailing wage requirements with respect to such employees.

6. CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) REGISTRATION AND RECORD OF WAGES

- A. To the extent CONSULTANT's employees and/or Subconsultants who will perform work during the design and preconstruction phases of a construction contract for which Prevailing Wage Determinations have been issued by the DIR and as more specifically defined under Labor Code Section 1720 et seq, CONSULTANT and Subconsultants 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.

- B. The CONSULTANT and Subconsultants 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 Section 1771.4(a)(3). Penalties for non-compliance with the requirements of Section 1776 may be deducted from progress payments per Section 1776.
- C. Pursuant to Labor Code Section 1776, the CONSULTANT and Subconsultants 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 Enforcement of the Department of Industrial Relations.
- D. The CONSULTANT and Subconsultants shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulations Section 16461(e).

7. DOCUMENT OWNERSHIP – CONSULTANT PERFORMANCE

- A. Ownership of Documents for the professional services performed.

All documents in all forms (electronic, paper, etc.), including, but not limited to, studies, sketches, drawings, computer printouts, disk files, and electronic copies prepared in connection with or related to the Scope of Work or professional services, shall be the property of OC SAN. OC SAN's ownership of these documents includes use of, reproduction or reuse of and all incidental rights, whether or not the work for which they were prepared has been performed. OC SAN ownership entitlement arises upon payment or any partial payment for work performed and includes ownership of any and all work product completed prior to that payment. This Section shall apply whether the CONSULTANT's professional services are terminated: a) by the completion of the Agreement, or b) in accordance with other provisions of this Agreement. Notwithstanding any other provision of this paragraph or Agreement, the CONSULTANT shall have the right to make copies of all such plans, studies, sketches, drawings, computer printouts and disk files, and specifications.

- B. CONSULTANT shall not be responsible for damage caused by subsequent changes to or uses of the study or deliverable where the subsequent changes or uses are not authorized or approved by CONSULTANT, provided that the service rendered by CONSULTANT was not a proximate cause of the damage.

8. INSURANCE

- A. General

- i. Insurance shall be issued and underwritten by insurance companies acceptable to OC SAN.
- ii. Insurers must have an "A-" Policyholder's Rating, or better, and Financial Rating of at least Class VIII, or better, in accordance with the most current A.M. Best's Guide Rating. However, OC SAN will accept State

Compensation Insurance Fund, for the required policy of Workers' Compensation Insurance subject to OC SAN's option to require a change in insurer in the event the State Fund financial rating is decreased below "B". Further, OC SAN will require CONSULTANT to substitute any insurer whose rating drops below the levels herein specified. Said substitution shall occur within twenty (20) days of written notice to CONSULTANT, by OC SAN or its agent.

- iii. Coverage shall be in effect prior to the commencement of any work under this Agreement.

B. General Liability

The CONSULTANT shall maintain during the life of this Agreement, including the period of warranty, commercial general liability insurance written on an occurrence basis providing the following minimum limits of liability coverage: One Million Dollars (\$1,000,000) per occurrence with Two Million Dollars (\$2,000,000) aggregate. If aggregate limits apply separately to this contract (as evidenced by submission of ISO form CG 25 03 or 25 04), then the aggregate limit may be equivalent to the per occurrence limit. Said insurance shall include coverage for the following hazards: premises-operations, products liability/completed operations (including any product manufactured or assembled), broad form property damage, contractual liability, independent contractors liability, personal and advertising injury, mobile equipment, vicarious liability, and cross liability and severability of interest clauses. A statement on an insurance certificate will not be accepted in lieu of the actual additional insured endorsement(s). If requested by OC SAN and applicable, XCU coverage (Explosion, Collapse and Underground) must be included in the general liability policy and coverage must be reflected on the submitted certificate of insurance. Where permitted by law, CONSULTANT hereby waives all rights of recovery by subrogation because of deductible clauses, inadequacy of limits of any insurance policy, limitations or exclusions of coverage, or any other reason against OC SAN, its or their officers, agents, or employees, and any other consultant, contractor, or subcontractor performing work or rendering services on behalf of OC SAN in connection with the planning, development, and construction of the project. In all its insurance coverages related to the work, (except Errors and Omissions/Professional Liability), CONSULTANT shall include clauses providing that each insurer shall waive all of its rights of recovery by subrogation against OC SAN, its or their officers, agents, or employees, or any other consultant, contractor, or subcontractor performing work or rendering services at the project. Where permitted by law, CONSULTANT shall require similar written express waivers and insurance clauses from each of its Subconsultants of every tier. A waiver of subrogation shall be effective as to any individual or entity, even if such individual or entity (a) would otherwise have a duty of indemnification, contractual or otherwise, (b) did not pay the insurance premium, directly or indirectly, and (c) whether or not such individual or entity has an insurable interest in the property damaged.

C. Umbrella Excess Liability

The minimum limits of general liability and automobile liability insurance required, as set forth herein, shall be provided for through either a single policy of primary insurance or a combination of policies of primary and umbrella excess coverage. Umbrella excess liability coverage shall be issued with limits of liability which, when combined with the primary insurance, will equal the minimum limits for general liability and automobile liability.

D. Automobile/Vehicle Liability Insurance

The CONSULTANT shall maintain a policy of automobile liability insurance on a comprehensive form covering all owned, non-owned, and hired automobiles, trucks, and other vehicles providing the following minimum limit of liability coverage: combined single limit of One Million Dollars (\$1,000,000). A statement on an insurance certificate will not be accepted in lieu of the actual additional insured endorsement.

E. Drone Liability Insurance

If a drone will be used, drone liability insurance must be maintained by CONSULTANT in the amount of One Million Dollars (\$1,000,000) in a form acceptable by OC SAN.

F. Workers' Compensation Insurance

The CONSULTANT shall provide such workers' compensation insurance as required by the Labor Code of the State of California in the amount of the statutory limit, including employer's liability insurance with a minimum limit of One Million Dollars (\$1,000,000) per occurrence. Such workers' compensation insurance shall be endorsed to provide for a waiver of subrogation in favor of OC SAN. A statement on an insurance certificate will not be accepted in lieu of the actual endorsements unless the insurance carrier is State of California Insurance Fund and the identifier "SCIF" and endorsement numbers 2570 and 2065 are referenced on the certificate of insurance. If an exposure to Jones Act liability may exist, the insurance required herein shall include coverage for Jones Act claims.

G. Errors and Omissions/Professional Liability

CONSULTANT shall maintain in full force and effect, throughout the term of this Agreement, standard industry form professional negligence errors and omissions insurance coverage in an amount of not less than Two Million Dollars (\$2,000,000) with limits in accordance with the provisions of this paragraph. If the policy of insurance is written on a "claims made" basis, said policy shall be continued in full force and effect at all times during the term of this Agreement, and for a period of five (5) years from the date of the completion of the services hereunder.

In the event of termination of said policy during this period, CONSULTANT shall obtain continuing insurance coverage for the prior acts or omissions of CONSULTANT during the course of performing services under the term of this Agreement. Said coverage shall be evidenced by either a new policy evidencing no gap in coverage or by separate extended “tail” coverage with the present or new carrier.

In the event the present policy of insurance is written on an “occurrence” basis, said policy shall be continued in full force and effect during the term of this Agreement or until completion of the services provided for in this Agreement, whichever is later. In the event of termination of said policy during this period, new coverage shall be obtained for the required period to insure for the prior acts of CONSULTANT during the course of performing services under the term of this Agreement.

CONSULTANT shall provide to OC SAN a certificate of insurance in a form acceptable to OC SAN indicating the deductible or self-retention amounts and the expiration date of said policy, and shall provide renewal certificates not less than ten (10) days prior to the expiration of each policy term.

H. Proof of Coverage

The CONSULTANT shall furnish OC SAN with original certificates and amendatory endorsements effecting coverage. Said certificates and endorsements shall conform to the requirements herein stated. All certificates and endorsements are to be received and approved by OC SAN before work commences. CONSULTANT shall provide OC SAN with copies of its insurance certificates and amendatory endorsements affecting coverage. Confidential information may be redacted from said policies, provided that verification of coverage, name of carriers and agent/broker may not be redacted. Said policies and endorsements shall conform to the requirements herein stated. The following are approved forms that must be submitted as proof of coverage:

- Certificate of Insurance ACORD Form 25 or other equivalent certificate of insurance form
- Additional Insurance (General Liability) The combination of (ISO Forms) CG 20 10 and CG 20 37

All other additional insured endorsements must be submitted for approval by OC SAN, and OC SAN may reject alternatives that provide different or less coverage to OC SAN.
- Additional Insured (Automobile Liability) Submit endorsement provided by carrier for OC SAN approval.
- Waiver of Subrogation Submit workers’ compensation waiver of subrogation endorsement provided by carrier for OC SAN approval.

- Cancellation Notice No endorsement is required. However, CONSULTANT is responsible for notifying OC SAN of any pending or actual insurance policy cancellation, as described in Article I. Cancellation and Policy Change Notice, below.

I. Cancellation and Policy Change Notice

The CONSULTANT is required to notify OC SAN in writing of any insurance cancellation notice it receives or other knowledge of pending or actual insurance policy cancellation within two (2) working days of receipt of such notice or acquisition of such knowledge. Additionally, the CONSULTANT is required to notify OC SAN in writing of any material change in the terms of insurance, including reduction in coverage, within two (2) working days of receipt of such notice or knowledge of same.

Said notices shall be mailed to OC SAN at:

ORANGE COUNTY SANITATION DISTRICT
10844 Ellis Avenue
Fountain Valley, CA 92708
Attention: Contracts, Purchasing & Materials Management Division

J. Primary Insurance

The general and automobile liability policies shall contain a "Primary and Non Contributory" clause. Any other insurance maintained by OC SAN shall be excess and not contributing with the insurance provided by CONSULTANT.

K. Separation of Insured

The general and automobile liability policies shall contain a "Separation of Insureds" clause.

L. Non-Limiting (if applicable)

Nothing in this document shall be construed as limiting in any way, nor shall it limit the indemnification provision contained in this Agreement, or the extent to which CONSULTANT may be held responsible for payment of damages to persons or property.

M. Deductibles and Self-Insured Retentions

Any deductible and/or self-insured retention must be declared to OC SAN on the certificate of insurance. All deductibles and/or self-insured retentions require approval by OC SAN. At the option of OC SAN, either: the insurer shall reduce or eliminate such deductible or self-insured retention as respects OC SAN; or the CONSULTANT shall provide a financial guarantee satisfactory to OC SAN guaranteeing payment of losses and related investigations, claim administration and defense expenses. OC SAN will not invoke the option expressed in this

paragraph unless it has reasonable cause to question CONSULTANT's financial strength.

N. Defense Costs

The general and automobile liability policies (except Errors and Omissions/ Professional Liability) shall have a provision that defense costs for all insureds and additional insureds are paid in addition to and do not deplete any policy limits.

O. Subconsultants

The CONSULTANT shall be responsible to establish insurance requirements for any Subconsultant hired by the CONSULTANT. The insurance shall be in amounts and types reasonably sufficient to deal with the risk of loss involving the Subconsultant's operations and work.

P. Limits Are Minimums

If the CONSULTANT maintains higher limits than any minimums shown above, then OC SAN requires and shall be entitled to coverage for the higher limits maintained by CONSULTANT. Nothing in this section, however, requires CONSULTANT in the absence of litigation to reveal its Errors and Omissions/ Professional Liability limits beyond that required above in Section 8.

9. SCOPE CHANGES

In the event of a change in the Scope of Work or a change in the proposed Project, as requested by OC SAN, the Parties hereto shall execute an amendment to this Agreement setting forth with particularity all terms of the new Agreement, including, but not limited to any additional CONSULTANT's fees. CONSULTANT hereby agrees to use any and all procedures, programs, and systems required by OC SAN to process and execute such Amendment(s), including, but not limited to, computer programs and systems.

10. PROJECT TEAM AND SUBCONSULTANTS

CONSULTANT shall provide to OC SAN, prior to execution of this Agreement, the names and full description of all Subconsultants and CONSULTANT's project team members anticipated to be used on this Project under this Agreement by CONSULTANT. CONSULTANT shall include a description of the work and services to be done by each Subconsultant and each of CONSULTANT's Project team member. CONSULTANT shall include the respective compensation amounts for CONSULTANT and each Subconsultant, broken down as indicated in Section 2- COMPENSATION.

There shall be no substitution of the listed Subconsultants and CONSULTANT's project team members without prior written approval by OC SAN.

11. ENGINEERING REGISTRATION

The CONSULTANT's personnel and Subconsultants are comprised of registered engineers and a staff of specialists and draftsmen in each department. The firm itself is not a registered engineer but represents and agrees that wherever, in the performance of this Agreement, the services of a registered engineer is required, such services hereunder will be performed under the direct supervision of registered engineers who are registered in California.

12. AUDIT PROVISIONS.

- A. OC SAN retains the reasonable right to access, review, examine, and audit, any and all books, records, documents, and any other evidence of procedures and practices that OC SAN determines are necessary to discover and verify that the CONSULTANT is in compliance with all requirements under this Agreement. The CONSULTANT shall include OC SAN's right as described above, in any and all of their subcontracts, and shall ensure that these rights are binding upon all Subconsultants.
- B. OC SAN retains the right to examine CONSULTANT's books, records, documents and any other evidence of procedures and practices that OC SAN determines are necessary to discover and verify all direct and indirect costs, of whatever nature, which are claimed to have been incurred, or anticipated to be incurred or to ensure CONSULTANT's compliance with all requirements under this Agreement during the term of this Agreement and for a period of three (3) years after its termination.
- C. CONSULTANT shall maintain complete and accurate records in accordance with generally accepted industry standard practices and OC SAN's policy. The CONSULTANT shall make available to OC SAN for review and audit, all project related accounting records and documents, and any other financial data within 15 days after receipt of notice from OC SAN. Upon OC SAN's request, CONSULTANT shall submit exact duplicates of originals of all requested records to OC SAN. If an audit is performed, CONSULTANT shall ensure that a qualified employee of the CONSULTANT will be available to assist OC SAN's auditor in obtaining all Project related accounting records and documents, and any other financial data.

13. LEGAL RELATIONSHIP BETWEEN PARTIES

The legal relationship between the parties hereto is that of an independent contractor and nothing herein shall be deemed to transform CONSULTANT, its staff, independent contractors, or Subconsultants into employees of OC SAN. CONSULTANT'S staff performing services under the Agreement shall at all times be employees and/or independent contractors of CONSULTANT. CONSULTANT shall monitor and control its staff and pay wages, salaries, and other amounts due directly to its staff in connection with the Agreement. CONSULTANT shall be responsible for hiring, review, and termination of its staff and shall be accountable for all reports and obligations respecting them, such as social security, income tax withholding, unemployment compensation, workers' compensation and similar matters.

14. NOTICES

All notices hereunder and communications regarding the interpretation of the terms of this Agreement, or changes thereto, shall be effected by delivery of said notices in person or by depositing said notices in the U.S. mail, registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

ORANGE COUNTY SANITATION DISTRICT
10844 Ellis Avenue
Fountain Valley, CA 92708-7018
Attention: Clarice Marcin
Copy: Carmen Quan, Project Manager

CONSULTANT:

BROWN AND CALDWELL
18500 Von Karman Avenue
Suite 1100
Irvine, CA 92612
Attention: Dan Bunce

All communication regarding the Scope of Work, will be addressed to the Project Manager. Direction from other OC SAN staff must be approved in writing by OC SAN's Project Manager prior to action from the CONSULTANT.

15. TERMINATION

OC SAN may terminate this Agreement at any time, without cause, upon giving thirty (30) days written notice to CONSULTANT. In the event of such termination, CONSULTANT shall be entitled to compensation for work performed on a prorated basis through and including the effective date of termination.

CONSULTANT shall be permitted to terminate this Agreement upon thirty (30) days written notice only if CONSULTANT is not compensated for billed amounts in accordance with the provisions of this Agreement, when the same are due.

Notice of termination shall be mailed to OC SAN at the address listed in Section 14 - NOTICES.

16. DOCUMENTS AND STUDY MATERIALS

The documents and study materials for this Project shall become the property of OC SAN upon the termination or completion of the work. CONSULTANT agrees to furnish to OC SAN copies of all memoranda, correspondence, electronic materials, computation and study materials in its files pertaining to the work described in this Agreement, which is requested in writing by OC SAN.

17. COMPLIANCE

A. Labor

CONSULTANT certifies by the execution of this Agreement that it pays employees not less than the minimum wage as defined by law, and that it does not discriminate in its employment with regard to race, color, religion, sex or national origin; that it is in compliance with all federal, state and local directives and executive orders regarding non-discrimination in employment; and that it agrees to demonstrate positively and aggressively the principle of equal opportunity in employment.

B. Air Pollution

CONSULTANT and its subconsultants and subcontractors shall comply with all applicable federal, state and local air pollution control laws and regulations.

C. Iran Contracting Act

CONSULTANT and its subconsultants and subcontractors shall comply with the Iran Contracting Act of 2010 (Public Contract Code sections 2200-2208).

18. AGREEMENT EXECUTION AUTHORIZATION

Both OC SAN and CONSULTANT do covenant that each individual executing this document by and on behalf of each Party is a person duly authorized to execute this Agreement for that Party.

19. DISPUTE RESOLUTION

In the event of a dispute arising between the parties regarding performance or interpretation of this Agreement, the dispute shall be resolved by binding arbitration under the auspices of the Judicial Arbitration and Mediation Service ("JAMS"), or similar organization or entity conducting alternate dispute resolution services.

20. ATTORNEY'S FEES, COSTS AND NECESSARY DISBURSEMENTS

If any action at law or in equity or if any proceeding in the form of an Alternative Dispute Resolution (ADR) is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, costs and necessary disbursements in addition to any other relief to which he may be entitled.

21. WARRANTY

CONSULTANT shall perform its services in accordance with generally accepted industry and professional standards. If, within the 12-month period following completion of its services, OC SAN informs CONSULTANT that any part of the services fails to meet those standards, CONSULTANT shall, within the time prescribed by OC SAN, take all such actions as are necessary to correct or complete the noted deficiency(ies).

22. INDEMNIFICATION

To the fullest extent permitted by law, CONSULTANT shall indemnify, defend (at CONSULTANT's sole cost and expense and with legal counsel approved by OC SAN, which approval shall not be unreasonably withheld), protect and hold harmless OC SAN and all of OC SAN's officers, directors, employees, consultants, and agents (collectively the "Indemnified Parties"), from and against any and all claims, damages, liabilities, causes of action, suits, arbitration awards, losses, judgments, fines, penalties, costs and expenses (including, without limitation, attorneys' fees, disbursements and court costs, and all other professional, expert or CONSULTANT's fees and costs and OC SAN's general and administrative expenses; individually, a "Claim"; collectively, "Claims") which may arise from or are in any manner related, directly or indirectly, to any work performed, or any operations, activities, or services provided by CONSULTANT in carrying out its obligations under this Agreement to the extent of the negligent, recklessness and/or willful misconduct of CONSULTANT, its principals, officers, agents, employees, CONSULTANT's suppliers, CONSULTANT, Subconsultants, subcontractors, and/or anyone employed directly or indirectly by any of them, regardless of any contributing negligence or strict liability of an Indemnified Party. Notwithstanding the foregoing, nothing herein shall be construed to require CONSULTANT to indemnify the Indemnified Parties from any Claim arising solely from:

- (A) the active negligence or willful misconduct of the Indemnified Parties; or
- (B) a natural disaster or other act of God, such as an earthquake; or
- (C) the independent action of a third party who is neither one of the Indemnified Parties nor the CONSULTANT, nor its principal, officer, agent, employee, nor CONSULTANT's supplier, CONSULTANT, Subconsultant, subcontractor, nor anyone employed directly or indirectly by any of them.

Exceptions (A) through (B) above shall not apply, and CONSULTANT shall, to the fullest extent permitted by law, indemnify the Indemnified Parties, from Claims arising from more than one cause if any such cause taken alone would otherwise result in the obligation to indemnify hereunder.

CONSULTANT's liability for indemnification hereunder is in addition to any liability CONSULTANT may have to OC SAN for a breach by CONSULTANT of any of the provisions of this Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit CONSULTANT's indemnification obligation or other liability hereunder. The terms of this Agreement are contractual and the result of negotiation between the parties hereto. Accordingly, any rule of construction of contracts (including, without limitation, California Civil Code Section 1654) that ambiguities are to be construed against the drafting party, shall not be employed in the interpretation of this Agreement.

23. DUTY TO DEFEND

The duty to defend hereunder is wholly independent of and separate from the duty to indemnify and such duty to defend shall exist regardless of any ultimate liability of CONSULTANT and shall be consistent with Civil Code section 2782.8. Such defense

obligation shall arise immediately upon presentation of a Claim by any person if, without regard to the merit of the Claim, such Claim could potentially result in an obligation to indemnify one or more Indemnified Parties, and upon written notice of such Claim being provided to CONSULTANT. Payment to CONSULTANT by any Indemnified Party or the payment or advance of defense costs by any Indemnified Party shall not be a condition precedent to enforcing such Indemnified Party's rights to indemnification hereunder. In the event a final judgment, arbitration, award, order, settlement, or other final resolution expressly determines that the claim did not arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the CONSULTANT, to any extent, then OC SAN will reimburse CONSULTANT for the reasonable costs of defending the Indemnified Parties against such claims.

CONSULTANT's indemnification obligation hereunder shall survive the expiration or earlier termination of this Agreement until such time as action against the Indemnified Parties for such matter indemnified hereunder is fully and finally barred by the applicable statute of limitations.

24. COMPLIANCE WITH OC SAN POLICIES AND PROCEDURES

CONSULTANT shall comply with all OC SAN policies and procedures including the Contractor Safety Standards, as applicable, all of which may be amended from time to time.

25. CLOSEOUT

When OC SAN determines that all work authorized under the Agreement is fully complete and that OC SAN requires no further work from CONSULTANT, or the Agreement is otherwise terminated or expires in accordance with the terms of the Agreement, OC SAN shall give the CONSULTANT written notice that the Agreement will be closed out. CONSULTANT shall submit all outstanding billings, work submittals, deliverables, reports or similarly related documents as required under the Agreement within thirty (30) days of receipt of notice of Agreement closeout.

Upon receipt of CONSULTANT's submittals, OC SAN shall commence a closeout audit of the Agreement and will either:

- i. Give the CONSULTANT a final Agreement Acceptance: or
- ii. Advise the CONSULTANT in writing of any outstanding item or items which must be furnished, completed, or corrected at the CONSULTANT's cost.

CONSULTANT shall be required to provide adequate resources to fully support any administrative closeout efforts identified in the Agreement. Such support must be provided within the timeframe requested by OC SAN.

Notwithstanding the final Agreement acceptance, the CONSULTANT will not be relieved of its obligations hereunder, nor will the CONSULTANT be relieved of its obligations to complete any portions of the work, the non-completion of which were not disclosed to OC SAN (regardless of whether such nondisclosures were fraudulent, negligent, or otherwise), and the CONSULTANT shall remain obligated under all those provisions of

the Agreement which expressly or by their nature extend beyond and survive final Agreement Acceptance.

Any failure by OC SAN to reject the work or to reject the CONSULTANT's request for final Agreement Acceptance as set forth above shall not be deemed to be acceptance of the work by OC SAN for any purpose nor imply acceptance of, or Agreement with, the CONSULTANT's request for final Agreement Acceptance.

26. ENTIRE AGREEMENT

This Agreement constitutes the entire understanding and agreement between the Parties and supersedes all previous negotiations between them pertaining to the subject matter thereof.

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

IN WITNESS WHEREOF, this Agreement has been executed in the name of OC SAN and CONSULTANT by their respective duly authorized officers as of the day and year first written above.

CONSULTANT: BROWN AND CALDWELL

By _____ Date _____

Printed Name & Title

ORANGE COUNTY SANITATION DISTRICT

By _____ Date _____
John B. Withers
Board Chairman

By _____ Date _____
Kelly A. Lore
Clerk of the Board

By _____ Date _____
Ruth Zintzun
Purchasing & Contracts Manager

- Attachments: Attachment "A" – Scope of Work
Attachment "B" – Not Used
Attachment "C" – Not Used
Attachment "D" – Allowable Direct Costs
Attachment "E" – Fee Proposal Form
Attachment "F" – Not Used
Attachment "G" – Not Used
Attachment "H" – Not Used
Attachment "I" – Cost Matrix and Summary
Attachment "J" – Minor Subconsultant Hourly Rate Schedule
Attachment "K" – Contractor Safety Standards
Attachment "L" – Iran Contracting Act Verification

CMM:yp

ATTACHMENT “A”

SCOPE OF WORK

ATTACHMENT "A"

SCOPE OF WORK

Energy and Digester Gas Master Plan
PS21-04

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I. SUMMARY

This Scope of Work requests engineering services for the project as described herein to perform an engineering study.

II. BACKGROUND, GENERAL PROJECT DESCRIPTION, AND OBJECTIVES

BACKGROUND

The Orange County Sanitation District (OC SAN) is responsible for collection, treatment, and disposal of wastewater for the northern and central portion of Orange County, California. OC SAN operates and maintains two treatment facilities (Plants 1 and 2) which currently process an average of 188 million gallons per day (mgd) of wastewater.

Both plants have a 66-12.47kV substation. Plant 1 has dual 66kV feeds with two 66-12.47kV transformers and Plant 2 has a single 66kV feed with one 66-12.47kV transformer. A future project will upgrade Plant 2 to match Plant 1. The substations are owned by OC SAN and operated by Southern California Edison (SCE). The substation provides 12.47kV, Bus A and Bus B feeds to the 12kV Service Center, which consists of double-ended main-tie-tie-main switchgear that is used to distribute utility power to select process facilities and the Central Generation Facility (Cen Gen). Cen Gen has double-ended main-tie-tie-main switchgear and central generators fueled by digester and/or natural gas.

Digester gas produced by anaerobic digestion of wastewater solids during the treatment process is burned in large internal combustion engines at Cen Gen at both plants. Approximately 60% of the electricity requirements at Plant 1 and approximately 95% of the electricity requirements at Plant 2 are supplied by Cen Gen. Additionally, the waste heat from the engines is the primary source of heat for anaerobic digestion at each plant. Heat recovery steam generators installed on the engine exhausts produce steam. At Plant 1, the steam is used in absorption chillers for cooling occupied buildings. The steam at Plant 2 can drive a steam turbine generator or as a supplemental source of heat for the digester heating hot water loop.

The Plant 1 Cen Gen Facility consists of three identical 12-cylinder, four-stroke, turbocharged-intercooled Cooper Bessemer Model No. LSVB-12-SGC, 3,471-horsepower, natural gas and/or digester gas fired, reciprocating unit driving a 2,500-kW electric generator with a 5 million-BTU/hr. capacity exhaust heat recovery steam generator.

The Plant 2 Cen Gen Facility consists of five identical 16-cylinder, four-stroke, turbocharged-intercooled Cooper Bessemer Model No. LSVB-16-SGC, 4,166-horsepower, natural gas and/or digester gas fired, reciprocating unit and driving a 3,000-kW electric generator with 15.6 million BTU/hr. exhaust heat recovery steam generator.

The engines were installed in the early 1990s. The engines have undergone routine and regular maintenance based on hours of run-time following the manufacturer recommendations. All engines currently require a bottom-end overhaul at approximately 120,000 hours of run-time.

OC SAN advertised S-2020-1074BD contract for the bottom-end overhaul for two engines, one at each plant, and selected a Contractor.

The overhaul began in mid-January 2020 at Plant 1 with the shutdown of Engine No. 1. During the start-up and commissioning process for the reassembled Plant 1 Engine No. 1, the engine experienced a catastrophic failure when a fire broke out in the crank case during the first (initial) 24-hour startup sequence. The engine was disassembled, and a failure analysis performed and a lengthy, time-consuming, repair/refurbishment reassembly process began. The engine was reassembled, and another start-up and commissioning process was initiated. During the second start-up process the engine again experienced a second catastrophic failure.

OC SAN recently negotiated a contract with Cooper Machinery Services, LLC to perform the bottom-end overhaul on Plant 1, Engine 1. This engine will be commissioned in January 2022. OC SAN'S near-term plan is to award a contract to perform bottom-end overhauls on one more engine at Plant 1 and three engines at Plant 2. A future project may perform bottom-end overhauls on one more engine at each plant. In the future top-end overhauls will be performed in-house by OC SAN.

OC SAN's current standby power capacity is based on a Water-In/Water-Out philosophy, with Cen Gen used to provide standby power for Water-in/Water-out loads that do not have standby generators or critical process loads when there is additional capacity upon loss of utility power source. The recent National Pollutant Discharge Elimination System (NPDES) permit requires Cen Gen to provide standby power to the Trickling Filter Pump Station at Plant 2 in the event of a utility power outage to prevent primary effluent from bypassing secondary treatment. The NPDES permit does not waive compliance with permit requirements during a utility power outage. Only South Coast Air Quality Management District (SCAQMD) allows odor control to be out for service during a utility power outage for a defined period of time.

In 2019, a 5-MW, 32-MWh Tesla battery storage system was installed at Plant 1. This battery storage system is owned and operated by a third party under the SCE Local Capacity Requirements (LCR) Program, which allows SCE to call for the operation of the battery storage system to reduce grid loads for 4 hours per day during normal workdays. The battery storage system may also operate on the weekends by the third party operator as part of the Southern California Gas Self-Generation Incentive Program (SGIP).

An energy master plan was last performed by J-102 Strategic Plan Update – Energy Master Plan and completed in 2007. This master plan included the following project tasks as applicable to this project:

1. Project Task 1 – Develop Conceptual Level of Service Requirements and Expectations of OC SAN's Electrical and Power System(s) (This project task included the updating of the Load Criticality Tables)
2. Project Task 2 – Power Generation and Supply System Analysis
3. Project Task 3 – Digester Gas Generation and Consumption Analysis
4. Project Task 6 – Develop a Conceptual Heat Balance Model for the Treatment Plants
5. Project Task 10 – Standby Power Generation Study

More recently, Project PS20-04, Power Generation Overhaul Feasibility Study concluded that it is viable to continue to operate and maintain the existing internal combustion engines at both Plants. Other projects, such as J-124, Digester Gas Compressors and P2-128,

TPAD Digester Facility at Plant 2; contain information about digester gas production and quality at both Plants 1 and 2.

GENERAL PROJECT DESCRIPTION

This Project will develop an Energy and Digester Gas Master Plan that will develop a standby power policy, determine the future usage of digester gas and will address energy dependency issues that will lead to resiliency. For the future usage of digester gas, the study will look at long-term options if the engines can no longer be maintained due to lack of parts, qualified companies are no longer available to perform the bottom-end overhauls, and SCAQMD regulations change and prevent the operation of Cen Gen or future generation.

PROJECT OBJECTIVES

- Develop a standby power policy to maintain permit compliance and prevent adverse effects within the plants during power outages
- Develop a long-term plan for Cen Gen if overhauls are no longer viable in the future or if SCAQMD’s future regulations prevents the operation of the engines
- Develop an energy resiliency and independence strategy

COORDINATION WITH OTHER PROJECTS

The following projects may impact or require coordination with this project:

1. P2-128, TPAD Digester Facility at Plant 2
2. J-124, Digester Gas Facilities Replacement
3. Projects listed under Task 1.4 for Load Criticality Table updates

III. PROJECT SCHEDULE

Table 1 contains the time frames associated with each major project deliverable, including OC SAN’s review and approval of those deliverables. CONSULTANT shall comply with the deadlines indicated in the table.

Table 1 – Project Milestones and Deadlines

MILESTONE	DEADLINE
Kickoff (KO) Meeting	Within 10 working days from Notice to Proceed (NTP)
1.1 Standby Power Policy Draft Technical Memorandum	Within 80 workdays from KO Meeting (parallel with tasks 1.2 and 1.4)
1.1 Standby Power Policy Final Technical Memorandum	Within 10 workdays from receipt of OC San review comments (10-workday review)

Table 1 – Project Milestones and Deadlines

MILESTONE	DEADLINE
1.2 Load Shedding and Power Restart Philosophy Draft Technical Memorandum	Within 30 workdays from KO Meeting
1.2 Load Shedding and Power Restart Philosophy Final Technical Memorandum	Within 10 workdays from receipt of OC San review comments (10-workday review)
1.3 Draft updated IERP, Power Outage emergency Operation Procedures and Restart SOPs	Within 10 workdays from tasks 1.1 and 1.2
1.3 Final updated IERP, Power Outage emergency Operation Procedures and Restart SOPs	Within 10 workdays from receipt of OC San review comments (10-workday review)
1.4 Load Criticality Tables Draft Technical Memorandum	Within 60 workdays from KO Meeting (data collection in parallel with tasks 1.1 and 1.2)
1.4 Load Criticality Tables Final Technical Memorandum	Within 10 workdays from receipt of OC San review comments (10-workday review)
2.1 Cen Gen Replacement Draft Technical Memorandum	Within 165 workdays from KO Meeting
2.1 Cen Gen Replacement Final Technical Memorandum	Within 10 workdays from receipt of OC San review comments (10-workday review)
2.2 Digester Gas Usage Draft Technical Memorandum	Within 20 workdays from KO Meeting (parallel with tasks 1.1 and 1.2)
2.2 Digester Gas Usage Final Technical Memorandum	Within 10 workdays from receipt of OC San review comments (10-workday review)
2.3 Heat Balance Draft Technical Memorandum	Within 20 workdays from KO Meeting (parallel with tasks 1.1, 1.2 and 2.2)
2.3 Heat Balance Final Technical Memorandum	Within 10 workdays from receipt of OC San review comments (10-workday review)
2.4 Project Funding Draft Technical Memorandum	Within 100 workdays from task 2.3
2.4 Project Funding Final Technical Memorandum	Within 10 workdays from receipt of OC San review comments (10-workday review)
3 Energy Resiliency and Independence Draft Technical Memorandum	Within 100 workdays from task 2.3
3 Energy Resiliency and Independence Final Technical Memorandum	Within 10 workdays from receipt of OC San review comments (10-workday review)
4 CIP Development Draft Technical Memorandum	Within 20 workdays from task 2.1
4 CIP Development Final Technical Memorandum	Within 10 workdays from receipt of OC San review comments (10-workday review)

Table 1 – Project Milestones and Deadlines

MILESTONE	DEADLINE
5 Draft Energy and Digester Gas Master Plan	Within 20 workdays from task 4
5 Final Energy and Digester Gas Master Plan	Within 10 workdays from receipt of OC San review comments (10-workday review)

OC SAN will consider an alternative CONSULTANT-proposed schedule provided it is consistent with OC SAN resources and schedule constraints and adds value to OC SAN.

IV. PROJECT EXECUTION

TASK 1 – STANDBY POWER

TASK 1.1 DEVELOP A STANDBY POWER POLICY

CONSULTANT shall develop a standby power policy for Plants 1 and 2 that balances a probable outage duration with the power needs to achieve permit compliance. The following outlines the elements of this task:

1. Define potential outages and associated probability and durations for the following conditions.
 - a. Short-term outage: Southern California Edison (SCE) outage (rolling blackouts, fire, high winds, etc.)
 - b. Long-term outage: regional earthquake, cyberattack, terrorism, etc. Include the probability and duration of losing power and natural gas during a regional earthquake.
2. Benchmark what other similar wastewater facilities are doing regarding standby power, the length of outage duration they are designed for, amount and type of onsite generation, and the level of treatment that is maintained during a power outage.
3. Determine the maximum power outage duration that should be designed for and included in OC SAN's engineering design guidelines during dry and wet weather conditions. Determine the event and duration that should be used for the loss of natural gas. Determine which plant loads require standby power based on the new standby power policy.
4. Cen Gen uses natural gas as a pilot fuel during normal operation. Upon loss of natural gas a valve needs to be operated to switch over to 100% digester gas. Evaluate the benefit and cost of automating this process.
5. Determine additional standby power required, beyond the existing standby power, existing batteries (at Plant 1 only), and Cen Gen capacity, to meet permit requirements and prevent adverse effects within the plants. As described in Background, Cen Gen is

used to provide standby power for Water-in/Water-out loads or critical loads that do not have standby generators.

6. Develop an operational strategy on how to operate the plant load using staggered operation or rotation of equipment to leverage the available Cen Gen power during the different potential power outage scenarios. If there is insufficient Cen Gen power to meet the operational strategy, determine the amount of additional standby power that is required.
7. Determine the preferred source of power (new standby generators or Cen Gen) for loads that do not currently have a standby generator. Determine new standby generator technology through technology identification and screening. The following tables summarizes facilities with and without standby generation.

Plant 1 Existing Standby Power		
Facility	Standby Power	Cen Gen
Headworks	X	
Primary Clarifiers and Odor Control	X	
Trickling Filters	X	
AS1 (480V MCC loads)	X	
AS2 (life safety loads)	X	
Plant Water	X	
Digester	X	
Gas Compressors	X	
Cen Gen (Black Start)	X	
Thickening and Dewatering (life safety loads)	X	
Truck Loading	X	
Control Center	X	
AS1 Blowers, PEPS and RAS		X
AS2		X
Notes:		
<ol style="list-style-type: none"> 1. Gas compressors and digester standby power based on future feed from P1-105 Headworks Standby Power. This standby power capacity could be used for a limited time to maintain digester mixing and gas compressor operation until Cen Gen is restarted in the event power and natural gas is lost during a major earthquake event. Once Cen Gen is operational and these loads are transferred back to Cen Gen, this capacity could be used for future loads. 2. Primary Effluent Pump Station (PEPS), which is required for Water-in/Water-out to feed Activated Sludge Plant 1 (AS1) from Primary Basins No. 3-5, will be demolished after Project P1-126, Primary Sedimentation Basins No. 3-5 Replacement at Plant No. 1 is constructed. This project will elevate the height of these basin to allow for gravity flow. 		
Plant 2 Existing Standby Power		
Facility	Standby Power	Cen Gen
Headworks	X	
Primary Clarifiers and Odor Control	X	
Digesters (TPAD: life safety, mixing)	X	
OOBS and EPSA (3 pumps)	X	

LOFLO PS and Plant Water	X	
Cen Gen (Black Start)	X	
Centrifuges (life safety loads)	X	
Operations Center	X	
OOBS and EPSA (3 pumps)		X
Gas Compressors		X
PEPS and AS		X
Trickling Filter		X
Orange County Water District (OCWD) Pump Station		If capacity

Notes:

1. During dry weather flow, EPSA Standby Power will feed the LOFLO Pump Station and plant water pump station. Spare generator capacity from the EPSA Standby Power generation facility will be used to power the J-124 gas compressors and P2-128 TPAD facility. During wet weather conditions, the EPSA Standby Power generation facility will feed three OOBS or EPSA pumps, with Cen Gen used to feed the J-124 and P2-128 loads.
 2. PB-C standby generator powers life safety loads.
8. Review and update the diesel fuel storage capacities documented in J-102. EPSA Standby Power diesel storage capacity has recently been determined to be lower than the value shown in J-102. OC SAN's guideline is 48 hours.
 9. Evaluate siting options for recommended standby power equipment.

Task 1.1 Assumptions:

- Process modeling will be used to determine the impacts of power outages of differing durations on effluent quality and permit compliance to support determinations of standby power requirements. Process modeling to determine standby power requirements will be based on relative process modeling and comparisons. BioWin models or calibrated models will not be developed specific to OC San Plant No. 1 and Plant No. 2. If existing models are available, these can be used for process evaluation
- Benchmarking will include collection of information from up to 5 wastewater treatment plants. Benchmarking will be limited to phone interviews with plant staff and does not involve collection and analysis of detailed plant data.
- Up to 3 site layout alternatives will be evaluated for siting of standby power equipment.

TASK 1.2 LOAD SHEDDING AND POWER RESTART PHILOSOPHY

1. A Schweitzer load shedding system is being designed for Plant 1 by Project J-98 and installed at Plant 2 under Project J-117B. A central Schweitzer controller, which communicates with select Schweitzer relays via a Substation LAN, will be programmed to send the load shed trips to select 12kV breakers. The load shed trips will be based on Operator selectable load shed priorities. Load shedding will be triggered by detection of decoupling from the utility power source or reduction of system frequency. Review load

shedding sequences for Plants 1 and 2 as part of the power outage scenarios, available power generation in different modes of operations, and provide any recommended changes.

2. OC San currently has automatic restart sequencing and manual power restart strategies for select process areas as described below. Confirm all existing restart operating philosophies with OC San's Process Control Integration (PCI) Group. Other loads that are in REMOTE AUTO will automatically restart after power is restored based on process conditions. Some exhaust fans only have ON/OFF control. A standardized approach for restarting equipment after a power outage has not been developed. Develop a power restart philosophy (automatic, manual push button, etc.) with Operations and PCI to establish a common approach at both plants. Work with Operations and PCI to determine the appropriate restart grouping (i.e., by process equipment, by process train, etc.) and restart group sequencing to provide an adequate level of control when restarting equipment after a power outage during dry and wet weather conditions based on the number of standby generators that come online, loads not controlled by PLCs, process needs, and equipment with large starting amperage. Detailed restart control strategies with interlocks will be developed by a future project.
 - a. The following process areas have an automatic power restart
 - i. Plant 1 Primaries
 - ii. Plant 2 Headworks
 - b. The following process areas have manual restart push buttons on the human machine interface (HMI):
 - i. Plant 1: SALS, P1 Primaries East Sludge Pumps, AS-2 Basin Equipment (mixers and mix liquor return pumps), AS-2 Secondary Clarifiers (27, 29, 31, 32, 33 and 34), and Digesters 7-16
 - ii. Plant 2: Headworks odor control, PEPS, AS (aerators and RAS), trickling filters (pumps, blowers and drives), and DAFT (pumps and polymer pumps)

Deliverables – Tasks 1.1 and 1.2:

1. Standby Power Policy Technical Memorandum summarizing conclusions and recommendations.
2. Load Shedding and Power Restart Philosophy

TASK 1.3 UPDATE OC SAN PROCEDURES

Exhibit 1 – Updating OC San Procedures defines the procedures that the CONSULTANT needs to update and procedures that are provided For Information Only. Portions of the procedures that require updating are indicated in Exhibit 1 – Updating OC San Procedures to provide the CONSULTANT a means to estimate the level of effort required for this task. References to plans, procedures and training that are applicable to this study, but do not required updating, have been provided For Informaiton Only. Some relevant test in For Information Only documents have been extracted to assist the CONSULTANT with identifying the applicable

information. The following are the categories of procedures that are defined in Exhibit 1 – Updatint OC San Procedures.

1. Update Integrated Emergency Response Plan (IERP): see **Exhibit 1 – Updating OC San Procedures** for the detailed scope of work.
2. Update Power Outage Emergency Operation Procedures: see **Exhibit 1 – Updating OC San Procedures** for the detailed scope of work.
3. Review and update existing Restart Standard Operating Procedures (SOPs): see **Exhibit 1 – Updating OC San Procedures** for the detailed scope of work.
4. Review and update existing Plant Power Outage Emergency Response Training: see Exhibit 1 – Updating OC San Procedures for the detailed scope of work.

Deliverables:

1. Updated IERP, Power Outage emergency Operation Procedures, Restart SOPs, and Plant Power Outage Emergency Response Training.

Assumptions:

-CONSULTANT to update OC San procedures only as specifically outlined in Exhibit 1 of the RFP. Effort required to update OC San Procedures shall not exceed those allocated for this task in final negotiated fee and hours tables.

TASK 1.4 UPDATE LOAD CRITICALITY TABLES

OC SAN has load criticality tables in Excel format that lists equipment loads and their associated area and criticality grouping (1.1 Water-in, 3 Ocean Permit, 8 Odor Control, etc.), load data, switchgear and motor control center bus, quantity installed, quantity operating during dry weather and wet weather conditions, and acceptable outage duration. There are also brake horsepower and diversity factors associated with each load to adjust the demand based on the different operating conditions. These tables are used to calculate the loads for standby generators and Cen Gen during a loss of utility power. See **Exhibit 3 – P1 Sample Load Criticality Table and P2 Sample Load Criticality Table**.

The plant load criticality tables were last updated under J-102. Recent projects have developed their associated load criticality tables (see Item 3 below for list of projects), but this information has not been merged into the overall plant load criticality tables. It has also been determined during recent projects that the J-102 load criticality tables were not updated to reflect the actual installed loads.

An ETAP (Electrical Transient Analyzer Program) load flow study was recently completed for Plant 2. During this study, meetings were held with OC SAN Operations to review the quantity of loads that operate during dry weather and wet weather conditions. Equipment supervisory control and data acquisition (SCADA) historical data was used to determine the diversity factors of equipment. Power monitoring data was used to calibrate the diversity factor at the switchgear level. Loading factors were then entered into the ETAP model to run a revised load flow study and verify the transformer tap settings. This information can be used for the Plant 2 load

criticality tables (see **Exhibit 3 – Project PS18-11 P2 Loading Data**). This approach should be used to develop the diversity factors for Plant 1 (an updated load flow and loading factors analysis has not been done for Plant 1 yet).

The CONSULTANT shall perform the following to update the load criticality tables for Plants 1 and 2.

1. Combine entries so there is only one entry per type of equipment (i.e., main sewage pump, bar screens, collector drives, blowers, return activated sludge pumps, etc.). This has been done for only some loads. Use applicable common electrical bus at the highest level (i.e., 480V switchgear bus versus each MCC). Group valves and gates for an MCC into one entry. Specific MCC loads such as panelboards, HVAC, etc. can remain on the MCC bus. The normal power MCC should be listed when a panelboard is fed by an automatic transfer switch from two different MCCs. (Note: The load criticality tables are used to determine the standby power requirements. Electrical calculations will be developed in accordance with the National Electrical Code to size the equipment during design projects.)
2. Revise loads to match the existing single line diagrams. Update/add completed projects to the master load criticality table for each plant (P1-100, P1-101, P1-102, P2-89, P2-90, P2-92, and P2-110). See **Exhibit 3 – P1 Single Line Diagram Drawing List and P2 Single Line Diagram Drawing List**.
3. Add new projects currently in construction to the master load criticality table for each plant (J-117B, P1-105, P1-133, and P2-98A)
4. Add new projects currently in design to the master load criticality table for each plant (J-124 and P2-128)
5. Conduct meetings with Operations staff in each process area to verify/update “Duration (Hours)”.
6. Conduct meetings with Operations staff in each process area to verify/update the “Qty Operating” during dry and wet weather for each type of load.
7. Determine dry and wet weather brake horsepower for motors greater than 100 horsepower based on equipment service manual dry and wet weather operating conditions. Determine typical brake horsepower that should be used for other motors.
8. Develop diversity factors for typical process and facility equipment where the load cycles on and off (bar screens, sludge pumps, scum pumps, sump pumps, valves, gates, air compressors, HVAC, etc.), panelboards, cranes, etc. so there is a consistent approach on future projects.
 - a. For Plant 1, update diversity factors based on dry and wet weather operating conditions. Compare the load data in the load criticality table for Plant 1 with the power monitoring data and SCADA historical data for process loads. This was done to determine the diversity factors for PS18-11 ETAP Model Updates for Plant 2. Most of the power monitors (available for most of the 12kV & 480V switchgears and select MCCs) at Plant 1 are networked and

thus several years of data can be evaluated. For Plant 2, only the 12kV Service Center and Cen-Gen power monitors are networked. Manual data collection would be needed for non-networked power monitors to utilize their data.

- b. For Plant 2, use the brake horsepower and diversity factors developed by PS18-11 ETAP Model Updates for Plant No. 2.
9. Add a switchgear diversity factor to the load summary tables (new feature) to allow for a future overall load adjustment after actual loads is obtain and compared to the load criticality data.

Deliverables:

1. Revised load criticality tables for Plants 1 and 2.
2. Documentation on the methodology used for updating the load criticality tables (including assumptions, Operations feedback/notes, loading demand/diversity factors utilized, etc.).
3. Technical memorandum documenting the summary of the changes.

TASK 2 – CEN GEN REPLACEMENT

TASK 2.1 CEN GEN REPLACEMENT ALTERNATIVES

This task develops and analyzes digester gas usage alternatives to replace the existing central generation engines when they can no longer be maintained (i.e. parts not available, overhauls not feasible, or not cost effective to maintain, etc.) or SCAQMD emissions limits can no longer be achieved with internal combustion engines or turbines.

Task 2.1.1 – Review Existing Documentation

Consultant shall review the following:

1. Review PS15-01 Biosolids Master Plan, Final Report
2. Review PS20-04 Power Generation Overhaul Feasibility Study
3. Review J-102 Energy Master Plan, TM-2 Power Generation and Supply System Analysis
4. Review J-124 Digester Gas Facilities Replacement, Design Memo 1 (contains digester gas production)
5. Review P2-128 TPAD Digester Facility at Plant 2, Preliminary Design Report, Volume Design Memo 01A for gas production

Task 2.1.2 – Identify Cen Gen Replacement Alternatives

Under this task, the CONSULTANT shall develop a list of Cen Gen replacement technologies and alternatives. The CONSULTANT's Cen Gen replacement options shall incorporate the following:

- Reliable standby power capacity as determined in Task 1
- Complete solutions that sells or uses the digester gas as determined in Task 2.
- Required digester heating requirements and facility cooling requirements as determine in Task 2.3 Heat Balance Model
- Energy independence and resiliency as described in Task 3
- Fleet vehicle natural gas fueling Needs in accordance with future State of California requirements

Prior to developing alternatives, the CONSULTANT shall identify CenGen replacement technologies. The technologies will include any technologies identified by the CONSULTANT. The technologies will be screened using the criteria and methodology defined in Task 2.1.4. The technologies remaining after screening will be further developed into alternatives as described in this task.

For alterantives development, the CONSULTANT shall consider, but not be limited to, the options listed below. For each option, identify the successful use of the technology in real projects for similar applications, required auxiliary systems, maintenance requirements, and digester gas cleaning requirements. Develop a conceptual lifecycle cost (based on the existing projects of similar size/capacity) and footprint layout of the main equipment and auxiliary systems to help in identifying the alternatives that will be selected for further development under Task 2.1.3.

1. Develop a power generation option to replace the existing central generators with internal combustion engines. Include key issues such as impacts to the proposed J-124 Gas Compressor Facilities, digester gas cleaning requirements, etc. One layout option shall include the reuse of the existing Cen Gen Building. The following assumptions shall be made for this option:
 - a. The Cen Gen facility needs a full rehab. For the option which includes the installation of new internal combustion engines in the existing facility, the costs for the Cen facility rehabilitation shall also be included. For Plant 1, the existing Cen Gen 12kV switchgear will need to be replaced due to its age. For Plant 2, the Cen Gen 12kV switchgear is being replaced under Project J-117B.
 - b. For the option which would locate the new internal combustion engines in a new facility, assume a completely new facility which would include new 12kV Cen Gen switchgear, without the use of any existing equipment within the existing Cen Gen building. For Plant 2, only provide new Cen Gen 12kV switchgear for the generators and utilize the new Cen Gen 12kV switchgear (Bus A and Bus B) being installed by Project J-117B for power distribution.
2. Develop a power generation option to replace the existing central generators with turbines. Include key issues such as impacts to the proposed J-124 Gas Compressor Facilities, digester gas cleaning requirements, etc. Evaluate the feasibility of reusing the existing Cen Gen Building.

3. Develop an option to clean the digester gas to pipeline quality (renewable natural gas (RNG)) for injection back into Southern California Gas pipelines. Determine the benefit of OC SAN selling all the digester gas or using some of the gas for buildings and Fleet. Include other key issues. Include the following:
 - a. Standby Power:
 - i. Use Cen Gen infrastructure as a standby power source. Assume Cen Gen will be kept as a standby power source if SCAQMD no longer allows it to be used as a primary power source or if the digester gas is no longer used to generate electricity. Determine the quantity of generators that should be provided or maintained and identify any system modifications required to meet SCAQMD requirements for standby operation. Verify Cen Gen would serve as a reliable standby power source using the existing IC engines without bottom-end overhauls and it would be cost effective even with future required rehabilitation projects. The costs shall include the rehab of the existing Cen Gen facility (including Cen Gen 12kV switchgear) to maintain long-term functionality as a standby power facility.
 - ii. Do not use Cen Gen as standby power and provide a new standby power diesel generator facility with 12kV generator switchgear. Include option to provide new 12kV distribution switchgear in the standby generator facility to replace the existing Cen Gen switchgear.
 - iii. Leverage the Plant 1 battery storage system capacity to provide standby power for a few hours. OC San is currently in discussion with the battery storage system operator to confirm the feasibility.
 - b. Determine preferred fuel source for existing boilers for digester heating. Determine additional heating required for the digesters.
 - c. Replace the cooling capacity of the absorption chillers at Plant 1.
4. Review and document if fuel cells are a viable and reliable power generation option using digester gas.
5. Options involving digester gas used in more than one technology will be developed in Task 2.1.5..

The CONSULTANT shall perform an initial screening process and work with OC SAN to identify the most feasible technologies for the next step of comprehensive evaluation.

Task 2.1.3 – Develop Cen Gen Replacement Alternatives

Under this Task, the CONSULTANT shall further develop each Cen Gen replacement alternative selected under Task 2.1.2. Adequate conceptual design details and layouts shall be developed for the Cen Gen replacement alternatives, and all required supporting facilities to allow for an adequate evaluation. At a minimum, the CONSULTANT shall prepare a summary of the technologies that includes the following:

- Identify additional support facilities, such as boilers, chillers, etc.
- Outline the size and number of units for the potential facilities and supporting facilities
- Estimate cost of electric power, biogas and natural gas, including a sensitivity analysis of their future pricing
- Estimate short-term and anticipated mid-term benefit for selling RNG
- Estimate costs and cost savings for energy resiliency options
- Discuss the footprints and the site considerations
- Discuss the impacts to upstream and downstream facilities
- Discuss air quality impacts and mitigation costs, and other environmental impacts
- Short-term and long-term cost benefits based on current and future market trends for gas and electricity pricing
- Discuss impacts to greenhouse gases and carbon footprint
- Provide a description of the latest developments related to that technology, list the potential vendors, and provide a list of comparably sized installations
- Describe the advantages and disadvantages
- Develop conceptual layouts for each alternative
- Develop construction cost estimates and operations and maintenance costs for each alternative
- Develop a life cycle cost analysis

Task 2.1.4 – Develop Evaluation Criteria and Methodology

The CONSULTANT shall develop an evaluation method, define evaluation criteria, and establish a decision-making process to identify and rank the Cen Gen replacement technology and alternatives. The CONSULTANT shall confirm and validate with OC SAN a ranking procedure using a weighting criteria method for the alternatives. In developing the evaluation criteria, the CONSULTANT shall take into account, but not be limited to the following factors:

- End-use market factors
 - Short-term and mid-term demand for renewable natural gas (RNG)
- Technology and related risk factors
 - Compliance with short-term and mid-term permit requirements
 - Volatility in renewable energy market
 - Proven full scale performance, operation of the technology, and number of installations of similar capacity.
 - Implementation complexity
 - OC SAN's readiness to apply this technology
 - Manufacturer support and obsolescence
- Cost factors
 - Capital cost
 - Life cycle costs
 - Operating and Maintenance Costs
 - Offsetting energy or other revenues
- Impact to energy costs
 - Impact to SCE agreements and associated standby charges

- Utility bill charges and savings
- Operational and Maintenance factors
 - Changes to operational staffing level and qualifications
 - Redundancy, reliability, and longevity
 - Ease of operation and maintenance
 - Safety
- Greenhouse gas and carbon footprint impacts
- Footprint and impacts to existing facilities
 - Footprint of facility and impacts to future land use
 - Impacts to and compatibility with existing facilities and available utilities
 -

Task 2.1.5 – Evaluate and Make Final Selection

Under this Task, the CONSULTANT shall use the evaluation methodology established in Task 2.1.4 to perform a comprehensive evaluation and make a final recommendation for the Cen Gen replacement. CONSULTANT shall develop a flexible implementation road map that identifies key trigger points that would (1) prompt OC San to initiate the Cen Gen Replacement recommendation and (2) prompt OC SAN to revise the current recommendation.

The screening of alternatives in this Task will result in a short list of preferred alternatives. From this short list, several hybrid alternatives will be developed that include the use of digester gas in multiple technologies. This includes an option where a portion of the digester gas is used for RNG and the remaining portion is used to generate electricity. The CONSULTANT shall evaluate different combinations to determine the most beneficial option.

Following identification of short listed alternatives and hybrid alternatives, the CONSULTANT will evaluate ancillary systems and equipment to identify the equipment types and capacities to support each alternative. This will include systems and equipment such as gas conditioning (gas drying, siloxane removal, H₂S removal, ammonia removal) and compressor types.

The CONSULTANT shall develop an evaluation method for the remaining short listed alternatives and hybrid alternatives based on specific criteria, called “tie breaker” criteria, to allow differentiation and selection of the preferred CenGen replacement technology. Using the “tie breaker” criteria and additional sensitivity analysis, the CONSULTANT shall develop a flexible implementation road map that identifies key trigger points that would (1) prompt OC San to initiate the CenGen Replacement recommendation and (2) prompt OC San to revise the current recommendation.

Assumptions:

-Layout and drawings will be produced in PDF format. AutoCAD layouts and drawings will not be provided.

TASK 2.2 GAS USAGE

This task determines the digester gas production, quality and consumption, natural gas consumption, and includes the following:

1. Review the estimated gas production from J-102, PS15-01, J-124 and P2-128 TPAD.
2. Develop existing and future digester gas and natural gas utilization within the process areas (boilers, Cen Gen, and fleet).

Assumptions:

Gas Usage TM will be simplified TM with emphasis on tables and figures. Intent will be to document technical information to support Task 2.1.

TASK 2.3 HEAT BALANCE MODEL

This task develops a heat balance model and includes the following:

1. Review the J-102 heat balance model.
2. Develop a conceptual treatment plant heat balance model for each Cen Gen replacement option (except fuel cell) discussed under Task 2.1 above. The model shall include the major pieces of equipment that are involved in the power generation systems, digestion systems, and waste heat systems.

Assumptions:

-Heat Balance tm will be simplified TM with emphasis on tables and figures. Intent will be to document technical information to support Task 2.1.

-Development of a conceptual design for any additional heating and cooling systems with layout size and cost will be completed as part of Task 2.1

TASK 2.4 RENEWABLE ENERGY FUNDING AND MARKETS

Identify current funding (Federal and State grants, FEMA, etc.) available for proposed current projects and potential funding available for future projects. Define the applicability of the funding, available amount, and the requirements, including reporting needs.

Evaluate the maturity and long term projections of the renewable and non-renewable energy markets that will impact the long term recovery plan for the project(s). Include renewable fuel and energy, renewable energy mandates and portfolio standards, and carbon "Cap and Trade" markets (CARB, AB32).

Funding will be reviewed prior to Task 2.1.3; and funding will be reviewed after making final recommendations as part of the road map development under Task 2.1.5.

Task 2 Deliverables:

- Digester Gas Usage Technical Memorandum

- Heat Balance Technical Memorandum
- Cen Gen Replacement Technical Memorandum
- Renewable Energy Funding and Markets Technical Memorandum

TASK 3 – ENERGY RESILIENCY AND INDEPENDENCE

OC SAN's future policy statement under the Energy Independence Policy of the 2021 Strategic Plan states:

1. OC SAN seeks to be energy independent by self-generating all the electrical and thermal energy necessary to sustain its operations. This will be accomplished by economically minimizing its utilization requirements and maximizing energy harvested from the wastewater it receives. Energy independence will improve OC SAN'S environmental impact and improve its operational reliability and resiliency.
2. OC SAN will also study and use photovoltaic cells in non-process areas where it makes economic sense. For example, the new Administration Building will include photovoltaic panels linked to the treatment plant. Staff will also investigate the installation of photovoltaic arrays over OC SAN owned property between the treatment plants with additional battery storage systems.
3. OC SAN also plans to investigate the treatment and sale of Biogas to external users. The State of California has set goals for renewable energy utilization for electrical production and hydrogen transportation fuels. OC SAN'S Biogas is viewed favorably in these industries to meet the State of California targets. OC SAN is working very diligently and creatively to maximize the production of gas and reduce its own energy needs, but energy independence is the first goal which has not yet been met.
4. Staff recommends that innovative research continue to maximize energy harvesting and to minimize energy usage to make OC SAN energy independent in the most basic mission of protecting the public health and the environment. Super Critical Water Oxidation and other biosolids thermal conversion technologies offer some exciting opportunities to cut power use, reduce diesel fueled transportation, and create useful energy.

The Plant 1 battery storage system is owned and operated by a third-party based on incentives offered by SCE to the third party to manage grid loads. It is not operated to maximize OC SAN's savings, although OC SAN does realize significant savings.

Under the SCE LCR Program, the Plant 1 battery storage system may operate from 8 am to 9 pm. According to the battery storage system operator, the battery storage system is typically operated for 4 hours between 2 pm and 9 pm. During battery storage operation, there is approximately 500 to 1,000 kW of power imported from SCE based on current load data. This remaining demand is available to be offset by solar power.

In 2023, the Headquarters Building will be online and will be powered from Plant 1, Headworks Power Building 3. The Headquarters Building has been designed with solar power.

Plant 2 typically operates at near net zero import using three central generators fueled by digester gas and additional natural gas. Future Plant 2 loads consist of the OCWD Pump Station, J-124 Gas Compressor Facility Replacement (increased loads), and the future P2-128 TPAD Digester Facility at Plant 2. The future P2-138 Operations and Maintenance Complex at Plant 2 is planning to add solar in the parking lot and on the roof to offset some loads.

The space at Plants 1 and 2 continues to be very valuable for future process areas and construction project staging and laydown areas. There is potential space along the interplant right of way that could be used for solar, specifically, across Garfield Avenue from the southeast corner of Plant 1, along the Santa Ana River.

This task reviews alternative power generation and energy storage methods to achieve net zero import. CONSULTANT shall perform the following:

- Evaluate the Plant 1 dry weather flow load profile (current load and future load from projects currently in design) and determine the benefit and feasibility of adding solar, or solar with batteries, with and without Cen Gen as a normal power source. Include lifecycle costs, layout, and other key issues. **Exhibit 3 – Typical Plant 1 Power Flow for 1 Day** shows the typical power flow changes throughout the day (based on varying plant loading and STEM Tesla battery operation during peak power demand).
- Evaluate the Plant 2 dry weather flow load profile (current load and future load from projects currently in design) and determine the benefit and feasibility of adding solar, or solar with batteries, with and without Cen Gen as a normal power source. Include lifecycle costs, layout, and other key issues. Typically the present P2 loading varies between 6 to 7.5 MW on a typical day.
- OC San will be switching to “Direct Access”. Utilize these rates for cost benefit analysis.

Task 3 Deliverables:

- Energy Resiliency and Independence Technical Memorandum

Assumptions:

-Layout and drawings will be produced in PDF format. AutoCAD layouts and drawings will not be provided.

TASK 4 – CIP PROJECT DEVELOPMENT

Under this task, the CONSULTANT shall develop a Capital Improvement Program (CIP) project plan for the IC engine replacement for Plant Nos. 1 and 2. The timing shall be based on the inability to maintain the engines due to lack of parts, qualified companies are no longer available to perform the bottom-end overhauls, SCAQMD regulations change and prevent the operation of Cen Gen and/or one of the identified future generation trigger points occurs. The CIP project plan development shall include the projects recommended by this study under Task 2. In addition, the project plan shall include the project(s) identified in Task 3.

Based on the study results of Task 1, 2 and 3, the CONSULTANT shall develop the descriptions of project(s) and phase(s) to construct the proposed projects at Plant Nos. 1 and 2, including an implementation plan.

Task 4 will include two focus meetings with OC San. One focus meeting will be dedicated to Plant 1 and the other to Plant 2.

Task 4 Deliverables:

- Project Implementation Technical Memorandum

Assumptions:

-Layout and drawings will be produced in PDF format. AutoCAD layouts and drawings will not be provided.

TASK 5 – ENERGY AND DIGESTER GAS MASTER PLAN

Upon completion of the technical memoranda, the CONSULTANT shall compile all the documents into a draft Energy and Digester Gas Master Plan (Master Plan) with an executive summary for distribution and review. The CONSULTANT shall address all OC SAN staff comments in a final report.

The final Master Plan shall include all the materials listed in the draft Master Plan, but reflect the final comments received during the review of the draft Master Plan. Please note that one single *.pdf must be delivered for the final report that contains the entire report document. Appendices may be in separate *.pdf files.

Meeting agendas and minutes, Technical Memoranda, Reports, Appendices, etc. shall be delivered to OC SAN in a *.pdf version and native electronic version.

Task 5 Deliverables:

- Draft and Final Energy and Digester Master Plan

TASK 6 - PROJECT MANAGEMENT

CONSULTANT shall be responsible for managing CONSULTANT's project execution, schedule, budget, and coordination with other projects. The CONSULTANT shall be responsible for managing all subconsultants, including the assignment of scope, management of deliverables and schedules, reporting of progress, invoicing, and quality control.

TASK 6.1 PROJECT MANAGEMENT PROGRESS MEETINGS

CONSULTANT shall prepare an agenda and conduct monthly project management meetings with OC SAN's Project Manager and the CONSULTANT's Project Manager. The purpose of the meetings will be to review CONSULTANT's overall project progress and monthly Progress Report. Other meetings shall be scheduled on an as-needed basis. Assume 12 meetings.

TASK 6.2 PROJECT SCHEDULE

CONSULTANT shall create a detailed project schedule. The schedule shall include milestones for all dates listed in Section III – Project Schedule. The schedule shall be based on the same

work breakdown structure used for estimating earned value as described in “Progress Reports” above. Schedule updates shall be submitted with the monthly Progress Report.

At a minimum, the schedule shall indicate the following:

- Projected start date and finish date for each activity
- Each project task and subtask in the WBS with predecessors and successors
- Major meetings and workshops
- Physical percent complete for each activity in the WBS and percent complete by Task

CONSULTANT shall prepare planned, actual and earned value curves for the Baseline Schedule and for monthly updates. Monthly updates shall also include Cost Performance Index (CPI) and Schedule Performance Index (SPI) calculations.

TASK 6.3 PROJECT LOGS

CONSULTANT shall produce and maintain at least on a monthly basis the following logs through the course of the project:

Project Decision Log. The project decision log shall track decisions made during workshops and meetings, and as a result of OC SAN review of deliverables. The log shall include the date of the decision, the title of the meeting, where it was made (if applicable), a description of the decision, and a brief summary of the impacts.

Action Item Log. The action item log is used to track action items generated during meetings. Action items may only be assigned to members of the OC SAN or CONSULTANT teams. If action is required by a different party, the action item shall be assigned to the person on the team to track who will track the action item with that person. The action item log is not intended to include normal CONSULTANT tasks, nor to include comments on deliverables. The Action Item log shall include a tracking number (typically coded to the date), a date it was created, a description of the action required, the lead person, and the date it was resolved. If action is required by more than one person, the person who will be asked to coordinate that action shall be listed.

Meeting Log. See Task 7 Meetings and Workshops.

TASK 6.4 PROGRESS REPORTS

CONSULTANT shall submit monthly progress reports at the same time as monthly invoices that include the following contents:

- Work activities completed to date, in the current reporting period, and projected for the coming month.
- A brief description of outstanding issues and their potential for impact on scope, schedule (design and construction), budget (design and construction) and quality.
- Potential changes in the project scope or design scope.

- Budget status including estimates of actual costs to date, earned value, costs to complete, and costs at completion.
- Schedule status with a description of any variances between scheduled and forecasted milestone dates.
- A discussion of corrective actions to be taken to avoid or mitigate cases where the project schedule is expected to be delayed.

TASK 6.5 PROJECT INVOICES

The invoices shall document the man-hours and billing rate for each person that works on the project. Overhead, profit and any direct costs shall also be shown for each task. As part of the summary section of the invoice, CONSULTANT shall also include the following information:

- Budget
- Current billing period invoicing
- Previous billing period “total invoiced to date”
- Budget Amount Remaining
- Current billing period “total percent invoiced to date”
- ETC for each Task & Subtask

Approval of an invoice by OC SAN requires a Progress Report for the period covered by the invoice. Payment of an invoice will be delayed until the Progress Report is submitted. OC SAN will provide a sample invoice structure to CONSULTANT at the beginning of the project.

TASK 7 – MEETINGS AND WORKSHOPS

CONSULTANT shall hold virtual meetings and workshops throughout the project to keep OC SAN apprised of the job, review work-in-progress, share information, discuss project submittals, present findings of technical analyses, receive and resolve comments, and obtain decisions and direction by OC SAN staff. This task defines the major meetings and workshops to be held by the CONSULTANT.

CONSULTANT shall assume the following meetings will be required.

Task	Number of Meetings/ Workshops	Proposed Topics
N/A	<ul style="list-style-type: none"> One 2-hr Project Kickoff 	
1	<ul style="list-style-type: none"> Twelve 1-hr Meeting 	<ul style="list-style-type: none"> Four 1-hr meetings for task 1.1 topics Four 1-hr meetings for task 1.2 topics Four 1-hr meetings for task 1.4 topics
1	<ul style="list-style-type: none"> One 2-hr Workshop 	<ul style="list-style-type: none"> Review draft Task 1 TM
2	<ul style="list-style-type: none"> Fifteen 1-hr Meetings 	<ul style="list-style-type: none"> Eleven 1-hr meetings for task 2.1 topics Two 1-hr meetings for task 2.2 and 2.3 Two 1-hr meetings for task 2.4
2	<ul style="list-style-type: none"> One 2-hr Meeting 	<ul style="list-style-type: none"> Discuss Cen Gen Replacement alternatives TM
2	<ul style="list-style-type: none"> One 2-hr Workshop 	<ul style="list-style-type: none"> Review draft Task 2 TMs
3	<ul style="list-style-type: none"> Two 1-hr Meetings 	<ul style="list-style-type: none"> Discuss energy resilience and independence sizing and location. Discuss options
3	<ul style="list-style-type: none"> One 1-hr Workshop 	<ul style="list-style-type: none"> Review draft Task 3 TM
4	<ul style="list-style-type: none"> Two 1-hr Meetings 	<ul style="list-style-type: none"> Focus meetings dedicated to Plant 1 and Plant 2 CIP
4	<ul style="list-style-type: none"> One 1-hr Workshop 	<ul style="list-style-type: none"> Discuss proposed CIPs for the project
4	<ul style="list-style-type: none"> One 1-hr Meetings 	<ul style="list-style-type: none"> Review draft Task 4 TM
5	<ul style="list-style-type: none"> One 1-hr Workshop 	<ul style="list-style-type: none"> Present the draft Energy and Digester Gas Master Plan
5	<ul style="list-style-type: none"> One 2-hr Workshop 	<ul style="list-style-type: none"> Review responses to OC SAN comments on draft report
5	<ul style="list-style-type: none"> One 1-hr Workshop 	<ul style="list-style-type: none"> Present Energy and Digester Gas Master Plan to the EMT

CONSULTANT shall transmit the minutes to the OC SAN Project Manager within three business days of the meeting in MS Word format using OC SAN's template, or an approved substitution.

A copy of all comments on project issues obtained by CONSULTANT from OC SAN staff without direct OC SAN Engineering Project Manager's involvement shall be submitted for the Project Manager's approval within three business days of receipt.

TASK 8 - QUALITY CONTROL

CONSULTANT shall be responsible for the technical adequacy and quality control of the work. Prior to the submittal to OC SAN, each portion of a submittal shall be thoroughly reviewed and corrected by a member of the CONSULTANT's QC Team. The reviewer shall attest to their

review in the form of a written affidavit outlining the submittal subject and identifying the corrected deficiencies.

V. GENERAL REQUIREMENTS

GENERAL

Working Hours

CONSULTANT's on-site staff shall conform to OC SAN work schedules, unless otherwise approved by OC SAN. CONSULTANT shall refer to the Engineering Design Guidelines, Chapter 01, Section 01.3.5 "CONSULTANT Inspection of Treatment Facilities" for further requirements. Meetings with OC SAN staff shall be scheduled from Monday through Thursday between the hours of 8:00 AM and 4:00 PM.

Software

The CONSULTANT is expected to develop and provide the deliverables using the standard software currently approved for use by OC SAN. The standard OC SAN software includes, but is not limited to, the following:

Windows 10 Professional

Microsoft Internet Explorer 11

AutoCAD Plant 3D version 2018 (for P&ID drawings only)

Autodesk software 2018 (AutoCAD, AutoCAD Map3D or compatible dwg file format)

Microsoft Office 365

Bluebeam Revu eXtreme (version 2018.2)

Primavera P6 for scheduling

Any software that the CONSULTANT needs to comply with these standards shall be purchased and maintained by the CONSULTANT at no additional cost to OC SAN. In the event OC SAN provides the CONSULTANT with access to OC SAN software and hardware at an OC SAN facility in order to facilitate performance of their work, all software shall remain the property of OC SAN. Only software licensed to OC SAN shall be installed on OC SAN equipment. In addition, only OC SAN's IT Department staff will perform the installation of this software.

Submittal Review using Bluebeam

OC SAN has standardized on the use of Bluebeam Revu for reviewing and providing comments to PDF files. Prior to submitting electronic PDF files, format them as indicated below (underlined text refers to commands or functions within the Bluebeam software).

1. Flatten file with Document\Flatten
2. Reduce file size with Document\Process\Reduce File Size

3. Make PDF searchable with Document\OCR
4. Create page labels with Thumbnails Toolbar\Create Page Labels
5. Create bookmarks with Create Bookmarks\Page Labels
6. Enable hyperlinks with File\Batch\Link\New

PMWEB Procedures

This Agreement shall utilize PMWeb as the Project Control Management System (PCMS) for overall management of the Agreement. All PCMS related documents requiring formal signatures shall be digital, and all copies digitally distributed. The PCMS conforms to the requirements set forth in California Government Code section 16.5 regarding digital signatures; therefore, digital signatures are in full force and effect and are legally the same as hand-written signatures. At least one PCMS account shall have the authority to approve Amendments.

OC SAN shall maintain the PCMS and serve as the administrator for the duration of this Agreement. OC SAN will provide the CONSULTANT with user access for approved personnel as needed for the duration of the Agreement. OC SAN shall control access to the PCMS by assigning user profiles and login credentials. Notify OC San of any changes to personnel. Access modifications shall be coordinated as needed throughout the Agreement. Do not share PCMS account passwords with anyone inside or outside of the CONSULTANT's company.

Routine maintenance of the PCMS system may be required during the Agreement. Access to the PCMS system may be restricted or unavailable at these times and will be scheduled outside of typical working hours whenever possible.

The PCMS is a web-based environment and is therefore subject to the inherent speed and connectivity problems of the Internet. The CONSULTANT is responsible for its own connectivity to the Internet. PCMS response time is dependent on the CONSULTANT's equipment, including processor speed, Internet access speed, Internet traffic, etc.

OC SAN will not be liable for any delays associated with the utilization of the PCMS including, but not limited to, slow response time, down time periods, connectivity problems, or loss of information.

OC SAN will provide a one-time free training session of up to two (2) hours to train CONSULTANT's designated staff on general system requirements, procedures, and methods.

Automated system notifications generated via PCMS (e.g.; in-system notices, system generated email, or email with attachment) shall constitute a formal written notification in compliance with the Professional Services Agreement (PSA)

VI. STAFF ASSISTANCE

OC SAN staff member or designee assigned to work with CONSULTANT on the design of this project is Carmen Quan at (714) 593-7415, e-mail to: cquan@ocsan.gov.

EXHIBITS:

Exhibit 1 Updating OC San Procedures

Exhibit 2 Project Management Requirements

Exhibit 3 Project Reference Material

- A. J-102 Strategic Plan Update – Energy Master Plan
- B. PS15-01 Biosolids Master Plan
- C. J-124 Design Memo 1
- D. P2-128 Preliminary Design Report, Volume 1,DM01A
- E. PS20-04 Power Generation Overhaul Feasibility Study
- F. Typical Plant 1 Power Flow for 1 Day
- G. Project PS18-11 P2 Loading Data
- H. P1 Sample Load Criticality Table
- I. P2 Sample Load Criticality Table
- J. P1 Single Line Diagram Drawing List
- K. P2 Single Line Diagram Drawing List

Exhibit 4 Sample Construction Cost Estimate Format

MD:CQ:gr:sa

<https://ocsdgov.sharepoint.com/sites/ProjectPS21-04/ContractDocumentation/PS21-04 Attachment A SOW.docx>

Energy and Digester Gas Master Plan

Project No. PS21-04

Presented by:
Mike Dorman
Eng. Manager

Operations
Committee
June 1, 2022



1

Energy Independence Policy

Future Policy Statement

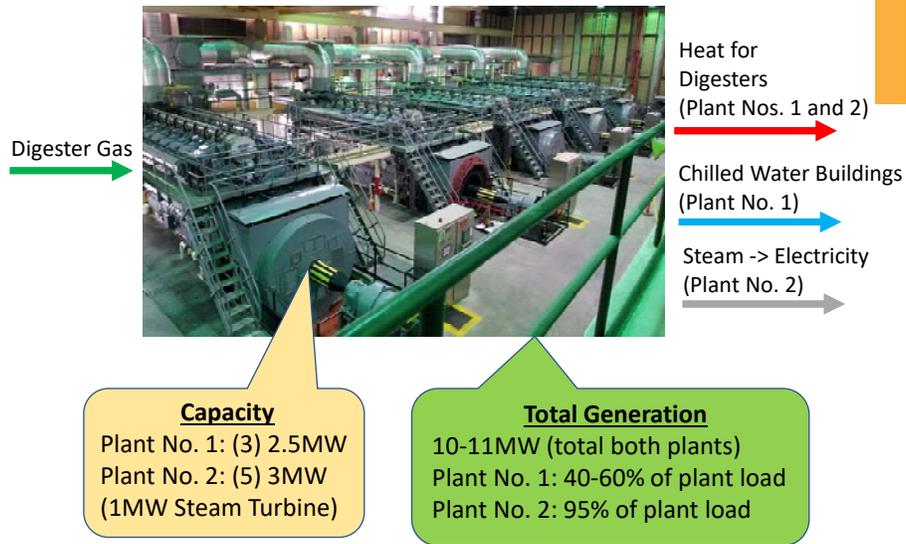
“OC San seeks to be energy independent by self-generating all the electrical and thermal energy necessary to sustain operations.”

2

2

Background - Central Generation

Central Generation Facilities installed in the early 1990s at Plants Nos. 1 and 2



3

Background - Engine Overhaul

- All engines need 1st bottom-end overhaul (120,000 hrs)
- Plant No. 1, Engine 1: Two catastrophic engine failures
- PS20-04 Power Generation Overhaul Feasibility Study: Viable to overhaul engines for the next 20 years
- Recently successfully completed P1, Engine 1
- Negotiating overhaul costs:
 - Plant No. 1: 1 engine
 - Plant No. 2: 3 engines



4

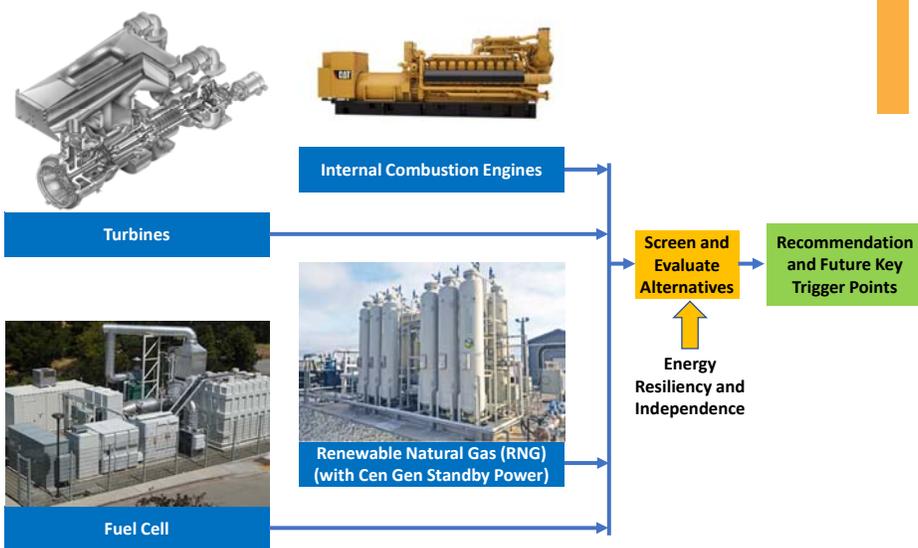
Study Objectives

1. Develop a long-term plan for Cen Gen if overhauls are no longer viable in the future or if South Coast Air Quality Management District's future regulations prevent the operation of the engines
2. Develop a standby power policy to maintain permit compliance
3. Develop an energy resiliency and independence strategy

5

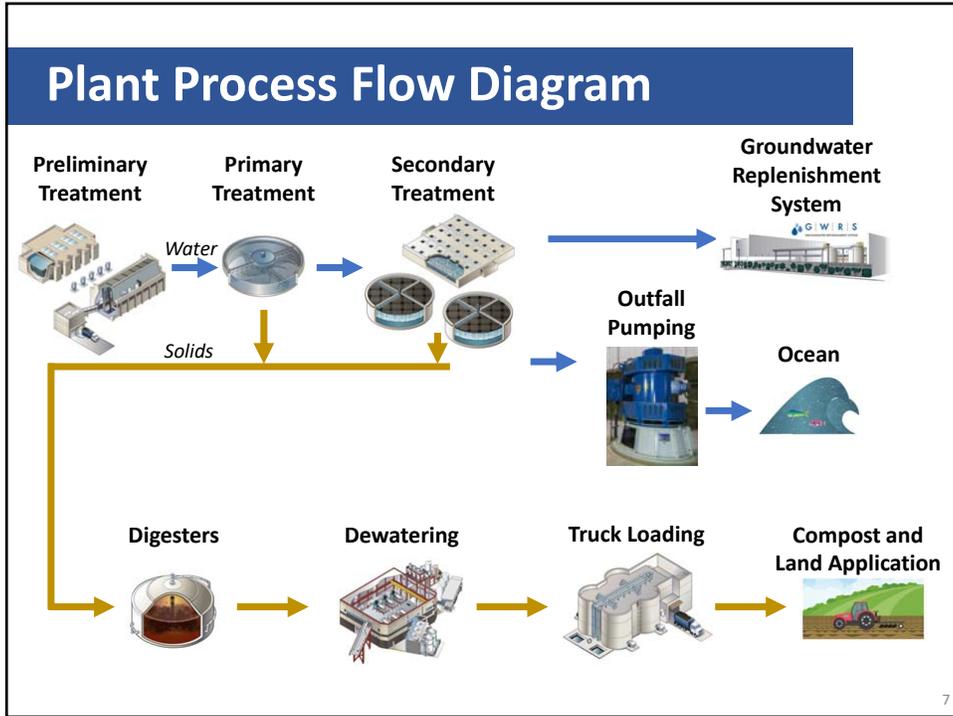
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Cen Gen Replacement Options

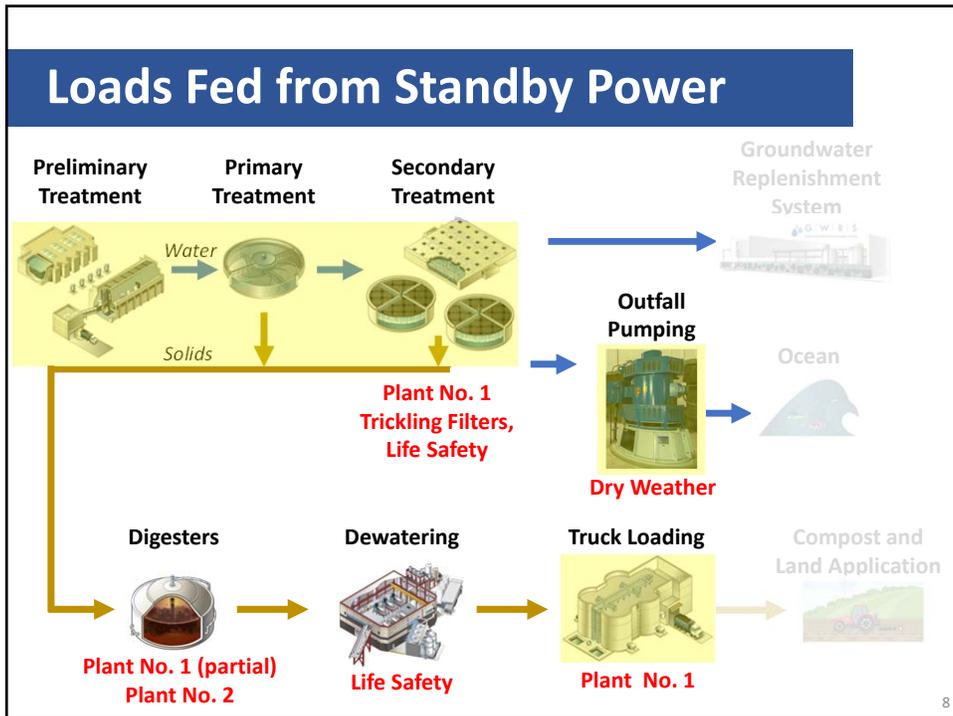


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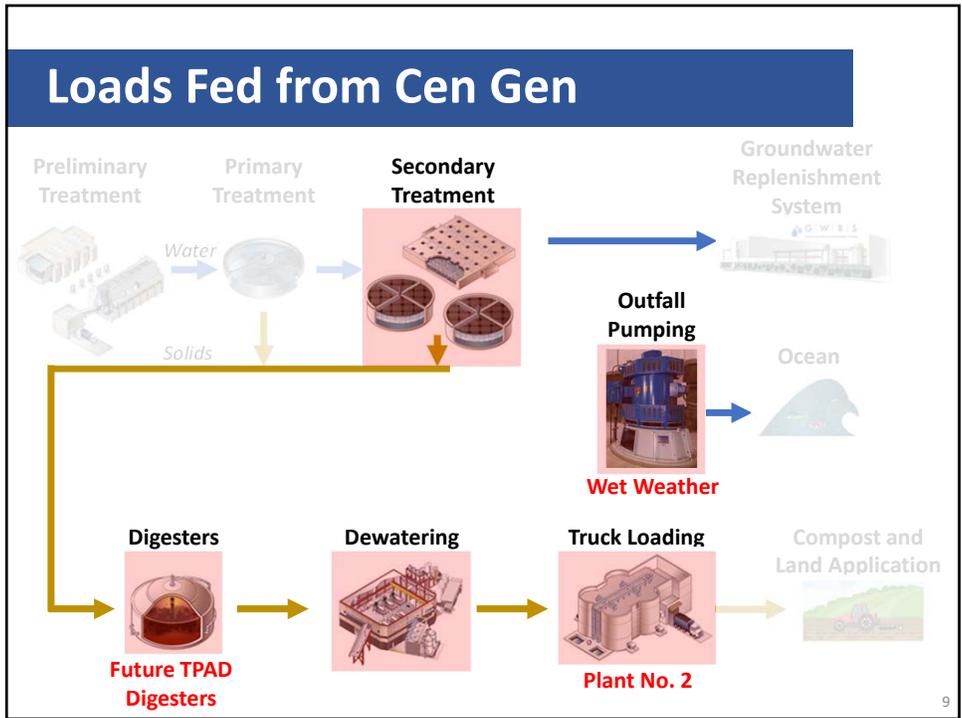
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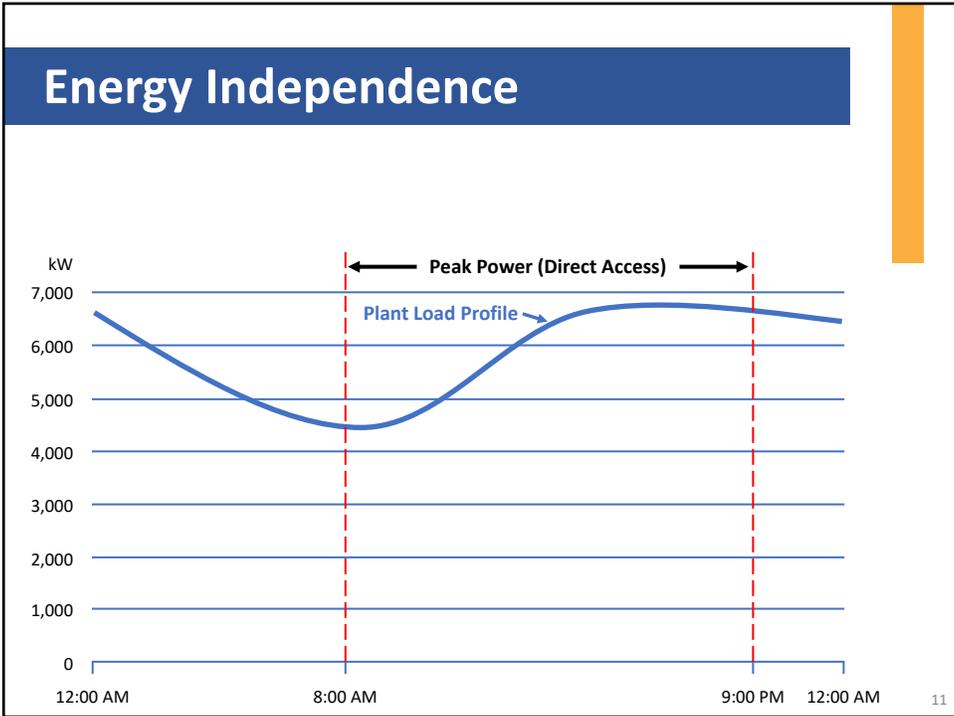
Update OC San Procedures

**Update IERP, Vol II
05- Utility Outages**

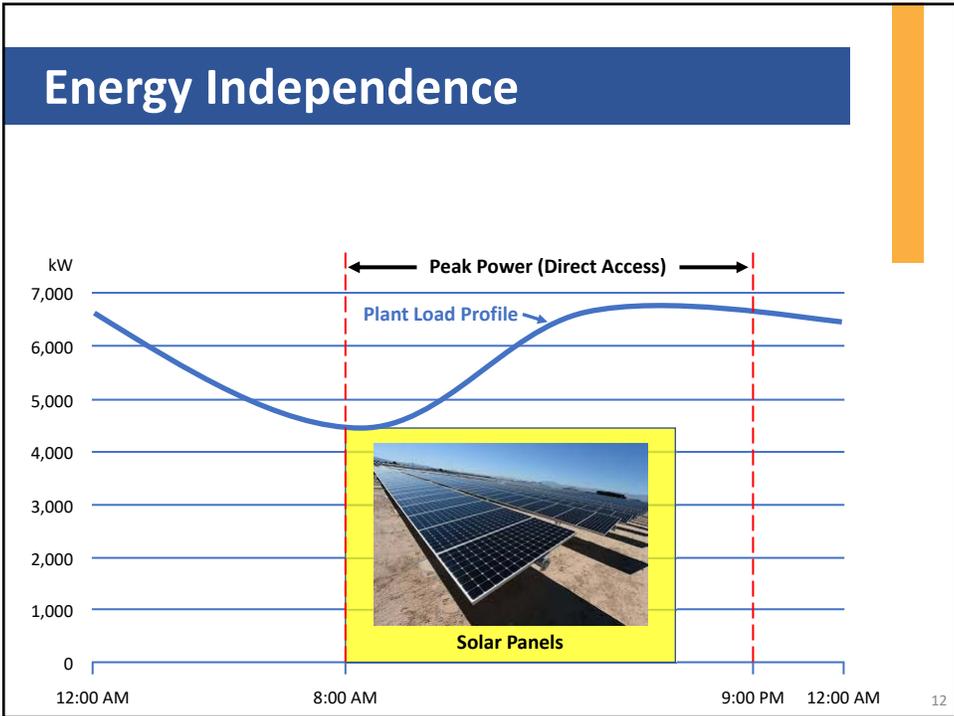
**Update Standby Power
Standard Operating
Procedure (SOP)**

**Update Electrical Outage
Emergency Operation
Procedure (EOP)**

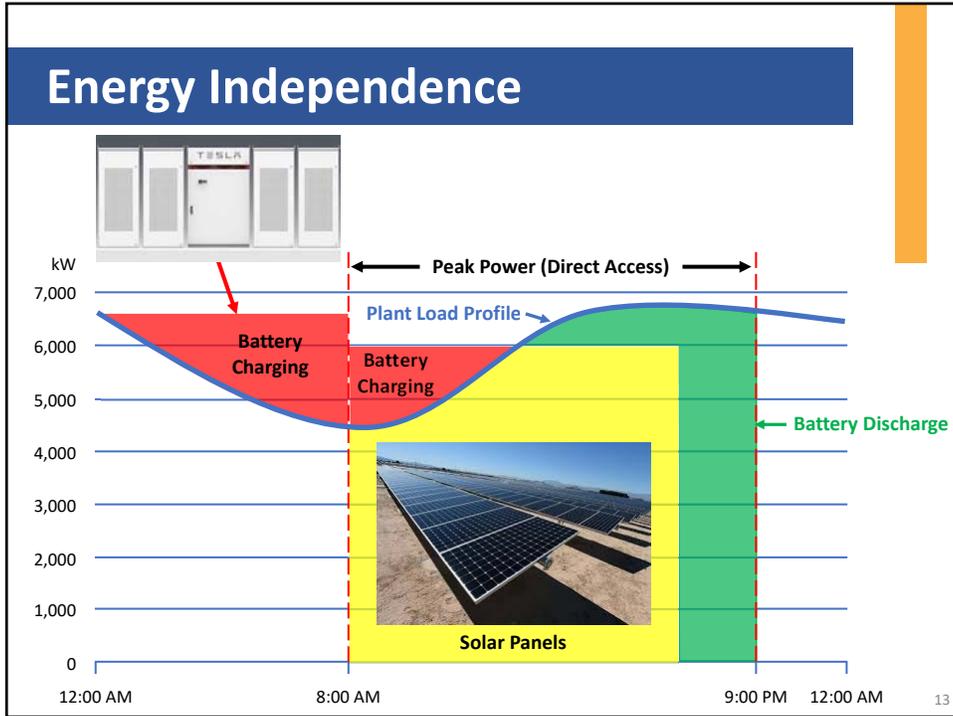
10



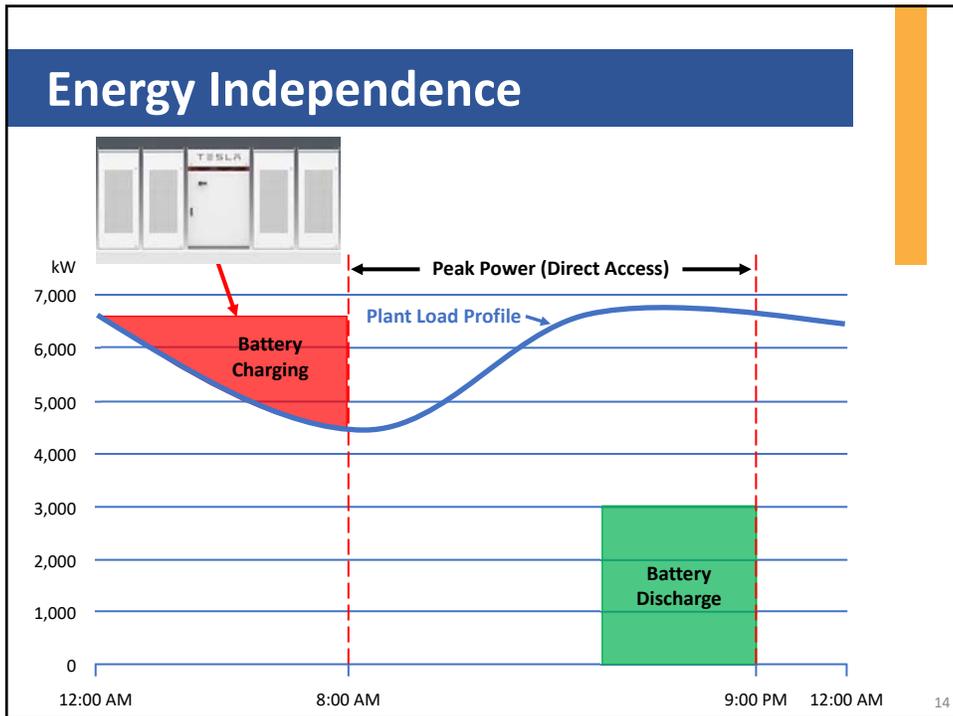
11



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13



14

Selection Process

- Three proposals received
- Interviewed all three firms
- Brown and Caldwell selected
 - Clear project understanding
 - Good project execution approach
 - Good experience on studies and projects utilizing digester gas

15

15

Negotiations

	Original Proposal	Negotiated
Total Hours	6,149	5,794
Total Fee	\$1,544,692	\$1,438,037

- Reduced effort on updating existing procedures
- Reduced effort evaluating details of replacement alternatives

16

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Recommendation

Recommend to the Board of Directors to:

- A. Approve a Professional Services Agreement with Brown and Caldwell to provide engineering services for the Energy and Digester Gas Master Plan, Project No. PS21-04, for an amount not to exceed \$1,438,037; and
- B. Approve a contingency of \$143,804 (10%).

17

17

Questions



18

18



OPERATIONS COMMITTEE

Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

Agenda Report

File #: 2021-1944

Agenda Date: 6/1/2022

Agenda Item No: 7.

FROM: James D. Herberg, General Manager
Originator: Kathy Millea, Director of Engineering

SUBJECT:

REDHILL RELIEF SEWER RELOCATION AT STATE ROUTE 55, PROJECT NO. FE18-13

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for Redhill Relief Sewer Relocation at State Route 55, Project No. FE18-13;
- B. Award a Construction Contract to SRK Engineering, Inc. for Redhill Relief Sewer Relocation at State Route 55, Project No. FE18-13 for an amount not to exceed \$2,213,000; and
- C. Approve a contingency of \$331,950 (15%).

BACKGROUND

The Orange County Transportation Authority (OCTA) is implementing the State Route 55 (SR-55) Improvement Project to widen SR-55 between Interstate 5 and Interstate 405. The Orange County Sanitation District (OC San) owns a sewer running under SR-55 immediately south of Warner Avenue in the City of Santa Ana.

RELEVANT STANDARDS

- Comply with California Public Contract Code Section 20103.8, award construction contract to lowest responsive, responsible bidder
- Maintain collaborative and cooperative relationships with regulators, stakeholders, and neighboring communities
- Protect OC San assets

PROBLEM

The SR-55 Improvement Project will widen the freeway over an existing OC San sewer. To protect the sewer, OC San must encase the sewer in the newly widened right-of-way and move an interfering manhole outside the freeway limits.

PROPOSED SOLUTION

Award a contract for Redhill Relief Sewer Relocation at State Route 55 to SRK Engineering, Inc. This project will extend a protective casing for the portions of the sewer to remain under the widened freeway and relocate a manhole out of the widened right-of-way. Moving the manhole requires a sewer realignment and the addition of three new manholes to avoid a retaining wall along Warner Avenue.

OCTA has agreed to compensate OC San for the cost of this work, as documented in a March 2020 Utility Agreement between the agencies and later updated in a September 2021 Utility Agreement Amendment.

OC San's sewer work must be performed before the freeway can be widened. Due to site constraints, OCTA acquired temporary construction easements from the impacted businesses. To minimize disruptions to the impacted businesses and avoid delaying OCTA's freeway widening project, OC San must complete construction within a four-month window.

Although high change orders are not anticipated, the work is complex and if an unforeseen condition created significant problems, staff might be unable to resolve the issue without waiting for the next available Board meeting. For this reason, staff is requesting a higher-than-usual contingency of 15%. OCTA is funding the sewer work and supports the higher contingency.

TIMING CONCERNS

Construction delays would require the temporary construction easements to be extended at a significant cost impact to OCTA. OC San construction delays could also impact OCTA's freeway schedule.

RAMIFICATIONS OF NOT TAKING ACTION

OC San is obligated to relocate the sewer to accommodate the freeway widening project and OCTA is obligated to reimburse OC San's costs.

PRIOR COMMITTEE/BOARD ACTIONS

March 2020 - Approved Utility Agreement No. OCSD-1005 between Orange County Sanitation District and the Orange County Transportation Authority agreeing to specific terms, conditions, and funding obligations regarding the relocation and protection of the Redhill Relief Sewer at State Route 55 in the City of Santa Ana.

September 2021 - Approved the First Amendment to Utility Agreement No. OCSD-1005 between Orange County Sanitation District and the Orange County Transportation Authority agreeing to a funding increase for the relocation and protection of the Redhill Relief Sewer at State Route 55 in the City of Santa Ana.

ADDITIONAL INFORMATION

The stretch of sewer under the freeway has a number of cracks. OC San, with the agreement of OCTA, has included in this contract repair of that pipe so that it can be done with no additional bypass pumping, saving significant costs and risks. The cost for this portion of the work will not be reimbursed by OCTA.

OC San advertised Project No. FE18-13 for bids on March 15, 2022 and two sealed bids were received on April 26, 2022. A summary of the bid opening follows:

Engineer's Estimate	\$ 2,076,000
Bidder	<u>Amount of Bid</u>
SRK Engineering, Inc.	\$ 2,213,000
MMC, Inc.	\$ 2,479,551

The bids were evaluated in accordance with the OC San's policies and procedures. A notice was sent to all bidders on May 6, 2022 informing them of the intent of OC San staff to recommend award of the Construction Contract to SRK Engineering, Inc.

Pre-bid surveys of plan holders indicated four contractors intended to bid this project. In a post-bid survey, staff learned that two of those contractors had a busy workload and another did not meet the experience requirements. SRK Engineering was not included in the pre-bid survey because they were not a plan holder when the surveys were conducted.

Staff recommends awarding a Construction Contract to the lowest responsive and responsible bidder, SRK Engineering, Inc., for a total amount not to exceed \$2,213,000.

CEQA

The Caltrans/OCTA SR-55 Improvement Project includes the relocation and protection of the Redhill Relief Sewer in their Initial Study/Mitigated Negative Declaration/Environmental Assessment.

This project also includes a sewer repair element. That portion of the work is exempt from CEQA under the Class 1 categorical exemptions set forth in California Code of Regulations section 15301. A Notice of Exemption will be filed with the OC Clerk-Recorder after the OC San's Board of Directors approval of the Construction Contract.

FINANCIAL CONSIDERATIONS

This request complies with the authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Budget Update, Fiscal Year 2021-2022, Appendix A, Page A-8, Small Construction Projects Program, Project No. M-FE) and the budget is sufficient for the recommended action.

OCTA will reimburse OC San for costs related to this construction project, with the exception of the lining work, which will be covered by operating funds.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

- Construction Contract

RD: jw

PART A
CONTRACT AGREEMENT

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CONTRACT AGREEMENT

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CONTRACT AGREEMENT
ORANGE COUNTY SANITATION DISTRICT

PROJECT NO. FE18-13
REDHILL RELIEF SEWER RELOCATION AT STATE ROUTE 55

THIS AGREEMENT is made and entered into, to be effective, this June 22, 2022, by and between SRK Engineering, Inc., hereinafter referred to as "CONTRACTOR" and the Orange County Sanitation District, hereinafter referred to as "OC SAN".

WITNESSETH

That for and in consideration of the promises and agreements hereinafter made and exchanged, OC SAN and CONTRACTOR agree as follows:

SECTION – 1 GENERAL

CONTRACTOR certifies and agrees that all the terms, conditions and obligations of the Contract Documents as hereinafter defined, the location of the job site, and the conditions under which the Work is to be performed have been thoroughly reviewed, and enters into this Contract based upon CONTRACTOR's investigation of all such matters and is in no way relying upon any opinions or representations of OC SAN. It is agreed that this Contract represents the entire agreement. It is further agreed that the Contract Documents are each incorporated into this Contract by reference, with the same force and effect as if the same were set forth at length herein, and that CONTRACTOR and its Subcontractors, if any, will be and are bound by any and all of said Contract Documents insofar as they relate in any part or in any way, directly or indirectly, to the Work covered by this Contract.

CONFORMED

C-CA-010422
PROJECT NO. FE18-13
REDHILL RELIEF SEWER RELOCATION AT STATE ROUTE 55

A. Contract Documents Order of Precedence

“Contract Documents” refers to those documents identified in the definition of “Contract Documents” in the General Conditions, “Definitions”.

1. In the event of a conflict between one Contract Document and any of the other Contract Documents, the provisions in the document highest in precedence shall be controlling. The order of precedence of the Contract Documents is as follows:
 - a. Supplemental Agreements – the last in time being the first in precedence
 - b. Addenda issued prior to the date for submittal of Bids – the last in time being the first in precedence
 - c. Contract Agreement and Special Provisions
 - d. Permits and other regulatory requirements
 - e. General Conditions (GC)
 - f. Notice Inviting Bids and Instruction to Bidders
 - g. Geotechnical Baseline Report (GBR), if attached as a Contract Document
 - h. Plans and Specifications – in these documents the order of precedence shall be:
 - i. Specifications (Divisions 01-17)
 - ii. Plans
 - iii. General Requirements (GR)
 - iv. Standard Drawings and Typical Details
 - i. CONTRACTOR’s Bid
2. In the event of a conflict between terms within an individual Contract Document, the conflict shall be resolved by applying the following principles as appears applicable:
 - a. Figured dimensions on the Contract Documents shall govern. Dimensions not specified shall be as directed by the ENGINEER. Details not shown or specified shall be the same as similar parts that are shown or specified, or as

directed. Full-size details shall take precedence over scale Drawings as to shape and details of construction. Specifications shall govern as to material and workmanship.

- b. The Contract Documents calling for the higher quality material or workmanship shall prevail. Materials or Work described in words, which so applied, have a well-known technical or trade meaning shall be deemed to refer to such recognized standards. In the event of any discrepancy between any Drawings and the figures thereon, the figures shall be taken as correct.
- c. Scale Drawings, full-size details, and Specifications are intended to be fully complementary and to agree. Should any discrepancy between Contract Documents come to the CONTRACTOR's attention, or should an error occur in the efforts of others, which affect the Work, the CONTRACTOR shall notify the ENGINEER, in writing, at once. In the event any doubts or questions arise with respect to the true meaning of the Contract Documents, reference shall be made to the ENGINEER whose written decision shall be final. If the CONTRACTOR proceeds with the Work affected without written instructions from the ENGINEER, the CONTRACTOR shall be fully responsible for any resultant damage or defect.
- d. Anything mentioned in the Specifications and not indicated in the Plans, or indicated in the Plans and not mentioned in the Specifications, shall be of like effect as if indicated and mentioned in both. In case of discrepancy in the Plans or Specifications, the matter shall be immediately submitted to OC SAN's ENGINEER, without whose decision CONTRACTOR shall not adjust said discrepancy save only at CONTRACTOR's own risk and expense. The decision of the ENGINEER shall be final.

In all matters relating to the acceptability of material, machinery or plant equipment; classifications of material or Work; the proper execution, progress or sequence of the Work; and quantities interpretation of the Contract Documents, the decision of the ENGINEER shall be final and binding, and shall be a condition precedent to any payment under the Contract, unless otherwise ordered by the Board of Directors.

B. Definitions

Capitalized terms used in this Contract are defined in the General Conditions, "Definitions". Additional terms may be defined in the Special Provisions.

SECTION – 2 MATERIALS AND LABOR

CONTRACTOR shall furnish, under the conditions expressed in the Plans and Specifications, at CONTRACTOR'S own expense, all labor and materials necessary, except such as are mentioned in the Specifications to be furnished by OC SAN, to construct and complete the Project, in good workmanlike and substantial order. If CONTRACTOR fails to pay for labor or materials when due, OC SAN may settle such claims by making demand upon the Surety to this Contract. In the event of the failure or refusal of the Surety to satisfy said claims, OC SAN may settle them directly and deduct the amount of payments from the Contract Price and any amounts due to CONTRACTOR. In the event OC SAN receives a stop payment notice from any laborer or material supplier alleging non-payment by CONTRACTOR, OC SAN shall be entitled to deduct all of its costs and expenses incurred relating thereto, including but not limited to administrative and legal fees.

SECTION – 3 PROJECT

The Project is described as:

PROJECT NO. FE18-13

REDHILL RELIEF SEWER RELOCATION AT STATE ROUTE 55

SECTION – 4 PLANS AND SPECIFICATIONS

The Work to be done is shown in a set of Plans and Specifications entitled:

PROJECT NO. FE18-13

REDHILL RELIEF SEWER RELOCATION AT STATE ROUTE 55

Said Plans and Specifications and any revision, amendments and addenda thereto are attached hereto and incorporated herein as part of this Contract and referred to by reference.

SECTION – 5 TIME OF COMMENCEMENT AND COMPLETION

CONTRACTOR agrees to commence the Project within 15 calendar days from the date set forth in the “Notice to Proceed” sent by OC SAN, unless otherwise specified therein and shall diligently prosecute the Work to completion within three hundred sixty-five (365) calendar days from the date of the “Notice to Proceed” issued by OC SAN, excluding delays caused or authorized by OC SAN as set forth in Sections 7, 8, and 9 hereof, and applicable provisions in the General Conditions. The time for completion includes fourteen (14) calendar days determined by OC SAN likely to be inclement weather when CONTRACTOR will be unable to work.

In addition, CONTRACTOR shall accomplish such milestones within the periods of performance and requirements set forth in Appendix A of the Special Provisions entitled “Work Completion Schedule.”

SECTION – 6 TIME IS OF THE ESSENCE

Time is of the essence of this Contract. As required by the Contract Documents, CONTRACTOR shall prepare and obtain approval of all shop drawings, details and samples, and do all other things necessary and incidental to the prosecution of CONTRACTOR’s Work in conformance with an approved construction progress schedule. CONTRACTOR shall coordinate the Work covered by this Contract with that of all other contractors, subcontractors

and of OC SAN, in a manner that will facilitate the efficient completion of the entire Work and accomplish the required milestone(s), if any, by the applicable deadline(s) in accordance with Section 5 herein. OC SAN shall have the right to assert complete control of the premises on which the Work is to be performed and shall have the right to decide the time or order in which the various portions of the Work shall be installed or the priority of the work of subcontractors, and, in general, all matters representing the timely and orderly conduct of the Work of CONTRACTOR on the premises.

SECTION – 7 EXCUSABLE DELAYS

CONTRACTOR shall only be excused for any delay in the prosecution or completion of the Project as specifically provided in General Conditions, “Extension of Time for Delay”, and the General Requirements, “By CONTRACTOR or Others – Unknown Utilities during Contract Work”. Extensions of time and extra compensation arising from such excusable delays will be determined in accordance with the General Conditions, “Extension of Time for Delay” and “Contract Price Adjustments and Payments”, and extensions of time and extra compensation as a result of incurring undisclosed utilities will be determined in accordance with General Requirements, “By CONTRACTOR or Others – Unknown Utilities during Contract Work”. OC SAN’s decision will be conclusive on all parties to this Contract.

SECTION – 8 EXTRA WORK

The Contract Price as set forth in Section 11, includes compensation for all Work performed by CONTRACTOR, unless CONTRACTOR obtains a Change Order signed by a designated representative of OC SAN specifying the exact nature of the Extra Work and the amount of extra compensation to be paid all as more particularly set forth in Section 9 hereof and the General Conditions, “Request for Change (Changes at CONTRACTOR’s Request)”, “OWNER Initiated Changes”, and “Contract Price Adjustments and Payments”.

In the event a Change Order is issued by OC SAN pursuant to the Contract Documents, OC SAN shall extend the time fixed in Section 5 for completion of the Project by the number of days, if any, reasonably required for CONTRACTOR to perform the Extra Work, as determined by OC SAN's ENGINEER. The decision of the ENGINEER shall be final.

SECTION – 9 CHANGES IN PROJECT

OC SAN may at any time, without notice to any Surety, by Change Order, make any changes in the Work within the general scope of the Contract Document, including but not limited to changes:

1. In the Specifications (including Drawings and designs);
2. In the time, method or manner of performance of the Work;
3. In OC SAN-furnished facilities, equipment, materials, services or site; or
4. Directing acceleration in the performance of the Work.

No change of period of performance or Contract Price, or any other change in the Contract Documents, shall be binding until the Contract is modified by a fully executed Change Order.

All Change Orders shall be issued in accordance with the requirements set forth in the General Conditions, "Request for Change (Changes at CONTRACTOR's Request)" and "OWNER Initiated Changes".

SECTION – 10 LIQUIDATED DAMAGES FOR DELAY

Liquidated Damages shall be payable in the amounts and upon the occurrence of such events or failure to meet such requirements or deadlines as provided in the Special Provisions, "Liquidated Damages and Incentives."

SECTION – 11 CONTRACT PRICE AND METHOD OF PAYMENT

A. OC SAN agrees to pay and the CONTRACTOR agrees to accept as full consideration for the faithful performance of this Contract, subject to any additions or deductions as provided in approved Change Orders, the sum of Two Million Two Hundred Thirteen

Thousand Dollars (\$2,213,000) as itemized on the attached Exhibit "A".

Upon satisfaction of the conditions precedent to payment set forth in the General Requirements, Additional General Requirements, and General Conditions (including but not limited to Sections entitled "Mobilization Payment Requirements" and "Payment Itemized Breakdown of Contract Lump Sum Prices"), there shall be paid to the CONTRACTOR an initial Net Progress Payment for mobilization. OC SAN shall issue at the commencement of the job a schedule which shows:

1. A minimum of one payment to be made to the CONTRACTOR for each successive four (4) week period as the Work progresses, and
2. The due dates for the CONTRACTOR to submit requests for payment to meet the payment schedule.

After the initial Net Progress Payment, and provided the CONTRACTOR submits the request for payment prior to the end of the day required to meet the payment schedule, the CONTRACTOR shall be paid a Net Progress Payment on the corresponding monthly payment date set forth in the schedule.

Payments shall be made on demands drawn in the manner required by law, accompanied by a certificate signed by the ENGINEER, stating that the Work for which payment is demanded has been performed in accordance with the terms of the Contract Documents, and that the amount stated in the certificate is due under the terms of the Contract.

Payment applications shall also be accompanied with all documentation, records, and releases as required by the Contract; Exhibit A, Schedule of Prices; and General Conditions, "Payment for Work – General". The Total amount of Progress Payments shall not exceed the actual value of the Work completed as certified by OC SAN's ENGINEER. The processing of payments shall not be considered as an acceptance of any part of the Work.

- B. As used in this Section, the following defined terms shall have the following meanings:
1. **“Net Progress Payment”** means a sum equal to the Progress Payment less the Retention Amount and other qualified deductions (Liquidated Damages, stop payment notices, etc.).
 2. **“Progress Payment”** means a sum equal to:
 - a. the value of the actual Work completed since the commencement of the Work as determined by OC SAN;
 - b. plus the value of material suitably stored at the worksite, treatment plant or approved storage yards subject to or under the control of OC SAN since the commencement of the Work as determined by OC SAN;
 - c. less all previous Net Progress Payments;
 - d. less all amounts of previously qualified deductions;
 - e. less all amounts previously retained as Retention Amounts.
 3. **“Retention Amount”** for each Progress Payment means the percentage of each Progress Payment to be retained by OC SAN to assure satisfactory completion of the Contract. The amount to be retained from each Progress Payment shall be determined as provided in the General Conditions, “Retained Funds; Substitution of Securities.”

SECTION – 12 SUBSTITUTION OF SECURITIES IN LIEU OF RETENTION OF FUNDS

Pursuant to Public Contract Code Section 22300 et seq., the CONTRACTOR may, at its sole expense, substitute securities as provided in General Conditions, “Retained Funds; Substitution of Securities.”

SECTION – 13 COMPLETION

Final Completion and Final Acceptance shall occur at the time and in the manner specified in the General Conditions, “Final Acceptance and Final Completion”, “Final Payment”; and Exhibit A, Schedule of Prices.

CONFORMED

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Upon receipt of all documentation, records, and releases as required by the Contract from the CONTRACTOR, OC SAN shall proceed with the Final Acceptance as specified in General Conditions.

SECTION – 14 CONTRACTOR’S EMPLOYEES COMPENSATION

A. 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.

B. 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 the same are on file in the Office of the ENGINEER of OC SAN. The CONTRACTOR agrees that not less than said prevailing rates shall be paid to workers employed on this public works 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 job site, which shall be made available to any interested party upon request.

C. Forfeiture for Violation:

CONTRACTOR shall, as a penalty to OC SAN, forfeit Two Hundred Dollars (\$200.00) 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.

D. 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.

E. 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 him hereunder except as provided in paragraph (B) above. 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 calendar day and forty (40) hours in any one 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.

F. Registration; Record of Wages; Inspection:

CONTRACTOR 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 by the California Department of Industrial Relations. CONTRACTOR shall maintain accurate payroll records and shall submit payroll records to the Labor Commissioner pursuant to Labor Code Section 1771.4(a)(3). Penalties for non-compliance with the requirements of Section 1776 may be deducted from progress payments per Section 1776.

CONTRACTOR shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulations Section 16461(e).

SECTION – 15 SURETY BONDS

CONTRACTOR shall, before entering upon the performance of this Contract, furnish Bonds approved by OC SAN's General Counsel – one in the amount of one hundred percent (100%) of the Contract amount, to guarantee the faithful performance of the Work, and the other in the amount of one hundred percent (100%) of the Contract amount to guarantee payment of all claims for labor and materials furnished. As changes to the Contract occur via approved Change Orders, the CONTRACTOR shall assure that the amounts of the Bonds are adjusted to maintain 100% of the Contract Price. This Contract shall not become effective until such Bonds are supplied to and approved by OC SAN. Bonds must be issued by a Surety authorized by the State Insurance Commissioner to do business in California. The Performance Bond shall remain in full force and effect through the warranty period, as specified in Section 19 below. All Bonds required to be submitted relating to this Contract must comply with California Code of Civil Procedure Section 995.630. Each Bond shall be executed in the name of the Surety insurer under penalty of perjury, or the fact of execution of each Bond shall be duly acknowledged before an officer authorized to take and certify acknowledgments, and either one of the following conditions shall be satisfied:

- A. A copy of the transcript or record of the unrevoked appointment, power of attorney, by-laws, or other instrument, duly certified by the proper authority and attested by the seal of the insurer entitling or authorizing the person who executed the Bond to do so for and on behalf of the insurer, is on file in the Office of the County Clerk of the County of Orange; or
- B. A copy of a valid power of attorney is attached to the Bond.

SECTION – 16 INSURANCE

CONTRACTOR shall purchase and maintain, for the duration of the Contract, insurance against claims for injuries to persons, or damages to property which may arise from or in connection with the performance of the Work hereunder, and the results of that Work by CONTRACTOR, its agents, representatives, employees, or Subcontractors, in amounts equal to the requirements set forth below. CONTRACTOR shall not commence Work under this Contract until all insurance required under this Section is obtained in a form acceptable to OC SAN, nor shall CONTRACTOR allow any Subcontractor to commence Work on a subcontract until all insurance required of the Subcontractor has been obtained. CONTRACTOR shall maintain all of the foregoing insurance coverages in force through the point at which the Work under this Contract is fully completed and accepted by OC SAN pursuant to the provisions of the General Conditions, “Final Acceptance and Final Completion”. Furthermore, CONTRACTOR shall maintain all of the foregoing insurance coverages in full force and effect throughout the warranty period, commencing on the date of Final Acceptance. The requirement for carrying the foregoing insurance shall not derogate from the provisions for indemnification of OC SAN by CONTRACTOR under Section 17 of this Contract. Notwithstanding nor diminishing the obligations of CONTRACTOR with respect to the foregoing, CONTRACTOR shall subscribe for and maintain in full force and effect during the life of this Contract, inclusive of all changes to the Contract Documents made in accordance with the provisions of the General Conditions, “Request for Change (Changes at CONTRACTOR’s Request)” and/or “OWNER Initiated

Changes”, the following insurance in amounts not less than the amounts specified. OC SAN reserves the right to amend the required limits of insurance commensurate with the CONTRACTOR’s risk at any time during the course of the Project. No vehicles may enter OC SAN premises/worksites without possessing the required insurance coverage.

CONTRACTOR’s insurance shall also comply with all insurance requirements prescribed by agencies from whom permits shall be obtained for the Work and any other third parties from whom third party agreements are necessary to perform the Work (collectively, the “Third Parties”). The Special Provisions may list such requirements and sample forms and requirements from such Third Parties may be included in an attachment to the General Requirements. CONTRACTOR bears the responsibility to discover and comply with all requirements of Third Parties, including meeting specific insurance requirements, that are necessary for the complete performance of the Work. To the extent there is a conflict between the Third Parties’ insurance requirements and those set forth by OC SAN herein, the requirement(s) providing the more protective coverage for both OC SAN and the Third Parties shall control and be purchased and maintained by CONTRACTOR.

If CONTRACTOR maintains higher limits than the minimums shown in this Section, OC SAN requires and shall be entitled to coverage for the higher limits maintained by the CONTRACTOR.

Where permitted by law, CONTRACTOR hereby waives all rights of recovery by subrogation because of deductible clauses, inadequacy of limits of any insurance policy, limitations or exclusions of coverage, or any other reason against OC SAN, its or their officers, agents, or employees, and any other contractor or subcontractor performing Work or rendering services on behalf of OC SAN in connection with the planning, development and construction of the Project. In all its insurance coverages (except for Professional Liability/Errors and Omissions coverages, if applicable) related to the Work, CONTRACTOR shall include clauses providing that each

insurer shall waive all of its rights of recovery by subrogation against OC SAN, its or their officers, agents, or employees, or any other contractor or subcontractor performing Work or rendering services at the Project. Where permitted by law, CONTRACTOR shall require similar written express waivers and insurance clauses from each of its Subcontractors of every tier. A waiver of subrogation shall be effective as to any individual or entity, even if such individual or entity (a) would otherwise have a duty of indemnification, contractual or otherwise, (b) did not pay the insurance premium, directly or indirectly, and (c) whether or not such individual or entity has an insurable interest in the property damaged.

A. Limits of Insurance

1. General Liability: Five Million Dollars (\$5,000,000) per occurrence and a general aggregate limit of Ten Million Dollars (\$10,000,000) for bodily injury, personal injury and property damage. If aggregate limits apply separately to this contract (as evidenced by submission of ISO form CG 25 03 or CG 25 04), then the aggregate limit may be equivalent to the per occurrence limit. Coverage shall include each of the following:
 - a. Premises-Operations.
 - b. Products and Completed Operations, with limits of at least Five Million Dollars (\$5,000,000) per occurrence and a general aggregate limit of Ten Million Dollars (\$10,000,000) which shall be in effect at all times during the warranty period set forth in the Warranty section herein, and as set forth in the General Conditions, "Warranty (CONTRACTOR's Guarantee)", plus any additional extension or continuation of time to said warranty period that may be required or authorized by said provisions. If aggregate limits apply separately to this contract (as evidenced by submission of ISO form CG 25 03 or CG 25 04), then the aggregate limit may be equivalent to the per occurrence limit.

- c. Broad Form Property Damage, expressly including damage arising out of explosion, collapse, or underground damage.
- d. Contractual Liability, expressly including the indemnity provisions assumed under this Contract.
- e. Separation of Insured Clause, providing that coverage applies separately to each insured, except with respect to the limits of liability.
- f. Independent CONTRACTOR's Liability.

To the extent first dollar coverage, including defense of any claim, is not available to OC SAN or any other additional insured because of any SIR, deductible, or any other form of self-insurance, CONTRACTOR is obligated to assume responsibility of insurer until the deductible, SIR or other condition of insurer assuming its defense and/or indemnity has been satisfied.

CONTRACTOR shall be responsible to pay any deductible or SIR.

- g. If a crane will be used, the general liability insurance will be endorsed to add Riggers Liability coverage or its equivalent to cover the usage of the crane and exposures with regard to the crane operators, riggers and others involved in using the crane.
 - h. If divers will be used, the general liability insurance will be endorsed to cover marine liability or its equivalent to cover the usage of divers.
2. Automobile Liability: The CONTRACTOR shall maintain a policy of automobile liability insurance on a comprehensive form covering all owned, non-owned, and hired automobiles, trucks, and other vehicles providing the following minimum limit of liability coverage: combined single limit of Two Million Dollars (\$2,000,000) for bodily injury, personal injury, and property damage.

3. Umbrella Excess Liability: The minimum limits of general liability and automobile liability insurance required, as set forth above, shall be provided for either in a single policy of primary insurance or a combination of policies of primary and umbrella excess coverage. Excess liability coverage shall be issued with limits of liability which, when combined with the primary insurance, will equal the minimum limits for general liability and automobile liability.
4. Drone Liability Insurance: If a drone will be used, drone liability insurance must be maintained by CONTRACTOR in the amount of One Million Dollars (\$1,000,000) in a form acceptable to OC SAN.
5. Workers' Compensation/Employer's Liability: CONTRACTOR shall provide such workers' compensation insurance as required by the Labor Code of the State of California, including employer's liability with a minimum limit of Two Million Dollars (\$2,000,000) per accident for bodily injury or disease. If an exposure to Jones Act liability may exist, the insurance required herein shall include coverage with regard to Jones Act claims.
6. Pollution Liability Insurance: CONTRACTOR shall purchase and maintain insurance for pollution liability covering bodily injury, property damage (including loss of use of damaged property or property that has not been physically injured or destroyed), cleanup costs, and defense costs (including costs and expenses for investigation, defense, or settlement of claims). Coverage shall carry limits of at least Two Million Dollars (\$2,000,000) and shall apply to sudden and non-sudden pollution conditions (including sewage spills), both at the site or needed due to migration of pollutants from the site, resulting from the escape or release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials, or other irritants, contaminants or pollutants.

If CONTRACTOR provides coverage written on a claims-made basis, OC SAN has the right to approve or reject such coverage in its own discretion. If written on a claims-made basis, the CONTRACTOR warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this Contract, and that continuous coverage will be maintained, or an extended discovery period will be exercised, for a period of two years beginning from the time that the Project under this Contract is completed.

B. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by OC SAN. At the option of OC SAN, either: the Insurer shall reduce or eliminate such deductibles or self-insured retentions as respects OC SAN, its Directors, officers, agents, consultants, and employees; or CONTRACTOR shall provide a financial guarantee satisfactory to OC SAN guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

C. Other Insurance Provisions

1. Each such policy of general liability insurance and automobile liability insurance shall be endorsed to contain, the following provisions:
 - a. OC SAN, its directors, officers, agents, consultants, and employees, and all public agencies from whom permits will be obtained, and their directors, officers, agents, and employees are hereby declared to be additional insureds under the terms of this policy, but only with respect to the operations of CONTRACTOR at or from any of the sites of OC SAN in connection with this Contract, or acts and omissions of the additional insured in connection with its general supervision or inspection of said operations related to this Contract.

- b. Insurance afforded by the additional insured endorsement shall apply as primary insurance, and other insurance maintained by OC SAN shall be excess only and not contributing with insurance provided under this policy.
2. Cancellation and Policy Change Notice.

The CONTRACTOR is required to notify OC SAN in writing of any insurance cancellation notice it receives or other knowledge of pending or actual insurance policy cancellation within two (2) working days of receipt of such notice or acquisition of such knowledge. Additionally, the CONTRACTOR is required to notify OC SAN in writing of any change in the terms of insurance, including reduction in coverage or increase in deductible/SIR, within two (2) working days of receipt of such notice or knowledge of same.

Said notices shall be mailed to OC SAN at:

ORANGE COUNTY SANITATION DISTRICT
10844 Ellis Avenue
Fountain Valley, CA 92708
Attention: Contracts, Purchasing & Materials Management Division

- 3. Coverage shall not extend to any indemnity coverage for the active negligence of any additional insured in any case where an agreement to indemnify the additional insured would be invalid under California Civil Code Section 2782(b).
- 4. If required by a public agency from whom permit(s) will be obtained, each policy of general liability insurance and automobile liability insurance shall be endorsed to specify by name the public agency and its legislative members, officers, agents, consultants, and employees, to be additional insureds.

D. Acceptability of Insurers

Insurers must have an "A", or better, Policyholder's Rating, and a Financial Rating of at least Class VII, or better, in accordance with the most current A.M. Best Rating Guide. OC

SAN recognizes that State Compensation Insurance Fund has withdrawn from participation in the A.M. Best Rating Guide process. Nevertheless, OC SAN will accept State Compensation Insurance Fund for the required policy of worker's compensation insurance, subject to OC SAN's option, at any time during the term of this Contract, to require a change in insurer upon twenty (20) days written notice. Further, OC SAN will require CONTRACTOR to substitute any insurer whose rating drops below the levels herein specified. Said substitution shall occur within twenty (20) days of written notice to CONTRACTOR by OC SAN or its agent.

E. Verification of Coverage

CONTRACTOR shall furnish OC SAN with original certificates and mandatory endorsements affecting coverage. Said policies and endorsements shall conform to the requirements herein stated. All certificates and endorsements are to be received and approved by OC SAN before Work commences. OC SAN reserves the right to require complete, certified copies of all required insurance policies, including endorsements, affecting the coverage required by these Specifications at any time.

F. Subcontractors

CONTRACTOR shall be responsible to establish insurance requirements for any Subcontractors hired by CONTRACTOR. The insurance shall be in amounts and types reasonably sufficient to deal with the risk of loss involving the Subcontractor's operations and work. OC SAN and any public agency issuing permits for the Project must be named as "Additional Insured" on any general liability or automobile liability policy obtained by a Subcontractor. The CONTRACTOR must obtain copies and maintain current versions of all Subcontractors' policies, certificate of liability and mandatory endorsements effecting coverage. Upon request, CONTRACTOR must furnish OC SAN with the above referenced required documents.

G. Required Forms and Endorsements

1. Required ACORD Form

- a. Certificate of Liability ACORD Form 25 or other equivalent certificate of insurance form

2. Required Insurance Services Office, Inc. Endorsements (when alternative forms are shown, they are listed in order of preference)

In the event any of the following forms are cancelled by Insurance Services Office, Inc. (ISO), or are updated, the ISO replacement form or equivalent must be supplied.

- a. Commercial General Liability Form CG 00 01
- b. Additional Insured Including Products-Completed Operations Form CG 20 10 **and** Form CG 20 37
All other additional insured endorsements must be submitted for approval by OC SAN, and OC SAN may reject alternatives that provide different or less coverage to OC SAN.
- c. Waiver of Transfer of Rights of Recovery Against Others to Us/
Waiver of Subrogation Form CG 24 04

3. Required State Compensation Insurance Fund Endorsements

- a. Waiver of Subrogation Submit workers' compensation waiver of subrogation endorsement provided by carrier for OC SAN approval.
- b. Cancellation Notice No endorsement is required. However, CONTRACTOR is responsible for notifying OC SAN of any pending or actual insurance policy cancellation, as described in Article C.2., Cancellation and Policy Change Notice, above.

4. Additional Required Endorsements

- a. Notice of Policy Termination Manuscript Endorsement

5. Pollution Liability Endorsements

There shall be a Separation of Insured Clause or endorsement, providing that coverage applies separately to each insured, except with respect to the limits of liability. There shall also be an endorsement or policy language containing a waiver of subrogation rights on the part of the insurer.

OC SAN, its directors, officers, agents, consultants and employees and all public agencies from whom permits will be obtained as well as their directors, officers, agents, and employees shall be included as insureds under the policy. Any additional insured endorsement shall contain language at least as broad as the coverage language contained in ISO form CG 20 10 or alternatively in both CG 20 10 and CG 20 37 together.

SECTION – 17 RISK AND INDEMNIFICATION

All Work covered by this Contract done at the site of construction or in preparing or delivering materials to the site shall be at the risk of CONTRACTOR alone. CONTRACTOR shall save, indemnify, defend, and keep OC SAN and others harmless as more specifically set forth in General Conditions, “General Indemnification”.

SECTION – 18 TERMINATION

This Contract may be terminated in whole or in part in writing by OC SAN in the event of substantial failure by the CONTRACTOR to fulfill its obligations under this Agreement, or it may be terminated by OC SAN for its convenience provided that such termination is effectuated in a manner and upon such conditions set forth more particularly in General Conditions, “Termination for Default” and/or “Termination for Convenience”, provided that no termination may be effected unless proper notice is provided to CONTRACTOR at the time and in the manner provided in said General Conditions. If termination for default or convenience is

effected by OC SAN, an equitable adjustment in the price provided for in this Contract shall be made at the time and in the manner provided in the General Conditions, "Termination for Default" and "Termination for Convenience".

SECTION – 19 WARRANTY

The CONTRACTOR agrees to perform all Work under this Contract in accordance with the Contract Documents, including OC SAN's designs, Drawings and Specifications.

The CONTRACTOR guarantees for a period of at least one (1) year from the date of Final Acceptance of the Work, pursuant to the General Conditions, "Final Acceptance and Final Completion" that the completed Work is free from all defects due to faulty materials, equipment or workmanship and that it shall promptly make whatever adjustments or corrections which may be necessary to cure any defects, including repairs of any damage to other parts of the system resulting from such defects. OC SAN shall promptly give notice to the CONTRACTOR of observed defects. In the event that the CONTRACTOR fails to make adjustments, repairs, corrections or other work made necessary by such defects, OC SAN may do so and charge the CONTRACTOR the cost incurred. The CONTRACTOR's warranty shall continue as to any corrected deficiency until the later of (1) the remainder of the original one-year warranty period; or (2) one year after acceptance by OC SAN of the corrected Work. The Performance Bond and the Payment Bond shall remain in full force and effect through the guarantee period.

The CONTRACTOR's obligations under this clause are in addition to the CONTRACTOR's other express or implied assurances under this Contract, including but not limited to specific manufacturer or other extended warranties specified in the Plans and Specifications, or state law and in no way diminish any other rights that OC SAN may have against the CONTRACTOR for faulty materials, equipment or Work.

SECTION – 20 ASSIGNMENT

No assignment by the CONTRACTOR of this Contract or any part hereof, or of funds to be received hereunder, will be recognized by OC SAN unless such assignment has had prior written approval and consent of OC SAN and the Surety.

SECTION – 21 RESOLUTION OF DISPUTES

OC SAN and the CONTRACTOR shall comply with the provisions of California Public Contract Code Section 20104 et. seq., regarding resolution of construction claims for any Claims which arise between the CONTRACTOR and OC SAN, as well as all applicable dispute and Claims provisions as set forth in the General Conditions and as otherwise required by law.

SECTION – 22 SAFETY & HEALTH

CONTRACTOR shall comply with all applicable safety and health requirements mandated by federal, state, city and/or public agency codes, permits, ordinances, regulations, and laws, as well as these Contract Documents, including but not limited to the General Requirements, Section entitled “Safety” and Exhibit B Contractor Safety Standards.

[THIS SECTION INTENTIONALLY LEFT BLANK]

SECTION – 23 NOTICES

Any notice required or permitted under this Contract shall be sent by certified mail, return receipt requested, at the address set forth below. Any party whose address changes shall notify the other party in writing.

TO OC SAN: Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, California 92708-7018
Attn: Clerk of the Board

Copy to: Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, California 92708-7018
Attn: Construction Manager

Bradley R. Hogin, Esquire
Woodruff, Spradlin & Smart
555 Anton Boulevard
Suite 1200
Costa Mesa, California 92626

TO CONTRACTOR: SRK Engineering, Inc.
2615 Auto Park Way
Escondido, CA 92029

Copy to: Sherry R. Kirkpatrick, President
SRK Engineering, Inc.
2615 Auto Park Way
Escondido, CA 92029

IN WITNESS WHEREOF, the parties hereto have executed this Contract Agreement as the date first hereinabove written.

CONTRACTOR: SRK Engineering, Inc.
2615 Auto Park Way
Escondido, CA 92029

By _____ Date _____

Printed Name

Its _____

CONTRACTOR's State License No. 1017836 (Expiration Date – 8/31/2022)

OC SAN: Orange County Sanitation District

By _____ Date _____

John B. Withers
Board Chairman

By _____ Date _____

Kelly A. Lore
Clerk of the Board

By _____ Date _____

Ruth Zintzun
Purchasing & Contracts Manager

EXHIBIT A
SCHEDULE OF PRICES

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SCHEDULE OF PRICES

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EXHIBIT A

SCHEDULE OF PRICES

EXA-1 BASIS OF COMPENSATION

CONTRACTOR will be paid the Contract Price according to the Schedule of Prices, and all other applicable terms and conditions of the Contract Documents.

EXA-2 PROGRESS PAYMENTS

Progress payments will be made in accordance with all applicable terms and conditions of the Contract Documents, including, but not limited to:

1. Contract Agreement – Section 11 – “Contract Price and Method of Payment;”
2. General Conditions – “Payment – General”;
3. General Conditions – “Payment – Applications for Payment”;
4. General Conditions – “Payment – Mobilization Payment Requirements;”
5. General Conditions – “Payment – Itemized Breakdown of Contract Lump Sum Prices”;
6. General Conditions – “Contract Price Adjustments and Payments”;
7. General Conditions – “Suspension of Payments”;
8. General Conditions – “OC SAN’s Right to Withhold Certain Amounts and Make Application Thereof”; and
9. General Conditions – “Final Payment.”

EXA-3 RETENTION AND ESCROW ACCOUNTS

A. Retention:

OC SAN shall retain a percentage of each progress payment to assure satisfactory completion of the Work. The amount to be retained from each progress payment shall be determined as provided in General Conditions – “Retained Funds; Substitution of Securities”. In all contracts between CONTRACTOR and its Subcontractors and/or Suppliers, the retention may not exceed the percentage specified in the Contract Documents.

B. Substitution of Securities:

CONTRACTOR may, at its sole expense, substitute securities as provided in General Conditions – “Retained Funds; Substitution of Securities.” Payment of Escrow Agent:

In lieu of substitution of securities as provided above, the CONTRACTOR may request and OC SAN shall make payment of retention earned directly to the escrow agent at the expense of the CONTRACTOR. At the expense of the CONTRACTOR, the CONTRACTOR may direct the investment of the payments into securities consistent with Government Code §16430 and the CONTRACTOR shall receive the interest earned on the investments upon the same terms provided for in this article for securities deposited by the CONTRACTOR. Upon satisfactory completion of the Contract, the CONTRACTOR shall receive from the escrow agent all securities, interest and payments received by the escrow agent from OC SAN, pursuant to the terms of this article. The CONTRACTOR shall pay to each Subcontractor, not later than twenty (20) calendar days after receipt of the payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount of retention withheld to ensure the performance of the Subcontractor. The escrow agreement used by the escrow agent pursuant to this article shall be substantially similar to the form set forth in §22300 of the California Public Contract Code.

C. Release of Retention:

Upon Final Acceptance of the Work, the CONTRACTOR shall submit an invoice for release of retention in accordance with the terms of the Contract.

D. Additional Deductibles:

In addition to the retentions described above, OC SAN may deduct from each progress payment any or all of the following:

1. Liquidated Damages that have occurred as of the date of the application for progress payment;
2. Deductions from previous progress payments already paid, due to OC SAN's discovery of deficiencies in the Work or non-compliance with the Specifications or any other requirement of the Contract;
3. Sums expended by OC SAN in performing any of the CONTRACTOR'S obligations under the Contract that the CONTRACTOR has failed to perform, and;
4. Other sums that OC SAN is entitled to recover from the CONTRACTOR under the terms of the Contract, including without limitation insurance deductibles and assessments.

The failure of OC SAN to deduct any of the above-identified sums from a progress payment shall not constitute a waiver of OC SAN's right to such sums or to deduct them from a later progress payment.

EXA-4 STOP PAYMENT NOTICE

In addition to other amounts properly withheld under this article or under other provisions of the Contract, OC SAN shall retain from progress payments otherwise due the CONTRACTOR an amount equal to one hundred twenty-five percent (125%) of the amount claimed under any stop payment notice under Civil Code §9350 et. seq. or other lien filed against the CONTRACTOR for labor, materials, supplies, equipment, and any other thing of value claimed to have been furnished to and/or incorporated into the Work; or for any other alleged contribution thereto. In addition to the foregoing and in accordance with Civil Code §9358 OC SAN may also satisfy its duty to withhold funds for stop payment notices by refusing to release funds held in escrow pursuant to public receipt of a release of stop payment notice executed by a stop payment notice claimant, a stop payment notice release bond, an order of a court of competent jurisdiction, or other evidence satisfactory to OC SAN that the CONTRACTOR has resolved such claim by settlement.

EXA-5 PAYMENT TO SUBCONTRACTORS

Requirements

1. The CONTRACTOR shall pay all Subcontractors for and on account of Work performed by such Subcontractors, not later than seven (7) days after receipt of each progress payment as required by the California Business and Professions Code §7108.5. Such payments to Subcontractors shall be based on the measurements and estimates made pursuant to article progress payments provided herein.
2. Except as specifically provided by law, the CONTRACTOR shall pay all Subcontractors any and all retention due and owing for and on account of Work performed by such Subcontractors not later than seven (7) days after CONTRACTOR'S receipt of said retention proceeds from OC SAN as required by the California Public Contract Code §7107.

EXA-6 PAYMENT OF TAXES

Unless otherwise specifically provided in this Contract, the Contract Price includes full compensation to the CONTRACTOR for all taxes. The CONTRACTOR shall pay all federal, state, and local taxes, and duties applicable to and assessable against any Work, including but not limited to retail sales and use, transportation, export, import, business, and special taxes. The CONTRACTOR shall ascertain and pay the taxes when due. The CONTRACTOR will maintain auditable records, subject to OC SAN reviews, confirming that tax payments are current at all times.

EXA-7 FINAL PAYMENT

After Final Acceptance of the Work, as more particularly set forth in the General Conditions, "Final Acceptance and Final Completion", and after Resolution of the Board authorizing final payment and satisfaction of the requirements as more particularly set forth in General Conditions – "Final Payment", a final payment will be made as follows:

1. Prior to Final Acceptance, the CONTRACTOR shall prepare and submit an application for Final Payment to OC SAN, including:
 - a. The proposed total amount due the CONTRACTOR, segregated by items on the payment schedule, amendments, Change Orders, and other bases for payment;
 - b. Deductions for prior progress payments;
 - c. Amounts retained;
 - d. A conditional waiver and release on final payment for each Subcontractor (per Civil Code Section 8136);
 - e. A conditional waiver and release on final payment on behalf of the CONTRACTOR (per Civil Code Section 8136);
 - f. List of Claims the CONTRACTOR intends to file at that time or a statement that no Claims will be filed,
 - g. List of pending unsettled claims, stating claimed amounts, and copies of any and all complaints and/or demands for arbitration received by the CONTRACTOR; and
 - h. For each and every claim that resulted in litigation or arbitration which the CONTRACTOR has settled, a conformed copy of the Request for Dismissal with prejudice or other satisfactory evidence the arbitration is resolved.
2. The application for Final Payment shall include complete and legally effective releases or waivers of liens and stop payment notices satisfactory to OC SAN, arising out of or filed in connection with the Work. Prior progress payments shall be subject to correction in OC SAN's review of the application for Final Payment. Claims filed with the application for Final Payment must be otherwise timely under the Contract and applicable law.
3. Within a reasonable time, OC SAN will review the CONTRACTOR'S application for Final Payment. Any recommended changes or corrections will then be forwarded to the CONTRACTOR. Within ten (10) calendar days after receipt of recommended changes from OC SAN, the CONTRACTOR will make the changes, or list Claims that will be filed as a result of the

changes, and shall submit the revised application for Final Payment. Upon acceptance by OC SAN, the revised application for Final Payment will become the approved application for Final Payment.

4. If no Claims have been filed with the initial or any revised application for Final Payment, and no Claims remain unsettled within thirty-five (35) calendar days after Final Acceptance of the Work by OC SAN, and agreements are reached on all issues regarding the application for Final Payment, OC SAN, in exchange for an executed release, satisfactory in form and substance to OC SAN, will pay the entire sum found due on the approved application for Final Payment, including the amount, if any, allowed on settled Claims.
5. The release from the CONTRACTOR shall be from any and all Claims arising under the Contract, except for Claims that with the concurrence of OC SAN are specifically reserved, and shall release and waive all unreserved Claims against OC SAN and its officers, directors, employees and authorized representatives. The release shall be accompanied by a certification by the CONTRACTOR that:
 - a. It has resolved all Subcontractors, Suppliers and other Claims that are related to the settled Claims included in the Final Payment;
 - b. It has no reason to believe that any party has a valid claim against the CONTRACTOR or OC SAN which has not been communicated in writing by the CONTRACTOR to OC SAN as of the date of the certificate;
 - c. All warranties are in full force and effect, and;
 - d. The releases and the warranties shall survive Final Payment.
6. If any claims remain open, OC SAN may make Final Payment subject to resolution of those claims. OC SAN may withhold from the Final Payment an amount not to exceed one hundred fifty percent (150%) of the sum of the amounts of the open claims, and one hundred twenty-five percent (125%) of the amounts of open stop payment notices referred to in article entitled stop payment notices herein.
7. The CONTRACTOR shall provide an unconditional waiver and release on final payment from each Subcontractor and Supplier providing Work under the Contract (per Civil Code Section 8138) and an unconditional waiver and release on final payment on behalf of the CONTRACTOR (per Civil Code Section 8138) within thirty (30) days of receipt of Final Payment.

EXA-8 DISCOVERY OF DEFICIENCIES BEFORE AND AFTER FINAL PAYMENT

Notwithstanding OC SAN's acceptance of the application for Final Payment and irrespective of whether it is before or after Final Payment has been made, OC SAN shall not be precluded from subsequently showing that:

1. The true and correct amount payable for the Work is different from that previously accepted;
2. The previously accepted Work did not in fact conform to the Contract requirements, or;
3. A previous payment or portion thereof for Work was improperly made.

OC SAN also shall not be stopped from demanding and recovering damages from the CONTRACTOR, as appropriate, under any of the foregoing circumstances as permitted under the Contract or applicable law.

ATTACHMENT 1 – CERTIFICATION FOR REQUEST FOR PAYMENT

I hereby certify under penalty of perjury as follows:

That the claim for payment is in all respects true, correct; that the services mentioned herein were actually rendered and/or supplies delivered to OC SAN in accordance with the Contract.

I understand that it is a violation of both the federal and California False Claims Acts to knowingly present or cause to be presented to OC SAN a false claim for payment or approval.

A claim includes a demand or request for money. It is also a violation of the False Claims Acts to knowingly make use of a false record or statement to get a false claim paid. The term "knowingly" includes either actual knowledge of the information, deliberate ignorance of the truth or falsity of the information, or reckless disregard for the truth or falsity of the information. Proof of specific intent to defraud is not necessary under the False Claims Acts. I understand that the penalties under the Federal False Claims Act and State of California False Claims Act are non-exclusive, and are in addition to any other remedies which OC SAN may have either under contract or law.

I hereby further certify, to the best of my knowledge and belief, that:

1. The amounts requested are only for performance in accordance with the Specifications, terms, and conditions of the Contract;
2. Payments to Subcontractors and Suppliers have been made from previous payments received under the Contract, and timely payments will be made from the proceeds of the payment covered by this certification;
3. This request for progress payments does not include any amounts which the prime CONTRACTOR intends to withhold or retain from a Subcontractor or Supplier in accordance with the terms and conditions of the subcontract; and
4. This certification is not to be construed as Final Acceptance of a Subcontractor's performance.

Name

Title

Date

CONFORMED

C-EXA-062221
PROJECT NO. FE18-13
REDHILL RELIEF SEWER RELOCATION AT STATE ROUTE 55

ATTACHMENT 2 – SCHEDULE OF PRICES

See next pages from the Bid Submittal Forms (SRK Engineering)

BF-14 Schedule of Prices, Pages 1-3

BF-14 SCHEDULE OF PRICES

INSTRUCTIONS

A. General

For Unit Prices, it is understood that the following quantities are approximate only and are solely for the purpose of estimating the comparison of Bids, and that the actual value of Work will be computed based upon the actual quantities in the completed Work, whether they be more or less than those shown. CONTRACTOR's compensation for the Work under the Contract Documents will be computed based upon the lump sum amount of the Contract at time of award, plus any additional or deleted costs approved by OC SAN via approved Change Orders, pursuant to the Contract Documents.

Bidder shall separately price and accurately reflect costs associated with each line item, leaving no blanks. Any and all modifications to the Bid must be initialed by an authorized representative of the Bidder in accordance with the Instructions to Bidders, Preparation of Bid.

Bidders are reminded of Instruction to Bidders, Discrepancy in Bid Items, which, in summary, provides that the total price for each item shall be based on the Unit Price listed for each item multiplied by the quantity; and the correct Total Price for each item shall be totaled to determine the Total Amount of Bid.

All applicable costs including overhead and profit shall be reflected in the respective unit costs and the TOTAL AMOUNT OF BID. The Bid price shall include all costs to complete the Work, including profit, overhead, etc., unless otherwise specified in the Contract Documents. All applicable sales taxes, state and/or federal, and any other special taxes, patent rights or royalties shall be included in the prices quoted in this Bid.

B. Basis of Award

AWARD OF THE CONTRACT WILL BE MADE ON THE BASIS OF THE LOWEST RESPONSIVE AND RESPONSIBLE BID.

Note 1: Base Bid. Includes all costs necessary to furnish all labor, materials, equipment and services for the construction of the Project per the Contract Documents.

SCHEDULE OF PRICES

BASE BID ITEMS (Refer to Note 1 in the Instructions):

Item No.	Description	Unit of Measurement	Approx Qty	Unit Price	Extended Price
1.	Mobilization: Initial progress payment for all fees, labor, materials, equipment, and other activities required for mobilization, as described in Specifications Section 01155 and in conformance with the Contract Documents, for the lump sum price of...	Lump Sum	1		= \$84,000.00
2.	City of Santa Ana, City of Tustin, and Caltrans Encroachment Permit Fees: This item is an allowance for all labor, permits, plan checks, and inspection fees required by the City of Santa Ana, City of Tustin, and Caltrans during construction of the Work, as described in Specifications Section 01155 and in conformance with the Contract Documents.	Allowance	1		= \$20,000.00
3.	Sheeting, Shoring, and Bracing: Work under this item shall include all labor, materials, and equipment required to provide furnishing, erecting, maintaining and removal of sheeting, shoring and bracing and other equivalent methods, as required, for protection of life and limb and utilities in trenches, open excavations and confined spaces, as described in Specifications Section 01155 and in conformance with the Contract Documents, for the lump sum price of...	Lump Sum	1		= \$ 110,000
4.	Cure-In-Place-Pipe (CIPP) Liner: Work under this item shall include all labor, materials, and equipment required, as described in Specifications Section 01155 and in conformance with the Contract Documents, for the lump sum price of...	Lump Sum	1		= \$ 90,000

5.	All Other Portions of the Work: Furnish all labor, materials, and equipment necessary for the completion of the Contract Work, except for the Work specified for Bid Item No. 1, Bid Item No. 2, Bid Item No. 3, Bid Item No. 4, and Bid Item No. 6, as described in Specifications Section 01155 and in conformance with the Contract Documents, for the lump sum price of...	Lump Sum	1			=	\$ 1,888,000
6.	Demobilization: Work under this item shall include all labor, materials, and equipment required, as described in Specifications Section 01155 and in conformance with the Contract Documents for the lump sum price of...	Lump Sum	1			=	\$21,000.00

TOTAL AMOUNT OF BID (BASIS OF AWARD)

\$ 2,213,000



OPERATIONS COMMITTEE

Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

Agenda Report

File #: 2022-2141

Agenda Date: 6/1/2022

Agenda Item No: 8.

FROM: James D. Herberg, General Manager
Originator: Kathy Millea, Director of Engineering

SUBJECT:

BUSHARD DIVERSION STRUCTURE REPAIR, PROJECT NO. MP-307

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for Bushard Diversion Structure Repair, Project No. MP-307;
- B. Award a Construction Contract to Abhe & Svoboda, Inc. for Bushard Diversion Structure Repair, Project No. MP-307 for an amount not to exceed \$1,762,545; and
- C. Approve a contingency of \$176,255 (10%).

BACKGROUND

The Bushard Diversion Structure is a below-grade concrete structure in Bushard Street just north of the intersection with Ellis Avenue in the City of Fountain Valley. The structure is used to divert wastewater into Orange County Sanitation District's (OC San) Plant No. 1 that would otherwise flow to Plant No. 2 to make more flow available for recycling through the Groundwater Replenishment System. Staff can also use the structure to adjust the flow split between the two plants to facilitate planned maintenance. The structure includes two gates with modulating actuators to control how much flow is diverted to Plant No. 1. Due to the highly corrosive and potentially explosive gases in the structure, the motor actuators are self-contained and explosion proof.

RELEVANT STANDARDS

- Maintain a proactive asset management program
- Comply with California Public Contract Code Section 20103.8, award construction contract to lowest responsive, responsible bidder
- Meet volume and water quality needs for the GWRS

PROBLEM

The corrosive atmosphere within the Bushard Diversion Structure has damaged conduits, wiring, and hydraulic hoses for the two large valve actuators. As a result, one of the two valves is inoperable,

and the other can only be operated manually. Manual operation involves setting up traffic control, shutting down traffic lanes, opening the sewer, and performing a manned, confined-space entry. Entry during high flow rain events, when flow control is most important, is unsafe. Damage to concrete and the PVC liner has also been observed.

PROPOSED SOLUTION

Award a construction contract for Bushard Diversion Structure Repair, Project No. MP-307. This project will replace the valve actuators on both valves, eliminating the need to enter the structure when operating the valves. It will also repair areas where the concrete liner has failed.

TIMING CONCERNS

Failure of the valves during peak wet-weather flows could lead to flow obstructions and sewage spills requiring a complex entry under emergency conditions. One of the valves currently cannot be operated at all.

RAMIFICATIONS OF NOT TAKING ACTION

The reliable operation of the valves will remain compromised.

PRIOR COMMITTEE/BOARD ACTIONS

May 2020 - Received and filed Bid Tabulation and Recommendation for Bushard Diversion Structure Repair, Project No. MP-307 and rejected the bid received from Mehta Mechanical Company, Inc. and directed staff to reissue the contract for bids with changes made to prolong the life of the repairs.

ADDITIONAL INFORMATION

When similar repair work for this equipment was first bid in 2020, only one bid was received. OC San decided to reject that bid with the intent to rebid the job with some scope changes. For this bid package, OC San staff engaged with a contractor experienced in this type of work to obtain feedback on constructability and safety concerns.

OC San advertised Project No. MP-307R for bids on January 24, 2022. Due to concerns about bidder interest, staff contacted firms on the plan holder list to encourage them to bid. Based on that survey, staff expected two bids. On March 15, 2022 only one sealed bid was received. A summary of the bid opening follows:

Engineer's Estimate	\$ 1,200,000
<u>Bidder</u>	<u>Amount of Bid</u>
Abhe & Svoboda, Inc.	\$ 1,762,545

The one bid received is 50 percent higher than the engineer's estimate. Staff has reviewed the cost breakdown provided by Abhe & Svoboda, Inc. The bulk of the difference is attributed to traffic control, electrical work, and indirect costs such as overhead and profit. The traffic control and electrical cost difference indicate the contractor assumed much lower productivity rates. The

difference in indirect costs suggest ASI knew there was significant risk executing this work.

The project presents significant business and technical risks to any bidders. With these risks, along with the fact that virtually all the work requires specially trained staff to perform permit-required confined space entries, bidders are likely to focus their attention on more appealing opportunities. This is particularly true now when many agencies are advertising construction contracts.

The bids were evaluated in accordance with OC San's policies and procedures. A notice was sent to the bidder on May 9, 2022 informing the bidder of the intent of OC San staff to recommend award of the Construction Contract to Abhe & Svoboda, Inc.

Rejecting this bid would require a further modification of the scope of work. Rebidding would delay the needed repairs and likely would not attract more bidders or lower the cost. For this reason, staff recommends awarding a construction contract to the lowest responsive and responsible bidder, Abhe & Svoboda, Inc., for a total amount not to exceed \$1,762,545.

CEQA

The project is exempt from CEQA under both a categorical exemption and statutory exemption set forth in California Code of Regulation Section 15301 and the Public Resources Code section 21080.21. A Notice of Exemption will be filed with the OC Clerk-Recorder after OC San's Board of Directors award the construction contract.

FINANCIAL CONSIDERATIONS

This request complies with the authority levels of OC San's Purchasing Ordinance. This recommendation would be funded under the Repairs and Maintenance line item for the Operations and Maintenance Department (Budget Update Fiscal Year 2021-22, Page 45) and the available funding is sufficient for this action.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

- Construction Contract
- Presentation

SS: jw

PART A
CONTRACT AGREEMENT

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CONTRACT AGREEMENT

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CONTRACT AGREEMENT
ORANGE COUNTY SANITATION DISTRICT

PROJECT NO. MP-307R
BUSHARD DIVERSION STRUCTURE REPAIR

THIS AGREEMENT is made and entered into, to be effective, this June 22, 2022, by and between Abhe & Svoboda, Inc., hereinafter referred to as “CONTRACTOR” and the Orange County Sanitation District, hereinafter referred to as “OC SAN”.

WITNESSETH

That for and in consideration of the promises and agreements hereinafter made and exchanged, OC SAN and CONTRACTOR agree as follows:

SECTION – 1 GENERAL

CONTRACTOR certifies and agrees that all the terms, conditions and obligations of the Contract Documents as hereinafter defined, the location of the job site, and the conditions under which the Work is to be performed have been thoroughly reviewed, and enters into this Contract based upon CONTRACTOR’s investigation of all such matters and is in no way relying upon any opinions or representations of OC SAN. It is agreed that this Contract represents the entire agreement. It is further agreed that the Contract Documents are each incorporated into this Contract by reference, with the same force and effect as if the same were set forth at length herein, and that CONTRACTOR and its Subcontractors, if any, will be and are bound by any and all of said Contract Documents insofar as they relate in any part or in any way, directly or indirectly, to the Work covered by this Contract.

A. Contract Documents Order of Precedence

“Contract Documents” refers to those documents identified in the definition of “Contract Documents” in the General Conditions, “Definitions”.

C-CA-010422
PROJECT NO. MP-307R
BUSHARD DIVERSION STRUCTURE REPAIR
CONFORMED

1. In the event of a conflict between one Contract Document and any of the other Contract Documents, the provisions in the document highest in precedence shall be controlling. The order of precedence of the Contract Documents is as follows:
 - a. Supplemental Agreements – the last in time being the first in precedence
 - b. Addenda issued prior to the date for submittal of Bids – the last in time being the first in precedence
 - c. Contract Agreement
 - d. Permits and other regulatory requirements
 - e. Special Provisions
 - f. General Conditions (GC)
 - g. Notice Inviting Bids and Instruction to Bidders
 - h. Geotechnical Baseline Report (GBR), if attached as a Contract Document
 - i. Plans and Specifications – in these documents the order of precedence shall be:
 - i. Specifications (Divisions 01-17)
 - ii. Plans
 - iii. General Requirements (GR)
 - iv. Standard Drawings and Typical Details
 - j. CONTRACTOR's Bid
2. In the event of a conflict between terms within an individual Contract Document, the conflict shall be resolved by applying the following principles as appears applicable:
 - a. Figured dimensions on the Contract Documents shall govern. Dimensions not specified shall be as directed by the ENGINEER. Details not shown or specified shall be the same as similar parts that are shown or specified, or as directed. Full-size details shall take precedence over scale Drawings as to

shape and details of construction. Specifications shall govern as to material and workmanship.

- b. The Contract Documents calling for the higher quality material or workmanship shall prevail. Materials or Work described in words, which so applied, have a well-known technical or trade meaning shall be deemed to refer to such recognized standards. In the event of any discrepancy between any Drawings and the figures thereon, the figures shall be taken as correct.
- c. Scale Drawings, full-size details, and Specifications are intended to be fully complementary and to agree. Should any discrepancy between Contract Documents come to the CONTRACTOR's attention, or should an error occur in the efforts of others, which affect the Work, the CONTRACTOR shall notify the ENGINEER, in writing, at once. In the event any doubts or questions arise with respect to the true meaning of the Contract Documents, reference shall be made to the ENGINEER whose written decision shall be final. If the CONTRACTOR proceeds with the Work affected without written instructions from the ENGINEER, the CONTRACTOR shall be fully responsible for any resultant damage or defect.
- d. Anything mentioned in the Specifications and not indicated in the Plans, or indicated in the Plans and not mentioned in the Specifications, shall be of like effect as if indicated and mentioned in both. In case of discrepancy in the Plans or Specifications, the matter shall be immediately submitted to OC SAN's ENGINEER, without whose decision CONTRACTOR shall not adjust said discrepancy save only at CONTRACTOR's own risk and expense. The decision of the ENGINEER shall be final.

In all matters relating to the acceptability of material, machinery or plant equipment; classifications of material or Work; the proper execution, progress or sequence of the Work; and quantities interpretation of the Contract Documents, the decision of the ENGINEER shall be final and binding, and shall be a condition precedent to any payment under the Contract, unless otherwise ordered by the Board of Directors.

B. Definitions

Capitalized terms used in this Contract are defined in the General Conditions, "Definitions". Additional terms may be defined in the Special Provisions.

SECTION – 2 MATERIALS AND LABOR

CONTRACTOR shall furnish, under the conditions expressed in the Plans and Specifications, at CONTRACTOR'S own expense, all labor and materials necessary, except such as are mentioned in the Specifications to be furnished by OC SAN, to construct and complete the Project, in good workmanlike and substantial order. If CONTRACTOR fails to pay for labor or materials when due, OC SAN may settle such claims by making demand upon the Surety to this Contract. In the event of the failure or refusal of the Surety to satisfy said claims, OC SAN may settle them directly and deduct the amount of payments from the Contract Price and any amounts due to CONTRACTOR. In the event OC SAN receives a stop payment notice from any laborer or material supplier alleging non-payment by CONTRACTOR, OC SAN shall be entitled to deduct all of its costs and expenses incurred relating thereto, including but not limited to administrative and legal fees.

SECTION – 3 PROJECT

The Project is described as:

PROJECT NO. MP-307R

BUSHARD DIVERSION STRUCTURE REPAIR

SECTION – 4 PLANS AND SPECIFICATIONS

The Work to be done is shown in a set of Plans and Specifications entitled:

**PROJECT NO. MP-307R
BUSHARD DIVERSION STRUCTURE REPAIR**

Said Plans and Specifications and any revision, amendments and addenda thereto are attached hereto and incorporated herein as part of this Contract and referred to by reference.

SECTION – 5 TIME OF COMMENCEMENT AND COMPLETION

CONTRACTOR agrees to commence the Project within 15 calendar days from the date set forth in the “Notice to Proceed” sent by OC SAN, unless otherwise specified therein and shall diligently prosecute the Work to completion within four hundred fifty-five (455) calendar days from the date of the “Notice to Proceed” issued by OC SAN, excluding delays caused or authorized by OC SAN as set forth in Sections 7, 8, and 9 hereof, and applicable provisions in the General Conditions. The time for completion includes fourteen (14) calendar days determined by OC SAN likely to be inclement weather when CONTRACTOR will be unable to work.

SECTION – 6 TIME IS OF THE ESSENCE

Time is of the essence of this Contract. As required by the Contract Documents, CONTRACTOR shall prepare and obtain approval of all shop drawings, details and samples, and do all other things necessary and incidental to the prosecution of CONTRACTOR’s Work in conformance with an approved construction progress schedule. CONTRACTOR shall coordinate the Work covered by this Contract with that of all other contractors, subcontractors and of OC SAN, in a manner that will facilitate the efficient completion of the entire Work and accomplish the required milestone(s), if any, by the applicable deadline(s) in accordance with Section 5 herein. OC SAN shall have the right to assert complete control of the premises on which the Work is to be performed and shall have the right to decide the time or order in which

the various portions of the Work shall be installed or the priority of the work of subcontractors, and, in general, all matters representing the timely and orderly conduct of the Work of CONTRACTOR on the premises.

SECTION – 7 EXCUSABLE DELAYS

CONTRACTOR shall only be excused for any delay in the prosecution or completion of the Project as specifically provided in General Conditions, “Extension of Time for Delay”, and the General Requirements, “By CONTRACTOR or Others – Unknown Utilities during Contract Work”. Extensions of time and extra compensation arising from such excusable delays will be determined in accordance with the General Conditions, “Extension of Time for Delay” and “Contract Price Adjustments and Payments”, and extensions of time and extra compensation as a result of incurring undisclosed utilities will be determined in accordance with General Requirements, “By CONTRACTOR or Others – Unknown Utilities during Contract Work”. OC SAN’s decision will be conclusive on all parties to this Contract.

SECTION – 8 EXTRA WORK

The Contract Price as set forth in Section 11, includes compensation for all Work performed by CONTRACTOR, unless CONTRACTOR obtains a Change Order signed by a designated representative of OC SAN specifying the exact nature of the Extra Work and the amount of extra compensation to be paid all as more particularly set forth in Section 9 hereof and the General Conditions, “Request for Change (Changes at CONTRACTOR’s Request)”, “OWNER Initiated Changes”, and “Contract Price Adjustments and Payments”.

In the event a Change Order is issued by OC SAN pursuant to the Contract Documents, OC SAN shall extend the time fixed in Section 5 for completion of the Project by the number of days, if any, reasonably required for CONTRACTOR to perform the Extra Work, as determined by OC SAN’s ENGINEER. The decision of the ENGINEER shall be final.

SECTION – 9 CHANGES IN PROJECT

OC SAN may at any time, without notice to any Surety, by Change Order, make any changes in the Work within the general scope of the Contract Document, including but not limited to changes:

1. In the Specifications (including Drawings and designs);
2. In the time, method or manner of performance of the Work;
3. In OC SAN-furnished facilities, equipment, materials, services or site; or
4. Directing acceleration in the performance of the Work.

No change of period of performance or Contract Price, or any other change in the Contract Documents, shall be binding until the Contract is modified by a fully executed Change Order.

All Change Orders shall be issued in accordance with the requirements set forth in the General Conditions, “Request for Change (Changes at CONTRACTOR’s Request)” and “OWNER Initiated Changes”.

SECTION – 10 LIQUIDATED DAMAGES FOR DELAY

Liquidated Damages shall be payable in the amounts and upon the occurrence of such events or failure to meet such requirements or deadlines as provided in the Special Provisions, “Liquidated Damages and Incentives.”

SECTION – 11 CONTRACT PRICE AND METHOD OF PAYMENT

A. OC SAN agrees to pay and the CONTRACTOR agrees to accept as full consideration for the faithful performance of this Contract, subject to any additions or deductions as provided in approved Change Orders, the sum of One Million Seven Hundred Sixty Two Thousand Five Hundred Forty-Five Dollars (\$1,762,545) as itemized on the attached Exhibit “A”.

Upon satisfaction of the conditions precedent to payment set forth in the General Requirements, Additional General Requirements, and General Conditions (including but not limited to Sections entitled “Mobilization Payment Requirements” and “Payment Itemized Breakdown of Contract Lump Sum Prices”), there shall be paid to the CONTRACTOR an initial Net Progress Payment for mobilization. OC SAN shall issue at the commencement of the job a schedule which shows:

1. A minimum of one payment to be made to the CONTRACTOR for each successive four (4) week period as the Work progresses, and
2. The due dates for the CONTRACTOR to submit requests for payment to meet the payment schedule.

After the initial Net Progress Payment, and provided the CONTRACTOR submits the request for payment prior to the end of the day required to meet the payment schedule, the CONTRACTOR shall be paid a Net Progress Payment on the corresponding monthly payment date set forth in the schedule.

Payments shall be made on demands drawn in the manner required by law, accompanied by a certificate signed by the ENGINEER, stating that the Work for which payment is demanded has been performed in accordance with the terms of the Contract Documents, and that the amount stated in the certificate is due under the terms of the Contract.

Payment applications shall also be accompanied with all documentation, records, and releases as required by the Contract; Exhibit A, Schedule of Prices; and General Conditions, “Payment for Work – General”. The Total amount of Progress Payments shall not exceed the actual value of the Work completed as certified by OC SAN’s ENGINEER. The processing of payments shall not be considered as an acceptance of any part of the Work.

- B. As used in this Section, the following defined terms shall have the following meanings:
1. **“Net Progress Payment”** means a sum equal to the Progress Payment less the Retention Amount and other qualified deductions (Liquidated Damages, stop payment notices, etc.).
 2. **“Progress Payment”** means a sum equal to:
 - a. the value of the actual Work completed since the commencement of the Work as determined by OC SAN;
 - b. plus the value of material suitably stored at the worksite, treatment plant or approved storage yards subject to or under the control of OC SAN since the commencement of the Work as determined by OC SAN;
 - c. less all previous Net Progress Payments;
 - d. less all amounts of previously qualified deductions;
 - e. less all amounts previously retained as Retention Amounts.
 3. **“Retention Amount”** for each Progress Payment means the percentage of each Progress Payment to be retained by OC SAN to assure satisfactory completion of the Contract. The amount to be retained from each Progress Payment shall be determined as provided in the General Conditions, “Retained Funds; Substitution of Securities.”

SECTION – 12 SUBSTITUTION OF SECURITIES IN LIEU OF RETENTION OF FUNDS

Pursuant to Public Contract Code Section 22300 et seq., the CONTRACTOR may, at its sole expense, substitute securities as provided in General Conditions, “Retained Funds; Substitution of Securities.”

SECTION – 13 COMPLETION

Final Completion and Final Acceptance shall occur at the time and in the manner specified in the General Conditions, “Final Acceptance and Final Completion”, “Final Payment”; and Exhibit A, Schedule of Prices.

Upon receipt of all documentation, records, and releases as required by the Contract from the CONTRACTOR, OC SAN shall proceed with the Final Acceptance as specified in General Conditions.

SECTION – 14 CONTRACTOR’S EMPLOYEES COMPENSATION

A. 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.

B. 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 the same are on file in the Office of the ENGINEER of OC SAN. The CONTRACTOR

agrees that not less than said prevailing rates shall be paid to workers employed on this public works 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 job site, which shall be made available to any interested party upon request.

C. Forfeiture for Violation:

CONTRACTOR shall, as a penalty to OC SAN, forfeit Two Hundred Dollars (\$200.00) 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.

D. 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.

E. 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 him hereunder except as provided in paragraph (B) above. 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 calendar day and forty (40) hours in any one 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.

F. Registration; Record of Wages; Inspection:

CONTRACTOR 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 by the California Department of Industrial Relations. CONTRACTOR shall maintain accurate payroll records and shall submit payroll records to the Labor Commissioner pursuant to Labor Code Section 1771.4(a)(3). Penalties for non-compliance with the requirements of Section 1776 may be deducted from progress payments per Section 1776.

CONTRACTOR shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulations Section 16461(e).

SECTION – 15 SURETY BONDS

CONTRACTOR shall, before entering upon the performance of this Contract, furnish Bonds approved by OC SAN's General Counsel – one in the amount of one hundred percent (100%) of the Contract amount, to guarantee the faithful performance of the Work, and the other in the amount of one hundred percent (100%) of the Contract amount to guarantee payment of all claims for labor and materials furnished. As changes to the Contract occur via approved Change Orders, the CONTRACTOR shall assure that the amounts of the Bonds are adjusted to maintain 100% of the Contract Price. This Contract shall not become effective until such Bonds are supplied to and approved by OC SAN. Bonds must be issued by a Surety authorized by the State Insurance Commissioner to do business in California. The Performance Bond shall remain in full force and effect through the warranty period, as specified in Section 19 below. All

Bonds required to be submitted relating to this Contract must comply with California Code of Civil Procedure Section 995.630. Each Bond shall be executed in the name of the Surety insurer under penalty of perjury, or the fact of execution of each Bond shall be duly acknowledged before an officer authorized to take and certify acknowledgments, and either one of the following conditions shall be satisfied:

- A. A copy of the transcript or record of the unrevoked appointment, power of attorney, by-laws, or other instrument, duly certified by the proper authority and attested by the seal of the insurer entitling or authorizing the person who executed the Bond to do so for and on behalf of the insurer, is on file in the Office of the County Clerk of the County of Orange; or
- B. A copy of a valid power of attorney is attached to the Bond.

SECTION – 16 INSURANCE

CONTRACTOR shall purchase and maintain, for the duration of the Contract, insurance against claims for injuries to persons, or damages to property which may arise from or in connection with the performance of the Work hereunder, and the results of that Work by CONTRACTOR, its agents, representatives, employees, or Subcontractors, in amounts equal to the requirements set forth below. CONTRACTOR shall not commence Work under this Contract until all insurance required under this Section is obtained in a form acceptable to OC SAN, nor shall CONTRACTOR allow any Subcontractor to commence Work on a subcontract until all insurance required of the Subcontractor has been obtained. CONTRACTOR shall maintain all of the foregoing insurance coverages in force through the point at which the Work under this Contract is fully completed and accepted by OC SAN pursuant to the provisions of the General Conditions, "Final Acceptance and Final Completion". Furthermore, CONTRACTOR shall maintain all of the foregoing insurance coverages in full force and effect throughout the warranty period, commencing on the date of Final Acceptance. The requirement for carrying the foregoing insurance shall not derogate from the provisions for indemnification of OC SAN by

CONTRACTOR under Section 17 of this Contract. Notwithstanding nor diminishing the obligations of CONTRACTOR with respect to the foregoing, CONTRACTOR shall subscribe for and maintain in full force and effect during the life of this Contract, inclusive of all changes to the Contract Documents made in accordance with the provisions of the General Conditions, "Request for Change (Changes at CONTRACTOR's Request)" and/or "OWNER Initiated Changes", the following insurance in amounts not less than the amounts specified. OC SAN reserves the right to amend the required limits of insurance commensurate with the CONTRACTOR's risk at any time during the course of the Project. No vehicles may enter OC SAN premises/worksite without possessing the required insurance coverage.

CONTRACTOR's insurance shall also comply with all insurance requirements prescribed by agencies from whom permits shall be obtained for the Work and any other third parties from whom third party agreements are necessary to perform the Work (collectively, the "Third Parties"). The Special Provisions may list such requirements and sample forms and requirements from such Third Parties may be included in an attachment to the General Requirements. CONTRACTOR bears the responsibility to discover and comply with all requirements of Third Parties, including meeting specific insurance requirements, that are necessary for the complete performance of the Work. To the extent there is a conflict between the Third Parties' insurance requirements and those set forth by OC SAN herein, the requirement(s) providing the more protective coverage for both OC SAN and the Third Parties shall control and be purchased and maintained by CONTRACTOR.

If CONTRACTOR maintains higher limits than the minimums shown in this Section, OC SAN requires and shall be entitled to coverage for the higher limits maintained by the CONTRACTOR.

Where permitted by law, CONTRACTOR hereby waives all rights of recovery by subrogation because of deductible clauses, inadequacy of limits of any insurance policy, limitations or

exclusions of coverage, or any other reason against OC SAN, its or their officers, agents, or employees, and any other contractor or subcontractor performing Work or rendering services on behalf of OC SAN in connection with the planning, development and construction of the Project. In all its insurance coverages (except for Professional Liability/Errors and Omissions coverages, if applicable) related to the Work, CONTRACTOR shall include clauses providing that each insurer shall waive all of its rights of recovery by subrogation against OC SAN, its or their officers, agents, or employees, or any other contractor or subcontractor performing Work or rendering services at the Project. Where permitted by law, CONTRACTOR shall require similar written express waivers and insurance clauses from each of its Subcontractors of every tier. A waiver of subrogation shall be effective as to any individual or entity, even if such individual or entity (a) would otherwise have a duty of indemnification, contractual or otherwise, (b) did not pay the insurance premium, directly or indirectly, and (c) whether or not such individual or entity has an insurable interest in the property damaged.

A. Limits of Insurance

1. General Liability: Five Million Dollars (\$5,000,000) per occurrence and a general aggregate limit of Ten Million Dollars (\$10,000,000) for bodily injury, personal injury and property damage. If aggregate limits apply separately to this contract (as evidenced by submission of ISO form CG 25 03 or CG 25 04), then the aggregate limit may be equivalent to the per occurrence limit. Coverage shall include each of the following:
 - a. Premises-Operations.
 - b. Products and Completed Operations, with limits of at least Five Million Dollars (\$5,000,000) per occurrence and a general aggregate limit of Ten Million Dollars (\$10,000,000) which shall be in effect at all times during the warranty period set forth in the Warranty section herein, and as set forth in the General

Conditions, "Warranty (CONTRACTOR's Guarantee)", plus any additional extension or continuation of time to said warranty period that may be required or authorized by said provisions. If aggregate limits apply separately to this contract (as evidenced by submission of ISO form CG 25 03 or CG 25 04), then the aggregate limit may be equivalent to the per occurrence limit.

- c. Broad Form Property Damage, expressly including damage arising out of explosion, collapse, or underground damage.
- d. Contractual Liability, expressly including the indemnity provisions assumed under this Contract.
- e. Separation of Insured Clause, providing that coverage applies separately to each insured, except with respect to the limits of liability.
- f. Independent CONTRACTOR's Liability.

To the extent first dollar coverage, including defense of any claim, is not available to OC SAN or any other additional insured because of any SIR, deductible, or any other form of self insurance, CONTRACTOR is obligated to assume responsibility of insurer until the deductible, SIR or other condition of insurer assuming its defense and/or indemnity has been satisfied.

CONTRACTOR shall be responsible to pay any deductible or SIR.

- g. If a crane will be used, the general liability insurance will be endorsed to add Riggers Liability coverage or its equivalent to cover the usage of the crane and exposures with regard to the crane operators, riggers and others involved in using the crane.
- h. If divers will be used, the general liability insurance will be endorsed to cover marine liability or its equivalent to cover the usage of divers.

2. Automobile Liability: The CONTRACTOR shall maintain a policy of automobile liability insurance on a comprehensive form covering all owned, non-owned, and hired automobiles, trucks, and other vehicles providing the following minimum limit of liability coverage: combined single limit of One Million Dollars (\$1,000,000) for bodily injury, personal injury, and property damage.
3. Umbrella Excess Liability: The minimum limits of general liability and automobile liability insurance required, as set forth above, shall be provided for either in a single policy of primary insurance or a combination of policies of primary and umbrella excess coverage. Excess liability coverage shall be issued with limits of liability which, when combined with the primary insurance, will equal the minimum limits for general liability and automobile liability.
4. Drone Liability Insurance: If a drone will be used, drone liability insurance must be maintained by CONTRACTOR in the amount of One Million Dollars (\$1,000,000) in a form acceptable to OC SAN.
5. Workers' Compensation/Employer's Liability: CONTRACTOR shall provide such workers' compensation insurance as required by the Labor Code of the State of California, including employer's liability with a minimum limit of One Million Dollars (\$1,000,000) per accident for bodily injury or disease. If an exposure to Jones Act liability may exist, the insurance required herein shall include coverage with regard to Jones Act claims.
6. Pollution Liability Insurance: CONTRACTOR shall purchase and maintain insurance for pollution liability covering bodily injury, property damage (including loss of use of damaged property or property that has not been physically injured or destroyed), cleanup costs, and defense costs (including costs and expenses for investigation, defense, or settlement of claims). Coverage shall carry limits of at least Two Million

Dollars (\$2,000,000) and shall apply to sudden and non-sudden pollution conditions (including sewage spills), both at the site or needed due to migration of pollutants from the site, resulting from the escape or release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials, or other irritants, contaminants or pollutants.

If CONTRACTOR provides coverage written on a claims-made basis, OC SAN has the right to approve or reject such coverage in its own discretion. If written on a claims-made basis, the CONTRACTOR warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this Contract, and that continuous coverage will be maintained, or an extended discovery period will be exercised, for a period of two years beginning from the time that the Project under this Contract is completed.

7. Inland Marine Transit coverage with limits at least equal to the values of supplies being transported by CONTRACTOR for this Project.

B. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by OC SAN. At the option of OC SAN, either: the Insurer shall reduce or eliminate such deductibles or self-insured retentions as respects OC SAN, its Directors, officers, agents, consultants, and employees; or CONTRACTOR shall provide a financial guarantee satisfactory to OC SAN guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

C. Other Insurance Provisions

1. Each such policy of general liability insurance and automobile liability insurance shall be endorsed to contain, the following provisions:

- a. OC SAN, its directors, officers, agents, consultants, and employees, and all public agencies from whom permits will be obtained, and their directors, officers, agents, and employees are hereby declared to be additional insureds under the terms of this policy, but only with respect to the operations of CONTRACTOR at or from any of the sites of OC SAN in connection with this Contract, or acts and omissions of the additional insured in connection with its general supervision or inspection of said operations related to this Contract.
 - b. Insurance afforded by the additional insured endorsement shall apply as primary insurance, and other insurance maintained by OC SAN shall be excess only and not contributing with insurance provided under this policy.
2. Cancellation and Policy Change Notice.

The CONTRACTOR is required to notify OC SAN in writing of any insurance cancellation notice it receives or other knowledge of pending or actual insurance policy cancellation within two (2) working days of receipt of such notice or acquisition of such knowledge. Additionally, the CONTRACTOR is required to notify OC SAN in writing of any change in the terms of insurance, including reduction in coverage or increase in deductible/SIR, within two (2) working days of receipt of such notice or knowledge of same.

Said notices shall be mailed to OC SAN at:

ORANGE COUNTY SANITATION DISTRICT
10844 Ellis Avenue
Fountain Valley, CA 92708
Attention: Contracts, Purchasing & Materials Management Division

3. Coverage shall not extend to any indemnity coverage for the active negligence of any additional insured in any case where an agreement to indemnify the additional insured would be invalid under California Civil Code Section 2782(b).

4. If required by a public agency from whom permit(s) will be obtained, each policy of general liability insurance and automobile liability insurance shall be endorsed to specify by name the public agency and its legislative members, officers, agents, consultants, and employees, to be additional insureds.

D. Acceptability of Insurers

Insurers must have an "A-", or better, Policyholder's Rating, and a Financial Rating of at least Class VIII, or better, in accordance with the most current A.M. Best Rating Guide. OC SAN recognizes that State Compensation Insurance Fund has withdrawn from participation in the A.M. Best Rating Guide process. Nevertheless, OC SAN will accept State Compensation Insurance Fund for the required policy of worker's compensation insurance, subject to OC SAN's option, at any time during the term of this Contract, to require a change in insurer upon twenty (20) days written notice. Further, OC SAN will require CONTRACTOR to substitute any insurer whose rating drops below the levels herein specified. Said substitution shall occur within twenty (20) days of written notice to CONTRACTOR by OC SAN or its agent.

E. Verification of Coverage

CONTRACTOR shall furnish OC SAN with original certificates and mandatory endorsements affecting coverage. Said policies and endorsements shall conform to the requirements herein stated. All certificates and endorsements are to be received and approved by OC SAN before Work commences. OC SAN reserves the right to require complete, certified copies of all required insurance policies, including endorsements, affecting the coverage required by these Specifications at any time.

F. Subcontractors

CONTRACTOR shall be responsible to establish insurance requirements for any Subcontractors hired by CONTRACTOR. The insurance shall be in amounts and types

reasonably sufficient to deal with the risk of loss involving the Subcontractor's operations and work. OC SAN and any public agency issuing permits for the Project must be named as "Additional Insured" on any general liability or automobile liability policy obtained by a Subcontractor. The CONTRACTOR must obtain copies and maintain current versions of all Subcontractors' policies, certificate of liability and mandatory endorsements effecting coverage. Upon request, CONTRACTOR must furnish OC SAN with the above referenced required documents.

G. Required Forms and Endorsements

1. Required ACORD Form

- | | | |
|----|--------------------------|---|
| a. | Certificate of Liability | ACORD Form 25 or other equivalent certificate of insurance form |
|----|--------------------------|---|

2. Required Insurance Services Office, Inc. Endorsements (when alternative forms are shown, they are listed in order of preference)

In the event any of the following forms are cancelled by Insurance Services Office, Inc. (ISO), or are updated, the ISO replacement form or equivalent must be supplied.

- | | | |
|----|---|--|
| a. | Commercial General Liability | Form CG 00 01 |
| b. | Additional Insured Including Products-Completed Operations | Form CG 20 10 and
Form CG 20 37
All other additional insured endorsements must be submitted for approval by OC SAN, and OC SAN may reject alternatives that provide different or less coverage to OC SAN. |
| c. | Waiver of Transfer of Rights of Recovery Against Others to Us/
Waiver of Subrogation | Form CG 24 04 |

3. Required State Compensation Insurance Fund Endorsements

- | | | |
|----|-----------------------|---|
| a. | Waiver of Subrogation | Submit workers' compensation waiver of subrogation endorsement provided by carrier for OC SAN approval. |
|----|-----------------------|---|

- b. Cancellation Notice
No endorsement is required. However, CONTRACTOR is responsible for notifying OC SAN of any pending or actual insurance policy cancellation, as described in Article C.2., Cancellation and Policy Change Notice, above.

4. Additional Required Endorsements

- a. Notice of Policy Termination
Manuscript Endorsement

5. Pollution Liability Endorsements

There shall be a Separation of Insured Clause or endorsement, providing that coverage applies separately to each insured, except with respect to the limits of liability. There shall also be an endorsement or policy language containing a waiver of subrogation rights on the part of the insurer.

OC SAN, its directors, officers, agents, consultants and employees and all public agencies from whom permits will be obtained as well as their directors, officers, agents, and employees shall be included as insureds under the policy. Any additional insured endorsement shall contain language at least as broad as the coverage language contained in ISO form CG 20 10 or alternatively in both CG 20 10 and CG 20 37 together.

SECTION – 17 RISK AND INDEMNIFICATION

All Work covered by this Contract done at the site of construction or in preparing or delivering materials to the site shall be at the risk of CONTRACTOR alone. CONTRACTOR shall save, indemnify, defend, and keep OC SAN and others harmless as more specifically set forth in General Conditions, “General Indemnification”.

SECTION – 18 TERMINATION

This Contract may be terminated in whole or in part in writing by OC SAN in the event of substantial failure by the CONTRACTOR to fulfill its obligations under this Agreement, or it may be terminated by OC SAN for its convenience provided that such termination is effectuated in a manner and upon such conditions set forth more particularly in General Conditions, “Termination for Default” and/or “Termination for Convenience”, provided that no termination may be effected unless proper notice is provided to CONTRACTOR at the time and in the manner provided in said General Conditions. If termination for default or convenience is effected by OC SAN, an equitable adjustment in the price provided for in this Contract shall be made at the time and in the manner provided in the General Conditions, “Termination for Default” and “Termination for Convenience”.

SECTION – 19 WARRANTY

The CONTRACTOR agrees to perform all Work under this Contract in accordance with the Contract Documents, including OC SAN’s designs, Drawings and Specifications.

The CONTRACTOR guarantees for a period of at least one (1) year from the date of Final Acceptance of the Work, pursuant to the General Conditions, “Final Acceptance and Final Completion” that the completed Work is free from all defects due to faulty materials, equipment or workmanship and that it shall promptly make whatever adjustments or corrections which may be necessary to cure any defects, including repairs of any damage to other parts of the system resulting from such defects. OC SAN shall promptly give notice to the CONTRACTOR of observed defects. In the event that the CONTRACTOR fails to make adjustments, repairs, corrections or other work made necessary by such defects, OC SAN may do so and charge the CONTRACTOR the cost incurred. The CONTRACTOR’s warranty shall continue as to any corrected deficiency until the later of (1) the remainder of the original one-year warranty period;

or (2) one year after acceptance by OC SAN of the corrected Work. The Performance Bond and the Payment Bond shall remain in full force and effect through the guarantee period.

The CONTRACTOR's obligations under this clause are in addition to the CONTRACTOR's other express or implied assurances under this Contract, including but not limited to specific manufacturer or other extended warranties specified in the Plans and Specifications, or state law and in no way diminish any other rights that OC SAN may have against the CONTRACTOR for faulty materials, equipment or Work.

SECTION – 20 ASSIGNMENT

No assignment by the CONTRACTOR of this Contract or any part hereof, or of funds to be received hereunder, will be recognized by OC SAN unless such assignment has had prior written approval and consent of OC SAN and the Surety.

SECTION – 21 RESOLUTION OF DISPUTES

OC SAN and the CONTRACTOR shall comply with the provisions of California Public Contract Code Section 20104 et. seq., regarding resolution of construction claims for any Claims which arise between the CONTRACTOR and OC SAN, as well as all applicable dispute and Claims provisions as set forth in the General Conditions and as otherwise required by law.

SECTION – 22 SAFETY & HEALTH

CONTRACTOR shall comply with all applicable safety and health requirements mandated by federal, state, city and/or public agency codes, permits, ordinances, regulations, and laws, as well as these Contract Documents, including but not limited to the General Requirements, Section entitled "Safety" and Exhibit B Contractor Safety Standards.

SECTION – 23 NOTICES

Any notice required or permitted under this Contract shall be sent by certified mail, return receipt requested, at the address set forth below. Any party whose address changes shall notify the other party in writing.

TO OC SAN: Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, California 92708-7018
Attn: Clerk of the Board

Copy to: Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, California 92708-7018
Attn: Construction Manager

Bradley R. Hogin, Esquire
Woodruff, Spradlin & Smart
555 Anton Boulevard
Suite 1200
Costa Mesa, California 92626

TO CONTRACTOR: Abhe & Svoboda, Inc.
880 Tavern Road
Alpine, CA 91901

Copy to: David Grant
Abhe & Svoboda, Inc.
880 Tavern Road
Alpine, CA 91901

IN WITNESS WHEREOF, the parties hereto have executed this Contract Agreement as the date first hereinabove written.

CONTRACTOR: Abhe & Svoboda, Inc.
880 Tavern Road
Alpine, CA 91901

By _____ Date _____

Printed Name

Its _____

CONTRACTOR's State License No. 506526 (Expiration Date 03/31/2023)

OC SAN: Orange County Sanitation District

By _____ Date _____

John B. Withers
Board Chairman

By _____ Date _____

Kelly A. Lore
Clerk of the Board

By _____ Date _____

Ruth Zintzun
Purchasing & Contracts Manager

EXHIBIT A
SCHEDULE OF PRICES

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SCHEDULE OF PRICES

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EXHIBIT A

SCHEDULE OF PRICES

EXA-1 BASIS OF COMPENSATION

CONTRACTOR will be paid the Contract Price according to the Schedule of Prices, and all other applicable terms and conditions of the Contract Documents.

EXA-2 PROGRESS PAYMENTS

Progress payments will be made in accordance with all applicable terms and conditions of the Contract Documents, including, but not limited to:

1. Contract Agreement – Section 11 – “Contract Price and Method of Payment;”
2. General Conditions – “Payment – General”;
3. General Conditions – “Payment – Applications for Payment”;
4. General Conditions – “Payment – Mobilization Payment Requirements;”
5. General Conditions – “Payment – Itemized Breakdown of Contract Lump Sum Prices”;
6. General Conditions – “Contract Price Adjustments and Payments”;
7. General Conditions – “Suspension of Payments”;
8. General Conditions – “OC SAN’s Right to Withhold Certain Amounts and Make Application Thereof”; and
9. General Conditions – “Final Payment.”

EXA-3 RETENTION AND ESCROW ACCOUNTS

A. Retention:

OC SAN shall retain a percentage of each progress payment to assure satisfactory completion of the Work. The amount to be retained from each progress payment shall be determined as provided in General Conditions – “Retained Funds; Substitution of Securities”. In all contracts between CONTRACTOR and its Subcontractors and/or Suppliers, the retention may not exceed the percentage specified in the Contract Documents.

B. Substitution of Securities:

CONTRACTOR may, at its sole expense, substitute securities as provided in General Conditions – “Retained Funds; Substitution of Securities.” Payment of Escrow Agent:

In lieu of substitution of securities as provided above, the CONTRACTOR may request and OC SAN shall make payment of retention earned directly to the escrow agent at the expense of the CONTRACTOR. At the expense of the CONTRACTOR, the CONTRACTOR may direct the investment of the payments into securities consistent with Government Code §16430 and the CONTRACTOR shall receive the interest earned on the investments upon the same terms provided for in this article for securities deposited by the CONTRACTOR. Upon satisfactory completion of the Contract, the CONTRACTOR shall receive from the escrow agent all securities, interest and payments received by the escrow agent from OC SAN, pursuant to the terms of this article. The CONTRACTOR shall pay to each Subcontractor, not later than twenty (20) calendar days after receipt of the payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount of retention withheld to ensure the performance of the Subcontractor. The escrow agreement used by the escrow agent pursuant to this article shall be substantially similar to the form set forth in §22300 of the California Public Contract Code.

C. Release of Retention:

Upon Final Acceptance of the Work, the CONTRACTOR shall submit an invoice for release of retention in accordance with the terms of the Contract.

D. Additional Deductibles:

In addition to the retentions described above, OC SAN may deduct from each progress payment any or all of the following:

1. Liquidated Damages that have occurred as of the date of the application for progress payment;
2. Deductions from previous progress payments already paid, due to OC SAN's discovery of deficiencies in the Work or non-compliance with the Specifications or any other requirement of the Contract;
3. Sums expended by OC SAN in performing any of the CONTRACTOR'S obligations under the Contract that the CONTRACTOR has failed to perform, and;
4. Other sums that OC SAN is entitled to recover from the CONTRACTOR under the terms of the Contract, including without limitation insurance deductibles and assessments.

The failure of OC SAN to deduct any of the above-identified sums from a progress payment shall not constitute a waiver of OC SAN's right to such sums or to deduct them from a later progress payment.

EXA-4 STOP PAYMENT NOTICE

In addition to other amounts properly withheld under this article or under other provisions of the Contract, OC SAN shall retain from progress payments otherwise due the CONTRACTOR an amount equal to one hundred twenty-five percent (125%) of the amount claimed under any stop payment notice under Civil Code §9350 et. seq. or other lien filed against the CONTRACTOR for labor, materials, supplies, equipment, and any other thing of value claimed to have been furnished to and/or incorporated into the Work; or for any other alleged contribution thereto. In addition to the foregoing and in accordance with Civil Code §9358 OC SAN may also satisfy its duty to withhold funds for stop payment notices by refusing to release funds held in escrow pursuant to public receipt of a release of stop payment notice executed by a stop payment notice claimant, a stop payment notice release bond, an order of a court of competent jurisdiction, or other evidence satisfactory to OC SAN that the CONTRACTOR has resolved such claim by settlement.

EXA-5 PAYMENT TO SUBCONTRACTORS

Requirements

1. The CONTRACTOR shall pay all Subcontractors for and on account of Work performed by such Subcontractors, not later than seven (7) days after receipt of each progress payment as required by the California Business and Professions Code §7108.5. Such payments to Subcontractors shall be based on the measurements and estimates made pursuant to article progress payments provided herein.
2. Except as specifically provided by law, the CONTRACTOR shall pay all Subcontractors any and all retention due and owing for and on account of Work performed by such Subcontractors not later than seven (7) days after CONTRACTOR'S receipt of said retention proceeds from OC SAN as required by the California Public Contract Code §7107.

EXA-6 PAYMENT OF TAXES

Unless otherwise specifically provided in this Contract, the Contract Price includes full compensation to the CONTRACTOR for all taxes. The CONTRACTOR shall pay all federal, state, and local taxes, and duties applicable to and assessable against any Work, including but not limited to retail sales and use, transportation, export, import, business, and special taxes. The CONTRACTOR shall ascertain and pay the taxes when due. The CONTRACTOR will maintain auditable records, subject to OC SAN reviews, confirming that tax payments are current at all times.

EXA-7 FINAL PAYMENT

After Final Acceptance of the Work, as more particularly set forth in the General Conditions, "Final Acceptance and Final Completion", and after Resolution of the Board authorizing final payment and satisfaction of the requirements as more particularly set forth in General Conditions – "Final Payment", a final payment will be made as follows:

1. Prior to Final Acceptance, the CONTRACTOR shall prepare and submit an application for Final Payment to OC SAN, including:
 - a. The proposed total amount due the CONTRACTOR, segregated by items on the payment schedule, amendments, Change Orders, and other bases for payment;
 - b. Deductions for prior progress payments;
 - c. Amounts retained;
 - d. A conditional waiver and release on final payment for each Subcontractor (per Civil Code Section 8136);
 - e. A conditional waiver and release on final payment on behalf of the CONTRACTOR (per Civil Code Section 8136);
 - f. List of Claims the CONTRACTOR intends to file at that time or a statement that no Claims will be filed,
 - g. List of pending unsettled claims, stating claimed amounts, and copies of any and all complaints and/or demands for arbitration received by the CONTRACTOR; and
 - h. For each and every claim that resulted in litigation or arbitration which the CONTRACTOR has settled, a conformed copy of the Request for Dismissal with prejudice or other satisfactory evidence the arbitration is resolved.
2. The application for Final Payment shall include complete and legally effective releases or waivers of liens and stop payment notices satisfactory to OC SAN, arising out of or filed in connection with the Work. Prior progress payments shall be subject to correction in OC SAN's review of the application for Final Payment. Claims filed with the application for Final Payment must be otherwise timely under the Contract and applicable law.
3. Within a reasonable time, OC SAN will review the CONTRACTOR'S application for Final Payment. Any recommended changes or corrections will then be forwarded to the CONTRACTOR. Within ten (10) calendar days after receipt of recommended changes from OC SAN, the CONTRACTOR will make the changes, or list Claims that will be filed as a result of the changes, and shall submit the revised application for Final Payment. Upon

acceptance by OC SAN, the revised application for Final Payment will become the approved application for Final Payment.

4. If no Claims have been filed with the initial or any revised application for Final Payment, and no Claims remain unsettled within thirty-five (35) calendar days after Final Acceptance of the Work by OC SAN, and agreements are reached on all issues regarding the application for Final Payment, OC SAN, in exchange for an executed release, satisfactory in form and substance to OC SAN, will pay the entire sum found due on the approved application for Final Payment, including the amount, if any, allowed on settled Claims.
5. The release from the CONTRACTOR shall be from any and all Claims arising under the Contract, except for Claims that with the concurrence of OC SAN are specifically reserved, and shall release and waive all unreserved Claims against OC SAN and its officers, directors, employees and authorized representatives. The release shall be accompanied by a certification by the CONTRACTOR that:
 - a. It has resolved all Subcontractors, Suppliers and other Claims that are related to the settled Claims included in the Final Payment;
 - b. It has no reason to believe that any party has a valid claim against the CONTRACTOR or OC SAN which has not been communicated in writing by the CONTRACTOR to OC SAN as of the date of the certificate;
 - c. All warranties are in full force and effect, and;
 - d. The releases and the warranties shall survive Final Payment.
6. If any claims remain open, OC SAN may make Final Payment subject to resolution of those claims. OC SAN may withhold from the Final Payment an amount not to exceed one hundred fifty percent (150%) of the sum of the amounts of the open claims, and one hundred twenty-five percent (125%) of the amounts of open stop payment notices referred to in article entitled stop payment notices herein.
7. The CONTRACTOR shall provide an unconditional waiver and release on final payment from each Subcontractor and Supplier providing Work under the Contract (per Civil Code Section 8138) and an unconditional waiver and release on final payment on behalf of the CONTRACTOR (per Civil Code Section 8138) within thirty (30) days of receipt of Final Payment.

EXA-8 DISCOVERY OF DEFICIENCIES BEFORE AND AFTER FINAL PAYMENT

Notwithstanding OC SAN's acceptance of the application for Final Payment and irrespective of whether it is before or after Final Payment has been made, OC SAN shall not be precluded from subsequently showing that:

1. The true and correct amount payable for the Work is different from that previously accepted;

2. The previously accepted Work did not in fact conform to the Contract requirements, or;
3. A previous payment or portion thereof for Work was improperly made.

OC SAN also shall not be stopped from demanding and recovering damages from the CONTRACTOR, as appropriate, under any of the foregoing circumstances as permitted under the Contract or applicable law.

ATTACHMENT 1 – CERTIFICATION FOR REQUEST FOR PAYMENT

I hereby certify under penalty of perjury as follows:

That the claim for payment is in all respects true, correct; that the services mentioned herein were actually rendered and/or supplies delivered to OC SAN in accordance with the Contract.

I understand that it is a violation of both the federal and California False Claims Acts to knowingly present or cause to be presented to OC SAN a false claim for payment or approval.

A claim includes a demand or request for money. It is also a violation of the False Claims Acts to knowingly make use of a false record or statement to get a false claim paid. The term "knowingly" includes either actual knowledge of the information, deliberate ignorance of the truth or falsity of the information, or reckless disregard for the truth or falsity of the information. Proof of specific intent to defraud is not necessary under the False Claims Acts. I understand that the penalties under the Federal False Claims Act and State of California False Claims Act are non-exclusive, and are in addition to any other remedies which OC SAN may have either under contract or law.

I hereby further certify, to the best of my knowledge and belief, that:

1. The amounts requested are only for performance in accordance with the Specifications, terms, and conditions of the Contract;
2. Payments to Subcontractors and Suppliers have been made from previous payments received under the Contract, and timely payments will be made from the proceeds of the payment covered by this certification;
3. This request for progress payments does not include any amounts which the prime CONTRACTOR intends to withhold or retain from a Subcontractor or Supplier in accordance with the terms and conditions of the subcontract; and
4. This certification is not to be construed as Final Acceptance of a Subcontractor's performance.

Name

Title

Date

ATTACHMENT 2 – SCHEDULE OF PRICES

See next pages for Bid Submittal Forms: Abhe & Svoboda, Inc.

BF-14 SCHEDULE OF PRICES, Pages 1 – 2

Bid Submitted By: ABHE & SVOBODA, INC.
(Name of Firm)

BF-14 SCHEDULE OF PRICES

INSTRUCTIONS

A. General

For Unit Prices, it is understood that the following quantities are approximate only and are solely for the purpose of estimating the comparison of Bids, and that the actual value of Work will be computed based upon the actual quantities in the completed Work, whether they be more or less than those shown. CONTRACTOR's compensation for the Work under the Contract Documents will be computed based upon the lump sum amount of the Contract at time of award, plus any additional or deleted costs approved by OC SAN via approved Change Orders, pursuant to the Contract Documents.

Bidder shall separately price and accurately reflect costs associated with each line item, leaving no blanks. Any and all modifications to the Bid must be initialed by an authorized representative of the Bidder in accordance with the Instructions to Bidders, Preparation of Bid.

Bidders are reminded of Instruction to Bidders, Discrepancy in Bid Items, which, in summary, provides that the total price for each item shall be based on the Unit Price listed for each item multiplied by the quantity; and the correct Total Price for each item shall be totaled to determine the Total Amount of Bid.

All applicable costs including overhead and profit shall be reflected in the respective unit costs and the TOTAL AMOUNT OF BID. The Bid price shall include all costs to complete the Work, including profit, overhead, etc., unless otherwise specified in the Contract Documents. All applicable sales taxes, state and/or federal, and any other special taxes, patent rights or royalties shall be included in the prices quoted in this Bid.

B. Basis of Award

AWARD OF THE CONTRACT WILL BE MADE ON THE BASIS OF THE LOWEST RESPONSIVE AND RESPONSIBLE BID.

Note 1: Base Bid. Includes all costs necessary to furnish all labor, materials, equipment and services for the construction of the Project per the Contract Documents.

Bid Submitted By: ABHE & SVOBODA, INC.
 (Name of Firm)

**EXHIBIT A
 SCHEDULE OF PRICES**

BASE BID ITEMS (Refer to Note 1 in the Instructions):

Item No.	Description	Unit of Measurement	Extended Price
1.	Mobilization. This Item shall include all fees, labor, materials, and equipment required for all mobilization activities performed by CONTRACTOR in accordance with Section 01115, Mobilization, and in conformance with the Contract Documents for the lump sum price of ...	Lump Sum	\$ 65,000
2.	City of Fountain Valley Encroachment Permit Fees: This Item is an allowance for all permits, plan checks, and inspection fees required by the City of Fountain Valley during Construction of the Work, in conformance with the Contract Documents...	Allowance	\$ 25,000
3.	All Remaining Work. Work under this Item shall include all labor, materials and equipment necessary for the completion of the Work, except for the Work specified for Bid Items 1 and 2, in conformance with the Contract Documents for the lump sum price of ...	Lump Sum	\$ 1,672,545. ⁰⁰

TOTAL AMOUNT OF BID (BASIS OF AWARD)

\$ 1,762,545.⁰⁰

Bushard Diversion Structure Repair

Project No. MP-307

Presented by:
Jeff Mohr
Eng. Manager

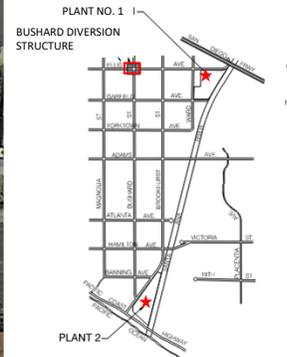
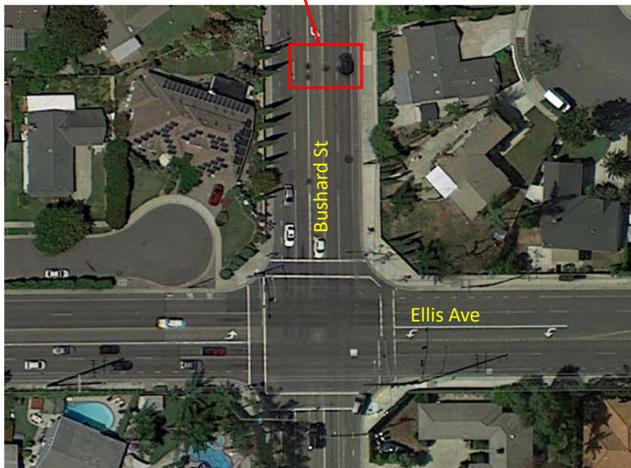
Operations
Committee
June 1, 2022



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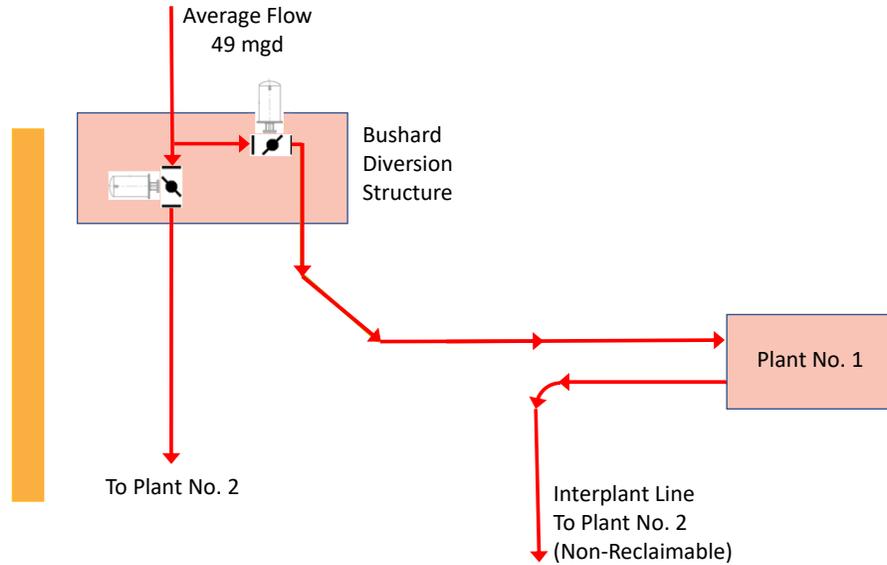
Project Location: Fountain Valley

**BUSHARD DIVERSION
STRUCTURE**



2

Structure Diverts Flows Between Plants



3

Bid Results

Bidder	Amount of Bid
Engineer's Estimate	\$1,200,000
Abhe & Svoboda, Inc.	\$1,762,545

4

Factors Affecting Bid Price

- High Risk / Business Challenges
 - Business and technical risks
 - Requires specially-trained staff
 - Attractive bidding opportunities elsewhere
- Productivity assumptions
 - Daily setup/take down for traffic control
 - Lower daily production increases crew-days

Little or no potential for mitigation

5

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Recommendation

Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for Bushard Diversion Structure Repair, Project No. MP-307;
- B. Award a Construction Contract to Abhe & Svoboda, Inc. for Bushard Diversion Structure Repair, Project No. MP-307 for an amount not to exceed \$1,762,545; and
- C. Approve a contingency of \$176,255 (10%).

6

6

Questions



7

7



OPERATIONS COMMITTEE

Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

Agenda Report

File #: 2022-2340

Agenda Date: 6/1/2022

Agenda Item No: 9.

FROM: James D. Herberg, General Manager
Originator: Lorenzo Tyner, Assistant General Manager

SUBJECT:

FY 2022-23 AND FY 2023-24 BUDGET PRESENTATION

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

Information Item.

BACKGROUND

Staff will provide an overview of the FY 2022-23 and FY 2023-24 Budget, including Orange County Sanitation District Revenues, Capital Improvement and Operating expenditures, and long-term liabilities. The budget update will be proposed for adoption at the June 22, 2022 Board of Directors meeting.

RELEVANT STANDARDS

- Produce Operating and Capital Improvement Program Budgets every two years, with an annual update

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

- Presentation

Proposed FY 2022-23 & FY 2023-24 Budget

*Wally Ritchie,
Controller*

*Operations
Committee*

June 1, 2022

OC SAN
ORANGE COUNTY SANITATION DISTRICT

1

Overview

- FY 2022-23 and FY 2023-24 Budget
 - Stable Revenues
 - Challenging Inflationary Environment
 - Expenses Include
 - Operating
 - Capital Improvement Program
 - Debt Service
 - Staffing – FY 2022-23 (647 FTE) FY 2023-24 (648 FTE)
 - No New Debt

*All figures in millions unless otherwise noted

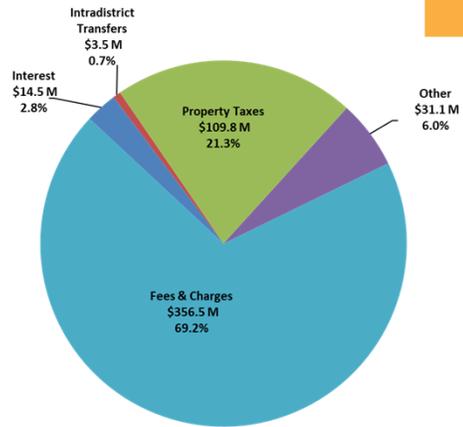
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REVENUE

Where the Money Comes From

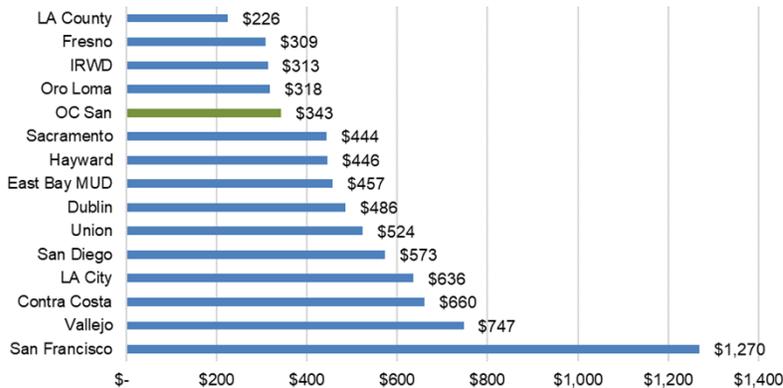
Category	2021-22 Projected	2022-23 Proposed	2023-24 Proposed
Service Fees	\$311.7	\$326.1	\$339.2
Property Taxes	107.6	109.8	112.1
Permit User Fees	12.4	12.5	12.9
Capital Facilities Capacity Charges	17.2	17.9	18.5
Interest	5.8	14.5	13.7
Intradistrict Transfers	0.0	3.5	3.5
Debt Proceeds	0.0	0.0	0.0
Other Revenue	27.2	31.1	26.1
Total Funding Sources	\$481.9	\$515.4	\$526.0



3

REVENUE - RATES

Annual Single Family Residential Rates
(July 2021)



SFR Rate for FY 2022-23

\$347

\$4 or 1.2% Increase

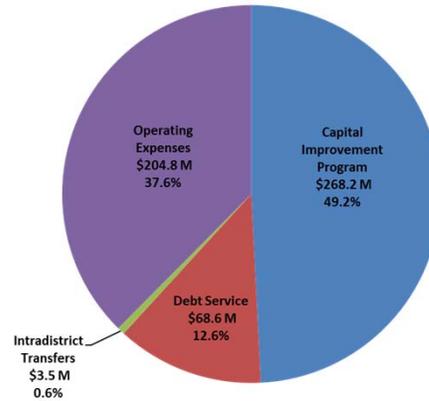
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EXPENSES

Where the Money Goes

Category	2021-22 Projected	2022-23 Proposed	2023-24 Proposed
Capital Improvement Program, Net	\$203.3	\$268.2	\$315.3
Operating Expenses *	185.8	204.8	213.7
Debt Service	70.7	68.6	68.6
Intradistrict Transfers	0.0	3.5	3.5
Total Funding Uses	\$459.8	\$545.1	\$601.2

* Operating Expenses include \$3.7 million in Self-Insurance costs

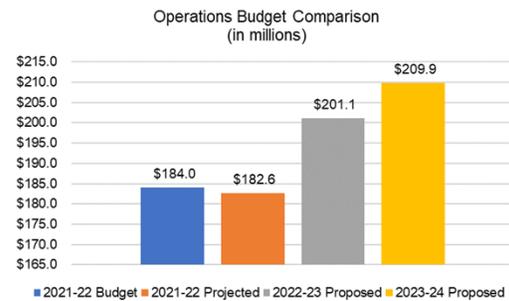


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OPERATING EXPENSES

Department	Budget 2021-22	Proposed 2022-23	Percent Change	Proposed 2023-24	Percent Change
<i>Administration Units</i>					
General Manager's Office	\$4.1	\$4.5	9.8%	\$4.3	(4.4%)
Human Resources	7.3	7.8	6.8%	8.0	2.6%
Administrative Services	30.0	32.0	6.7%	33.4	4.4%
Sub-Total	\$41.4	\$44.3	7.0%	\$45.7	3.2%
<i>Operating Units</i>					
Environmental Services	21.3	22.7	6.6%	23.8	4.8%
Engineering	5.4	8.9	64.8%	9.0	1.1%
Operations & Maintenance	115.9	125.2	8.0%	131.4	5.0%
Sub-Total	\$142.6	\$156.8	10.0%	\$164.2	4.7%
Total	\$184.0	\$201.1	9.3%	\$209.9	4.3%



6

6

OPERATING EXPENSES

Category	2021-22 Projected	2022-23 Proposed	2023-24 Proposed
Salaries and Benefits	\$105.1	\$112.8	\$118.4
Contractual Services	17.6	20.1	21.3
Repairs and Maintenance	34.8	32.1	33.8
Operating Materials & Supplies	21.7	24.3	26.0
Utilities	10.9	12.8	12.6
Professional Services	5.2	7.8	7.6
Other Materials, Supplies, Services	4.0	6.0	6.4
Administrative Expenses	2.3	2.3	2.2
Training and Meetings	0.4	1.2	1.1
Research and Monitoring	1.1	1.7	1.8
Printing and Publications	0.3	0.8	0.4
Cost Allocation	(20.8)	(20.8)	(21.6)
Net Operating Expenses	\$182.6	\$201.1	\$209.9

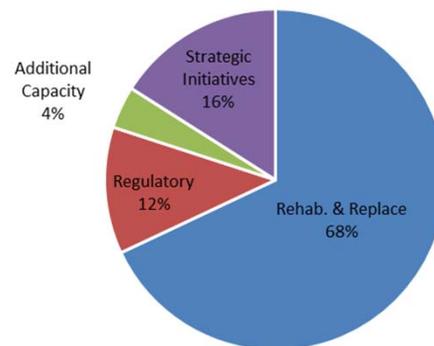
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CAPITAL IMPROVEMENT PROGRAM

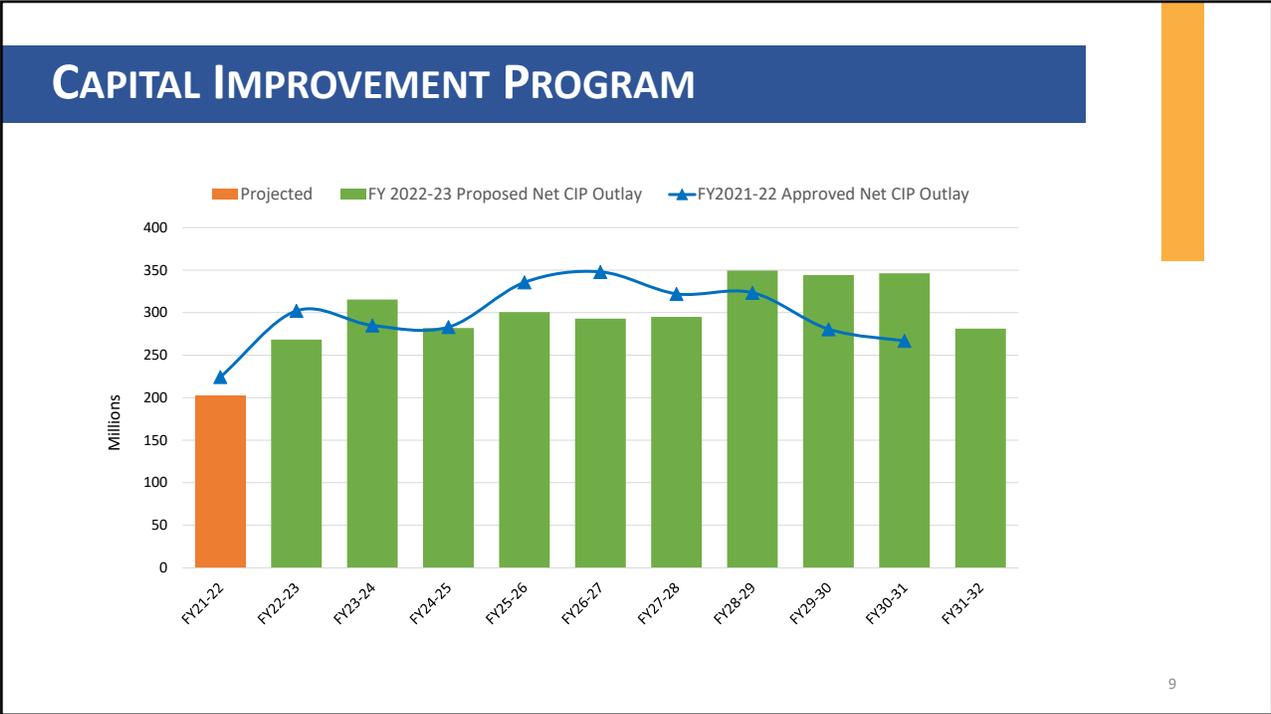
<u>CIP Categories</u>	<u>FY 2022-23</u>	<u>FY 2023-24</u>
Treatment Projects	\$ 230.0	\$ 252.3
Collection Projects	47.6	69.2
Equipment	7.0	7.8
FY 2021-22 CIP Authority	284.6	329.3
CIP Savings & Deferrals	(16.4)	(24.0)
Alloc. for Future Rehab	-	10.0
FY 2021-22 Net CIP	\$ 268.2	\$ 315.3

10-Year Net CIP Outlay \$ 3.1 Billion



8

8



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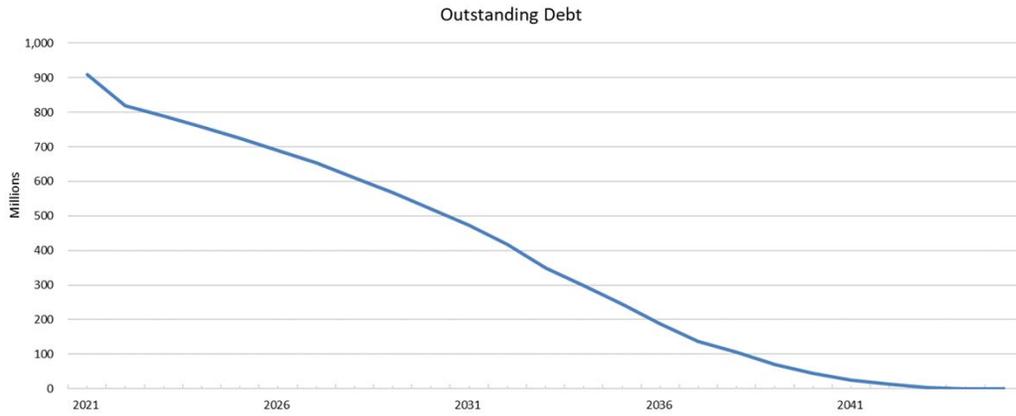
DEBT SERVICE

Total Outstanding COP Balance 7/1/22	\$ 819,785,000
Blended Interest Rate	2.71%
FY 2022-23 Debt Service	\$ 68.6M

* All outstanding debt to be paid off by 2044

10

DEBT SERVICE



* No New Debt Issues are Planned

11

11

SUMMARY

Revenue

Category	2022-23 Proposed	2023-24 Proposed
Service Fees	\$326.1	\$339.2
Property Taxes	109.8	112.1
Permit User Fees	12.5	12.9
Capital Facilities Capacity Charges	17.9	18.5
Interest	14.5	13.7
Intradistrict Transfers	3.5	3.5
Debt Proceeds	0.0	0.0
Other Revenue	31.1	26.1
Total Revenue	\$515.4	\$526.0

Expenses

Category	2022-23 Proposed	2023-24 Proposed
Capital Improvement Program, Net	\$268.2	\$315.3
Operating Expenses	204.8	213.7
Debt Service	68.6	68.6
Intradistrict Transfers	3.5	3.5
Total Expenses	\$545.1	\$601.2

12

12

Questions



13



OPERATIONS COMMITTEE

Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

Agenda Report

File #: 2022-2193

Agenda Date: 6/1/2022

Agenda Item No: 10.

FROM: James D. Herberg, General Manager
Originator: Lan C. Wiborg, Director of Environmental Services

SUBJECT:

ORANGE COUNTY SANITATION DISTRICT ENVIRONMENTAL SERVICES LABORATORY AND OCEAN MONITORING UPDATE

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

Information Item.

BACKGROUND

Each month, staff provides an informational presentation on topics of interest to the Board of Directors. This month's topic: Orange County Sanitation District Environmental Services - Environmental Laboratory and Ocean Monitoring Division (ELOM): Protecting Public Health and the Environment.

The work of the ELOM division tends to be complex and diverse. This presentation will focus primarily on who we are, what we do, and our current strategic and collaborative projects and studies.

RELEVANT STANDARDS

- Comply with environmental permit requirements
- Listen to and seriously consider community input on environmental concerns
- Operate and maintain facilities to minimize impacts on surrounding communities including odor, noise, and lighting

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

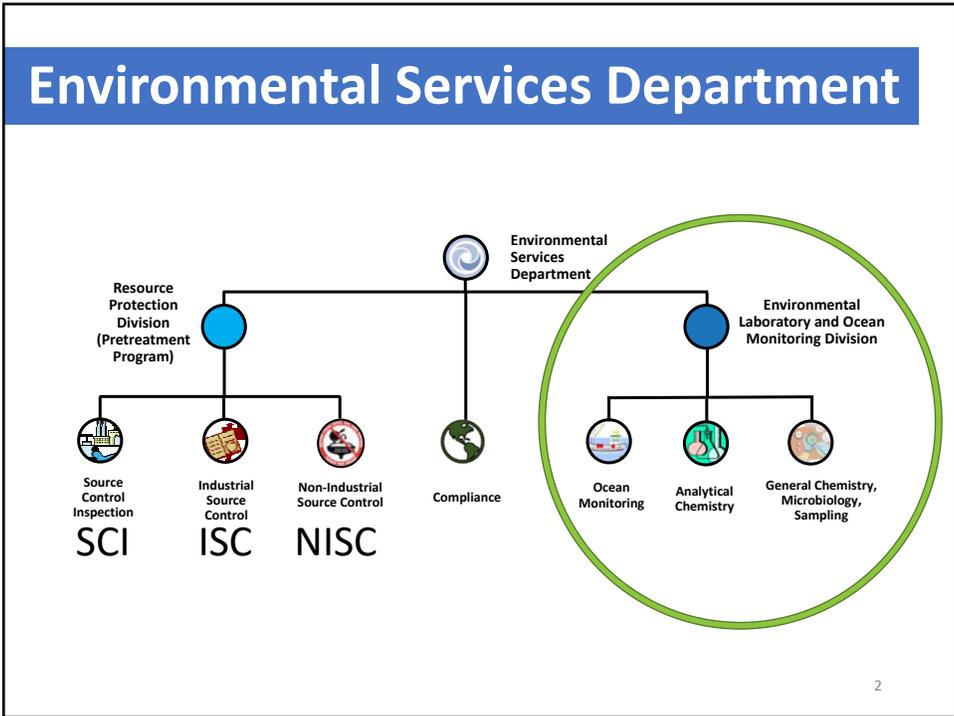
- Presentation

Environmental Laboratory and Ocean Monitoring Program (Division 630)

Presented by:
Samuel Choi
Environmental Lab and Ocean Monitoring Manager
Operations Committee
June 1, 2022



1



2

Environmental Monitoring





**United States
Environmental Protection
Agency**

**Code of
Federal
Regulations**





**CALIFORNIA
WATER BOARDS**
State Water Resources Control Board

STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

**California Ocean Plan
Santa Ana RWQCB Basin Plan**



NPDES Permit

OC San Ocean Monitoring and Reporting Program

Compliance Monitoring

Regional Monitoring

Strategic Process Studies

3

3

Accreditations (Quality Assurance)

National

State

Regional

State of Utah
Department of Health
Environmental Laboratory Certification Program
Certification is hereby granted to
Orange County Sanitation District
10844 Ellis Ave
Fountain Valley, CA 92708

Has conformed with the 2015 TW Standard
Scope of accreditation is limited to the State of Utah accredited fields that accompany this Certificate

EPA Number: CA00307
Expiration Date: 9/30/2022
Certificate Number: CA003072021-5

Kristin Brown
Kristin Brown
Program Manager

Continued accredited status depends on successful ongoing participation in the program.

 CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL LABORATORY ACCREDITATION
is hereby granted to

Orange County Sanitation District

Laboratory, Monitoring, and Compliance
10844 Ellis Avenue
Fountain Valley, CA 92708

Scope of the certificate is limited to the "Fields of Accreditation" which accompany this Certificate.
Continued accredited status depends on compliance with applicable laws and regulations, proficiency testing studies, and payment of applicable fees.
This Certificate is granted in accordance with provisions of Section 100820, et seq. of the Health and Safety Code.

Certificate No: 1661
Effective Date: 8/1/2021
Expiration Date: 8/31/2023

Sanemarks, California subject to bidform or revision.

Christina
Christina Mello, Chair
Environmental Laboratory Accreditation Program

 **South Coast Air Quality Management District**
11805 Canyon Street, Escondido, CA 91739-4178
(951) 276-2551 • www.scaqmnd.gov

March 1, 2021

Dr. Robert Chen
Orange County Sanitation District
Environmental Laboratory & Compliance Monitoring Division
10844 Ellis Avenue
Fountain Valley, CA 92708-1018

Subject: LAP Renewal Notice
Reference # 02LAP19

Dear Dr. Chen:

We completed our review of the renewal application you submitted for approval under the South Coast Air Quality Management District's Laboratory Accreditation Program (LAP). We are pleased to advise you that your Site is approved for the period beginning March 1, 2021, and ending September 30, 2023 for the following method:

Method 161.11

Thank you for participating in the LAP. Your cooperation helps us to achieve the goal of the LAP - to maintain high standards of quality in the sampling and analysis of water resources.

You may direct any questions or information to LAP Coordinator, Crista Eckhardt. It may be reached by telephone at (951) 276-2476, or via e-mail at ceckhardt@scqmnd.gov.

Sincerely,
D. Souders
Deputy Director
Program Support
Research Test Engineering

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Laboratory and Ocean Monitoring Division

Mission Statement

To ensure safe recreational and environmental protection; perform sampling, analysis and reporting to document OC San's exemplary regulatory compliance, inclusive of air, biosolids, water recycling and ocean discharge

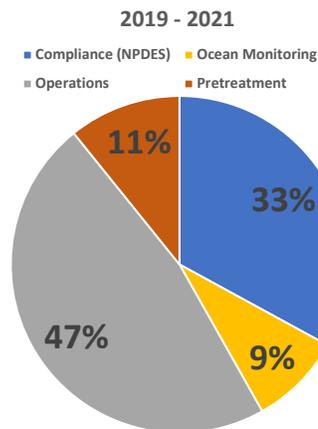


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Laboratory Tests

Sample Type	No. of Laboratory Tests		
	2019	2020	2021
General Chemistry	56,274	58,324	58,742
Metals	10,517	10,101	9,981
Microbiology	23,377	23,188	22,063
Organic Chemistry	6,140	6,160	5,422
Toxicology	64	60	70
Total	96,372	97,833	96,278



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Laboratory Instruments

Sample Preparation

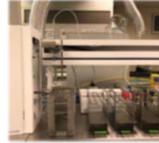
ASE



AutoTrace



GPC



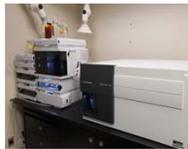
Concentrator



Analytical Instruments

Andor (LC-MS)

PFAS, PPCPs, IEDCs, DA, Hormones



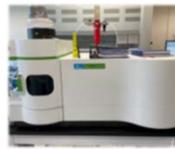
Annikan (TQ GC-MS)

PCBs, Pesticides



ICP-MS

Metals



FTIR

Microplastics



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Ocean Monitoring

RV Nerissa



Water Quality



Ocean Bottom Health



Fish Health



Oceanography



Toxicology



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2020-2021 OC Beach Report Card



**2020-2021
Beach Report Card**

ORANGE COUNTY

2020-2021	Summer Dry ☀️		Winter Dry ☁️		Wet Weather ☁️	
	#	%	#	%	#	%
A	118	88%	122	90%	24	31%
B	11	8%	9	7%	9	12%
C	4	3%	5	4%	2	3%
D	1	1%	0	0%	10	13%
F	0	0%	0	0%	33	42%
A+B	129	96%	131	96%	33	42%
C,D,F	5	4%	5	4%	45	58%

HONOR ROLL

2020-2021

4+

BEACH NAME	COUNTY
Crown Beach, at Sunset Rd.	Alameda
Royal Palms State Beach	Los Angeles
Leo Carrillo Beach, at Arroyo Sequit Creek	Los Angeles
Puerco State Beach, at creek mouth	Los Angeles
Las Flores State Beach, at Las Flores Creek	Los Angeles
Broad Beach, at Trancas Creek	Los Angeles
Escondido State Beach, at Escondido Creek	Los Angeles
Nicholas Beach, at San Nicholas Canyon Creek	Los Angeles
Newport Bay, Promontory Point	Orange
Crystal Cove (CSDOC)	Orange
Newport Beach, at Orange Street	Orange
Newport Beach, at 52nd/53rd Street	Orange
Balboa Beach Pier	Orange
Balboa Beach, The Wedge	Orange
Crystal Cove	Orange
1000 Steps Beach, at 9th St.	Orange
North Aliso County Beach	Orange
Treasure Island Beach	Orange
Carlsbad, at Encina Creek	San Diego
Carlsbad, at Palomar Airport Rd.	San Diego

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Team in Action



From Left to Right

Staff

Dr. Jeff Armstrong (Retired)

Laura Terriquez

Former Directors

Keith Curry

Bob Kiley

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Looking Forward (Research and Innovation)

Strategic Process Studies (SPS)

- Plume modeling
- Changes in discharge footprint using LABs
- Meiofauna baseline assessment
- Use of bioassays for biological response
- Microplastics characterization

Regional Monitoring

- Leverage resources to address regional issues such as:
 - Ocean acidification and Hypoxia (OAH)
 - Persistent contaminants

Innovation and Research

- Method development – PFAS, Microplastics, Domoic Acid
- Explore cutting edge technologies

COVID-19 Wastewater Surveillance

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OC San Partners











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Serving the Community

Protect Public Health and the Environment

Water Quality: **Safe to Swim**
Sediment Quality: **Health Ecosystem**
Fish Health: **Safe to Eat**

Public Outreach

Laboratory Tours (including virtual)
Open House
Science Fairs
Children's Water Festival



Technical/Professional Organizations

SCAMIT	TNI Committee	SCAS
SETAC	Standard Methods	SCAITE
ELTAC	CSEA	SCUM
ASM	CWEA	

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Questions



Contact: Samuel Choi
schoi@ocsan.gov
714-593-7497

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ORANGE COUNTY SANITATION DISTRICT COMMON ACRONYMS

ACWA	Association of California Water Agencies	LOS	Level Of Service	RFP	Request For Proposal
APWA	American Public Works Association	MGD	Million Gallons Per Day	RWQCB	Regional Water Quality Control Board
AQMD	Air Quality Management District	MOU	Memorandum of Understanding	SARFPA	Santa Ana River Flood Protection Agency
ASCE	American Society of Civil Engineers	NACWA	National Association of Clean Water Agencies	SARI	Santa Ana River Interceptor
BOD	Biochemical Oxygen Demand	NEPA	National Environmental Policy Act	SARWQCB	Santa Ana Regional Water Quality Control Board
CARB	California Air Resources Board	NGOs	Non-Governmental Organizations	SAWPA	Santa Ana Watershed Project Authority
CASA	California Association of Sanitation Agencies	NPDES	National Pollutant Discharge Elimination System	SCADA	Supervisory Control And Data Acquisition
CCTV	Closed Circuit Television	NWRI	National Water Research Institute	SCAP	Southern California Alliance of Publicly Owned Treatment Works
CEQA	California Environmental Quality Act	O & M	Operations & Maintenance	SCAQMD	South Coast Air Quality Management District
CIP	Capital Improvement Program	OCCOG	Orange County Council of Governments	SOCWA	South Orange County Wastewater Authority
CRWQCB	California Regional Water Quality Control Board	OCHCA	Orange County Health Care Agency	SRF	Clean Water State Revolving Fund
CWA	Clean Water Act	OCSD	Orange County Sanitation District	SSMP	Sewer System Management Plan
CWEA	California Water Environment Association	OCWD	Orange County Water District	SSO	Sanitary Sewer Overflow
EIR	Environmental Impact Report	OOBS	Ocean Outfall Booster Station	SWRCB	State Water Resources Control Board
EMT	Executive Management Team	OSHA	Occupational Safety and Health Administration	TDS	Total Dissolved Solids
EPA	US Environmental Protection Agency	PCSA	Professional Consultant/Construction Services Agreement	TMDL	Total Maximum Daily Load
FOG	Fats, Oils, and Grease	PDSA	Professional Design Services Agreement	TSS	Total Suspended Solids
gpd	gallons per day	PFAS	Per- and Polyfluoroalkyl Substances	WDR	Waste Discharge Requirements
GWRS	Groundwater Replenishment System	PFOA	Perfluorooctanoic Acid	WEF	Water Environment Federation
ICS	Incident Command System	PFOS	Perfluorooctanesulfonic Acid	WERF	Water Environment & Reuse Foundation
IERP	Integrated Emergency Response Plan	POTW	Publicly Owned Treatment Works	WIFIA	Water Infrastructure Finance and Innovation Act
JPA	Joint Powers Authority	ppm	parts per million	WIIN	Water Infrastructure Improvements for the Nation Act
LAFCO	Local Agency Formation Commission	PSA	Professional Services Agreement	WRDA	Water Resources Development Act

ORANGE COUNTY SANITATION DISTRICT GLOSSARY OF TERMS

ACTIVATED SLUDGE PROCESS – A secondary biological wastewater treatment process where bacteria reproduce at a high rate with the introduction of excess air or oxygen and consume dissolved nutrients in the wastewater.

BENTHOS – The community of organisms, such as sea stars, worms, and shrimp, which live on, in, or near the seabed, also known as the benthic zone.

BIOCHEMICAL OXYGEN DEMAND (BOD) – The amount of oxygen used when organic matter undergoes decomposition by microorganisms. Testing for BOD is done to assess the amount of organic matter in water.

BIOGAS – A gas that is produced by the action of anaerobic bacteria on organic waste matter in a digester tank that can be used as a fuel.

BIOSOLIDS – Biosolids are nutrient rich organic and highly treated solid materials produced by the wastewater treatment process. This high-quality product can be recycled as a soil amendment on farmland or further processed as an earth-like product for commercial and home gardens to improve and maintain fertile soil and stimulate plant growth.

CAPITAL IMPROVEMENT PROGRAM (CIP) – Projects for repair, rehabilitation, and replacement of assets. Also includes treatment improvements, additional capacity, and projects for the support facilities.

COLIFORM BACTERIA – A group of bacteria found in the intestines of humans and other animals, but also occasionally found elsewhere, used as indicators of sewage pollution. E. coli are the most common bacteria in wastewater.

COLLECTIONS SYSTEM – In wastewater, it is the system of typically underground pipes that receive and convey sanitary wastewater or storm water.

CERTIFICATE OF PARTICIPATION (COP) – A type of financing where an investor purchases a share of the lease revenues of a program rather than the bond being secured by those revenues.

CONTAMINANTS OF POTENTIAL CONCERN (CPC) – Pharmaceuticals, hormones, and other organic wastewater contaminants.

DILUTION TO THRESHOLD (D/T) – The dilution at which the majority of people detect the odor becomes the D/T for that air sample.

GREENHOUSE GASES (GHG) – In the order of relative abundance water vapor, carbon dioxide, methane, nitrous oxide, and ozone gases that are considered the cause of global warming (“greenhouse effect”).

GROUNDWATER REPLENISHMENT SYSTEM (GWRS) – A joint water reclamation project that proactively responds to Southern California’s current and future water needs. This joint project between the Orange County Water District and OCSD provides 70 million gallons per day of drinking quality water to replenish the local groundwater supply.

LEVEL OF SERVICE (LOS) – Goals to support environmental and public expectations for performance.

N-NITROSODIMETHYLAMINE (NDMA) – A N-nitrosamine suspected cancer-causing agent. It has been found in the GWRS process and is eliminated using hydrogen peroxide with extra ultra-violet treatment.

NATIONAL BIOSOLIDS PARTNERSHIP (NBP) – An alliance of the NACWA and WEF, with advisory support from the EPA. NBP is committed to developing and advancing environmentally sound and sustainable biosolids management practices that go beyond regulatory compliance and promote public participation to enhance the credibility of local agency biosolids programs and improved communications that lead to public acceptance.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) – A large group (over 6,000) of human-made compounds that are resistant to heat, water, and oil and used for a variety of applications including firefighting foam, stain and water-resistant clothing, cosmetics, and food packaging. Two PFAS compounds, perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) have been the focus of increasing regulatory scrutiny in drinking water and may result in adverse health effects including developmental effects to fetuses during pregnancy, cancer, liver damage, immunosuppression, thyroid effects, and other effects.

PERFLUOROCTANOIC ACID (PFOA) – An ingredient for several industrial applications including carpeting, upholstery, apparel, floor wax, textiles, sealants, food packaging, and cookware (Teflon).

PERFLUOROCTANESULFONIC ACID (PFOS) – A key ingredient in Scotchgard, a fabric protector made by 3M, and used in numerous stain repellents.

PLUME – A visible or measurable concentration of discharge from a stationary source or fixed facility.

PUBLICLY OWNED TREATMENT WORKS (POTW) – A municipal wastewater treatment plant.

SANTA ANA RIVER INTERCEPTOR (SARI) LINE – A regional brine line designed to convey 30 million gallons per day of non-reclaimable wastewater from the upper Santa Ana River basin to the ocean for disposal, after treatment.

SANITARY SEWER – Separate sewer systems specifically for the carrying of domestic and industrial wastewater.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD) – Regional regulatory agency that develops plans and regulations designed to achieve public health standards by reducing emissions from business and industry.

SECONDARY TREATMENT – Biological wastewater treatment, particularly the activated sludge process, where bacteria and other microorganisms consume dissolved nutrients in wastewater.

SLUDGE – Untreated solid material created by the treatment of wastewater.

TOTAL SUSPENDED SOLIDS (TSS) – The amount of solids floating and in suspension in wastewater.

ORANGE COUNTY SANITATION DISTRICT GLOSSARY OF TERMS

TRICKLING FILTER – A biological secondary treatment process in which bacteria and other microorganisms, growing as slime on the surface of rocks or plastic media, consume nutrients in wastewater as it trickles over them.

URBAN RUNOFF – Water from city streets and domestic properties that carry pollutants into the storm drains, rivers, lakes, and oceans.

WASTEWATER – Any water that enters the sanitary sewer.

WATERSHED – A land area from which water drains to a particular water body. OCSD's service area is in the Santa Ana River Watershed.