



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

On March 4, 2020, Governor Newsom proclaimed a State of Emergency in California as a result of the threat of COVID-19. On March 12, 2020 and March 18, 2020, Governor Newsom issued Executive Order N-25-20 and Executive Order N-29-20, which temporarily suspend portions of the Brown Act which addresses the conduct of public meetings.

The General Manager and the Chairman of the Board of Directors have determined that due to the size of the Orange County Sanitation District'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. The Operations Committee meeting will be available to the public online at:

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

You may submit your comments and questions in writing for the Operations Committee's consideration in advance of the meeting by using the eComment feature available via the webpage above or sending them to OCSanClerk@ocsd.com with the subject line "PUBLIC COMMENT ITEM # (insert the item number relevant to your comment)" or "PUBLIC COMMENT NON-AGENDA ITEM". Submit your written comments by 5:00 p.m. on Tuesday, May 4, 2021.

You may also submit comments and questions for the Operations Committee's consideration during the meeting by using the eComment feature that will be available via the webpage above for the duration of the meeting.

All public comments will be provided to the Operations Committee and may be read into the record or compiled as part of the record.

Thank you.

April 29, 2021

NOTICE OF MEETING

**OPERATIONS COMMITTEE
ORANGE COUNTY SANITATION DISTRICT**

Wednesday, May 5, 2021 – 5:00 P.M.

ACCESSIBILITY FOR THE GENERAL PUBLIC

Due to the spread of COVID-19, the Orange County Sanitation District will be holding all upcoming Board and Committee meetings by teleconferencing and Internet accessibility. This meeting will be available to the public online at:

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

A regular meeting of the Operations Committee of the Orange County Sanitation District will be held in the manner indicated herein on Wednesday, May 5, 2021 at 5:00 p.m.

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 |
|--------------------------------------|--------------------|
| 05/05/21 | 05/26/21 |
| 06/02/21 | 06/23/21 |
| 07/07/21 | 07/28/21 |
| AUGUST DARK | 08/25/21 |
| 09/01/21 | 09/22/21 |
| 10/06/21 | 10/27/21 |
| 11/03/21 | 11/17/21 * |
| 12/01/21 | 12/15/21 * |
| JANUARY DARK | 01/26/22 |
| 02/02/22 | 02/23/22 |
| 03/02/22 | 03/23/22 |
| 04/06/22 | 04/27/22 |

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

ROLL CALL

OPERATIONS COMMITTEE Engineering and Operations & Maintenance

Meeting Date: May 5, 2021

Time: 5:00 p.m.

Adjourn: _____

COMMITTEE MEMBERS (14)

| | |
|---------------------------------|--|
| Stacy Berry (Chair) | |
| Brooke Jones (Vice-Chair) | |
| Doug Chaffee | |
| Stephen Faessel | |
| Ryan Gallagher | |
| Johnathan Ryan Hernandez | |
| Steve Jones | |
| Sandra Massa-Lavitt | |
| Kim Nichols | |
| Bob Ooten | |
| Jesus J. Silva | |
| Chad Zimmerman | |
| David Shawver (Board Chair) | |
| John Withers (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 | |
| Lan Wiborg, Director of Environmental Services | |
| Kelly Lore, Clerk of the Board | |

ORANGE COUNTY SANITATION DISTRICT
BOARD OF DIRECTORS
Complete Roster

Effective 2/9/2021

| AGENCY/CITIES | ACTIVE DIRECTOR | ALTERNATE DIRECTOR |
|----------------------|--------------------------|---------------------------|
| Anaheim | Stephen Faessel | Jose Diaz |
| Brea | Glenn Parker | Steven Vargas |
| Buena Park | Art Brown | Connor Traut |
| Cypress | Stacy Berry | Anne Hertz |
| Fountain Valley | Patrick Harper | Glenn Grandis |
| 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 | Jose Medrano |
| La Palma | Marshall Goodman | Nitesh Patel |
| Los Alamitos | Mark A. Chirco | Ron Bates |
| 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 | Sergio Contreras |
| Irvine Ranch Water District | John Withers | Douglas Reinhart |
| Yorba Linda Water District | Brooke Jones | Phil Hawkins |

County Areas

| | | |
|----------------------|--------------|------------------|
| Board of Supervisors | Doug Chaffee | Donald P. Wagner |
|----------------------|--------------|------------------|



OPERATIONS COMMITTEE
Regular Meeting Agenda
Wednesday, May 5, 2021 - 5:00 PM
Board Room
Administration Building
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7433

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 Sanitation District's Administration Building located at 10844 Ellis Avenue, Fountain Valley, California, and on the Sanitation District's website at www.ocsd.com 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. Please contact the Clerk of the Board's office at (714) 593-7433 to request the audio file.

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@ocsd.com at least 14 days before the meeting.

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

General Manager: Jim Herberg, jherberg@ocsd.com / (714) 593-7300
Asst. General Manager: Lorenzo Tyner, lttyner@ocsd.com / (714) 593-7550
Asst. General Manager: Rob Thompson, rthompson@ocsd.com / (714) 593-7310
Director of Human Resources: Celia Chandler, cchandler@ocsd.com / (714) 593-7202
Director of Engineering: Kathy Millea, kmillea@ocsd.com / (714) 593-7365
Director of Environmental Services: Lan Wiborg, lwiborg@ocsd.com / (714) 593-7450

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

Clerk of the Board

PUBLIC COMMENTS:

Your participation is always welcome. The Operations Committee meeting will be available to the public online at: <https://ocsd.legistar.com/Calendar.aspx>.

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You may also submit comments and questions for the Operations Committee's consideration during the meeting by using the eComment feature that will be available via the webpage above for the duration of the meeting. All public comments will be provided to the Operations Committee and may be read into the record or compiled as part of the record.

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**[2021-1592](#)****RECOMMENDATION:**

Approve Minutes of the Regular Meeting of the Operations Committee held April 7, 2021.

Originator: Kelly Lore

Attachments: [Agenda Report](#)
[04-07-2021 Operations Committee Minutes](#)

2. QUARTERLY ODOR COMPLAINT REPORT [2021-1442](#)**RECOMMENDATION:**

Receive and file the Fiscal Year 2020-21 Third Quarter Odor Complaint Report.

Originator: Rob Thompson

Attachments: [Agenda Report](#)
[FY 2020-21 3rd Qtr Odor Complaints Report Summary](#)

3. REGIONAL ODOR AND CORROSION CONTROL SERVICES (ROCCS) PROGRAM, SPECIFICATION NO. C-2017-899BD CONTINGENCY INCREASE [2021-1579](#)**RECOMMENDATION:** Recommend to the Board of Directors to:

- A. Approve a unit price contingency increase of \$0.74/gallon to the calcium nitrate contract with US Peroxide, LLC dba USP Technologies for the Regional Odor and Corrosion Control Services, Specification No. C-2017-899BD (PO 106291-OB), for July 1, 2021 through June 30, 2022, for a new total amount of \$3.21/gal; for a total estimated usage of \$1,071,339; and
- B. Approve Amendment No. 2 to the contract with Hill Brothers Chemical Company for Regional Odor and Corrosion Control Services, Specification No. C-2017-899BD (PO 106264-OB), for the period beginning July 1, 2021 through June 30, 2022, to approve an additional application service rate of \$80/site per day, a field service rate of \$80/site per day, and a flat surcharge delivery fee of \$400 for small truck deliveries (under 2,500 gallons) for low dosage sites of ferrous chloride only, including but not limited to Crystal Cove Pump Station and Tiffany Lift Station.

Originator: Rob Thompson

Attachments: [Agenda Report](#)
[Amendment No. 2 - Hill Brothers Chemical Company](#)

4. LIQUID FERRIC CHLORIDE SPECIFICATION NO. C-2019-1037BD CONTINGENCY INCREASE [2021-1569](#)**RECOMMENDATION:** Recommend to the Board of Directors to:

Approve a unit price contingency of \$78.70 per dry ton (13.18%) which is a \$19 per dry ton (3.18%) contingency increase to the liquid Ferric Chloride Agreement with Pencco, Inc., Specification No. C-2019-1037BD, for the period beginning July 1, 2021 through June 30, 2022. New dry ton unit cost not to exceed \$675.70 per dry ton. New contract estimated total is \$2,027,100 plus applicable sales tax.

Originator: Rob Thompson

Attachments: [Agenda Report](#)

5. ENGINEERING PROGRAM CONTRACT PERFORMANCE REPORT [2021-1582](#)

RECOMMENDATION: Recommend to the Board of Directors to:

Receive and file the Engineering Program Contract Performance Report for the period ending March 31, 2021.

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[Engineering Program Contract Performance Report Period Ending 3/31/2021](#)

6. ORANGE-WESTERN SUB-TRUNK AND LOS ALAMITOS TRUNK SEWER REHABILITATION, CONTRACT NOS. 3-64A AND 3-64B [2020-1140](#)

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Professional Construction Services Agreement with AECOM Technical Services, Inc. to provide construction support services for Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B for a total amount not to exceed \$610,000; and
- B. Approve a contingency of \$61,000 (10%).

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[3-64A & 3-64B Professional Construction Services Agreement](#)

7. ORANGE-WESTERN SUB-TRUNK AND LOS ALAMITOS TRUNK SEWER REHABILITATION, CONTRACT NOS. 3-64A AND 3-64B [2020-1238](#)

RECOMMENDATION: Recommend to the Board of Directors to:

Approve a Cooperative Reimbursement Agreement between the Orange County Sanitation District and the City of Cypress for Pavement Slurry Seal Construction in conjunction with the Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B, for an amount not to exceed \$83,000.

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[3-64AB Cooperative Agreement for Reimbursement with Cypress](#)

8. CONTROL CENTER OFFICES AND DAY TRAINING ROOM REMODELING AT PLANT NO. 1, PROJECT NO. FR1-0007 [2021-1432](#)

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and File Bid Tabulation and Recommendation for Control Center Offices and Day Training Room Remodeling at Plant No. 1, Project No. FR1-0007;
- B. Award a Construction Contract to Thomas Solar Energy for Control Center Offices and Day Training Room Remodeling at Plant No. 1, Project No. FR1-0007, for an amount not to exceed \$256,790; and
- C. Approve a contingency of \$25,679 (10%).

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[FR1-0007 Contract Agreement & Exhibit A Schedule of Prices](#)

9. MACARTHUR FORCE MAIN IMPROVEMENTS, PROJECT NO. 7-68 [2021-1534](#)

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Professional Design Services Agreement with Michael Baker International, Inc. to provide engineering services for MacArthur Force Main Improvements, Project No. 7-68, for an amount not to exceed \$500,000; and
- B. Approve a contingency of \$50,000 (10%).

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[7-68 PDSA Agreement - Draft](#)

10. ANNUAL PROFESSIONAL DESIGN SERVICES AGREEMENTS, CONTRACT NO. FE21-00-XX [2021-1574](#)

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve Annual Professional Design Services Agreements (PDSA) with the following firms for professional engineering design and construction support services commencing July 1, 2021 with a maximum annual fiscal year contract limitation not to exceed \$600,000 for each Annual Professional Design Services Agreement; and

| FIRM | CONTRACT NO. |
|---|---------------------|
| 1 AECOM Technical Services, Inc. (AECOM) | FE21-00-01 |
| 2 Arcadis U.S., Inc. (Arcadis) | FE21-00-02 |
| 3 Black & Veatch Corporation (Black & Veatch) | FE21-00-03 |

| | | |
|----|--|------------|
| 4 | Brown & Caldwell | FE21-00-04 |
| 5 | CDM Smith, Inc. (CDM Smith) | FE21-00-05 |
| 6 | CIVILTEC Engineering, Inc. (CIVILTEC) | FE21-00-06 |
| 7 | Dudek | FE21-00-07 |
| 8 | GHD, Inc. (GHD) | FE21-00-08 |
| 9 | HDR Engineering, Inc. (HDR) | FE21-00-09 |
| 10 | Infrastructure Engineering Corporation (IEC) | FE21-00-10 |
| 11 | Kennedy Jenks Consultants, Inc. (Kennedy Jenks) | FE21-00-11 |
| 12 | Kleinfelder, Inc. (Kleinfelder) | FE21-00-12 |
| 13 | Michael Baker International, Inc. (Michael Baker) | FE21-00-13 |
| 14 | ProjectLine Technical Services, Inc. (ProjectLine) | FE21-00-14 |
| 15 | SPEC Services, Inc. (SPEC Services) | FE21-00-15 |
| 16 | SVA Architects, Inc. (SVA Architects) | FE21-00-16 |
| 17 | Tetra Tech | FE21-00-17 |
| 18 | Woodard & Curran, Inc. (Woodard & Curran) | FE21-00-18 |

B. Approve two additional one-year optional extensions for each PDSA.

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[FE21-00-XX - Sample Annual Professional Design Services Agreement](#)

**11. NEWHOPE-PLACENTIA TRUNK REPLACEMENT, SEGMENT B AND [2021-1583](#)
SEGMENT C, CONTRACT NOS. 2-72B AND 2-72C**

RECOMMENDATION: Recommend to the Board of Directors to:

Approve the First Amendment to Agreement between the Orange County Sanitation District and the City of Anaheim for Construction of Water Facilities in Conjunction with the State College Boulevard Sewer Project, which increases by \$513,439 the maximum reimbursement by the City of Anaheim to a new total of \$1,813,439.

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[2-72B First Amendment to City of Anaheim to Cooperative Agreement](#)
[City of Anaheim Agreement Project No. 2-72B](#)

NON-CONSENT:**12. HEADQUARTERS COMPLEX AT PLANT NO. 1, CONTRACT NO. P1-128A [2021-1527](#)**

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Professional Construction Services Agreement with HDR Engineering, Inc. to provide construction support services for Headquarters Complex at Plant No. 1, Contract No. P1-128A, for an amount not to exceed \$4,900,000; and
- B. Approve a contingency of \$490,000 (10%).

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[P1-128A PCSA Agreement - Draft](#)

13. ORANGE-WESTERN SUB-TRUNK AND LOS ALAMITOS TRUNK SEWER REHABILITATION, CONTRACT NOS. 3-64A AND 3-64B [2021-1429](#)

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B;
- B. Award a Construction Contract to Steve P. Rados, Inc. for Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B, for a total amount not to exceed \$17,775,000; and
- C. Approve a construction contract contingency of \$1,777,500 (10%).

Attachments: [Agenda Report](#)
[3-64A & 3-64B Contract Agreement and Exhibit A](#)
[Presentation - 3-64AB Construction Award](#)

14. A-SIDE PRIMARY CLARIFIERS REPLACEMENT AT PLANT NO. 2, CONTRACT NO. P2-98A [2021-1529](#)

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Professional Construction Services Agreement with Black & Veatch Corporation to provide construction support services for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A, for an amount not to exceed \$8,400,000; and
- B. Approve a contingency of \$840,000 (10%)

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[P2-98A PCSA Agreement \(Draft\)](#)
[Presentation - P2-98A PCSA](#)

**15. A-SIDE PRIMARY CLARIFIERS REPLACEMENT AT PLANT NO. 2, [2021-1530](#)
CONTRACT NO. P2-98A**

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for A-Side Primary Clarifiers Replacement at Plant No. 2, Project No. P2-98A;
- B. Award a Construction Contract to PCL Construction, Inc. for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A, for an amount not to exceed \$111,405,880; and
- C. Approve a contingency of \$6,684,353 (6%).

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[P2-98A Contract Agreement & Exhibit A Schedule of Prices](#)
[Presentation - P2-98A Construction Award](#)

INFORMATION ITEMS:

**16. CAPITAL IMPROVEMENT PROGRAM PROPOSED BUDGET FOR [2021-1406](#)
FY2021-22**

RECOMMENDATION:

Information Item.

Originator: Kathy Millea

Attachments: [Agenda Report](#)
[Presentation - CIP FY21-22 Budget Update](#)

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:

The next Operations Committee meeting is scheduled for Wednesday, June 2, 2021 at 5:00 p.m.



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1592

Agenda Date: 5/5/2021

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 April 7, 2021.

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 April 7, 2021



CALL TO ORDER

A regular meeting of the Operations Committee was called to order by Committee Chair Stacy Berry on Wednesday, April 7, 2021 at 5:00 p.m. in the Administration Building of the Orange County Sanitation District. Chair Berry stated that the meeting was being held telephonically and via audio/video teleconferencing in accordance with the Governor's Executive Order No. N-29-20, due to the Coronavirus Pandemic (COVID-19). Director Jesus Silva led the Flag Salute.

ROLL CALL AND DECLARATION OF QUORUM:

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

- PRESENT:** Stacy Berry, Brooke Jones, Doug Chaffee, Stephen Faessel, Ryan Gallagher, Johnathan Ryan Hernandez, Steve Jones, Sandra Massa-Lavitt, Kim Nichols, Robert Ooten, Jesus Silva, David Shawver and Chad Zimmerman
- ABSENT:** John Withers

STAFF PRESENT: Kelly Lore, Clerk of the Board, and Brian Engeln 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; Lan Wiborg, Director of Environmental Services; Jennifer Cabral; Mortimer Caparas; Tanya Chong; Dean Fisher; Tom Grant; Tina Knapp; Joshua Martinez; Jeff Mohr; and Thomas Vu were in attendance telephonically.

OTHERS PRESENT: Brad Hogin, General Counsel, was present in the Board Room.

PUBLIC COMMENTS:

None.

REPORTS:

Chair Berry and General Manager Herberg did not provide reports.

Assistant General Manager Rob Thompson provided a brief update on the recent spills in the cities of Orange and Anaheim.

CONSENT CALENDAR:

Item Nos. 2 & 5 were pulled and heard separately.

1. APPROVAL OF MINUTES[2021-1565](#)

Originator: Kelly Lore

MOVED, SECONDED, AND DULY CARRIED TO:

Approve Minutes of the Regular Meeting of the Operations Committee Meeting on March 3, 2021.

AYES: Stacy Berry, Brooke Jones, Doug Chaffee, Stephen Faessel, Ryan Gallagher, Johnathan Ryan Hernandez, Steve Jones, Sandra Massa-Lavitt, Kim Nichols, Robert Ooten, Jesus Silva, David Shawver and Chad Zimmerman

NOES: None

ABSENT: John Withers

ABSTENTIONS: None

3. 24-MONTH / 12,000-HOUR SERVICE ON THREE THICKENING CENTRIFUGES AT PLANT NO. 1[2021-1478](#)

Originator: Rob Thompson

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

A. Approve a Sole Source Purchase Order Contract to GEA Mechanical Equipment US Inc. to perform Original Equipment Manufacturer recommended 24-month/12,000-hour service on three Thickening Centrifuges at Plant No. 1, for a total amount not to exceed \$723,158; and

B. Approve a contingency of \$72,316 (10%).

AYES: Stacy Berry, Brooke Jones, Doug Chaffee, Stephen Faessel, Ryan Gallagher, Johnathan Ryan Hernandez, Steve Jones, Sandra Massa-Lavitt, Kim Nichols, Robert Ooten, Jesus Silva, David Shawver and Chad Zimmerman

NOES: None

ABSENT: John Withers

ABSTENTIONS: None

4. PLANT BOILER SYSTEM RELIEF AT PLANT NO. 2, PROJECT NO. FE18-15[2021-1516](#)

Originator: Kathy Millea

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

- A. Receive and file Bid Tabulation and Recommendation for Plant Boiler System Relief at Plant No. 2, Project No. FE18-15;
- B. Award a Construction Contract to Mehta Mechanical Company, Inc., dba MMC, Inc. for a total amount not to exceed \$230,000; and
- C. Approve a contingency of \$34,500 (15%).

AYES: Stacy Berry, Brooke Jones, Doug Chaffee, Stephen Faessel, Ryan Gallagher, Johnathan Ryan Hernandez, Steve Jones, Sandra Massa-Lavitt, Kim Nichols, Robert Ooten, Jesus Silva, David Shawver and Chad Zimmerman

NOES: None

ABSENT: John Withers

ABSTENTIONS: None

**6. TRICKLING FILTER SLUDGE PUMP ROOM EXHAUST FAN
RELOCATION AT PLANT NO. 2, PROJECT NO. FR2-0013**

[2020-1218](#)

Originator: Kathy Millea

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

- A. Receive and file Bid Tabulation and Recommendation for Trickling Filter Sludge Pump Room Exhaust Fan Relocation at Plant No. 2, Project No. FR2-013;
- B. Reject low bid from MLC Constructors, Inc. as non-responsive;
- C. Award a Construction Contract to Mehta Mechanical Co., Inc. DBA MMC, Inc. for Trickling Filter Sludge Pump Room Exhaust Fan Relocation at Plant No. 2, Project No. FR2-0013, for a total amount not to exceed \$184,000; and
- D. Approve a contingency of \$36,800 (20%).

AYES: Stacy Berry, Brooke Jones, Doug Chaffee, Stephen Faessel, Ryan Gallagher, Johnathan Ryan Hernandez, Steve Jones, Sandra Massa-Lavitt, Kim Nichols, Robert Ooten, Jesus Silva, David Shawver and Chad Zimmerman

NOES: None

ABSENT: John Withers

ABSTENTIONS: None

At the request of Director Faessel, Item No. 2 was pulled and heard separately.

2. FLEET PURCHASE OF REPLACEMENT VEHICLES LT. DUTY TRUCKS, MED. DUTY TRUCKS, SEDANS/SUVs FOR FY20/21 [2021-1443](#)

Originator: Rob Thompson

Mr. Thompson responded to questions regarding average annual fleet purchases and described the in-house Fleet Management services.

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

- A. Approve a Purchase Order to National Auto Fleet Group for the purchase of one new Ford Transit Cargo Van, four new Ford Escape Hybrid compact SUVs, four new Ford F250 Utility Body trucks, one new Ford F350 Crew truck, and two new F550 Mechanic Utility trucks using Sourcewell Cooperative Contract No. 120716-NAF for a total amount of \$631,418 plus freight; and
- B. Approve a contingency of \$31,571 (5%).

AYES: Stacy Berry, Brooke Jones, Doug Chaffee, Stephen Faessel, Ryan Gallagher, Johnathan Ryan Hernandez, Steve Jones, Sandra Massa-Lavitt, Kim Nichols, Robert Ooten, Jesus Silva, David Shawver and Chad Zimmerman

NOES: None

ABSENT: John Withers

ABSTENTIONS: None

At the request of Board Chair Shawver, Item No. 5 was pulled and heard separately.

5. ASSIGNMENT, WELL TRANSFER, AND OPERATORSHIP AGREEMENT WITH CHEVRON U.S.A. INC. [2021-1518](#)

Originator: Kathy Millea

Director of Engineering Kathy Millea clarified that there are no existing environmental issues with the acceptance of operatorship of the well which OC San already owns.

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

Approve the Assignment, Well Transfer, and Operatorship Agreement between the Orange County Sanitation District and Chevron U.S.A. Inc. to accept the assignment of the NC-79 well located at Plant No. 2, API # 05921580, along with the related rights and obligations.

AYES: Stacy Berry, Brooke Jones, Doug Chaffee, Stephen Faessel, Ryan Gallagher, Johnathan Ryan Hernandez, Steve Jones, Sandra Massa-Lavitt, Kim Nichols, Robert Ooten, Jesus Silva, David Shawver and Chad Zimmerman

NOES: None

ABSENT: John Withers

ABSTENTIONS: None

NON-CONSENT:

Director Hernandez appeared to be away during the vote on Item No. 7.

**7. HEADQUARTERS COMPLEX AT PLANT NO. 1, PROJECT NO. [2021-1433](#)
P1-128A**

Originator: Kathy Millea

Ms. Millea provided a PowerPoint presentation that reviewed the project elements and schedule, project site development, construction management approach, third party construction manager activity, construction management scope and selection process, and AECOM's proposal and negotiations.

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

- A. Approve a Professional Services Agreement with AECOM Technical Services, Inc. to provide construction management, testing, and inspection services for Headquarters Complex at Plant No. 1, Project No. P1-128A, for an amount not to exceed \$6,750,000; and
- B. Approve a contingency of \$675,000 (10%).

AYES: Stacy Berry, Brooke Jones, Doug Chaffee, Stephen Faessel, Ryan Gallagher, Steve Jones, Sandra Massa-Lavitt, Kim Nichols, Robert Ooten, Jesus Silva, David Shawver and Chad Zimmerman

NOES: None

ABSENT: Johnathan Ryan Hernandez and John Withers

ABSTENTIONS: None

Director Nichols and Board Chair Shawver appeared to be away during the vote on Item No. 8.

**8. NEWHOPE-PLACENTIA TRUNK SEWER REPLACEMENT, PROJECT [2020-1138](#)
NO. 2-72B**

Originator: Kathy Millea

Engineering Manager Dean Fisher provided a PowerPoint presentation that provided an overview of the project; the elements of the Newhope-Placentia Trunk; project details, challenges, and successes; change mitigation; schedule; current project status; type of change orders to date; contingency forecast; and project budget. Mr. Fisher responded to questions regarding the complexity of the project vs. 2-72A; prequalification; and named the Designer, Construction Manager, and Geo Technical used for this project.

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

Approve a contingency increase of \$2,038,470 (3.5%) to the construction contract with Group OHL USA, Inc. for Newhope-Placentia Trunk Sewer Replacement, Project Nos. 2-72B and 2-72C, for a total construction contingency of \$5,824,200 (10%).

AYES: Stacy Berry, Brooke Jones, Doug Chaffee, Stephen Faessel, Ryan Gallagher, Johnathan Ryan Hernandez, Steve Jones, Sandra Massa-Lavitt, Robert Ooten, Jesus Silva and Chad Zimmerman

NOES: None

ABSENT: Kim Nichols, David Shawver and John Withers

ABSTENTIONS: None

INFORMATION ITEMS:

9. ORANGE COUNTY SANITATION DISTRICT COLLECTION SYSTEM [2021-1418](#)

Originator: Rob Thompson

Mr. Thompson provided a PowerPoint presentation that provided an overview of the wastewater collection system. The presentation included information about OC San's service area and goals; gravity systems; line cleaning types; line flushing; mechanical cleaning; pressure systems; pump station maintenance and resiliency; underground line locating; regional odor control, odor control chemicals, and odor control efforts; CCTV; and outside agency assistance.

ITEM WAS RECEIVED AS AN:

Information Item.

DEPARTMENT HEAD REPORTS:

None.

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:

Chair Berry declared the meeting adjourned at 6:16 p.m. to the meeting to be held on Wednesday, May 5, 2021 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 #: 2021-1442

Agenda Date: 5/5/2021

Agenda Item No: 2.

FROM: James D. Herberg, General Manager
Originator: Rob Thompson, Assistant General Manager

SUBJECT:

QUARTERLY ODOR COMPLAINT REPORT

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

Receive and file the Fiscal Year 2020-21 Third Quarter Odor Complaint Report.

BACKGROUND

During the third quarter of FY 2020-21, the Orange County Sanitation District (OC San) had the following attributable odor complaints: Plant No. 1 had no odor complaints, Plant No. 2 had one odor complaint, and the collection system had one odor complaint. A summary of the odor complaints with a table tracking the history is included as an attachment.

RELEVANT STANDARDS

- Zero odor incidents/events under normal operating conditions for Plant Nos. 1 and 2
- Operate and maintain facilities to minimize impacts on surrounding communities, including odor, noise, and lighting
- 12 or fewer odor complaints per year under normal operating conditions in the collection system

ATTACHMENT

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

- FY 2020-21 Third Quarter Odor Complaint Report

RS:BR:cf:gc

Orange County Sanitation District
 Odor Complaint Report
 Fiscal Year 2020/21 – 3rd Quarter

1. Plant No. 1 Treatment Facility Odor Complaint Summary

Plant No. 1 received no attributable odor complaints during the 3rd quarter.

Plant No. 2 Treatment Facility Odor Complaint Summary

Plant No. 2 received one attributed odor complaint during the 3rd quarter. The odor complaint was due to odors in the truckloading area. The chemical dosing was adjusted in the truckloading scrubbers for more efficient odor removal.

2. Collections Facilities Odor Complaint Summary

The collection system received one attributable odor complaint during the 3rd quarter. In the City of Costa Mesa, a reported odor complaint was due to the pressurization and sewer ventilation of foul odors during sewer maintenance activities. The manhole was sealed to reduce sewer odor and prevent any further complaints.

All Odor Complaints Tracking

| All Public Complaints | Jan. 2021 to Mar. 2021 | | | 1 st Qtr FY 20/21 | 2 nd Qtr FY 20/21 | 3 rd Qtr FY 20/21 | 4 th Qtr FY 20/21 | Cumulative FY 20/21 |
|-----------------------------------|------------------------|----|----|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------|
| | Collections | P1 | P2 | Total | Total | Total | Total | Total |
| Attributable to OC San | 1 | 0 | 1 | 6 | 6 | 2 | | 14 |
| Not Attributable to OC San | 2 | 3 | 3 | 4 | 5 | 8 | | 17 |
| Total Public Complaints Received: | 3 | 3 | 4 | 10 | 11 | 10 | | 31 |



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1579

Agenda Date: 5/5/2021

Agenda Item No: 3.

FROM: James D. Herberg, General Manager
Originator: Rob Thompson, Assistant General Manager

SUBJECT:

**REGIONAL ODOR AND CORROSION CONTROL SERVICES (ROCCS) PROGRAM,
SPECIFICATION NO. C-2017-899BD CONTINGENCY INCREASE**

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a unit price contingency increase of \$0.74/gallon to the calcium nitrate contract with US Peroxide, LLC dba USP Technologies for the Regional Odor and Corrosion Control Services, Specification No. C-2017-899BD (PO 106291-OB), for July 1, 2021 through June 30, 2022, for a new total amount of \$3.21/gal; for a total estimated usage of \$1,071,339; and
- B. Approve Amendment No. 2 to the contract with Hill Brothers Chemical Company for Regional Odor and Corrosion Control Services, Specification No. C-2017-899BD (PO 106264-OB), for the period beginning July 1, 2021 through June 30, 2022, to approve an additional application service rate of \$80/site per day, a field service rate of \$80/site per day, and a flat surcharge delivery fee of \$400 for small truck deliveries (under 2,500 gallons) for low dosage sites of ferrous chloride only, including but not limited to Crystal Cove Pump Station and Tiffany Lift Station.

BACKGROUND

In April 2018, the Orange County Sanitation District's (OC San) Board of Directors awarded an Agreement to Hill Brothers Chemical Company and US Peroxide, LLC dba USP Technologies (the Suppliers) for the Regional Odor and Corrosion Control Services (ROCCS) Program, Specification No. C-2017-899BD, for the supply, delivery, and dosing services of magnesium hydroxide, ferrous chloride, and calcium nitrate. These agreements provide continuous chemical dosing within the regional trunk system and major tributary sewers using a combination of three chemicals tailored to unique site requirements. In addition to supplying the chemicals, the Suppliers provide all necessary equipment, including tanks, containment, pumps, piping, secure fencing, and equipment monitoring to determine tank levels, leaks, and pump rates. The ROCCS program currently operates 10 continuous chemical dosing sites located in nine member-agency cities to reduce odors in OC San's service area and extend sewer pipes' life expectancy. Staff maintains oversight and daily interaction with the outsourced service providers.

Amendment No. 1 with Hill Brothers Chemical Company was executed effective December 16, 2019, replacing Appendix E of the agreement to update the technical specifications for Magnesium Hydroxide.

When staff initiated the Agreement renewal process with the Suppliers, US Peroxide, LLC dba USP Technologies notified staff of an increase in the unit price of calcium nitrate. Some of the reasons cited for the unit price increase are trucking and rail freight fee increases, the supply of critical raw materials, and market conditions triggering the cost increase.

RELEVANT STANDARDS

- 12 or fewer odor complaints per year under normal operating conditions in the collection system
- Zero odor incidents/events under normal operating conditions for Plant Nos. 1 and 2
- Operate and maintain facilities to minimize impacts on surrounding communities, including odor, noise, and lighting.

PROBLEM

The chemical unit cost of calcium nitrate increased beyond the annual approved contingency amount of 15%.

The current ferrous chloride fee structure does not accommodate low dosage applications that would allow staff to substitute ferrous chloride for the higher cost calcium nitrate at Crystal Cove Pump Station and Tiffany Lift Station.

PROPOSED SOLUTION

US Peroxide, LLC dba USP Technologies and staff negotiated a price adjustment for calcium nitrate. Staff recommends approval of the unit price increase for calcium nitrate to \$3.21 per gallon which represents a 30% annual increase from the current \$2.47 per gallon. Staff is adjusting the dosing levels of the three potential ROCCS chemicals to minimize the total program cost while meeting the odor and corrosion goals.

Staff also recommends the approval of an Amendment to the Chemical Supplier Agreement with Hill Brothers Chemical Company to add a low dosage fee structure for ferrous chloride. The original ferrous chloride fees were for large format storage tanks and pumps. New low dosage ferrous chloride tanks are proposed at Crystal Cove Pump Station and Tiffany Lift Station to support the chemical substitution/optimization discussed above. Staff recommends an additional application service rate of \$80/site per day, a field service rate of \$80/site per day, and a flat surcharge delivery fee of \$400 for small truck deliveries (under 2,500 gallons) for low dosage sites of ferrous chloride.

TIMING CONCERNS

If no action is taken, then a lapsed or reduced service level for odor control will occur at some remote dosing stations.

RAMIFICATIONS OF NOT TAKING ACTION

Without action, calcium nitrate addition in the collection system will cease and substitution of ferrous chloride cannot occur. Normal biological action in the sewer system will produce hydrogen sulfide, which causes odor and corrosion problems in the collection system.

PRIOR COMMITTEE/BOARD ACTIONS

April 2018 - Awarded a Chemical Supplier Agreement to US Peroxide, LLC dba USP Technologies, for the ROCCS Program, Specification No. C-2017-899BD, for the period July 01, 2018, through June 30, 2019, with four (4) one-year renewal options for the supply and delivery of Calcium Nitrate at the unit price of \$1.975/gallon delivered (plus applicable sales tax) with application services at a unit price of \$25/per site per day; field services at a unit price of \$25/per site per day; a Crystal Cove delivery fee of \$175 per deliver for an estimated total annual amount of \$498,794; and approved annual unit price and program price contingency of 15% per agreement.

April 2018 - Awarded a Chemical Supplier Agreement to Hill Brothers Chemical Company, for the ROCCS Program, Specification No. C-2017-899BD, for the following chemical supply and dosing services for the period July 1, 2018 through June 30, 2019, with four (4) one-year renewal options, for the Supply and delivery of Ferrous Chloride at the unit price of \$508.82/dry ton delivered (plus applicable sales tax); with Application Services at a unit price of \$25/ per site per day and Field Services at a unit price of \$25/ per site per day for an estimated total annual amount of \$2,001,263; and approved annual unit price and program price contingency of 15% per agreement.

ADDITIONAL INFORMATION

For Fiscal Year 2023-24, staff intends to advertise for competitive bids to provide these services.

CEQA

N/A

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San’s Purchasing Ordinance. This budgeted item is in the Fiscal Year 2017-18 Budget, Division 820 (Line item: Supplies Section 06, Page 76).

| <u>Date of Approval</u> | <u>Contract Amount</u> | <u>Contingency</u> |
|-------------------------|------------------------|--------------------|
| 05/26/2021 | \$1,071,339 | (30%) \$321,401.70 |

ATTACHMENT

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

- Amendment No. 2 - Hill Brothers Chemical Company

DS:sr:gc

AMENDMENT NO. 2

**Regional Odor and Corrosion Control System (ROCCS) Program
Specification No. C-2017-899BD**

THIS AMENDMENT TO THE CONTRACT is made and entered into to be effective as of the date fully executed below, by and between the Orange County Sanitation District (hereinafter referred to as "OC San") and Hill Brothers Chemical Company, Inc. (hereinafter referred to as "Supplier") collectively referred to as the "Parties".

WHEREAS, OC San and Supplier have previously executed a Contract dated May 29, 2018, to provide Ferrous Chloride and Magnesium Hydroxide "Services"; and

WHEREAS, the Parties wish to amend the Contract to make certain modifications which shall be called Amendment No. 2 ("Amendment"); and

WHEREAS, the Parties desire that the Contract as modified by Amendment No. 1 and this Amendment shall constitute the sole and entire Contract between the Parties.

NOW, THEREFORE, in consideration of the promises and mutual benefits, which will result to the Parties in carrying out the terms of this Amendment No. 2, it is mutually agreed as follows:

1. EXHIBIT B BID SUBMITTAL – Revised to include the following agreed upon additional rates for the delivery of Ferrous Chloride:

- Delivery Surcharge of \$400 for small truck deliveries under 2,500 gallons
- Application Service Fee of \$80/per site per day and Field Service Fee of \$80/per site per day for low dosage sites

2. This modifying Amendment is supplemental to the Contract dated May 29, 2018 and Amendment No. 1 dated March 30, 2020 and is by reference made a part of said Contract. All the terms, conditions, and provisions thereof, unless specifically modified herein, shall continue in full force and effect.

3. In the event of any conflict or inconsistency between the provisions of this Amendment and any of the provisions of the original Contract or Amendment No. 1, the provisions of this Amendment No. 2 shall in all respects govern and control.

IN WITNESS WHEREOF, intending to be legally bound, the Parties hereto have caused this Amendment No. 2 to be signed by the duly authorized representatives as of the day and year last signed below.

ORANGE COUNTY SANITATION DISTRICT

Dated: _____

By: _____
David John Shawver
Chair, Board of Directors

Dated: _____

By: _____
Kelly A. Lore
Clerk of the Board

Dated: _____

By: _____
Ruth Zintzun
Purchasing & Contracts Manager

HILL BROTHERS CHEMICAL COMPANY

Dated: _____

By: _____

Print Name and Title of Officer



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1569

Agenda Date: 5/5/2021

Agenda Item No: 4.

FROM: James D. Herberg, General Manager
Originator: Rob Thompson, Assistant General Manager

SUBJECT:

LIQUID FERRIC CHLORIDE SPECIFICATION NO. C-2019-1037BD CONTINGENCY INCREASE

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

Approve a unit price contingency of \$78.70 per dry ton (13.18%) which is a \$19 per dry ton (3.18%) contingency increase to the liquid Ferric Chloride Agreement with Pencco, Inc., Specification No. C-2019-1037BD, for the period beginning July 1, 2021 through June 30, 2022. New dry ton unit cost not to exceed \$675.70 per dry ton. New contract estimated total is \$2,027,100 plus applicable sales tax.

BACKGROUND

Ferric Chloride is used at both treatment plants. The main use is in the primary treatment process to enhance coagulation. Ferric Chloride also reduces odors and corrosion by controlling hydrogen sulfide formation and is added to the digesters as needed for hydrogen sulfide control.

In May 2019, the Orange County Sanitation District (OC San) Board of Directors awarded an Agreement to Pencco, Inc. for liquid Ferric Chloride, Specification No. C-2019-1037BD, for a unit price of \$597 per dry ton delivered, for an estimated annual amount of \$1,791,000 (plus applicable sales tax) with four, one-year renewal options. The Board of Directors also approved a unit price contingency of 10%.

In March 2020, staff negotiated a price increase of 9.8% which is within the 10% unit price contingency for the contract period July 1, 2020 to June 30, 2021.

When staff initiated the agreement renewal process for July 1, 2021 through June 30, 2022, Pencco notified staff that there will be an increase in the unit price for Ferric Chloride. The unit price increase is related to an increase in iron commodity pricing.

RELEVANT STANDARDS

- 24/7/365 treatment plant reliability
- Zero odor incidents/events under normal operating conditions for Plant Nos. 1 and 2
- Meet volume and water quality needs for the GWRS

PROBLEM

The negotiated chemical unit cost for July 1, 2021 to June 30, 2022 has increased beyond the approved contingency amount.

PROPOSED SOLUTION

Staff recommends approval of a unit price increase of an additional 3% contingency or \$19/dry ton. This equates to an increase of 13.18% for the second renewal period from the original cost of \$597/dry ton. Maintaining Pencco as a supplier is consistent with OC San's strategy to maintain supplier diversity. Kemira Water Solutions, Inc. has agreed to a unit cost of \$693 per dry ton from July 1, 2021 to June 30, 2022 which is within the original contingency approval for that purchase order. Staff intends to rebid both Ferric Chloride supply Purchase Orders next year if there are price increases from the vendors.

TIMING CONCERNS

The current contract expires June 30, 2021.

RAMIFICATIONS OF NOT TAKING ACTION

Without action, Ferric Chloride will be supplied by only one firm with limited contracted volume. If a single vendor cannot supply enough Ferric Chloride for OC San's process needs, problems with primary treatment settleability and odor complaints in the treatment plant are possible.

PRIOR COMMITTEE/BOARD ACTIONS

May 2019 - Awarded a Purchase Order Agreement with Pencco, Inc. for the purchase of liquid ferric chloride, Specification No. C-2019-1037BD, for the period beginning July 1, 2019 through June 30, 2020, for a unit price of \$597 per dry ton delivered, for an estimated annual amount of \$1,791,000 (plus applicable sales tax) with four (4) one-year renewal options; and approved a unit price contingency of 10% per agreement.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted in the FY 2020-21 and FY 2021-22 Budget, Divisions 830 and 840 (Line item: Supplies, Section 6, Pages 84 & 88).

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

JS:MPV:cf:gc



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1582

Agenda Date: 5/5/2021

Agenda Item No: 5.

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, 2021.

BACKGROUND

The Engineering Program involves awarding and managing many construction and consulting contracts. In 2008, the Orange County Sanitation District Board of Directors began awarding contingencies along with construction and consulting contracts and amendments for 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, 2021. 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, 2021

JM:dm

DATE: April 19, 2021

TO: Orange County Sanitation District
Board of Directors

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

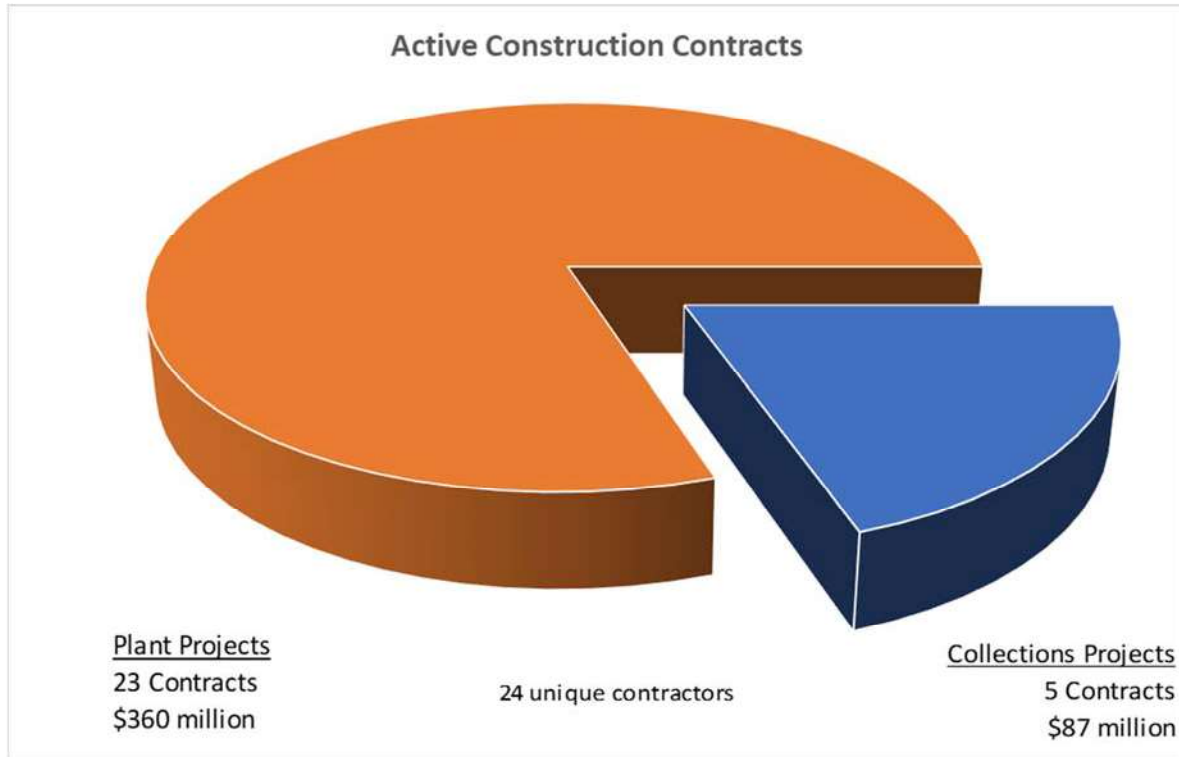
This report summarizes the status, activities, and performance of public works construction contracts and consultant agreements. This report also identifies the names and status of projects being performed under master budgets for planning studies, research, small construction projects, O&M capital projects, 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, 2020. Table 2 lists active construction projects awarded by the General Manager, either because the contract value is within his signature authority, or because the work is being done under a task order with a \$300,000 limit. The graph below shows the number and total value of projects broken down plant and collections.



Six Board-awarded construction contracts were closed in this quarter, as listed in Table 3. Two construction contracts awarded by the General Manager were closed in this quarter, as listed in Table 4.

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2021**

Table 1 - Active Board-Awarded Construction Contracts as of 3/31/2021

| Project / Contract | Contractor | Award Date | % Complete | 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 | 93% | \$58,242,000 | \$2,941,348 | \$61,183,348 | 6.5% | 6.5% | 5.1% | 1.4% |
| 3-62 Westminster Blvd Force Main Replacement | | | | | | | | | | |
| 3-62 Westminster Blvd Force Main Replacement | Teichert Energy & Utilities Group, Inc. | 12/18/2019 | 57% | \$27,743,000 | \$188,603 | \$27,931,603 | 10.0% | 10.0% | 0.7% | 9.3% |
| J-117 Ocean Outfall System Rehabilitation | | | | | | | | | | |
| J-117B Outfall Low Flow Pump Station | Shimmick Construction Co., Inc. | 12/19/2018 | 33% | \$90,200,000 | \$504,722 | \$90,704,722 | 8.0% | 8.0% | 0.6% | 7.4% |
| J-126 Safety Improvements Program | | | | | | | | | | |
| J-126C NFPA 820 HVAC and Electrical Improvements | MMC, Inc. | 03/05/2019 | 92% | \$469,000 | \$0 | \$469,000 | 10.0% | 10.0% | 0.0% | 10.0% |
| J-126JK Stairs, Hatches, Walkway Hazards, Ladders, Guardrails, Roof Fall Protection | Olsson Construction, Inc. | 10/24/2018 | 100% | \$3,637,601 | \$264,529 | \$3,902,130 | 10.0% | 10.0% | 7.3% | 2.7% |
| 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 | 7% | \$745,500 | \$0 | \$745,500 | 10.0% | 10.0% | 0.0% | 10.0% |
| P1-105 Headworks Rehabilitation at Plant 1 | | | | | | | | | | |
| P1-105 Headworks Rehabilitation at Plant 1 | Kiewit Infrastructure West Co. | 02/24/2021 | 0% | \$222,330,000 | \$0 | \$222,330,000 | 4.0% | 4.0% | 0.0% | 4.0% |
| P1-128 Headquarters Complex | | | | | | | | | | |
| P1-128C Headquarters Complex Site Preparation | Resource Environmental, Inc. | 07/01/2020 | 96% | \$1,555,000 | \$0 | \$1,555,000 | 10.0% | 10.0% | 0.0% | 10.0% |
| P1-129 Return Activated Sludge Piping Replacement at Activated Sludge Plant No. 1 | | | | | | | | | | |
| P1-129 Return Activated Sludge Piping Replacement at Activated Sludge Plant No. 1 | Abhe & Svoboda, Inc. | 07/24/2019 | 100% | \$6,863,092 | \$68,360 | \$6,931,452 | 10.0% | 10.0% | 1.0% | 9.0% |
| 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 | 0% | \$515,000 | \$0 | \$515,000 | 10.0% | 10.0% | 0.0% | 10.0% |
| P2-98 Primary Treatment Rehabilitation at Plant No. 2 | | | | | | | | | | |
| P2-98B B/C-Side Primary Clarifiers Interim Repair at Plant 2 | Myers & Sons Construction, LLC | 01/23/2019 | 82% | \$8,665,000 | \$428,356 | \$9,093,356 | 10.0% | 10.0% | 4.9% | 5.1% |
| 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. | 01/22/2020 | 31% | \$14,487,735 | \$37,844 | \$14,525,579 | 10.0% | 10.0% | 0.3% | 9.7% |
| 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 | 44% | \$6,042,110 | \$62,446 | \$6,104,556 | 10.0% | 10.0% | 1.0% | 9.0% |
| M-FE Small Construction Projects Program | | | | | | | | | | |
| FE18-11 Headworks Explosive Gas Monitoring Systems at Plant No. 1 and No. 2 | Baker Electric | 01/22/2020 | 0% | \$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% |
| FE18-19 12KV Distribution B and East RAS Pump Station Roofing Replacement | O'Connell Engineering & Construction, Inc. | 5/27/20 | 47% | \$674,800 | \$0 | \$674,800 | 10.0% | 10.0% | 0.0% | 10.0% |
| M-SM-CAP Operations & Maintenance Capital Program | | | | | | | | | | |
| SC17-03 CenGen Oil Filter Platform | Metro Builders & Engineers Group, Ltd. | 12/4/19 | 100% | \$134,479 | \$10,968 | \$145,447 | 10.0% | 10.0% | 8.2% | 1.8% |
| SC18-05 P1 Laboratory HVAC Boiler Burner Replacement At Plant No.1 | ODC Engineering & Technology | 11/20/19 | 100% | \$283,000 | \$4,932 | \$287,932 | 10.0% | 10.0% | 1.7% | 8.3% |
| SC19-03 Return Activated Sludge Pump Station Elevator Rehabilitation at Plant No. 2 | OTIS | 12/16/20 | 0% | \$432,400 | \$0 | \$432,400 | 20.0% | 20.0% | 0.0% | 20.0% |

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2021**

Table 1 - Active Board-Awarded Construction Contracts as of 3/31/2021

| Project / Contract | Contractor | Award Date | % Complete | Board Award Amount | Change Orders | Current Contract Amount | Original Contingency | Current Contingency | Contingency Used | Contingency Remaining |
|---|--|------------|------------|----------------------|--------------------|-------------------------|----------------------|---------------------|------------------|-----------------------|
| Operationally-Funded Projects | | | | | | | | | | |
| FRC-0004 Seal Beach Pump Station Isolation Valve Replacement | J.R. Filanc Construction Company, Inc. | 12/16/20 | 0% | \$466,830 | \$0 | \$466,830 | 20.0% | 20.0% | 0.0% | 20.0% |
| MP-105 P2 CENGEN Steam Turbine Rehabilitation | Dresser-Rand | 3/25/18 | 64% | **\$484,220 | \$0 | \$484,220 | 20.0% | 20.0% | 0.0% | 20.0% |
| MP-305 Cengen Supply Air Fan Support Replacement at Plant No. 2 | J.R. Filanc Construction Company, Inc. | 12/16/20 | 0% | \$297,000 | \$0 | \$297,000 | 15.0% | 15.0% | 0.0% | 15.0% |
| MP-638 Activated Sludge Plant Clarifier Inlet Gate Replacement at Plant No. 2 | Innovative Construction Solutions | 12/18/19 | 60% | \$658,300 | \$0 | \$658,300 | 10.0% | 10.0% | 0.0% | 10.0% |
| Total | | | | \$446,284,051 | \$4,512,108 | \$450,796,159 | | | | |

** Original Award was \$245,424, and later amended to \$484,220 with a contingency reduction by Board Action on 4/22/20

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2021**

Table 2 - Active GM-Awarded Construction Contracts and Task Orders as of 3/31/2021

| Project / Contract | Contractor | Award Date | % Complete | Original Award Amount | Change Orders | Current Contract Amount | Change Order Rate |
|--|--|--------------|------------|-----------------------|---------------|-------------------------|-------------------|
| M-FE Small Construction Projects Program | | | | | | | |
| FE19-09 Newhope - Placentia Trunk Grade Separation Replacement Repairs | Charles King Company, Inc. | 9/21/20 | 100% | \$298,850 | \$0 | \$298,850 | 0.0% |
| Operationally Funded Projects | | | | | | | |
| FR1-0010 Laboratory Building Roof Repair at Plant No 1 | J.R. Filanc Construction Company, Inc. | 1/19/21 | 0% | \$88,283 | \$0 | \$88,283 | 0.0% |
| FR2-0019 Digester O Repairs at Plant No. 2 | Jamison Engineering | 8/28/20 | 60% | \$131,000 | \$0 | \$131,000 | 0.0% |
| FR2-0021 Boilers Retubing at Plant 2 | RF MacDonald | 2/8/21 | 0% | \$51,250 | \$0 | \$51,250 | 0.0% |
| FRC-0008 East Lido Forcemain Repair | W.A. Rasic Construction Company | 4/6/21 | 0% | \$129,721 | \$0 | \$129,721 | 0.0% |
| | | Total | | \$699,104 | \$0 | \$699,104 | |

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2021**

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

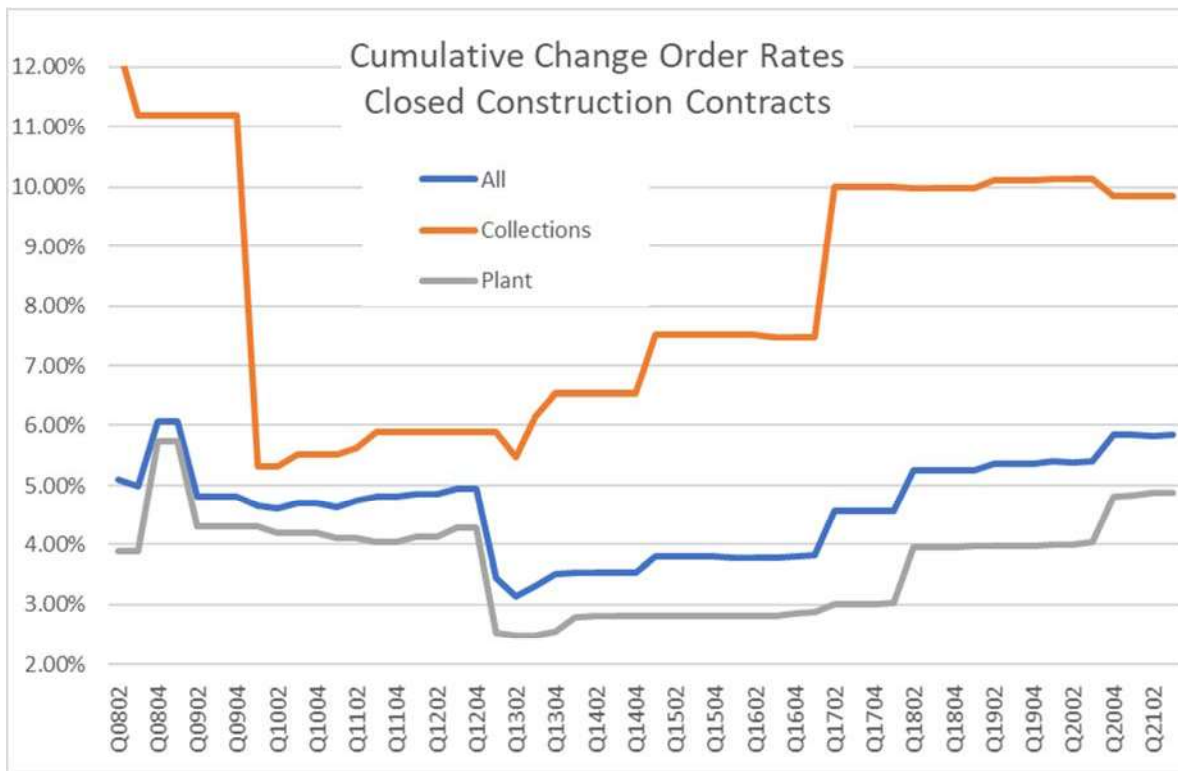
| Project / Contract | Contractor | Date Closed | Award Date | Board Award Amount | Change Orders | Final Contract Amount | Original Contingency | Current Contingency | Contingency Used | Unused Contingency |
|---|--|-------------|------------|---------------------|--------------------|-----------------------|----------------------|---------------------|------------------|--------------------|
| P2-92 Sludge Dewatering and Odor Control at Plant 2 | | | | | | | | | | |
| P2-92 Sludge Dewatering and Odor Control at Plant 2 | Shimmick Construction Co., Inc. | 1/19/21 | 01/12/2015 | \$49,850,000 | \$2,991,000 | \$52,841,000 | 5.0% | 6.0% | 6.0% | 0.0% |
| P1-129 Return Activated Sludge Piping Replacement at Activated Sludge Plant No. 1 | | | | | | | | | | |
| P1-129 Return Activated Sludge Piping Replacement at Activated Sludge Plant No. 1 | Abhe & Svoboda, Inc. | 1/5/21 | 07/24/2019 | \$6,863,092 | \$68,360 | \$6,931,452 | 10.0% | 10.0% | 1.0% | 9.0% |
| M-FE Small Construction Projects Program | | | | | | | | | | |
| FE18-17 Trunkline Sampler Power Feed at Plant No 2 | M. Brey Electric, Inc. | 12/4/20 | 3/25/20 | \$101,050 | \$0 | \$101,050 | 20.0% | 20.0% | 0.0% | 20.0% |
| M-SM-CAP Operations & Maintenance Capital Program | | | | | | | | | | |
| SC17-03 CenGen Oil Filter Platform | Metro Builders & Engineers Group, Ltd. | 3/9/21 | 12/04/2019 | \$134,479 | \$10,960 | \$145,439 | 10.0% | 10.0% | 8.1% | 1.9% |
| SC18-05 P1 Laboratory HVAC Boiler Burner Replacement At Plant No.1 | ODC Engineering & Technology | 2/2/21 | 11/20/2019 | \$283,000 | \$9,767 | \$292,767 | 10.0% | 10.0% | 3.5% | 6.5% |
| Operationally-Funded Projects | | | | | | | | | | |
| FE17-06 Tustin Ave Manhole and Pipe Repair | Nuline Technologies, LLC | 2/16/21 | 10/24/2019 | \$350,000 | \$90,684 | \$440,684 | 10.0% | 30.0% | 25.9% | 4.1% |
| Total | | | | \$57,581,621 | \$3,170,771 | \$60,752,392 | | | | |

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2021**

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

| Project / Contract | Contractor | Date Closed | Award Date | Original Award Amount | Change Orders | Final Contract Amount | Final Change Order Rate |
|--|----------------------------|-------------|------------|-----------------------|-----------------|-----------------------|-------------------------|
| Operationally-Funded Projects | | | | | | | |
| FRC-0005 East Coast Highway Trunk Repair | Charles King | 3/2/21 | 08/17/2020 | \$197,840 | \$28,780 | \$226,620 | 14.5% |
| FRC-0006 480V Feeder Replacement at the Rocky Point Pump Station | Charles King Company, Inc. | 1/19/21 | 06/24/2020 | \$90,700 | \$15,751 | \$106,451 | 17.4% |
| | | | | Total | \$44,531 | \$333,071 | 15% |

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 19 firms with active engineering services 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 three or four of the firms and awards a task order to the most qualified consultant. There are currently six sets of Master Agreements.

- 2012 Master Design Agreements (expired)
- 2015 Master Design Agreements (expired)
- 2017 Master Agreements for Wastewater Treatment Planning Studies
- 2018 Master Design Agreements
- 2020 Master Agreements for On-Call Planning Studies

The two Master Design Agreements from 2012 and 2015 and the 2017 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-52 to \$300,000 per task order. The 2020 Master Agreements for Planning Studies were awarded in September to replace the 2017 Master Agreements for Collection and Wastewater Planning Studies that expired in October 2020.

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 3/31/2021**

Table 5 - Active Engineering Services Agreements as of 3/31/2021

| Project / Contract | Type | Consultant | Award Date | % Complete | 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 | Woodard & Curran, Inc. | 2/24/21 | 0% | \$2,200,000 | \$0 | \$2,200,000 | 10.0% | 10.0% | 0.0% | 10.0% |
| 2-72 Newhope-Placentia Trunk Replacement | | | | | | | | | | | |
| 2-72 Newhope-Placentia Trunk Replacement | PCSA | Lee & Ro | 3/23/16 | 22% | \$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. | 12/18/19 | 11% | \$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. | 1/27/16 | 63% | \$17,639,250 | \$1,088,654 | \$18,727,904 | 10.0% | 10.0% | 6.2% | 3.8% |
| 3-67 Seal Beach Pump Station Replacement | | | | | | | | | | | |
| 3-67 Seal Beach Pump Station Replacement | PDSA | Lee & Ro | 11/20/19 | 26% | \$5,947,850 | \$0 | \$5,947,850 | 10.0% | 10.0% | 0.0% | 10.0% |
| 5-67 Bay Bridge Pump Station Replacement | | | | | | | | | | | |
| 5-67 Bay Bridge Pump Station Replacement | PDSA | Arcadis US Inc. | 10/25/17 | 10% | \$7,137,000 | \$1,750,315 | \$8,887,315 | 10.0% | 35.0% | 24.5% | 10.5% |
| 5-68 Newport Beach Pump Station Pressurization Improvements | | | | | | | | | | | |
| 5-68 Newport Beach Pump Station Pressurization Improvements | PDSA | Dudek | 5/6/20 | 26% | \$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. | 9/23/20 | 13% | \$1,754,000 | \$0 | \$1,754,000 | 10.0% | 10.0% | 0.0% | 10.0% |
| 7-66 Sunflower and Red Hill Interceptor Repairs | | | | | | | | | | | |
| 7-66 Sunflower and Red Hill Interceptor Repairs | PDSA | GHD | 9/25/19 | 73% | \$308,712 | \$14,548 | \$323,260 | 10.0% | 10.0% | 4.7% | 5.3% |
| J-117 Ocean Outfall System Rehabilitation | | | | | | | | | | | |
| J-117B Outfall Low Flow Pump Station | PCSA | Brown and Caldwell | 12/19/18 | 32% | \$8,563,913 | \$346,857 | \$8,910,770 | 10.0% | 10.0% | 4.1% | 5.9% |
| J-124 Digester Gas Facilities Replacement | | | | | | | | | | | |
| J-124 Digester Gas Facilities Replacement | PDSA | Brown and Caldwell | 11/15/17 | 74% | \$11,770,000 | -\$36,411 | \$11,733,589 | 10.0% | 10.0% | 0.0% | 10.0% |
| J-126 Safety Improvements Program | | | | | | | | | | | |
| J-126 Safety Improvements Program | PDSA | Arcadis | 8/29/16 | 89% | **\$3,040,000 | \$0 | \$3,040,000 | 10.0% | 10.0% | 0.0% | 10.0% |
| J-98 Electrical Power Distribution System Improvements | | | | | | | | | | | |
| J-98 Electrical Power Distribution System Improvements | PDSA | Brown and Caldwell | 1/29/20 | 22% | \$2,240,000 | \$0 | \$2,240,000 | 10.0% | 10.0% | 0.0% | 10.0% |
| J-98 Electrical Power Distribution System Improvements | PSA | SEL Engineering Services, Inc. | 2/26/20 | 8% | \$1,296,878 | \$0 | \$1,296,878 | 10.0% | 10.0% | 0.0% | 10.0% |
| M-RESEARCH - Research Program | | | | | | | | | | | |
| RE17-02 Biogas Scrubber Evaluation | PSA | Carollo Engineers, Inc. | 4/21/17 | 88% | \$656,783 | \$63,097 | \$719,880 | 15.0% | 15.0% | 9.6% | 5.4% |
| M-STUDIES Planning Studies Program | | | | | | | | | | | |
| PS15-02 Edinger Pump Station Rehabilitation Study | PSA | Lockwood, Andrews & Newman, Inc. | 11/9/17 | 78% | \$505,042 | \$0 | \$505,042 | 10.0% | 10.0% | 0.0% | 10.0% |
| PS17-03 Active Fault Location Study at Plant No. 2 | PSA | Lettis Consultants International, Inc. | 3/6/19 | 41% | \$868,286 | \$0 | \$868,286 | 10.0% | 10.0% | 0.0% | 10.0% |
| PS17-08 CEQA - Facilities Master Plan | PSA | Dudek | 2/27/19 | 80% | \$812,709 | \$0 | \$812,709 | 10.0% | 10.0% | 0.0% | 10.0% |
| PS18-09 Ocean Outfall Condition Assessment and Scoping Study | PSA | Carollo Engineers, Inc. | 3/25/20 | 51% | \$2,744,000 | \$0 | \$2,744,000 | 10.0% | 10.0% | 0.0% | 10.0% |
| P1-101 Sludge Dewatering and Odor Control at Plant 1 | | | | | | | | | | | |
| P1-101 Sludge Dewatering and Odor Control at Plant 1 | PCSA | HDR Engineering, Inc. | 6/28/12 | 99% | \$7,140,000 | \$2,453,653 | \$9,593,653 | 8.0% | 35.0% | 34.4% | 0.6% |
| P1-105 Headworks Rehabilitation at Plant 1 | | | | | | | | | | | |
| P1-105 Headworks Rehabilitation at Plant 1 | PDSA | Carollo Engineers, Inc. | 5/27/15 | 95% | \$17,528,957 | \$7,902,304 | \$25,431,261 | 10.0% | 51.0% | 45.1% | 5.9% |
| P1-105 Headworks Rehabilitation at Plant 1 | PCSA | Carollo Engineers, Inc. | 3/24/21 | 0% | \$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. | 6/22/16 | 8% | \$11,785,709 | \$1,114,053 | \$12,899,762 | 10.0% | 10.0% | 9.5% | 0.5% |
| P1-128C Headquarters Complex Site Preparation | PCSA | HDR Engineering, Inc. | 7/1/20 | 15% | \$178,000 | \$0 | \$178,000 | 10.0% | 10.0% | 0.0% | 10.0% |
| P1-129 Return Activated Sludge Piping Replacement at Activated Sludge Plant No. 1 | | | | | | | | | | | |
| P1-129 Return Activated Sludge Piping Replacement at Activated Sludge Plant No. 1 | PCSA | AECOM Technical Services, Inc. | 7/24/19 | 86% | \$140,000 | \$0 | \$140,000 | 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. | 10/23/19 | 44% | \$784,680 | \$0 | \$784,680 | 10.0% | 10.0% | 0.0% | 10.0% |
| 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. | 9/25/19 | 78% | \$1,219,667 | \$0 | \$1,219,667 | 10.0% | 10.0% | 0.0% | 10.0% |

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2021**

Table 5 - Active Engineering Services Agreements as of 3/31/2021

| Project / Contract | Type | Consultant | Award Date | % Complete | Board Award Amount | Amendments | Current Contract Amount | Original Contingency | Current Contingency | Contingency Used | Contingency Remaining |
|---|------|-----------------------------------|------------|------------|----------------------|---------------------|-------------------------|----------------------|---------------------|------------------|-----------------------|
| P2-92 Sludge Dewatering and Odor Control at Plant 2 | | | | | | | | | | | |
| P2-92 Sludge Dewatering and Odor Control at Plant 2 | PCSA | Brown and Caldwell | 12/17/14 | 88% | \$4,798,328 | \$0 | \$4,798,328 | 10.0% | 10.0% | 0.0% | 10.0% |
| P2-98 Primary Treatment Rehabilitation at Plant No. 2 | | | | | | | | | | | |
| P2-98 Primary Treatment Rehabilitation at Plant No. 2 | PDSA | Black & Veatch | 7/27/16 | 47% | \$18,141,423 | \$1,514,540 | \$19,655,963 | 10.0% | 10.0% | 8.3% | 1.7% |
| P2-98B B/C-Side Primary Clarifiers Interim Repair at Plant 2 | PCSA | Black & Veatch | 1/23/19 | 42% | \$549,534 | \$0 | \$549,534 | 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. | 1/15/20 | 23% | \$2,200,000 | \$0 | \$2,200,000 | 10.0% | 10.0% | 0.0% | 10.0% |
| P2-123 Return Activated Sludge Piping Replacement at Plant 2 | | | | | | | | | | | |
| P2-123 Return Activated Sludge Piping Replacement at Plant 2 | PCSA | SPEC Services, Inc. | 9/25/19 | 62% | \$252,329 | \$0 | \$252,329 | 10.0% | 10.0% | 0.0% | 10.0% |
| P2-124 Interim Food Waste Receiving Facility | | | | | | | | | | | |
| P2-124 Interim Food Waste Receiving Facility | PDSA | Kennedy/Jenks Consultants | 9/5/18 | 100% | \$695,000 | \$31,168 | \$726,168 | 10.0% | 10.0% | 4.5% | 5.5% |
| P2-126 Warehouse, Electrical Substation and 12kV Service Center Replacement at Plant No. 2 | | | | | | | | | | | |
| P2-126 Warehouse, Electrical Substation and 12kV Service Center Replacement at Plant No. 2 | PDSA | Stantec Consulting Services, Inc. | 11/18/20 | 0% | \$4,876,455 | \$0 | \$4,876,455 | 10.0% | 10.0% | 0.0% | 10.0% |
| P2-128 TPAD Digester Facility at Plant 2 | | | | | | | | | | | |
| P2-128 TPAD Digester Facility at Plant 2 | PDSA | Brown and Caldwell | 6/23/20 | 4% | \$39,300,000 | \$0 | \$39,300,000 | 10.0% | 10.0% | 0.0% | 10.0% |
| SP-196 Process Control Systems Upgrades Study | | | | | | | | | | | |
| SP-196 Process Control Systems Upgrades Study | PSA | Stantec Consulting Services, Inc. | 3/1/18 | 76% | \$1,389,866 | \$108,966 | \$1,498,832 | 10.0% | 10.0% | 7.8% | 2.2% |
| Operationally Funded Projects | | | | | | | | | | | |
| FR1-0007 Control Center Offices and Day Training Room Remodeling at Plant No. 1 (GM Awarded) | PSA | AECOM Technical Services, Inc. | 1/15/20 | 8% | \$81,351 | \$0 | \$81,351 | 0.0% | 0.0% | 0.0% | 0.0% |
| Total | | | | | \$200,025,656 | \$16,351,744 | \$216,377,400 | | | | |

** Original Award was \$1,540,000, and later amended to \$3,040,000 by Board Action

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2021**

Table 6 - Active Task Orders by Master Agreement as of 3/31/2021

| 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 |
| 2015 Master Professional Design Service Agreements (Expired) | | | | | |
| FE14-05 Plant No. 1 Fleet Services UST Leak Remediation | Dudek | 9/1/2015 | \$86,116 | \$73,137 | \$159,253 |
| 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 | \$0 | \$226,685 |
| 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 |
| 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 | \$0 | \$244,728 |
| 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 |
| 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 | \$0 | \$25,000 |
| 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 | \$0 | \$243,954 |
| FE20-02 Digester C, D, F, and G Mechanical Rehabilitation at Plant No. 2 | HDR Engineering, Inc. | 3/2/2021 | \$188,212 | \$0 | \$188,212 |
| 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 |
| 2020 Master Agreements for On-Call Planning Studies | | | | | |
| No Task Orders Issued to Date | | -- | -- | -- | -- |
| Total | | | \$3,068,438 | \$224,653 | \$3,293,091 |

PART 3 – MASTER BUDGET PROJECTS

The Board-adopted budget for Fiscal Years 2018-19 and 2019-20 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 3/31/2021
Table 7 - Planning Studies Status Report**

| Project Number | Project Name | Status | Allocated Budget |
|-------------------------------|--|---------------|-------------------------|
| PS15-02 | Edinger Pump Station Rehabilitation Study | Active | \$ 971,000 |
| PS16-02 | SCE Feed Reliability Improvements Study | Active | \$ 293,000 |
| PS17-03 | Active Fault Location Study at Plant No. 2 | Active | \$ 1,300,000 |
| PS17-08 | CEQA - Facilities Master Plan | Active | \$ 1,247,000 |
| PS18-06 | Go/No-Go Lights and Signage | Active | \$ 495,000 |
| PS18-09 | Ocean Outfall Condition Assessment and Scoping Study | Active | \$ 3,340,000 |
| PS18-11 | ETAP Model Updates for Plant Nos 1 and 2 | Active | \$ 428,000 |
| PS19-03 | Laboratory Rehabilitation Feasibility Study | Active | \$ 450,000 |
| PS20-01 | O&M Complex and Collections Yard Relocation at Plant No. 2 | Active | \$ 375,000 |
| PS20-02 | Collection System Flow Level Monitoring Study | Active | \$ 575,000 |
| PS20-03 | Truck Loading Bay Odor Control Improvements Study at Plant No. 2 | Active | \$ 200,000 |
| PS20-04 | Power Generation Overhaul Feasibility Study | Active | \$ 200,000 |
| Grand Total | | | \$ 9,874,000 |
| Number of Chartered Projects | | | 12 |
| Board Approved Program Budget | | | \$ 28,652,000 |
| Remaining Unallocated Budget | | | \$ 18,778,000 |

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2021
Table 8 - Research Program Status Report**

| Project Number | Project Name | Status | Allocated Budget |
|-------------------------------|---|--------|---------------------|
| RE17-02 | Biogas Scrubber Evaluation | Active | \$ 865,000 |
| RE19-01 | Primary Scum Equipment Evaluation at Plant No. 1 | Active | \$ 69,853 |
| RE20-01 | Co-Thickened Sludge Density Meter Trial at Plant No. 1 | Active | \$ 121,000 |
| RE20-04 | Holding Digester 6 Solids Shredder Study at Plant No. 1 | Active | \$ 95,000 |
| Grand Total | | | \$ 1,150,853 |
| Number of Chartered Projects | | | 4 |
| Board Approved Program Budget | | | \$ 8,500,000 |
| Remaining Unallocated Budget | | | \$ 7,349,147 |

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2021
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 |
| FE14-05 | Plant No. 1 Fleet Services UST Leak Remediation | Active | \$ 1,487,311 |
| FE15-07 | Secondary Treatment and Plant Water VFD Replacement at Plant 1 | Active | \$ 3,319,600 |
| FE17-01 | Carbon Canyon Pipeline Sag Repairs | Active | \$ 873,000 |
| FE17-03 | Battery Storage System at Plant No. 1 | Active | \$ 630,000 |
| FE17-05 | Plant 1 ICS Network Extension | Active | \$ 950,000 |
| FE18-06 | CenGen Instrument Air Compressors Replacement at Plant No. 1 | Active | \$ 1,450,000 |
| 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 | \$ 470,000 |
| FE18-12 | Erosion Control at Santa Ana River and Hamilton Ave | Active | \$ 330,000 |
| FE18-13 | Redhill Relief Sewer Relocation at State Route 55 | Active | \$ 2,840,000 |
| 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 | \$ 465,000 |
| FE18-16 | Truck Loading Basement Drain Modifications at Plant No. 1 | Active | \$ 440,000 |
| FE18-17 | Trunkline Sampler Power Feed at Plant No 2 | Active | \$ 248,000 |
| FE18-19 | 12KV Distribution B and East RAS Pump Station Roofing Replacement | Active | \$ 1,188,000 |
| FE18-20 | Blower Building No. 1 Air Compressors at Plant No. 1 | Active | \$ 1,200,000 |
| 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 | \$ 1,100,000 |
| FE19-04 | Sunflower Pump Replacement at Plant No. 1 | Active | \$ 6,300,000 |
| FE19-06 | EPSA Motor Cooling Improvements at Plant No. 2 | Active | \$ 550,000 |
| FE19-08 | Secondary Treatment VFD Replacements at Plant No. 2 | Active | \$ 3,337,000 |
| 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 | \$ 300,000 |
| 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 | \$ 325,000 |
| FE19-13 | VFD Replacements at Seal Beach Pump Station | Active | \$ 690,000 |
| FE20-01 | Wastehauler Station Safety and Security Improvements | Active | \$ 830,000 |
| 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 | \$ 621,000 |
| 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 |
| Grand Total | | | \$ 55,710,911 |
| Number of Chartered Projects | | | 37 |
| Board Approved Program Budget | | \$ | 65,000,000 |
| Remaining Unallocated Budget | | \$ | 9,289,089 |

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2021
Table 10 - Information Technology Capital Program Status Report**

| Project Number | Project Name | Status | Allocated Budget |
|-------------------------------|---|--------|---------------------|
| IT16-11 | Business Continuity Plan | Closed | \$ 117,600 |
| IT17-06 | Printer Obsolescence | Closed | \$ 335,141 |
| IT17-07 | Safety Management Suite | Closed | \$ 95,900 |
| IT17-10 | Electronic Operator Round Form | Active | \$ 45,000 |
| IT17-12 | Sever/Network Power Improvements | Active | \$ 90,000 |
| IT17-14 | Specialized Application Programing & Support | Closed | \$ 114,296 |
| IT18-03 | Timecard Systems Upgrade | Closed | \$ 78,696 |
| IT18-05 | Trusted System Document Management | Closed | \$ - |
| IT18-09 | Records Management Information System | Active | \$ 150,000 |
| IT18-10 | Board Services Management System | Closed | \$ 50,596 |
| IT19-01 | IT Safety VPP Systems (IT19-01) | Active | \$ 210,000 |
| IT19-05 | IT P1 & P2 Data Refresh (IT19-05) | Active | \$ 500,000 |
| IT20-04 | Cyber Security Program (IT20-04) 6520004 | Active | \$ 150,000 |
| 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 | \$ 275,000 |
| IT20-10 | Digitize Quality Assurance Tracking Processes /TNI/ELAP Standards(ICE-76_IT20-10) 6520010 | Active | \$ 145,700 |
| IT20-11 | Sewer Agency Fee System 2 (SAFS 2) Upgrade (ICE-77 IT20-11) 6520011 | Active | \$ 42,042 |
| IT20-12 | Web-based Cloud Proxy Security with an Isolation Platform (ICE-78_6520012) | Active | \$ 50,000 |
| Grand Total | | | \$ 3,119,971 |
| Number of Chartered Projects | | | 21 |
| Number of Chartered Projects | | | 21 |
| Board Approved Program Budget | | | \$ 10,000,000 |
| Remaining Unallocated Budget | | | \$ 6,880,029 |

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2021
Table 11 - Operations & Maintenance Capital Program Status Report**

| Project Number | Project Name | Status | Allocated Budget |
|-------------------------------|---|--------|----------------------|
| MP-276-1 | Central Generation Engine Overhauls at Plant No. 1 and Plant No. 2 | Active | \$ 5,900,000 |
| SC17-01 | CENGEN #1 Elevator Rehab | Active | \$ 110,020 |
| SC17-03 | CenGen Oil Filter Platform | Active | \$ 275,000 |
| SC18-01 | P1 Primary Clarifier Fall Protection Improvements | Active | \$ 50,000 |
| SC18-05 | P1 Laboratory HVAC Boiler Burner Replacement At Plant No.1 | Active | \$ 455,000 |
| SC18-08 | MacArthur Pump Station - FM Valve Replacement | Active | \$ 71,068 |
| SC18-09 | Admin Bldg UPS System Replacement | Active | \$ 81,332 |
| SC19-02 | Truck Loading-Conveyors 3&6 (SC19-02) | Active | \$ 205,300 |
| SC19-03 | Return Activated Sludge Pump Station Elevator Rehabilitation at Plant No. 2 | Active | \$ 890,000 |
| SC19-05 | as the Lido PS UPS Replacement | Active | \$ 55,000 |
| SC19-06 | EPSA Standby Power Generator Control Upgrades at Plant No. 2 | Active | \$ 1,600,000 |
| SC19-07 | Sunflower Pump Station Gearbox Swing Unit Purchase | Active | \$ 199,000 |
| SC20-02 | Ocean Outfall Booster Station Elevator Rehabilitator | Active | \$ 410,000 |
| Grand Total | | | \$ 10,301,720 |
| Number of Chartered Projects | | | 13 |
| Board Approved Program Budget | | | \$ 15,622,000 |
| Remaining Unallocated Budget | | | \$ 5,320,280 |

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 | \$23,637,085 58% | 59 months 69% |
| Remaining | \$17,362,915 % | 27 months 31% |

⁽¹⁾ Assuming three 1-year extensions

Table 13 - Supplemental Engineering Services Labor Summary

| | This Quarter | Inception to Date |
|---------------------------|---------------------|--------------------------|
| Labor Hours | 8,421 | 184,212 |
| Full Time Equivalentents | 18.7 | 20.8 |
| Labor Costs (no expenses) | \$1,091,382 | \$24,250,693 |
| Average Hourly Rate | \$130 | \$132 |



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2020-1140

Agenda Date: 5/5/2021

Agenda Item No: 6.

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

SUBJECT:

ORANGE-WESTERN SUB-TRUNK AND LOS ALAMITOS TRUNK SEWER REHABILITATION, CONTRACT NOS. 3-64A AND 3-64B

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Professional Construction Services Agreement with AECOM Technical Services, Inc. to provide construction support services for Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B for a total amount not to exceed \$610,000; and
- B. Approve a contingency of \$61,000 (10%).

BACKGROUND

AECOM Technical Services, Inc. was selected as part of a competitive, qualifications-based solicitation process to design the Rehabilitation of Western Regional Sewers, Project No. 3-64. At the time of the solicitation, the Orange County Sanitation District (OC San) documented its intent to award a subsequent agreement to the design consultant for continuation of engineering services during construction.

This project will award a construction contract for the Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B. The work will rehabilitate over 8-miles of 21-inch through 39-inch Vitrified Clay Pipe sewer and 115 manholes. This work will reduce the risk of flow blockage, sewage spill, pipeline failure, inflow/infiltration, improve cleaning and maintenance, and extend the useful life of the assets.

RELEVANT STANDARDS

- Comply with California Government Code Section 4526 to engage the best Qualified firm “on the basis of demonstrated competence and qualifications” and “negotiate fair and reasonable fees”
- Ensure the public’s money is wisely spent

PROBLEM

This project requires the design consultant to provide as-needed services during construction including submittal review, responding to the Contractor's requests for information, reviewing construction change orders, participating in meetings, attending site visits, and preparing record drawings.

PROPOSED SOLUTION

Award a Professional Construction Support Services Agreement with the design consultant, AECOM Technical Services, Inc., to provide engineering support services during construction.

TIMING CONCERNS

Engineering support services will be required at the start of construction. Construction is anticipated to start in June 2021.

RAMIFICATIONS OF NOT TAKING ACTION

The engineering support services needed to facilitate and review construction activities would not be available by the Engineer of Record, which may negatively impact the contract execution.

PRIOR COMMITTEE/BOARD ACTIONS

January 2016 - Approved a Professional Design Services Agreement with AECOM Technical Services, Inc., to provide engineering services for Rehabilitation of Western Regional Sewers, Project No. 3-64, for an amount not to exceed \$17,639,250, and approved a contingency of \$1,763,925 (10%).

ADDITIONAL INFORMATION

AECOM Technical Services, Inc. has successfully furnished engineering design services for Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Project Nos. 3-64A and 3-64B, and their support services during construction will provide continuity through the completion of the project.

Staff negotiated with AECOM Technical Services, Inc. for these construction support services in accordance with OC San's adopted policies and procedures. The proposed fees are based on estimated quantities provided by OC San for requests for information, submittal reviews, meetings, site visits, change order reviews, and design revisions, as well as the level of effort for preparing record drawings. Staff has determined the negotiated fee to be fair and reasonable for these services.

CEQA

The project is included in the "Rehabilitation of Western Regional Sewers Project No. 3-64" Environmental Impact Report (EIR) State Clearinghouse Number 2015111077. This EIR was certified by the Board of Directors and a Notice of Determination was filed on March 23, 2017.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Adopted Budget, Fiscal Years 2020-2021 and 2021-22, Section 8, Page 23, Rehabilitation of Western Regional Sewers, Project No. 3-64) 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 Construction Services Agreement

HK:dm:sa:gc

PROFESSIONAL CONSTRUCTION SERVICES AGREEMENT

THIS AGREEMENT, is made and entered into to be effective the 26th day of May, 2021 by and between ORANGE COUNTY SANITATION DISTRICT, hereinafter referred to as "OC SAN", and AECOM Technical Services, Inc., for purposes of this Agreement hereinafter referred to as "CONSULTANT".

WITNESSETH:

WHEREAS, OC SAN desires to engage CONSULTANT to provide Construction Support Services for **Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract No. 3-64A & 3-64B**; and,

WHEREAS, CONSULTANT is qualified to provide the necessary services for Construction Support Services in connection with these requirements; and,

WHEREAS, OC SAN has adopted procedures in accordance with OC SAN's Purchasing Ordinance Section 4.03(B) for the continuation of services and has proceeded in accordance with said procedures to perform this work; and,

WHEREAS, at its regular meeting on May 26, 2021 the Board of Directors, by Minute Order, accepted the recommendation of the Operations Committee pursuant to OC SAN's Purchasing Ordinance to approve this Agreement between OC SAN and CONSULTANT.

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 and technical 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. CONSULTANT shall be responsible for the professional quality, technical accuracy, completeness, and coordination of all design, drawings, specifications, and other services furnished by CONSULTANT under this Agreement, including the work performed by its Subconsultants. Where approval by OC SAN is indicated, it is understood to be conceptual approval only and does not relieve CONSULTANT of responsibility for complying with all laws, codes, industry standards and liability for damages caused by errors, omissions, noncompliance with industry standards, and/or negligence on the part of CONSULTANT or its Subconsultants.
- B. CONSULTANT is responsible for the quality of work prepared under this Agreement and shall ensure that all work is performed to the standards of best engineering practice for clarity, uniformity, and completeness.

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

Electronic files shall be subject to an acceptance period of 56 calendar days during which OC SAN shall perform appropriate acceptance tests. 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 CONSULTANT, including but not limited to all drafts, data, correspondence, proposals, reports, and estimates compiled or composed by 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 CONSULTANT, at the time that it was disclosed to CONSULTANT by OC SAN, (b) subsequently becomes publicly known to CONSULTANT other than through disclosure by OC SAN.

2. COMPENSATION

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

A. Total Compensation

Total compensation shall be in an amount not to exceed Six Hundred Ten Thousand Dollars (\$610,000.00). 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 Attachment "K" - Minor Subconsultant Hourly Rate Schedule and as specified in Attachment "A" - 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, refer to 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 Subconsultant or Subcontractor due to modifications to Attachment "A" - Scope of Work resulting from field investigations and field work required by the Scope of Work. 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 CONSULTANT for reasonable travel and business expenses as described in this section and further described in Attachment "D" - Allowable Direct Costs. The reimbursement of the above-mentioned expenses will be based on an "accountable plan" as considered by the U.S. Internal Revenue Service (IRS). The plan includes a combination of reimbursements based upon receipts and a "per diem" component approved by the IRS. The most recent schedule of the per diem rates utilized by OC SAN can be found on the U.S. General Services Administration (GSA) website at <http://www.gsa.gov/portal/category/104711#>.

CONSULTANT shall be responsible for the most economical and practical means of 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 CONSULTANT within the OC SAN general 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 a 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 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 the 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 Attachment "D" - Allowable Direct Costs.

I. Limitation of Costs

If, at any time, CONSULTANT estimates the cost of performing the services described in CONSULTANT's Proposal will exceed the not-to-exceed amount of this 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 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. CONSULTANT shall allocate costs in the same manner as it would for payment requests as described in this section of the Agreement. CONSULTANT shall warrant and certify the accuracy of these costs and understand that submitted costs are subject to Section 11 - AUDIT PROVISIONS.
- B. CONSULTANT may submit monthly or periodic statements requesting payment for those items included in Section 2 - COMPENSATION hereof in the format as required by OC SAN. Such requests shall be based upon the amount and value of the work and services performed by CONSULTANT under this Agreement and shall be prepared by CONSULTANT and accompanied by such supporting data, including a detailed breakdown of all costs incurred and project element work performed during the period covered by the statement, 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 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.

The Director of Engineering may, at his or her discretion, retain an amount equal to that which insures 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, 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. 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. 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, 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 Standards Enforcement of the Department of Industrial Relations.
- D. CONSULTANT and Subconsultants shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulation Section 16461(e).

6. DOCUMENT OWNERSHIP – SUBSEQUENT CHANGES TO PLANS AND SPECIFICATIONS

- A. Ownership of Documents for the Professional Services performed.

All documents, including but not limited to, original plans, studies, sketches, drawings, computer printouts and disk files, and specifications 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. The 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 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, 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 plans or specifications, 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.

7. 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 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

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: Two Million Dollars (\$2,000,000) per occurrence with Four Million Dollars (\$4,000,000) aggregate. Said insurance shall include coverage for the following hazards: Premises-Operations, blanket contractual liability (for this Agreement), products liability/completed operations (including any product manufactured or assembled), broad form property damage, blanket contractual liability, independent contractors liability, personal and advertising injury, mobile equipment, owners and contractors protective 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) and Riggers/On Hook Liability must be included in the General Liability policy and coverage must be reflected on the submitted Certificate of Insurance.

C. Umbrella Excess Liability

The minimum limits of General Liability and Automotive 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 Automotive Liability.

D. Automotive/Vehicle Liability Insurance

CONSULTANT shall maintain a policy of Automotive Liability Insurance on a comprehensive form covering all owned, non-owned, and hired automobiles, trucks, and other vehicles providing the following minimum limits 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 to OC SAN.

F. Workers' Compensation Insurance

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 Five Million Dollars (\$5,000,000) 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 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 10 days prior to the expiration of each policy term.

H. Proof of Coverage

CONSULTANT shall furnish OC SAN with original certificates and amendatory endorsements effecting 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, effecting the coverage required, at any time. The following are approved forms that must be submitted as proof of coverage:

- Certificate of Insurance ACORD Form 25 (5/2010) or equivalent.
- Additional Insurance (General Liability) (ISO Form) CG2010 11 85 or
The combination of (ISO Forms)
CG 2010 10 01 and CG 2037 10 01

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 (Auto Liability) Submit endorsement provided by carrier for OC SAN approval.
- Waiver of Subrogation State Compensation Insurance Fund Endorsement No. 2570 or equivalent.
- Cancellation Notice State Compensation Insurance Fund Endorsement No. 2065 or equivalent.

I. Cancellation Notice

Each insurance policy required herein shall be endorsed to state that coverage shall not be cancelled by either party, except after 30 days' prior written notice. The Cancellation Section of ACORD Form 25 (5/2010) shall state the required 30 days' written notification. The policy shall not terminate, nor shall it be cancelled, nor the coverage reduced until 30 days after written notice is given to OC SAN except for nonpayment of premium, which shall require not less than 10 days

written notice to OC SAN. Should there be changes in coverage or an increase in deductible or SIR amounts, CONSULTANT and its insurance broker/agent shall send to OC SAN a certified letter which includes a description of the changes in coverage and/or any increase in deductible or SIR amounts. The certified letter must be sent to the attention of Risk Management and shall be received by OC SAN not less than 30 days prior to the effective date of the change(s) if the change would reduce coverage or increase deductibles or SIR amounts or otherwise reduce or limit the scope of insurance coverage provided to OC SAN.

J. Primary Insurance

All 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

All 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 CONSULTANT shall provide a financial guarantee satisfactory to OC SAN guaranteeing payment of losses and related investigations, claim administration and defense expenses.

N. Defense Costs

Liability policies 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

CONSULTANT shall be responsible to establish insurance requirements for any Subconsultant hired by 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 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.

8. SCOPE CHANGES

In the event of a change in the Scope of Work, 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.

9. 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 by CONSULTANT. CONSULTANT shall include a description of the scope of work to be done by each Subconsultant and each CONSULTANT's project team member. CONSULTANT shall include the respective compensation amounts for CONSULTANT and each Subconsultant on a per-project-element basis, 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.

10. ENGINEERING REGISTRATION

CONSULTANT's personnel 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 requires the services of a registered engineer, such services hereunder will be performed under the direct supervision of registered engineers.

11. 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 CONSULTANT is in compliance with all requirements under this Agreement. 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 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. 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 CONSULTANT will be available to assist OC SAN's auditor in obtaining all project related accounting records and documents, and any other financial data.

12. LEGAL RELATIONSHIP BETWEEN PARTIES

The legal relationship between the parties hereto is that of an independent contractor and nothing herein shall be deemed to make CONSULTANT an employee of OC SAN.

13. 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.

Notices shall be mailed to OC SAN at:

ORANGE COUNTY SANITATION DISTRICT
10844 Ellis Avenue
Fountain Valley, CA 92708
Attention: Larry Roberson, Senior Contracts Administrator
Copy: Hardat Khublall, Project Manager

Notices shall be mailed to CONSULTANT at:

AECOM Technical Services, Inc.
999 West Town and Country Road
Orange, CA 92868
Attention: Jagadish Gundarlahalli, Principal-in-Charge
Copy: Keith Campbell, Project Manager

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 by CONSULTANT.

14. TERMINATION

OC SAN may terminate this Agreement at any time, without cause, upon giving 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 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 and/or CONSULTANT in accordance with Section 13 - NOTICES.

15. 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, computation, and study materials in its files pertaining to the work described in this Agreement, which is requested in writing by OC SAN.

16. 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.

17. 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 agreements for that party.

18. 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.

19. 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 it may be entitled.

20. PROGRESS REPORTS

Monthly progress reports shall be submitted for review by the 10th day of the following month and must include as a minimum: 1) current activities, 2) future activities, 3) potential items that are not included in the Scope of Work, 4) concerns and possible delays, 5) percentage of completion, and 6) budget status.

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 consultants fees and costs and OC SAN's general and administrative expenses (individually, a "Claim", or 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, consultants, 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 from:

- (A) the sole or 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 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 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. CONSULTANT PERFORMANCE

CONSULTANT's performance shall be evaluated by OC SAN. A copy of the evaluation shall be sent to CONSULTANT for comment. The evaluation, together with the comments, shall be retained by OC SAN and may be considered in future CONSULTANT selection processes.

25. COMPLIANCE WITH SANITATION DISTRICT 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.

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

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

Notwithstanding the final Agreement Acceptance CONSULTANT will not be relieved of its obligations hereunder, nor will 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 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 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, CONSULTANT's request for final Agreement Acceptance.

27. 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.

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

CONSULTANT: AECOM TECHNICAL SERVICES, INC.

By _____
Date _____

Printed Name & Title

ORANGE COUNTY SANITATION DISTRICT

By _____
David John Shawver
Board Chairman
Date _____

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

By _____
Ruth Zintzun
Purchasing & Contracts Manager
Date _____

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

LDR

ATTACHMENT “A”

SCOPE OF WORK

ATTACHMENT A

PROFESSIONAL CONSTRUCTION SUPPORT SERVICES

SCOPE OF WORK

Contract No. 3-64A & 3-64B
Orange-Western Sub-Trunk Rehabilitation and Los Alamitos
Trunk Sewer Rehabilitation

Part of
Project No. 3-64
Rehabilitation of Western Regional Sewers

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I. SUMMARY

Provide construction engineering support services for the construction and installation, and closeout for the Orange-Western Sub-Trunk Rehabilitation and Los Alamitos Trunk Sewer Rehabilitation, Contract No. No. 3-64A & 3-64B.

Quality Assurance/Quality Control (QA/QC): CONSULTANT shall administer a program of QA/QC procedures for producing quality work and shall effectively manage and control the work. Specific procedures shall include but not be limited to planning, coordination, tracking, checking, reviewing, and scheduling the work. CONSULTANT shall subject all work products prepared by the CONSULTANT to the CONSULTANT's in-house QA/QC procedures prior to submittal to the Orange County Sanitation District (OC SAN). QA/QC hours and costs shall be incorporated into other tasks within this Scope of Work (SOW).

II. PROJECT SCHEDULE

The schedule for the services specified in this SOW shall be provided per the construction contract schedule, and the following schedule constraints:

| Major Milestones | Estimated Schedule |
|--|--|
| Provide Construction and Installation Services | 6/26/2021 to 3/15/2023 |
| Project Closeout | 3/16/2023 to 6/16/2023 |
| Submittals | As described under Task 4.4 titled "Submittal Reviews" Critical submittals, necessary for permitting or required to break ground, shall take priority. |
| Requests for Information | As described under Task 4.5 titled "Request for Information (RFI)" |
| Record Drawings | Draft Record Drawings shall be submitted to OC SAN within 60 calendar days of receipt from OC SAN of the approved Contractor's As-Built Drawings. The final Record Drawings shall be submitted within 21 calendar days of receipt of OC SAN comments on the Draft Record Drawings. |
| TOTAL SCHEDULE TIME | Approximately 24 months |

III. PROJECT IMPLEMENTATION

All OC SAN projects are divided into six phases. CONSULTANT shall provide engineering support services for Phase 4 – Construction and Installation Services, and Phase 6 – Closeout.

Phase 1 – Project Development – *Completed*

Phase 2 – Preliminary Design – *Completed*

Phase 3 – Final Design – *Completed*

Phase 4 – Construction and Installation Services

Phase 5 – Not Used
Phase 6 – Closeout

PHASE 4 – CONSTRUCTION AND INSTALLATION SERVICES

OC SAN will administer and provide field inspection for construction contracts. Construction and installation support services shall be provided by the CONSULTANT as requested by OC SAN. CONSULTANT shall refer to the Engineering Design Guidelines, Chapter 01 for detailed requirements. In the event of a conflict between the guidelines and the scope of work as set forth herein, the scope of work shall prevail.

CONSULTANT shall provide the following key management personnel:

| | |
|----------------------|--------------------|
| Principal-in-Charge: | Jack Gundarlahalli |
| Project Manager: | Keith Campbell |
| Project Engineer: | Joseph Marcos |

CONSULTANT shall not reassign the key project personnel without prior approval of OC SAN. OC SAN may request reassignment of any of the CONSULTANT's or its subconsultant's personnel, based on an individual's performance.

For all services, CONSULTANT shall refer to the Engineering Design Guidelines, Chapter 01 for detailed requirements, except as specifically modified herein.

For purposes of the Proposal, CONSULTANT shall include labor-hours and fees in the Proposal for appropriate personnel classifications to perform the following tasks:

Task 4.1 – Project Management

CONSULTANT shall be responsible for detailed management of the project, including managing its subconsultants, and shall keep OC SAN apprised of the status of the project.

CONSULTANT shall conduct monthly project management meetings with OC SAN's Project Manager by conference call. These meetings shall be attended by OC SAN's Project Manager and CONSULTANT's Project Manager at a mutually agreeable time, generally around the second week of the month. The purpose of the meetings shall be to review the CONSULTANT Project Manager's progress report, status of the project scope, budget, and any issues which may affect completion of the project. Meetings should be arranged so that the progress report can be submitted shortly prior to or at each meeting. Subconsultants will not participate in these project management meetings.

Invoices: CONSULTANT shall prepare and submit monthly invoices to OC SAN. The invoices shall document the labor-hours and billing rate for each person that works on the project for each task in the work breakdown structure (WBS). 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 invoice to date"

- Current billing period “total percent completed to date”

Progress Reports: The monthly progress report shall be submitted with the project invoice as part of the monthly request for payment. The monthly progress report will include the following:

- Work completed in previous billing period
- Work anticipated for the upcoming month
- Outstanding project issues
- Status and issues impacting project scope and budget
- Log documenting work completed on past requests for information (RFIs), submittal reviews, and change order scope preparation
- Percent complete, tabulated on a per task basis
- Cost to complete, tabulated on a per task basis
- Overall project budget, tabulated on a per task basis
- Travel and site visit summary
- Risks along with a log
- Out of scope items log

CONSULTANT shall also provide percent budget spent for each of OC SAN’s WBS cost codes (i.e. by work package and phase). OC SAN shall provide a list of cost codes by phase to the CONSULTANT.

OC SAN will provide a sample invoice structure to the CONSULTANT at the beginning of the project.

See “Quantitative Assumptions” in this SOW for the number of months to be allocated for this task.

Task 4.2 – Workshops and Project Meetings

4.2.1 - Construction Hand-Off Workshop: CONSULTANT shall participate in a one-hour Construction Hand-Off Workshop. The purpose of the workshop is for the CONSULTANT and OC SAN design teams to transfer project-specific knowledge to OC SAN construction management and inspection staff that will be managing and monitoring construction. Topics that might be covered in this meeting include the following:

- Overview of objective of the project
- Review of project elements
- Review of sequencing constraints
- Key issues to be addressed during construction
- Identification of risks and discussions of contingency plans

The workshop will be led by OC SAN.

4.2.2 - PMWeb Procedures Meeting and Submittal Review Procedures Meeting: CONSULTANT shall participate in a one-hour PMWeb procedure meeting and submittal procedure meeting. The purpose of this meeting is to review the roles and logistics for review and approval of construction contract documents and Contractor submittals. The CONSULTANT’s Project Manager and Project Engineer shall attend in person.

The project will utilize PMWeb as the web-based Project Control Management System (PCMS). The PCMS shall be utilized for project communication, tracking, and management.

PCMS utilization is to facilitate the electronic exchange of information, the automation of key processes, and the overall management of the contract. When required by OC SAN, paper documents shall also be provided. In the event of a discrepancy between the electronic version and paper documents, the electronic documents within PCMS shall govern.

4.2.3- Preconstruction Team Conference: CONSULTANT shall participate in a two-hour Preconstruction Conference attended by OC SAN staff, CONSULTANT, Contractor, subcontractors, public agencies, and vendors. This meeting shall be scheduled and presided over by OC SAN. In this meeting, OC SAN shall describe CONSULTANT's role in the project as the Design Engineer and the services CONSULTANT shall provide during construction. CONSULTANT's Project Manager and Project Engineer shall attend. OC SAN will prepare meeting minutes and CONSULTANT shall review and comment on the minutes. No deliverable is required to be prepared by CONSULTANT.

4.2.4- Weekly Construction Progress Meetings: CONSULTANT shall attend or participate by telephone in the weekly construction progress meetings as requested by OC SAN (one hour). Progress meeting minutes will be prepared by OC SAN. No deliverable is required to be prepared by CONSULTANT. Other than attendance of progress meetings, other work arising from meeting discussions shall be covered under the labor hours included in the Quantitative Assumptions for Task 4.5 or Task 4.6.

See "Quantitative Assumptions" in this SOW for the number of meetings to be allocated for weekly construction progress meetings.

Task 4.3 - Site Visits and As-Built Reviews

Site Visits: CONSULTANT shall make field visits to assist in field problem resolution and design clarification/verification to help resolve construction issues as they arise and as requested by OC SAN. CONSULTANT's Traffic Engineer shall make field visits to inspect the traffic control setup when requested by OC SAN. CONSULTANT shall report the nature of the field site visits, the problem resolved, and identify staff requesting the site visit in CONSULTANT's monthly project report. Other than attendance of site visits, other work arising from site visit discussions shall be covered under the labor hours included in the Quantitative Assumptions for Task 4.5 or Task 4.6.

See "Quantitative Assumptions" in this SOW for the effort to be allocated for site visits.

During site visits, CONSULTANT shall review the Contractor's As-Built Drawings at the 25, 50, 75, and 100 percent of project completion to verify the Contractor has included all relevant information from approved change orders and RFIs. CONSULTANT shall prepare a report for each of these reviews and submit it to OC SAN. Labor hours for report preparation shall be included in the Quantitative Assumptions for Weekly Assistance under Task 4.5.

Task 4.4 – Submittal Reviews

Submittals from the Contractor will be logged in PMWeb by OC SAN with selected shop drawing and submittals requiring CONSULTANT review. CONSULTANT shall review the shop drawings and submittals for conformance with the requirements of the contract documents within PMWeb within ten calendar days after receipt of submittal. CONSULTANT shall return comments to OC SAN allowing sufficient time for OC SAN to incorporate all comments into a combined review comment set that OC SAN will return to the Contractor. CONSULTANT shall accommodate occasional expedited reviews for time sensitive submittals. Submittals shall include but not be limited to shop drawings, vendor tests, certifications, and test reports.

Coordination with other agencies which may be involved in submittal reviews will be performed by OC SAN.

See “Quantitative Assumptions” in this SOW for the number of submittals for this task. This assumes that the CONTRACTOR does not package multiple items in a single submittal. For the purposes of tracking the quantities included under “Quantitative Assumptions”, CONSULTANT shall count on the basis of the number of submittal items included.

Task 4.5 – Request for Information (RFI)

CONSULTANT shall respond to RFIs generated by the Contractor or OC SAN via PMWeb. CONSULTANT’s responses to OC SAN shall be as soon as possible or within four calendar days of receipt of the RFI, clarifying the requirements of the contract documents. CONSULTANT shall generate necessary sketches, figures, and modifications to the drawings for clarifications. When required to avoid schedule delay or additional construction-related costs, CONSULTANT shall expedite the review of time sensitive RFIs. It shall also be the goal to return responses for all RFIs on the day they are received (where no significant research, correspondence or engineering is involved).

If any changes to the drawings are required, the CONSULTANT shall prepare these drawings in AutoCAD and submit them via PMWeb as PDF files to OC SAN. The CONSULTANT shall update all AutoCAD drawings and specifications upon OC SAN acceptance of any changes resulting from RFIs and change orders. CONSULTANT shall provide electronic AutoCAD files to OC SAN as part of Task 6.1, Record Drawings.

See “Quantitative Assumptions” in this SOW for the number of RFIs to be allocated for this task.

CONSULTANT shall also allocate time for required efforts to analyze and provide input on issues that may arise on a weekly basis. The assumption for the effort involved in weekly assistance shall be as indicated under “Quantitative Assumptions” in this SOW.

Task 4.6 – Contract Document Modifications, Design Changes, and Change Orders

If the contract documents require modifications, due to changed conditions, OC SAN requested changes, omissions, or design errors; CONSULTANT shall prepare preliminary change order documents and forward them to OC SAN as needed. OC SAN shall review the proposed change and request CONSULTANT to incorporate any changes. OC SAN will issue the change order documents in a formal Request for Proposal (RFP) or Field Change Order (FCO) to the Contractor. CONSULTANT shall forward design calculations and other design backup documents as necessary to OC SAN. CONSULTANT shall prepare cost estimates for the changes when requested by OC SAN.

Any contract document that requires changes shall be identified with date of change and reference (RFI number, RFP number, FCO number, etc.) shown on the document. Changes shown on drawings shall be clearly marked and “clouded” for accurate identification of the scope of change by the Contractor and inspection staff. CONSULTANT shall maintain up-to-date contract documents. When a change is required on a drawing that has previously undergone a change, the updated drawing showing the previous change shall be used as the base document to identify new changes.

CONSULTANT shall submit complete change documentation to OC SAN for use in RFIs, RFPs, and FCOs. This change documentation shall include plan drawings, schematics,

details, schedules, and specifications, as required.

CONSULTANT shall also allocate time for required efforts to analyze and provide input on issues that may arise daily such as interference of undisclosed utilities, traffic control issues, bypass evaluations, etc.

See “Quantitative Assumptions” in this SOW for the number of hours to be allocated for design changes and cost estimating assistance.

Task 4.7 – Public Outreach

OC SAN will be leading all public outreach efforts required for this construction. The CONSULTANT shall provide support for various public outreach activities, including but not limited to the following: serving as the community and stakeholder liaison and outreach; planning, coordination, and attendance of community meetings and providing collateral materials. Activities of CONSULTANT’s outreach support staff shall be as directed and managed by OC SAN.

Task 4.8 – Traffic Control

CONSULTANT’s Traffic Engineer and subconsultant Traffic Engineer shall provide support for review, response, interpretation, and advice on project issues related to traffic control conditions, as well as to attend and participate in key meetings identified herein. Reviews and responses will be needed in support of RFIs, contract document modifications, and change order duties led by the CONSULTANT. This will require the Traffic Engineer to modify and generate new drawings. Coordination and approvals with the permitting agency will be required.

See “Quantitative Assumptions” in this SOW for the number of hours to be allocated for this task.

Task 4.9 – Geotechnical

CONSULTANT’s Geotechnical Engineer shall provide support for review, response, interpretation and advice on project issues related to geotechnical conditions, geotechnical baseline report, geotechnical logs and data reports, as well as to attend and participate in key meetings identified herein. CONSULTANT shall provide reviews and responses in support of shop drawing submittals, RFIs, contract document modifications and change order duties led by the CONSULTANT.

See “Quantitative Assumptions” in this SOW for the number of hours to be allocated for this task.

PHASE 5 – NOT USED

PHASE 6 – CLOSE OUT

Closeout tasks include completion of punch list work by the Contractor, final inspection, completion of Record Drawings, and electronic data. CONSULTANT shall submit a final invoice at the completion of the project.

Task 6.1 – Record Drawings

After completion of construction, OC SAN will transmit to CONSULTANT the final field markup set of drawings. At that time, CONSULTANT shall meet with OC SAN's Inspector and Resident Engineer to confirm Contractor's As-Built Drawings contain all relevant information.

CONSULTANT shall prepare draft Record Drawings from the Contractor's As-Built Drawings for all drawings in accordance with the requirements in the CAD Manual. The CONSULTANT shall submit the draft Record Drawings to OC SAN's Resident Engineer. The draft Record Drawings will be reviewed for content and CAD Compliance by OC SAN staff. A comment log will be returned to the CONSULTANT and, if any comments are generated, the CONSULTANT shall revise the Record Drawings and resubmit to the Resident Engineer for review of the changes and acceptance of the Record Drawings. Traffic Control drawings are excluded from the requirements under this task.

When no additional comments are identified, CONSULTANT shall prepare the final Record Drawings and submit them along with the Contractor's As-Built Drawings to the Project Manager. All Record Drawings shall contain a stamp indicating:

Record Drawings

These Record Drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of this information and shall not be responsible for any errors or omissions which may be herein as a result.”

The stamp shall optimally be placed in the bottom right hand corner of the border and may be included by x-ref. If importing the stamp by x-ref interferes with content in the bottom right hand corner, the stamp may also be placed in other open space along the bottom of the border. In addition, a note shall be placed over the engineer's seal stating that “This drawing was originally approved for construction by [name of engineer] on [date] and sealed by [name of engineer] a licensed professional engineer in the State of California No. [License number] “. CONSULTANT shall submit an electronic copy of the Record Drawings to OC SAN for review and approval. The acceptance of the Record Drawings shall be deemed a condition for completion of work.

The Contractor generated As-Built Drawings described in the Engineering Design Guidelines and the shop drawings will not be updated by CONSULTANT.

The format and quantities for delivery of the submittals shall be as specified in the Engineering Design Guidelines section titled “Software and Electronic File Format Requirements” and as listed below:

| Contents | Draft Record Drawings | Final Record Drawings |
|---|------------------------------|------------------------------|
| Hard Copy Sets | 2 sets of bound 11x17 prints | 2 sets of bound 11x17 prints |
| All related electronic files, including CAD and compiled PDFs | Electronic transmission | Electronic transmission |

See “Quantitative Assumptions” in this SOW for the number of meetings to be allocated for this task.

Task 6.2 – Project Management

CONSULTANT shall also include project management support labor-hours related to closeout activities per requirements stated in Phase 4, Project Management Task.

See "Quantitative Assumptions" in this SOW for the number of months to be allocated for this task.

IV. STAFF ASSISTANCE

OC SAN staff member assigned to work with CONSULTANT on the construction phase of this project is Hardat Khublall at (714) 720-6965, email to: hkhublall@ocsd.com.

(continued on next page)

V. QUANTITATIVE ASSUMPTIONS

The assumptions listed in the following table shall be the basis for the assumed level of effort.

| Task | Description | Assumption | AECOM | MBI | TCE |
|-------|------------------------------------|---|---|---|---------------------------|
| 4.1 | Project Management | 21 months duration from the effective date of the Notice to Proceed | 21 Months of PM | 6 Months of PM ¹ | Time included in Task 4.8 |
| 4.2.4 | Weekly Progress Meetings | 60 meetings | 60 Meetings | N/A | N/A |
| 4.3 | Site Visits | 30 person-visits | 30 Site Visits | 5 Site Visits | 5 Site Visits |
| 4.4 | Submittals | 40 original submittals 30 resubmittals | 40 Original Submittals 30 resubmittals | 5 Original Submittals 2 resubmittals | Time included in Task 4.8 |
| 4.5 | Requests for Information | 50 RFIs | 50 RFIs | 15 RFIs | Time included in Task 4.8 |
| 4.5 | Weekly Assistance | 664 labor hours | 604 hours | 60 hours | Time included in Task 4.8 |
| 4.6 | Design Changes | 300 labor hours | 240 hours | 60 hours | Time included in Task 4.8 |
| 4.6 | Cost Estimating for Design Changes | 80 labor hours | 80 hours | N/A | Time included in Task 4.8 |
| 4.7 | Public Outreach | 350 labor hours | 350 hours | N/A | N/A |
| 4.8 | Traffic Control | 160 labor hours | 60 | N/A | 100 |
| 4.9 | Geotechnical | 100 labor hours | 100 | N/A | N/A |
| 6.1 | As-Built Review Meetings | 2 meetings | 2 Meetings | 2 Meetings | N/A |
| 6.2 | Project Management | 3 months duration in the Closeout Phase | 3 Months | 1 Month ¹ | N/A |

1. Subconsultant Michael Baker International, Inc. (MBI) shall provide Phase 4 – Construction and Installation Services within a 6 month period beginning upon OC SAN's Notice to Proceed. Involvement beyond this period is not included, except as provided for by written Amendment and for a 1-month period for close out services.

HK:dm



OPERATIONS COMMITTEE

Agenda Report

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

File #: 2020-1238

Agenda Date: 5/5/2021

Agenda Item No: 7.

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

SUBJECT:

ORANGE-WESTERN SUB-TRUNK AND LOS ALAMITOS TRUNK SEWER REHABILITATION, CONTRACT NOS. 3-64A AND 3-64B

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

Approve a Cooperative Reimbursement Agreement between the Orange County Sanitation District and the City of Cypress for Pavement Slurry Seal Construction in conjunction with the Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B, for an amount not to exceed \$83,000.

BACKGROUND

Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B, will rehabilitate over eight miles of 21-inch through 39-inch vitrified clay pipe sewer in the cities of Anaheim, Cypress, Buena Park, Los Alamitos, and Seal Beach. This project includes work in the City of Cypress on Orange Avenue between Holder Street and Valley View.

RELEVANT STANDARDS

- Maintain collaborative and cooperative relationships with regulators, stakeholders, and neighboring communities
- Ensure the public's money is wisely spent

PROBLEM

Pavement along Orange Avenue in the City of Cypress, where Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B will be performing work, needs to be slurry sealed as part of the City's planned maintenance of the road. The City of Cypress normally imposes a five-year moratorium on any work impacting pavement following slurry sealing.

PROPOSED SOLUTION

Approve a Reimbursement Agreement with the City of Cypress where the Orange County Sanitation District (OC San) performs the slurry sealing after working in the street, and the City of Cypress

reimburses OC San for the cost of slurry sealing. The cost of this work is not expected to exceed \$83,000.

TIMING CONCERNS

The agreement requires approval so this work can be done as part of OC San's construction contract scheduled to begin in June 2021.

RAMIFICATIONS OF NOT TAKING ACTION

Without the Cooperative Reimbursement Agreement, the pavement slurry seal cannot be done as part of this construction contract.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

CEQA

The project is included in the "Rehabilitation of Western Regional Sewers Project No. 3-64" Environmental Impact Report (EIR) State Clearinghouse Number 2015111077. This EIR was certified by the Board of Directors and a Notice of Determination was filed on March 23, 2017.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Adopted Budget, Fiscal Years 2020-2021 and 2021-22, Section 8, Page 23, Rehabilitation of Western Regional Sewers, Project No. 3-64) 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:

- Cooperative Agreement

HK:dm:sa:gc

**COOPERATIVE AGREEMENT
BETWEEN THE ORANGE COUNTY SANITATION DISTRICT AND THE CITY OF
CYPRESS FOR PAVEMENT REHABILITATION WORK**

This Agreement is made and entered into this ____ day of _____ 2021 by and between the Orange County Sanitation District, a county sanitation district (“OC SAN”), and the City of Cypress, a municipal corporation (“City”). OC SAN and City are sometimes referred to herein individually as “Party” and collectively as “Parties.”

RECITALS

WHEREAS, segments of Orange Avenue require rehabilitation of the pavement condition; and

WHEREAS, OC SAN owns, operates, and maintains sewer mains within the City located beneath segments of Orange Ave.; and

WHEREAS, OC SAN has a sewer replacement project called the Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Project No. 3-64A & 3-64B (“Project”), a segment of which will take place on Orange Ave. and will include pavement rehabilitation work for those portions of Orange Ave. that are affected by the Project; and

WHEREAS, City desires to perform additional pavement rehabilitation work (“Pavement Rehabilitation”) on portions of Orange Avenue that are not affected by the Project, such work to include the application of a slurry seal to the entire width of Orange Avenue from Valley View Street to Holder Street, an area of approximately 158,000 square feet; and

WHEREAS, the Parties agree that the Contractor OC SAN selects to perform the Project shall also perform the Pavement Rehabilitation; and

WHEREAS, OC SAN agrees to contract and manage the Pavement Rehabilitation as part of the Project if City agrees to reimburse OC SAN for additional contract costs and four percent staff labor costs associated with the Pavement Rehabilitation subject to the terms and conditions included herein.

AGREEMENT

NOW, THEREFORE, in consideration of the promises and agreements hereinafter set forth herein, the Parties hereby agree as follows:

1. OC SAN shall:

a. Be and is hereby designated as the contracting and construction agent for the Parties to do and perform all acts necessary or required in order to complete the Pavement Rehabilitation and to execute and deliver all documents necessary or required in connection with the construction and completion of the Pavement Rehabilitation work on Orange Ave. from Valley View St. to Holder St.

b. Ensure that the Pavement Rehabilitation work is completed in compliance with City's approved project plans and specifications.

c. Prepare and present an invoice to City upon completion and OC SAN acceptance of the Pavement Rehabilitation work, which City shall pay in full within forty-five (45) days after City accepts/approves the Pavement Rehabilitation Work.

d. Be designated lead agency for the Project and Pavement Rehabilitation under the California Environmental Quality Act ("CEQA").

2. City shall:

a. Review and provide any approvals or comments regarding the plans and specifications for the Pavement Rehabilitation work to be included in bidding documents prepared for the Project, including Project plans and specifications. OC SAN shall not commence the Pavement Rehabilitation work until the City has approved the plans and specifications for the Pavement Rehabilitation work.

b. At all times, during the progress of construction of the Project, have access to the work site(s) for the purpose of inspection thereof.

c. Promptly notify OC SAN in writing should City deem any remedial measures to be reasonably necessary prior to OC SAN's acceptance of any work on the Project.

d. Promptly notify OC SAN of City's acceptance/approval or rejection of the Pavement Rehabilitation Work within thirty (30) days after receiving notice from OC SAN that the work is complete. City shall be deemed to accept/approve of the work if City fails to provide notice to OC SAN within thirty days.

e. Within forty-five (45) days of the City accepting/approving the Pavement Rehabilitation work as complete, and provided that the City receives an invoice for such work from OC SAN, reimburse OC SAN for the actual, final costs for all Pavement Rehabilitation work, including OC SAN staff time required to manage the work (collectively, "City Costs"). City Costs shall not exceed eighty-three thousand dollars (\$83,000) and shall not include, nor is City responsible for, any pavement rehabilitation or similar work that was included as part of the Project prior to the execution of this Agreement.

3. General obligations.

a. City and OC SAN, and each of their elected officials, officers, employees and agents, shall be named as additional insureds in all construction contract commercial general and automobile liability insurance policies relating to the Project.

b. Neither City, nor any officer, agent, representative or employee thereof, shall be responsible for any damage or liability occurring by reason of anything done or

omitted to be done by OC SAN, its officers, employees, agents, contractors, or subcontractors, under or in connection with any work, authority, or jurisdiction delegated to OC SAN under this Agreement. To the fullest extent permitted by law, OC SAN shall defend, indemnify and hold harmless City, including City's employees, agents, representatives, and officials, from any liabilities, claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, costs or expenses of any kind whatsoever, whether actual, alleged, or threatened, without restriction or limitation, and incurred in relation to, as a consequence of, arising out of or in any way attributable actually, allegedly or impliedly, to the negligence, recklessness, or willful misconduct of OC SAN and its officers, employees, agents, contractors, or subcontractors, in the performance of this Agreement. All obligations under this provision are to be paid by OC SAN as they are incurred by City. OC SAN shall require in any agreement with a contractor for the Project that the contractor defend, indemnify and hold harmless City, including City's officers, employees, agents, contractors, and subcontractors, as set forth in this provision.

c. Neither OC SAN, nor any officer, agent, representative, or employee thereof, shall be responsible for any damage or liability occurring by reason of anything done or omitted to be done by City, its officers, employees, agents, contractors, or subcontractors, under or in connection with any work, authority, or jurisdiction delegated to City under this Agreement. To the fullest extent permitted by law, City shall defend, indemnify and hold harmless OC SAN, including OC SAN's employees, agents, representatives, and officials, from any liabilities, claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, costs or expenses of any kind whatsoever, whether actual, alleged, or threatened, without restriction or limitation, and incurred in relation to, as a consequence of, arising out of or in any way attributable actually, allegedly or impliedly, to the negligence, recklessness, or willful misconduct of City and its officers, employees, agents, contractors, or subcontractors, in the performance of this Agreement. All obligations under this provision are to be paid by City as they are incurred by OC SAN.

d. This Agreement, together with any and all exhibits, each of which is hereby incorporated by reference, constitutes the entire agreement between the Parties with respect to the subject matter herein. No representation or promise, whether verbal or written, that is not set forth herein, shall be binding or have any force or effect on either of the Parties.

e. In the event of any dispute concerning any aspect of this Agreement, the Parties' representatives shall work in good faith to resolve any such dispute to each Party's satisfaction prior to initiation of any court action provided, however, that nothing herein shall prevent either Party from utilizing all remedies at law or equity in the event such dispute cannot be resolved within thirty (30) days of a written request by one Party to meet and confer with the other to resolve such dispute, or such other period of time as agreed upon in writing.

f. Notices permitted or required to be provided pursuant to this Agreement shall be sent to the following addresses:

To OC SAN:

Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708

Attention: Kelly Lore, Clerk of the Board
Facsimile: (714) 962-0356

To City: City of Cypress
5275 Orange Avenue
Cypress, CA 90630
Attention: Alisha Farnell, City Clerk
Facsimile: (714) 229-6682

By notice to the other Party, either Party may change the address specified above. Service of notice or communication shall be complete, if personally served, when received at the designated address, or five (5) days after deposit of said notice or communication in the United States mail, postage prepaid, whichever occurs first.

h. The prevailing Party in any action brought for breach or to enforce any provision of this Agreement, shall be entitled to recover its reasonable attorney's fees, expert's costs, and all court costs.

g. No Third-Party Beneficiaries. This Agreement is entered into by and for OC SAN and City, and nothing herein is intended to establish rights or interests in individuals or entities not a party hereto.

i. Within forty-five (45) days after completion and acceptance of the work by OC SAN, OC SAN's Director of Engineering shall provide written notice to City of OC SAN's acceptance of the work and shall provide an estimated date that a final accounting of City Costs will be submitted. If outstanding charges (such as contractor's claims and liens) delay the final accounting, OC SAN shall so advise City and a final accounting shall be presented within ninety (90) days from the date of completion of the work.

j. City shall have the right to review all invoices, warrants and other related documents used in preparing the final accounting.

IN WITNESS WHEREOF, this Agreement has been duly executed by the respective parties hereto by their duly authorized officers as of the date hereinabove first written.

[SIGNATURES ON FOLLOWING PAGE]

ORANGE COUNTY SANITATION DISTRICT

By: _____

David John Shawver
Chair, Board of Directors

Date: _____

APPROVED AS TO FORM:

ATTEST:

By: _____

Bradley R. Hogin
General Counsel

By: _____

Kelly Lore
Clerk of the Board

CITY OF CYPRESS

By: _____

Date: _____

APPROVED AS TO FORM:

ATTEST:

By: _____

Fred Galante City Attorney
City of CYPRESS

By: _____



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1432

Agenda Date: 5/5/2021

Agenda Item No: 8.

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

SUBJECT:

CONTROL CENTER OFFICES AND DAY TRAINING ROOM REMODELING AT PLANT NO. 1, PROJECT NO. FR1-0007

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and File Bid Tabulation and Recommendation for Control Center Offices and Day Training Room Remodeling at Plant No. 1, Project No. FR1-0007;
- B. Award a Construction Contract to Thomas Solar Energy for Control Center Offices and Day Training Room Remodeling at Plant No. 1, Project No. FR1-0007, for an amount not to exceed \$256,790; and
- C. Approve a contingency of \$25,679 (10%).

BACKGROUND

The Control Center Building at Plant No. 1 is a two-story office building housing mainly operations staff. The Day Training Room in this building is typically used by 17 plant operators during day shift and seven plant operators during night shift, including four lead operators. The room is also used for frequent meetings among operators.

The Orange County Sanitation District's (OC San) workspace standards call for four-foot-wide workstations for the plant operators, eight-foot by eight-foot cubicles for Lead Plant Operators, and approximately ten-foot by ten-foot individual offices for Supervisors. Operator workstations are not dedicated to individual operators, so the same workstations are used by more than one operator over the course of a day. Individual offices are needed for supervisors to conduct sensitive and private discussions with staff.

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

The layout and furnishings of the Day Training Room do not effectively use space and the existing furniture and cubicles are in substandard condition. The room also lacks a conference table large enough to accommodate all the operators present in one shift. Staff has also had to move into other conference rooms to work, which limits the availability of the conference rooms for other purposes. The Control Center also lacks enough individual offices for supervisors.

PROPOSED SOLUTION

Award a Construction Contract for Control Center Offices and Day Training Room Remodeling at Plant No. 1, Project No. FR1-0007. This project will remodel the Day Training Room including lighting improvements, 14 new workstations, five new cubicles, and a large conference table. The project will also convert an area with two offices and two cubicles into an area with three individual offices and a common space for staff to layout large-format plans.

TIMING CONCERNS

If this project were delayed, the collaboration between operations staff would continue to be inhibited due to being spread out in different areas of the Control Center Building conference rooms and other process areas throughout the Plant.

RAMIFICATIONS OF NOT TAKING ACTION

Not completing this project would make it difficult for staff to work together and have space for staff meetings. Having operations staff occupy conference rooms in the Control Center Building limits meeting space.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

OC San advertised Project No. FR1-0007 for bids on January 21, 2021 and 15 sealed bids were received on March 5, 2021. A summary of the bid opening follows:

| | |
|---------------------------------------|----------------------|
| Engineer's Estimate | \$ 428,000 |
| <u>Bidder</u> | <u>Amount of Bid</u> |
| Thomas Solar Energy | \$ 256,789.87 |
| Aguilar & Calderon Corporation | \$ 261,569.08 |
| R Dependable Const. Inc. | \$ 314,400.00 |
| JR Universal Construction, Inc. | \$ 325,500.00 |
| Thomco Construction, Inc. | \$ 343,100.00 |
| Horizons Construction Co. Int'l, Inc. | \$ 371,000.00 |

| | |
|--|---------------|
| Golden Gate Steel, Inc. dba Golden Gate Construction | \$ 372,190.00 |
| California Custom Builders | \$ 388,157.00 |
| A2Z Construct Inc. | \$ 390,000.00 |
| Deark E&C, Inc. | \$ 391,000.00 |
| Caltech Corp | \$ 411,500.00 |
| Aid Builders Inc. | \$ 427,500.00 |
| RT Contractor Corp. | \$ 478,000.00 |
| LOENGREEN Inc. | \$ 495,043.00 |
| Marjani Builders Inc. | \$ 496,500.00 |

The bids were evaluated in accordance with OC San policies and procedures. A notice was sent to all bidders on April 15, 2021 informing them of the intent of OC San staff to recommend award of the Construction Contract to Thomas Solar Energy.

Staff recommends awarding a Construction Contract to the lowest responsive, responsible bidder, Thomas Solar Energy, for a total amount not to exceed \$256,790.

CEQA

This project is exempt from CEQA under the Class 1 categorical exemptions set forth in California Code of Regulations Section 15301 because the project involves repairs, replacement, and or minor alteration of existing facilities involving no expansion of use or capacity.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This recommendation would be funded under the Repairs and Maintenance line item for Division 830, Plant No. 1 Operations (Adopted Budget, Fiscal Years FY 2020-2021 and 2021-2022, Section 6, Page 84), 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

JM:CS:dm:gc

PART A
CONTRACT AGREEMENT

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CONTRACT AGREEMENT
ORANGE COUNTY SANITATION DISTRICT

PROJECT NO. FR1-0007

CONTROL CENTER OFFICES AND DAY TRAINING ROOM REMODELING AT PLANT NO. 1

THIS AGREEMENT is made and entered into, to be effective, this May 26, 2021, by and between Thomas Solar Energy, hereinafter referred to as "CONTRACTOR" and the Orange County Sanitation District, hereinafter referred to as "OCSD".

WITNESSETH

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

SECTION – 1 GENERAL CONDITIONS

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 OCSD. 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 OCSD'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 OCSD, to construct and complete the Project, in good workmanlike and substantial order. If CONTRACTOR fails to pay for labor or materials when due, OCSD 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, OCSD may settle them directly and deduct the amount of payments from the Contract Price and any amounts due to CONTRACTOR. In the event OCSD receives a stop payment notice from any laborer or material supplier alleging non-payment by CONTRACTOR, OCSD 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. FR1-0007

CONTROL CENTER OFFICES AND DAY TRAINING ROOM REMODELING AT PLANT NO. 1

SECTION – 4 PLANS AND SPECIFICATIONS

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

PROJECT NO. FR1-0007

CONTROL CENTER OFFICES AND DAY TRAINING ROOM REMODELING AT PLANT NO. 1

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 OCSD, unless otherwise specified therein and shall diligently prosecute the Work to completion within three hundred and one (301) calendar days from the date of the "Notice to Proceed" issued by OCSD, excluding delays caused or authorized by OCSD as set forth in Sections 7, 8, and 9 hereof, and applicable provisions in the General Conditions. The time for completion includes zero (0) calendar days determined by OCSD 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 OCSD, 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. OCSD 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”. OCSD’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 OCSD 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 OCSD pursuant to the Contract Documents, OCSD 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 OCSD’s ENGINEER. The decision of the ENGINEER shall be final.

SECTION – 9 CHANGES IN PROJECT

OCSD 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 OCSD-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. OCSD 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 Fifty-Six Thousand Seven Hundred Eighty-Nine Dollars and Eighty-Seven Cents (\$256,789.87) 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. OCSD 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 OCSD’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 OCSD;
 - b. plus the value of material suitably stored at the worksite, treatment plant or approved storage yards subject to or under the control of OCSD since the commencement of the Work as determined by OCSD;
 - 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 OCSD 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, OCSD 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:

OCSD 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 OCSD. 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, OCSD 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 OCSD, 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 OCSD 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 OCSD'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 OCSD. 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 OCSD, 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 OCSD 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 OCSD 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. OCSD 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 OCSD 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 OCSD herein, the requirement(s) providing the more protective coverage for both OCSD 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, OCSD 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 OCSD, its or their officers, agents, or employees, and any other contractor or subcontractor performing Work or rendering services on behalf of OCSD 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 OCSD, 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: One Million Dollars (\$1,000,000) per occurrence and a general aggregate limit of Two Million Dollars (\$2,000,000) 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 One Million Dollars (\$1,000,000) 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 OCSD 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 limits of liability coverage:
- Either (1) a combined single limit of One Million Dollars (\$1,000,000) for bodily injury, personal injury and property damage;
- Or alternatively, (2) Five Hundred Thousand Dollars (\$500,000) per person for bodily injury, One Million Dollars (\$1,000,000) per accident for bodily injury, and Five Hundred Thousand Dollars (\$500,000) per accident for 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 OCSD.
5. Worker's Compensation/Employer's Liability: CONTRACTOR shall provide such Worker's 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 OCSD. At the option of OCSD, either: the Insurer shall reduce or eliminate such deductibles or self-insured retentions as respects OCSD, its Directors, officers, agents, CONSULTANTS, and employees; or CONTRACTOR shall provide a financial guarantee satisfactory to OCSD 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. OCSD, 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 OCSD 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 OCSD shall be excess only and not contributing with insurance provided under this policy.
2. Each insurance policy required herein shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, and that coverage shall not be cancelled for

non-payment of premium except after ten (10) days prior written notice by certified mail, return receipt requested. Should there be changes in coverage or an increase in deductible or SIR amounts, CONTRACTOR undertakes to procure a manuscript endorsement from its insurer giving 30 days prior notice of such an event to OCSD, or to have its insurance broker/agent send to OCSD a certified letter describing the changes in coverage and any increase in deductible or SIR amounts. The certified letter must be sent Attention: Risk Management and shall be received not less than twenty (20) days prior to the effective date of the change(s). The letter must be signed by a Director or Officer of the broker/agent and must be on company letterhead, and may be sent via e-mail in pdf format.

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. OCSD recognizes that State Compensation Insurance Fund has withdrawn from participation in the A.M. Best Rating Guide process. Nevertheless, OCSD will accept State Compensation Insurance Fund for the required policy of worker's compensation insurance, subject to OCSD's option, at any time during the term of this Contract, to require a change in insurer upon twenty (20) days written notice. Further, OCSD 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 OCSD or its agent.

E. Verification of Coverage

CONTRACTOR shall furnish OCSD 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 OCSD before Work commences. OCSD 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. OCSD 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 OCSD with the above referenced required documents.

G. Required Forms and Endorsements

1. Required ACORD Form

- a. Certificate of Liability Form 25

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-0001 10 01 |
| b. | Additional Insured Including Products-Completed Operations | Form CG-2010 10 01 and Form CG-2037 10 01 |
| c. | Waiver of Transfer of Rights of Recovery Against Others to Us/ Waiver of Subrogation | Form CG-2404 11 85; or Form CG-2404 10 93 |

3. Required State Compensation Insurance Fund Endorsements

- | | | |
|----|-----------------------|----------------------|
| a. | Waiver of Subrogation | Endorsement No. 2570 |
| b. | Cancellation Notice | Endorsement No. 2065 |

4. Additional Required Endorsements

- | | | |
|----|------------------------------|------------------------|
| a. | Notice of Policy Termination | Manuscript Endorsement |
|----|------------------------------|------------------------|

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 OCSD 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 OCSD in the event of substantial failure by the CONTRACTOR to fulfill its obligations under this Agreement, or it may be terminated by OCSD 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 OCSD, 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 OCSD'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. OCSD 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, OCSD 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 OCSD 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 OCSD 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 OCSD unless such assignment has had prior written approval and consent of OCSD and the Surety.

SECTION – 21 RESOLUTION OF DISPUTES

OCSD 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 OCSD, 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 OCSD: 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: Thomas Solar Energy
9523 Bolsa Avenue
Westminster, CA 92683

Copy to: Lyon Cao, President-Project Manager
Thomas Solar Energy
9523 Bolsa Avenue
Westminster, CA 92683

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

CONTRACTOR: Thomas Solar Energy
9523 Bolsa Avenue
Westminster, CA 92683

By _____

Printed Name

Its _____

CONTRACTOR's State License No. 1070867 (Expiration Date – 11/30/2022)

OCSD: Orange County Sanitation District

By _____

David John Shawver
Board Chairman

By _____

Kelly A. Lore
Clerk of the Board

By _____

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 – “OCSD’s Right to Withhold Certain Amounts and Make Application Thereof”; and
9. General Conditions – “Final Payment.”

EXA-3 RETENTION AND ESCROW ACCOUNTS

A. Retention:

OCSD 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 OCSD 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 OCSD, 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, OCSD 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 OCSD's discovery of deficiencies in the Work or non-compliance with the Specifications or any other requirement of the Contract;
3. Sums expended by OCSD in performing any of the CONTRACTOR'S obligations under the Contract that the CONTRACTOR has failed to perform, and;
4. Other sums that OCSD is entitled to recover from the CONTRACTOR under the terms of the Contract, including without limitation insurance deductibles and assessments.

The failure of OCSD to deduct any of the above-identified sums from a progress payment shall not constitute a waiver of OCSD'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, OCSD 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 OCSD 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 OCSD 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 OCSD 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 OCSD 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 OCSD, 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 OCSD, arising out of or filed in connection with the Work. Prior progress payments shall be subject to correction in OCSD'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, OCSD 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 OCSD, 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 OCSD, 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 OCSD, and agreements are reached on all issues regarding the application for Final Payment, OCSD, in exchange for an executed release, satisfactory in form and substance to OCSD, 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 OCSD are specifically reserved, and shall release and waive all unreserved Claims against OCSD 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 OCSD which has not been communicated in writing by the CONTRACTOR to OCSD 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, OCSD may make Final Payment subject to resolution of those claims. OCSD 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 OCSD's acceptance of the application for Final Payment and irrespective of whether it is before or after Final Payment has been made, OCSD 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.

OCSD 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 OCSD 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 OCSD 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 OCSD 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: Thomas Solar Energy

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 OCSD 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: Thomas Solar Energy
 (Name of Firm)

**EXHIBIT A
 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: The amount for this Bid Item shall not exceed \$22,500 of the Total Amount of Bid and shall be in conformance with the Contract Documents. All amounts included in this Bid Item greater than the allowable maximum payment of \$22,500 of the Total Amount of Bid shall be paid under Bid Item 2. | Lump Sum | 1 | | = \$ \$ 22,500 |
| 2. | All other portions of the Work set forth in the Contract Documents except for the Work performed in Bid Item 1: Work under this item shall include all labor, equipment, materials, and services necessary for all other Work not specified in Bid Item 1. | Lump Sum | 1 | | = \$ 234,289.87 |

TOTAL AMOUNT OF BID (BASIS OF AWARD)

\$ 234,567.89 *

* Recalculation of all line items revealed the correct Total Amount of Bid to be \$256,789.87.
 Thomas Solar Energy acknowledge in writing that this is the correct total.



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1534

Agenda Date: 5/5/2021

Agenda Item No: 9.

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

SUBJECT:

MACARTHUR FORCE MAIN IMPROVEMENTS, PROJECT NO. 7-68

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Professional Design Services Agreement with Michael Baker International, Inc. to provide engineering services for MacArthur Force Main Improvements, Project No. 7-68, for an amount not to exceed \$500,000; and
- B. Approve a contingency of \$50,000 (10%).

BACKGROUND

The Orange County Sanitation District (OC San) owns and maintains a 12-inch diameter force main extending approximately 2,100 feet along MacArthur Blvd. from the MacArthur Pump near Von Karman Avenue to Birch Street in the City of Newport Beach. This force main is approximately 60 years old.

RELEVANT STANDARDS

- Achieve less than 2.1 sewer spills per 100 miles
- California Government Code §4526: Select the “best qualified firm” and “negotiate fair and equitable fees”

PROBLEM

Condition assessments indicate that the force main has corroded and is at risk of failure. A failure of this pipe would likely result in a sewage spill.

PROPOSED SOLUTION

Award a Professional Design Services Agreement for MacArthur Force Main Improvements, Project No. 7-68. The project will construct two new force mains to replace the single existing force main. OC San has been standardizing on dual force mains to allow inspection and maintenance without

requiring expensive and disruptive bypass pumping. The additional force main can also be quickly put into service in the event of a leak or failure of the active force main.

TIMING CONCERNS

The schedule driver of this project is to resolve risks associated with deteriorated facilities to reduce the risks of potential spills.

RAMIFICATIONS OF NOT TAKING ACTION

Increased risk of failure of the pipes due to continued corrosion causing a sewage spill.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

Consultant Selection:

OC San requested and advertised for proposals for MacArthur Force Main Improvements, Project No. 7-68, on December 29, 2020. 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 | 35% |
| Related Project Experience | 30% |
| Project Team and Staff Qualifications | 35% |

Three proposals were received on February 11, 2021 and evaluated in accordance with the evaluation process set forth in Ordinance No. OCSD-52 (Purchasing Ordinance) by a pre-selected Evaluation Team consisting of the following OC San staff: Project Manager, Project Engineer, two Engineering Supervisors, and a Maintenance Manager. The Evaluation Team also included one non-voting representative from the Contracts Administration Division.

The Evaluation Team scored the proposals on the established criterion as summarized in the table below:

| | Firm | Understanding & Approach (Max 35) | Related Experience (Max 30) | Team & Qualifications (Max 35) | Total Score (Max 100) |
|---|--|-----------------------------------|-----------------------------|--------------------------------|-----------------------|
| 1 | Michael Baker International, Inc. | 30 | 24 | 29 | 83 |
| 2 | Lockwood, Andrews & Newman, Inc. (LAN) | 27 | 19 | 22 | 68 |
| 3 | Lee & Ro, Inc. | 21 | 20 | 22 | 63 |

Following scoring, the Evaluation Team concluded that interviews were not necessary to determine the most qualified consultant. Michael Baker International, Inc. was selected as the most qualified Consultant based on their superior project approach and detailed understanding of the project. The project team and experience directly related to design of both gravity and force mains are well suited to the scope and potential challenges associated with this project.

Review of Fee Proposal and Negotiations:

Proposals were accompanied by sealed fee proposals. The fee proposal of the Evaluation Team's highest-ranked firm, as approved by the Director of Engineering, was opened in accordance with the Purchasing Ordinance.

Staff conducted negotiations with Michael Baker International, Inc. 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. Negotiations were held with the consultant's team members and OC San staff. The design fee was reduced due to consolidation of design memoranda, combined workshops, reduction of some scope requirements, fewer design meetings, clarification of scope requirements, and reduction of the final sheet count.

| | Original Fee Proposal | Negotiated Fee |
|-------------|-----------------------|----------------|
| Total Hours | 2,934 | 1,699 |
| Total Fee | \$636,705 | \$500,000 |

The Consultant's fringe and overhead costs, which factor into the billing rate, have been substantiated. The contract profit is 9.95%, which is based on an established formula based on OC San's standard sliding scale requirements.

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 Michael Baker International, Inc.

CEQA

The project is exempt from CEQA under the Class 1, 2, and 3 categorical exemptions set forth in California Code of Regulations Sections 15301, 15302, and 15303 and statutory exemption set forth in the Public Resource Code Section 21080.21. These sections are exempt from CEQA for projects involving repair, replacement, minor alteration of existing facilities that have no expansion of use or capacity, replacement of existing utilities, and that are less than one mile in length within a public right-of-way for the installation of pipelines. A Notice of Exemption will be filed with the OC Clerk-Recorder after OC San's Board of Directors approval of the Construction Contract.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Adopted Budget, Fiscal Years 2020-2021 & 2021-22, Section 8, Pg. 35, MacArthur Force Main Improvements, Project No. 7-68) 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 Design Services Agreement

HK:dm

PROFESSIONAL DESIGN SERVICES AGREEMENT

THIS AGREEMENT, is made and entered into to be effective the «date» day of «Month», «year» by and between the ORANGE COUNTY SANITATION DISTRICT, hereinafter referred to as "SANITATION DISTRICT", and «CONSULTANT COMPANY», for purposes of this Agreement hereinafter referred to as "CONSULTANT".

WITNESSETH:

WHEREAS, the SANITATION DISTRICT desires to engage a CONSULTANT for **MacArthur Force Main Improvements, Project No. 7-68** to provide professional design engineering services to abandon the existing 12-inch force main and to construct two new force mains for redundancy and maintenance; and,

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

WHEREAS, the SANITATION DISTRICT has adopted procedures for the selection of professional design engineering services and has proceeded in accordance with said procedures to select a CONSULTANT to perform this work; and,

WHEREAS, at its regular meeting on «Board Meeting Date» the Board of Directors, by Minute Order, accepted the recommendation of the Operations Committee pursuant to the SANITATION DISTRICT's Purchasing Ordinance to approve this Agreement between the SANITATION DISTRICT and the CONSULTANT.

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

The CONSULTANT agrees to furnish necessary professional and technical 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, completeness, and coordination of all design, drawings, specifications, and other services furnished by the CONSULTANT under this Agreement, including the work performed by its Subconsultants. Where approval by the SANITATION DISTRICT is indicated, it is understood to be conceptual approval only and does not relieve the CONSULTANT of responsibility for complying with all laws, 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 ensure that all work is performed to the standards of best engineering practice for clarity, uniformity, and completeness. The

CONSULTANT shall respond to all comments, suggestions, and recommendations on the SANITATION DISTRICT's review comment sheets (i.e. DS1, DS2 and DS3). All comments shall be incorporated into the design prior to the next submittal deadline or addressed, in writing, as to why the comment has 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 work is not performed to the satisfaction of the SANITATION DISTRICT and does not conform to the requirements of this Agreement or any applicable industry standards, the CONSULTANT shall, without additional compensation, promptly correct or revise any errors or deficiencies in its designs, drawings, specifications, or other services within the timeframe specified by the SANITATION DISTRICT's Project Engineer/Project Manager. The SANITATION DISTRICT may charge to CONSULTANT all costs, expenses and damages associated with any such corrections or revisions.
- D. All CAD drawings, figures, and other work shall be produced by the CONSULTANT and its Subconsultants using the SANITATION DISTRICT's CAD Manual. Conversion of CAD work from any other non-standard CAD format to the SANITATION DISTRICT format shall not be acceptable in lieu of this requirement.

Electronic files shall conform to the SANITATION DISTRICT's specifications. Any changes to these specifications by the CONSULTANT are subject to review and approval by the SANITATION DISTRICT.

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

- E. The CONSULTANT shall ensure that all plans and specifications prepared, or recommended under this Agreement allow for competitive bidding. The CONSULTANT shall design such plans or specifications so that procurement of services, labor or materials are not available from only one source, and shall not design plans and specifications around a single or specific product, piece of major equipment or machinery, a specific patented design or a proprietary process, unless required by principles of sound engineering practice and supported by a written justification that has been approved in writing by the SANITATION DISTRICT. The CONSULTANT shall submit this written justification to the SANITATION DISTRICT prior to beginning work on such plans and specifications. Whenever the CONSULTANT recommends a specific product or equipment for competitive procurement, such recommendation shall include at least two brand names of products that are capable of meeting the functional requirements applicable to the project.

- F. All professional design engineering services performed by the CONSULTANT, including but not limited to all drafts, data, correspondence, proposals, reports, and estimates compiled or composed by the CONSULTANT, pursuant to this Agreement, are for the sole use of the SANITATION DISTRICT, its agents and employees. Neither the documents nor their contents shall be released to any third party without the prior written consent of the SANITATION DISTRICT. 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 the SANITATION DISTRICT, (b) subsequently becomes publicly known to the CONSULTANT other than through disclosure by the SANITATION DISTRICT.

2. COMPENSATION

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

A. Total Compensation

Total compensation shall be in an amount not to exceed «Grand Total Written Amount» Dollars (\$«Grand Total Amount»). Total compensation to the CONSULTANT including burdened labor (salaries plus benefits), overhead, profit, direct costs, and its 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 the CONSULTANT, the SANITATION DISTRICT shall pay to the CONSULTANT a sum equal to the burdened salaries (salaries plus benefits) actually paid by the CONSULTANT charged on an hourly-rate basis to this project and paid to the personnel of the CONSULTANT. Upon request of the SANITATION DISTRICT, the CONSULTANT shall provide the SANITATION DISTRICT 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 the CONSULTANT, the SANITATION DISTRICT shall compensate the CONSULTANT and its Subconsultants for overhead at the rate equal to the percentage of burdened labor as specified in Attachment "E" - Fee Proposal.

D. Profit

Profit for the CONSULTANT and its Subconsultants shall be a percentage of the professional design engineering services fees (Burdened Labor and Overhead). When the consulting or subconsulting services fee 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 its Subconsultants, the SANITATION DISTRICT shall pay profit for all services rendered by the CONSULTANT and its 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), the CONSULTANT shall pay to its 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 its Subconsultant total compensation on an hourly-rate basis per the attached hourly rate Schedule and as specified in the Scope of Work. The SANITATION DISTRICT shall pay to the CONSULTANT the actual costs of its Subconsultant fees and charges in an amount not to exceed the sum set forth in Attachment "E" - Fee Proposal.

F. Direct Costs

The SANITATION DISTRICT shall pay to the CONSULTANT and its 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. The SANITATION DISTRICT shall also pay to the CONSULTANT actual costs for equipment rentals, leases or purchases with prior approval of the SANITATION DISTRICT. Upon request, the CONSULTANT shall provide to the SANITATION DISTRICT receipts and other documentary records to support the 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 the CONSULTANT and its Contractor due to modifications in 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

The SANITATION DISTRICT 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 the U.S. Internal Revenue Service (IRS). The plan includes a combination of reimbursements based upon receipts and a “per diem” component approved by the IRS. The most recent schedule of the per diem rates utilized by the SANITATION DISTRICT can be found on the U.S. General Services Administration (GSA) website at <http://www.gsa.gov/portal/category/104711#>.

The CONSULTANT shall be responsible for the most economical and practical means of management of reimbursable costs inclusive but not limited to travel, lodging and meals arrangements. The SANITATION DISTRICT 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.

The CONSULTANT shall be responsible for returning to the SANITATION DISTRICT any excess reimbursements after the reimbursement has been paid by the SANITATION DISTRICT.

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

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

Lodging – Overnight stays will not be approved by the SANITATION DISTRICT for local travel. However, under certain circumstances overnight stay may be allowed at the discretion of the SANITATION DISTRICT 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 the SANITATION DISTRICT.

Travel Meals – Per-diem rates as approved by the 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, the CONSULTANT estimates the cost of performing the services described in the CONSULTANT’s Proposal will exceed 75% of the not-to-exceed amount of the Agreement, including approved additional compensation, the CONSULTANT shall notify the SANITATION DISTRICT immediately, and in writing. This written notice shall indicate the additional amount necessary to complete the professional design engineering services. Any cost incurred in excess of the approved not-to-exceed amount, without the express written

consent of the SANITATION DISTRICT's authorized representative shall be at the 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 the SANITATION DISTRICT 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

The SANITATION DISTRICT, 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: The 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. The CONSULTANT shall allocate costs in the same manner as it would for payment requests as described in this Section of the Agreement. The CONSULTANT shall warrant and certify the accuracy of these costs and understand that submitted costs are subject to Section 11 - AUDIT PROVISIONS.
- B. The CONSULTANT may submit monthly or periodic statements requesting payment for those items included in Section 2 - COMPENSATION hereof in the format as required by the SANITATION DISTRICT. Such requests shall be based upon the amount and value of the work and services performed by the CONSULTANT under this Agreement and shall be prepared by the CONSULTANT and accompanied by such supporting data, including a detailed breakdown of all costs incurred and project element work performed during the period covered by the statement, as may be required by the SANITATION DISTRICT.

Upon approval of such payment request by the SANITATION DISTRICT, payment shall be made to the CONSULTANT as soon as practicable of 100% of the invoiced amount on a per-project-element basis.

If the SANITATION DISTRICT 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 the SANITATION DISTRICT's Director of Engineering to be adequate for the protection of the SANITATION DISTRICT; or
- ii. The percentage of the work accomplished for each project element.

He or she may, at his or her discretion, retain an amount equal to that which insures 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 the SANITATION DISTRICT'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, the SANITATION DISTRICT shall have the right to withhold any scheduled proportionate profit payment.
- D. Upon satisfactory completion by the CONSULTANT of the work called for under the terms of this Agreement, and upon acceptance of such work by the SANITATION DISTRICT, the CONSULTANT will be paid the unpaid balance of any money due for such work, 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, the CONSULTANT shall execute and deliver to the SANITATION DISTRICT a release of all claims against the SANITATION DISTRICT arising under or by virtue of this Agreement other than such claims, if any, as may be specifically exempted by the 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 the SANITATION DISTRICT 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 the SANITATION DISTRICT 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 the SANITATION DISTRICT; c) conspires to defraud the SANITATION DISTRICT by getting a false claim allowed or paid by the SANITATION DISTRICT; d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to the SANITATION DISTRICT; or e) is a beneficiary of an inadvertent submission of a false claim to the SANITATION DISTRICT, and fails to disclose the false claim to the SANITATION DISTRICT within a reasonable time after discovery of the false claim.

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

- A. To the extent the CONSULTANT's employees and/or its 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, the

CONSULTANT and its 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 its 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 its Subconsultants shall furnish a copy of all certified payroll records to the SANITATION DISTRICT and/or general public upon request, provided the public request is made through the SANITATION DISTRICT, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the Department of Industrial Relations.
- D. The CONSULTANT and its Subconsultants shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulation Section 16461(e).

6. DOCUMENT OWNERSHIP – SUBSEQUENT CHANGES TO PLANS AND SPECIFICATIONS

- A. Ownership of Documents for the Professional Design Engineering Services performed.

All documents, including but not limited to, original plans, studies, sketches, drawings, computer printouts and disk files, and specifications prepared in connection with or related to the Scope of Work or the Professional Design Engineering Services, shall be the property of the SANITATION DISTRICT. The SANITATION DISTRICT'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. The SANITATION DISTRICT 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 Design Engineering 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. The CONSULTANT shall not be responsible for damage caused by subsequent changes to or uses of the plans or specifications, where the subsequent changes or uses are not authorized or approved by the CONSULTANT, provided that the service rendered by the CONSULTANT was not a proximate cause of the damage.

7. INSURANCE

A. General

- i. Insurance shall be issued and underwritten by insurance companies acceptable to the SANITATION DISTRICT.
- 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, the SANITATION DISTRICT will accept State Compensation Insurance Fund, for the required policy of Workers' Compensation Insurance subject to the SANITATION DISTRICT's option to require a change in insurer in the event the State Fund financial rating is decreased below "B". Further, the SANITATION DISTRICT will require the CONSULTANT to substitute any insurer whose rating drops below the levels herein specified. Said substitution shall occur within 20 days of written notice to the CONSULTANT, by the SANITATION DISTRICT 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: Two Million Dollars (\$2,000,000) per occurrence with Four Million Dollars (\$4,000,000) aggregate. Said insurance shall include coverage for the following hazards: Premises-Operations, blanket contractual liability (for this Agreement), products liability/completed operations (including any product manufactured or assembled), broad form property damage, blanket contractual liability, independent contractors liability, personal and advertising injury, mobile equipment, owners and contractors protective 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 the SANITATION DISTRICT and applicable, XCU coverage (Explosion, Collapse and Underground) and Riggers/On Hook Liability must be included in the General Liability policy and coverage must be reflected on the submitted Certificate of Insurance.

C. Umbrella Excess Liability

The minimum limits of General Liability and Automotive 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 automotive liability.

D. Automotive/Vehicle Liability Insurance

The CONSULTANT shall maintain a policy of Automotive Liability Insurance on a comprehensive form covering all owned, non-owned, and hired automobiles, trucks, and other vehicles providing the following minimum limits of liability coverage: Combined single limit of One Million Dollars (\$1,000,000) or alternatively, Five Hundred Thousand Dollars (\$500,000) per person for bodily injury and Five Hundred Thousand Dollars (\$500,000) per accident for property damage. 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 the CONSULTANT in the amount of One Million Dollars (\$1,000,000) in form acceptable to the SANITATION DISTRICT.

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 the SANITATION DISTRICT. 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

The 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 years from the date of the completion of the services hereunder.

In the event of termination of said policy during this period, the CONSULTANT shall obtain continuing insurance coverage for the prior acts or omissions of the 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 the CONSULTANT during the course of performing services under the term of this Agreement.

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

H. Proof of Coverage

The CONSULTANT shall furnish the SANITATION DISTRICT with original certificates and amendatory endorsements effecting coverage. Said policies and endorsements shall conform to the requirements herein stated. All certificates and endorsements are to be received and approved by the SANITATION DISTRICT before work commences. The SANITATION DISTRICT reserves the right to require complete, certified copies of all required insurance policies, including endorsements, effecting the coverage required, at any time. The following are approved forms that must be submitted as proof of coverage:

- Certificate of Insurance ACORD Form 25 (5/2010) or equivalent.
 - Additional Insurance (General Liability) (ISO Form) CG2010 11 85 or The combination of (ISO Forms) CG 2010 10 01 and CG 2037 10 01
 - Additional Insured (Auto Liability) Submit endorsement provided by carrier for the SANITATION DISTRICT approval.
 - Waiver of Subrogation State Compensation Insurance Fund Endorsement No. 2570 or equivalent.
 - Cancellation Notice State Compensation Insurance Fund Endorsement No. 2065 or equivalent.
- All other Additional Insured endorsements must be submitted for approval by the SANITATION DISTRICT, and the SANITATION DISTRICT may reject alternatives that provide different or less coverage to the SANITATION DISTRICT.

I. Cancellation Notice

Each insurance policy required herein shall be endorsed to state that coverage shall not be cancelled by either party, except after 30 days' prior written notice. The Cancellation Section of ACORD Form 25 (5/2010) shall state the required 30 days' written notification. The policy shall not terminate, nor shall it be cancelled, nor the coverage reduced until 30 days after written notice is given to the SANITATION DISTRICT except for nonpayment of premium, which shall require not less than ten days written notice to the SANITATION DISTRICT. Should there be changes in coverage or an increase in deductible or SIR amounts, the CONSULTANT and its insurance broker/agent shall send to the SANITATION DISTRICT a certified letter which includes a description of the changes in coverage and/or any increase in deductible or SIR amounts. The certified letter must be sent to the attention of Risk Management, and shall be received by the SANITATION DISTRICT not less than 30 days prior to the effective date of the change(s) if the change would reduce coverage or increase deductibles or SIR amounts or otherwise reduce or limit the scope of insurance coverage provided to the SANITATION DISTRICT.

J. Primary Insurance

All liability policies shall contain a Primary and Non Contributory Clause. Any other insurance maintained by the SANITATION DISTRICT shall be excess and not contributing with the insurance provided by the CONSULTANT.

K. Separation of Insured

All 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 the 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 the SANITATION DISTRICT on the Certificate of Insurance. All deductibles and/or self-insured retentions require approval by the SANITATION DISTRICT. At the option of the SANITATION DISTRICT, either: the insurer shall reduce or eliminate such deductible or self-insured retention as respects the SANITATION DISTRICT; or the CONSULTANT shall provide a financial guarantee satisfactory to the SANITATION DISTRICT guaranteeing payment of losses and related investigations, claim administration and defense expenses.

N. Defense Costs

Liability policies 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 SANITATION DISTRICT requires and shall be entitled to coverage for the higher limits maintained by the CONSULTANT.

8. SCOPE CHANGES

In the event of a change in the Scope of Work, requested by the SANITATION DISTRICT, 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 fees.

9. PROJECT TEAM AND SUBCONSULTANTS

The CONSULTANT shall provide to the SANITATION DISTRICT, prior to execution of this Agreement, the names and full description of all Subconsultants and the CONSULTANT's project team members anticipated to be used on this project by the CONSULTANT. The CONSULTANT shall include a description of the scope of work to be done by each Subconsultant and each of the CONSULTANT's project team members. The CONSULTANT shall include the respective compensation amounts for the CONSULTANT and each Subconsultant on a per-project-element basis, broken down as indicated in Section 2 - COMPENSATION.

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

10. ENGINEERING REGISTRATION

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

11. AUDIT PROVISIONS

- A. The SANITATION DISTRICT 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 the SANITATION DISTRICT determines are necessary to discover and verify that the CONSULTANT is in compliance with all requirements under this Agreement. The CONSULTANT shall include the SANITATION DISTRICT's right as described above, in any and all of their subcontracts, and shall ensure that these rights are binding upon all Subconsultants.
- B. The SANITATION DISTRICT retains the right to examine the CONSULTANT's books, records, documents and any other evidence of procedures and practices that the SANITATION DISTRICT 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 years after its termination.
- C. The CONSULTANT shall maintain complete and accurate records in accordance with generally accepted industry standard practices and the SANITATION DISTRICT's policy. The CONSULTANT shall make available to the SANITATION DISTRICT for review and audit, all project related accounting records and documents, and any other financial data within 15 days after receipt of notice from the SANITATION DISTRICT. Upon SANITATION DISTRICT's request, the CONSULTANT shall submit exact duplicates of originals of all requested records to the SANITATION DISTRICT. If an audit is performed, CONSULTANT shall ensure that a qualified employee of the CONSULTANT will be available to assist the SANITATION DISTRICT's auditor in obtaining all project related accounting records and documents, and any other financial data.

12. LEGAL RELATIONSHIP BETWEEN PARTIES

The legal relationship between the parties hereto is that of an independent contractor and nothing herein shall be deemed to make the CONSULTANT an employee of the SANITATION DISTRICT.

13. 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.

Notices shall be mailed to the SANITATION DISTRICT at:

ORANGE COUNTY SANITATION DISTRICT
10844 Ellis Avenue
Fountain Valley, CA 92708-7018
Attention: Larry Roberson, Senior Contracts Administrator
Copy: Hardat Khublall, Project Manager

Notices shall be mailed to CONSULTANT at:

«CONSULTANT COMPANY»

«Street Address»

«City, State Zip»

Attention: «CONSULTANT's Representative»

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

14. TERMINATION

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

The CONSULTANT shall be permitted to terminate this Agreement upon thirty 30 days written notice only if the 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 the SANITATION DISTRICT and/or the CONSULTANT in accordance with Section 13 - NOTICES.

15. DOCUMENTS AND STUDY MATERIALS

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

16. COMPLIANCE

A. Labor

The 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

The CONSULTANT and its Subconsultants and Subcontractors shall comply with all applicable federal, state and local air pollution control laws and regulations.

17. AGREEMENT EXECUTION AUTHORIZATION

Both the SANITATION DISTRICT and the CONSULTANT do covenant that each individual executing this document by and on behalf of each party is a person duly authorized to execute agreements for that party.

18. 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.

19. 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 it may be entitled.

20. PROGRESS REPORTS

Monthly progress reports shall be submitted for review by the tenth day of the following month and must include as a minimum: 1) current activities, 2) future activities, 3) potential items that are not included in the Scope of Work, 4) concerns and possible delays, 5) percentage of completion, and 6) budget status.

21. WARRANTY

The 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, the SANITATION DISTRICT informs the CONSULTANT that any part of the services fails to meet those standards, the CONSULTANT shall, within the time prescribed by the SANITATION DISTRICT, take all such actions as are necessary to correct or complete the noted deficiency(ies).

22. INDEMNIFICATION

To the fullest extent permitted by law, the CONSULTANT shall indemnify, defend (at the CONSULTANT's sole cost and expense and with legal counsel approved by the SANITATION DISTRICT, which approval shall not be unreasonably withheld), protect and hold harmless the SANITATION DISTRICT and all of SANITATION DISTRICT's officers, directors, employees, the CONSULTANT's, 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 the CONSULTANT's fees and costs and the SANITATION DISTRICT'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

the CONSULTANT in carrying out its obligations under this Agreement to the extent of the negligent, recklessness and/or willful misconduct of the CONSULTANT, its principals, officers, agents, employees, the CONSULTANT's suppliers, the 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 the 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 the CONSULTANT's supplier, the CONSULTANT, Subconsultant, Subcontractor, nor anyone employed directly or indirectly by any of them.

Exceptions (A) through (B) above shall not apply, and the 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.

The CONSULTANT's liability for indemnification hereunder is in addition to any liability the CONSULTANT may have to the SANITATION DISTRICT for a breach by the 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 the 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 the 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 the CONSULTANT. Payment to the 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 the SANITATION DISTRICT will reimburse the CONSULTANT for the reasonable costs of defending the Indemnified Parties against such claims.

The 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. CONSULTANT PERFORMANCE

The CONSULTANT's performance shall be evaluated by the SANITATION DISTRICT. A copy of the evaluation shall be sent to the CONSULTANT for comment. The evaluation, together with the comments, shall be retained by the SANITATION DISTRICT and may be considered in future CONSULTANT selection processes.

25. COMPLIANCE WITH SANITATION DISTRICT POLICIES AND PROCEDURES

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

26. CLOSEOUT

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

Upon receipt of the CONSULTANT's submittals, the SANITATION DISTRICT 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.

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

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 the SANITATION DISTRICT (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 the SANITATION DISTRICT 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 the SANITATION DISTRICT for any purpose nor imply acceptance of, or agreement with, the CONSULTANT's request for final Agreement Acceptance.

27. 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.

SAMPLE

IN WITNESS WHEREOF, this Agreement has been executed in the name of the SANITATION DISTRICT, by its officers thereunto duly authorized, and the CONSULTANT as of the day and year first above written.

CONSULTANT: COMPANY NAME

By _____
Date _____

Printed Name & Title

ORANGE COUNTY SANITATION DISTRICT

By _____
David John Shawver
Board Chairman
Date _____

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

By _____
Ruth Zintzun
Purchasing & Contracts Manager
Date _____

- Attachments: Attachment "A" – Scope of Work
Attachment "B" – Labor Hour Matrix
Attachment "C" – Conflict of Interest Disclaimer
Attachment "D" – Allowable Direct Costs
Attachment "E" – Fee Proposal
Attachment "F" – Professional Design Services Agreement (PDSA)
Attachment "G" – Acknowledgement of PDSA
Attachment "H" – Professional Construction Services Agreement (PCSA)
Attachment "I" – Cost Matrix and Summary
Attachment "J" – Acknowledgement of Addenda Receipt
Attachment "K" – Minor Subconsultant Hourly Rate Schedule
Attachment "L" – Contractor Safety Standards

ATTACHMENT A

SCOPE OF WORK

MacArthur Pump Station Force Main Improvements
Project No. 7-68

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1. PROJECT REQUIREMENTS

1.0 SUMMARY

1.0.1 PROFESSIONAL DESIGN ENGINEERING SERVICES

A. Provide professional design engineering services for the project described herein including the following:

1. Preliminary Design Report
2. Permitting assistance
3. Preparation of bid documents

1.0.2 PROFESSIONAL LICENSING REQUIREMENTS

A. All plans and specifications shall be prepared by a professional engineer licensed in the State of California of the associated discipline.

1.1 BACKGROUND

The existing MacArthur Pump Station and force main was built in the 1960s under Job No. 7-1-D. In 1989 the internal equipment was replaced under Job No. 7-11-3. The pump station is located in a commercial area south of the John Wayne Airport, in the City of Newport Beach. The pump station's current capacity is approximately 3.6 MGD. MacArthur Pump Station is a combination of an underground wet well and dry well with above grade electrical equipment. Access is available from MacArthur Boulevard; however, on-site parking is very limited. Flows into the pump station are conveyed from a 21-inch VCP pipe and two VFD operated pumps discharge flows to a single 12-inch ACP force main. The force main alignment is along MacArthur Boulevard, ultimately terminating at a 72-inch manhole located approximately 2,100 feet away in the intersection of Mac Arthur Boulevard and Birch Street. Flows are then conveyed through the Von Karman Trunk to the Main Street Pump Station and finally to Reclamation Plant No. 1.

1.2 GENERAL PROJECT DESCRIPTION

The primary goal for this project is to provide dual force mains for long lasting and dependable service. The existing 12-inch force main will be abandoned and two new force mains will be constructed for redundancy and maintenance. There were no capacity deficiencies identified for the force main. CCTV inspections are not available for review. The existing valve vault structure, located adjacent to the pump station, is not able to accommodate both force main pipelines. Additional bypass pumping connections are needed to facilitate pump station bypassing during maintenance or an emergency. A new valve vault capable of withstanding loading from maintenance vehicles is required for force main isolation valves and bypass pumping connections.

1.3 PROJECT EXECUTION PHASES

All SANITATION DISTRICT projects are divided into six phases. CONSULTANT shall provide engineering services for all Project Elements listed in this Scope of Work (SOW) for the following Phases:

- Phase 1 – Project Development (Not in this SOW)
- Phase 2 – Preliminary Design
- Phase 3 – Design
- Phase 4 – Construction (Not in this SOW)

Phase 5 – Commissioning (Not in this SOW)

Phase 6 – Close Out (Not in this SOW)

1.4 DESCRIPTION OF PROJECT ELEMENTS

Detailed descriptions of the Project Elements are presented below.

1.4.1 PROJECT ELEMENT 1 – NEW FORCE MAINS AND DISCHARGE STRUCTURES

- A. The existing force main will be replaced with two new force mains with a minimum 30-year life expectancy. The force mains will be located in public right-of-way and will discharge into one or two new structures at or near the intersection of MacArthur Boulevard and Birch Street.
- B. The MacArthur Pump Station existing discharge valve vault will be replaced with a new valve vault to accommodate isolation valves for the two new force mains and bypass pumping connections.
- C. The existing force main and structures between MacArthur Pump Station and Diversion Structure No. 83 (SUN0155-0220) will be demolished or abandoned.
- D. For the purpose of estimating the predesign and design phase levels of effort, the CONSULTANT shall make the following assumptions regarding this project element:
 - 1. The force main alignment will be located within the public right of way.
 - 2. The pipe material will be HDPE.
 - 3. A new discharge structure(s) will be provided to connect to the downstream gravity sewer. Ideally, these structures are outside of the intersection and located where it is safer for Operations & Maintenance (O&M) staff to stop their trucks, set up traffic control and have direct access to the discharge structures.
 - 4. The new valve vault will be located within the SANITATION DISTRICT easement, out of traffic, with one new isolation valve and bypass connection per force main.

1.4.2 PROJECT ELEMENT 2 - TEMPORARY FACILITIES DURING CONSTRUCTION

- A. A bypass pumping system will be required for temporary handling of flows during construction. The temporary bypass pumping system must comply with the SANITATION DISTRICT's goal of zero sewage spills.

1.4.3 COORDINATION WITH OTHER PROJECTS

- A. The following projects may impact or require coordination with this project:
 - 1. City of Newport Beach Public Works Department, Birch Street Paving Improvements 2024-2025
 - 2. City of Newport Beach Public Works Department, MacArthur Blvd Paving Improvements 2026-2027

1.5 PROJECT SCHEDULE

1.5.1 GENERAL

- A. The table below lists the time frames associated with each major project deliverable and with the SANITATION DISTRICT's review and approval of those deliverables. CONSULTANT shall comply with the deadlines indicated in that table.
- B. The SANITATION DISTRICT's Project Manager will issue a Preliminary Design Notice to Proceed (NTP). The SANITATION DISTRICT's Project Manager (PM) will also issue a Final Design NTP upon the SANITATION DISTRICT's acceptance of the final Preliminary Design Report.

C. The time frames specified below are used to estimate the actual milestone dates based on the assumed NTP date, as shown in **Exhibit 8 - Project Schedule Calculation**.

D. The SANITATION DISTRICT will consider an alternative CONSULTANT-proposed schedule provided it is consistent with SANITATION DISTRICT resources and schedule constraints and adds value to the SANITATION DISTRICT.

| PROJECT MILESTONE AND DEADLINES | |
|--|---|
| MILESTONE | DEADLINE |
| Kickoff Meeting | The kickoff meeting will be scheduled to coincide with the Preliminary Design NTP |
| Preliminary Design NTP | |
| Kickoff Meeting | The kickoff meeting will be scheduled to coincide with the Preliminary Design NTP |
| Submit draft Preliminary Design Report (PDR) | 120 working days from receipt of Preliminary Design NTP. CONSULTANT shall establish a schedule with the SANITATION DISTRICT's PM for separately submitting working drafts of each design memo for SANITATION DISTRICT review prior to completing the draft PDR. This schedule shall factor in the logical sequence for completing the memos as well as both CONSULTANT and SANITATION DISTRICT resources |
| OCSD Review of Draft PDR | 15 workdays from receipt of Draft PDR |
| Submit Final Preliminary Design Report | 20 working days from receipt of SANITATION DISTRICT Comments on Draft PDR |
| Final Design NTP | SANITATION DISTRICT will issue Notice to Proceed with final design at a kickoff meeting following acceptance of the Final Preliminary Design Report |
| Submit Design Submittal 1 (DS1) | No submittal required |
| OCSD Review of DS1 | N/A |
| Submit Design Submittal 2 (DS2) | 50 workdays from NTP |
| OCSD Review of DS2 | 15 workdays from receipt of DS2 |
| Submit Design Submittal 3 (DS3) | 50 workdays from receipt of SANITATION DISTRICT comments on DS2 |
| OCSD Review of DS3 | 15 workdays from receipt of DS3 |
| Submit Final Design Submittal (FDS) | 50 workdays from receipt of SANITATION DISTRICT comments on DS3. CONSULTANT shall stop work upon submission of DS3, except as required to participate in SANITATION DISTRICT meetings, until receipt of SANITATION DISTRICT comments on DS3 |
| OCSD Review of FDS | 15 workdays from receipt of FDS |
| Final Technical Specifications and Plans | 20 workdays from receipt of SANITATION DISTRICT comments on FDS |

2. PHASE 2 – PRELIMINARY DESIGN

The preliminary design phase will define the project. The final deliverable of this phase will be a Preliminary Design Report (PDR) with the basis of design for all elements of the project.

2.0 PRELIMINARY DESIGN EXECUTION

2.1 PREDESIGN EVALUATION STUDIES (NOT USED)

2.2 PRELIMINARY DESIGN PRODUCTION

2.2.1 GENERAL

A. Preliminary Design Report (PDR) production involves the preparation of design memos, drawings, calculations, and other supporting material resulting in the PDR.

2.2.2 DESIGN MEMOS

A. The CONSULTANT shall produce Design Memos as indicated below in accordance with **Exhibit 1 - Preliminary Design Report Requirements**. The CONSULTANT shall discuss the combining of design memos with the SANITATION DISTRICT and develop a design memo submittal list.

Process Design Configuration

- Design Configuration
- Redundancy
- Monitoring and Sampling
- Process Flow Diagrams
- Operating Philosophies
- Site and Facility Layouts
- Preliminary Load Criticality Ranking Table

Hydraulic Analysis

MacArthur Pump Station and Force Mains

- Hydraulic Analysis
- Hydraulic Profile

Demolition

- Describe Demolition Requirements
- Demolition List
- Demolition Plans
- Demo EID

Rehabilitation Requirements

Geotechnical Data Report

- Geotechnical Borings
- Review of Existing Data - Preliminary Geotechnical Report
- Geotechnical Data Report and Recommendations

Civil Design Parameters

- General Civil
- Drainage Requirements
- Corrosion Protection Requirements

Utility Requirements

- Records Research and development of Utility Base Map
- Non-destructive utility locating investigations
- Potholing (anticipate 10 potholes during Preliminary Design)

Structural Design Parameters

Architectural Design Parameters

Note: Develop up to [three] alternative concepts for review and acceptance

Process Mechanical Design Parameters

Building Mechanical Design Parameters

Fire Protection

- Fire Protection Requirements

- Fire Water Flow Analysis
- Fire Protection Requirements for Existing Facilities
- Electrical**
 - Codes/standards. Brief description of electrical system. Electrical drawings.
 - Identify Electrical System Impacts
 - Report – Data Collection and Verification
 - Preliminary Load List
 - Preliminary Standby Power Requirements
 - ETAP – Preliminary Short Circuit Analysis and Load Flow/Voltage Drop Studies
 - ETAP – Provide Data. The SANITATION DISTRICT will perform ETAP studies.
 - Preliminary Analysis for cable pull calcs, ductbank cable derating, cable tray fill calcs.
 - Hazardous Area Classification Requirements
- Instrumentation and Control**
 - Instrumentation and Control System
 - Specialty Safety Systems
 - Preliminary SAT
 - PLC and RIO Panel Location Map
 - CCTV Coverage Map
- Landscaping**
 - Landscaping Requirements
 - Develop up to [three] alternative concepts for review and acceptance
- Plant Utility Investigation Findings**
- Vibration Analysis**
 - [Perform vibration analysis for the following equipment:**
 - 1. Equipment 1**
 - 2. Equipment 2**
 - 3. Equipment 3]**
 - [(See revised Engineering Design Guidelines Chapter 06, MECHANICAL DESIGN, Section 06.7 “Vibration Analysis for Rotating Electrical Equipment” located at the end of the SOW)**
- Collections Basis of Design**
 - Codes and Standards
 - Hydraulic Analysis
 - Pipeline Basis of Design
 - Manhole Basis of Design
 - Hydraulic Profiles
- Collections Rehabilitation Alternatives**
 - Pipeline Rehabilitation
 - Manhole Rehabilitation
- Collections Pipeline Design**
 - Design Memo Items 1, 2, 3, etc.
 - Open cut vs. Trenchless Technologies
 - Trenchless Technologies at Major Closings
 - Provide 3 viable alignment options
- Collections Utility Investigation Findings**
- Collections Conceptual Traffic Control**
 - AHJ and Traffic Control Identification
 - Basis for Traffic Control Strategy
 - Traffic Analysis
 - Traffic Control Plans

- Design Safety Requirements**
 - Design Safety Requirements
 - Identify all potential project specific safety issues
 - Identify all potential Cal/OSHA and OCSD safety issues
 - Identify construction safety hazards
 - Use Sample Full Project Safety Review Plan to verify safety elements
 - Risk Management Check List to verify safety elements
 - HAZOP
- Public Impacts**
- Environmental and Regulatory Requirements**
 - CEQA Part of Programmatic EIR
 - CEQA work
 - Determine project environmental and regulatory requirements
 - Matrix of CEQA and Permit Requirements
 - Mitigation, Monitoring and Reporting List
- Permit Requirements**
 - List of Permits Required
 - Oil Well Abandonment
- Stormwater Requirements**
- Hazardous Material Survey, Mitigation and Control**
- Maintainability**
 - Define Maintainability Requirements
 - Maintainability Requirements Plan Drawings
 - Define Maintainability Rules
 - Define Maintainability Information for Project Specific Equipment
- Facility Operation and Maintenance**
 - Facility O&M Requirements
 - Operating Philosophies
 - Preliminary Assessment of O&M Staffing Requirements
- Implementation Plan**
 - Identification of Adjacent Projects
 - Preliminary Commissioning Checklist
 - Preliminary Construction Sequencing Plan
 - Review of Constructability Issues
 - Temporary Handling of Flow
- Construction Odor Monitoring and Mitigation**
- Preliminary Technical Specification List**

2.2.3 PRELIMINARY DESIGN DRAWINGS

A. The CONSULTANT shall produce the following Preliminary Design Report drawings in accordance with **Exhibit 1 - Preliminary Design Report Requirements**.

- General
- Demolition
- Civil
- Landscape
- Structural
- Architectural
- Mechanical
- Electrical

Instrumentation and Control

2.2.4 PRELIMINARY DESIGN REPORT (PDR) PRODUCTION, CONTENTS AND ORGANIZATION

A. Preliminary Design Report (PDR) Production involves the preparation of design memos, drawings, calculations, and other supporting material resulting in the PDR.

B. The CONSULTANT shall combine the materials described below into a draft PDR. The PDR shall be structured as outlined below, with the contents corresponding to the tasks listed in this SOW.

Preliminary Design Report Design Memos

Drawings (see Preliminary Design Drawings list below)

Submittal Documentation

- List of Proposed Specifications Sections
- Calculations
- Product Data & Catalog Cuts
- Decision Log
- Meeting Minutes

C. The Executive Summary shall summarize the conclusions of the Memos included in the report, and specifically include a summary construction schedule and construction cost estimate.

D. The draft PDR and final PDR shall be submitted in searchable PDF format legible on-screen and as a hard copy. The labeling and organization of the PDF submittal shall be in accordance with **Exhibit 14 - Bluebeam Designer Training for Submission**.

E. Each design memo shall be a separate file.

F. The SANITATION DISTRICT's PM may request that the CONSULTANT submit an electronic proof set of the Draft PDR and Final PDR in order to initially confirm that the submittal is ready.

2.2.5 PRELIMINARY DESIGN COST ESTIMATE

A. The CONSULTANT shall provide a cost estimate for the associated PDR submittal indicated below in accordance with **Exhibit 1 - Preliminary Design Report Requirements**.

2.3 PRELIMINARY DESIGN ACTIVITIES

The following services shall be provided by the CONSULTANT or an appropriately qualified subconsultant. In any case, the CONSULTANT shall be responsible for managing all subconsultants, including reviewing their work products prior to submission to the SANITATION DISTRICT.

2.3.1 EASEMENTS, PROPERTY BOUNDARIES AND WORK AREA LIMITS

A. The CONSULTANT shall identify easement and property boundary requirements and prepare all easement documents, including performing any field investigations and survey required to identify and prepare easements.

B. Unless otherwise directed, the CONSULTANT shall identify, survey, and show all property boundaries, and all existing and proposed easements, within and/or adjacent to the project boundaries.

C. CONSULTANT shall show and explicitly identify the limits of work for all portions of the project, including any restrictions to the work allowed in any area, e.g., whether the area can be used for parking or laydown.

D. All survey research and survey field work shall be performed by a Professional Land Surveyor licensed by the State of California.

2.3.2 TOPOGRAPHIC SURVEY

A. CONSULTANT shall conduct field and aerial surveys as required. Topographic information used on the construction plans shall be generated from a field survey and an aerial mapping process. The SANITATION DISTRICT will not provide the aerial survey information to the CONSULTANT for use on the project.

B. Prior to beginning design, CONSULTANT shall prepare the scope of work for field and aerial surveys required for all applicable Project Elements. CONSULTANT shall establish both vertical and horizontal control for the project. The field survey shall be used to establish both horizontal and vertical alignment of the facilities and shall note all survey monuments, topographic features, property lines, and elevations. The basis of bearings and benchmarks shall be indicated on the drawings. Control shall meet or exceed NGVD 88 requirements and shall be based on the Plant Local Coordinate System and datum. CONSULTANT's project schedule shall account for the above.

C. The aerial topography shall be required to meet the following criteria:

1. The final product shall be delivered in AutoCAD.
2. The CAD file shall adhere to the CAD Manual. The SANITATION DISTRICT shall be given the opportunity to review and comment on the compliance to the CAD Manual.
3. Site contours shall be in 1.0-foot intervals.
4. Contour and spot elevations shall be 3D; all other features shall be 2D.
5. CONSULTANT shall include the survey-related documents with the Design Support Documentation portion of the Design Submittals as specified in the Engineering Design Guidelines, Appendix A, Section A.3.19 "Project Support Documentation (PDS)".

D. Control Surveys for Collection Systems

1. General: Topographical information used on the construction plans shall be generated from an aerial mapping process. CONSULTANT shall provide for the aerial and field surveys necessary for the mapping process for all applicable Project Elements of the project SOW and shall provide for the aerial mapping. Providing for the process includes paying for, coordinating and designing the aerial and horizontal/vertical control surveying for the preliminary and final design. CONSULTANT's responsibilities for the surveys include generating any subconsultant scopes of work, data interpretation and preliminary design. All survey work is to be done under the direction and control of a Professional Land Surveyor, licensed by the State of California.
2. Aerial Survey: The aerial photography shall have sufficient coverage for the digital topographic mapping. The photo scale of the aerial photography shall not be more than 100 feet per inch for pipeline work or 20-feet per inch for pump stations. Stereo pairs of photographs shall be furnished to the SANITATION DISTRICT.
3. Phasing of Work: Other than the aerial and topographic survey work, the balance of the survey work shall not commence until the design phase of the project has been authorized or concurred to by the SANITATION DISTRICT.
4. Field Survey Aerial: A field survey shall be used to establish both horizontal and vertical control for the project. Control shall meet or exceed NGVD 88 requirements and shall be based on California State Plan Coordinates (NAD 83) including the 1995 O.C. surveyor's adjustments. A sufficient number of points shall be used to accurately complete the digital topographic modeling. No less than five control points per stereo model shall be used.
5. Aerial Field Survey Inclusions: The field survey shall include all survey monuments, topographic features, easements, property lines, culture, and elevations on the plan and profile sheets. All covers, including the existing sewer manholes, storm drain manholes, and utility and valve vaults shall be identified and marked in the field.

6. SANITATION DISTRICT Review Aerial Survey Line: The general location and alignment of the survey line shall be submitted to the SANITATION DISTRICT prior to performing the field survey. Survey work shall not commence until authorized or concurred to by the SANITATION DISTRICT. CONSULTANT shall be responsible for obtaining and paying for the field survey services.
7. Field Survey Base Line: The field survey shall establish a base line for construction purposes for pipeline work equal to or greater than 500-feet in length. The line will be used to define the proposed design, in terms of station and offset, and to establish the bearings for right-of-way. The survey line shall be set on 100-foot stations and shall be tied to the established aerial control. The field survey shall tie in all controlling monuments within the map limits and all street centerline intersections. The ties shall be express in both State Plane Coordinates and as station and offset.
8. Manhole Information: The field survey shall also include the measurement of the invert and manhole rim elevations of all existing sewers within the project reach. The size, orientation and invert of any pipe connections shall also be recorded.
9. Base Map: The base map index contours shall be spaced at 5 feet vertically and the immediate contours shall be spaced at one-foot contour intervals. The mapping shall include digital topographic mapping. The digital format shall be compatible with the SANITATION DISTRICT's Graphic Information System. All surface features, including those hidden from aerial view shall be incorporated into the digital mapping.
10. Plan and Profile Sheets: CONSULTANT shall prepare plan and profile sheets based upon the aerial mapping. The scale for plan and profile sheets shall be one inch equals forty feet (1" = 40') horizontal and one inch equals four feet (1" = 4') vertical. An aerial photographic (photo strip) with the alignment shall be included. The plan view shall be separate from the photo strip. Intersections shall be adequately detailed at a scale of one inch equals ten feet (1" = 10') or one inch equals twenty feet (1" = 20'). Manholes and other details shall be drawn at a scale that is adequate to provide clarity and sufficient detail for construction. The pump station construction drawings shall be drafted at scales of 1/8" = 1' to 1" = 20', as adequate, to allow for sufficient detail to be shown. The basis of bearings and benchmarks shall be indicated on the drawings,
11. Survey Note Submittal: CONSULTANT shall submit two bound copies of all survey notes and data used to establish vertical and horizontal control. The information submitted shall be suitable for use to establish construction controls. If additional property and/or right-of-way are required, CONSULTANT shall identify property and/or rights-of-way to be acquired. CONSULTANT shall prepare legal descriptions and plats for easements and property to be acquired during the final design phase of the project.

2.3.3 TRAFFIC CONTROL SERVICES

A. CONSULTANT shall secure the services of a Subconsultant to determine the traffic control requirements and prepare plans for all utility investigations including potholing, geophysical investigations and geotechnical investigations and assist corresponding subconsultants in obtaining approval from the City of Newport Beach.

2.3.4 GEOTECHNICAL INVESTIGATION

A. CONSULTANT shall secure the services of a qualified Geotechnical Engineering firm to prepare a Geotechnical Data Report that addresses geotechnical concerns for all applicable Project Elements of the project SOW.

B. Soil Explorations

1. The geotechnical services shall include exploratory work such as soil borings necessary to observe, test, classify soils, and monitor groundwater levels and potential groundwater pollutants of concern.

2. The number and spacing of borings shall be based on the geotechnical professional's interpretation of needs and recommendation; however, a maximum of one thousand feet (1,000) shall be allowed between pipeline alignment borings along a pipeline alignment.

a. If unexpected or unique soils are encountered, an adequate number of borings shall be taken to try and define the limits of the anomaly.

3. Borings shall also be taken at or near the upstream and downstream connection points for the proposed facility.

4. The depth of the borings shall be adequate to characterize the soils to a depth of at least five feet below the bottom of an excavation or any proposed sewer invert elevation. At least two borings shall extend ten feet below the proposed excavation bottom or sewer invert.

C. Soil Sampling

1. Soil samples for testing shall be collected as needed based upon CONSULTANT's professional judgment. However, samples intervals shall not exceed two-foot depth intervals alternating SPT and RING samples in each boring. If borings are taken near existing sewers, samples shall be taken and delivered to the SANITATION DISTRICT for testing for coliforms to determine if sewers are leaking.

D. Soil Exploration Locations

1. The location of all soil explorations shall be plotted on a map and attached to the Geotechnical Report. Preferably, the explorations shall include survey coordinates consistent with the project survey. Complete logs of the soil profiles shall be included in the report.

2. Work conducted outside the SANITATION DISTRICT's treatment plant shall comply with the requirements of the local jurisdiction.

2.3.5 UTILITY INVESTIGATION

A. To better manage the risks associated with construction excavation, CONSULTANT shall perform a thorough search of all utilities impacted by the work for all applicable Project Elements of this SOW, regardless of size and all other facilities above or below ground. Utilities include all, utility company-owned and public agency-owned piping, duct banks, and other interferences. The search shall include utilities within the public right-of-way, and those located on private property and SANITATION DISTRICT property impacted by the proposed project. The search shall include the records and plans of the SANITATION DISTRICT and all respective public and private companies and utilities.

B. Review of SANITATION DISTRICT Records

1. The SANITATION DISTRICT's "As-built/Record" plans may be incomplete or inaccurate with respect to the routing of individual utilities, pipelines, etc. in the vicinity of the project. CONSULTANT shall check SANITATION DISTRICT records against those of the other agencies, companies, and utilities. These may include, but not be limited to, oil, gas, fuel, water, and sewer pipelines, traffic control facilities, telephone and electrical conduit and duct banks, storm drains, manholes, and other structures.

C. Review of Outside Agency Records

1. CONSULTANT shall contact, in writing, all jurisdictional agencies and utility owners to inform them of the SANITATION DISTRICT's project. CONSULTANT shall request plans showing all the agency's or utility's facilities, pipelines, etc. in the project area. CONSULTANT shall also request plans and schedules for all proposed construction in the project areas. CONSULTANT shall develop a schedule to minimize project conflicts and/or coordinate SANITATION DISTRICT projects with local agencies.

2. CONSULTANT shall personally visit each agency/company and search through all available plans, files, and documents. CONSULTANT shall meet with applicable field staff from each agency to confirm the completeness of their research. Abandoned utilities shall also be considered.
3. CONSULTANT shall document the contacts and information requested and received, including that from Underground Service Alert (USA). The SANITATION DISTRICT shall be copied on all correspondence between CONSULTANT and public and private agencies, and utility companies. CONSULTANT shall submit a copy of all documentation to the SANITATION DISTRICT with an itemized submittal letter. CONSULTANT's PM shall sign the transmittal cover letter and the cover letter shall confirm that CONSULTANT has sent a representative to each agency/company/utility, performed on-site inspections for each utility, and has listed the utilities.
4. CONSULTANT shall contact USA and request a Substructure listing for the project area.

D. On-Site Inspection

1. An on-site inspection shall be made in the project area. During the on-site inspection, a senior-level CONSULTANT representative shall walk the site accompanied by the SANITATION DISTRICT's Project Engineer (PE) and Supervising Inspector. The CONSULTANT representative shall be experienced in the location and identification of utilities in the field. During the on-site inspection, the CONSULTANT shall document all visible features that indicate utilities within the project area and compare them with the available utility plans.

E. Utilities for Adjacent Properties

1. CONSULTANT shall investigate all utilities serving properties adjacent to the work, and submit a spreadsheet at the end of the utility research accounting for all anticipated utilities for SANITATION DISTRICT review, with the following information:
 - a. List all utilities anticipated on each adjacent property.
 - b. Indicate whether or not each such utility was found on as-built drawings of any agency, with an identification of the agencies identifying such utility.
 - c. Indicate whether or not the utility was field located by utility through USA process, and, if so, by which agency.

F. CONSULTANT shall provide all required stamped traffic control plans as part of the encroachment application process required by all cities for use during the geophysical investigations, potholing, geotechnical borings, and field investigations.

G. Subsurface Utility Investigations

1. Investigation of existing utilities shall be in accordance with the respective ASCE guidelines, except as amended by this SOW. A brief description of the ASCE guidelines defines the Quality Level of detail for researching subsurface utilities as follows:
 - a. **Quality Level D:** Information derived from existing records or oral recollections.
 - b. **Quality Level C:** Information obtained by surveying and plotting visible above-ground utility features and by using professional judgment in correlating this information to Quality Level D information.
 - c. **Quality Level B:** Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate position of subsurface utilities. Quality Level B data shall be reproducible by surface geophysics, such as ground penetrating radar, at any point of their depiction. This information is surveyed to applicable tolerances and reduced onto plan documents.

- d. **Quality Level A:** Precise horizontal and vertical location of utilities obtained by the actual exposure (or verification of previously exposed subsurface and surveyed utilities) and subsequent measurement of subsurface utilities, usually at a specific point. Minimally intrusive excavation equipment is typically used to minimize the potential for utility damage. A precise horizontal and vertical location, as well as other utility attributes, is shown on the plan documents. Accuracy is typically set to 15-mm vertical and to applicable horizontal survey and mapping accuracy.
2. Refer to CI/ASCE 38-02, Standard Guidelines for Collection and Depiction of Existing Subsurface Utility Data for details.
3. CONSULTANT shall determine all utilities impacted by the work for all applicable Project Elements of this SOW. Utilities include utility company-owned, and public agency-owned piping, duct banks, and other interferences. All utilities encountered during the preliminary design shall be shown on the plans. Plans shall show concrete encasements and steel casings on existing utilities as well as abandoned facilities.
4. Subsurface investigation for all utilities in and around the work area shall be performed to Quality Level D and Quality Level C. All utilities shall be plotted both in plan and profile on a scaled drawing that can later be incorporated into scaled (1" = 40') plan drawings.
5. CONSULTANT shall submit, for acceptance by the SANITATION DISTRICT, recommendations on which utilities should be investigated to Quality Level A and where Quality Level B investigations should be performed. As part of the submittal, a Potholing Plan and Geophysical Investigation Plan shall be developed including proposed pothole locations and type of geophysical investigation.
6. Prior to the SANITATION DISTRICT's acceptance of the Potholing Plan/Geophysical Investigation Plan, a project field walk by the CONSULTANT PM, SANITATION DISTRICT PE, Supervising Inspector, and other designated SANITATION DISTRICT personnel shall be performed.

H. Potholes and Geophysical Investigation

1. CONSULTANT shall secure the services of a subcontractor to perform the pothole work and geophysical investigation (including ground-penetrating radar).
2. CONSULTANT shall "pothole" and perform geophysical investigation on all utilities described and shown in the accepted Potholing Plan/Geophysical Investigation Plan. CONSULTANT's staff shall be on-site during potholing to provide direction to potholing crew. SANITATION DISTRICT staff shall also be present during potholing. Field investigations include visiting the project work site and each utility to verify the location of all interferences.
3. CONSULTANT shall provide all the related work necessary, including, but not limited to:
 - a. Documentation of information
 - b. Notification of USA's "Dig Alert"
 - c. Providing field survey
 - d. Obtaining required permits
 - e. Submission of traffic control plans
 - f. Setting up traffic control
 - g. Soft dig potholing
 - h. Ground-penetrating radar

- i. Excavating
 - j. Backfilling
 - k. Repairing pavement to local jurisdiction requirements
4. "Soft" excavation potholing methods such as vacuum extraction is preferred; however, excavation methods shall be chosen to adequately define the utility. Crosscut trenches may be preferred for defining some utility locations. Hydro-jetting soft dig should be avoided in sandy, wet, and contaminated soil conditions.
 5. Potholing subcontractor shall measure and document the depth of pavement and of base material at each pothole, and every five feet along crosscut trenches.
 6. Work conducted outside the SANITATION DISTRICT's treatment plant shall comply with the requirements of the local jurisdiction.
 7. CONSULTANT shall provide a licensed land surveyor or hire a licensed survey subcontractor(s) to field-locate the actual horizontal and vertical location of the constructed potholes. Survey controls shall be set and coordinated with the survey controls used on previous construction drawings. City of Newport Beach and Orange County control points shall be checked; northing, easting and elevation data for each pothole shall be shown on the Contract Drawings; and physical tie-ins provided in order to easily re-establish pothole locations after construction. CONSULTANT shall supply and supervise survey work and subcontractors needed to perform the pothole work. Survey datum differences shall also be reconciled.
 8. The results of potholing and geophysical efforts shall be summarized in a field findings report.
 9. CONSULTANT shall backfill and repair potholes consistent with the requirements of the local jurisdiction. If CONSULTANT is unable to determine local jurisdiction requirements prior to the proposal, CONSULTANT shall assume the following requirements:
 - a. The materials removed from the excavation may not be used for backfill, unless approved by the local jurisdiction. If approved, excavated material used to fill potholes shall be placed with a maximum lift thickness of four inches and mechanically compacted.
 - b. If not approved, the CONSULTANT shall be responsible for hauling off and disposing of excavated pothole material. In this case, excavation holes shall be filled with a cement slurry mix from the bottom up. The excavated materials shall be tested for hazardous materials and disposed of offsite accordingly. Testing shall be the minimum required for classifying the materials. The potholing samples shall be tested by a California Environmental Laboratory Accreditation Program (ELAP) certified laboratory to identify characteristics of hazardous waste. A substance shall be considered hazardous if it possesses properties of toxicity, ignitability, corrosivity and/or reactivity per California Code of Regulations Title 22, Section 66261. In addition, at Minimum, the laboratory testing shall include an on-site Organic Vapor Analyzer (OVA) test for potential hydrocarbon contaminants. Should the OVA reading be equal to or greater than 45 ppm, further laboratory Minimum testing shall be performed to include Benzene, Toluene, Ethyl Benzene, and Xylene (BTEX) test per EPA guideline 8020 and Total Hydrocarbons (TPH) tests per EPA guideline. should the OVA reading be equal to or greater than 45 ppm.
 - c. AC pavement shall be replaced to full depth or the structural section (AC & Base) plus two inches with hot mix asphalt unless otherwise required by Newport Beach. Cold mix shall only be allowed when the patch will be replaced by the project and where approved by Newport Beach.

d. Concrete pavement shall be replaced to full depth plus two inches with Portland cement unless otherwise required by Newport Beach.

I. Quantitative Assumptions

1. CONSULTANT's Fee Proposal shall include a cost for potholes and unit cost for additional potholes. The cost shall provide for a minimum of 10 potholes during preliminary design and 10 potholes during final design.

2. CONSULTANT's Fee Proposal shall include a cost for geophysical investigation. The cost shall provide for a minimum of 25,000 square feet during preliminary design (length of alignment x 10 ft width).

J. Relocation of Existing Utilities

1. Project work that requires other agencies to relocate existing utilities shall be coordinated during design by CONSULTANT.

2.3.6 PUBLIC RELATIONS

A. The SANITATION DISTRICT shall conduct all public outreach activities required during preliminary and final design phases.

2.3.7 ENVIRONMENTAL DOCUMENTATION

A. CONSULTANT services related to Environmental Documentation may span across Phase 2 – Preliminary Design and Phase 3 - Design. When such services are required, they shall be based on the requirements of Section III – Project Schedule and based on the following requirements. The CONSULTANT shall allocate the budgeted hours between the Environmental Documentation services in Phase 2 and Phase 3 based on when these services will be required.

B. CEQA Documentation Support

1. This project is covered under the Facilities Master Plan Programmatic Environmental Impact Report. A Notice of Determination (NOD) will be filed for the project after Board approval of the construction contract. The CONSULTANT is to incorporate applicable components of the MMRP into the design and specifications of the contract documents.

C. Review of Existing CEQA Documentation

1. The SANITATION DISTRICT has adopted the CEQA documentation in the course of various programs and projects. These CEQA documents may cover or impact the proposed work on this project.

a. CEQA Programmatic Environmental Impact Report for 2017 Facilities Master Plan

2. CONSULTANT shall identify features of the proposed Project Work as described in the Preliminary Design Report that would require revisions to these CEQA documents. CONSULTANT shall also recommend what further studies or CEQA work would be warranted by the changes.

D. Mitigation, Monitoring and Reporting Program Compliance

1. The SANITATION DISTRICT prepared a Mitigation, Monitoring, and Reporting Program (MMRP) for this project. CONSULTANT shall prepare the following material related to compliance with the MMRP:

a. An MMRP Design Compliance Table that lists the particular construction contract document General Requirement, technical specification, or drawing that addresses each MMRP requirement. **Exhibit 13** shows the template to be used to prepare the Design Compliance Table.

2. The CONSULTANT shall develop a checklist of all applicable construction-phase and post-construction phase monitoring and reporting requirements originating from the following:

E. The checklist shall include the following:

1. Applicable EIR Mitigation Measure numbers
2. Descriptions of Mitigation Measures
3. How Mitigation Measures will be included in Bid Documents
4. Frequency of monitoring during construction
5. Notes

F. See **Exhibit 13 - MMRP Log Template**.

G. CONSULTANT shall also provide the SANITATION DISTRICT a list of special equipment, specialty inspector qualifications, or sampling or testing firms that may be needed by the SANITATION DISTRICT for enforcement of the MMRL during construction. This information shall be included in narrative form attached to the MMRL.

2.3.8 PERMITTING ASSISTANCE

A. CONSULTANT services related to Permitting Assistance may span across Phase 2 – Preliminary Design and Phase 3 - Design. When such services are required, they will be based on the requirements of Section III – Project Schedule and the schedule constraints associated with each particular permit. The CONSULTANT shall allocate the budgeted hours between the Environmental Documentation services in Phase 2 and Phase 3 based on when these services will be required.

B. For all applicable Project Elements of this SOW, CONSULTANT shall provide Bid Documents that ensure that the facility features and the facility performance, and construction procedures comply with all conditions of existing permits and permits required to construct this project. Construction drawings, specifications and supplemental drawings shall be prepared, as necessary, in the format required to obtain all permits.

C. CONSULTANT shall assist the SANITATION DISTRICT in obtaining permits. This assistance shall include completing application forms provided by the SANITATION DISTRICT, preparing supporting documentation for the permit applications as required by the issuing agency, furnishing the required number of copies of all construction drawings and exhibits, and attending meetings with permitting agencies at the request of the SANITATION DISTRICT.

D. With the exception of construction contractor-furnished permits, SANITATION DISTRICT staff will execute all applications. All permit fees will be paid directly by the SANITATION DISTRICT and will not be part of CONSULTANT's fee.

E. CONSULTANT shall submit all supporting documentation in a timely fashion for all permits required for this project as described below.

F. Stormwater Permitting

1. CONSULTANT shall prepare the specification for Stormwater Pollution Control Plan using the SANITATION DISTRICT's respective master specification as a starting point.

2.3.9 PROJECT MANAGEMENT

A. CONSULTANT shall be responsible for managing CONSULTANT's project execution, schedule, budget, subconsultants, and coordination with other projects. The CONSULTANT shall perform the project management requirements in accordance with **Exhibit 3 - Project Management Requirements** with the project specific options identified below.

B. Project Management Plan (PMP):

Not required

Required

PMP approval prior to beginning technical work on the project.

C. Project Logs

Major Decision Log

Project Decision Log

Action Item Log

Decision Issues Log

Meeting Log

Risk Management Log

D. Progress Report, Status of Cost Model

Not required

Required

E. Project Invoices

1. Estimating earned value, tasks shall be further broken down to subtasks of no more than **\$100,000**.

2. Costs for invoicing shall be grouped into the following work packages:

| Work Package | Description | Tasks |
|-----------------|-----------------------------------|--|
| 3146 | Preliminary Design | All Phase 2 tasks |
| 3158 | Environmental Documentation | Task 2 |
| 3250 | CONSULTANT Services During Design | Tasks 3.6 through 3.12 |
| 3251 | Design Submittal 1 | Tasks 3.1 through 3.4, divided into effort by design submittal. FDS is charged against DS3. |
| 3252 | Design Submittal 2 | |
| 3253 | Design Submittal 3 | |
| 3254 | Bid Support Services | Task 3.5 |

2.3.10 RISK MANAGEMENT

A. When required below, CONSULTANT shall provide risk management in accordance with **Exhibit 4 - Risk Management Requirements** with the project specific options identified below.

B. Risk Management:

Not required

Required

Initial Risk Workshop

PDR Risk Management Workshop: 2 hours. held 4 weeks prior to draft PDR at SANITATION DISTRICT)

2.3.11 QUALITY CONTROL

A. The CONSULTANT shall provide quality control requirements in accordance with **Exhibit 6 - Quality Control Requirements**.

2.4 PDR WORKSHOPS AND MEETINGS

2.4.1 GENERAL

A. Workshop and meeting planning, requirements, agendas, and meeting minutes shall be in accordance with **Exhibit 5 - Workshop and Meeting Requirements**.

2.4.2 PDR PRODUCTION WORKSHOPS

A. Predesign Kickoff Workshop

1. A one -hour project kick-off meeting/virtual teams meeting shall be held with SANITATION DISTRICT staff to introduce principal members of the SANITATION DISTRICT and CONSULTANT's teams. The discussion topics shall include: SANITATION DISTRICT responsibilities, CONSULTANT's responsibilities, invoice procedures, personnel badges, parking, site access, CONSULTANT's SOW, detailed project schedule with milestones, Work Breakdown Structure requirements, and SANITATION DISTRICT confined space and other safety policy training.

B. **Two** PDR Production Workshops shall be held during Preliminary Design to review project progress during PDR Production. The subjects to be covered in each workshop are discussed below. Each workshop shall be **2** hours in length.

C. PDR Production Workshops shall be held during Preliminary Design to review the topics listed below. The list below also indicates the number of workshops to be held to cover the specific topic. Unless otherwise noted, each workshop shall be **2** hours in length.

| PDR PRODUCTION WORKSHOPS | |
|--|---------------------|
| TOPIC | NUMBER OF WORKSHOPS |
| PDR Kickoff | 1 |
| PDR Production Workshops | 2 |
| Design Parameters | 1 |
| Geotechnical | 1 |
| Utility Investigations | 1 |
| Implementation Plan and Sequencing Constraints | 1 |

2.4.3 PDR REVIEW WORKSHOPS

A. CONSULTANT shall hold the following workshops to review the draft Preliminary Design Report as required in **Exhibit 5 - Workshop and Meeting Requirements**:

1. Draft PDR Presentation Workshop
2. Draft PDR Review Workshop

2.4.4 PDR CONSTRUCTABILITY WORKSHOP

A. A constructability workshop shall be held after the draft PDR submittal review to identify any fatal flaws in the design relative to constructability. Some of the subjects that shall be covered in this workshop include the following; conflicts between design disciplines, geotechnical considerations, construction sequencing, permitting, and other local conditions and constraints.

B. This workshop shall be held at SANITATION DISTRICT facilities and shall generally be **2** hours in length. SANITATION DISTRICT and CONSULTANT staff shall attend this workshop.

C. CONSULTANT shall be responsible for completing the following tasks relative to the workshop:

1. Prepare package for constructability review workshop participants. The package shall consist of detailed plans and specifications and other information selected by CONSULTANT.
2. Prepare presentation on the project.
3. Summarize the constructability review workshop comments and action taken on each comment in a memorandum.
4. All comments and recommendations of the workshop shall be incorporated into Implementation Plan Design Memo and the Bid Documents.

2.4.5 TECHNICAL PROGRESS MEETINGS

A. Technical Progress Meetings shall be held every **4** weeks to review various issues with the SANITATION DISTRICT's project team. A total of **7** meeting shall be held during Preliminary Design Phase. The CONSULTANT shall coordinate with the SANITATION DISTRICT PM to determine what topics will be covered in what meetings, and what SANITATION DISTRICT and CONSULTANT team members are required for each.

2.4.6 FOCUSED MEETINGS

A. Focused meetings shall be held throughout preliminary design to discuss specific issues in detail and generate comments and direction from SANITATION DISTRICT staff. The following tentative list of topics may be covered in these meetings:

1. Permits
2. Potholing
3. Utilities and utility tie-ins
4. Construction sequencing
5. Additional meetings as necessary

B. Meeting lengths shall be as required to cover the topic in question. Depending on subject matter and attendees, one meeting may cover multiple subjects. CONSULTANT shall determine how many meetings will be needed to cover these topics. CONSULTANT may suggest additional topics, as necessary. Supplementary meetings may be scheduled with SANITATION DISTRICT staff, as necessary to allow coordination between CONSULTANT and SANITATION DISTRICT staff.

3. PHASE 3 – DESIGN

3.0 BID DOCUMENTS

3.0.1 GENERAL

A. CONSULTANT shall provide engineering services to prepare biddable plans, technical specifications, and other Bid Documents as required based on the design concepts and criteria developed during Phase 2 - Preliminary Design. In this SOW, construction documents include specifications; drawings;

3.0.2 ENGINEERING DESIGN GUIDELINE UPDATES

A. All changes in the SANITATION DISTRICT's Engineering Standards, the SANITATION DISTRICT's Design Guidelines, and/or changes in design concepts and facility layouts as a result of SANITATION DISTRICT comments that may occur up to transmittal of SANITATION DISTRICT comments on Design Submittal **1** and **2**, shall be incorporated into the Design by CONSULTANT with no increase in CONSULTANT's Not-to-Exceed upper limit on fees.

3.0.3 GENERAL REQUIREMENTS AND ADDITIONAL GENERAL REQUIREMENTS

A. The following are the minimum Additional GRs topics required for this project:

- Summary of Work
- Work Sequence
- Work Restrictions
- Permits
- Environmental Restrictions and Controls
- Measurement and Payment (includes Mobilization/Demobilization)
- Seismic Design Criteria (for those restraints, supports, etc. to be design by the Contractor)
- Shipping, Storage and Handling
- Project Control Management System (PMWeb construction management software)
- Equipment Service Manuals
- Equipment and Instrument Database (EID)
- Commissioning
- Training of OCSD Personnel
- Hazardous Materials Mitigation and Controls
- Mold Remediation and Controls

3.0.4 DESIGN SUBMITTALS

A. The CONSULTANT shall produce the following design submittals as indicated below in accordance with **Exhibit 2 - Design Requirements**. If a design submittal is eliminated, then the design submittal shall include the requirements associated with the required design submittal along with the requirements associated with the previous unchecked design submittals.

- Design Submittal 1
- Design Submittal 2
- Design Submittal 3
- Final Design Submittal

B. Continuing Work After Design Submittal Submission

- CONSULTANT is expected to **continue design work** on the project while SANITATION DISTRICT staff reviews Design Submittal 1 and Design Submittal 2. For Design Submittal 3, CONSULTANT shall stop all design work until receipt of SANITATION DISTRICT comments on that submittal.
- CONSULTANT is expected to **stop design work** on the project until SANITATION DISTRICT staff completes the review of each Design Submittal.

3.0.5 CONSTRUCTION SUBMITTAL ITEMS LIST

- The SANITATION DISTRICT will develop the Construction Submittal Items List in accordance with **Exhibit 2 - Design Requirements**.
- CONSULTANT shall develop the Construction Submittal Items List in accordance with **Exhibit 2 - Design Requirements**.

3.0.6 TEMPORARY FACILITIES DURING CONTRUCTION

- Temporary facilities and bypass pumping are not required.
- Temporary facilities and bypassing during construction are required, as described under the "Temporary Facilities During Construction" paragraph under the Project Elements and shall be described in words on the drawings and technical specifications.
- Detailed plans and work sequence for temporary facilities and bypassing during construction, as described under the "Temporary Facilities During Construction" paragraph under the Project Elements. CONSULTANT shall provide a bypass layout and corresponding drawings and update

Section 02999 Temporary Handling of Sewage Flows. Alternatives for pump station outage will also be required during the night or weekend to facilitate construction of the force mains.

3.1 DESIGN SUPPORT DOCUMENTATION

3.1.1 DESIGN SUBMITTAL SUPPORT DOCUMENTATION

- A. The CONSULTANT shall provide a Design Submittal Support Documentation in accordance **Exhibit 2 - Design Requirements.**
- B. Design Information
1. CONSULTANT shall include the following material with each Design Submittal:
 - a. CONSULTANT shall maintain the Project Logs specified under Phase 2 Project Management through Phase 3. Current copies of all logs shall be included with each Design Submittal.
 - b. Written response log to SANITATION DISTRICT comments on the previous submittal.
 - c. CEQA and Regulatory Compliance Matrix. This matrix shall list each applicable CEQA mitigation requirement and all known permit requirements with the corresponding description of how each requirement is to be satisfied. Measures to satisfy requirements might be in the GRs, Additional GRs, particular specification requirements, or actions taken separately from the construction contract.
 - d. Calculations
 - e. Draft or final Geotechnical Reports not submitted in the previous submittal and those revised since the previous submittal.
 - f. All memos that may have been prepared since the previous submittal was delivered.
- C. Facility Operation and Maintenance
- Not required.
 - Update operating philosophies
 - Update estimates of Operations and Maintenance staffing requirements
- D. Electrical Design Documentation
- Electrical design documentation not required.
 - Updated Electrical Load Criticality Table
 - Electrical Analysis Report
 - Load list for all equipment
 - Equipment sizing from three manufacturers for motor control centers, switchgear, transformers, and power panels
 - Lighting calculations
 - Standby generator sizing calculations
 - Ductbank cable pulling tension, derating, and cable tray fill calculations
- E. Power System Studies
- ETAP not required.
 - Plant ETAP model for the project performed by the SANITATION DISTRICT.
 - Plant ETAP model for the project performed by CONSULTANT.
 - Electrical Systems Analysis Report performed by CONSULTANT.

3.1.2 CONSTRUCTION COST ESTIMATE

A. The CONSULTANT shall provide a cost estimates for the associated design submittal indicated below in accordance with **Exhibit 2 - Design Requirements**.

- Design Submittal 1
- Design Submittal 2
- Design Submittal 3
- Final Design Submittal

3.1.3 CONSTRUCTION SCHEDULE

A. The CONSULTANT shall provide a Preliminary Construction Schedule for the associated design submittal indicated below in accordance with **Exhibit 2 - Design Requirements**.

- Construction Schedule is not Required
- Design Submittal 1
- Design Submittal 2
- Design Submittal 3
- Final Design Submittal

3.1.4 PROCUREMENT ALTERNATIVES

A. The CONSULTANT shall recommend the appropriate procurement alternatives as described in **Exhibit 2 - Design Requirements**.

- Procurement alternatives not required
- Procurement alternatives required

3.2 DESIGN ACTIVITIES

The following services shall be provided by the CONSULTANT or an appropriately qualified subconsultant. In any case, the CONSULTANT shall be responsible for managing all subconsultants, including reviewing their work products prior to submission to the SANITATION DISTRICT.

3.2.1 EASEMENTS, PROPERTY BOUNDARIES AND WORK AREA LIMITS

A. CONSULTANT services related to Easements, Property Boundaries and Work Area Limits on the project are specified in Phase 2 – Preliminary Design and those services shall continue during Phase 3 – Design as required. CONSULTANT shall allocate the budgeted hours between Phase 2 and Phase 3 based on when these services will be required.

3.2.2 TOPOGRAPHIC SURVEY

A. CONSULTANT services related to Topographic Survey on the project are specified in Phase 2 – Preliminary Design and those services shall continue during Phase 3 – Design as required. CONSULTANT shall allocate the budgeted hours between Phase 2 and Phase 3 based on when these services will be required.

3.2.3 UTILITY INVESTIGATION

A. CONSULTANT services related to Utility Investigation on the project are specified in Phase 2 – Preliminary Design and those services shall continue during Phase 3 – Design as required. CONSULTANT shall allocate the budgeted hours between Phase 2 and Phase 3 based on when these services will be required.

B. Final Design Submittal Utility Coordination Reviews

1. During DS3 submittal review, the CONSULTANT shall meet with outside agencies to verify any changes made by agency during final design period and compare them with the Contract Drawings. CONSULTANT shall follow through with due diligence on utilities that do not participate in the USA program, unknown owner of a facility and/or abandoned utilities.

2. During DS3 submittal review, an on-site inspection shall be made in the project area. During the on-site inspection, a senior-level CONSULTANT representative shall walk the site accompanied by the SANITATION DISTRICT's PE and Supervising Inspector. The CONSULTANT's representative shall be experienced in the location and identification of utilities in the field. During the on-site inspection, the CONSULTANT shall document all visible features that indicate utilities within the project area and compare them with the Contract Drawings.

3.2.4 TRAFFIC CONTROL SERVICES

A. CONSULTANT shall secure the services of a Subconsultant to determine the traffic control requirements, prepare final plans and specifications for the selected plan and assist the SANITATION DISTRICT in obtaining approval from the City of Newport Beach.

3.2.5 PUBLIC RELATIONS

A. CONSULTANT services related to Public Relations on the project are specified in Phase 2 – Preliminary Design and those services shall continue during Phase 3 - Design. The CONSULTANT shall allocate the budgeted hours between the Public Relations services in Phase 2 and Phase 3 based on when these services will be required.

3.2.6 ENVIRONMENTAL DOCUMENTATION

A. CONSULTANT services related to Environmental Documentation on the project are specified in Phase 2 – Preliminary Design and those services shall continue during Phase 3 - Design. The CONSULTANT shall allocate the budgeted hours between the Environmental Documentation services in Phase 2 and Phase 3 based on when these services will be required.

3.2.7 PERMITTING ASSISTANCE

A. CONSULTANT services related to Permitting Assistance on the project are specified in Phase 2 – Preliminary Design and those services shall continue during Phase 3 - Design. CONSULTANT shall allocate the budgeted hours between the Permitting Assistance services in Phase 2 and Phase 3 based on when these services will be required.

3.2.8 PROJECT MANAGEMENT

A. CONSULTANT shall be responsible for managing CONSULTANT's project execution, schedule, budget, subconsultants, and coordination with other projects. CONSULTANT services related to Project Management on the project are specified in Phase 2 – Preliminary Design and those services shall continue during Phase 3 – Design as required. CONSULTANT shall allocate the budgeted hours between Phase 2 and Phase 3 based on when these services will be required.

3.2.9 QUALITY CONTROL

A. The CONSULTANT shall provide Quality Control requirements in accordance with **Exhibit 6 - Quality Control Requirements**.

Independent Multi-Discipline Design Workshop is not required.

Independent Multi-Discipline Design Workshop is required. (Design Workshops and Meetings

3.2.10 GENERAL

A. Workshop and meeting planning, requirements, agendas, and meeting minutes shall be in accordance with **Exhibit 5 - Workshop and Meeting Requirements**.

3.2.11 DESIGN PHASE WORKSHOPS

A. The focus of workshops is to review project progress to date and the technical decisions that have been made in focused meetings. CONSULTANT shall conduct the workshops listed below in Phase 3 – Design. The CONSULTANT shall allow the following time for each workshop:

| DESIGN PHASE WORKSHOPS | |
|-------------------------------|-----------------------------|
| WORKSHOP TYPE | DURATION |
| Design Kickoff Workshop | 1 -- 2 hours |
| Design Review Meetings | 2 -- 2 hours per discipline |
| Design Validation Meeting | 1 -- 2 hour |

B. The following Design Review Meetings shall include the following topics, as applicable to the project:

1. Civil
2. Construction

C. A single workshop shall be provided for the Design Review Meetings

D. During final design, workshops shall be held after each design submittal.

3.2.12 PRE-DS2 CONSTRUCTABILITY WORKSHOP

3.2.12 DESIGN PHASE MEETINGS

A. Technical Progress Meetings

1. Technical Progress Meetings shall be held every 4 weeks for 1 hour to review various issues with the SANITATION DISTRICT's project team. A total of **7** meetings shall be held during Preliminary Design Phase. The CONSULTANT shall coordinate with the SANITATION DISTRICT PM to determine what topics will be covered in what meetings, and what SANITATION DISTRICT and CONSULTANT team members are required for each.

B. Focused Meetings

1. Focused meetings shall be held throughout preliminary design to discuss specific issues in detail and generate comments and direction from SANITATION DISTRICT staff. The following tentative list of topics may be covered in these meetings:
 - a. Permits
 - b. Survey and geotechnical requirements
 - c. Potholing
 - d. Utilities and utility tie-ins
 - e. Construction sequencing
 - f. Traffic Control
 - g. Additional meetings as necessary
2. Each meeting shall generally be 1 hour in length.

3.2.13 CONSTRUCTION SUBMITTAL ITEMS LIST MEETING

A. Meet with the SANITATION DISTRICT between DS2 and DS3 to review the CONSULTANT's approach to developing the project Construction Submittal Items List to include in the specifications and discuss the grouping of submittals in phases.

3.3 BID PHASE SUPPORT SERVICES

3.3.1 BID PHASE SUPPORT SERVICES

A. CONSULTANT shall provide the following bid period services:

1. Participate in the pre-bid meeting.
2. Prepare project drawing set and project specification addenda to provide clarification and resolve errors and omissions identified prior to bid opening.

3.3.2 BID EVALUATION ASSISTANCE

A. Participate in the evaluation of the submitted bids, furnish consultation and advice to SANITATION DISTRICT staff, and other analyses as required to finalize the award decision.

3.3.3 CONFORMED DOCUMENT PREPARATION

A. Within two weeks of the bid date, prepare conformed documents set (drawings, databases, specifications, and other required materials) that incorporates the addenda. See Engineering Design Guidelines, Chapter 01, Design Guidelines – General Requirements, Section 01.4 “Preparation of Project Deliverables” for requirements as modified in Section V of this SOW, “Project-Specific Deviations from the SANITATION DISTRICT’s Design Guidelines” and the requirements of the CAD Manual).

4. PHASE 4 – CONSTRUCTION AND INSTALLATION SERVICES

Not in this SOW.

5. PHASE 5 – COMMISSIONING SERVICES

Not in this SOW.

6. PHASE 6 – CLOSE OUT

Not in this SOW.

7. GENERAL REQUIREMENTS

7.0 GENERAL

7.0.1 OCS D ENGINEERING DESIGN GUIDELINES AND STRATEGIC PLAN

A. CONSULTANT shall refer to and adhere to the requirements of the Contractor Safety Standards, SANITATION DISTRICT’s Engineering Design Guidelines, any deviations to the Engineering Design Guidelines listed below, and other SANITATION DISTRICT Design Standards referenced therein. **Exhibit 16 - Spec Review using Microsoft Word and Teams**

B. **Exhibit 17 - SANITATION DISTRICT Engineering Design Guidelines and Standards – Available** online at <https://www.ocsd.com/about-us/transparency/document-central/-/folder-917> is a complete set of the Contractor Safety Standards and SANITATION DISTRICT’s Design Standards, the latest edition at the time of the design proposal stage.

C. The Engineering Guidelines define what design concepts/tools/methods and project management requirements shall be adhered to and in what manner they shall be used/provided by Consultants, e.g., requirements regarding design concepts, submittals, documentation details, use of SANITATION DISTRICT’s Master Specifications, and other related SANITATION DISTRICT Standards, etc.

D. Refer also to Section “CONSULTANT’s Responsibilities” in the SANITATION DISTRICT’s Engineering Design Guidelines Chapter 01. Refer to “Master Specifications Instructions for Use” that mandates rules and conventions to be used in all SANITATION DISTRICT project specifications.

E. The project SOW defines whether or not each specific deliverable described in the Guidelines shall be part of the project and when each task shall take place.

F. The project SOW also includes requirements that supplement and/or modify the Guidelines requirements for this project.

G. The project SOW and SANITATION DISTRICT’s Engineering Design Guidelines impact CONSULTANT’s project cost.

H. Except as specified in this SOW, design of all facilities shall conform to the recommendations of the currently approved Master Plan for SANITATION DISTRICT facilities. The project shall also incorporate all applicable mitigation measures included in associated environmental documents and site-specific local requirements.

I. In addition, the SANITATION DISTRICT will require the CONSULTANT to follow subsequent revisions of the Contractor Safety Standards, SANITATION DISTRICT Engineering Design Guidelines and other SANITATION DISTRICT Design Standards up to transmittal by the SANITATION DISTRICT of comments on Design Submittal [1][2], shall be incorporated into the Design by CONSULTANT with no increase in CONSULTANT's Not-to-Exceed upper limit on fees.

J. The SANITATION DISTRICT may update the SANITATION DISTRICT's Master Specifications and/or add new SANITATION DISTRICT Master Specifications up to transmittal by the SANITATION DISTRICT of comments on Design Submittal 2. The CONSULTANT shall utilize the new and/or modified Master Specifications for the DS3 submittal.

K. The CONSULTANT shall not begin editing the project specifications until the project team meets with the SANITATION DISTRICT's Design Standards Custodian to discuss and receive comments regarding the CONSULTANT's proposed list of project specifications. This meeting will be used to determine which specifications are to use SANITATION DISTRICT's master specifications, and where other sources will be utilized.

7.0.2 PROJECT PHASES AND TASKS

A. Project tasks and deliverables shall include the requirements described in this SOW. CONSULTANT shall also refer to Appendix A of the SANITATION DISTRICT's Engineering Design Guidelines for the level of detail requirements for individual deliverables in each Phase of the project not covered in the SOW.

7.0.3 CONSTRUCTION SEQUENCING AND CONSTRAINTS

A. CONSULTANT shall develop with SANITATION DISTRICT staff and include in the Bid Documents detailed requirements for construction sequencing and constraints. These shall ensure safe and reliable operation and maintenance of SANITATION DISTRICT facilities. The facilities must be kept on-line and fully operational with minimal interruptions throughout construction.

7.0.4 WORKING HOURS

A. Meetings with SANITATION DISTRICT staff shall be scheduled from Monday through Thursday between the hours of 8:00 AM and 4:00 PM. Any CONSULTANT staff working on-site shall conform to SANITATION DISTRICT work schedules. CONSULTANT shall refer to the Engineering Design Guidelines, Chapter 01, Section 01.3.5 "CONSULTANT Inspection of Treatment Facilities" for further requirements.

7.0.5 STANDARD DRAWINGS AND TYPICAL DETAILS

A. All the details used in the project (the SANITATION DISTRICT's Standard Drawings and CONSULTANT-developed typical details) shall be shown on the Plans.

7.0.6 SOFTWARE

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

B. Any software that the CONSULTANT needs to comply with these standards shall be purchased and maintained by the CONSULTANT at no additional cost to the SANITATION DISTRICT. In the event the SANITATION DISTRICT provides the CONSULTANT with access to SANITATION DISTRICT software and hardware at a SANITATION DISTRICT facility in order to facilitate performance of their work, all software shall remain the property of the SANITATION

DISTRICT. Only software licensed to the SANITATION DISTRICT shall be installed on SANITATION DISTRICT equipment. In addition, only the SANITATION DISTRICT's IT Department staff will perform the installation of this software.

C. Refer to Chapters 10 and 11 and Appendix A of the SANITATION DISTRICT's Engineering Design Guidelines for requirements on preparation of Criticality Tables and ETAP, SAT, and EID databases. Refer to the SANITATION DISTRICT's CAD Manual and to Chapter 11 and Appendix A of the SANITATION DISTRICT's Engineering Design Guidelines for requirements regarding P&ID drawings.

7.0.7 SUBMITTAL REVIEW USING BLUEBEAM

A. The SANITATION DISTRICT has standardized on the use of Bluebeam Revu for reviewing and providing comments to PDF files. PDF files will be hosted in a Bluebeam cloud-based studio session for review. See **Exhibit 15 - Bluebeam Designer User Training** for a detailed explanation on how Bluebeam will be used to provide, validate, and close submittal review comments.

B. Prior to submitting electronic PDF files, format them as indicated in **Exhibit 14 - Bluebeam Designer Training for Submission** and "the SANITATION DISTRICT's CAD Standards Manual" prior to submission.

C. A one-hour training session on the use of Bluebeam and custom status menu will be provided by the SANITATION DISTRICT. All CONSULTANT team members responsible for quality control and reconciliation of submittal comments shall attend.

7.0.8 WORD TRACK CHANGES

A. Specifications documents and other MS-Word based deliverables will be hosted in the SANITATION DISTRICT's Teams environment for review. The guidelines for reviewing and commenting on MS-Word files, including Specifications reviews, can be found in **Exhibit 16 - Spec Review using Microsoft Word and Teams**.

7.0.9 GIS SUBMITTALS

A. CONSULTANT shall provide the following GIS deliverables propagated from approved design submittals after the design submittal is accepted. These GIS submittals will not be reviewed or presented by the CONSULTANT. The purpose is to provide project specific GIS layers that could be used to visualize interproject dependencies and conflicts.

1. Electronic Submittal
 - a. Kmz files for use with Google Earth
2. Final PDR
 - a. Single project boundary (Polygon)
 - (1) Boundary to encompass all new facilities and existing to be modified including:
 - Buildings\Structures
 - Tunnels
 - Utilities
 - Pavement
 - Street boundary (ROW to ROW) of possible alignment
 - b. Structures (Polygon)
 - New structure outline
 - Additions to existing structures
 - Structure label

3. DS2, DS3, and FDS
 - a. Project boundary - updated PDR
 - b. Structures - updated from PDR
 - c. Utilities - updated from PDR
 - d. Manholes - updated from PDR
 - e. Excavation of pits - updated from PDR
 - f. Critical (as defined by Dig Alert) utility crossings (Point)
 - (1) Crossing of Dig Alert critical utilities
 - (2) Critical utility label
 - Natural gas
 - Fuel pipeline
 - 12 kV Electrical
 - g. Asphalt (Polygon)
 - (1) Asphalt to be replaced

8. STAFF ASSISTANCE

The SANITATION DISTRICT staff member or designee assigned to work with CONSULTANT on the design of this project is Hardat Khublall at (714) 720-6965, e-mail to: hkhublall@ocsd.com.

9. EXHIBITS

- Exhibit 1 - Preliminary Design Report Requirements**
- Exhibit 2 - Design Requirements**
- Exhibit 3 - Project Management Requirements**
- Exhibit 4 - Risk Management Requirements NOT USED**
- Exhibit 5 - Workshop and Meeting Requirements**
- Exhibit 6 - Quality Control Requirements**
- Exhibit 7 - Design Submittal Requirements Matrix**
- Exhibit 8 - Project Schedule Calculation**
- Exhibit 9 - Deliverables Quantities**
- Exhibit 10 - Sample Construction Cost Estimate Format**
- Exhibit 11 - Sample Full Project Safety Review Plan**
- Exhibit 12 - Sample Risk Management Check List**
- Exhibit 13 - MMRP Log Template**
- Exhibit 14 - Bluebeam Designer Training for Submission**
- Exhibit 15 - Bluebeam Designer User Training**
- Exhibit 16 - Spec Review using Microsoft Word and Teams**

Exhibit 17 - SANITATION DISTRICT Engineering Design Guidelines and Standards –
Available online at <https://www.ocsd.com/about-us/transparency/document-central/-folder-917>

Exhibit 18 - Project Reference Material

- **7-1-D MacArthur Blvd Force Mains**
- **7-11-3 Modifications to MacArthur Pump Station**
- **MP-427 MacArthur Valve Replacement**

HK:dm



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1574

Agenda Date: 5/5/2021

Agenda Item No: 10.

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

SUBJECT:

ANNUAL PROFESSIONAL DESIGN SERVICES AGREEMENTS, CONTRACT NO. FE21-00-XX

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

A. Approve Annual Professional Design Services Agreements (PDSA) with the following firms for professional engineering design and construction support services commencing July 1, 2021 with a maximum annual fiscal year contract limitation not to exceed \$600,000 for each Annual Professional Design Services Agreement; and

| FIRM | CONTRACT NO. |
|---|---------------------|
| 1 AECOM Technical Services, Inc. (AECOM) | FE21-00-01 |
| 2 Arcadis U.S., Inc. (Arcadis) | FE21-00-02 |
| 3 Black & Veatch Corporation (Black & Veatch) | FE21-00-03 |
| 4 Brown & Caldwell | FE21-00-04 |
| 5 CDM Smith, Inc. (CDM Smith) | FE21-00-05 |
| 6 CIVILTEC Engineering, Inc. (CIVILTEC) | FE21-00-06 |
| 7 Dudek | FE21-00-07 |
| 8 GHD, Inc. (GHD) | FE21-00-08 |
| 9 HDR Engineering, Inc. (HDR) | FE21-00-09 |
| 10 Infrastructure Engineering Corporation (IEC) | FE21-00-10 |
| 11 Kennedy Jenks Consultants, Inc. (Kennedy Jenks) | FE21-00-11 |
| 12 Kleinfelder, Inc. (Kleinfelder) | FE21-00-12 |
| 13 Michael Baker International, Inc. (Michael Baker) | FE21-00-13 |
| 14 ProjectLine Technical Services, Inc. (ProjectLine) | FE21-00-14 |
| 15 SPEC Services, Inc. (SPEC Services) | FE21-00-15 |
| 16 SVA Architects, Inc. (SVA Architects) | FE21-00-16 |
| 17 Tetra Tech | FE21-00-17 |
| 18 Woodard & Curran, Inc. (Woodard & Curran) | FE21-00-18 |

B. Approve two additional one-year optional extensions for each PDSA.

BACKGROUND

Ordinance No. OCSD-52 (Purchasing Ordinance) authorizes procurement of professional design services less than \$300,000 through task order-based Annual Professional Design Services

Agreements (Annual PDSAs). The Purchasing Order, and the Annual PDSAs, limit task orders awarded to a single firm in a fiscal year to \$600,000. There are currently three sets of Annual PDSAs for design services issued in 2012, 2015, and 2018. The sets for 2012 and 2015 have expired, and the set from 2018 expires on June 30, 2021. When an Annual PDSA expires, any existing and active task orders remain valid, but no new task orders can be issued.

When the need for professional design services for a specific project are identified, and the anticipated value of the services is less than the \$300,000 task order limit, staff issues a request for task order proposal to at least two, but typically three, of the prequalified firms. The proposals are scored and ranked per the selection criteria included in the request for task order proposal, and negotiations are conducted with the selected firm. The process of procuring design services through task orders is significantly quicker and more cost effective for both the Orange County Sanitation District (OC San) and the competing consultants than for stand-alone agreements.

RELEVANT STANDARDS

- Sound engineering and accounting practices, complying with local, state, and federal laws
- California Government Code §4526: Select the “best qualified firm” and “negotiate fair and equitable fees”

PROBLEM

The process of soliciting and selecting consultants for individual professional design service agreements on smaller projects is slower and costlier for both OC San and the consultants competing for projects.

PROPOSED SOLUTION

Approve Annual PDSAs with a prequalified list of design consultants per the Purchasing Ordinance. The following table lists project types for which each of the consultants are prequalified.

| | Firm | Type 1: Building and Safety | Type 2: Linear | Type 3: Process | Type 4: Electrical and I&C |
|----|----------------------------|-----------------------------------|-------------------|--------------------|----------------------------------|
| 1 | AECOM | X | | X | X |
| 2 | Arcadis | X | | | |
| 3 | Black & Veatch | | X | X | |
| 4 | Brown & Caldwell | | X | X | X |
| 5 | CDM Smith | | X | X | X |
| 6 | Civiltec | | X | X | |
| 7 | Dudek | | X | X | |
| 8 | GHD | | X | X | |
| 9 | HDR | X | | X | X |
| 10 | Infrastructure Engineering | | X | | |
| 11 | Kennedy Jenks | | | X | |

| | | | | | |
|----|------------------|---|---|---|---|
| 12 | Kleinfelder | | X | | |
| 13 | Michael Baker | | | X | |
| 14 | ProjectLine | X | | | |
| 15 | SPEC Services | | | X | X |
| 16 | SVA Architects | X | | | |
| 17 | Tetra Tech | | | X | X |
| 18 | Woodard & Curran | | X | X | |

TIMING CONCERNS

The current Annual PDSAs expire on June 30, 2021. If new Annual PDSAs are not issued, staff will not be able to issue task orders to procure design services for small projects.

RAMIFICATIONS OF NOT TAKING ACTION

Without these Annual PDSAs, OC San would need to conduct full solicitations for the design of each small project, delaying completion of those projects, and increasing administrative costs. The relatively high proposal costs versus the potential project profit tends to limit the number of proposers for these smaller projects.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

Consultant Selection:

On December 17, 2020, OC San issued a request for qualifications (RFQs) for Annual PDSAs, Contract No. FE21-00, and a notice was sent to multiple categories of firms registered in OC San's purchasing database. The RFQs defined four categories of projects and invited interested consultants to pursue qualifications for any or all of those categories.

The following evaluation criterion were described in the RFQ and used to determine the most qualified consultants.

| CRITERION | Weighting |
|----------------------------|-----------|
| Consultant Team Resources | 20% |
| Delivery Capabilities | 20% |
| Related Project Experience | 30% |
| Staff Qualifications | 30% |

On February 10, 2021, 28 statements of qualifications (SOQs) were received. The following table lists the firms that submitted SOQs and for which of the four project types they submitted

qualifications.

| Firm | Type 1: Building and Safety | Type 2: Linear | Type 3: Process | Type 4: Electrical and I&C |
|--|--|---------------------------|----------------------------|---|
| AECOM Technical Services, Inc. (AECOM) | X | X | X | X |
| Arcadis U.S., Inc. (Arcadis) | X | | X | X |
| Austin Design & Building, Inc. (Austin) | X | | | |
| Black & Veatch Corporation (Black & Veatch) | | X | X | |
| Brown & Caldwell | | X | X | X |
| Cannon Corporation (Cannon) | | X | X | X |
| CDM Smith, Inc. (CDM Smith) | | X | X | X |
| CIVILTEC Engineering, Inc. (CIVILTEC) | | X | X | |
| Commonwealth Associates, Inc. (Commonwealth) | | | X | X |
| D R Consultants & Designers, Inc. (D R Consultants) | | | X | X |
| Dahl, Taylor & Associates, Inc. (Dahl Taylor) | X | X | X | X |
| Dudek | | X | X | |
| Fluor Enterprises, Inc. (Fluor) | | | X | X |
| Gekko Engineering (Gekko) | | | X | X |
| GHD, Inc. (GHD) | | X | X | |
| HDR Engineering, Inc. (HDR) | X | X | X | X |
| IDS Group, Inc. (IDS Group) | X | | X | X |
| Infrastructure Engineering Corporation (IEC) | | X | | |
| Kennedy Jenks Consultants, Inc. (Kennedy Jenks) | | X | X | X |
| Kleinfelder, Inc. (Kleinfelder) | | X | X | |
| Michael Baker International, Inc. (Michael Baker) | X | X | X | X |
| ProjectLine Technical Services, Inc. (ProjectLine) | X | | | X |
| RTM Engineering Consultants (RTM) | X | X | | |
| SPEC Services, Inc. (SPEC Services) | | | X | X |
| SVA Architects, Inc. (SVA Architects) | X | | | |
| Tetra Tech | | X | X | X |
| Wood Environment & Infrastructure Solutions, Inc. (Wood Environment) | X | X | X | X |

| | | | | |
|---|-----------|-----------|-----------|-----------|
| Woodard & Curran, Inc. (Woodard & Curran) | | X | X | |
| Total SOQs Submitted | 11 | 18 | 23 | 18 |

The SOQs were evaluated in accordance with the process set forth in the Purchasing Ordinance by a preselected Evaluation Committee consisting of one Engineering Manager and four Engineering Supervisors. The Evaluation Committee also included two non-voting representatives from the Contracts Administration Division.

Each member of the Evaluation Committee scored each SOQ for each project type submitted using the evaluation criterion listed above. The following four tables summarize the scoring and ranking for each project type.

PROJECT TYPE 1: BUILDING & SAFETY

Building and Safety projects are those where most of the work involves building, occupied spaces, or safety improvements. Of the 11 firms submitting qualifications for Building and Safety projects, the Evaluation Committee recommended five firms be awarded Annual PDSAs for those projects. Given the relatively small number of Building and Safety task orders that are typically issued, staff considers a pool of five firms appropriate.

| Firm | Consultant Team Resources (Max. 20) | Delivery Capabilities (Max. 20) | Related Project Experience (Max. 30) | Staff Qualifications (Max. 30) | Total Score (Max. 100) | Rank |
|-----------------------|-------------------------------------|---------------------------------|--------------------------------------|--------------------------------|------------------------|----------|
| AECOM | 16.3 | 14.0 | 22.5 | 21.8 | 74.6 | 1 |
| HDR | 15.4 | 14.7 | 19.0 | 22.8 | 71.9 | 2 |
| ProjectLine | 15.0 | 13.9 | 21.1 | 21.3 | 71.3 | 3 |
| Arcadis | 15.4 | 14.6 | 21.0 | 19.9 | 70.9 | 4 |
| SVA Architects | 14.6 | 14.1 | 19.8 | 21.5 | 70.0 | 5 |
| Michael Baker | 15.0 | 15.6 | 15.1 | 21.3 | 67.0 | 6 |
| IDS Group | 14.0 | 11.3 | 20.3 | 21.0 | 66.6 | 7 |
| Wood Environment | 14.5 | 14.7 | 14.7 | 21.3 | 65.2 | 8 |
| RTM | 13.9 | 12.7 | 15.8 | 18.6 | 61.0 | 9 |
| Dahl Taylor | 14.6 | 12.1 | 15.4 | 16.6 | 58.7 | 10 |
| Austin | 14.8 | 10.9 | 12.6 | 17.4 | 55.7 | 11 |

PROJECT TYPE 2: LINEAR

Linear projects are those where most of the work involves installation, rehabilitation, or repair of buried piping outside of the two treatment plants. Of the 18 firms submitting qualifications for linear projects, the Evaluation Committee recommended nine firms be awarded Annual PDSAs for those projects. Given the typical number of linear small projects, staff considers a pool of nine firms

appropriate.

| Firm | Consultant Team Resources (Max. 20) | Delivery Capabilities (Max. 20) | Related Project Experience (Max. 30) | Staff Qualifications (Max. 30) | Total Score (Max. 100) | Rank |
|-----------------------------|-------------------------------------|---------------------------------|--------------------------------------|--------------------------------|------------------------|----------|
| Brown & Caldwell | 17.1 | 17.5 | 26.7 | 24.5 | 85.8 | 1 |
| Woodard & Curran | 15.3 | 16.8 | 24.9 | 24.3 | 81.3 | 2 |
| GHD | 15.9 | 15.9 | 24.6 | 24.1 | 80.5 | 3 |
| IEC | 15.3 | 16.5 | 24.5 | 23.7 | 80.0 | 4 |
| Dudek | 16.1 | 15.3 | 22.6 | 25.0 | 79.0 | 5 |
| CIVILTEC | 15.7 | 14.3 | 25.7 | 22.9 | 78.6 | 6 |
| Black & Veatch | 15.6 | 15.5 | 22.8 | 23.7 | 77.6 | 7 |
| Kleinfelder | 15.0 | 15.6 | 23.3 | 23.1 | 77.0 | 8 |
| CDM Smith | 15.7 | 16.1 | 21.4 | 22.5 | 75.7 | 9 |
| Wood Environment | 14.9 | 14.7 | 21.0 | 23.1 | 73.7 | 10 |
| Kennedy Jenks | 15.6 | 15.0 | 20.0 | 23.0 | 73.6 | 11 |
| Michael Baker | 15.6 | 16.0 | 19.9 | 21.9 | 73.4 | 12 |
| Tetra Tech | 15.4 | 14.0 | 22.4 | 21.1 | 72.9 | 13 |
| HDR | 15.8 | 15.1 | 18.4 | 22.2 | 71.5 | 14 |
| RTM | 13.9 | 12.7 | 21.2 | 21.0 | 68.8 | 15 |
| Cannon | 13.7 | 13.9 | 19.3 | 19.6 | 66.5 | 16 |
| AECOM | 15.9 | 13.6 | 17.7 | 18.2 | 65.4 | 17 |
| Dahl Taylor | 14.6 | 12.0 | 13.0 | 16.7 | 56.3 | 18 |

PROJECT TYPE 3: PROCESS

Process projects are those that do not fit in the criteria for Building and Safety, Linear, or Electrical and Instrumentation & Control projects where most of the work involves pumping, wastewater treatment, odor control, chemical storage, associated power distribution, on-site central generation, or SCADA controls. Of the 23 firms submitting qualifications for Process projects, the Evaluation Committee recommended 13 firms be awarded Annual PDSAs for those projects. Most of the smaller projects fall into the Process category, and a larger pool of consultants is likely to be needed since no more than \$600,000 in task orders can be awarded to a consultant in a fiscal year.

| Firm | Consultant Team Resources (Max. 20) | Delivery Capabilities (Max. 20) | Related Project Experience (Max. 30) | Staff Qualifications (Max. 30) | Total Score (Max. 100) | Rank |
|-----------------------------|-------------------------------------|---------------------------------|--------------------------------------|--------------------------------|------------------------|----------|
| Brown & Caldwell | 17.5 | 17.5 | 24.3 | 25.1 | 84.4 | 1 |
| Black & Veatch | 16.8 | 15.9 | 24.6 | 26.1 | 83.4 | 2 |

| | | | | | | |
|-----------------------------|------|------|------|------|------|-----------|
| Dudek | 16.1 | 15.7 | 24.7 | 24.7 | 81.2 | 3 |
| Tetra Tech | 15.8 | 14.8 | 24.8 | 23.8 | 79.2 | 4 |
| GHD | 15.9 | 15.9 | 22.8 | 23.3 | 77.8 | 5 |
| CIVILTEC | 15.3 | 14.3 | 25.1 | 22.6 | 77.3 | 6 |
| Kennedy Jenks | 15.7 | 15.0 | 22.4 | 23.5 | 76.6 | 7 |
| Woodard & Curran | 13.3 | 16.0 | 24.0 | 22.5 | 75.8 | 8 |
| AECOM | 15.9 | 14.8 | 23.1 | 21.8 | 75.6 | 9 |
| SPEC Services | 16.3 | 15.5 | 21.9 | 20.7 | 75.4 | 10 |
| HDR | 15.7 | 15.1 | 21.1 | 22.9 | 74.8 | 11 |
| CDM Smith | 15.3 | 16.1 | 21.1 | 21.9 | 74.4 | 12 |
| Michael Baker | 15.4 | 15.6 | 20.5 | 22.5 | 74.0 | 13 |
| Wood Environment | 14.3 | 14.7 | 20.4 | 23.1 | 72.5 | 14 |
| Kleinfelder | 15.0 | 15.6 | 18.5 | 22.5 | 71.6 | 15 |
| Gekko | 15.3 | 14.9 | 19.6 | 21.5 | 71.3 | 16 |
| Arcadis | 15.0 | 15.4 | 19.1 | 20.6 | 70.1 | 17 |
| IDS Group | 15.2 | 11.7 | 17.3 | 21.0 | 65.2 | 18 |
| D R Consultants | 13.9 | 13.9 | 15.8 | 18.7 | 62.3 | 19 |
| Cannon | 12.5 | 13.5 | 14.5 | 20.2 | 60.7 | 20 |
| Dahl Taylor | 14.6 | 12.5 | 13.6 | 16.6 | 57.3 | 21 |
| Fluor | 15.7 | 13.0 | 10.3 | 16.1 | 55.1 | 22 |
| Commonwealth | 9.6 | 10.3 | 12.6 | 12.0 | 44.5 | 23 |

PROJECT TYPE 4: Electrical and Instrumentation & Control

Electrical and Instrumentation & Control projects involve only those specific disciplines. Projects that would fall into this category include switch gear replacement, relay replacements or upgrades, and SCADA-only projects. Of the 18 firms submitting qualifications for Electrical and Instrumentation & Control, the Evaluation Committee recommended six firms be awarded Annual PDSAs for those projects. Given the relatively small number of Electrical and Instrumentation & Control task orders that are typically issued, staff considers a pool of six firms appropriate.

| Firm | Consultant Team Resources (Max. 20) | Delivery Capabilities (Max. 20) | Related Project Experience (Max. 30) | Staff Qualifications (Max. 30) | Total Score (Max. 100) | Rank |
|-----------------------------|-------------------------------------|---------------------------------|--------------------------------------|--------------------------------|------------------------|----------|
| Brown & Caldwell | 17.5 | 17.5 | 24.9 | 25.1 | 85.0 | 1 |
| Tetra Tech | 15.4 | 14.8 | 23.6 | 24.1 | 77.9 | 2 |
| AECOM | 17.1 | 15.2 | 22.5 | 22.4 | 77.2 | 3 |
| HDR | 15.7 | 15.9 | 22.1 | 23.4 | 77.1 | 4 |

| | | | | | | |
|----------------------|------|------|------|------|------|----------|
| SPEC Services | 17.1 | 16.9 | 21.3 | 21.3 | 76.6 | 5 |
| CDM Smith | 15.3 | 16.1 | 22.9 | 21.9 | 76.2 | 6 |
| Michael Baker | 15.4 | 15.3 | 21.5 | 22.5 | 74.7 | 7 |
| Wood Environment | 14.1 | 14.7 | 22.2 | 23.1 | 74.1 | 8 |
| Gekko | 15.3 | 14.9 | 19.6 | 22.1 | 71.9 | 9 |
| Kennedy Jenks | 15.5 | 15.0 | 19.4 | 21.1 | 71.0 | 10 |
| IDS Group | 15.2 | 11.7 | 20.9 | 22.2 | 70.0 | 11 |
| ProjectLine | 14.7 | 13.0 | 19.3 | 22.5 | 69.5 | 12 |
| Arcadis | 15.0 | 15.0 | 15.5 | 20.0 | 65.5 | 13 |
| Cannon | 13.3 | 13.5 | 16.9 | 20.2 | 63.9 | 14 |
| Dahl Taylor | 14.6 | 12.1 | 16.6 | 17.8 | 61.1 | 15 |
| D R Consultants | 13.9 | 13.8 | 14.0 | 18.0 | 59.7 | 16 |
| Fluor | 15.6 | 13.0 | 11.5 | 16.8 | 56.9 | 17 |
| Commonwealth | 8.8 | 10.3 | 13.2 | 12.6 | 44.9 | 18 |

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. Budget for these task orders is included in the Small Construction Projects Program, Project No. M-FE (Adopted Budget, Fiscal Years 2020-21 and 2021-2022 Budget, Section 8, Page 48).

ATTACHMENT

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

- Draft Professional Design Services Agreement

JM:dm:sa:ac

ANNUAL PROFESSIONAL DESIGN SERVICES AGREEMENT

This ANNUAL PROFESSIONAL DESIGN SERVICES AGREEMENT (Agreement), to be effective this 1st day of July, 2021, is made and entered into by and between:

ORANGE COUNTY SANITATION DISTRICT
hereinafter referred to as "OC San"

AND

hereinafter referred to as "CONSULTANT"

individually referred to as the "Party" and collectively as the "Parties".

RECITALS

WHEREAS, in accordance with Ordinance No. OCSD-52 and pursuant to a Request for Qualifications ("Underlying RFQ"), the Board of Directors of OC San, by action on _____, approved the award of the Agreement for **CONTRACT NO. FE21-00-XX**, to CONSULTANT to provide services for selected projects on a task order (Task Order) basis from July 1, 2021 to June 30, 2022; and

WHEREAS, consistent with the Underlying RFQ, the CONSULTANT has been prequalified to perform services for the following project types: [a) Project Type 1: Building and Safety, b) Project Type 2: Linear, c) Project Type 3: Process, d) Project Type 4: Electrical and Instrumentation & Control]; and,

WHEREAS, for Task Orders estimated to cost \$25,000 or less, the Director of Engineering, with concurrence of the Purchasing Manager, may solicit a proposal from one (1) firm on the prequalified list, which will include the project types for which the consultants are prequalified.

WHEREAS, the CONSULTANT is qualified to provide and has agreed to provide the necessary professional engineering and related services under this Agreement; and,

WHEREAS, by this Agreement, the Parties intend to set forth the general terms and conditions that will apply to any specific project for which CONSULTANT is given a Task Order by OC San.

NOW, THEREFORE, OC San and the CONSULTANT mutually agree as follows:

SECTION 1. SCOPE OF AGREEMENT

OC San, at its sole discretion, may, from time to time during the term of this Agreement, issue a Request for Task Order Proposal ("RFTOP") setting forth the detailed requirements and scope of work to be performed on the identified project and thereafter, upon receipt of a proposal from the CONSULTANT, may issue a Task Order to proceed with the work. The scope of work will be in the form attached hereto as Attachment A – Scope of Work.

Upon execution by OC San, the Task Order shall become an operative part of this Agreement. Should any conflict or inconsistency exist in the contract documents identified in this section, the conflict or inconsistency shall be resolved by applying the provisions in the highest priority document, which shall be determined in the following order of priority:

1. Agreement and any amendments thereto
2. the Task Order
3. the RFTOP

SECTION 2. TASK ORDER ISSUANCE BY OC SAN

The Task Order issued by OC San shall, specifically or by reference to the RFTOP and corresponding proposal, set forth the terms that will apply to the specific project for which the services will be rendered. Those terms shall include, but not be limited to, scope of work, time for performance, and compensation.

SECTION 3. TERM

This Agreement shall commence on the effective date of this Agreement and terminate on June 30, 2022, unless further extended by written agreement signed by the Parties. Any work that is required by a Task Order and is not finished by the date of termination shall be continued and completed by the CONSULTANT and the terms and conditions of this Agreement shall continue in effect for that time. OC San may, at its option, renew this Agreement for two (2) additional terms of one (1) year each, for a maximum contract duration of three (3) years.

SECTION 4. COMPENSATION

The total compensation payable to the CONSULTANT pursuant to this Agreement shall not exceed Six Hundred Thousand Dollars (\$600,000) per year in accordance with the terms described in SECTION 3 - TERM. The compensation includes, but is not limited to, fees for professional engineering services based on the CONSULTANT's burdened labor rates, overhead, and profit, and fees from the CONSULTANT's subconsultants/subcontractors (Subconsultants/Subcontractors). The specific amount of compensation payable to the CONSULTANT for services rendered on an individual project, pursuant to a Task Order, shall be established for each Task Order and shall not exceed Three Hundred Thousand Dollars (\$300,000) per individual Task Order unless authorized by OC San's Board of Directors. The CONSULTANT agrees and acknowledges that the execution of this Agreement does not in any way guarantee that a Task Order will be issued to the CONSULTANT. Moreover, execution of this Agreement shall not entitle the CONSULTANT to any form of payment or compensation from OC San without OC San first having issued a written Task Order.

A. Total Compensation

Total compensation for any Task Order shall not exceed the amount indicated in the approved Task Order and any approved amendments thereto.

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 the project and paid to CONSULTANT's personnel. The cost of benefits for CONSULTANT and its Subconsultants/Subcontractors shall be based on the fringe rates identified in Attachment "B" – Fee Proposal. Upon request of OC San, CONSULTANT shall provide OC San with certified payroll records of all employees' work that is charged to the project.

C. Overhead

As a portion of the total compensation to be paid to CONSULTANT, OC San shall compensate CONSULTANT and its Subconsultants/Subcontractors for overhead at the rates equal to the percentage of burdened labor as specified in Attachment "B" – Fee Proposal.

D. Profit

Profit for CONSULTANT and its Subconsultants/Subcontractors shall be a percentage of the burdened salary rate and overhead rate. When the total of Burdened Labor and Overhead cost is \$250,000 or less, the Profit shall be 10% of Burdened Labor and Overhead. When the total of Burdened Labor and Overhead cost exceeds \$250,000, the maximum Profit shall be limited by a straight declining percentage between 10% and 5%. Such profit percentages shall remain fixed through the term of this Agreement, inclusive of any renewals identified in Section 3 – TERM.

As a portion of the total compensation to be paid to CONSULTANT and its Subconsultants/Subcontractors, OC San shall pay profit for all services rendered by CONSULTANT and its Subconsultants/Subcontractors for the project as specified in the previous paragraph.

E. Direct Costs

OC San shall reimburse CONSULTANT and its Subconsultants/Subcontractors the actual costs of permits and associated fees, travel, licenses, and other services in an amount not to exceed the sums set forth in each approved Task Order. OC San shall also pay to CONSULTANT actual costs for equipment rentals, leases or purchases with prior written 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, refer to Attachment "C" – Allowable Direct Costs. All incidental expenses shall be included in the overhead cost pursuant to this SECTION 4 – COMPENSATION.

F. Other Direct Costs

OC San will reimburse the CONSULTANT for Other Direct Costs incurred by CONSULTANT and its Subconsultants/Subcontractors due to modifications in the scope of work resulting from field investigations and field work required by the Task Order. These items may include special equipment, test equipment and tooling, and other materials and services not previously identified. Refer to Attachment "C" – Allowable Direct Costs for payment information.

G. 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 "C" – Allowable Direct Costs. The reimbursement of the above-mentioned expenses will be based on an "accountable plan" as considered by the Internal Revenue Service (IRS). The plan includes a combination of reimbursements based upon receipts and a "per diem" component approved by the IRS. The most recent schedule of the per diem rates utilized by OC San may be found on the U.S. General Services Administration website at <http://www.gsa.gov/portal/category/104711#>.

The CONSULTANT shall be responsible for the most economical and practical means of 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 general 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 a 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 the 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 Attachment "C" – Allowable Direct Costs.

H. 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 Task Order, including any approved additional compensation, CONSULTANT shall notify OC San immediately, in writing. The 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 of a Task Order is a material breach of this Agreement.

I. Method of Payment:

The CONSULTANT shall submit for approval by OC San, monthly invoices based on the total services which have been satisfactorily completed and specifying a percentage of completion. The CONSULTANT's billings shall be certified for payment by OC San only after OC San has determined that the CONSULTANT has completed each applicable project task.

CONSULTANT shall submit separate invoices for each Task Order on a monthly basis.

CONSULTANT understands that submitted costs are subject to Section 11 - AUDIT PROVISIONS, below.

J. Task Order Completion

Upon satisfactory completion by CONSULTANT of the work called for under the terms of the Task Order and upon acceptance of such work by OC San, CONSULTANT will be paid the unpaid balance of any money due for such work.

Upon satisfactory completion of the work performed under each Task Order and prior to final payment under each Task Order 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.

K. False Claims

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 Ten Thousand Dollars (\$10,000) civil penalty for each false claim submitted. This section shall also be binding on all Subconsultants/Subcontractors.

The CONSULTANT or its Subconsultants/Subcontractors shall be deemed to have submitted a false claim when the CONSULTANT or its Subconsultants/Subcontractors: (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.

L. California Department of Industrial Relations (DIR) Registration and Record of Wages:

To the extent the CONSULTANT's employees and/or its Subconsultants/Subcontractors who will perform work during the design, preconstruction, and construction 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 its Subconsultants/Subcontractors shall comply with the registration requirements of Labor Code section 1725.5. Pursuant to Labor Code section 1771.4, the work is subject to compliance monitoring and enforcement by the DIR.

The CONSULTANT and its Subconsultants/Subcontractors shall maintain accurate payroll records and shall comply with all the provisions of Labor Code section 1776 and shall submit payroll records to the Labor Commissioner pursuant to Labor Code section 1771.4(a)(3). Penalties for non-compliance with the requirements of Labor Code section 1776 may be deducted from progress payments per Labor Code section 1776.

Pursuant to Labor Code section 1776, the CONSULTANT and its Subconsultants/Subcontractors shall furnish a copy of all certified payroll records to OC San and/or general public upon request, provided the public request is made through OC San, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the DIR.

The CONSULTANT and its Subconsultants/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).

M. Record of Expenses:

The CONSULTANT shall keep complete and accurate records of all costs and expenses incidental to services covered by this Agreement. Such records will be made available to OC San upon request.

N. 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 payable under the Task Order, provided that the total compensation for the Task Order is not increased.

SECTION 5. LIMITATIONS UPON SUBCONTRACTING AND ASSIGNMENT

The CONSULTANT shall not contract with any other person or entity to perform the services required without the written approval of OC San. This Agreement may not be assigned voluntarily or by operation of law without the prior written approval of OC San. If the CONSULTANT is permitted to subcontract any part of this Agreement by OC San, the CONSULTANT shall be responsible to OC San for the acts and omissions of its Subconsultant/Subcontractor, as it is for persons directly employed by the CONSULTANT. Nothing contained in this Agreement shall create any contractual relationship between any Subconsultant/Subcontractor and OC San. All persons engaged in the work will be considered employees of the CONSULTANT. OC San will deal directly with and will make all payments to the CONSULTANT.

SECTION 6. CHANGES TO SCOPE OF WORK

In the event of a change in the scope of work as requested by OC San or any other changes to the Task Order, the Parties shall execute an amendment to the Task Order setting forth with particularity all new terms of the Task Order, including, but not limited to, any additional compensation.

SECTION 7. DOCUMENT OWNERSHIP – CONSULTANT PERFORMANCE

- A. 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 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's 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 services are satisfied by the completion of the Agreement or are terminated in accordance with other provisions of this Agreement. Notwithstanding any other provision of this section 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 deliverables 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.
- C. Copies of Work Product

Upon completion of the work required for each Task Order, the CONSULTANT shall deliver to OC San the number of copies specified in the specific Task Order scope of work of the final report containing the CONSULTANT's findings, conclusions, recommendations, and all supporting documentation and/or final design drawings and specifications. Each Task Order will define the requirements for the deliverables.

SECTION 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 Worker's 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: Two Million Dollars (\$2,000,000) per occurrence with Four Million Dollars (\$4,000,000) aggregate. If aggregate limits apply separately to this Agreement (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. Said insurance shall include coverage for the following hazards: Premises-Operations, blanket contractual liability (for this Agreement), products liability/completed operations (including any product manufactured or assembled), broad form property damage, blanket contractual liability, independent contractors liability, personal and advertising injury, mobile equipment, owners and contractors protective 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) and Riggers/On Hook Liability must be included in the General Liability policy and coverage must be reflected on the submitted Certificate of Insurance.

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 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 limits of liability coverage: Combined single limit of One Million Dollars (\$1,000,000) or alternatively, Five Hundred Thousand Dollars (\$500,000) per person for bodily injury, One Million Dollars (\$1,000,000) per accident for bodily injury, and Five Hundred Thousand Dollars (\$500,000) per accident for property damage. 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 the CONSULTANT in the amount of One Million Dollars (\$1,000,000) in a form acceptable to OC San.

F. Worker's 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 Worker's 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 the State of California Insurance Fund and the identifier "SCIF" and applicable endorsements 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:

The CONSULTANT shall maintain in full force and effect, throughout the term of this Agreement, standard industry form professional liability/errors and omissions insurance coverage with coverage limits of not less than Five Million Dollars (\$5,000,000) 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, the CONSULTANT shall obtain continuing insurance coverage for the prior acts or omissions of the CONSULTANT during the course of performing services under the terms 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 or omissions of the CONSULTANT during the course of performing services under the terms of this Agreement.

The 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 policies and endorsements shall conform to the requirements herein stated. All certificates and endorsements must be received and accepted by OC San before work commences. OC San reserves the right to require, at any

time, complete, certified copies of all required insurance policies, including endorsements, effecting the coverage required. 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 2010 and CG 2037

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 (Auto Liability) Submit Endorsement provided by carrier for OC San's approval.
- Waiver of Subrogation Submit workers' compensation waiver of subrogation endorsement provided by carrier for OC San's approval.
- Cancellation Notice No endorsement is required. However, Vendor/Contractor 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 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

J. Primary Insurance:

All 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 the CONSULTANT.

K. Separation of Insured:

All 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 the 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 acceptance by OC San. At the option of OC San, either: a) the insurer shall reduce or eliminate such deductible or self-insured retention as respects OC San or b) the CONSULTANT shall provide a financial guarantee satisfactory to OC San guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

N. Defense Costs:

Liability policies 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/Subcontractors:

The CONSULTANT shall be responsible to establish insurance requirements for Subconsultants/Subcontractors hired by the CONSULTANT. The insurance shall be in amounts and types reasonably sufficient to deal with the risk of loss involving the Subconsultants'/Subcontractors' 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 the CONSULTANT.

SECTION 9. PROJECT TEAM AND SUBCONSULTANTS

CONSULTANT shall provide to OC San, prior to execution of a Task Order, the names and full descriptions of all Subconsultants/Subcontractors and CONSULTANT's project team members anticipated to be used in performing work under a Task Order. In its proposal,

CONSULTANT shall include a description of the work and services to be performed by each Subconsultant/Subcontractor and each of CONSULTANT's project team members. CONSULTANT shall include the respective compensation amounts for CONSULTANT and each Subconsultant/Subcontractor broken down as indicated in Section 4 – COMPENSATION, above.

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

SECTION 10. ENGINEERING REGISTRATION

The CONSULTANT's personnel and its Subconsultants/Subcontractors shall be 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 when the performance of this Agreement requires the services of a registered engineer, such services hereunder will be performed under the direct supervision of registered engineers who are registered in the State of California.

SECTION 11. 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 the 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 its Subconsultants/Subcontractors.
- 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 the requirements under this Agreement during the term of this Agreement and for a period of three (3) years after expiration or earlier termination of the Agreement.
- C. The 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 fifteen (15) days after receipt of notice from OC San. Upon OC San's request, the CONSULTANT shall submit exact duplicates of originals of all requested records to OC San. If an audit is performed, the 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.

SECTION 12. LEGAL RELATIONSHIP BETWEEN PARTIES

The legal relationship between the Parties is that of an independent contractor and nothing herein shall be deemed to transform the CONSULTANT, its staff, independent contractors, or its Subconsultants/Subcontractors, into agents or employees of OC San and shall obtain no

rights to any benefits which accrue to OC San's employees. CONSULTANT's staff performing services under the Agreement shall at all times be employees and/or independent contractors of the CONSULTANT. The CONSULTANT shall monitor and control its staff and wages, salaries, and other amounts due directly to its staff in connection with the Agreement. The 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 insurance, and similar matters.

SECTION 13. 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.

Notice shall be mailed to OC San at:

ORANGE COUNTY SANITATION DISTRICT
10844 Ellis Avenue, Fountain Valley, CA 92708
Attention: [CA's Name], [CA's Title]
Copy: [PM's Name], [PM's Title]

Notice shall be mailed to CONSULTANT at:

CONSULTANT
Street Address
City, State Zip
Attention: CONSULTANT's Representative

All communication regarding the Task Order 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.

SECTION 14. TERMINATION

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

The CONSULTANT shall be permitted to terminate this Agreement upon thirty (30) days written notice only if the 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 13 – NOTICES, above.

SECTION 15. COMPLIANCE

The 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.

The CONSULTANT shall comply with all applicable laws, ordinances, codes, and regulations of Federal, State, and local government in all aspects related to this Agreement and any work completed for OC San.

SECTION 16. AGREEMENT EXECUTION AUTHORIZATION

Both OC San and the 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.

SECTION 17. 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.

SECTION 18. ATTORNEY’S FEES, COSTS, AND NECESSARY DISBURSEMENTS

If any action at law or inequity or if any proceeding in the form of an Alternative Dispute Resolution 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 it may be entitled.

SECTION 19. 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 the CONSULTANT that any part of the services fails to meet those standards, the CONSULTANT shall, within the time prescribed by OC San, take all such actions as are necessary to correct or complete the noted deficiency(ies).

SECTION 20. INDEMNIFICATION

To the fullest extent permitted by law, the CONSULTANT shall indemnify, defend (at the 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” and 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 the CONSULTANT in carrying out its obligations under this Agreement to the

extent of the negligent, recklessness, and/or willful misconduct of the CONSULTANT, its principals, officers, agents, employees, CONSULTANT's suppliers, 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 the 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 the CONSULTANT's supplier, Subconsultant, Subcontractor, nor anyone employed directly or indirectly by any of them.

Exceptions (A) through (B) above shall not apply, and the 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.

The CONSULTANT's liability for indemnification hereunder is in addition to any liability the CONSULTANT may have to OC San for a breach by the 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 the CONSULTANT's indemnification obligation or other liability hereunder. The terms of this Agreement are contractual and the result of negotiation between the Parties. 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.

SECTION 21. 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 the 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 the CONSULTANT. Payment to the 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 the CONSULTANT for the reasonable costs of defending the Indemnified Parties against such Claims.

The 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.

SECTION 22. COMPLIANCE WITH OC SAN POLICIES AND PROCEDURES

The CONSULTANT shall be required to comply with all OC San policies and procedures. OC San requires the CONSULTANT and its Subconsultants/Subcontractors to follow and ensure their employees follow all Federal, State, and local regulations as well as OC San’s safety standards while working at OC San locations. If during the course of the contract it is discovered that OC San’s safety standards do not comply with Federal, State, or local regulations, then the CONSULTANT is required to follow the most stringent regulatory requirement at no additional cost to OC San. The CONSULTANT and all of its employees and Subconsultants/Subcontractors, shall adhere to all applicable Contractor Safety Standards attached hereto as Attachment “D”.

SECTION 23. GOVERNING LAW

This Agreement shall be governed by and interpreted under the laws of the State of California and the Parties submit to jurisdiction in Orange County in the event any action is brought in connection with this Agreement or the performance thereof.

SECTION 24. TIME OF ESSENCE

Time is of the essence in the performance of this Agreement.

SECTION 25. CONFLICT OF INTEREST

The CONSULTANT covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of the services contemplated by this Agreement. No person having such interest shall be employed by or associated with the CONSULTANT.

SECTION 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 hereof.

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

CONSULTANT: COMPANY NAME

By _____
Date _____

Printed Name & Title

ORANGE COUNTY SANITATION DISTRICT

By _____
Date _____
David John Shawver
Board Chairman

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

By _____
Date _____
Ruth Zintzun
Purchasing & Contracts Manager

- Attachments: Attachment "A" Sample Scope of Work
Attachment "B" Fee Proposal
Attachment "C" Allowable Direct Costs
Attachment "D" Contractor Safety Standards

ATTACHMENT “A”

SAMPLE SCOPE OF WORK

ATTACHMENT A

SCOPE OF WORK

CENGEN COOLING WATER PIPE REPLACEMENT AT PLANT NO. 2

Project No. FE20-04

I. SUMMARY

Provide professional design engineering services for the project described herein including the following:

- o Engineering Studies (Not included in this Agreement)
- o Preliminary Design Report
- o Permitting Assistance (Not included in this Agreement)
- o Preparation of Bid Documents
- o Services during Construction
- o Commissioning Services (Not included in this Agreement)
- o Closeout Services

II. BACKGROUND, GENERAL PROJECT DESCRIPTION, AND PROJECT ELEMENTS

The Central Power Generation System (Cengen) at Plant No. 2 was constructed by project J-19-2 in the early 1990's. The system provides the second level of power for the plant and requires cooling water to operate. The cooling water is highly corrosive and is causing the existing metallic piping to develop leaks. This project will replace the existing Cengen cooling water piping.

PROJECT ELEMENTS

Project Element 1 - Cooling Water Pipe Replacement

Replace the existing Cengen cooling water loop piping and associated valves and appurtenances. The existing piping is ductile iron in a variety of sizes and connection types (welded, flanged, and Victaulic). The approximate lengths of pipe to be replaced are provided in Table 1. The existing pipes are supported on steel brackets which in some cases support other pipelines.

| Table 1 – Pipe Quantities | |
|---------------------------|------------------------------|
| Pipe Diameter (in) | Approximate Pipe Length (ft) |
| 6 | 350 |
| 8 | 450 |
| 10 | 600 |

For the purpose of estimating the predesign and design phase levels of effort, the CONSULTANT shall make the following assumptions regarding this project element:

- New pipe will be fiberglass reinforced pipe (FRP), or glass reinforced pipe (GRP) based on a performance-based specification.
- Design for thermal expansion and contraction.
- Provide typical joint restraints and pipe supports. Utilize existing pipe supports when feasible. Install new supports when necessary.
- Design cleanouts and air release/air vacuum assemblies, and shutoff valves.
- Construction should be phased so that a minimum of three Cengen engines must be in service at all times.

See Exhibits 13.1 and 13.2 for pictures and record drawings.

III. PROJECT SCHEDULE

Table 1 lists the time frames associated with each major project deliverables along with OCSD's review and approval periods. CONSULTANT shall comply with the deadlines indicated in this table.

| Table 1 – Project Milestones and Deadlines | |
|---|---|
| MILESTONE | DEADLINE |
| Kickoff Meeting | The kickoff meeting will be scheduled to coincide with the Project Notice to Proceed (NTP). |
| Preliminary Design Report (PDR) | 50 workdays from Preliminary Design Phase NTP |
| OCSD Review of PDR | 10 workdays from receipt of PDR |
| Submit Design Submittal 3 (DS3) | 80 workdays from approval of PDR |
| OCSD Review of DS3 | 20 workdays from receipt of DS3 |
| Submit Final Design Submittal (FDS) | 20 workdays from receipt of OCSD comments on DS3 |
| OCSD Review of FDS | 15 workdays from receipt of FDS |
| Submit Final Technical Specifications and Plans | 10 workdays from receipt of OCSD comments on FDS. |

For construction, commissioning, and closeout phase services shall be provided per the construction contract schedule, and the following schedule constraints:

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| Table 2 – Construction Phase Milestones and Deadlines | |
|--|---|
| Task(s) | Period of Performance |
| Submittals | As described under task titled “Task 4.1 Submittal Reviews” |
| Requests for Information | As described under task titled “Task 4.2 Requests for Information (RFIs)” |
| Record Drawings | Draft Record Drawings shall be submitted to OCSD within 4 weeks of receipt from OCSD of the approved Contractor’s As-Built drawings. The Final Record Drawings shall be submitted within 1 week of receipt of OCSD comments on the Draft Record Drawings. |

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

IV. PROJECT EXECUTION

Provide the following engineering services.

PHASE 1 – PROJECT DEVELOPMENT (NOT IN THIS SCOPE OF WORK)

PHASE 2 – PRELIMINARY DESIGN DOCUMENTS

TASK 2.1 – PRELIMINARY DESIGN REPORT

- All significant equipment decisions are to be made before the start of Phase 3 – Design. At the end of Phase 2 – Preliminary Design, major design elements should be fixed, and major equipment, footprints, and utility connection locations should be well established. The extent of the design and the number and type of drawings should also be established.
- The report shall identify any equipment that have fewer than three competitive suppliers. In those cases, the design memo shall recommend an appropriate procurement strategy compatible with California Law and OCSD policies.

TASK 2.1.1 – REPORT CONTENT

The CONSULTANT shall prepare a preliminary design report that includes the following material:

- Summary of key constructability and construction sequencing constraints including conceptual layouts for any temporary bypass piping necessary for construction.
- Develop process flow schematic of the components of the plant water system at Plant No. 2 that impact the pipelines being replaced.

- Field verify sizes, lengths, and alignments in the field. Alignment of new pipe might not be able to follow existing alignment. Any new alignments should be kept as close to the existing alignment as feasible and documented in the PDR. Identify all locations where the existing alignment is not feasible.
- Identify the quantity and location of pipe supports necessary.
- Perform utility research, field investigations and staff interviews, and complete exhibits and drawings as necessary to develop alignment alternatives and reach agreement with OCSD for preferred alignment.
- All meeting, workshop, and field walk notes.

Preliminary Design Construction Cost Estimate

The CONSULTANT shall prepare an AACE International Class 4 cost estimate per OCSD's Engineering Design Guidelines, Chapter 01. Data used to prepare the cost estimate shall be included as an attachment to the PDR.

TASK 2.2 – PRELIMINARY DESIGN MEETINGS

CONSULTANT shall hold meetings necessary for the completion of the work. Assume a minimum of three meetings/workshops with a duration of two hours each.

TASK 2.3 - QUALITY CONTROL

CONSULTANT shall provide Quality Assurance and Quality Control of the work. Provide documentation upon request.

TASK 2.4 – PDR SUBMITTAL REVIEW

See Task 3.4 – Design Submittal Review for details.

PHASE 3 – DESIGN

CONSULTANT shall be responsible for managing CONSULTANT's project execution, schedule, budget, subconsultants, and coordination with other projects. CONSULTANT shall hold meetings and workshops throughout the project to keep OCSD 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 OCSD staff. In addition, provide the following services during design phase.

TASK 3.1 - BID DOCUMENTS

CONSULTANT shall provide engineering services to prepare biddable plans, technical specifications, and other Bid Documents as required. The CONSULTANT shall prepare construction drawings required for the work in CAD. Utilize CAD drawings provided by

OCSD. CONSULTANT shall provide Construction Cost Estimates with DS3. Show all utilities impacting the work. Make submittals in Bluebeam and respond to OCSD comments in Bluebeam.

Where possible, piping plans and sections shall be based on existing record drawings. CONSULTANT shall utilize existing record drawings as screened base layers to depict the demolition and installation work.

TASK 3.2 – DESIGN SUBMITTAL REVIEW

The draft PDR and final PDR shall be submitted in searchable PDF format with no hard copy. Drawings shall be submitted as a single compiled file, except where the size of the file would exceed 100 MB, in which case the drawings should be separated into separate files by discipline. The PDF files shall be named to include the project number, the name of the deliverable (e.g. Draft PDR, DS3, etc.), the volume, and the content. In cases where drawings are divided into separate PDF files by discipline, a number or letter shall be included in the file name so that the files are listed in the same order as the List of Drawings (this includes the PDR developed P&IDs, single-line drawings, plan drawings, etc.).

OCSD has standardized on the use of Bluebeam Revu for reviewing and providing comments to PDF files. The purpose of the studio session is to provide review and collaboration. OCSD staff will create the Bluebeam studio session, invite attendees, configure, and manage the Studio session. Make drawing submittals in Bluebeam and respond to OCSD comments in Bluebeam.

Specifications will be provided as Microsoft Word (MS-Word) files hosted in Microsoft Teams (MS-Teams). Make specification revisions and respond to OCSD comments using MS-Word in MS-Teams. OCSD comments shall be addressed using MS-Word “Reply” and “Resolve.” The CONSULTANT shall “Reply” to each OCSD comment describing how the comment will be addressed and revise the specification, as needed, to address the comment. “Resolve” will be used by the reviewer or designee to confirm their comment has been addressed.

After final design, all MS-Word comments and revisions shall be Track Changes accepted, rejected, resolved, or deleted prior to bid. The MS-Word commands to “Accept All Changes” and “Delete All Comment in Document” shall be performed just prior to preparing the Bid Documents. No unaddressed comments or revisions shall remain in the Bid Documents.

For more information see Exhibits 14, 15, and 16.

TASK 3.3 - QUALITY CONTROL

Provide Quality Assurance and Quality Control of the work. Provide documentation upon request.

TASK 3.4 - BID SUPPORT SERVICES

CONSULTANT shall provide answers to bidder's questions related to the design. Provide revisions to specifications and drawings when needed for addendum.

PHASE 4 – CONSTRUCTION SERVICES

OCSD will administer and provide field inspection for construction contracts. Construction and installation support services shall be provided by the CONSULTANT as indicated below.

TASK 4.1 – SUBMITTAL REVIEWS

OCSD will manage submittal review. The CONSULTANT shall use PMWeb to review and return comments to OCSD. Return comments within one week.

TASK 4.2 – REQUESTS FOR INFORMATION (RFI'S)

OCSD will manage the processing of RFI's. When requested by OCSD, CONSULTANT shall return written responses to OCSD within five calendar days of receipt of RFI using PMWeb. CONSULTANT shall generate necessary sketches, figures, and modifications to the drawings for clarification.

PHASE 5 – COMMISSIONING SERVICES (NOT USED)

PHASE 6 – CLOSEOUT

CONSULTANT shall verify that the Contractor's As-Built set correctly reflects the information included in the approved shop drawings, RFIs, approved Field Change Orders, plan clarifications, plan changes, and other deviations from the conformed drawings, and that the information in the set is complete.

CONSULTANT shall prepare Draft Record Drawings based on the Final Field Markup Set for all drawings in accordance with the requirements in the CAD Manual. The CONSULTANT shall submit the Draft Record Drawings to the OCSD Resident Engineer. The Draft Record Drawings will be reviewed for content and CAD compliance by OCSD staff. If no comments are identified, CONSULTANT shall prepare the Final Record Drawings and submit them along with the Contractor's field markup set to the Project Manager. All record drawings shall contain a stamp indicating:

Record Drawings

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of this information and shall not be responsible for any errors or omissions which may be herein as a result.

The stamp shall optimally be placed in the bottom right-hand corner of the border and may be included via x-ref. If importing the stamp via x-ref interferes with content in the bottom right-hand corner, the stamp may also be placed in other open space along the bottom of the border. In addition, a note shall be placed over the engineer's seal stating that "This drawing was originally approved for construction by [name of engineer] on [date] and sealed by [name of engineer] a licensed professional engineer in the State of California No. [License number] ".

CONSULTANT shall submit an electronic copy of the record drawings to OCSD for review and approval. The acceptance of the record drawings shall be deemed a condition for completion of work.

Contractor-generated drawings described in the Design Guidelines and the shop drawings will not be updated by CONSULTANT. The format and quantities for delivery of the submittals shall be listed below:

| Contents | Draft Record Drawings | Final Record Drawings |
|---|--|--|
| All related electronic files, including CAD and compiled PDFs | One copy to be uploaded to Microsoft Teams | One copy to be uploaded to Microsoft Teams |

V. STAFF ASSISTANCE

OCSD staff member or designee assigned to work with CONSULTANT on the design of this project is Andrew Brown. Phone (714) 599-3397, e-mail abrown@ocsd.com.

EXHIBITS:

Exhibits 1-12 – Not Used

Exhibit 13 Project Reference Material

- 13.1 – Project Maps and Photos
- 13.2 – Record Drawings

Exhibit 14 – BlueBeam Designer Training for Submission

Exhibit 15 – BlueBeam Designer User Training

Exhibit 16 – Spec Review using Microsoft Word and Teams

AB:dm

ATTACHMENT A

SCOPE OF WORK

[Project Title]

Project No. []

1. PROJECT REQUIREMENTS

SUMMARY

1.0.1 PROFESSIONAL DESIGN ENGINEERING SERVICES

- 1.0 A. Provide professional design engineering services for the project described herein including the following:
1. Engineering studies **[(Not included in this Agreement)]**
 2. Preliminary Design Report
 3. Environmental documentation services **[(Not included in his Agreement)]**
 4. Permitting assistance **[(Not included in this Agreement)]**
 5. Preparation of bid documents
 6. Commissioning services **[(Not included in this Agreement)]**
 7. Closeout services **[(Not included in this Agreement)]**

1.1 BACKGROUND AND GENERAL PROJECT DESCRIPTION

A. [The existing Headworks at Plant No. 2 has been expanded and modified by more than 40 different projects over the past 30 years. There are a number of Headworks components requiring major rehabilitation, replacement, automation, and safety/seismic upgrades. A Preliminary Engineering Report was prepared in 2000 to evaluate the condition of the existing Headworks and determine if was more technically and economically feasible to replace rather than upgrade the existing Headworks. The Report recommended that new Headworks be built at Plant No. 2 to handle flows through the year 2020.]

- 1.2 B. [The new Headworks at Plant No. 2 will have a rated capacity of 340 mgd and will be located in the area currently occupied by the sludge drying beds. Once the new Headworks is constructed and in operation, the existing Headworks B and C will be demolished. Associated electrical equipment located in Power Buildings A and B will also be demolished. Any instrumentation that currently sends information to the Headworks PLCs will need to be relocated in PLCs in another area before the existing Headworks is demolished. In addition, any piping that passes through the existing Headworks will need to be rerouted as part of this project.]

DESCRIPTION OF PROJECT ELEMENTS

Detailed descriptions of the Project Elements are presented below.

1.2.1 PROJECT ELEMENT 1 – [DIVERSION STRUCTURE]

- A. [The Diversion Structure shall be a reinforced concrete structure with gates to allow flow from an influent trunk to be diverted to the adjacent meter(s). This structure includes stop logs and plates to allow gate maintenance.]
- B. [Assumptions for Level of Effort
1. The structure will be cast-in-place concrete with a concrete cover.
 2. The concrete cover will support a one-room, single story concrete block building to house future electrical and control equipment. The concrete cover shall house 6 conduits to supply power and control to the future electrical building.
 3. Access to the bottom of the Diversion Structure will be provided by a staircase to a lower level.]
 4. [Temporary odor control facilities and temporary piping is needed to phase the replacement of the utilities in the tunnels.]
 5. [Coordinate with SP-166, Odor Control Master Plan. This study will evaluate odor control requirements and the costs of different levels of service at both plants. The conclusions of this study may have a significant impact on temporary odor control facilities. The Consultant shall coordinate with each project and incorporate work restrictions and requirements in the design documents]

PROJECT SCHEDULE

1.3 1.3.1 GENERAL

A. The table below lists the time frames associated with each major project deliverable and with OCSD's review and approval of those deliverables. CONSULTANT shall comply with the deadlines indicated in that table.

B. The time frames specified below are used to estimate the actual milestone dates based on the assumed NTP date, as shown in **Exhibit 8 - Project Schedule Calculation**.

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

| PROJECT MILESTONE AND DEADLINES | |
|--|--|
| MILESTONE | DEADLINE |
| Kickoff Meeting | The kickoff meeting will be scheduled to coincide with the Preliminary Design NTP. |
| Preliminary Design NTP | |
| Submit draft Preliminary Design Report (PDR) | [80] workdays from the Preliminary Design NTP. CONSULTANT shall establish a schedule with the OCSD PM for separately submitting working drafts of each Design Memo for OCSD review prior to completing the draft PDR. This schedule shall factor in the logical sequence for completing the memos as well as both CONSULTANT and OCSD resources. |
| OCSD Review of draft PDR | [10] workdays from receipt of Draft PDR |
| Submit final Preliminary Design Report | [10] workdays from receipt of OCSD comments on Draft PDR. |
| Final Design Notice to Proceed | CONSULTANT's schedule shall allow [10] working days from submittal of the final PDR to receipt of the Design Phase NTP. |
| Submit Design Submittal 3 (DS3) | [80] workdays from receipt of OCSD comments on DS2. |
| OCSD Review of DS3 | [20] workdays from receipt of DS3 |

| PROJECT MILESTONE AND DEADLINES | |
|--|---|
| MILESTONE | DEADLINE |
| Submit Final Design Submittal (FDS) | [10] workdays from receipt of OCSD comments on DS3. CONSULTANT shall stop work upon submission of DS3, except as required to participate in OCSD meetings, until receipt of OCSD comments on DS3. |
| OCSD Review of FDS | [10] workdays from receipt of FDS |
| Final Technical Specifications and Plans | [5] workdays from receipt of OCSD comments on FDS. |

D. For construction, commissioning, and closeout phase services, services shall be provided per the construction contract schedule, and the following schedule constraints:

| CONSTRUCTION, COMMISSIONING AND CLOSEOUT SCHEDULE CONSTRAINTS | |
|---|--|
| TASK(S) | PERIOD OF PERFORMANCE |
| Submittals | As described under task titled "Submittals" |
| Requests for Information | As described under task titled "Requests for Information (RFIs)" |
| Record Drawings | Draft Record Drawings shall be submitted to OCSD within 4 weeks of receipt from OCSD of the approved Contractor's As-Built drawings. The Final Record Drawings shall be submitted within 1 weeks of receipt of OCSD comments on the Draft Record Drawings. |

2. PHASE 2 – PRELIMINARY DESIGN

2.0 PRELIMINARY DESIGN PRODUCTION

2.0.1 GENERAL

A. Preliminary Design Report (PDR) production involves the preparation of design memos, drawings, calculations, and other supporting material resulting in the PDR.

2.0.2 DESIGN MEMOS

A. The CONSULTANT shall produce Design Memos as indicated below in accordance with **Exhibit 1 - Preliminary Design Report Requirements**. The CONSULTANT shall discuss the combining of design memos with OCSD and develop a design memo submittal list.

- Process Design Configuration**
 - Design Configuration
 - Redundancy
 - Monitoring and Sampling
 - Process Flow Diagrams
 - Site and Facility Layouts
 - Preliminary Load Criticality Ranking Table
- Hydraulic Analysis**
[Limits of Modeling: ...]
 - Hydraulic Analysis
 - Hydraulic Profile
- Demolition**
 - Describe Demolition Requirements
 - Demolition List
 - Demolition Plans

- Demo EID
- Rehabilitation Requirements**
- Geotechnical Data Report**
 - Review of Existing Data - Preliminary Geotechnical Report
 - Geotechnical Data Report and Recommendations
- Civil Design Parameters**
 - General Civil
 - Drainage Requirements
 - Corrosion Protection Requirements
- Utility Requirements**
- Structural Design Parameters**
- Architectural Design Parameters**
 - Note: Develop up to **[three]** alternative concepts for review and acceptance
- Process Mechanical Design Parameters**
- Building Mechanical Design Parameters**
- Fire Protection**
 - Fire Protection Requirements
 - Fire Water Flow Analysis
 - Fire Protection Requirements for Existing Facilities
- Electrical**
 - Codes/standards. Brief description of electrical system. Electrical drawings.
 - Identify Electrical System Impacts
 - Report – Data Collection and Verification
 - Preliminary Load List
 - Preliminary Standby Power Requirements
 - ETAP – Preliminary Short Circuit Analysis and Load Flow/Voltage Drop Studies
 - ETAP – Provide Data. OCSD will perform ETAP studies.
 - Preliminary Analysis for cable pull calcs, ductbank cable derating, cable tray fill calcs.
 - Hazardous Area Classification Requirements
- Instrumentation and Control**
 - Instrumentation and Control System
 - Specialty Safety Systems
 - Preliminary SAT
 - PLC and RIO Panel Location Map
 - CCTV Coverage Map
- Landscaping**
 - Landscaping Requirements
 - Develop up to **[three]** alternative concepts for review and acceptance
- Plant Utility Investigation Findings**
- Vibration Analysis**
 - [Perform vibration analysis for the following equipment:**
 - 1. Equipment 1**
 - 2. Equipment 2**
 - 3. Equipment 3]**
 - [(See revised Engineering Design Guidelines Chapter 06, MECHANICAL DESIGN, Section 06.7 “Vibration Analysis for Rotating Electrical Equipment” located at the end of the scope of work)**
- Collections Basis of Design**
 - Codes and Standards
 - Hydraulic Analysis

- Pipeline Basis of Design
- Manhole Basis of Design
- Hydraulic Profiles
- Collections Rehabilitation Alternatives**
 - Pipeline Rehabilitation
 - Manhole Rehabilitation
- Collections Pipeline Design**
 - Assume 3 viable alignment options
 - Design Memo Items 1-12
 - Open-cut vs. Trenchless Technologies
 - Trenchless Technologies at Major Closings
 - [Assume that a minimum of [17] trenchless crossings will be required.]**
- Collections Utility Investigation Findings**
- Collections Conceptual Traffic Control**
 - AHJ and Traffic Control Identification
 - Basis for Traffic Control Strategy
 - Traffic Analysis
 - Traffic Control Plans
- Design Safety Requirements**
 - Design Safety Requirements
 - Identify all potential project specific safety issues
 - Identify all potential Cal OSHA and OCSD safety issues
 - Identify construction safety hazards
 - Use Sample Full Project Safety Review Plan to verify safety elements
 - Risk Management Check List to verify safety elements
 - HAZOP
- Public Impacts**
- Environmental and Regulatory Requirements**
 - CEQA Part of Programmatic EIR
 - CEQA work consists of [____]
 - Determine project environmental and regulatory requirements
 - Matrix of CEQA and Permit Requirements
 - Mitigation, Monitoring and Reporting List
- Permit Requirements**
 - List of Permits Required
 - Oil Well Abandonment
- Stormwater Requirements**
- Hazardous Material Survey, Mitigation and Control**
- Maintainability**
 - Define Maintainability Requirements
 - Maintainability Requirements Plan Drawings
 - Define Maintainability Rules
 - Define Maintainability Information for Project Specific Equipment
- Facility Operation and Maintenance**
 - Facility O&M Requirements
 - Operating Philosophies
 - Preliminary Assessment of O&M Staffing Requirements
- Implementation Plan**
 - Identification of Adjacent Projects
 - Preliminary Commissioning Checklist

- Preliminary Construction Sequencing Plan
- Review of Constructability Issues
- Temporary Handling of Flow
- Construction Odor Monitoring and Mitigation**
- Preliminary Technical Specification List**

2.0.3 PROJECT SPECIFIC DESIGN MEMOS

A. []

2.0.4 PRELIMINARY DESIGN DRAWINGS

A. The CONSULTANT shall produce the following Preliminary Design Report drawings in accordance with **Exhibit 1 - Preliminary Design Report Requirements.**

- General
- Demolition
- Civil
- Landscape
- Structural
- Architectural
- Mechanical
- Electrical
- Instrumentation and Control

2.0.5 PRELIMINARY DESIGN REPORT (PDR) CONTENTS AND ORGANIZATION

A. Preliminary Design Report (PDR) Production involves the preparation of design memos, drawings, calculations, and other supporting material resulting in the PDR.

B. The CONSULTANT shall combine the materials described below into a draft PDR. The PDR shall be structured as outlined below, with the contents corresponding to the tasks listed in this Scope of Work.

**Preliminary Design Report Design Memos
Drawings (see Preliminary Design Drawings list below)
Submittal Documentation**

- Calculations
- Equipment Data & Catalog Cuts
- Decision Log
- Meeting Minutes

C. The draft PDR and final PDR shall be submitted in searchable PDF format legible on-screen and as a hard copy. The number of hard copies is indicated in **Exhibit 9 - Deliverables Quantities**. The labeling and organization of the PDF submittal shall be in accordance with **Exhibit 14 - Bluebeam Designer Training for Submission.**

2.0.6 PRELIMINARY DESIGN COST ESTIMATE

2.1 A. The CONSULTANT shall provide a cost estimate for the associated PDR submittal indicated below in accordance with **Exhibit 1 - Preliminary Design Report Requirements.**

- Preliminary design cost estimate is not required.
- Preliminary design cost estimate is required.

PRELIMINARY DESIGN ACTIVITIES

The following services shall be provided by the CONSULTANT or an appropriately qualified subconsultant. In any case, the CONSULTANT shall be responsible for managing all subconsultants, including reviewing their work products prior to submission to OCSD.

2.1.1 TOPOGRAPHIC SURVEY

A. CONSULTANT shall conduct field and aerial surveys as required. Topographic information used on the construction plans shall be generated from a field survey **[and an aerial mapping process]**. **[OCSD will not provide the aerial survey information to the CONSULTANT for use on the project.]**

B. Prior to beginning design, CONSULTANT shall prepare the scope of work for field **[and aerial]** surveys required for all applicable project elements. OCSD will establish both vertical and horizontal control for the project. The field survey shall be used to establish both horizontal and vertical alignment of the facilities and shall note all survey monuments, topographic features, property lines, and elevations. The basis of bearings and benchmarks shall be indicated on the drawings. Control shall meet or exceed NGVD 88 requirements and shall be based on the Plant Local Coordinate System and datum. CONSULTANT's project schedule shall account for the above.

C. **[The aerial topography shall be required to meet the following criteria:**

1. **The final product shall be delivered in AutoCAD.**
2. **The aerial shall be based on the plant coordinate system.**
3. **The CAD file shall adhere to the CAD Manual. OCSD shall be given the opportunity to review and comment on the compliance to the CAD Manual.**
4. **Site contours shall be in 0.5-foot intervals.**
5. **Contour and spot elevations shall be 3D; all other features shall be 2D.]**
6. CONSULTANT shall include the survey-related documents with the Design Support Documentation portion of the Design Submittals as specified in the Engineering Design Guidelines, Appendix A, Section A.3.19 "Project Support Documentation (PDS)".

D. Control Surveys for Collection Systems

1. General: Topographical information used on the construction plans shall be generated from an aerial mapping process. CONSULTANT shall provide for the aerial and field surveys necessary for the mapping process for all applicable Project Elements of the project Scope of Work and shall provide for the aerial mapping. Providing for the process includes paying for, coordinating and designing the aerial and horizontal/vertical control surveying for the preliminary and final design. CONSULTANT's responsibilities for the surveys include generating any subconsultant scopes of work, data interpretation and preliminary design. All survey work is to be done under the direction and control of a Professional Land Surveyor, licensed by the State of California.

2. Aerial Survey: The aerial photography shall have sufficient coverage for the digital topographic mapping. The photo scale of the aerial photography shall not be more than 100 feet per inch for pipeline work or 20-feet per inch for pump stations. Stereo pairs of photographs shall be furnished to OCSD.

3. Phasing of Work: Other than the aerial and topographic survey work, the balance of the survey work shall not commence until the design phase of the project has been authorized or concurred to by OCSD.

4. Field Survey Aerial: A field survey shall be used to establish both horizontal and vertical control for the project. Control shall meet or exceed NGVD 88 requirements and shall be based on California State Plan Coordinates (NAD 83) including the 1995 O.C. surveyor's adjustments. A sufficient number of points shall be used to accurately complete the digital topographic modeling. No less than five control points per stereo model shall be used.

5. Aerial Field Survey Inclusions: The field survey shall include all survey monuments, topographic features, easements, property lines, culture, and elevations on the plan and

profile sheets. All covers, including the existing sewer manholes, storm drain manholes, and utility and valve vaults shall be identified and marked in the field.

6. OCSD Review Aerial Survey Line: The general location and alignment of the survey line shall be submitted to OCSD prior to performing the field survey. Survey work shall not commence until authorized or concurred to by OCSD. CONSULTANT shall be responsible for obtaining and paying for the field survey services.

7. Field Survey Base Line: The field survey shall establish a base line for construction purposes for pipeline work equal to or greater than 500-feet in length. The line will be used to define the proposed design, in terms of station and offset, and to establish the bearings for right-of-way. The survey line shall be set on 100-foot stations and shall be tied to the established aerial control. The field survey shall tie in all controlling monuments within the map limits and all street centerline intersections. The ties shall be express in both State Plane Coordinates and as station and offset.

8. Manhole Information: The field survey shall also include the measurement of the invert and manhole rim elevations of all existing sewers within the project reach. The size, orientation and invert of any pipe connections shall also be recorded.

9. Base Map: The base map index contours shall be spaced at five feet (5') vertically and the immediate contours shall be spaced at one-foot (1') contour intervals. The mapping shall include digital topographic mapping. The digital format shall be compatible with OCSD Graphic Information System. All surface features, including those hidden from aerial view shall be incorporated into the digital mapping.

10. Plan and Profile Sheets: CONSULTANT shall prepare plan and profile sheets based upon the aerial mapping. The scale for plan and profile sheets shall be one inch equals forty feet (1" = 40') horizontal and one inch equals four feet (1" = 4') vertical. An aerial photographic (photo strip) with the alignment shall be included. The plan view shall be separate from the photo strip. Intersections shall be adequately detailed at a scale of one inch equals ten feet (1" = 10') or one inch equals twenty feet (1" = 20'). Manholes and other details shall be drawn at a scale that is adequate to provide clarity and sufficient detail for construction. The pump station construction drawings shall be drafted at scales of 1/8" = 1' to 1" = 20', as adequate, to allow for sufficient detail to be shown. The basis of bearings and benchmarks shall be indicated on the drawings,

11. Survey Note Submittal: CONSULTANT shall submit two bound copies of all survey notes and data used to establish vertical and horizontal control. The information submitted shall be suitable for use to establish construction controls. If additional property and/or right-of-way are required, CONSULTANT shall identify property and/or rights-of-way to be acquired. CONSULTANT shall prepare legal descriptions and plats for easements and property to be acquired during the final design phase of the project.

2.1.2 GEOTECHNICAL INVESTIGATION

A. CONSULTANT shall secure the services of a qualified Geotechnical Engineering firm to prepare a Geotechnical Data Report that addresses geotechnical concerns for all applicable Project Elements of the project Scope of Work

B. Soil Explorations

1. The geotechnical services shall include exploratory work such as soil borings necessary to observe, test, classify soils, and monitor groundwater levels and potential groundwater pollutants of concern.

2. The number and spacing of borings shall be based on the geotechnical professional's interpretation of needs and recommendation; however, a maximum of five hundred feet (500') shall be allowed between pipeline alignment borings along a pipeline alignment.

a. If unexpected or unique soils are encountered, an adequate number of borings shall be taken to try and define the limits of the anomaly.

3. **[Borings shall also be taken at or near the upstream and downstream connection points for the proposed facility.]**

4. The depth of the borings shall be adequate to characterize the soils to a depth of at least five feet below the bottom of an excavation or any proposed sewer invert elevation. At least two borings shall extend ten (10) feet below the proposed excavation bottom or sewer invert.

5. **[The number of borings, trenching, CPTs, or other exploratory testing shall be as indicated in CONSULTANT's Technical Proposal and Fee Proposal. In the event that additional exploratory investigations are required, the price for such testing shall be negotiated on the basis of the unit priced indicated in CONSULTANT's Fee Proposal.]**

6. **[Specify in the proposal the required number of borings as wells as a unit price allowance per boring in the proposal base price. Based on the actual number of borings performed in the project as determined and agreed upon by CONSULTANT and OCSD, OCSD will pay the final price in accordance with the per-unit allowance in the CONSULTANT's proposal.]**

C. Soil Sampling

1. Soil samples for testing shall be collected as needed based upon CONSULTANT's professional judgment. However, samples intervals shall not exceed two-foot depth intervals alternating SPT and RING samples in each boring. If borings are taken near existing sewers, samples shall be taken and delivered to OCSD for testing for coliforms to determine if sewers are leaking.

D. Ground Water Pump Testing

1. **[Pumping tests shall not be required to determine dewatering parameters for inclusion in the specifications.]**

2. **[Conduct ground water pump testing to determine dewatering parameters for inclusion of the specifications.]**

3. **Provide a complete specification for the abandonment of wells for areas where aquifers could be compromised. Potential abandonment methods for deep penetrations might consist of overdrilling and fill with cement-bentonite grout slurry, or deep pressure grouting to create a concrete seal.]**

E. Groundwater Contamination Testing

1. []

F. Soil Exploration Locations

1. The location of all soil explorations shall be plotted on a map and attached to the Geotechnical Report. Preferably, the explorations shall include survey coordinates consistent with the project survey. Complete logs of the soil profiles shall be included in the report.

2. Explorations shall be located strategically within the footprint of the proposed excavation or on the centerline of proposed pipeline alignments. A total of [____] borings shall be cased and converted into water level monitoring wells for use during construction according to local agency requirements. CONSULTANT shall obtain all necessary permits for the installation of monitoring wells. CONSULTANT shall also be responsible for abandoning the wells after the construction is completed and the monitoring wells are no longer useful.

3. Work conducted within OCSD's treatment plants shall comply with the requirements of the OCSD Stormwater Management Plan. Work conducted outside OCSD's treatment plant shall comply with the requirements of the local jurisdiction.

2.1.3 UTILITY INVESTIGATION

A. To better manage the risks associated with construction excavation, CONSULTANT shall perform a thorough search of all utilities impacted by the work for all applicable Project Elements of this Scope of Work, regardless of size and all other facilities above or below ground. Utilities include all in-plant, utility company-owned and public agency-owned piping, duct banks, and other interferences. The search shall include utilities within the public right-of-way, and those located on private property and OCSD property impacted by the proposed project. The search shall include the records and plans of OCSD and all respective public and private companies and utilities.

B. Review of OCSD Records

1. OCSD's "As-built/Record" plans may be incomplete or inaccurate with respect to the routing of individual utilities, pipelines, etc. in the vicinity of the project. CONSULTANT shall check OCSD records against those of the other agencies, companies and utilities. These may include, but not be limited to, oil, gas, fuel, water, and sewer pipelines; traffic control facilities, telephone and electrical conduit and duct banks, storm drains, manholes, and other structures.

C. Review of Outside Agency Records

1. CONSULTANT shall contact, in writing, all jurisdictional agencies and utility owners to inform them of OCSD's project. CONSULTANT shall request plans showing all the agency's or utility's facilities, pipelines, etc. in the project area. CONSULTANT shall also request plans and schedules for all proposed construction in the project areas. CONSULTANT shall develop a schedule to minimize project conflicts and/or coordinate OCSD projects with local agencies.

2. CONSULTANT shall personally visit each agency/company and search through all available plans, files, and documents. CONSULTANT shall meet with applicable field staff from each agency to confirm the completeness of their research. Abandoned utilities shall also be considered.

3. CONSULTANT shall document the contacts and information requested and received, including that from Underground Service Alert (USA). OCSD shall be copied on all correspondence between CONSULTANT and public and private agencies, and utility companies. CONSULTANT shall submit a copy of all documentation to OCSD with an itemized submittal letter. CONSULTANT's Project Manager shall sign the transmittal cover letter and the cover letter shall confirm that CONSULTANT has sent a representative to each agency/company/utility, performed on-site inspections for each utility, and has listed the utilities.

4. CONSULTANT shall contact USA and request a Substructure listing for the project area.

D. On-Site Inspection

1. An on-site inspection shall be made in the project area. During the on-site inspection, a senior-level CONSULTANT representative shall walk the site accompanied by OCSD's Project Engineer and Supervising Inspector. The CONSULTANT representative shall be experienced in the location and identification of utilities in the field. During the on-site inspection the CONSULTANT shall document all visible features that indicate utilities within the project area and compare them with the available utility plans.

E. Utilities for Adjacent Properties

1. CONSULTANT shall investigate all utilities serving properties adjacent to the work, and submit a spreadsheet at the end of the utility research accounting for all anticipated utilities for OCSD review, with the following information:

a. List all utilities anticipated or each adjacent property.

b. Indicate whether or not each such utility was found on as-built drawings of any agency, with an identification of the agencies identifying such utility.

- c. Indicate whether or not the utility was field located by utility through USA process, and, if so, by which agency.

F. CONSULTANT shall provide all required stamped traffic control plans as part of the encroachment application process required by all cities for use during the geophysical investigations, potholing, geotechnical borings and field investigations.

G. Subsurface Utility Investigations

1. Investigation of existing utilities shall be in accordance with the respective ASCE guidelines, except as amended by this Scope of Work. A brief description of the ASCE guidelines defines the Quality Level of detail for researching subsurface utilities as follows:

- a. **Quality Level D:** Information derived from existing records or oral recollections.

- b. **Quality Level C:** Information obtained by surveying and plotting visible above-ground utility features and by using professional judgment in correlating this information to Quality Level D information.

- c. **Quality Level B:** Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate position of subsurface utilities. Quality Level B data shall be reproducible by surface geophysics, such as ground penetrating radar, at any point of their depiction. This information is surveyed to applicable tolerances and reduced onto plan documents.

- d. **Quality Level A:** Precise horizontal and vertical location of utilities obtained by the actual exposure (or verification of previously exposed subsurface and surveyed utilities) and subsequent measurement of subsurface utilities, usually at a specific point. Minimally intrusive excavation equipment is typically used to minimize the potential for utility damage. A precise horizontal and vertical location, as well as other utility attributes, is shown on the plan documents. Accuracy is typically set to 15-mm vertical and to applicable horizontal survey and mapping accuracy.

2. Refer to CI/ASCE 38-02, Standard Guidelines for Collection and Depiction of Existing Subsurface Utility Data for details.

3. CONSULTANT shall determine all utilities impacted by the work for all applicable Project Elements of this Scope of Work. Utilities include **[all in-plant utilities] [utility company-owned, and public agency-owned piping, duct banks, and other interferences]**. All utilities encountered during the preliminary design shall be shown on the plans.

4. Subsurface investigation for all utilities in and around the work area shall be performed to Quality Level D and Quality Level C. All utilities shall be plotted both in plan and profile on a scaled drawing that can later be incorporated into scaled (1" = 40') plan drawings.

5. CONSULTANT shall submit, for acceptance by OCSD, recommendations on which utilities should be investigated to Quality Level A and where Quality Level B investigations should be performed. As part of the submittal, a Potholing Plan and Geophysical Investigation Plan shall be developed including proposed pothole locations and type of geophysical investigation.

6. Prior to OCSD's acceptance of the Potholing Plan/Geophysical Investigation Plan, a project field walk by the CONSULTANT Project Manager, OCSD Project Engineer, Supervising Inspector, and other designated OCSD personnel shall be performed.

H. Potholes and Geophysical Investigation

1. CONSULTANT shall secure the services of a subcontractor to perform the pothole work and geophysical investigation (including ground-penetrating radar).

2. CONSULTANT shall "pothole" and perform geophysical investigation on all utilities described and shown in the accepted Potholing Plan/Geophysical Investigation Plan. CONSULTANT's staff shall be on-site during potholing to provide direction to potholing crew.

OCSD staff shall also be present during potholing. Field investigations include visiting the project work site and each utility to verify the location of all interferences.

3. CONSULTANT shall provide all the related work necessary, including, but not limited to:
 - a. Documentation of information
 - b. Notification of USA's "Dig Alert"
 - c. Providing field survey
 - d. Obtaining required permits
 - e. Submission of traffic control plans
 - f. Setting up traffic control
 - g. Soft dig potholing
 - h. Ground-penetrating radar
 - i. Excavating
 - j. Backfilling
 - k. Repairing pavement to local jurisdiction requirements
4. "Soft" excavation potholing methods such as vacuum extraction is preferred; however, excavation methods shall be chosen to adequately define the utility. Crosscut trenches may be preferred for defining some utility locations. Hydro-jetting soft dig should be avoided in sandy, wet and contaminated soil conditions.
5. Potholing subcontractor shall measure and document the depth of pavement and of base material at each pothole, and every five feet along crosscut trenches.
6. Work conducted within OCSD's treatment plants shall comply with the requirements of the OCSD Stormwater Management Plan. Work conducted outside OCSD's treatment plant shall comply with the requirements of the local jurisdiction.
7. CONSULTANT shall provide a licensed land surveyor or hire a licensed survey subcontractor(s) to field-locate the actual horizontal and vertical location of the constructed potholes. Survey controls shall be set and coordinated with the survey controls used on previous construction drawings. **[OCSD] [City and County]** control points shall be checked; northing, easting and elevation data for each pothole shall be shown on the Contract Drawings; and physical tie-ins provided in order to easily re-establish pothole locations after construction. CONSULTANT shall supply and supervise survey work and subcontractors needed to perform the pothole work. Survey datum differences shall also be reconciled.
8. The results of potholing and geophysical efforts shall be summarized in a field findings report.
9. CONSULTANT shall backfill and repair potholes consistent with the requirements of the local jurisdiction. If CONSULTANT is unable to determine local jurisdiction requirements prior to the proposal, CONSULTANT shall assume the following requirements:
 - a. The materials removed from the excavation may not be used for backfill, unless approved by the local jurisdiction. If approved, excavated material used to fill potholes shall be placed with a maximum lift thickness of four inches and mechanically compacted.
 - b. If not approved, the CONSULTANT shall be responsible for hauling off and disposing of excavated pothole material. In this case, excavation holes shall be filled with a cement slurry mix from the bottom up. The excavated materials shall be tested for hazardous materials and disposed of offsite accordingly. Testing shall be the minimum required for classifying the materials. The potholing samples shall be tested

by a California Environmental Laboratory Accreditation Program (ELAP) certified laboratory to identify characteristics of hazardous waste. A substance shall be considered hazardous if it possesses properties of toxicity, ignitability, corrosivity and/or reactivity per California Code of Regulations Title 22, Section 66261. In addition, Minimum the laboratory testing shall include an on-site Organic Vapor Analyzer (OVA) test for potential hydrocarbon contaminants. Should the OVA reading be equal to or greater than 45 ppm, further laboratory Minimum testing shall be performed to include Benzene, Toluene, Ethyl Benzene, and Xylene (BTEX) test per EPA guideline 8020 and Total Hydrocarbons (TPH) tests per EPA guideline. should the OVA reading be equal to or greater than 45 ppm.

c. AC pavement shall be replaced to full depth or the structural section (AC & Base) plus two inches with hot mix asphalt unless otherwise required by **[the City]**. Cold mix shall only be allowed when the patch will be replaced by the project and where approved by **[the City]**.

d. Concrete pavement shall be replaced to full depth plus two inches with Portland cement unless otherwise required by **[the City]**.

I. Quantitative Assumptions

1. **[CONSULTANT's fee proposal shall include a cost for potholes and unit cost for additional potholes. The cost shall provide for a minimum of [____] potholes during preliminary design and [____] potholes during final design.**
2. **CONSULTANT's fee proposal shall include a cost for geophysical investigation. The cost shall provide for a minimum of [____] square feet during preliminary design.]**
3. **[An allowance shall be included in the proposal for potholing including number of potholes and unit price per pothole.**
4. **An allowance shall be included in the proposal for geophysical investigation including total square feet and unit price per square foot.]**

J. Depiction of Utilities and Potholes on Plans

1. All utilities encountered during the preliminary design shall be shown on the Plans. Project work that requires other agencies to relocate existing utilities shall be coordinated during the design by CONSULTANT. Each subsurface utility shown on the drawings shall include the Quality Level to which it was investigated as required by CI/ASCE 38-02. Pothole locations shall be shown on drawings with survey information.

K. Relocation of Existing Utilities

1. Project work that requires other agencies to relocate existing utilities shall be coordinated during design by CONSULTANT.

2.1.4 FIRE PROTECTION SERVICES

A. CONSULTANT shall secure the services of a Subconsultant to determine the fire protection requirements and prepare preliminary design and final plans and specifications for the selected plan and assist OCSD in obtaining approval from the fire authority.

B. Fire Flow Analysis:

- Evaluation of existing potable water system is not required. Assume that the existing potable water system has adequate pressure and volume to supply the required sprinkler systems and hydrants.
- Evaluate existing potable water system for adequate pressure and volume to supply the required sprinkler systems and hydrants.

2.1.5 ELECTRICAL LOAD MEASUREMENTS

A. CONSULTANT shall perform preliminary calculations of existing equipment (i.e. panelboards and motor control centers) early in PDR, prior to taking any load measurements to determine if there is adequate spare capacity for the new loads.

B. **[OCSD has the following power monitoring data:**

1. **[Equipment Description and Tag 1]**
2. **[Equipment Description and Tag 1]]**

C. Consultant shall develop a list of loads load measurements that need to be taken to perform load calculation.

D. CONSULTANT shall take electrical measurements per Engineering Design Guidelines, Chapter 10, Section 10.2.1.4 "Report- Load Measurement and Recording".

E. **[The following describes the general nature of measurements to be taken.**

1. **[Measurement Description 1]**
2. **[Measurement Description 2]]**

F. **[CONSULTANT shall include [#] medium voltage circuits and [#] low voltage circuits in their proposal along with the unit costs for each type of circuit. The CONSULTANT shall review existing Project information during Phase 2 – Preliminary Design and confer with OCSD on the actual work to be done.]**

G. The load measurements data shall be compiled in a Load Measurement and Recording Report included as an attachment to the Electrical Design Memo.

2.1.6 SPECIALTY SERVICE

A. **[_____]**

2.1.7 PERMITTING ASSISTANCE

A. CONSULTANT services related to Permitting Assistance may span across Phase 2 – Preliminary Design and Phase 3 - Design. When such services are required, they will be based on the requirements of Section III – Project Schedule and the schedule constraints associated with each particular permit. The CONSULTANT shall allocate the budgeted hours between the Environmental Documentation services in Phase 2 and Phase 3 based on when these services will be required.

B. For all applicable Project Elements of this Scope of Work, CONSULTANT shall provide Bid Documents that ensure that the facility features and the facility performance, and construction procedures comply with all conditions of existing permits and permits required to construct this project. Construction drawings, specifications and supplemental drawings shall be prepared, as necessary, in the format required to obtain all permits.

C. CONSULTANT shall assist OCSD in obtaining permits. This assistance shall include completing application forms provided by OCSD, preparing supporting documentation for the permit applications as required by the issuing agency, furnishing the required number of copies of all construction drawings and exhibits, and attending meetings with permitting agencies at the request of OCSD.

D. With the exception of construction contractor-furnished permits, OCSD staff will execute all applications. All permit fees will be paid directly by the OCSD and will not be part of CONSULTANT's fee.

E. CONSULTANT shall submit all supporting documentation in a timely fashion for all permits required for this project as described below.

F. Building Permits

1. **[_____]**

2. The CONSULTANT shall assume [] meetings at [] hours each.
- G. CalTrans Encroachment Permits
1. []
 2. The CONSULTANT shall assume [] meetings at [] hours each.
- H. City / County Encroachment Permits
1. []
 2. The CONSULTANT shall assume [] meetings at [] hours each.
- I. Stormwater Permitting
1. **[Stormwater permitting is not required for this project.]**
 2. **[CONSULTANT shall determine and specify the preliminary Risk Level and Project Type using the California State Water Resources Control Board's Storm Water Multiple Application and Report Tracking System (SMARTS) based on the R-Factor obtained from US EPA's online Rainfall Erosivity Factor Calculator for Small Construction Sites.]**
 3. **CONSULTANT shall prepare the specification for stormwater using OCSD's respective master specification as a starting point. CONSULTANT shall not begin work on editing the specification until OCSD has approved the Consultant's preliminary Risk Level and Project Type.**
 4. **It is OCSD's intent to design linear underground/overhead projects (LUP) to LUP Type 2 requirements, whenever possible, which is often the most economical approach. CONSULTANT shall coordinate with the OCSD Project Manager and OCSD Environmental Compliance Division and edit Stormwater Pollution Prevention Plant specifications accordingly.]**

2.1.8 PROJECT MANAGEMENT

- A. CONSULTANT shall be responsible for managing CONSULTANT's project execution, schedule, budget, subconsultants, and coordination with other projects. The following project management requirements apply to both Phase 2 – Preliminary Design and Phase 3 – Design.
- B. Progress Reports
1. CONSULTANT shall submit monthly progress reports at the same time as monthly invoices that include the following contents:
 - a. Work activities completed to date, in the current reporting period, and projected for the coming month.
 - b. A brief description of outstanding issues and their potential for impact on scope, schedule (design and construction), budget (design and construction) and quality.
 - c. Potential changes in the project scope or design scope.
 - d. Budget status including estimates of actual costs to date, earned value, costs to complete, and costs at completion.
 - e. Schedule status with a description of any variances between scheduled and forecasted milestone dates.
 - f. A discussion of corrective actions to be taken to avoid or mitigate cases where the project schedule is expected to be delayed.
- C. Project Invoices
1. 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:

- a. Budget
- b. Current billing period invoicing
- c. Previous billing period “total invoiced to date”
- d. Budget Amount Remaining
- e. Current billing period “total percent invoiced to date”

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

D. Management of Subconsultants

- 1. 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.

2.1.9 QUALITY CONTROL

A. The CONSULTANT shall provide quality control requirements in accordance with **Exhibit 6 - Quality Control Requirements**.

B. Quality Assurance/Quality Control Plan

QA/QC Plan Submittal Required

QA/QC Plan Submittal Not Required. Consultant shall utilize their standard QA/QC procedures and meet OCSD’s quality control requirements.

2.2 PDR WORKSHOPS AND MEETINGS

2.2.1 GENERAL

A. Workshop and meeting planning, requirements, agendas, and meeting minutes shall be in accordance with **Exhibit 5 - Workshop and Meeting Requirements**.

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

2.2.2 PDR MEETINGS

A. CONSULTANT shall hold meetings throughout the project to keep OCSD 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 OCSD staff. The list below also indicates the number of meetings to be held to cover the specific topic.

| PDR MEETINGS | |
|----------------------------|----------------|
| TOPIC | DURATION (HRS) |
| Predesign Kick-off Meeting | [1] |
| PDR Production Meetings | |
| [...] | 1 |
| Constructability | 1 |
| Maintainability | 1] |

2.2.3 PDR REVIEW WORKSHOPS

A. CONSULTANT shall hold the following workshops to review the draft Preliminary Design Report as required in **Exhibit 5 - Workshop and Meeting Requirements**:

- 1. Draft PDR Presentation/Review Workshop

2.2.4 TECHNICAL PROGRESS MEETINGS

A. Technical Progress Meetings shall be held every [___] weeks to review various issues with OCSD’s project team. A total of [____] meeting shall be held during Preliminary Design Phase. The CONSULTANT shall coordinate with the OCSD Project Manager to determine what topics will be covered in what meetings, and what OCSD and CONSULTANT team members are required for each.

2.2.5 COORDINATION WITH OTHER PROJECTS MEETINGS

A. The project shall be a complete and fully functional facility that is integrated with existing facilities and coordinated with other construction projects. CONSULTANT shall review reports, plans and specifications to identify potential conflicts with the following adjacent projects and participate in the number of meetings indicated in the following table:

| PROJECT COORDINATION MEETINGS | | |
|-------------------------------|-------------------------------|-------------------------------|
| PROJECT | PHASE 2 COORDINATION MEETINGS | PHASE 3 COORDINATION MEETINGS |
| [P1-23] | [2 meetings @ 2 hrs] | [3 meetings @ 2 hours] |
| [P2-34] | [2 meetings @ 2 hrs] | [3 meetings @ 2 hours] |

2.2.6 STORMWATER COMPLIANCE MEETING

A. A formal meeting shall be held with OCSD’s stormwater compliance staff to review the project scope and identify all issues during and after construction affecting compliance with stormwater regulatory requirements and OCSD’s policies and practices.

3.0 3. PHASE 3 – DESIGN

BID DOCUMENTS

3.0.1 GENERAL

A. CONSULTANT shall provide engineering services to prepare biddable plans, technical specifications, and other Bid Documents as required based on the design concepts and criteria developed during Phase 2 - Preliminary Design. In this Scope of Work, construction documents include specifications; drawings; cable, conduit and cable tray schedules; commissioning plan materials; equipment and instrumentation database (EID); SCADA Administration Tool (SAT); and bypassing plans.

3.0.2 ENGINEERING DESIGN GUIDELINE UPDATES

A. All changes in OCSD’s Engineering Standards, OCSD’s Design Guidelines, and/or changes in design concepts and facility layouts as a result of OCSD comments that may occur up to transmittal of OCSD comments on PDR, shall be incorporated into the Design by CONSULTANT with no increase in CONSULTANT’s Not-to-Exceed upper limit on fees.

3.0.3 GENERAL REQUIREMENTS AND ADDITIONAL GENERAL REQUIREMENTS

A. The following are the minimum Additional GRs topics required for this project:

- Summary of Work
- Work Sequence
- Work Restrictions

- Permits
- Environmental Restrictions and Controls
- Measurement and Payment (includes Mobilization/Demobilization)
- Seismic Design Criteria (for those restraints, supports, etc. to be design by the Contractor)
- Shipping, Storage and Handling
- Project Control Management System (PMWeb construction management software)
- Equipment Service Manuals
- Equipment and Instrument Database (EID)
- Commissioning
- Training of OCSD Personnel
- Hazardous Materials Mitigation and Controls
- Mold Remediation and Controls
- []

3.0.4 DESIGN SUBMITTALS

A. The CONSULTANT shall produce the following design submittals as indicated below in accordance with **Exhibit 2 - Design Requirements**. If a design submittal is eliminated, then the design submittal shall include the requirements associated with the required design submittal along with the requirements associated with the previous unchecked design submittals.

- Design Submittal 1
- Design Submittal 2
- Design Submittal 3
- Final Design Submittal

3.0.5 CABLE AND CONDUIT SCHEDULE

- CONSULTANT shall put the cable and raceway schedule on the drawings. CONSULTANT may utilize an Excel spreadsheet and copy the spreadsheet onto the drawings.
- CONSULTANT shall utilize OCSD's Microsoft Access Cable and Raceway Schedule database electronic format. See exhibit titled "Cable Conduit and Tray Schedule Database".

3.0.6 COMMISSIONING PLAN MATERIALS

- A. The CONSULTANT shall provide a commissioning plan materials in accordance **Exhibit 2 - Design Requirements**.
- B. Specification Section 01810, Commissioning
 - OCSD will prepare Section 01810
 - CONSULTANT shall edit Section 01810
- C. ORT Procedures
 - OCSD will prepare ORT procedures
 - CONSULTANT shall prepare ORT procedures using OCSD's ORT procedure generator
 - CONSULTANT shall prepare new ORT procedures [**consisting of:**]
- D. Pre-FAT Procedures
 - Pre-FAT procedures not required
 - OCSD will prepare Pre-FAT procedures
 - CONSULTANT shall prepare Pre-FAT procedures
- E. FAT Procedures
 - OCSD will prepare FAT procedures
 - CONSULTANT shall prepare FAT procedures

F. RAT Procedures

- RAT procedures not required
- OCSD will prepare RAT procedures
- CONSULTANT shall prepare RAT procedures

G. PAT Procedures

- PAT procedures not required
- OCSD will prepare PAT procedures
- CONSULTANT shall prepare PAT procedures

3.0.7 EQUIPMENT AND INSTRUMENTATION DATABASE (EID)

- EID is not required.
- OCSD will develop the EID in accordance **Exhibit 2 - Design Requirements.**
- CONSULTANT shall develop EID in accordance **Exhibit 2 - Design Requirements.**

3.0.8 SCADA ADMINISTRATION TOOL (SAT)

- SAT is not required.
- OCSD will develop the SAT in accordance **Exhibit 2 - Design Requirements.**
- CONSULTANT shall develop the SAT in accordance **Exhibit 2 - Design Requirements.**

3.0.9 CONSTRUCTION SUBMITTAL ITEMS LIST

- OCSD will develop the Construction Submittal Items List in accordance with **Exhibit 2 - Design Requirements.**
- CONSULTANT shall develop the Construction Submittal Items List in accordance with **Exhibit 2 - Design Requirements.**

3.0.10 TEMPORARY FACILITIES DURING CONTRUCTION

- Temporary facilities and bypass pumping are not required.

Select below if temporary requirements are defined under "Temporary Facilities During Construction" and temporary facilities or bypassing can easily be described in words on the drawings or technical specifications.

- Temporary facilities and bypassing during construction are required, as described under the "Temporary Facilities During Construction" paragraph under the Project Elements, and shall be described in words on the drawings and technical specifications.

Select below if temporary requirements are defined under "Temporary Facilities during Construction" and temporary facilities or bypassing is complicated.

3.1

- Detailed plans and work sequence for temporary facilities and bypassing during construction, as described under the "Temporary Facilities During Construction" paragraph under the Project Elements.

DESIGN SUPPORT DOCUMENTATION

3.1.1 DESIGN SUBMITTAL SUPPORT DOCUMENTATION

A. The CONSULTANT shall provide a Design Submittal Support Documentation in accordance **Exhibit 2 - Design Requirements.**

B. Design Information

1. CONSULTANT shall include the following material with each Design Submittal:
 - a. Written response log to OCSD comments on the previous submittal.

- b. CEQA and Regulatory Compliance Matrix. This matrix shall list each applicable CEQA mitigation requirement and all known permit requirements with the corresponding description of how each requirement is to be satisfied. Measures to satisfy requirements might be in the GRs, Additional GRs, particular specification requirements, or actions taken separately from the construction contract.
- c. Calculations
- d. Draft or final Geotechnical Reports not submitted in the previous submittal and those revised since the previous submittal.
- e. Proposed list of suppliers to be named in the specifications for major equipment
- f. Draft or final Fire Protection Reports not submitted in the previous submittal and those revised since the previous submittal.
- g. Draft or final Field Findings Reports not submitted in the previous submittal and those revised since the previous submittal.
- h. Equipment data sheets
- i. Equipment catalog cuts and vendor quotations.
- j. Commissioning Checklist. The Preliminary Commissioning Checklist first developed in the PDR Production Phase shall be updated in each Design Submittal to reflect all changes in equipment, and any changes in predecessors applicable testing and certifications required prior to commissioning. Each row shall be assigned to a commissioning package.
- k. All memos that may be been prepared since the previous submittal was delivered.

C. Facility Operation and Maintenance

Not required.

D. Electrical Design Documentation

- Electrical design documentation not required.
- Updated Electrical Load Criticality Table
- Electrical Analysis Report
- Load list for all equipment
- Equipment sizing from three manufacturers for motor control centers, switchgear, transformers and power panels
- Lighting calculations
- Standby generator sizing calculations
- Ductbank cable pulling tension, derating and cable tray fill calculations

E. Power System Studies

- ETAP not required.
- Plant ETAP model for the project performed by OCSD.
- Plant ETAP model for the project performed by CONSULTANT.
- Electrical Systems Analysis Report performed by CONSULTANT.

3.1.2 CONSTRUCTION COST ESTIMATE

A. The CONSULTANT shall provide a cost estimates for the associated design submittal indicated below in accordance with **Exhibit 2 - Design Requirements**.

- Design Submittal 1
- Design Submittal 2
- Design Submittal 3

Final Design Submittal

3.1.3 CONSTRUCTION SCHEDULE

A. The CONSULTANT shall provide a Preliminary Construction Schedule for the associated design submittal indicated below in accordance with **Exhibit 2 - Design Requirements**.

- Construction Schedule is not Required
- Design Submittal 1
- Design Submittal 2
- Design Submittal 3
- Final Design Submittal

3.1.4 PROCUREMENT ALTERNATIVES

A. The CONSULTANT shall recommend the appropriate procurement alternatives as described in **Exhibit 2 - Design Requirements**.

- Procurement alternatives not required
- Procurement alternatives required

B. Equipment that may be needed to be obtained from a sole source supplier for this project includes:

1. []
2. []

C. Equipment to be pre-qualified will include:

1. []

3.2 DESIGN ACTIVITIES

The following services shall be provided by the CONSULTANT or an appropriately qualified subconsultant. In any case, the CONSULTANT shall be responsible for managing all subconsultants, including reviewing their work products prior to submission to OCSD.

3.2.1 TOPOGRAPHIC SURVEY

A. CONSULTANT services related to Topographic Survey on the project are specified in Phase 2 – Preliminary Design and those services shall continue during Phase 3 – Design as required. CONSULTANT shall allocate the budgeted hours between Phase 2 and Phase 3 based on when these services will be required.

3.2.2 GEOTECHNICAL BASELINE REPORT

1. CONSULTANT shall prepare a Geotechnical Baseline Report (GBR). The GBR shall be prepared by the prime CONSULTANT, rather than by the Geotechnical Subconsultant that prepared the Geotechnical Data Report.
2. The Geotechnical Baseline Report (GBR) shall conform to the most recent issue of the American Society of Civil Engineers (ASCE) “Geotechnical Baseline Reports of Underground Construction: Guidelines and Practices”.
3. The GBR shall be site specific and shall include a narrative of all known soil conditions and subsurface expected constraints. The GBR shall establish quantitative thresholds and shall make specific recommendations to the Contractor regarding actions to be taken by the Contractor during construction, such as dewatering, removal of boulders by size, all other excavation and backfill stages, etc. Thresholds expressed as ranges of values will not be acceptable to OCSD (i.e. 100-200 gpm, or 5-10 CY). All thresholds shall be expressed in the form of one number (i.e. 150 gpm, or 7 CY).

4. The GBR will be used during construction to enforce the Differing Site Condition clause included in the construction Contract Agreement.

5. The draft GBR shall be submitted to OCSD staff for review and comments along with the DS2 submittal package. The final GBR incorporating OCSD comments shall be submitted with the DS3 submittal package.

3.2.3 UTILITY INVESTIGATION

A. CONSULTANT services related to Utility Investigation on the project are specified in Phase 2 – Preliminary Design and those services shall continue during Phase 3 – Design as required. CONSULTANT shall allocate the budgeted hours between Phase 2 and Phase 3 based on when these services will be required.

B. Final Design Submittal Utility Coordination Reviews

1. During DS3 submittal review, the CONSULTANT shall meet with outside agencies to verify any changes made by agency during final design period and compare them with the Contract Drawings. CONSULTANT shall follow through with due diligence on utilities that do not participate in the USA program, unknown owner of a facility and/or abandoned utilities.

2. During DS3 submittal review, an on-site inspection shall be made in the project area. During the on-site inspection, a senior-level CONSULTANT representative shall walk the site accompanied by OCSD's Project Engineer and Supervising Inspector. The CONSULTANT's representative shall be experienced in the location and identification of utilities in the field. During the on-site inspection the CONSULTANT shall document all visible features that indicate utilities within the project area and compare them with the Contract Drawings.

3.2.4 FIRE PROTECTION SERVICES

A. CONSULTANT shall secure the services of a Subconsultant to determine the fire protection requirements, prepare final plans and specifications for the selected plan and assist OCSD in obtaining approval from the fire authority.

3.2.5 NOISE EVALUATION SERVICES

A. CONSULTANT shall secure the services of a Subconsultant to prepare a field finding Noise Report. This report shall include the following:

1. Visit site and conduct ambient noise measurements to establish baseline.
2. Identify external sources of noise.
3. Identify potential methods for defining noise impacts.
4. Develop noise model consistent with noise impact assessment methods.
5. Determine exterior noise levels and compliance with assessment standards.
6. If required, develop mitigation measures to meet design standards.
7. Determine compliance with OSHA's regulations.
8. If needed, determine mitigation measures to meet OSHA's requirements.
9. Prepare written report on findings and recommendations.

3.2.6 TRAFFIC CONTROL SERVICES

A. [_____]

3.2.7 SPECIALTY SERVICE

A.

3.2.8 PERMITTING ASSISTANCE

A. CONSULTANT services related to Permitting Assistance on the project are specified in Phase 2 – Preliminary Design and those services shall continue during Phase 3 - Design. CONSULTANT shall allocate the budgeted hours between the Permitting Assistance services in Phase 2 and Phase 3 based on when these services will be required.

3.2.9 PROJECT MANAGEMENT

A. CONSULTANT shall be responsible for managing CONSULTANT’s project execution, schedule, budget, subconsultants, and coordination with other projects. CONSULTANT services related to Project Management on the project are specified in Phase 2 – Preliminary Design and those services shall continue during Phase 3 – Design as required. CONSULTANT shall allocate the budgeted hours between Phase 2 and Phase 3 based on when these services will be required.

3.2.10 QUALITY CONTROL

A. The CONSULTANT shall provide Quality Control requirements in accordance with **Exhibit 6 - Quality Control Requirements**.

- Independent Multi-Discipline Design Workshop is not required.
- Independent Multi-Discipline Design Workshop is required. (minimum duration of [1] day)

DESIGN WORKSHOPS AND MEETINGS

3.3 3.3.1 GENERAL

A. Workshop and meeting planning, requirements, agendas, and meeting minutes shall be in accordance with **Exhibit 5 - Workshop and Meeting Requirements**.

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

3.3.2 DESIGN MEETINGS

A. CONSULTANT shall hold meetings throughout the project to keep OCSD appraised 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 OCSD staff. The list below also indicates the number of meetings to be held to cover the specific topic.

| DESIGN MEETINGS | |
|------------------|----------------|
| TOPIC | DURATION (HRS) |
| [...] | 1 |
| Constructability | 1 |
| Maintainability | 1] |

3.3.3 DESIGN REVIEW WORKSHOPS

A. CONSULTANT shall hold the following workshops to review the draft Preliminary Design Report as required in **Exhibit 5 - Workshop and Meeting Requirements**:

1. Design Submittal 3 Kickoff Workshop/Review Meeting (combined activity)
2. Design Submittal 3 Validation Workshop
3. Final Design Submittal Review Meeting (meeting only)

3.3.4 TECHNICAL PROGRESS MEETINGS

A. Technical Progress Meetings shall be held every [___] weeks to review various issues with OCSD’s project team. A total of [___] meeting shall be held during Final Design Phase. The

CONSULTANT shall coordinate with the OCSD Project Manager to determine what topics will be covered in what meetings, and what OCSD and CONSULTANT team members are required for each.

3.3.5 COORDINATION WITH OTHER PROJECTS MEETINGS

A. The project shall be a complete and fully functional facility that is integrated with existing facilities and coordinated with other construction projects. CONSULTANT shall review reports, plans and specifications to identify potential conflicts with the following adjacent projects and participate in the number of meetings indicated in the following table:

| PROJECT COORDINATION MEETINGS | | |
|--------------------------------------|--------------------------------------|--------------------------------------|
| PROJECT | PHASE 2 COORDINATION MEETINGS | PHASE 3 COORDINATION MEETINGS |
| [P1-23] | [2 meetings @ 2 hrs] | [3 meetings @ 2 hours] |
| [P2-34] | [2 meetings @ 2 hrs] | [3 meetings @ 2 hours] |

3.3.6 COMMISSIONING TEAM MEETINGS

A. Design phase commissioning team meetings shall be held on a **[monthly]** basis after completion of OCSD's review **[DS1]**.

B. Meetings will generally be 2-4 hours in length. CONSULTANT shall determine how many meetings shall be needed to cover these topics and organize the topics accordingly. CONSULTANT may suggest additional topics as necessary. Supplementary meetings may be scheduled with OCSD staff, as necessary, to allow coordination between CONSULTANT and OCSD staff.

C. The Commissioning Team meetings shall cover the following subjects:

1. Provide a detailed review of the proposed construction sequencing plan and make recommendations for improvements. These recommendations shall be incorporated into the plans and specifications as appropriate. Possible incentives for the Contractor to finish the project early shall be explored.
2. Identify procedures, testing requirements and sequencing for commissioning.
3. Develop a detailed outline of a commissioning plan based on the results of the recommended construction sequencing plan.
4. Prepare testing requirements and plan to prove process performance relative to design criteria developed in the PDR. Testing shall be performed after the RAT and supervised by the CONSULTANT.
5. Identify timing within the construction contract schedule when commissioning activities are required, including hold points for testing and inspection.
6. Identify roles and responsibilities of the Project Manager, Resident Engineer, Inspector, Project Engineer, PCI, Engineering support, Design CONSULTANT and Contractor.
7. Develop a timeline of commissioning
8. Develop a commissioning specification
9. Develop standard forms for testing and commissioning documentation
10. Electrical, mechanical and process tie-ins
11. Startup requirements and testing
12. Record drawings
13. O&M training

14. OMaP documentation and coordination of same with O&M Training

3.3.7 SAFETY AND RISK MEETING

A. Meet with OCSD Safety and Risk Management personnel, and OCIP (Owner Controlled Insurance Program) safety representatives, between DS2 and DS3 to review the plans and specifications in accordance with OCSD safety policies and OCSD Risk Management goals.

3.3.8 CONSTRUCTION SUBMITTAL ITEMS LIST MEETING

A. Meet with OCSD between DS2 and DS3 to review the CONSULTANT's approach to developing the project Construction Submittal Items List using Error! Reference source not found. and the CONSULTANT-provided specifications and discuss the grouping of submittals in commissioning packages and phases.

BID PHASE SUPPORT SERVICES

3.4.1 BID PHASE SUPPORT SERVICES

3.4

A. CONSULTANT shall provide the following bid period services:

1. Participate in the pre-bid meeting.
2. Prepare project drawing set and project specification addenda to provide clarification and resolve errors and omissions identified prior to bid opening.

3.4.2 BID EVALUATION ASSISTANCE

- A. Participate in reviewing alternate equipment proposals from the Contractor, if applicable.
- B. Participate in the evaluation of the submitted bids, furnish consultation and advice to OCSD staff and assist with all the related equipment, cost, and other analyses as required to finalize the award decision.

3.4.3 CONFORMED DOCUMENT PREPARATION

A. Within **[two]** weeks of the bid date, prepare conformed documents set (drawings, databases, specifications and other required materials) that incorporates the addenda. See Engineering Design Guidelines, Chapter 01, Design Guidelines – General Requirements, Section 01.4 “Preparation of Project Deliverables” for requirements as modified in Section V of this Scope of Work, “Project-Specific Deviations from OCSD Design Guidelines” and the requirements of the CAD Manual).

4. PHASE 4 – CONSTRUCTION AND INSTALLATION SERVICES

4.0.1 GENERAL

A. OCSD will administer and provide field inspection for construction contracts. Construction and installation support services shall be provided by the CONSULTANT as requested by OCSD. CONSULTANT shall refer to the Engineering Design Guidelines, Chapter 01 for detailed requirements.

4.0.2 PROJECT MANAGEMENT

- A. CONSULTANT Project Management responsibilities during Phase 4 shall be as specified for Phase 2 – Preliminary Design.
- B. CONSULTANT shall be responsible for detailed management of the project, including managing its subconsultants, and shall keep OCSD apprised of the status of the project.
- C. CONSULTANT shall conduct monthly project management meetings with OCSD's Project Manager. These meetings shall be attended by OCSD's Project Manager and CONSULTANT's Project Manager at a mutually agreeable time. The purpose of the meetings shall be to review the CONSULTANT Project Manager's progress report and the status of the project scope,

budget, and any issues which may affect completion of the project. Meetings should be arranged so that the progress report can be submitted shortly prior to or at each meeting.

D. Consultant shall prepare and submit monthly invoices to OCSD no later than the first Wednesday of the following month. The invoices shall document the man-hours and billing rate for each person that works on the project for each task in the WBS. 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:

1. Budget
2. Current billing period invoicing
3. Previous billing period "total invoiced to date"
4. Budget amount remaining
5. Current billing period "total percent invoice to date"
6. Current billing period "total percent completed to date"

E. The cost component breakdown for each element above shall match that of the PDSA. The monthly progress report and project schedule shall be submitted with the project invoice as part of the monthly request for payment.

F. Consultant shall also provide the percent budget spent for each of OCSD's WBS cost codes (i.e. by work package and phase). OCSD shall provide a list of cost codes by phase to the Consultant.

G. Consultant shall also provide a summary of progress and expenditures to date as described in **Exhibit A-1**.

H. OCSD will provide a sample invoice structure to Consultant at the beginning of the project.

4.0.3 SUBMITTAL REVIEWS

A. OCSD will receive and log-in all submittals from the Contractor. OCSD will forward copies of selected shop drawing and submittals requiring CONSULTANT review. CONSULTANT shall review the shop drawings and submittals for conformance with the requirements of the Contract Documents and return the submittal review comments to OCSD within ten (10) calendar days after receipt of submittal. CONSULTANT shall return comments to OCSD allowing sufficient time for OCSD to incorporate all comments into a combined review comment set that OCSD will return to the Contractor. CONSULTANT shall accommodate occasional expedited reviews for time sensitive submittals. Submittals shall include but not be limited to shop drawings, vendor tests, certifications, and test reports. Some submittals will be made available only electronically (PDF).

B. The itemization of anticipated submittals is shown in **Exhibit A-2**. See "Construction Phase Quantitative Assumptions" in this Scope of Work for the number of submittals.

4.0.4 REQUEST FOR INFORMATION (RFIS)

A. OCSD will log in and forward to CONSULTANT certain RFIs generated by the Contractor or OCSD. CONSULTANT shall return written responses to OCSD as soon as possible or within five (5) calendar days of receipt of RFI, clarifying the requirements of the Contract Documents. CONSULTANT shall generate necessary sketches, figures, and modifications to the drawings for clarifications. When required to avoid schedule delay or additional construction-related costs, CONSULTANT shall expedite the review of time sensitive RFIs.

4.0.5 CONTRACT DOCUMENTATION MODIFICATIONS

A. If the Contract Documents require modifications, due to changed conditions, OCSD requested changes, omissions or design errors; CONSULTANT shall prepare preliminary change order documents and forward them to OCSD, as needed. OCSD shall review the

proposed change and request CONSULTANT to incorporate any changes. OCSD will issue the change order documents in a formal Request for Proposal (RFP) or Field Change Order (FCO) to the Contractor. CONSULTANT shall forward design calculations and other design backup documents as necessary to OCSD.

B. See “Construction Phase Quantitative Assumptions” in this scope of Work for the number of hours to be allocated for design changes and cost estimating assistance.

4.0.6 CONSTRUCTION PROGRESS MEETINGS AND SITE VISITS

A. CONSULTANT shall attend construction progress meetings and make field visits as requested by OCSD. The scope includes time for meeting preparation, travel time, follow-up, and review of meeting minutes. Progress meeting minutes shall be prepared by OCSD.

B. See “Construction Phase Quantitative Assumptions” in this scope of Work for construction progress meetings and site visits.

4.0.7 CONSTRUCTION PHASE QUANTITATIVE ASSUMPTIONS

A. The assumptions listed in the following table below shall be the basis for the assumed level of effort.

| CONSTRUCTION PHASE QUANTATIVE ASSUMPTIONS | | |
|--|--|---|
| TASK | DESCRIPTION | ASSUMPTION |
| 4.1 | Project Management | 15 months duration from Construction NTP to Construction Final Completion |
| 4.2 | Submittal Reviews | 10 Original submittals 10 Resubmittals |
| 4.3 | Requests for Information | 80 RFIs |
| 4.4 | Contract Document Modifications | 20 manhours total |
| 4.5 | Construction Progress Meetings and Site Visits | 6 person-visits total |

5. PHASE 5 – COMMISSIONING SERVICES

5.0.1 OPERATIONS MANUAL AND PROCEDURES (OMAP)

A. Consultant shall prepare Operation Manual and Procedures (OMaP) for the operators that shall completely describe the functionality of the system based on the control strategies, system and device features, general network configuration, and drawings. Specific requirements and standards for OMaP are addressed in **Exhibit 18 - Requirements and Standards for Operation Manual and Procedures (OMaP)**. All features of the system shall be described for normal equipment operation, fail-over equipment operation, and emergency equipment operation.

B. Following commissioning, the Consultant shall address, resolve and/or incorporate any comments, additions or changes to the OMaP discovered during commissioning requiring revision and then resubmit for review and approval by the Sanitation District.

6. PHASE 6 – CLOSE OUT

6.0.1 CLOSE-OUT REQUIREMENTS

A. When requested by OCSD, CONSULTANT shall verify that the Contractor’s As-Built set correctly reflects the information included in the approved shop drawings, RFIs, approved Field Change Orders, plan clarifications, plan changes and other deviations from the conformed drawings, and that the information in the set is complete. Based on the findings, CONSULTANT

shall prepare a written report on the completeness of the field markup set. TheCONSULTANT shall assume that As-Built reviews will be required at two times during construction (e.g. 50% completion and 100% complete).

B. After completion of construction, OCSD will transmit to CONSULTANT the Final Field Markup Set of drawings. At that time, the CONSULTANT shall meet with OCSD’s inspectors and Resident Engineer to review the Contractor’s Final Field Markup Set.

C. CONSULTANT shall prepare Draft Record Drawings based on the Final Field Markup Set for all drawings in accordance with the requirements in the CAD Manual. The CONSULTANT shall submit the Draft Record Drawings to the OCSD Resident Engineer. The Draft Record Drawings will be reviewed for content and CAD Compliance by OCSD staff. A comment log will be returned to the CONSULTANT and, if any comments are generated, the CONSULTANT shall revise the record drawings and resubmit to the RE for review of the changes and acceptance of the record drawings.

D. When no additional comments are identified, CONSULTANT shall prepare the Final Record Drawings and submit them along with the Contractor’s field markup set to the Project Manager. All record drawings shall contain a stamp indicating:

Record Drawings

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of this information and shall not be responsible for any errors or omissions which may be herein as a result.”

E. The stamp shall optimally be placed in the bottom right hand corner of the border and may be included via x-ref. If importing the stamp via x-ref interferes with content in the bottom right hand corner, the stamp may also be placed in other open space along the bottom of the border. In addition, a note shall be placed over the engineer’s seal stating that “This drawing was originally approved for construction by [name of engineer] on [date] and sealed by [name of engineer] a licensed professional engineer in the State of California No. [License number] “. CONSULTANT shall submit an electronic copy of the record drawings to OCSD for review and approval. The acceptance of the record drawings shall be deemed a condition for completion of work.

F. Contractor-generated drawings described in the Design Guidelines and the shop drawings will not be updated by CONSULTANT.

G. The format and quantities for delivery of the submittals shall be listed below:

| Contents | Draft Record Drawings | Final Record Drawings |
|---|--------------------------------|-----------------------------|
| Hard Copy Sets | [6] sets of bound 11x17 prints | 1 set of bound 11x17 prints |
| All related electronic files, including CAD and compiled PDFs | One DVD | One DVD |

7.0

7. GENERAL REQUIREMENTS

GENERAL

7.0.1 OCSD ENGINEERING DESIGN GUIDELINES AND STRATEGIC PLAN

A. CONSULTANT shall refer to and adhere to the requirements of OCSD Safety Standards, OCSD Engineering Design Guidelines, any deviations to the Engineering Design Guidelines listed below, and other OCSD’s Design Standards referenced therein. **Exhibit 16 - OCSD Engineering Design Guidelines and Standards – Available online at**

<https://www.ocsd.com/about-us/transparency/document-central/-folder-917> is a complete set of the OCSD Safety Standards and OCSD Design Standards, the latest edition at the time of the design proposal stage.

- B. The Engineering Guidelines define what plant design concepts/tools/methods and project management requirements shall be adhered to and in what manner they shall be used/provided by Consultants, e.g., requirements regarding design concepts, submittals, documentation details, use of OCSD Master Specifications, and other related OCSD Standards, etc.
- C. Refer also to Section “CONSULTANT’s Responsibilities” in OCSD Engineering Design Guidelines Chapter 01. Refer to “Master Specifications Instructions for Use” that mandates rules and conventions to be used in all OCSD project specifications.
- D. The project Scope of Work defines whether or not each specific deliverable described in the Guidelines shall be part of the project and when each task shall take place.
- E. The project Scope of Work also includes requirements that supplement and/or modify the Guidelines requirements for this project.
- F. The project Scope of Work and OCSD Engineering Design Guidelines impact CONSULTANT’s project cost.
- G. Except as specified in this Scope of Work, design of all facilities shall conform to the recommendations of the currently approved Master Plan for OCSD facilities. The project shall also incorporate all applicable mitigation measures included in associated environmental documents and site-specific local requirements.
- H. In addition, OCSD will require the CONSULTANT to follow subsequent revisions of OCSD Safety Standards, OCSD Engineering Design Guidelines and other OCSD Design Standards up to transmittal by OCSD of comments on Design Submittal [1][2], shall be incorporated into the Design by CONSULTANT with no increase in CONSULTANT’s Not-to-Exceed upper limit on fees.
- I. OCSD may update OCSD’s Master Specifications and/or add new OCSD Master Specifications up to transmittal by OCSD of comments on Design Submittal 2. The CONSULTANT shall utilize the new and/or modified Master Specifications for the DS3 submittal.
- J. The CONSULTANT shall not begin editing the project specifications until the project team meets with OCSD’s Design Standards Custodian to discuss and receive comments regarding the CONSULTANT’s proposed list of project specifications. This meeting will be used to determine which specifications are to use OCSD’s master specifications, and where other sources will be utilized.

7.0.2 PROJECT PHASES AND TASKS

- A. Project tasks and deliverables shall include the requirements described in this Scope of Work. CONSULTANT shall also refer to Appendix A of OCSD Engineering Design Guidelines for the level of detail requirements for individual deliverables in each Phase of the project not covered in the Scope of Work.

7.0.3 CONSTRUCTION SEQUENCING AND CONSTRAINTS

- A. CONSULTANT shall develop with OCSD staff and include in the Bid Documents detailed requirements for construction sequencing and constraints. These shall ensure safe and reliable operation and maintenance of OCSD facilities. The facilities must be kept on-line and fully operational with minimal interruptions throughout construction.

7.0.4 WORKING HOURS

- A. Meetings with OCSD staff shall be scheduled from Monday through Thursday between the hours of 8:00 AM and 4:00 PM. Any CONSULTANT staff working on-site shall conform to OCSD work schedules. CONSULTANT shall refer to the Engineering Design Guidelines,

Chapter 01, Section 01.3.5 "CONSULTANT Inspection of Treatment Facilities" for further requirements.

7.0.5 STANDARD DRAWINGS AND TYPICAL DETAILS

A. All the details used in the project (OCSD's Standard Drawings and CONSULTANT-developed typical details) shall be shown on the Plans.

7.0.6 SOFTWARE

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

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

C. Refer to Chapters 10 and 11 and Appendix A of OCSD Engineering Design Guidelines for requirements on preparation of Criticality Tables and ETAP, SAT, and EID databases. Refer to OCSD CAD Manual and to Chapter 11 and Appendix A of OCSD Engineering Design Guidelines for requirements regarding P&ID drawings.

7.0.7 SUBMITTAL REVIEW USING BLUEBEAM

A. OCSD 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). See **Exhibit 14 - Bluebeam Designer Training for Submission** and "OCSD CAD Standards Manual" prior to submission.

B. PDF files will be hosted in a Bluebeam cloud-based studio session for review. See **Exhibit 15 - Bluebeam Designer User Training** for a detailed explanation on how Bluebeam will be used to provide, validate, and close submittal review comments.

1. The purpose of the studio session is to provide review and collaboration. The session provides multiple attendees, despite location, the opportunity to review and comment on the same PDFs in real time. All review actions are tracked and recorded.
2. OCSD staff will create the Bluebeam studio session, invite attendees, configure, and manage the Studio session.
3. Bluebeam provides reviewers with tools for annotating PDFs called a markup. OCSD provides two toolboxes for annotating PDFs: "OCSD Drawings Review" and "OCSD Report Review."
4. Markups are both graphical and tabular. When the graphic markup is placed, corresponding tabular data are created. The collection of tabular data is considered the markup list.
5. The markup is automatically populated with various properties including author, sheet number, comment, markup type, etc. to make reviewing consistent. The tabular data within the markup list are hyperlinked to the graphical markup for back-and-forth viewing.
6. The markup list may be sorted or filtered. For example, filtering markups by author makes that attendee's markups more prominent on the page by dimming everyone else's markups.
7. Within a studio session, markups may only be modified by the markup author except for the Status data field using the "Set Status" command. OCSD has customized this field for

the reconciliation of comments and backcheck. Session attendees may "Reply" to the markup of other reviewers. Replying to a markup provides the responder the opportunity to explain how the markup will be incorporated.

8. The comment reconciliation steps are summarized below:

- a. Reply – respond to OCSD provided review comment with: **Agree, Disagree, or Flag for Discussion.**
- b. Direct – meet with OCSD to reconcile the non-agrees with either an **Incorporate or Do Not Incorporate** response. OCSD will work with Consultant to ensure clear direction is provided.
- c. QC Check – Consultant tells OCSD that the comment has been addressed in the next submittal by responding with **Incorporated or Not incorporated.**
- d. Backcheck – reconciliation of open and incorporated comments by OCSD with an **Open or Closed** response.

9. A one-hour training session on the use of Bluebeam and custom status menu will be provided by OCSD. All Consultant team members responsible for quality control and reconciliation of submittal comments shall attend.

7.0.8 WORD TRACK CHANGES

A. Below are guidelines for the review and incorporation of MS-Word comments and revisions. Use MS-Word Track Changes to show edits to all project specifications and other MS-Word files.

B. Submit the marked-up electronic files for OCSD review, as required by the Scope of Work. OCSD's review will consist of comments and (in-text) revisions. OCSD comments and revisions shall remain visible in Track Changes throughout design.

C. OCSD will return the MS-Word files or host them in a central location.

1. If the files are returned, CONSULTANT will check the files back into their document management system (i.e., replace the old files with the returned files) and resume their design and review of OCSD comments using the returned files. This insures that in-text revision by OCSD are preserved.

2. Hosting files in a central repository is preferred because it eliminates file transfer and the potential for multiple copies. Hosted files are also protected by version control.

D. OCSD comments shall be addressed using MS-Word "Reply" and "Resolve." The CONSULTANT shall "Reply" to each OCSD comment describing how the comment will be addressed and revise the specification, as needed, to address the comment.

E. "Resolve" will be used by the reviewer or designee to confirm their comment has been addressed. "Resolve" greys out the comment showing it is closed.

F. Revisions may be "Rejected" with the concurrence of the Project Engineer or reviewing party. Concurrence is necessary because once a revision is "rejected," it is removed from MS-Word Track Changes and no longer visible.

G. After final design, all MS-Word comments and revisions shall be Track Changes accepted, rejected, resolved, or deleted prior to bid. The MS-Word commands to "Accept All Changes" and "Delete All Comment in Document" shall be performed just prior to preparing the IFB set. No unaddressed comments or revisions shall remain in the Bid Documents.

7.0.9 GIS SUBMITTALS

A. Consultant shall provide the following GIS deliverables propagated from approved design submittals after the design submittal is accepted. These GIS submittals will not be reviewed or presented by Consultant. The purpose is to provide project specific GIS layers that could be used to visualize interproject dependencies and conflicts.

1. Electronic Submittal
 - a. Kmz files for use with Google Earth
2. Final PDR
 - a. Single project boundary (Polygon)
 - (1) Boundary to encompass all new facilities and existing to be modified including:
 - Buildings\Structures
 - Tunnels
 - Utilities
 - Pavement
 - Street boundary (ROW to ROW) of possible alignment
 - b. Structures (Polygon)
 - New structure outline
 - Additions to existing structures
 - Structure label
3. DS1
 - a. Project boundary - *updated from PDR*
 - b. Structures - *updated from PDR*
 - c. Utilities (Polyline)
 - (1) Utility alignment
 - d. Manholes (Point)
 - e. Excavation of pits (Polygon)
 - (1) Pits that will stay open for extended duration
 - (2) CIPP
 - (3) Tunnel - jacking and receiving
 - (4) All pits should be labeled
4. DS2, DS3, and FDS
 - a. Project boundary - updated from previous DS
 - b. Structures - updated from previous DS
 - c. Utilities - updated from previous DS
 - d. Manholes - updated from previous DS
 - e. Excavation of pits - updated from previous DS
 - f. Critical (as defined by Dig Alert) utility crossings (Point)
 - (1) Crossing of Dig Alert critical utilities
 - (2) Critical utility label
 - Natural gas
 - Fuel pipeline
 - 12 kV Electrical
 - g. Asphalt (Polygon)

- (1) Asphalt to be replaced

8. PROJECT-SPECIFIC DEVIATIONS FROM OCSD DESIGN GUIDELINES

The following Scope sections change the Engineering Design Guidelines requirements for this project and apply to ALL its Project Elements:

ENGINEERING DESIGN GUIDELINES CHAPTER 01, “DESIGN GUIDELINES – GENERAL REQUIREMENTS”

8.0.1 SECTION 01.2.19 “LIFE CYCLE COSTS”

8.0

- A. Replace the 1st paragraph with the following:
- B. CONSULTANT shall conduct a sensitivity analysis to see if the life cycle costing analysis is sensitive to the following assumed costs: _____

8.0.2 ENGINEERING DESIGN GUIDELINES CHAPTER 06, “MECHANICAL DESIGN”

- A. Section 06.7 “Vibration Analysis for Rotating Electrical Equipment”

- 1. Replace the entire section with the following:

CONSULTANT shall perform a RUN evaluation for all pumping systems according to ANSI/HI 9.6.8-2014 or latest (Rotodynamic Pumps—Guideline for Dynamics of Pumping Machinery), to assess various vibration related phenomena. RUN is the general term used to denote the quantity obtained from multiplying the Risk (R) value and Uncertainty (U) value determined during the appropriate evaluation. This evaluation will help determine the relevant analysis level required to appropriately evaluate pumping machinery construction attributes and relevant site characteristics. CONSULTANT shall obtain (from the manufacturers of the rotating equipment) or calculate (based on anticipated turning speeds, operational requirements, etc.) the relevant equipment and system natural and/or excitation frequencies. These frequencies will include any effect from the various torsional, lateral, and structural behaviors of the equipment or system.

All other rotating equipment such as fans, blowers, compressors, and pumps/equipment not covered by other standards or specifications, etc. shall undergo a similar evaluation to determine relevant risk and analysis requirements to ensure project success and reliability targets are met. For these other types of rotating equipment not covered by other standards or specifications, the CONSULTANT shall propose a plan for OCSD to approve prior to analysis being performed accordingly.

For the purpose of estimating level of effort, the Risk Value, “R”, for critical equipment that is required for continuous operation of a process system or where standard equipment is modified slightly for this application, a R-Value of 4 should be assumed. For systems dedicated to a redundant process train or where standard equipment is used, a R-Value of 2 should be assumed.

The results from the above RUN evaluation shall be used by the CONSULTANT in their subsequent design, to help provide a robust solution for the project needs. Iterations of design and equipment substitutions shall trigger additional RUN evaluations and analysis, as needed. Final equipment acceptability and commissioning shall be per ANSI/HI 9.6.4-2009 or latest (Rotodynamic Pumps—for Vibration Measurements and Allowable Values), applicable Part of ISO 10816 latest (Mechanical Vibration), ANSI/AMCA 204-05:2012 or latest (Balance Quality and Vibration Levels for Fans), ISO 1940-1:2003 or latest (Mechanical Vibration—Balance Quality Requirements for Rotors in a Constant (Rigid) State), and ISO 21940-12:2016 or latest (Mechanical Vibration—

Rotor Balancing—Procedures and Tolerances for Rotors with Flexible Behavior) as applicable. In addition, all loads, forces and moments imparted to equipment or piping, including resonance, shall be fully mitigated and all usage cases analyzed and documented per ASME 31.3-2018 or latest (Process Piping) at a minimum, and properly designed within applicable allowable stresses, etc. If there are conflicts in the standards specified, the more stringent value or condition to prevail.

8.0.3 [ENGINEERING DESIGN GUIDELINES CHAPTER 10, “ELECTRICAL DESIGN CRITERIA “

A. Section 10.1.1 “Electrical Design Basis and Assumptions- Data, Measurements and Analyses”

1. Replace the 1st paragraph with the following:
2. The calculation criteria for this project shall be as follows: _____
3. The CONSULTANT shall also refer to Engineering Design Guidelines, Chapter 10, Section 10.7 "Distribution System Requirements" for requirements.

B. Section 10.2.1.11 “Report - Motor Starting Study”

1. Replace the last 2 paragraphs with the following:
2. Dynamic Motor Study as part of the Motor Starting Study **[shall not be required for this project] [shall include only the following equipment: _____]**

C. Section 10.2.1.14 “Stability Study”

1. Replace the first paragraph with the following:
2. CONSULTANT shall perform a stability study which shall include the following elements: [_____]

D. Section 10.2.1.18 “Report - Other Analyses”

1. Replace the text with the following:
2. CONSULTANT shall also include in the Report the following analyses
3. The following additional project-specific analyses: _____
4. **[All testing shall be compared to equipment manufacturer or designated equipment specification(s) by a certified testing Contractor.]**
5. **[Other analyses required in accordance with recognized engineering practice to support prudent design for the project, but not necessarily indicated in the Scope of Work.]**

8.0.4 ENGINEERING DESIGN GUIDELINES, CHAPTER 11, “INSTRUMENTATION AND CONTROL”

A. Section 11.4.1 “Requirements Study”

1. The Requirements Study shall not be part of the Scope of Work.

9. STAFF ASSISTANCE

OCSD staff member or designee assigned to work with CONSULTANT on the design of this project is [_____] at (714) 593-[_____] , e-mail to: [_____].

10. EXHIBITS

Exhibit 18 - Requirements and Standards for Operation Manual and Procedures (OMaP)

Exhibit 1 - Preliminary Design Report Requirements

- Exhibit 2 - Design Requirements**
- Exhibit 3 - Project Management Requirements**
- Exhibit 4 - Risk Management Requirements**
- Exhibit 5 - Workshop and Meeting Requirements**
- Exhibit 6 - Quality Control Requirements**
- Exhibit 7 - Design Submittal Requirements Matrix**
- Exhibit 8 - Project Schedule Calculation**
- Exhibit 9 - Deliverables Quantities**
- Exhibit 10 - Sample Construction Cost Estimate Format**
- Exhibit 11 - Sample Full Project Safety Review Plan**
- Exhibit 12 - Sample Risk Management Check List**
- Exhibit 13 - MMRP Log Template**
- Exhibit 14 - Bluebeam Designer Training for Submission**
- Exhibit 15 - Bluebeam Designer User Training**
- Exhibit 16 - OCSD Engineering Design Guidelines and Standards – Available online at <https://www.ocsd.com/about-us/transparency/document-central/folder-917>**
- Exhibit 17 - Master Construction Submittal Items List**
- Exhibit 18 - Requirements and Standards for Operation Manual and Procedures (OMaP)**
- Exhibit 19 - Project Reference Material**
 - **[J-102 Electrical Master Plan – October 2007]**
 - **[J-47 Cable Tray Improvements - Preliminary Design Report – Feb 2009]**
 - **[P1-20 Headworks No. 2 at Plant No. 1 Record Drawings – 1987]**
- Exhibit 20 - Sample Criticality Data Table**
- Exhibit 21 - ORT Procedure Examples**
- Exhibit 22 - Pre-FAT Procedure Examples**
- Exhibit 23 - Sample FAT Procedure**
- Exhibit 24 - Sample RAT Procedure**
- Exhibit 25 - Project J-47 Cable Tray Improvements Preliminary Design Report**
- Exhibit 26 - J-102 Electrical Master Plan**
- Exhibit 27 - Cable Conduit and Tray Schedule Database**

XXX:xxx



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1583

Agenda Date: 5/5/2021

Agenda Item No: 11.

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

SUBJECT:

NEWHOPE-PLACENTIA TRUNK REPLACEMENT, SEGMENT B AND SEGMENT C, CONTRACT NOS. 2-72B AND 2-72C

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

Approve the First Amendment to Agreement between the Orange County Sanitation District and the City of Anaheim for Construction of Water Facilities in Conjunction with the State College Boulevard Sewer Project, which increases by \$513,439 the maximum reimbursement by the City of Anaheim to a new total of \$1,813,439.

BACKGROUND

The upper reaches of the Newhope-Placentia Trunk Sewer carry flows from the cities of Brea, Fullerton, and Anaheim to Plant No. 1 for reclamation. The Newhope-Placentia Trunk Replacement, Project No. 2-72, will increase the capacity of the trunk sewer by replacing six miles of pipe, mostly along State College Blvd. in the cities of Fullerton and Anaheim. The first segment, mostly in Fullerton, was completed in 2017. Construction of the segment in Anaheim is nearing completion.

The alignment of the new sewer required the City of Anaheim (City) water lines be relocated at various locations. Since the City had planned to replace some of these and nearby water lines, the City and the Orange County Sanitation District (OC San) concluded that doing the work in the same timeframe and under one construction contract benefits both parties and the public.

In March 2017, the OC San Board approved a cooperative agreement with the City where OC San would design the water line work and include it in the construction contract for Newhope-Placentia Trunk Replacement, Segment B and Segment C, Contract Nos. 2-72B and 2-72C. In return, the City would reimburse OC San for actual costs incurred, up to a maximum of \$1,300,000.

RELEVANT STANDARDS

- Maintain collaborative and cooperative relationships with regulators, stakeholders, and neighboring communities

PROBLEM

Construction of the current contract is approximately 90% complete, and the portion of the work related to the City's water lines is complete. OC San staff and City staff have reviewed actual costs and agreed that the total cost incurred is \$1,813,439, \$513,439 more than the maximum limit. The City cannot pay for these additional costs without an amendment.

PROPOSED SOLUTION

Approve an amendment to the Agreement with the City increasing the maximum limit of compensation by the City to OC San by \$513,439 for a new total of \$1,813.439.

TIMING CONCERNS

OC San cannot collect reimbursement until the amendment is approved. The City expects City Council approval of the amendment on May 18, 2021.

RAMIFICATIONS OF NOT TAKING ACTION

If the amendment is not approved, OC San will not be reimbursed for additional costs incurred during construction.

PRIOR COMMITTEE/BOARD ACTIONS

March 2017 - Approved a Cooperative Agreement between OC San and the City for water supply pipe replacement on State College Boulevard along portions of the Newhope-Placentia Trunk Replacement, Segment B, Contract No. 2-72B, for an estimated amount of \$1,300,000 to be reimbursed by the City.

ADDITIONAL INFORMATION

The Cooperative Agreement amount of \$1,300,000 was based on estimated costs for the design and construction of the City waterline facilities. At time of the construction contract award to Group OHL USA, Inc., OC San and the City determined that the bid prices for the waterline work exceeded the estimated costs for construction by approximately \$300,000. The City and OC San agreed to defer issuing an amendment until the work was complete and all costs were finalized.

CEQA

The project is included in the Addendum to the "1999 OCSD Strategic Plan" Program Environmental Impact Report, State Clearinghouse No. 2006101018.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Adopted Budget, Fiscal Years 2020-2021 and 2021-22, Section 8, Page 19, Newhope-Placentia Trunk Replacement, Project No. 2-72) 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:

- Amendment to City of Anaheim Cooperative Agreement
- City of Anaheim Cooperative Agreement

OFFICE OF THE CITY ATTORNEY
CITY OF ANAHEIM
200 S. ANAHEIM BOULEVARD, SUITE 356
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(714) 765-5169
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**FIRST AMENDMENT TO AGREEMENT
BETWEEN THE ORANGE COUNTY SANITATION DISTRICT AND THE CITY OF
ANAHEIM FOR CONSTRUCTION OF WATER FACILITIES IN CONJUNCTION
WITH THE STATE COLLEGE BOULEVARD SEWER PROJECT**

THIS FIRST AMENDMENT TO AGREEMENT, dated this ____ day of _____, 20__, (“Effective Date”) is made and entered into by and between the

ORANGE COUNTY SANITATION DISTRICT,
a County Sanitation District, hereinafter referred to as “OCSD”;

A
N
D

CITY OF ANAHEIM, California, a municipal corporation,
hereinafter referred to as “City.”

OCSD and CITY are sometimes individually referred to herein as “Party” and collectively as “Parties.”

WITNESSETH:

WHEREAS, the Parties entered into the “Agreement between the Orange County Sanitation District and the City of Anaheim for Construction of Water Facilities in Conjunction with the State College Boulevard Sewer Project” dated March 22, 2017 (hereinafter, the “Agreement”) in which OCSD agreed to design, administer, and manage a construction contract for the construction of the Water Projects and Project 2-72B; and

WHEREAS, the Water Project costs have exceeded original cost estimates and the Parties desire to amend the Agreement to increase the reimbursement amount accordingly.

NOW, THEREFORE, FOR AND IN CONSIDERATION OF THE MUTUAL PROMISES, COVENANTS AND CONDITIONS HEREIN CONTAINED, THE PARTIES HERETO AGREE AS FOLLOWS:

1. Section 5.F of is hereby added to the Agreement to read as follows:
“In accordance with Section 5.E above, the Parties hereby amend the maximum

1 reimbursement amount of the City for the design and construction of the Water Projects by
2 increasing the amount by an additional Five Hundred and Thirteen Thousand and Four Hundred
3 and Thirty-Nine Dollars (\$513,439.00). Accordingly, notwithstanding section 5.E., the City’s
4 total obligation to reimburse OCSD for the design and construction of the Water Projects shall
5 equal One Million and Eight Hundred and Thirteen Thousand and Four Hundred and Thirty-
6 Nine Dollars (\$1,813,439.00).”

7 2. Except as expressly amended hereby, all the remaining provisions of the
8 Agreement shall remain in full force and effect.

9 3. Any capitalized terms not defined herein shall have the meaning ascribed to it in
10 the Agreement.

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[SIGNATURES ON FOLLOWING PAGE]

**AGREEMENT
BETWEEN THE ORANGE COUNTY SANITATION DISTRICT AND THE
CITY OF ANAHEIM FOR CONSTRUCTION OF WATER FACILITIES IN
CONJUNCTION WITH THE STATE COLLEGE BOULEVARD SEWER
PROJECT**

THIS AGREEMENT ("Agreement"), is made and entered into on this 22nd day of March, 2017, by and between the:

ORANGE COUNTY SANITATION DISTRICT,
a County Sanitation District, hereinafter referred to as "OCSD";

AND

CITY OF ANAHEIM, California, a Municipal Corporation,
hereinafter referred to as "City."

OCSD and City are sometimes hereinafter individually referred to as "Party" and hereinafter collectively referred to as "Parties."

RECITALS

WHEREAS, OCSD is a duly organized County Sanitation District existing pursuant to the County Sanitation District Act, California Health and Safety Code section 4700, et seq., providing for the ownership, operation, and maintenance of wastewater collection, treatment, and disposal facilities within Orange County, California; and

WHEREAS, City is a municipal corporation duly organized and validly existing under the laws of the State of California with the power to carry on its business as it is now being conducted under the statutes of the State of California; and

WHEREAS, OCSD owns, operates and maintains a sewer main within the City located beneath a street called State College Boulevard between Orangewood Avenue to the south and the 91 Freeway to the north; and

WHEREAS, this sewer facility currently consists of one 33 to 42-inch diameter sewer which OCSD intends to upsize to a 54-inch diameter sewer known as "Project 2-72B"; and

WHEREAS, within the same portion of State College Boulevard, the City is similarly planning the (1) design and construction of approximately 800 linear feet of a 12-inch diameter water main to replace an existing 6-inch diameter water main between Lincoln Avenue to the south and Underhill Avenue to the north ("State College/Lincoln Avenue Water Project"); (2) design and construction of approximately 1900 linear feet of a 12-inch diameter water main to replace an existing 6-inch diameter water main between Underhill Avenue to the south and La Palma Avenue to the north ("State College/La Palma Avenue Water Project"); (3) design and replacement of approximately 400 linear feet of an existing 12-inch and 18-inch water main at

the intersection of State College Boulevard and Ball Road ("State College/Ball Road Water Project"); and (4) design and replacement of various water mains along the Project 2-72B alignment ("Miscellaneous OCSD Relocation Water Project"); and collectively, these projects shall be referred hereinafter as the "Water Projects" and are further described and depicted in Exhibit A which is attached hereto and incorporated herein by reference; and

WHEREAS, Project 2-72B and the Water Projects are in the same vicinity and scheduled to occur on or about a similar timeline, it is advantageous to both Parties for the construction of the facilities to occur simultaneously to minimize the impacts to the environment, the public, and the surrounding homeowners; and

WHEREAS, OCSD agrees to design, administer, and manage a construction contract for the construction of the the Water Projects and Project 2-72B (collectively "the Projects"); and

WHEREAS, the cost allocation for the Water Projects shall be as set forth herein below; and

WHEREAS, the Parties agree to enter into an Agreement for the work associated with the Water Projects in a manner and subject to the terms and conditions set forth below;

NOW, THEREFORE, in consideration of the mutual promises set forth herein, the Parties hereto agree as follows:

Section 1: Recitals. The Recitals above are deemed true and correct, are hereby incorporated in this Section as though fully set forth herein, and each Party to this Agreement acknowledges and agrees that they are bound by the same.

Section 2: Elements of Agreement. OCSD and City will work cooperatively together so the Projects can be constructed in a manner that minimizes the costs and impacts to the public. The specific terms and conditions governing the elements of this Agreement are set forth hereinafter.

Section 3: OCSD's Specific Obligations.

- A. OCSD will be responsible for compliance with the California Environmental Quality Act ("CEQA") (Pub. Resources Code, Section 21000 et seq.). OCSD will be the Lead Agency for purposes of CEQA and, in such capacity, OCSD will conduct the applicable environmental review. OCSD will supply to City copies of the OCSD-approved environmental documents for City's files.
- B. OCSD will enter into and administer contracts for the design services needed for the Water Projects which includes contracting with the necessary engineering consulting services to accomplish the design

efforts. OCSD will issue an amendment to the consultant currently retained by OCSD to design Project 2-72B. This amendment will contain a scope of work that will ensure the Water Projects are designed and constructed as required by the City.

- C. OCSD will submit prepared plans and specifications for the design and construction of the Water Projects for review, comment, and written approval by City. If City does not approve the proposed plans and specifications, City will provide OCSD its basis for denial and OCSD shall require its hired consultant to correct the plans and specifications to City's reasonable satisfaction. The plans and specifications approved in writing by the City shall be referred hereinafter to as "Approved Plans and Specifications".
- D. OCSD shall be responsible for advertising, awarding, and administering a contract for the construction of the Water Projects, in conformance with all applicable laws governing construction of public works. OCSD will issue a public works bid package and enter into a construction contract in accordance with the Approved Plans and Specifications. The contract will also contain Project 2-72B so the Projects will be constructed under a single contract. The bid package will contain specific bid items that pertain to the Water Projects which will be used to determine the reimbursement amount City will pay to OCSD for the Water Projects.
- E. OCSD shall ensure the contractor for the Water Projects has the appropriate license from the California State License Board and ensure contractor complies with prevailing wage laws including, but not limited to, California Labor Code Sections 1720 et seq. and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq. ("Prevailing Wage Laws").
- F. Upon award of the contract to the successful bidder, OCSD will submit such information to City for their files.
- G. For the duration of the construction of the Water Projects, OCSD will:
 - a. Provide City staff with contractor schedules and updates within ten (10) days of acceptance by OCSD staff.
 - b. Invite City staff to construction progress meetings.
- H. OCSD shall allow City to review, check, and inspect any part of the Water Projects at any time. OCSD shall provide City inspectors uninhibited access to the area of the Water Projects and an adequate on-site work space to perform such work. OCSD shall not accept any portion of the work associated with the Water Projects unless the work has been

inspected and approved in writing by the City. OCSD will document and inform City of the date of final acceptance, which is the date when the notice of completion is filed. OCSD shall furnish City with one set of record drawings for the completed Water Project and a copy of the filed notice of completion. No notice of completion shall be filed by OCSD until OCSD receives City's prior written concurrence to such filing.

- I. OCSD will obtain on behalf of City a one-year warranty on the work to be performed for the Water Projects from OCSD's construction contractor. This one-year warranty shall commence at the time the notice of completion is issued specifically for the Water Projects.
- J. OCSD, its agents and contractors shall keep the Water Projects free from any statutory or common law liens arising out of any work performed, materials furnished or obligations incurred by OCSD, its agents or contractors.
- K. OCSD shall obtain all necessary permits plan checks, and inspection for the Water Projects. Costs for the payment of the foregoing shall be allocated between the Parties in accordance with Section 5 of this Agreement.
- L. OCSD shall ensure that in all contracts or agreements OCSD enters into with any person(s) or firm(s) to perform work on the Water Projects, including without limitation construction contractors, design professionals, and consultants, shall contain indemnification and insurance provisions, in favor of OCSD and City, their respective officials, officers, and employees, that include requirements, limits, coverages, and terms and conditions in conformance with sound risk management principles for projects of this kind, nature, risk, and complexity. Further, OCSD shall ensure that such contracts or agreements provide for indemnity and insurance protection for City in amounts and form at least equal to the protection OCSD secures for itself.

Section 4: City's Specific Obligations.

- A. City will provide inspection services for the Water Projects as it deems necessary, or promptly upon request by OCSD as described in Section 4(b) to assure compliance with the Approved Plans and Specifications, including, but not limited to, shop drawing review and/or material inspection. City will promptly notify OCSD if any portion of the work appears not to conform to the Approved Plans and Specifications, and OCSD shall cause its contractor to correct such non-conforming work.

- B. City will respond to OCSD's request for an inspection within two (2) working days. City will be responsible for OCSD's contractor's downtime and/or delay due to failure to comply with this provision.
- C. OCSD shall promptly inform City of any proposed changes to the construction contract as it relates to the Water Projects . and obtain City's written approval prior to agreeing to a change order relating to the Water Projects. Copies of proposed changes affecting City will be provided to City within five (5) working days of submission to OCSD. City shall not be responsible for increased costs due to any change order related to the Water Projects without City's prior written approval. City's Public Utilities General Manager may approve or deny change order requests on behalf of the City. City's obligation to pay for change order costs shall only apply to segments where City is responsible for reimbursement per Section 5 of this Agreement.
- D. City shall return comments to OCSD on all shop drawing submittals, requests for information, and change order requests within ten (10) working days from receipt of submittals by City. City will be responsible for OCSD's contractor's downtime and/or delay due to failure to comply with this provision. This provision shall not apply to plan and specification review process.
- E. Prior to City's acceptance of Water Projects and OCSD filing a notice of completion, City shall review and provide written approval of the Water Projects. The City's written approval shall only be withheld for work not completed in accordance with the Approved Plans and Specifications. Upon City's written approval, City shall assume ownership and maintenance obligations for improvements within the Water Projects.

Section 5: Water Projects Reimbursement and Total Costs

The table below establishes the percent of the Water Projects that OCSD affects via Project 2-72B. The length and the percentage that OCSD affects is based on the current preliminary design assumptions. As design progresses to the preparation of the construction documents, the numbers in this table may change and if so will require an amendment to this Agreement in the event the City's reimbursement obligation is increased under Section 5.E. In the event there is no increase to City's obligation under Section 5.E., changes to the table below will not require an amendment to this Agreement. OCSD and City staff may agree in writing to changes to this table prior to construction advertisement. The final values shall be documented in writing.

| Water Project Names | Existing Pipe Size (in) | Future Pipe Size (in) | Length (lf) | Percentage Affected by OCSD 2-72B Project (%) |
|--|-------------------------|-----------------------|-------------|---|
| A. State College/La Palma Avenue Water Project | 6 | 12 | 1900 | 6 |
| B. State College/Lincoln Avenue Water Project | 6 | 12 | 800 | 100 |
| C. State College/Ball Road Water Project | 12 & 18 | 12 & 18 | 400 | 5 |
| D. Miscellaneous OCSD Relocations | Various | Various | Various | 100 |

A. OCSD shall be responsible to pay 6 % of the total costs of the design and construction of the State College/La Palma Avenue Water Project Water Project, whereas the City shall be responsible to pay 94% of this project's total costs. These percentages take into consideration and are inclusive of the pipe upsize cost difference.

B. OCSD shall be responsible to pay 100% of the total costs of the design and construction of the State College/Lincoln Avenue Water Project, whereas the City shall be responsible to pay 0% of this project's total costs Notwithstanding the foregoing, the City shall be responsible for the difference in pipeline material costs between the City's minimum allowable pipe size of 8-inch diameter pipe to the desired 12-inch diameter pipe size for the State College/Lincoln Avenue Water Project. This difference in pipeline material cost will be calculated at \$20.00 per linear foot of installed pipeline.

C. OCSD shall be responsible to pay 5% of the total costs of the design and construction of the State College/Ball Road Water Project, whereas the City shall be responsible to pay 95% of this project's total costs.

D. OCSD shall be responsible to pay 100% of the total costs of the design and construction of the Miscellaneous OCSD Relocation Water Project that are required for Project 2-72B and not associated with a City planned capital improvement project, whereas the City shall be responsible to pay 0% of these costs.

E. City's obligation to reimburse OCSD hereunder for the design and construction of the Water Projects shall not exceed a cumulative total of One Million Three Hundred Thousand (\$1,300,000) unless otherwise approved by City Council by amendment of this Agreement. City has budgeted One Million Three Hundred Thousand (\$1,300,000) for the Water Projects, including but not limited to design costs, construction costs, reimbursements, fees, and admistration costs. If City's obligation to reimburse OCSD for the Water Projects exceeds One Million Three Hundred Thousand (\$1,300,000), OCSD shall not be responsible for bearing City's excess share. OCSD agrees to notify City at the earliest opportunity if City's share is

expected to exceed One Million Three Hundred Thousand (\$1,300,000) anytime during the project. If reimbursement over and above One Million Three Hundred Thousand (\$1,300,000) is requested by OCSD, City staff will request approval from City Council to increase the maximum reimbursement amount.

Section 6: Timing of Reimbursement

For each progress payment made by OCSD to its consultant or contractor, OCSD shall submit an invoice to the City setting forth City's share of the payment, accompanied by all supporting documentation. The invoice shall be itemized for each Water Project in accordance with Section 5. City will review the progress payment request and provide OCSD with any comments within ten (10) working days. After the invoice is approved by the City, City shall pay OCSD within forty-five (45) days of City's receipt of invoices and supporting documentation. City shall pay invoices to OCSD based on progress payments until 100% of City's share is paid.

Section 7: Indemnification.

- A. OCSD will indemnify, defend and hold City, its officers, agents, employees, and consultants harmless from any and all actions, suits, claims, liability or expense for death, injury, loss, or damage to persons or property which may arise or is claimed to have arisen during or out of construction or the acceptance by City of City's water facilities, as a result of any work or action performed by or on behalf of OCSD, its officers, agents, employees or consultants, save and except in those instances where such expense, liability or claim is solely caused by any act, omission, or negligence of City, its officers, agents, employees or consultants.
- B. City will indemnify, defend and hold OCSD, its elected and appointed officials, officers, agents, employees, and consultants, harmless from any and all actions, suits, claims, liability or expense for death, injury, loss or damage to persons or property which may arise or is claimed to have arisen as a result of any act performed by City, its officers, agents, employees or consultants, with respect to the construction of City sewer facilities as a result of or in connection with the maintenance and operation of City's improvements, save and except in those instances where such expense, liability or claim is solely caused by any act, omission or negligence of OCSD, its officers, agents, employees or consultants. City will also indemnify, defend and hold OCSD, its elected and appointed officials, officers, agents, employees, and consultants, harmless from any and all actions, suits, claims, liability, cost or expense which may arise or is claimed to have arisen as a result of City's denial of any change order or part thereof.

Section 8: Term. This Agreement will be in full force and effect until the specified obligations of both Parties have been fulfilled. Notwithstanding the foregoing, either Party may

terminate this Agreement with or without cause upon giving the other Party one hundred (100) days prior written notice. If this Agreement is terminated, OCSD will be paid for those incurred reimbursable costs in accordance with Section 5.

Section 9: Agents. Any contractor or subcontractor performing work in connection with the work described herein on behalf of either Party will be conclusively deemed to be the servant and agent of each respective Party employing said contractor or subcontractors hereof, acting on behalf and within the scope of such contractor and subcontractor employment for said Party.

Section 10: Notices. All notices or other communications required or permitted hereunder will be in writing and will be personally delivered or sent by registered or certified mail, postage prepaid, return receipt requested, delivered or sent by electronic transmission, and will be deemed received upon the earlier of: (i) the date of delivery to the address of the person to receive such notice if delivered personally or by messenger or overnight courier; (ii) three (3) business days after the date of posting by the United States Post Office if by mail; or (iii) when sent if given by electronic transmission. Any notice, request, demand, direction, or other communication sent by electronic transmission must be confirmed within forty-eight (72 hours by letter mailed or delivered. Notices or other communications will be addressed as follows:

To OCSD: Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708
Attention: Kelley Lore, Clerk of the Board
Facsimile: (714) 962-0356

To City: City of Anaheim – Public Utilities Department
201 South Anaheim Boulevard, Suite 1101
Anaheim, CA 92805
Attention: Dukku Lee, Public Utilities General Manager
Facsimile: (714) 765-4138

Section 11: Jurisdiction. In the event of a dispute regarding performance or interpretation of this Agreement, the venue for any action to enforce or interpret this Agreement will lie in the Superior Court of California for Orange County.

Section 12: No Third Party Beneficiaries. This Agreement is entered into by and for City and OCSD, and nothing herein is intended to establish rights or interests in individuals or entities not a party hereto.

Section 13: Force Majeure. Except for the payment of money, neither Party will be liable for any delays or other non-performance resulting from circumstances or causes beyond its reasonable control, including without limitation, fire or other casualty, act of God, strike or labor dispute, war or other violence, acts of third parties, or any law, order, or requirement of any governmental agency or authority.

Section 14: Governing Law. This Agreement will be governed by the laws of the State of California.

Section 15: Entire Agreement. This Agreement constitutes the entire understanding and agreement between the Parties and supersedes all previous negotiations and agreements between the Parties pertaining to the subject matter hereof.

Section 16: Waiver. A waiver of a breach of the covenants, conditions, or obligations under this Agreement by either Party will not be construed as a waiver of any succeeding breach of the same or other covenants, conditions, or obligations of this Agreement.

Section 17: Modification. Alteration, change, or modification of this Agreement will be in the form of a written amendment, which will be signed by both Parties.

Section 18: Severability. If any term or portion of this Agreement is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Agreement will continue in full force and effect.

Section 19: Agreement Execution and Authorization. Each of the undersigned represents and warrants that they are duly authorized to execute and deliver this Agreement and that such execution is binding upon the entity on whose behalf they are executing this Agreement.

[SIGNATURES ON THE NEXT PAGE]

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the day and year first above written.

ORANGE COUNTY SANITATION DISTRICT

APPROVED AS TO FORM:
GENERAL COUNSEL

By: David John Shawver
for Greg Seboorn,
Chair, Board of Directors

ATTEST:

By: Bradley R. Hogin
Bradley R. Hogin,
Orange County Sanitation District

By: Kelly Lore
Kelly Lore,
Clerk of the Board, Board of Directors



CITY OF ANAHEIM

By: Dukku Lee
Dukku Lee, Public Utilities General Manager

APPROVED AS TO FORM:

By: Daniel A. Ballin
Daniel A. Ballin,
Deputy City Attorney

ATTEST:

By: Linda Andal
Linda Andal, City Clerk

EXHIBIT A WATER PROJECTS DESCRIPTION

PROJECT 2-72B

Project consists of one 33 to 42-inch diameter sewer, which OCSD intends to upsize to a 54-inch diameter sewer, in State College Blvd from Orangewood Ave to the south to 91-Freeway to the north, known as "Project 2-72B".

STATE COLLEGE/LINCOLN AVENUE WATER PROJECT

Project consists of the design and construction of approximately 800 linear feet of 12-inch diameter zinc-coated ductile iron water pipeline along State College Blvd to replace an existing 6-inch diameter water main between Lincoln Avenue to the south and Underhill Avenue to the north. The new water main in this project is proposed to be upsized to 12-inch in order to improve the fire flow in this portion of Anaheim's water distribution system. Project to also include the replacement of existing system valves, fire hydrants, and services.

STATE COLLEGE/LA PALMA AVENUE WATER PROJECT

Project consists of the design and construction of approximately 1900 linear feet of 12-inch diameter water main along State College Blvd to replace an existing 6-inch diameter water main between Underhill Avenue to the south and La Palma Avenue to the north. The new water main in this project is proposed to be upsized to 12-inch in order to improve the fire flow in this portion of Anaheim's water distribution system. Project to also include the replacement of existing system valves, fire hydrants, and services.

STATE COLLEGE/BALL ROAD AVENUE WATER PROJECT

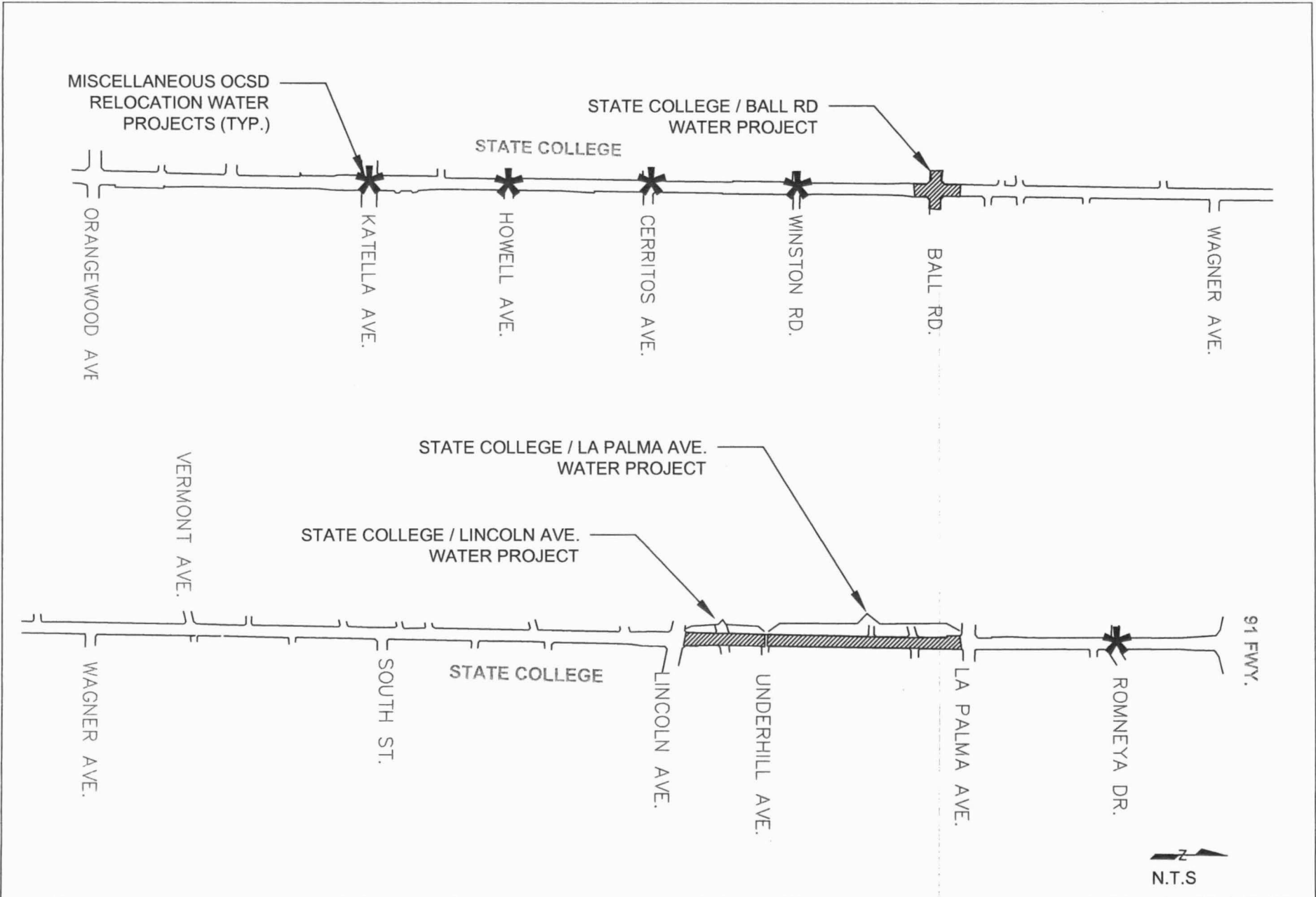
Project consists of the design and replacement of approximately 400 linear feet of existing 12-inch cast iron and 18-inch CCP water mains with zinc-coated ductile iron pipe at the intersection of State College Boulevard and Ball Road. This project will increase the reliability of Anaheim's water distribution in this area. Existing system valves will also be removed and replaced with resilient wedge valves located outside of the intersection.

MISCELLANEOUS OCSD RELOCATIONS WATER PROJECT

Project consists of the design and replacement of various water mains as required for the installation of OCSD's Project 2-72B. Approximate locations and limits of work are depicted on the next page.

GENERAL NOTE

The City of Anaheim's current design standards require that all water mains be 8-inch or larger. Therefore, existing 4-inch and 6-inch diameter water mains will not be allowed to be replaced in-kind but shall be upsized to 8-inch minimum. Cost sharing calculations as discussed in the Agreement shall be based on a minimum pipe size of 8-inch.



**ORANGE COUNTY SANITATION DISTRICT
NEWHOPE-PLACENTIA
TRUNK SEWER REPLACEMENT**

**EXHIBIT A
WATER PROJECTS**



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1527

Agenda Date: 5/5/2021

Agenda Item No: 12.

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

SUBJECT:

HEADQUARTERS COMPLEX AT PLANT NO. 1, CONTRACT NO. P1-128A

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Professional Construction Services Agreement with HDR Engineering, Inc. to provide construction support services for Headquarters Complex at Plant No. 1, Contract No. P1-128A, for an amount not to exceed \$4,900,000; and
- B. Approve a contingency of \$490,000 (10%).

BACKGROUND

HDR Engineering, Inc. was selected as part of a competitive, qualifications-based solicitation process to design Headquarters Complex, Project No. P1-128. At the time of the solicitation, the Orange County Sanitation District (OC San) documented its intent to award a subsequent agreement to the design consultant for continuation of engineering services during construction.

This project will construct a new three-story, 110,000 square foot office building on the north side of Ellis Avenue to house administrative, engineering, resource protection, and environmental compliance staff. The work includes new parking and a pedestrian bridge connecting the building to Plant No. 1.

RELEVANT STANDARDS

- Comply with California Government Code §4526: engage the best qualified firm “on the basis of demonstrated competence and qualifications” and “negotiate fair and reasonable fees”
- Provide a safe and collegial workplace

PROBLEM

This project requires the design consultant to provide as-needed services during construction including submittal review, responding to the Contractor’s requests for information, reviewing construction change orders, building commissioning, participating in meetings, attending site visits, and preparing record drawings.

PROPOSED SOLUTION

Award a Professional Construction Support Services Agreement with the design consultant HDR Engineering, Inc., to provide engineering support services during construction.

TIMING CONCERNS

Engineering support services will be required at the start of construction. Construction is anticipated to start in June 2021.

RAMIFICATIONS OF NOT TAKING ACTION

The engineering support services needed to facilitate and review construction activities would not be available by the Engineer of Record, which may negatively impact construction execution.

PRIOR COMMITTEE/BOARD ACTIONS

June 2016 - Approved a Professional Design Services Agreement with HDR Engineering, Inc. to provide architectural and engineering design services for the Headquarters Complex, Site and Security, and Entrance Realignment Program, Project No. P1-128, for an amount not to exceed \$11,785,709; and approved a contingency of \$1,178,571 (10%).

ADDITIONAL INFORMATION

HDR Engineering, Inc. has successfully furnished engineering services for the design of this project and their support services during construction will provide continuity through the completion of the project.

Staff negotiated with HDR Engineering, Inc. for these support services in accordance with OC San's adopted policies and procedures. A review of the proposed price was conducted using estimated quantities of requests for information, submittals, meetings, site visits, change order review, and design revisions, as well as the level of effort for preparing record drawings. Based on this review, staff determined the negotiated fee to be fair and reasonable for these services.

CEQA

The project is included in the Addendum to the City of Fountain Valley "Fountain Valley Crossings Specific Plan" Program Environmental Impact Report, State Clearinghouse No. 2015101042.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Adopted Budget, Fiscal Years 2020-2021 and 2021-22, Section 8, Page 58, Headquarters Complex, Project No. P1-128) 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 Construction Services Agreement

TG:dm

PROFESSIONAL CONSTRUCTION SERVICES AGREEMENT

THIS PROFESSIONAL CONSTRUCTION SERVICES AGREEMENT (Agreement) is made and entered into to be effective the 26th day of May, 2021 by and between the ORANGE COUNTY SANITATION DISTRICT, hereinafter referred to as "SANITATION DISTRICT", and HDR ENGINEERING, INC., hereinafter referred to as "CONSULTANT".

WITNESSETH:

WHEREAS, the SANITATION DISTRICT desires to engage a consultant to provide construction support services for **Contract No. P1-128A, HEADQUARTERS COMPLEX AT PLANT NO. 1** (Construction Support Services); and

WHEREAS, CONSULTANT is qualified to provide the necessary services for Construction Support Services in connection with these requirements; and

WHEREAS, the SANITATION DISTRICT has adopted procedures in accordance with the SANITATION DISTRICT's Purchasing Ordinance Section 4.03(B) for the continuation of services and has proceeded in accordance with said procedures to perform this work; and

WHEREAS, at its regular meeting on May 26, 2021 the Board of Directors, by Minute Order, accepted the recommendation of the Operations Committee to approve this Agreement between the SANITATION DISTRICT and CONSULTANT.

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 and technical 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, completeness, and coordination of all design, drawings, specifications, and other services furnished by the CONSULTANT under this Agreement, including the work performed by its subconsultants (Subconsultants). Where approval by the SANITATION DISTRICT is indicated, it is understood to be conceptual approval only and does not relieve the CONSULTANT of responsibility for complying with all laws, 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 ensure that all work is performed to industry standards of engineering practice for clarity, uniformity, and completeness.

- C. In the event that work does not conform to the requirements of this Agreement or any applicable industry standards, the CONSULTANT shall, without additional compensation, promptly correct or revise any errors or deficiencies in its designs, drawings, specifications, or other services within the timeframe specified by the Project Engineer/Project Manager. The SANITATION DISTRICT may charge to CONSULTANT all costs, expenses, and damages associated with any such corrections or revisions.
- D. All CADD drawings, figures, and other work shall be produced by CONSULTANT and its Subconsultants using the SANITATION DISTRICT standard software. Conversion of CADD work from any other non-standard CADD format to the SANITATION DISTRICT format shall not be acceptable in lieu of this requirement.
- Electronic files shall be subject to an acceptance period of 30 calendar days during which the SANITATION DISTRICT shall perform appropriate acceptance tests. In the event that the work does not conform to the requirements of this Agreement or the applicable industry standards, CONSULTANT shall correct any discrepancies or errors detected and reported within the acceptance period at no additional cost to the SANITATION DISTRICT.
- E. All professional services performed by the CONSULTANT, including, but not limited to, all drafts, data, correspondence, proposals, reports, and estimates compiled or composed by the CONSULTANT, pursuant to this Agreement, are for the sole use of the SANITATION DISTRICT, its agents, and employees. Neither the documents nor their contents shall be released to any third party without the prior written consent of the SANITATION DISTRICT. 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 the SANITATION DISTRICT or (b) subsequently becomes publicly known to the CONSULTANT other than through disclosure by the SANITATION DISTRICT.

2. **COMPENSATION**

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

A. **Total Compensation**

Total compensation shall be in an amount not to exceed Four Million Nine Hundred Thousand Dollars (\$4,900,000). 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, the SANITATION DISTRICT 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 the SANITATION DISTRICT, CONSULTANT shall provide the SANITATION DISTRICT 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, the SANITATION DISTRICT 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 its 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 its Subconsultants, the SANITATION DISTRICT shall pay profit for all services rendered by CONSULTANT and its 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 the attached hourly rate Schedule and as specified in the Scope of Work. The SANITATION DISTRICT 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

The SANITATION DISTRICT shall pay to CONSULTANT and its 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. The SANITATION DISTRICT shall also pay to CONSULTANT actual costs for equipment rentals, leases, or purchases with prior approval of the SANITATION DISTRICT. Upon request, CONSULTANT shall provide to the SANITATION

DISTRICT 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 in the Scope of Work resulting from field investigations and field work. 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

The SANITATION DISTRICT 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 the U.S. Internal Revenue Service (IRS). The plan includes a combination of reimbursements based upon receipts and a "per diem" component approved by the IRS. The most recent schedule of the per diem rates utilized by the SANITATION DISTRICT can be found on the U.S. General Services Administration (GSA) website at <http://www.gsa.gov/portal/category/104711#>.

The CONSULTANT shall be responsible for the most economical and practical means of management of reimbursable costs inclusive but not limited to travel, lodging, and meals arrangements. The SANITATION DISTRICT 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 the SANITATION DISTRICT any excess reimbursements after the reimbursement has been paid by the SANITATION DISTRICT.

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

Local Travel is considered travel by the CONSULTANT within the SANITATION DISTRICT general geographical area which includes Orange, Los Angeles, Ventura, San Bernardino, Riverside, San Diego, and 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 the SANITATION DISTRICT for local travel. However, under certain circumstances, overnight stay may be allowed at the discretion of the SANITATION DISTRICT 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 the SANITATION DISTRICT.

Travel Meals – Per-diem rates as approved by the 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 the not-to-exceed amount of the Agreement, including approved additional compensation, CONSULTANT shall notify the SANITATION DISTRICT 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 the SANITATION DISTRICT’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 the SANITATION DISTRICT 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

The SANITATION DISTRICT, 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. CONSULTANT shall allocate costs in the same manner as it would for payment requests as described in this Section of the Agreement. CONSULTANT shall warrant and certify the accuracy of these costs and understand that submitted costs are subject to Section 11 - AUDIT PROVISIONS.
- B. CONSULTANT may submit monthly or periodic statements requesting payment for those items included in Section 2 - COMPENSATION hereof in the format as required by the SANITATION DISTRICT. Such requests shall be based upon the amount and value of the work and services performed by CONSULTANT under this Agreement and shall be prepared by CONSULTANT and accompanied by such supporting data, including a detailed breakdown of all costs incurred and project element work performed during the period covered by the statement, as may be required by the SANITATION DISTRICT.

Upon approval of such payment request by the SANITATION DISTRICT, 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 the SANITATION DISTRICT 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 the SANITATION DISTRICT's Director of Engineering to be adequate for the protection of the SANITATION DISTRICT or
- ii. The percentage of the work accomplished for each project element

he or she may, at his or her discretion, retain an amount equal to that which insures 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 the SANITATION DISTRICT'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, the SANITATION DISTRICT 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 the SANITATION DISTRICT, CONSULTANT will be paid the unpaid balance of any money due for such work, 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 the SANITATION DISTRICT a release of all claims against the SANITATION DISTRICT 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 the SANITATION DISTRICT for compensation under the terms of this Agreement may be held liable for treble damages and up to a Ten Thousand Dollars (\$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 the SANITATION DISTRICT

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 the SANITATION DISTRICT; c) conspires to defraud the SANITATION DISTRICT by getting a false claim allowed or paid by the SANITATION DISTRICT; d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to the SANITATION DISTRICT; or e) is a beneficiary of an inadvertent submission of a false claim to the SANITATION DISTRICT and fails to disclose the false claim to the SANITATION DISTRICT within a reasonable time after discovery of the false claim.

5. 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 its 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 its 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 its Subconsultants shall furnish a copy of all certified payroll records to the SANITATION DISTRICT and/or general public upon request, provided the public request is made through the SANITATION DISTRICT, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement of the Department of Industrial Relations.
- D. The CONSULTANT and its Subconsultants shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulation Section 16461(e).

6. DOCUMENT OWNERSHIP – SUBSEQUENT CHANGES TO PLANS AND SPECIFICATIONS

- A. Ownership of Documents for the Professional Services performed.
All documents, including but not limited to, original plans, studies, sketches, drawings, computer printouts and disk files, and specifications prepared in connection with or related to the Scope of Work or Professional Services, shall be the property of the SANITATION DISTRICT. The SANITATION DISTRICT'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. The SANITATION DISTRICT 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 plans or specifications 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.

7. INSURANCE

A. General

- i. Insurance shall be issued and underwritten by insurance companies acceptable to the SANITATION DISTRICT.
- 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, the SANITATION DISTRICT will accept State Compensation Insurance Fund, for the required policy of Worker's Compensation Insurance subject to the SANITATION DISTRICT's option to require a change in insurer in the event the State Fund financial rating is decreased below "B". Further, the SANITATION DISTRICT will require CONSULTANT to substitute any insurer whose rating drops below the levels herein specified. Said substitution shall occur within 20 days of written notice to CONSULTANT by the SANITATION DISTRICT 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: Two Million Dollars (\$2,000,000) per occurrence with Four Million Dollars (\$4,000,000) aggregate. Said insurance shall include coverage for the following hazards: Premises-Operations, blanket contractual liability (for this Agreement), products liability/completed operations (including any product manufactured or assembled), broad form property damage, blanket contractual liability, independent contractors liability, personal and advertising injury, mobile equipment, 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 SANITATION DISTRICT and applicable, XCU coverage (Explosion, Collapse and Underground) and Riggers/On Hook

Liability must be included in the General Liability policy and coverage must be reflected on the submitted Certificate of Insurance.

C. Umbrella Excess Liability

The minimum limits of general liability and Automotive 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 automotive liability.

D. Automotive/Vehicle Liability Insurance

The CONSULTANT shall maintain a policy of Automotive Liability Insurance on a comprehensive form covering all owned, non-owned, and hired automobiles, trucks, and other vehicles providing the following minimum limits 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 to the SANITATION DISTRICT.

F. Worker's 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 Worker's Compensation Insurance shall be endorsed to provide for a waiver of subrogation in favor of the SANITATION DISTRICT. 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 Four Million Dollars (\$4,000,000) 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 the SANITATION DISTRICT a certificate of insurance in a form acceptable to the SANITATION DISTRICT 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 the SANITATION DISTRICT with original certificates and amendatory endorsements effecting coverage. Said policies and endorsements shall conform to the requirements herein stated. All certificates and endorsements are to be received and approved by the SANITATION DISTRICT before work commences. The SANITATION DISTRICT reserves the right to require redacted copies of all required insurance policies, including endorsements, effecting the coverage required, at any time. The following are approved forms that must be submitted as proof of coverage:

- Certificate of Insurance ACORD Form 25 (5/2010) or equivalent.
- Additional Insurance (ISO Form) CG2010 11 85 or
 (General Liability) The combination of (ISO Forms)
 CG 2010 10 01 and CG 2037 10 01

All other Additional Insured endorsements must be submitted for approval by the SANITATION DISTRICT, and the SANITATION DISTRICT may reject alternatives that provide different or less coverage to the SANITATION DISTRICT.

- Additional Insured Submit endorsement provided by carrier for the
 (Auto Liability) SANITATION DISTRICT approval.

- Waiver of Subrogation State Compensation Insurance Fund
Endorsement No. 2570 or equivalent.
- Cancellation Notice State Compensation Insurance Fund
Endorsement No. 2065 or equivalent.

I. Cancellation Notice

Each insurance policy required herein shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days' prior written notice. The Cancellation Section of ACORD Form 25 (5/2010) shall state the required thirty (30) days' written notification. The policy shall not terminate, nor shall it be cancelled or materially changed until thirty (30) days after written notice is given to the SANITATION DISTRICT except for nonpayment of premium, which shall require not less than ten (10) days written notice to the SANITATION DISTRICT. Should there be changes in coverage or an increase in deductible or SIR amounts, the CONSULTANT shall send to the SANITATION DISTRICT a certified letter which includes a description of the changes in coverage and/or any increase in deductible or SIR amounts. The certified letter must be sent to the attention of Risk Management, and shall be received by the SANITATION DISTRICT not less than thirty (30) days prior to the effective date of the change(s) if the change would reduce coverage or increase deductibles or SIR amounts or otherwise reduce or limit the scope of insurance coverage provided to the SANITATION DISTRICT.

J. Primary Insurance

All liability policies shall contain a Primary and Non Contributory Clause. Any other insurance maintained by the SANITATION DISTRICT shall be excess and not contributing with the insurance provided by CONSULTANT.

K. Separation of Insured

All 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 the SANITATION DISTRICT on the Certificate of Insurance. All deductibles and/or self-insured retentions require approval by the SANITATION DISTRICT. In no event shall a deductible or self-insured retention exceed \$250,000 for any one line of insurance.

N. Defense Costs

General and Automobile Liability policies 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 SANITATION DISTRICT requires and shall be entitled to coverage for the higher limits maintained by CONSULTANT.

8. SCOPE CHANGES

In the event of a change in the Scope of Work requested by SANITATION DISTRICT, 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.

9. PROJECT TEAM AND SUBCONSULTANTS

CONSULTANT shall provide to the SANITATION DISTRICT, 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 by CONSULTANT.

CONSULTANT shall include a description of the scope of work to be done by each Subconsultant and each CONSULTANT's project team member. CONSULTANT shall include the respective compensation amounts for CONSULTANT and each Subconsultant on a per-project-element basis, 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 the SANITATION DISTRICT.

10. ENGINEERING REGISTRATION

The CONSULTANT's personnel 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 requires the services of a registered engineer, such services hereunder will be performed under the direct supervision of registered engineers.

11. AUDIT PROVISIONS

- A. SANITATION DISTRICT 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 the SANITATION DISTRICT determines are necessary to discover and verify that the CONSULTANT is in compliance with all requirements under this Agreement. The CONSULTANT shall include the SANITATION DISTRICT's right as described above in any and all of its subcontracts and shall ensure that these rights are binding upon all Subconsultants.
- B. SANITATION DISTRICT retains the right to examine CONSULTANT's books, records, documents, and any other evidence of procedures and practices that the SANITATION DISTRICT 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 Accounting Principles (GAAP). The CONSULTANT shall make available to the SANITATION DISTRICT, for review and audit, all project related accounting records and documents and any other financial data within fifteen (15) days after receipt of notice from the SANITATION DISTRICT. Upon SANITATION DISTRICT's request, the CONSULTANT shall submit exact duplicates of originals of all requested records to the SANITATION DISTRICT. If an audit is performed, CONSULTANT shall ensure that a qualified employee of the CONSULTANT will be available to assist the SANITATION DISTRICT's auditor in obtaining all project-related accounting records and documents and any other financial data.

12. LEGAL RELATIONSHIP BETWEEN PARTIES

The legal relationship between the parties hereto is that of an independent contractor and nothing herein shall be deemed to make CONSULTANT an employee of the SANITATION DISTRICT.

13. 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.

Notices shall be mailed to the SANITATION DISTRICT at:

ORANGE COUNTY SANITATION DISTRICT
10844 Ellis Avenue
Fountain Valley, CA 92708-7018
Attention: Digna Olmos, Principal Contracts Administrator
Copy: Tom Grant, Project Manager

Notices shall be mailed to CONSULTANT at:

HDR Engineering, Inc.
3230 El Camino Real, Suite 200
Irvine, CA 92602
Attention: Kip Field

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

14. TERMINATION

The SANITATION DISTRICT 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. The SANITATION DISTRICT may also terminate this Agreement for cause but only after providing CONSULTANT written notice of the breach and a reasonable opportunity to cure.

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 the SANITATION DISTRICT and/or CONSULTANT in accordance with Section 13 - NOTICES.

15. DOCUMENTS AND STUDY MATERIALS

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

16. 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.

17. AGREEMENT EXECUTION AUTHORIZATION

Both the SANITATION DISTRICT and CONSULTANT do covenant that each individual executing this Agreement by and on behalf of each party is a person duly authorized to execute agreements for that party.

18. 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.

19. 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 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 it may be entitled.

20. PROGRESS REPORTS

Monthly progress reports shall be submitted for review by the tenth day of the following month and must include as a minimum: 1) current activities, 2) future activities, 3) potential items that are not included in the Scope of Work, 4) concerns and possible delays, 5) percentage of completion, and 6) budget status.

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, any part of the services fails to meet those standards, CONSULTANT shall, within the time prescribed by the SANITATION DISTRICT, take all such actions as are necessary to correct or complete the 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 the SANITATION DISTRICT, which approval shall not be unreasonably withheld), protect and hold harmless the SANITATION DISTRICT and all of SANITATION DISTRICT'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, reasonable attorneys' fees, disbursements and court costs, and all other professional, expert or consultants fees and costs and the SANITATION DISTRICT's general and administrative expenses (individually, a "Claim", or 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, consultants, 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 from:

- (A) the sole or 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 the SANITATION DISTRICT 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 the SANITATION DISTRICT will reimburse CONSULTANT for the reasonable costs of defending the Indemnified Parties against such claims. Additionally, in no event shall

the cost to defend charged to CONSULTANT exceed CONSULTANT's proportionate percentage of fault.

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. CONSULTANT PERFORMANCE

The CONSULTANT's performance shall be evaluated by the SANITATION DISTRICT. A copy of the evaluation shall be sent to the CONSULTANT for comment. The evaluation, together with the comments, shall be retained by the SANITATION DISTRICT and may be considered in future CONSULTANT selection processes.

25. COMPLIANCE WITH SANITATION DISTRICT POLICIES AND PROCEDURES

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

26. CLOSEOUT

When the SANITATION DISTRICT determines that all work authorized under the Agreement is fully complete and that the SANITATION DISTRICT requires no further work from CONSULTANT or the Agreement is otherwise terminated or expires in accordance with the terms of the Agreement, the SANITATION DISTRICT 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, the SANITATION DISTRICT 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 this Agreement. Such support must be provided within the timeframe requested by the SANITATION DISTRICT.

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 the SANITATION DISTRICT (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 the SANITATION DISTRICT 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 the SANITATION DISTRICT for any purpose nor imply acceptance of, or agreement with, the CONSULTANT's request for final Agreement Acceptance.

27. CONSTRUCTION PROCEDURES

CONSULTANT's observation or monitoring portions of the work performed under construction contracts shall not relieve the contractor from its responsibility for performing work in accordance with applicable contract documents. CONSULTANT shall not control or have charge of, and shall not be responsible for, construction means, methods, techniques, sequences, procedures of construction, health or safety programs or precautions connected with the work and shall not manage, supervise, control or have charge of construction. CONSULTANT shall not be responsible for the acts or omissions of the contractor or other parties on the project.

28. 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 the SANITATION DISTRICT and CONSULTANT, by their respective officers thereunto duly authorized, as of the day and year first above written.

CONSULTANT: HDR ENGINEERING, INC.

By _____ Date _____

Printed Name & Title

ORANGE COUNTY SANITATION DISTRICT

By _____ Date _____
David John Shawver
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" – Labor Hour Matrix
Attachment "C" – Conflict of Interest Disclaimer
Attachment "D" – Allowable Direct Costs
Attachment "E" – Fee Proposal
Attachment "F" – Not used
Attachment "G" – Acknowledgement of PCSA
Attachment "H" – Not used
Attachment "I" – Cost Matrix and Summary
Attachment "J" – Not used
Attachment "K" – Minor Subconsultant Hourly Rate Schedule
Attachment "L" – Contractor Safety Standards

DO:xx

**HEADQUARTRES COMPLEX AT PLANT NO.1
PROJECT NO. P1-128A**

**PROFESSIONAL CONSTRUCTION SERVICES AGREEMENT
REQUEST FOR PROPOSAL**

ATTACHMENT A – SCOPE OF WORK

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I. SUMMARY

Provide construction engineering support services for the construction and installation, commissioning, and closeout phases of this project.

II. PROJECT SCHEDULE

The schedule for the services specified in this Scope of Work (SOW) shall be provided per the construction contract schedule and the following schedule constraints:

| Task(s) | Period of Performance |
|--------------------------|--|
| Submittals | As described under Task 4.3 titled "Submittal Reviews" |
| Requests for Information | As described under Task 4.4 titled "Request for Information (RFI)" |
| Record Drawings | Draft Record Drawings shall be submitted to OC San within 45 Calendar days of receipt from OC San of the approved Contractor's As-Built Drawings. The final Record Drawings shall be submitted within 30 Calendar days of receipt of OC SAN's comments on the Draft Record Drawings. |

III. PROJECT IMPLEMENTATION

All Orange County Sanitation District (OC San) projects are divided into six phases. CONSULTANT shall provide engineering support services for Phase 4 Construction and Installation Services, Phase 5 Commissioning Services, and Phase 6 Closeout.

Phase 1 – Project Development – *Completed*

Phase 2 – Preliminary Design – *Completed*

Phase 3 – Final Design – *Completed*

Phase 4 – Construction and Installation Services

Phase 5 – Commissioning Services

Phase 6 – Closeout

PHASE 4 – CONSTRUCTION AND INSTALLATION SERVICES

OC San will retain the services of another consulting firm to provide Third Party Construction Management services. References to OC San activities in this scope of work may be delegated, at OC San's discretion, to this firm.

OC San will administer and provide field inspection for the construction contract. Construction and support services shall be provided by CONSULTANT as requested by OC San.

CONSULTANT shall provide the key management personnel as described in its proposal for this project. CONSULTANT shall not reassign the key project personnel without prior approval of OC San. OC San may request reassignment of any of CONSULTANT's or its subconsultant's personnel based on that individual's performance.

For all services, CONSULTANT shall refer to Engineering Design Guidelines, Chapter 01 for detailed requirements.

Quality Assurance/Quality Control (QA/QC): CONSULTANT shall administer a program of QA/QC procedures for producing quality work and shall effectively manage and control the work. Specific procedures shall include but not be limited to planning, coordination, tracking, checking, reviewing, and scheduling the work. CONSULTANT shall subject all work products prepared by CONSULTANT to CONSULTANT's in-house QA/QC procedures prior to submittal to OC San. QA/QC hours and costs shall be incorporated into other tasks within this SOW.

Task 4.1 – Project Management

CONSULTANT shall be responsible for detailed management of the project, including managing its subconsultants, and shall keep OC San apprised of the status of the project.

CONSULTANT shall conduct monthly virtual project management meetings with OC San's Project Manager. These meetings shall be attended by OC San's Project Manager and CONSULTANT's Project Manager at a mutually agreeable time. The purpose of the meetings shall be to review CONSULTANT Project Manager's progress report and the status of the project scope, budget, and any issues which may affect completion of the project. Meetings should be arranged so that the progress report can be submitted shortly prior to or at each meeting.

CONSULTANT shall prepare and submit monthly invoices to OC San no later than the second Wednesday of the following month. The invoices shall document the hours and billing rate for each person that works on the project for each task in the Work Breakdown Structure (WBS). 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 invoice to date"
- Current billing period "total percent completed to date"

The monthly progress report and project schedule shall be submitted with the project invoice as part of the monthly request for payment.

CONSULTANT shall also provide the percent budget spent for each of OC San's WBS cost codes (i.e. by work package and phase). OC San shall provide a list of cost codes by phase to CONSULTANT.

CONSULTANT shall also provide a summary of progress and expenditures to date.

OC San will provide a sample invoice structure to CONSULTANT at the beginning of the project.

Task 4.2 – Initial Project Meetings

4.2.1 - Construction Hand-Off Workshop

CONSULTANT shall participate in two 2-hour virtual construction hand-off workshops followed by up to three 2-hour virtual meetings focusing on electrical, instrumentation, and control disciplines. The purpose of the workshop is for CONSULTANT and OC San design teams to

transfer project-specific knowledge to the OC San construction management and inspection staff who will be managing and monitoring construction. Topics that might be covered in this meeting include the following:

- Overview of objective of the project
- Review of project elements
- Review of sequencing constraints
- Key issues to be addressed during construction
- Identification of risks and discussions of contingency plans

The workshop will be led by OC San's Project Engineer and CONSULTANT's Project Discipline Leads. CONSULTANT shall include its Project Manager, Project Architect, and one other discipline lead.

4.2.2 - PMWeb Procedures Meeting

The project will utilize PMWeb as the web-based Project Control Management System (PCMS), and CONSULTANT will be given access to PMWeb, so CONSULTANT will not need to purchase software for the selected PCMS. The PCMS shall be utilized for Project communication, tracking, and management. PCMS utilization is to facilitate the electronic exchange of information, the automation of key processes, and the overall management of the contract. When required by OC San, paper documents shall also be provided. In the event of discrepancy between the electronic version and paper documents, the electronic documents within PCMS shall govern.

CONSULTANT shall participate in one 2-hour PMWeb procedure virtual meeting. The training will be provided by OC San's staff. The purpose of this meeting is to review the roles and logistics for review, approval, and provision of various construction related documents. CONSULTANT's Project Manager, Project Architect, Project Assistant, and two other discipline leads shall participate in the virtual meeting.

4.2.3 - Submittal Review Procedures

CONSULTANT shall participate in one 2-hour virtual Submittal Procedure Meeting. The purpose of this meeting is to review the roles and logistics for review and approval of the Contractor submittals. CONSULTANT's Project Manager and Project Architect shall participate in this meeting.

4.2.4 - Preconstruction Conference

CONSULTANT shall participate in a two-hour Preconstruction Conference attended virtually by OC San staff, CONSULTANT, the Contractor, subcontractors, and vendors. This meeting will be scheduled and presided over by OC San. In this meeting, OC San's Resident Engineer will describe CONSULTANT's role in the project as the Design Firm and the services CONSULTANT shall provide during construction. OC San will prepare meeting minutes and CONSULTANT shall review and comment on the minutes.

4.2.5 - Pre-Submittal Meetings

CONSULTANT shall participate in virtual pre-submittal meetings specified for the following specification sections:

OC San will prepare the agenda and meeting minutes and CONSULTANT shall review and comment on the minutes. CONSULTANT's appropriate design professionals shall attend.

- HDR is requested to list in its proposal what specification sections should have Presubmittal-Meeting and the length of such meetings.
- Section 12345 – Whoopi Cushions (1 meeting @ 1-hour each)
- Section 23456 – Lava Lamps (2 meetings @ 2-hours each)
- Additional pre-submittal meetings (15 meetings @ 2-hour each)

Task 4.3 – Submittal Reviews

OC San will receive and log-in all submittals from the Contractor. OC San will forward copies of selected shop drawing and submittals requiring CONSULTANT's review. CONSULTANT shall review the shop drawings and submittals for conformance with the requirements of the Contract Documents and return the submittal review comments to OC San within ten calendar days after receipt of submittal, except for submittals requiring multi-discipline review. CONSULTANT shall return comments to OC San allowing enough time for OC San to incorporate all comments into a combined review comment set that OC San will return to the Contractor. CONSULTANT shall accommodate occasional expedited reviews for time sensitive submittals. Submittals shall include, but not be limited to, shop drawings, vendor tests, certifications, and test reports. All submittals will be made available electronically (PDF) through PMWeb.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of submittals.

Task 4.4 – Request for Information (RFI)

OC San will log in and forward to CONSULTANT certain RFIs generated by the Contractor or OC San. CONSULTANT shall return written responses to OC San as soon as possible or within three business days of receipt of RFI, except for complex RFIs that may have cost impacts and previously discussed with OC San's Resident Engineer, clarifying the requirements of the Contract Documents. CONSULTANT shall generate necessary sketches, figures, and modifications to the drawings for clarifications. When required to avoid schedule delay or additional construction-related costs, CONSULTANT shall expedite the review of time-sensitive RFIs.

If any changes to the Contract Drawings are required, CONSULTANT shall prepare these drawings and submit them as AutoCAD files to OC San. CONSULTANT shall update all AutoCAD drawings and specifications upon OC San acceptance of any changes resulting from RFIs and change orders.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of RFIs.

Task 4.5 – Contract Document Modifications and Design Changes

If the Contract Documents require modifications due to changed conditions, OC San requested changes, omissions, or design errors, CONSULTANT shall prepare preliminary Request for Proposal (RFP) documents and forward them to OC San, as needed. OC San shall review the RFP and request CONSULTANT to incorporate any changes. OC San will issue the change order documents in a formal RFP or Field Change Order (FCO) to the Contractor.

CONSULTANT shall forward design calculations and other design backup documents as necessary to OC San.

Any Contract Document that requires changes shall be identified with date of change and reference (RFI number, RFP number, FCO number, etc.) shown on the document. Changes shown on drawings shall be clearly marked and “clouded” for accurate identification of the scope of change by the Contractor and inspection staff. CONSULTANT shall maintain up-to-date Contract Documents. When a change is required on a Contract Drawing that has previously undergone a change, the updated drawing showing the previous change shall be used as the base document to identify new changes.

CONSULTANT shall submit complete change documentation to OC San for use in RFIs, RFPs, and FCOs. This change documentation shall include plan drawings, schematics, details, schedules, and specifications, as required.

See Section V - “Quantitative Assumptions” in this SOW for the estimated number of hours.

Task 4.6 – Construction Progress Meetings and Site Visits

CONSULTANT shall attend construction progress meetings as requested by OC San. The scope item covers time for meeting preparation, travel time, follow-up, and review of meeting minutes. Progress meeting minutes will be prepared by OC San.

CONSULTANT shall make field visits to assist in field problem resolution and design clarification/verification to help resolve construction issues as they arise and as requested by OC San. When possible, field visits shall be scheduled on the same day as construction progress meetings. CONSULTANT shall report the nature of the field site visits, the problem resolved, and identify staff requesting the site visit in CONSULTANT’s monthly project report. OC San will provide project inspection, except as required in other sections of this SOW.

See Section V - “Quantitative Assumptions” in this SOW for the estimated number of hours.

Task 4.7 – Factory Observations

CONSULTANT shall attend factory observations for the following design elements:

HDR is requested to propose what equipment or systems would warrant a factory observation by HDR.

| System | Assumed Visits |
|-----------------------|-----------------------|
| Unitized Curtain Wall | One 1-day trip |
| | |

Task 4.8 – Specialty Services

4.8.1 – Geotechnical Engineering Services

The CONSULTANT shall provide field personnel to be in charge of the QA/QC program and coordinate with Contractor/OC San to monitor the drilling and installation of the Cast-in-Drilled-Hole (CIDH) piles for the project. Perform all QC during drilling, steel

reinforcement installation and concrete placement. CONSULTANT shall also be available for support to respond to differing site conditions, and Requests for Clarification and Information. OC San will have primary responsibility for monitoring the construction work. The CONSULTANT shall assist in monitoring the work and compile a report of the data collected during the monitoring. The consultant shall be present on-site while CIDH pile installation is taking place.

The CONSULTANT shall also provide geotechnical engineering services as they may be needed during the course of the project.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

4.8.2 – Structural Engineering Services

CONSULTANT shall have the structural engineer of record conduct field visits and provide expert opinion in review of observation of the structural work associated with the project. California Building Code requires the structural engineer of record to perform some structural inspections during construction.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

4.8.3 – Not Used

4.8.4 – Fire Protection Services

CONSULTANT shall secure the services of a fire protection specialist for assistance in construction support services during installation and commissioning of fire protection systems. CONSULTANT shall manage fire protection subconsultant, and CONSULTANT shall be on site with the subconsultant for up to 4 hours per day for up to 10 days.

4.8.5 – Landscape Architectural Services

CONSULTANT shall provide on-site landscape architectural services for construction support. This item is separate from the hours for Task 4.3, 4.4, and 4.5.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

4.8.6 – Furniture, Fixtures and Equipment Support

CONSULTANT shall provide services related to Furnishings, Fixtures, and Equipment (FFE). OC San will manage the solicitation and procurement of FFE, with assistance from CONSULTANT as specified below.

4.8.6.1 Define FFE Requirements

CONSULTANT shall meet with OC San stakeholders to define specific requirements for FFE.

4.8.6.2 Prepare FFE Scopes of Work

CONSULTANT shall prepare detailed scopes of work for FFE including bills of materials, details, figures, and specifications for C San to request competitive quotes for all FFE.

4.8.6.3 Vendor Quotation Reviews

CONSULTANT shall review vendor quotes to provide feedback for OC San's evaluation of vendor quotations.

4.8.6.4 Vendor Submittal Reviews

CONSULTANT shall review and comment on vendor submittals. Review of vendor submittals is separate from the review of the General Contractor's Submittals specified in Task 4.3.

4.8.6.5 Review Installed FFE

CONSULTANT shall conduct inspections of delivered and installed FFE to confirm that the specified requirements have been satisfied. See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

4.8.7 – Exhibit Design, Fabrication and Installation

CONSULTANT shall provide coordination, fabrication, and installation for educational exhibits to be installed in the lobby based on the preliminary exhibit designs developed during the Phase 3 – Final Design.

4.8.8 – Equipment and Instrument Database (EID)

CONSULTANT shall review electronic copies of the EID updated by the Contractor and shall update and verify the fields in the EID required to be filled out in accordance with Specifications Section 01788. The EID shall be completed and submitted to OC San as equipment is taken over for beneficial occupancy.

See Section V- "Quantitative Assumptions" in this SOW for the estimated number of hours.

4.8.9 – LEED Certification Support

CONSULTANT shall provide the services of a LEED Accredited Professional to coordinate with the Contractor/OC San for the implement the LEED design developed during Phase 3 – Final Design.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

PHASE 5 – COMMISSIONING SERVICES

Task 5.1 – Building Commissioning Services

CONSULTANT shall provide a Commissioning Agent with the responsibility and required expertise to develop the Commissioning Plan and represent OC San with the Building Commissioning activities.

CONSULTANT shall coordinate Building Commissioning activities with the Contractor (through the Third Party Construction Manager).

HDR is requested to propose any additional recommended scope for Building Commissioning

PHASE 6 – CLOSEOUT

Closeout tasks include completion of punch list work by the Contractor, final inspection, completion of Record Drawings, and electronic data. CONSULTANT shall submit a final invoice at the completion of the project.

Task 6.1 – Final Inspection and Punch Lists

At the end of the construction period for the overall project, CONSULTANT’s Project Engineer and technical leads shall attend the final inspection job walk with the Contractor and OC San staff. CONSULTANT shall make recommendations on the completion of the work including, but not limited to, completion of punch list items, site cleanup, leakage, and overall system operations.

CONSULTANT shall assist OC San in developing punch lists of items required to be completed prior to Final Acceptance of the project by OC San.

Task 6.2 – Record Drawings

When requested by OC San, CONSULTANT shall inspect the Contractor’s as-built drawings to verify that the Contractor has included all relevant information from approved change orders and RFIs. As part of the review process, CONSULTANT shall verify that the Contractor’s as-built drawings correctly reflects the information included in the approved shop drawings, RFIs, approved FCOs, plan clarifications, plan changes, and other deviations from the Contract Drawings and that the information in the set is complete. CONSULTANT shall allow for four visits per year to review the Contractor’s as-built drawings. CONSULTANT shall transpose the as-built drawings to a CAD ready set after each meeting.

After Final Completion of the project, OC San will transmit to CONSULTANT the final as-built drawings. At that time, CONSULTANT shall meet with OC San’s inspectors and Resident Engineer to review the Contractor’s final as-built drawings.

CONSULTANT shall prepare Draft Record Drawings based on the final as-built drawings for all drawings in accordance with the requirements in the CAD Manual. CONSULTANT shall submit the Draft Record Drawings to the OC San Resident Engineer. The Draft Record Drawings will be reviewed for content and CAD compliance by OC San staff. A comment log will be returned to CONSULTANT and, if any comments are generated, CONSULTANT shall revise the Record Drawings and resubmit to the Resident Engineer for review of the changes and acceptance of the Record Drawings.

When no additional comments are identified, CONSULTANT shall prepare the Final Record Drawings and submit them along with the Contractor’s as-built drawings to the Project Manager. All Record Drawings shall contain a stamp indicating:

| |
|--|
| <p>“Record Drawings</p> <p>These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of this information and shall not be responsible for any errors or omissions which may be herein as a result.”</p> |
|--|

The stamp shall optimally be placed in the bottom right-hand corner of the border and may be included via x-ref. If importing the stamp via x-ref interferes with content in the bottom right hand corner, the stamp may also be placed in other open space along the bottom of the border. In addition, a note shall be placed over the engineer’s seal stating that “This drawing was originally approved for construction by [name of engineer] on [date] and sealed by [name of engineer] a licensed professional engineer in the State of California. License No. [License number].” CONSULTANT shall submit an electronic copy of the Record Drawings to OC San for review and acceptance. The acceptance of the Record Drawings shall be deemed a condition for completion of work.

The Contractor-generated drawings described in the Design Guidelines and the shop drawings will not be updated by CONSULTANT.

The format and quantities for delivery of the submittals shall be listed below:

| Contents | Draft Record Drawings | Final Record Drawings |
|---|--------------------------------------|--------------------------------------|
| Hard Copy Sets | 2 sets of bound 11x17 prints | None |
| All related electronic files, including CAD and compiled PDFs | Transmit electronically via OneDrive | Transmit electronically via OneDrive |

IV. STAFF ASSISTANCE

OC San staff member or designee assigned to work with CONSULTANT on the construction phase of this project is Tom Grant at (714) 593-7287, e-mail to: tgrant@ocsd.com

V. QUANTITATIVE ASSUMPTIONS

The assumptions listed in the following table below shall be the basis for the assumed level of effort. CONSULTANT shall provide services up to the assumed level of effort, as specified for each task in the Scope of Work, within CONSULTANT's proposed fee. CONSULTANT shall track effort expended for each of these task and shall not exceed the assumed level of effort without an approved contract amendment for additional services. CONSULTANT's effort, hourly rates, and other costs shall be based on a construction duration of up to 78 months from notice to proceed to construction completion.

| Task | Description | Assumption |
|-------------|---|--|
| 4.1 | Project Management | 36 months duration from construction NTP to construction completion |
| 4.3 | Submittals | ____ original submittals ____ resubmittals ____ 2 nd and later resubmittals |
| 4.4 | Requests for Information | ____ RFIs |
| 4.5 | Design Changes | ____ man-hours |
| 4.6 | Construction Progress Meetings & Site Visits (not including meetings specified in Task 4.2 - Initial Project Meetings) | 100 Progress meetings @ 1 man-hours each, 75% virtual 35 site visits @ 2 hours on-site each |
| 4.8.6.5 | Review Installed FFE | 15 visits @ 2 hours on-site |
| 4.8.1 | Geotechnical Engineering Support | 400 total hours on-site over 50 days |
| 4.8.2 | Structural Engineering Services | 20 site visits @ 2 hours on-site each |
| 4.8.5 | Landscape Architectural Services | ____ site visits @ 2 hours on-site |
| 5.1.1 | Process Commissioning Team Meetings | __ meetings @ 1 hour (virtual) |



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1429

Agenda Date: 5/5/2021

Agenda Item No: 13.

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

SUBJECT:

ORANGE-WESTERN SUB-TRUNK AND LOS ALAMITOS TRUNK SEWER REHABILITATION, CONTRACT NOS. 3-64A AND 3-64B

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B;
- B. Award a Construction Contract to Steve P. Rados, Inc. for Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B, for a total amount not to exceed \$17,775,000; and
- C. Approve a construction contract contingency of \$1,777,500 (10%).

BACKGROUND

The Orange-Western Sub-Trunk and the Los Alamitos Trunk Sewer consist of two gravity trunk sewers located in city streets and easements within the Cities of Anaheim, Cypress, Buena Park, Los Alamitos, and Seal Beach. The Orange-Western Sub-Trunk was constructed in 1959 and runs along Orange Avenue between Valley View Street and Western Avenue and along Western Avenue between Orange Avenue and Santa Elena Drive. The Los Alamitos Trunk Sewer was also constructed in 1959 and runs along Katella Avenue, between Lexington Drive and Oak Street, and along Seal Beach Boulevard between Katella Avenue and Old Ranch Parkway, with a segment along Old Ranch Parkway.

RELEVANT STANDARDS

- Achieve less than 2.1 sewer spills per 100 miles
- Comply with California Public Contract Code Section 20103.8 by awarding a construction contract to lowest responsive, responsible bidder

| <u>Bidder</u> | <u>Amount of Bid</u> |
|---|----------------------|
| Steve P. Rados, Inc | \$17,775,000 |
| Teichert Energy & Utilities Group, Inc. | \$19,141,725 |
| Spinello Infrastructure West, Inc. | \$22,975,380 |

The fact that only three bids were received is likely due to two general factors. The first is that much of the work is typically performed by specialty subcontractors, such as cured-in-place pipe lining, and injection grouting where chemicals are injected into the ground to block the flow of groundwater into the pipe. In the case of the chemical injection subcontractors, there are very few firms active locally. In any case, with a large fraction of subcontracted work, the general contractors take on risk with less opportunity to gain a competitive advantage with a more effective approach. The other is that work hour restrictions required to mitigate traffic impacts on heavily traveled streets constrains how a contractor can manage the work and risks. These factors may explain why the low bid was nearly \$2 million more than the engineer's estimate.

The bids were evaluated in accordance with OC San's policies and procedures. After evaluation, Steve P. Rados, Inc., the apparent low bidder, was determined to be both responsive and responsible. A notice was sent to all bidders on March 31, 2021 informing them of the intent of OC San staff to recommend award of the Construction Contract to Steve P. Rados, Inc.

Staff recommends awarding a Construction Contract to the lowest responsive and responsible bidder, Steve P. Rados, Inc., for a total amount not to exceed \$17,775,000.

CEQA

The project is included in the "Rehabilitation of Western Regional Sewers Project No. 3-64" Environmental Impact Report (EIR) State Clearinghouse Number 2015111077. This EIR was certified by the Board of Directors and a Notice of Determination was filed on March 23, 2017.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Adopted Budget, Fiscal Years 2020-2021 and 2021-22, Section 8, Page 23, Rehabilitation of Western Regional Sewers, Project No. 3-64) 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:

- Construction Contract
- Presentation

HK:dm:sa:gc

PART A
CONTRACT AGREEMENT

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CONTRACT AGREEMENT
ORANGE COUNTY SANITATION DISTRICT

CONTRACT NO. 3-64A & 3-64B

ORANGE-WESTERN SUB-TRUNK & LOS ALAMITOS TRUNK SEWER REHABILITATION

Part of

PROJECT NO. 3-64, REHABILITATION OF WESTERN REGIONAL SEWERS

THIS AGREEMENT is made and entered into, to be effective, this May 26, 2021, by and between Steve P. Rados, Inc., hereinafter referred to as "CONTRACTOR" and the Orange County Sanitation District, hereinafter referred to as "OCSD".

WITNESSETH

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

SECTION – 1 GENERAL CONDITIONS

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 OCSD. 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 OCSD'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 OCSD, to construct and complete the Project, in good workmanlike and substantial order. If CONTRACTOR fails to pay for labor or materials when due, OCSD 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, OCSD may settle them directly and deduct the amount of payments from the Contract Price and any amounts due to CONTRACTOR. In the event OCSD receives a stop payment notice from any laborer or material supplier alleging non-payment by CONTRACTOR, OCSD 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:

CONTRACT NO. 3-64A & 3-64B

ORANGE-WESTERN SUB-TRUNK & LOS ALAMITOS TRUNK SEWER REHABILITATION

Part of

PROJECT NO. 3-64, REHABILITATION OF WESTERN REGIONAL SEWERS

SECTION – 4 PLANS AND SPECIFICATIONS

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

CONTRACT NO. 3-64A & 3-64B

ORANGE-WESTERN SUB-TRUNK & LOS ALAMITOS TRUNK SEWER REHABILITATION

Part of

PROJECT NO. 3-64, REHABILITATION OF WESTERN REGIONAL SEWERS

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 OCSD, unless otherwise specified therein and shall diligently prosecute the Work to completion within six hundred thirty (630) calendar days from the date of the "Notice to Proceed" issued by OCSD, excluding delays caused or authorized by OCSD as set forth in Sections 7, 8, and 9 hereof, and applicable provisions in the General Conditions.

The time for completion includes thirty (30) calendar days determined by OCSD likely to be inclement weather when CONTRACTOR will be unable to work.

In addition, CONTRACTOR shall accomplish such milestones within the periods of performance 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 OCSD, 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. OCSD 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". OCSD'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 OCSD 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 OCSD pursuant to the Contract Documents, OCSD 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 OCSD’s ENGINEER. The decision of the ENGINEER shall be final.

SECTION – 9 CHANGES IN PROJECT

OCSD 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 OCSD-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. OCSD 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 Seventeen Million Seven Hundred Seventy-Five Thousand Dollars (\$17,775,000) 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. OCSD 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 OCSD'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 OCSD;
 - b. plus the value of material suitably stored at the worksite, treatment plant or approved storage yards subject to or under the control of OCSD since the commencement of the Work as determined by OCSD;
 - 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 OCSD 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, OCSD 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:

OCSD 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 OCSD. 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, OCSD 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 OCSD, 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 OCSD 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 OCSD'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 OCSD. 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 OCSD, 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 OCSD 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 OCSD 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. OCSD 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 OCSD 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 OCSD herein, the requirement(s) providing the more protective coverage for both OCSD 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, OCSD 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 OCSD, its or their officers, agents, or employees, and any other contractor or subcontractor performing Work or rendering services on behalf of OCSD 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 OCSD, 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: Ten Million Dollars (\$10,000,000) per occurrence and a general aggregate limit of Twenty Million Dollars (\$20,000,000) 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 Ten Million Dollars (\$10,000,000) per occurrence and a general aggregate limit of Twenty Million Dollars (\$20,000,000) 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 OCSD 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 limits of liability coverage:
- Either (1) a combined single limit of Five Million Dollars (\$5,000,000) for bodily injury, personal injury and property damage;
- Or alternatively, (2) Two Million Dollars (\$2,000,000) per person for bodily injury, Four Million Dollars (\$4,000,000) per accident for bodily injury, and One Million Dollars (\$1,000,000) per accident for 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 OCSD.
5. Worker's Compensation/Employer's Liability: CONTRACTOR shall provide such Worker's 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 Five Million Dollars (\$5,000,000) 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, OCSD 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 OCSD. At the option of OCSD, either: the Insurer shall reduce or eliminate such deductibles or self-insured retentions as respects OCSD, its Directors, officers, agents, CONSULTANTS, and employees; or CONTRACTOR shall provide a financial guarantee satisfactory to OCSD 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. OCSD, 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 OCSD 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 OCSD shall be excess only and not contributing with insurance provided under this policy.

2. Each insurance policy required herein shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, and that coverage shall not be cancelled for non-payment of premium except after ten (10) days prior written notice by certified mail, return receipt requested. Should there be changes in coverage or an increase in deductible or SIR amounts, CONTRACTOR undertakes to procure a manuscript endorsement from its insurer giving 30 days prior notice of such an event to OCSD, or to have its insurance broker/agent send to OCSD a certified letter describing the changes in coverage and any increase in deductible or SIR amounts. The certified letter must be sent Attention: Risk Management and shall be received not less than twenty (20) days prior to the effective date of the change(s). The letter must be signed by a Director or Officer of the broker/agent and must be on company letterhead, and may be sent via e-mail in pdf format.
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. OCSD recognizes that State Compensation Insurance Fund has withdrawn from participation in the A.M. Best Rating Guide process. Nevertheless, OCSD will accept

State Compensation Insurance Fund for the required policy of worker's compensation insurance, subject to OCSD's option, at any time during the term of this Contract, to require a change in insurer upon twenty (20) days written notice. Further, OCSD 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 OCSD or its agent.

E. Verification of Coverage

CONTRACTOR shall furnish OCSD 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 OCSD before Work commences. OCSD 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. OCSD 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 OCSD with the above referenced required documents.

G. Required Forms and Endorsements

1. Required ACORD Form

a. Certificate of Liability Form 25

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-0001 10 01
- b. Additional Insured Including Products-Completed Operations Form CG-2010 10 01 and Form CG-2037 10 01
- c. Waiver of Transfer of Rights of Recovery Against Others to Us/ Waiver of Subrogation Form CG-2404 11 85; or Form CG-2404 10 93

3. Required State Compensation Insurance Fund Endorsements

- a. Waiver of Subrogation Endorsement No. 2570
- b. Cancellation Notice Endorsement No. 2065

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.

OCSD, 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 11 85 or alternatively in both CG 20 10 10 01 and CG 20 37 10 01 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 OCSD 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 OCSD in the event of substantial failure by the CONTRACTOR to fulfill its obligations under this Agreement, or it may be terminated by OCSD 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 OCSD, 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 OCSD'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. OCSD 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, OCSD 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 OCSD 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 OCSD 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 OCSD unless such assignment has had prior written approval and consent of OCSD and the Surety.

SECTION – 21 RESOLUTION OF DISPUTES

OCSD 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 OCSD, 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 OCSD: 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: Steve P. Rados, Inc.
2002 E McFadden Avenue, Suite 200
Santa Ana, CA 92705

Copy to: Stephen S. Rados, President
Steve P. Rados, Inc.
2002 E McFadden Avenue, Suite 200
Santa Ana, CA 92705

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

CONTRACTOR: Steve P. Rados, Inc.
2002 E McFadden Avenue, Suite 200
Santa Ana, CA 92705

By _____

Printed Name

Its _____

CONTRACTOR's State License No. 484452 (Expiration Date – 12/31/2021)

OCSD: Orange County Sanitation District

By _____

David John Shawver
Board Chairman

By _____

Kelly A. Lore
Clerk of the Board

By _____

Ruth Zintzun
Purchasing & Contracts Manager

EXHIBIT A
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 – “OCSD’s Right to Withhold Certain Amounts and Make Application Thereof”; and
9. General Conditions – “Final Payment.”

EXA-3 RETENTION AND ESCROW ACCOUNTS

A. Retention:

OCSD 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 OCSD 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 OCSD, 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, OCSD 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 OCSD's discovery of deficiencies in the Work or non-compliance with the Specifications or any other requirement of the Contract;
3. Sums expended by OCSD in performing any of the CONTRACTOR'S obligations under the Contract that the CONTRACTOR has failed to perform, and;
4. Other sums that OCSD is entitled to recover from the CONTRACTOR under the terms of the Contract, including without limitation insurance deductibles and assessments.

The failure of OCSD to deduct any of the above-identified sums from a progress payment shall not constitute a waiver of OCSD'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, OCSD 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 OCSD 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 OCSD 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 OCSD 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 OCSD 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 OCSD, 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 OCSD, arising out of or filed in connection with the Work. Prior progress payments shall be subject to correction in OCSD'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, OCSD 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 OCSD, 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 OCSD, 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 OCSD, and agreements are reached on all issues regarding the application for Final Payment, OCSD, in exchange for an executed release, satisfactory in form and substance to OCSD, 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 OCSD are specifically reserved, and shall release and waive all unreserved Claims against OCSD 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 OCSD which has not been communicated in writing by the CONTRACTOR to OCSD 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, OCSD may make Final Payment subject to resolution of those claims. OCSD 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 OCSD's acceptance of the application for Final Payment and irrespective of whether it is before or after Final Payment has been made, OCSD 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.

OCSD 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 OCSD 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 OCSD 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 OCSD 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: Steve P. Rados, Inc.

BF-14 SCHEDULE OF PRICES, Pages 1 - 3

Bid Submitted By: Steve P. Rados, 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 OCSD 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: Steve P. Rados, 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 | Approx. Qty | | Unit Price | Extended Price |
|----------|--|---------------------|-------------|---|------------|----------------|
| 1. | Mobilization as described in Specifications Section 01155 and in conformance with the Contract Documents for the lump sum price of... | Lump Sum | | | | = \$ 400,000 |
| 2. | Sheeting, Shoring and Bracing as described in Specifications Section 01155 and in conformance with the Contract Documents for the lump sum price of... | Lump Sum | | | | = \$ 350,000 |
| 3. | Contaminated Soil Transport and Disposal as described in Specifications Section 01155, Section 02200 and in conformance with the Contract Documents for the unit price and total price of... | Cubic Yard | 210 | x | 150.00 | = \$ 31,500 |
| 4. | Cities of Anaheim, Buena Park, Los Alamitos, Cypress, Seal Beach, Rossmoor Community Services District, County of Orange, and Caltrans, Permit and Inspection Fees (Allowance) as described in Specifications Section 01155 and in conformance with the Contract Documents for an allowance of... | Allowance | | | | = \$ 700,000 |
| 5. | Final Grind and Cap Asphalt Concrete Pavement as described in Specifications Section 01155 and in conformance with the Contract Documents for the unit price and total price of... | Square Foot | 115,000 | x | 3.00 | = \$ 345,000 |
| 6. | Slurry Seal of Orange Avenue within the City of Cypress as described in Specifications Section 01155 and in conformance with the Contract Documents for the unit price and total price of... | Square Foot | 158,000 | x | 0.50 | = \$ 79,000 |

Bid Submitted By: Steve P. Rados, Inc.
 (Name of Firm)

EXHIBIT A
SCHEDULE OF PRICES
 (CONTINUED)

| Item No. | Description | Unit of Measurement | Approx. Qty | | Unit Price | Extended Price |
|----------|---|---------------------|-------------|---|------------|----------------|
| 7. | Air Test Pipe Joints as described in Specifications Section 01155, Section 02958 and in conformance with the Contract Documents for the unit price and total price of... | EA | 8,500 | x | 450.00 | = \$ 3,825,000 |
| 8. | Chemical Grout Injection into Pipe Joints (0 - 40,500 gallons) as described in Specifications Section 01155, Section 02958 and in conformance with the Contract Documents for the unit price and total price of... | GAL | 40,500 | x | 45.00 | = \$ 1,822,500 |
| 9. | All other portions of the Work, except the Work of Items No. 1 through 8 and Items No. 10 and 11 as described in Specifications Section 01155 and in conformance with the Contract Documents for the lump sum price of... | Lump Sum | | | | = \$ 9,842,000 |
| 10. | Demobilization as described in Specifications Section 01155 and in conformance with the Contract Documents for the lump sum price of... | Lump Sum | | | | = \$ 200,000 |
| 11. | Additional Chemical Grout Injection - only to be used at the direction of the ENGINEER - as described in Specifications Section 02958, and in conformance with the Contract Documents for the unit price and total price of... | GAL | 4,000 | x | 45.00 | = \$ 180,000 |

TOTAL AMOUNT OF BID (BASIS OF AWARD)

\$ 17,775,000

Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A & 3-64B

Construction Contract Award

Presented by:
Jeff Mohr
Engineering
Manager
Operations
Committee
May 5, 2021



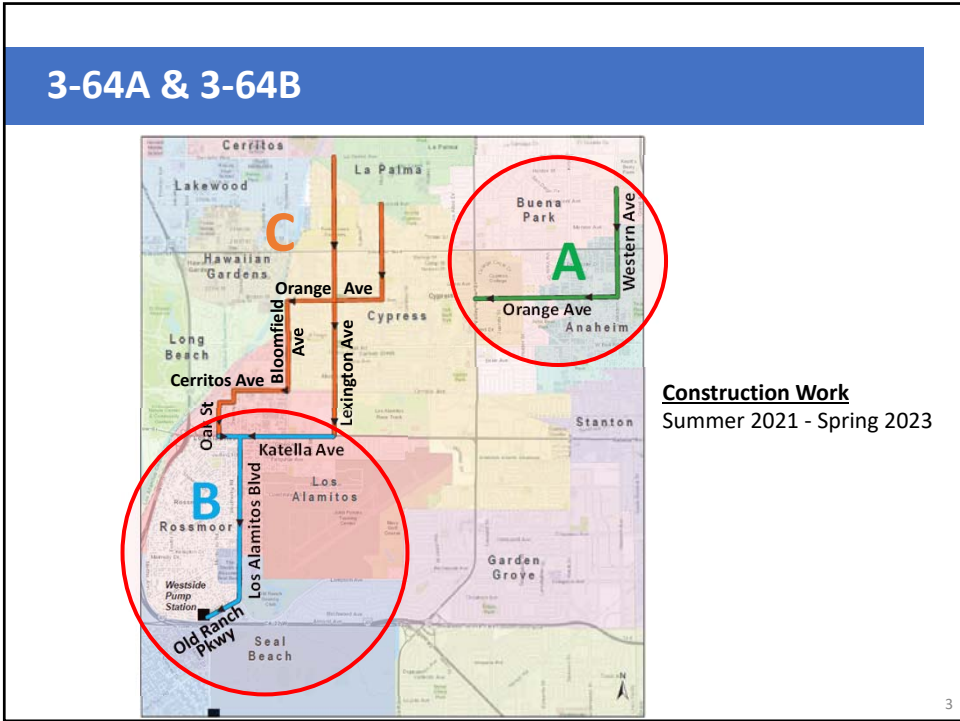
1

3-64 Rehabilitation of Western Regional Sewers

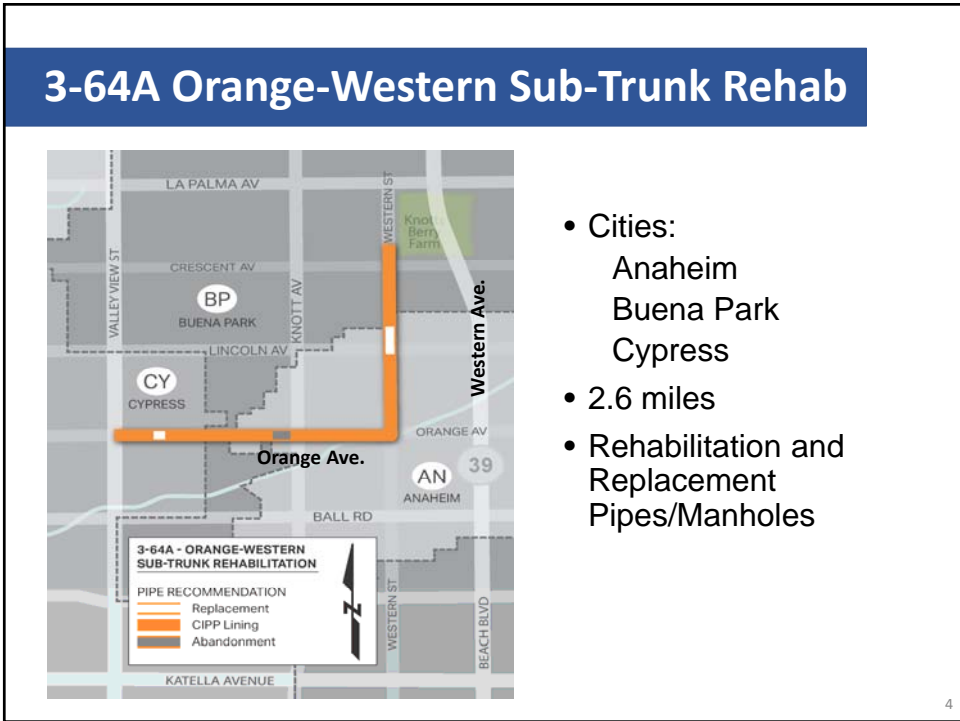


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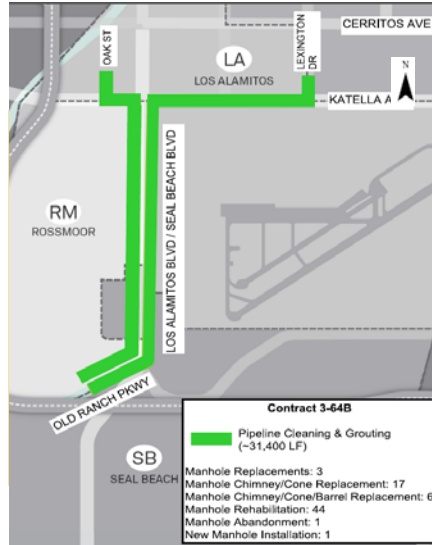


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3-64B Los Alamitos Trunk Rehab



- Cities/Agencies:
 - Seal Beach
 - Los Alamitos
 - Cypress
 - Rossmoor (County of Orange)
 - Caltrans
 - Joint Forces Training Base
- 6 miles
- Pipeline & Manhole Replacement/Rehabilitation

5

Close Coordination with Local Agencies



6

Unknown Utilities Risk

- Potential utility damage
- Construction delays
- Increased costs
- Design changes required

Design Phase Responses

- Researched utility records
- Used ground penetrating radar
- Spot exploratory excavations
- Performed field walks

Construction Phase Responses

- Require potholing prior to work
- Review potholing plan with contractor
- Inspect, monitor and review potholing activities



Manhole replacement

7

Sewage Spill Risk

- Environmental threat/health hazard
- Permit violations
- Construction delays
- Increased costs

Design Phase Responses

- Developed bypassing approach
- Specified sequencing and restrictions
- Required redundancy

Construction Phase Responses

- Require spill prevention and bypass plan
- Review plan daily with contractor
- Inspect, verify and monitor 24/7



Bypass Pumping

8

Bid Results

| Bidder | Amount of Bid |
|---|---------------|
| Engineer's Estimate | \$16,057,900 |
| Steve P. Rados, Inc. | \$17,775,000 |
| Teichert Energy & Utilities Group, Inc. | \$19,141,725 |
| Spiniello Infrastructure West, Inc. | \$22,975,380 |


9

9

- ## Recommended Action
- Recommend to the Board of Directors to:
- Receive and file Bid Tabulation and Recommendation for Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B;
 - Award a Construction Contract to Steve P. Rados, Inc., for Orange-Western Sub-Trunk and Los Alamitos Trunk Sewer Rehabilitation, Contract Nos. 3-64A and 3-64B, for an amount not to exceed \$17,775,000 and
 - Approve a construction contingency of \$1,777,500 (10%).
- 10

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Questions



11



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1529

Agenda Date: 5/5/2021

Agenda Item No: 14.

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

SUBJECT:

A-SIDE PRIMARY CLARIFIERS REPLACEMENT AT PLANT NO. 2, CONTRACT NO. P2-98A

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Approve a Professional Construction Services Agreement with Black & Veatch Corporation to provide construction support services for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A, for an amount not to exceed \$8,400,000; and
- B. Approve a contingency of \$840,000 (10%)

BACKGROUND

Black & Veatch Corporation (Black & Veatch) was selected as part of a competitive, qualifications-based solicitation process to design Primary Treatment Rehabilitation at Plant No. 2, Project No. P2-98. The project includes A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A. At the time of the solicitation, the Orange County Sanitation District (OC San) documented its intent to award a subsequent agreement to the design consultant for continuation of engineering services during construction.

This \$111 million construction contract will build four new primary clarifiers, a new odor control and chemical facility, a new electrical distribution center, and ancillary utilities and facilities. After the new facilities are completed, the project will also demolish four primary clarifiers, a power building, and an air treatment facility.

RELEVANT STANDARDS

- Comply with California Government Code Section 4526 to engage the best qualified firm “on the basis of demonstrated competence and qualifications” and “negotiate fair and reasonable fees”
- Ensure the public’s money is wisely spent

PROBLEM

This project requires the design consultant to provide as-needed services during construction including submittal review, responding to the Contractor's requests for information, reviewing construction change orders, participating in meetings, attending site visits, providing personnel training, preparation of standard operating procedures, providing startup assistance, and preparing record drawings.

PROPOSED SOLUTION

Approve a Professional Construction Services Agreement with the design consultant, Black & Veatch, to provide engineering services during construction.

TIMING CONCERNS

Engineering support services will be required at the start of construction. Construction is anticipated to start in July 2021.

RAMIFICATIONS OF NOT TAKING ACTION

The engineering support services needed to facilitate and review construction activities would not be available by the Engineer of Record, which may negatively impact the contract execution.

PRIOR COMMITTEE/BOARD ACTIONS

July 2016 - Approved a Professional Design Services Agreement with Black & Veatch Corporation to provide engineering design services for Primary Treatment Rehabilitation at Plant No. 2, Project No. P2-98, for an amount not to exceed \$18,141,423 and approved a contingency of \$1,814,142 (10%).

ADDITIONAL INFORMATION

Black & Veatch has successfully furnished engineering services for this project and their support services during construction will provide continuity through the completion of this project. Staff negotiated with Black & Veatch for these support services in accordance with OC San's adopted policies and procedures.

A review of the proposed price was conducted using estimated quantities of requests for support, as well as level of effort for preparing record drawings. Based on this review, staff determined the negotiated fee to be fair and reasonable for these services.

CEQA

This project is exempt from CEQA under the Class 2 categorical exemptions set forth in California Code of Regulations Sections 15302. This is because the project involves replacement or reconstruction of existing structures and facilities where the new structure replaced will have substantially the same purpose and capacity as the structure replaced. A Notice of Exemption was filed with the Orange County Clerk-Recorder on April 26, 2018.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted. (Adopted Budget, Fiscal Years 2020-2021 and 2021-22, Section 8, Page 82, Primary Treatment Rehabilitation at Plant No. 2, Project No. P2-98) 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 Construction Services Agreement
- Presentation

SN:dm:gc

PROFESSIONAL CONSTRUCTION SERVICES AGREEMENT

THIS PROFESSIONAL CONSTRUCTION SERVICES AGREEMENT (Agreement) is made and entered into to be effective the 26th day of May, 2021 by and between the ORANGE COUNTY SANITATION DISTRICT, hereinafter referred to as "SANITATION DISTRICT", and BLACK & VEATCH CORPORATION, hereinafter referred to as "CONSULTANT".

WITNESSETH:

WHEREAS, the SANITATION DISTRICT desires to engage a CONSULTANT to provide Construction Support Services for **Contract No. P2-98A, A-Side Primary Clarifiers Replacement at Plant 2**; and,

WHEREAS, CONSULTANT is qualified to provide the necessary services for Construction Support Services in connection with these requirements; and,

WHEREAS, the SANITATION DISTRICT has adopted procedures in accordance with the SANITATION DISTRICT's Purchasing Ordinance Section 4.03(B) for the continuation of services and has proceeded in accordance with said procedures to perform this work; and,

WHEREAS, at its regular meeting on May 26, 2021 the Board of Directors, by Minute Order, accepted the recommendation of the Operations Committee pursuant to SANITATION DISTRICT's Purchasing Ordinance to approve this Agreement between the SANITATION DISTRICT and CONSULTANT.

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 and technical 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, completeness, and coordination of all design, drawings, specifications, and other services furnished by the CONSULTANT under this Agreement, including the work performed by its Subconsultants. Where approval by the SANITATION DISTRICT is indicated, it is understood to be conceptual approval only and does not relieve the CONSULTANT of responsibility for complying with all laws, 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 ensure that all work is performed to the standards of best engineering practice for clarity, uniformity, and completeness.

C. In the event that work is not performed to the satisfaction of the SANITATION DISTRICT and does not conform to the requirements of this Agreement or any applicable industry standards, the CONSULTANT shall, without additional compensation, promptly correct or revise any errors or deficiencies in its designs, drawings, specifications, or other services within the timeframe specified by the Project Engineer/Project Manager. The SANITATION DISTRICT may charge to CONSULTANT all costs, expenses and damages associated with any such corrections or revisions.

D. All CADD drawings, figures, and other work shall be produced by CONSULTANTS and Subconsultants using the SANITATION DISTRICT standard software. Conversion of CADD work from any other non-standard CADD format to the SANITATION DISTRICT format shall not be acceptable in lieu of this requirement.

Electronic files shall be subject to an acceptance period of 30 calendar days during which the SANITATION DISTRICT shall perform appropriate acceptance tests. CONSULTANT shall correct any discrepancies or errors detected and reported within the acceptance period at no additional cost to the SANITATION DISTRICT.

E. All professional services performed by the CONSULTANT, including but not limited to all drafts, data, correspondence, proposals, reports, and estimates compiled or composed by the CONSULTANT, pursuant to this Agreement, are for the sole use of the SANITATION DISTRICT, its agents and employees. Neither the documents nor their contents shall be released to any third party without the prior written consent of the SANITATION DISTRICT. 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 the SANITATION DISTRICT, (b) subsequently becomes publicly known to the CONSULTANT other than through disclosure by the SANITATION DISTRICT.

F. The SANITATION DISTRICT shall furnish the CONSULTANT available studies, reports and other data pertinent to the CONSULTANT's service; 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 SANITATION DISTRICT 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 the SANITATION DISTRICT and work in good faith to equitably address any unexpected impacts therefrom.

2. COMPENSATION

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

A. Total Compensation

Total compensation shall be in an amount not to exceed Eight Million Four Hundred Thousand Dollars (\$8,400,000.00). 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, the SANITATION DISTRICT 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 the SANITATION DISTRICT, CONSULTANT shall provide the SANITATION DISTRICT 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, the SANITATION DISTRICT 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, the SANITATION DISTRICT 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 the attached hourly rate Schedule as applicable and as specified in the Scope of Work. The SANITATION DISTRICT 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

The SANITATION DISTRICT 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. The SANITATION DISTRICT shall also pay to CONSULTANT actual costs for equipment rentals, leases or purchases with prior approval of the SANITATION DISTRICT. Upon request, CONSULTANT shall provide to the SANITATION DISTRICT 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 in scope of work resulting from field investigations and field work required by Contract. 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

The SANITATION DISTRICT 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 the SANITATION DISTRICT 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 of management of reimbursable costs inclusive but not limited to travel, lodging and meals arrangements. The SANITATION DISTRICT 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 the SANITATION DISTRICT any excess reimbursements after the reimbursement has been paid by the SANITATION DISTRICT.

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

Local Travel is considered travel by the CONSULTANT within the SANITATION DISTRICT general 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 the SANITATION DISTRICT for local travel. However, under certain circumstances overnight stay may be allowed at the discretion of the SANITATION DISTRICT 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 the SANITATION DISTRICT.

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 the not-to-exceed amount of the Agreement, including approved additional compensation, CONSULTANT shall notify the SANITATION DISTRICT 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 the SANITATION DISTRICT’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 the SANITATION DISTRICT 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

The SANITATION DISTRICT, 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. CONSULTANT shall allocate costs in the same manner as it would for payment requests as described in this Section of the Agreement. CONSULTANT shall warrant and certify the accuracy of these costs and understand that submitted costs are subject to Section 11 - AUDIT PROVISIONS.
- B. CONSULTANT may submit monthly or periodic statements requesting payment for those items included in Section 2 - COMPENSATION hereof in the format as required by the SANITATION DISTRICT. Such requests shall be based upon the amount and value of the work and services performed by CONSULTANT under this Agreement and shall be prepared by CONSULTANT and accompanied by such supporting data, including a detailed breakdown of all costs incurred and project element work performed during the period covered by the statement, as may be required by the SANITATION DISTRICT.

Upon approval of such payment request by the SANITATION DISTRICT, 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 the SANITATION DISTRICT 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 the SANITATION DISTRICT's Director of Engineering to be adequate for the protection of the SANITATION DISTRICT; or
- ii. The percentage of the work accomplished for each project element.

He may, at his discretion, retain an amount equal to that which insures 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 the SANITATION DISTRICT'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, the SANITATION DISTRICT 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 the SANITATION DISTRICT, CONSULTANT will be paid the unpaid balance of any money due for such work, 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 the SANITATION DISTRICT a release of all claims against the SANITATION DISTRICT 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 the SANITATION DISTRICT for compensation under the terms of this Agreement may be held liable for treble damages and up to a ten thousand dollars (\$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 the SANITATION DISTRICT 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 the SANITATION DISTRICT; c) conspires to defraud the SANITATION DISTRICT by getting a false claim allowed or paid by the SANITATION DISTRICT; d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to the SANITATION DISTRICT; or e) is a beneficiary of an inadvertent submission of a false claim to the SANITATION DISTRICT, and fails to disclose the false claim to the SANITATION DISTRICT within a reasonable time after discovery of the false claim.

5. 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 SANITATION DISTRICT and/or general public upon request, provided the public request is made through SANITATION DISTRICT, 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 Regulation Section 16461(e).

6. DOCUMENT OWNERSHIP – SUBSEQUENT CHANGES TO PLANS AND SPECIFICATIONS

- A. Ownership of Documents for the Professional Services performed.

All documents, including but not limited to, original plans, studies, sketches, drawings, computer printouts and disk files, and specifications prepared in connection with or related to the Scope of Work or Professional Services, shall be the property of the SANITATION DISTRICT. The SANITATION DISTRICT'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. The SANITATION DISTRICT 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 plans or specifications, 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.

7. INSURANCE

- A. General
 - i. Insurance shall be issued and underwritten by insurance companies acceptable to the SANITATION DISTRICT.
 - 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, the SANITATION DISTRICT will accept State Compensation Insurance Fund, for the required policy of Worker's Compensation Insurance subject to the SANITATION DISTRICT's option to require a change in insurer in the event the State Fund financial rating is

decreased below "B". Further, the SANITATION DISTRICT 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 the SANITATION DISTRICT 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: Two Million Dollars (\$2,000,000) per occurrence with Four Million Dollars (\$4,000,000) aggregate. 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 SANITATION DISTRICT and applicable, XCU coverage (Explosion, Collapse and Underground) and Riggers/On Hook Liability must be included in the General Liability policy and coverage must be reflected on the submitted Certificate of Insurance.

C. Umbrella Excess Liability

The minimum limits of general liability and Automotive 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 automotive liability.

D. Automotive/Vehicle liability Insurance

The CONSULTANT shall maintain a policy of Automotive Liability Insurance on a comprehensive form covering all owned, non-owned, and hired automobiles, trucks, and other vehicles providing the following minimum limits of liability coverage: Combined single limit of One Million Dollars (\$1,000,000) or alternatively, Five Hundred Thousand Dollars (\$500,000) per person for bodily injury, One Million Dollars (\$1,000,000) per accident for bodily injury, and Five Hundred Thousand Dollars (\$500,000) per accident for property damage. 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 form acceptable to the SANITATION DISTRICT.

F. Worker's 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 Worker's Compensation Insurance shall be endorsed to provide for a waiver of subrogation in favor of the SANITATION DISTRICT. 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 Five Million Dollars (\$5,000,000) 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 the SANITATION DISTRICT a certificate of insurance in a form acceptable to the SANITATION DISTRICT 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 the SANITATION DISTRICT 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 the SANITATION DISTRICT before work commences. CONSULTANT shall provide the SANITATION DISTRICT 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 (5/2010) or equivalent.
- Additional Insurance (General Liability) (ISO Form) CG2010 11 85 or
The combination of (ISO Forms) CG 2010 10 01 and CG 2037 10 01 or equivalent.

All other Additional Insured endorsements must be submitted for approval by the SANITATION DISTRICT, and the SANITATION DISTRICT may reject alternatives that provide different or less coverage to the SANITATION DISTRICT.
- Additional Insured (Auto Liability) Submit endorsement provided by carrier for the SANITATION DISTRICT approval.
- Waiver of Subrogation State Compensation Insurance Fund Endorsement No. 2570 or equivalent.
- Cancellation Notice State Compensation Insurance Fund Endorsement No. 2065 or equivalent.

I. Cancellation Notice

Each insurance policy required herein shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days' prior written notice. The Cancellation Section of ACORD Form 25 (5/2010) shall state the required thirty (30) days' written notification. The policy shall not terminate, nor shall it be cancelled, nor the coverage reduced until thirty (30) days after written notice is given to the SANITATION DISTRICT except for nonpayment of premium, which shall require not less than ten (10) days written notice to the SANITATION DISTRICT. Should there be changes in coverage or an increase in deductible or SIR amounts, the CONSULTANT shall send to the SANITATION DISTRICT a certified letter which includes a description of the changes in

coverage and/or any increase in deductible or SIR amounts. The certified letter must be sent to the attention of Risk Management, and shall be received by the SANITATION DISTRICT not less than thirty (30) days prior to the effective date of the change(s) if the change would reduce coverage or increase deductibles or SIR amounts or otherwise reduce or limit the scope of insurance coverage provided to the SANITATION DISTRICT.

J. Primary Insurance

All liability policies (with the exception of Workers' Compensation and Professional Liability) shall contain a Primary and Non Contributory Clause. Any other insurance maintained by the SANITATION DISTRICT shall be excess and not contributing with the insurance provided by CONSULTANT.

K. Separation of Insured

All liability policies (with the exception of Workers' Compensation and Professional Liability) 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 the SANITATION DISTRICT on the Certificate of Insurance. All deductibles and/or self-insured retentions require approval by the SANITATION DISTRICT. At the option of the SANITATION DISTRICT, either: the insurer shall reduce or eliminate such deductible or self-insured retention as respects the SANITATION DISTRICT; or the CONSULTANT shall provide a financial guarantee satisfactory to the SANITATION DISTRICT guaranteeing payment of losses and related investigations, claim administration and defense expenses. The SANITATION DISTRICT will not invoke the option expressed in this paragraph unless it has reasonable cause to question CONSULTANT's financial strength.

N. Defense Costs

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 SANITATION DISTRICT 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 herein Section 7.

8. SCOPE CHANGES

In the event of a change in the Scope of Work, requested by SANITATION DISTRICT, 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.

9. PROJECT TEAM AND SUBCONSULTANTS

CONSULTANT shall provide to SANITATION DISTRICT, 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 by CONSULTANT. CONSULTANT shall include a description of the scope of work to be done by each Subconsultant and each CONSULTANT's project team member. CONSULTANT shall include the respective compensation amounts for CONSULTANT and each Subconsultant on a per-project-element basis, 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 the SANITATION DISTRICT.

10. ENGINEERING REGISTRATION

The CONSULTANT's personnel 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 requires the services of a registered engineer, such services hereunder will be performed under the direct supervision of registered engineers.

11. AUDIT PROVISIONS

- A. SANITATION DISTRICT 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 the SANITATION DISTRICT determines are necessary to discover and verify that the CONSULTANT is in compliance with all requirements under this Agreement. The CONSULTANT shall include the SANITATION DISTRICT's right as described above, in any and all of their subcontracts, and shall ensure that these rights are binding upon all Subconsultants.
- B. SANITATION DISTRICT retains the right to examine CONSULTANT's books, records, documents and any other evidence of procedures and practices that the SANITATION DISTRICT 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 the SANITATION DISTRICT's policy. The CONSULTANT shall make available to the SANITATION DISTRICT for review and audit, all project related accounting records and documents, and any other financial data within 15 days after receipt of notice from the SANITATION DISTRICT. Upon SANITATION DISTRICT's request, the CONSULTANT shall submit exact duplicates of originals of all requested records to the SANITATION DISTRICT. If an audit is performed, CONSULTANT shall ensure that a qualified employee of the CONSULTANT will be available to assist SANITATION DISTRICT's auditor in obtaining all project related accounting records and documents, and any other financial data.

12. LEGAL RELATIONSHIP BETWEEN PARTIES

The legal relationship between the parties hereto is that of an independent contractor and nothing herein shall be deemed to make CONSULTANT an employee of the SANITATION DISTRICT.

13. 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.

Notices shall be mailed to the SANITATION DISTRICT at:

ORANGE COUNTY SANITATION DISTRICT
10844 Ellis Avenue
Fountain Valley, CA 92708-7018
Attention: Ludwig Lopus, Senior Contracts Administrator
Copy: Shahrzad Namini, Project Manager

Notices shall be mailed to CONSULTANT at:

BLACK & VEATCH CORPORATION
550 S. Hope Street, Suite 2250
Los Angeles, CA 90071
Attention: James H. Clark, Senior Vice President

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

14. TERMINATION

The SANITATION DISTRICT 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 the SANITATION DISTRICT and/or CONSULTANT in accordance with Section 13 - NOTICES.

15. DOCUMENTS AND STUDY MATERIALS

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

16. 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.

17. AGREEMENT EXECUTION AUTHORIZATION

Both the SANITATION DISTRICT and CONSULTANT do covenant that each individual executing this document by and on behalf of each party is a person duly authorized to execute agreements for that party.

18. 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.

19. 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 it may be entitled.

20. PROGRESS REPORTS

Monthly progress reports shall be submitted for review by the tenth day of the following month and must include as a minimum: 1) current activities, 2) future activities, 3) potential items that are not included in the Scope of Work, 4) concerns and possible delays, 5) percentage of completion, and 6) budget status.

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, the SANITATION DISTRICT informs CONSULTANT that any part of the services fails to meet those standards, CONSULTANT shall, within the time prescribed by the SANITATION DISTRICT, 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 the SANITATION DISTRICT, which approval shall not be unreasonably withheld), protect and hold harmless the SANITATION DISTRICT and all of SANITATION DISTRICT'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 consultants fees and costs and the SANITATION DISTRICT's general and administrative expenses (individually, a "Claim", or 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, consultants, 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 from:

(A) the sole or 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 the SANITATION DISTRICT 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 the DISTRICT 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. CONSULTANT PERFORMANCE

The CONSULTANT's performance shall be evaluated by the SANITATION DISTRICT. A copy of the evaluation shall be sent to the CONSULTANT for comment. The evaluation, together with the comments, shall be retained by the SANITATION DISTRICT and may be considered in future CONSULTANT selection processes.

25. COMPLIANCE WITH SANITATION DISTRICT POLICIES AND PROCEDURES

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

26. CLOSEOUT

When the SANITATION DISTRICT determines that all Work authorized under the Agreement is fully complete and that the SANITATION DISTRICT requires no further work from CONSULTANT, or the Agreement is otherwise terminated or expires in accordance with the terms of the Agreement, the SANITATION DISTRICT 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, the SANITATION DISTRICT 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 this Agreement. Such support must be provided within the timeframe requested by the SANITATION DISTRICT.

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 the SANITATION DISTRICT (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 the SANITATION DISTRICT 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 the SANITATION DISTRICT for any purpose nor imply acceptance of, or agreement with, the CONSULTANT's request for final Agreement Acceptance.

27. CONSULTANT'S OPINION OF COSTS

The SANITATION DISTRICT acknowledges that construction estimates, financial analyses and feasibility projections are subject to many influences including, but not limited to, price of labor and materials, unknown or latent conditions of existing equipment or structures, and time or quality of performance by third parties. The SANITATION DISTRICT acknowledges that such influences may not be precisely

forecasted and are beyond the control of CONSULTANT and that actual costs incurred may vary substantially from the estimates prepared by CONSULTANT. CONSULTANT does not warrant or guarantee the accuracy of construction or development cost estimates.

28. 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.

IN WITNESS WHEREOF, this Agreement has been executed in the name of the SANITATION DISTRICT, by its officers thereunto duly authorized, and CONSULTANT as of the day and year first above written.

BLACK & VEATCH CORPORATION

By _____ Date

Printed Name & Title

ORANGE COUNTY SANITATION DISTRICT

By _____ Date
David John Shawver
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
Attachment "F" – Not Used
Attachment "G" – Not Attached
Attachment "H" – Not Used
Attachment "I" – Cost Matrix and Summary
Attachment "J" – Not Used
Attachment "K" – Minor Subconsultant Hourly Rate Schedule
Attachment "L" – Contractor Safety Standards

LL:yp

ATTACHMENT “A”

SCOPE OF WORK

**A-Side Primary Clarifiers Replacement at Plant 2
Project No. P2-98A**

**PROFESSIONAL CONSTRUCTION SERVICES AGREEMENT
(PCSA)**

ATTACHMENT A – SCOPE OF WORK

DRAFT

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I. SUMMARY

Provide construction engineering support services for the construction and installation, commissioning, and closeout phases of this project.

II. PROJECT SCHEDULE

The schedule for the services specified in this Scope of Work (SOW) shall be provided per the construction contract schedule and the following schedule constraints:

| Task(s) | Period of Performance |
|--------------------------|--|
| Submittals | As described under Task 4.3 titled "Submittal Reviews" |
| Requests for Information | As described under Task 4.4 titled "Request for Information (RFI)" |
| Record Drawings | Draft Final Record Drawings shall be submitted to OC San within 90 Calendar days of receipt from OC San of the accepted Contractor's As-Built Drawings. The final Record Drawings shall be submitted within 30 Calendar days of receipt of OC San's comments on the Draft Record Drawings. see also Task 6.2 requirements. |

III. PROJECT IMPLEMENTATION

All Orange County Sanitation District (OC San) projects are divided into six phases. CONSULTANT shall provide engineering support services for Phase 4 Construction and Installation Services, Phase 5 Commissioning Services, and Phase 6 Closeout.

Phase 1 – Project Development – *Completed*

Phase 2 – Preliminary Design – *Completed*

Phase 3 – Final Design – *Completed*

Phase 4 – Construction and Installation Services

Phase 5 – Commissioning Services

Phase 6 – Closeout

PHASE 4 – CONSTRUCTION AND INSTALLATION SERVICES

OC San will administer and provide field inspection for the construction contract. Construction and support services shall be provided by the CONSULTANT as requested by OC San.

CONSULTANT shall provide the key management personnel as described in its proposal for this project. CONSULTANT shall not reassign the key project personnel without prior approval of OC San. OC San may request reassignment of any of the CONSULTANT's or its subconsultant's personnel based on that individual's performance.

For all services, the CONSULTANT shall refer to Engineering Design Guidelines, Chapter 01 for detailed requirements.

Quality Assurance/Quality Control (QA/QC): CONSULTANT shall administer a program of QA/QC procedures for producing quality work and shall effectively manage and control the work. Specific procedures shall include but not be limited to planning, coordination, tracking, checking, reviewing, and scheduling the work. CONSULTANT shall subject work products prepared by the CONSULTANT related to design changes to the CONSULTANT's in-house QA/QC procedures prior to submittal to OC San. QA/QC hours and costs shall be incorporated into other tasks within this SOW.

Task 4.1 – Project Management

CONSULTANT shall be responsible for detailed management of the project, including managing its subconsultants, and shall keep OC San apprised of the status of the project.

CONSULTANT shall conduct monthly project management meetings with OC San's Project Manager. It is assumed that half of the meetings will be attended virtually and half will be attended in-person. These meetings shall be attended by OC San's Project Manager and the CONSULTANT's Project Manager at a mutually agreeable time. The purpose of the meetings shall be to review the CONSULTANT Project Manager's progress report and the status of the project scope, budget, and any issues which may affect completion of the project. Meetings should be arranged so that the progress report can be submitted shortly prior to or at each meeting.

CONSULTANT shall prepare and submit monthly invoices to OC San no later than the second Wednesday of the following month. The invoices shall document the hours and billing rate for each person that works on the project for each task in the Work Breakdown Structure (WBS). 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 invoice to date"
- Current billing period "total percent completed to date"

The monthly progress report and project schedule shall be submitted with the project invoice as part of the monthly request for payment.

CONSULTANT shall also provide the percent budget spent for each of OC San's WBS cost codes (i.e. by work package and phase). OC San shall provide a list of cost codes by phase to the CONSULTANT.

CONSULTANT shall also provide a summary of progress and expenditures to date.

This subtask shall apply to all phases of work (Phase 4, 5, and 6) under this PCSA.

The OC San will provide a sample invoice structure to the CONSULTANT at the beginning of the project.

Task 4.2 – Initial Project Meetings

4.2.1 - Construction Hand-Off Workshop

CONSULTANT shall participate in a two-hour virtual construction hand-off workshop. The purpose of the workshop is for the CONSULTANT and OC San design teams to transfer

project-specific knowledge to the OC San construction management and inspection staff who will be managing and monitoring construction. Topics that might be covered in this meeting include the following:

- Overview of objective of the project
- Review of project elements
- Review of sequencing constraints
- Key issues to be addressed during construction
- Identification of risks and discussions of contingency plans
- Specified submittal review meetings
- List of planned inspections

The workshop will be led by OC San's Project Engineer and the CONSULTANT's Project Discipline Leads. CONSULTANT shall include its Project Manager, Project Engineer, and four other discipline leads.

4.2.2 - PMWeb Procedures Meeting

The project will utilize PMWeb as the web-based Project Control Management System (PCMS). The PCMS shall be utilized for Project communication, tracking, and management. PCMS utilization is to facilitate the electronic exchange of information, the automation of key processes, and the overall management of the contract. When required by OC San, paper documents shall also be provided. In the event of discrepancy between the electronic version and paper documents, the electronic documents within PCMS shall govern.

CONSULTANT shall participate in a one-hour PMWeb procedure virtual meeting. The training will be provided by OC San's staff. The purpose of this meeting is to review the roles and logistics for review, approval, and provision of various construction related documents. CONSULTANT's Project Manager, Project Engineer, Project Assistant, and two other discipline leads shall participate in the virtual meeting.

4.2.3 - Submittal Review Procedures

CONSULTANT shall participate in a one-hour virtual Submittal Procedure Meeting. The purpose of this meeting is to review the roles and logistics for review and approval of the Contractor submittals. CONSULTANT's Project Manager and Project Engineer and document control staff who will be handling submittals shall participate in this meeting.

4.2.4 - Preconstruction Conference

CONSULTANT shall participate in a one-hour Preconstruction Conference attended virtually by OC San staff, the CONSULTANT, the Contractor, subcontractors, and vendors. This meeting will be scheduled and presided over by OC San. In this meeting, OC San's Resident Engineer will describe the CONSULTANT's role in the project as the Design Engineer and the services the CONSULTANT shall provide during construction. OC San will prepare meeting minutes and the CONSULTANT shall review and comment on the minutes. CONSULTANT'S Project Manager, Project Engineer and two other staff shall participate in this meeting.

4.2.5 - Submittal Meetings

CONSULTANT shall attend the pre-submittal and submittal review virtual meetings (otherwise) specified for the following specification sections:

OC San will prepare the agenda and meeting minutes and the CONSULTANT shall review and comment on the minutes. CONSULTANT’s Project Manager and Project Engineer shall attend virtually.

Pre-Submittal Meetings:

- 01783 – Equipment Service Manuals
- 11350 – Odor Control Systems
- 11410 – Circular Clarifier Equipment
- 13235 – Truss Supported Flat Aluminum Basin Covers
- 16340 – Medium Voltage Switchgear
- 16430 – Low Voltage Switchgear
- 16480 – Low Voltage Motor Control
- 16850 – Load Shed and Substation Local Area Hardware Network
- 17405 – Control Panels

Submittal Review Meetings:

| Spec Section | | Upon Submittal Receipt | Upon Submittal Review |
|--------------|--|------------------------|-----------------------|
| 16340 | Medium-Voltage Switchgear | X | X |
| 16430 | Low Voltage Switchgear | X | X |
| 16480 | Low Voltage Motor Control | X | X |
| 16850 | Load Shed and Substation Local Area Network Hardware | X | X |

Task 4.3 – Submittal Reviews

OC San will receive and log-in all submittals from the Contractor. OC San will forward copies of selected shop drawing and submittals requiring the CONSULTANT’s review. CONSULTANT shall review the shop drawings and submittals for conformance with the requirements of the Contract Documents and return the submittal review comments to OC San within ten calendar days after receipt of submittal, except for submittals requiring multi-discipline review. CONSULTANT shall return comments to OC San allowing enough time for OC San to incorporate all comments into a combined review comment set that OC San will return to the Contractor. CONSULTANT shall accommodate occasional expedited reviews for time sensitive submittals. Submittals shall include, but not be limited to, shop drawings, vendor tests, certifications, and test reports. All submittals will be made available electronically (PDF) through PMWeb.

See Section V - “Quantitative Assumptions” in this SOW for the estimated number of submittals.

Task 4.4 – Request for Information (RFI)

OC San will log in and forward to the CONSULTANT certain RFIs generated by the Contractor or OC San. CONSULTANT shall return written responses to OC San as soon as possible or within three working days of receipt of RFI, except for complex RFIs or those that may have cost impacts and previously discussed with OC San Resident Engineer, clarifying the

requirements of the Contract Documents. CONSULTANT shall generate necessary sketches, figures, and modifications to the drawings for clarifications. When required to avoid schedule delay or additional construction-related costs, the CONSULTANT shall expedite the review of time-sensitive RFIs.

If any changes to the Contract Drawings are required, the CONSULTANT shall prepare these drawings and submit them as AutoCAD files to OC San. The CONSULTANT shall update all AutoCAD drawings and specifications upon OC San acceptance of any changes resulting from RFIs and change orders.

All RFIs will be made available electronically (PDF) through PMWeb.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of RFIs.

Task 4.5 – Contract Document Modifications and Design Changes

If the Contract Documents require modifications due to changed conditions, OC San requested changes, omissions, or design errors, the CONSULTANT shall prepare preliminary Request for Proposal (RFP) documents and forward them to OC San, as needed. OC San shall review the RFP and request the CONSULTANT to incorporate any changes. OC San will issue the change order documents in a formal RFP or Field Change Order (FCO) to the Contractor. CONSULTANT shall forward design calculations and other design backup documents as necessary to OC San.

Any Contract Document that requires changes shall be identified with date of change and reference (RFI number, RFP number, FCO number, etc.) shown on the document. Changes shown on drawings shall be clearly marked and "clouded" for accurate identification of the scope of change by the Contractor and inspection staff. CONSULTANT shall maintain up-to-date Contract Documents. When a change is required on a Contract Drawing that has previously undergone a change, the updated drawing showing the previous change shall be used as the base document to identify new changes.

CONSULTANT shall submit complete change documentation to OC San for use in RFIs, RFPs, and FCOs. This change documentation shall a work summary, plan drawings, schematics, details, schedules, and specifications, as required.

CONSULTANT shall prepare cost estimates for the changes when requested by OC San.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

Task 4.6 – Construction Progress Meetings and Site Visits

Task 4.6.1 – Construction Progress Meetings and Site Visits

CONSULTANT shall attend weekly construction progress meetings. Attendance will be virtual for non-local staff. The scope shall include time for meeting preparation, travel time, follow-up, and review of meeting minutes. Progress meeting minutes will be prepared by OC San.

CONSULTANT shall attend or be available by phone for one-hour pre-construction weekly progress meetings. These meetings will be covered by the on-site design engineer.

CONSULTANT shall make field visits to assist in field problem resolution and design clarification/verification to help resolve construction issues as they arise and as requested by OC San. When possible, field visits shall be scheduled on the same day as construction progress meetings. CONSULTANT shall report the nature of the field site visits, the problem resolved, and identify staff requesting the site visit in the CONSULTANT's monthly project

report. OC San will provide project inspection, except as required in other sections of this SOW.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

Task 4.6.2 – On-Site Design Engineers

CONSULTANT shall assign two engineering staff who will be periodically located in the field office on-site (one from Black & Veatch and one from Brown and Caldwell). Each engineer will be located on-site, one day per week each on average, for a 48-month duration of the Project.

The on-site staff will not have responsibility for the superintendence of construction site conditions, safety, safe practices or unsafe practices or conditions, operation, equipment, or personnel other than employees of the CONSULTANT.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

Task 4.7 – Contractor’s Baseline Schedule and Schedule Updates Review

The OC San will review the Contractor’s baseline construction schedule for compliance with the specified schedule submittal requirements. CONSULTANT shall review the Contractor’s baseline construction schedule to confirm that the work plan indicated in the baseline construction schedule is consistent with the specified sequencing constraints. CONSULTANT shall assume three resubmittals of the Contractor’s baseline construction schedule for review and shall review as needed and requested by OC San up to ten Contractor’s schedule updates.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

Budget has not been allocated for in-person meetings related to this task.

Task 4.8 – Specialty Services

4.8.1 Geotechnical Engineering Services

The CONSULTANT shall provide field personnel to assist with quality control for geotechnical improvements and coordinate with Contractor/OC San in monitoring the implementation of cement deep soil mixing (CDSM) for the project and also be available for support to respond to differing site conditions (DSC) Requests for Clarification/Information/Claims. OC San will have primary responsibility for monitoring the construction work. The CONSULTANT shall assist in monitoring the work and compile a report of the data collected during the monitoring. The CONSULTANT shall be present on-site while CDSM work is taking place per the assumptions described below.

The CONSULTANT shall perform the following activities:

- Monitor CDSM operations on a full-time basis (up to 8 hours per day) for up to 126 days over an 18-month period, based on the construction schedule developed by the project team.
- Monitor excavation and temporary shoring operations on a part-time basis during the demolition and construction phases of the project, as requested by OC San and Black & Veatch (up to 40 days total).

- Perform CDSM lab strength testing off-site for quality assurance purposes. CONSULTANT will deliver one (1) set of eight (8) specimens per day of CDSM (1008 total tests) to the off-site laboratory for testing. CONSULTANT will also have samples of CDSM core tested for compressive strength. CONSULTANT has assumed that the Contractor will cast the test specimens from the same batch and at the same time they cast their specimens for quality control testing, as required in the project specifications. It is also assumed that the Contractor will be responsible for field curing the specimens in accordance with the specifications.
- Prepare daily field reports documenting the construction progress and presenting the data collected during the day's monitoring.
- At the end of the CDSM operations, review the CONTRACTOR's final report documenting the CDSM process and quality control testing results.
- Provide assistance/technical consultation during CDSM and excavation/shoring activities, as requested by OC San.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

4.8.2 Dewatering Support Services

The CONSULTANT shall provide personnel to coordinate with Contractor/OC San in monitoring the dewatering work for the Project. CONSULTANT shall assist with quality control during well drilling, installation, development, and deconstruction for project wells. The CONSULTANT shall be present on-site to help observe well drilling, installation, development, or deconstruction. OC San will have primary responsibility for monitoring the construction work. OC San will compile groundwater level and discharge data provided by the Contractor on a regular basis. The Consultant shall assess ongoing performance of the dewatering system and provide opinion of operational effectiveness.

The CONSULTANT shall provide hydrogeologic services during the course of the project. Such services may include field observation and assessment of well performance issues through the use of a downhole camera, additional well development, and working with the Contractor to perform short-term pumping tests.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

4.8.3 – Structural Engineering Services

CONSULTANT shall have the structural engineer of record or their designated professional conduct field visits and provide expert opinion in review of observation of the structural work associated with the project. California Building Code requires the structural engineer of record to perform some structural inspections during construction.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

4.8.4 – Inspection and Factory Witnessed Testing

CONSULTANT shall perform offsite and onsite inspection and factory witnesses testing of the following system:

- Primary clarifiers covers
- Medium and low voltage switchgears

- Large complex control panels (PLC and RIO panels for example).
- Medium voltage transformers
- MCCs

See Section V - “Quantitative Assumptions” in this SOW for the estimated number of hours.

4.8.5 – Fire Protection Services

CONSULTANT shall secure the services of a fire protection engineer to provide construction support services for the fire protection systems.

See Section V - “Quantitative Assumptions” in this SOW for the estimated number of hours.

4.8.6 – Archaeological Monitoring

CONSULTANT shall secure the services of a qualified archeologist with experience in the area of Orange County/Santa Ana River Basin for the archeological observation and documentation during excavations.

See Section V - “Quantitative Assumptions” in this SOW for the estimated number of hours.

4.8.7 – Contractor Assistance

CONSULTANT shall secure the services of a qualified contractor to provide review and advice on matters related to constructability issues pertaining to flow isolation and removing facilities from service. Attend meetings and workshops related to the items above.

See Section V - “Quantitative Assumptions” in this SOW for the estimated number of hours.

PHASE 5 – COMMISSIONING SERVICES

Task 5.1 – Commissioning Team Meetings

CONSULTANT shall attend Commissioning Team meetings at OC San’s request. Budget has been allocated for up to two, two-day in-person visits. All other meetings will be held virtually. The scope includes time for meeting preparation, follow-up, and review of meeting minutes. In addition, CONSULTANT shall attend to review the tracking spreadsheets prepared by the Commissioning Coordinator to document compliance with the requirements of specifications for pre-commissioning and commissioning activities.

Commissioning team meeting minutes will be prepared by the Contractor. CONSULTANT shall review and comment on meeting minutes.

See Section V - “Quantitative Assumptions” in this SOW for the estimated number of hours.

Task 5.2 – Personnel Training

CONSULTANT shall develop and conduct a training program for the Project. The training program will include both classroom and site orientation. The training plan shall be submitted for review 60 days prior to the start of the training. The CONSULTANT shall arrange and coordinate with OC San’s Project Manager. Generally, each operations training topic will be no more than two hours in duration per training day, no more than twice a week, and at a minimum will be offered to each of the four operations shifts (two days and two nights). Operations day classes will be scheduled between 7:00 am and 3:30 pm. All night shift

classes will be scheduled between 6:30 pm and 8:30 pm. Each topic will be delivered on both a Tuesday and a Thursday for the day shift, and on both a Monday and a Thursday for the night shift. The intent of the training is to educate the Plant Operations staff based on the design and the recommended modes of operation. CONSULTANT provides an overview of the process and equipment and OC San provides an overview of the automation. CONSULTANT shall develop a Training Plan to provide the training services based on the OC San's master project schedule. All training except for On-the-Job (OTJ) training shall be completed prior to the Reliability Acceptance Test (RAT). The Training Plan shall be submitted for OC San's approval as a report, which summarizes the training activities and provides a master training schedule. The training schedules shall include the following: a detailed outline of the class content, discipline(s) to receive the training, instructor's qualifications, and approximate time estimated for each subject covered.

CONSULTANT shall provide training for the following area:

- **Plant Water Pump Station Strainers** - Interim operation
- **Temporary Bleach Station**- Interim operation
- **Electrical Distribution (incorporated into individual system trainings)**
- **Odor Control (APSC)**
 - APSC (Startup, Shutdown, Routine Operation)
 - APSC Caustic Feed System - Startup, Shutdown, Routine Operation
 - APSC Bleach Feed System - Startup, Shutdown, Routine Operation
 - APSC Acid Feed System - Startup, Shutdown, Routine Operation
 - APSC Adjusting APSC Makeup Water
 - APSC Collection Fans - Startup, Shutdown, Routine Operation
 - APSC Recirculation Pumps - Startup, Shutdown, Routine Operation,
 - APSC Sampling
 - Gas Monitoring System
 - Scrubber Cleaning
- **Primary Clarification**
 - Primary Clarifiers - Startup, Shutdown, Routine Operation
 - Scum Removal- Startup, Shutdown, Routine Operation
 - Primary Scum Recycle Pumping - Startup, Shutdown, Routine Operation
 - Primary Sludge Pumping - Startup, Shutdown, Routine Operation
 - Primary Clarifiers - Backflush Grinder
 - Primary Clarifiers - Measuring a PC Sludge Blanket
 - Primary Clarifiers – Weir Washing
 - Primary Clarifiers – Tank Draining

Task 5.3 – Equipment and Instrument Database (EID)

CONSULTANT shall review electronic copies of the EID updated by the Contractor and shall update and verify the fields in the EID required to be filled out in accordance with Specifications Section 01788. The EID shall be completed and submitted to OC San as equipment is taken over for beneficial occupancy.

See Section V- “Quantitative Assumptions” in this SOW for the estimated number of hours.

Task 5.4 – Commissioning Support

CONSULTANT shall provide assistance to OC San during the startup. CONSULTANT review the Functional Acceptance Test (FAT) and RAT procedures that are issued in the Contract Documents or updated by OC San commissioning team and CONTRACTOR. OC San commissioning team will take the lead in implementing changes as necessary to reflect additional information obtained during the construction process, including specific equipment operating parameters and configuration.

CONSULTANT shall assist with the FAT and RAT testing's and review the testing documentation to determine any deviations from the prepared procedures, failures, and anomalies during the testing and report any activities negatively impacting the operation of the treatment facilities to OC San as needed. CONSULTANT shall assist OC San with to confirm that the new facilities, modifications, and upgrades constructed and installed meet the project's process and performance design expectations. Witness of electrical testing including switchgear function testing, review of ETAP or protective device settings and participation in Operational Readiness Test (ORT) and FATs are not part of this SOW.

See Section V - "Quantitative Assumptions" in this SOW for the estimated number of hours.

Task 5.5 – Operations Manual and Procedures (OMaP)

OC San maintains an on-line OMaP for the plant operations staff to provide information necessary to operate and maintain plant facilities. Specific requirements and standards for OMaP are provided in Exhibit A and Exhibit B.

Plant operations staff does not perform maintenance work and so typically treatment plant maintenance procedures are not included in the OMaP. Maintenance procedures are included in the Equipment Service Manuals prepared by the Contractor.

CONSULTANT shall review and update the existing Plant No. 2 Primary Clarification OMaP which describes the functionality of the system based on the control strategies, system and device features, and drawings. All features of the system shall be described for normal equipment operation, fail-over equipment operation, and emergency equipment operation.

CONSULTANT shall review the existing manual and procedures and revise them accordingly.

- Headworks
- Primary Clarification
- Odor Control
- Activated Sludge
- Disinfection
- Electrical Distribution
- Natural Gas Water System
- Plant Air

Following commissioning, the CONSULTANT shall address, resolve, and/or incorporate any comments, additions, or change to the OMaP discovered during commissioning requiring revision and then resubmit for review and approval by OC San. A draft OMaP shall be submitted prior to FAT and the final immediately after beneficial occupancy of each facility. Allow for one additional revision.

As part of the OMaP effort, the CONSULTANT shall develop Standard Operating Procedures (SOPs) for the following process units and upgraded system conditions. CONSULTANT shall present the finalized SOPs to OC San Operations staff prior to RATs. During the RAT process, SOPs might be modified based on comments from OC San. A Draft SOPs shall be submitted prior to ORT. Final SOPs review and updates shall be incorporated with the review and updates of the final OMaP.

- **Primary Clarification**

- Primary Clarifiers - Startup, Shutdown, Routine Operation and sampling
- Scum Removal- Startup, Shutdown, Routine Operation
- Primary Scum Recycle Pumping - Startup, Shutdown, Routine Operation
- Primary Sludge Pumping - Startup, Shutdown, Routine Operation
- Primary Clarifiers - Backflush Grinder
- Primary Clarifiers - Measuring a PC Sludge Blanket
- Primary Clarifiers – Weir Washing
- Primary Clarifiers – Tank Draining

- **Odor Control (APSC)**

- APSC (Startup, Shutdown, Routine Operation)
- APSC Caustic Feed System - Startup, Shutdown, Routine Operation
- APSC Bleach Feed System - Startup, Shutdown, Routine Operation
- APSC Acid Feed System - Startup, Shutdown, Routine Operation
- APSC Adjusting APSC Makeup Water
- APSC Collection Fans - Startup, Shutdown, Routine Operation
- APSC Recirculation Pumps - Startup, Shutdown, Routine Operation,
- APSC Sampling
- Gas Monitoring System
- Scrubber Cleaning

- **Plant Water Pump Station-** Interim operation

- **Temporary Bleach station-** Interim operation

PHASE 6 – CLOSEOUT

Closeout tasks include completion of punch list work by the Contractor, final inspection, completion of Record Drawings, and electronic data. CONSULTANT shall submit a final invoice at the completion of the project.

Task 6.1 – Final Inspection and Punch Lists

CONSULTANT's technical leads shall attend the final inspection job walks with the Contractor and OC San staff. CONSULTANT shall make recommendations on the completion of the work including, but not limited to, completion of punch list items, site cleanup, leakage, and overall system operations. The final inspection will be prior to OC San beneficial occupancy.

CONSULTANT shall assist OC San in developing punch lists of items required to be completed prior to Final Acceptance of the project by OC San.

Task 6.2 – Record Drawings

As part of the time budgeted for the on-site design engineers, the CONSULTANT shall attend preliminary as-built meetings with OC San and the Contractor and shall inspect the

SCOPE OF WORK

Project No. P2-98A PCSA

Contractor's as-built drawings to verify that the Contractor has included relevant information from approved change orders and RFIs. As part of the review process, the CONSULTANT shall verify that the Contractor's as-built drawings correctly reflects the information included in the approved shop drawings, RFIs, approved FCOs, plan clarifications, plan changes, and other deviations from the Contract Drawings and that the information in the set is complete. CONSULTANT shall transpose the as-built drawings to a CAD ready set after each meeting.

At the time that OC San take beneficial of occupancy of each facility, CONSULTANT shall provide CAD as-built drawings of Single-Line and PI&D.

After Final Completion of the project, OC San will transmit to the CONSULTANT the final as-built drawings. At that time, the CONSULTANT shall meet with OC San's inspectors and Resident Engineer to review the Contractor's final as-built drawings.

CONSULTANT shall prepare Draft Record Drawings based on the final as-built drawings for all drawings in accordance with the requirements in the CAD Manual. CONSULTANT shall submit the Draft Record Drawings to the OC San Resident Engineer.

The Draft Record Drawings will be reviewed for content and CAD compliance by OC San staff. A comment log will be returned to the CONSULTANT and, if any comments are generated, the CONSULTANT shall revise the Record Drawings and resubmit to the Resident Engineer for review of the changes and acceptance of the Record Drawings. CAD compliance will be limited to the requirements established during the design phase for conversion of BIM drawing files to other file formats.

When no additional comments are identified, the CONSULTANT shall prepare the Final Record Drawings and submit them along with the Contractor's as-built drawings to the Project Manager. All Record Drawings shall contain a stamp indicating:

"Record Drawings

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of this information and shall not be responsible for any errors or omissions which may be herein as a result."

The stamp shall optimally be placed in the bottom right-hand corner of the border and may be included via x-ref. If importing the stamp via x-ref interferes with content in the bottom right hand corner, the stamp may also be placed in other open space along the bottom of the border. In addition, a note shall be placed over the engineer's seal stating that "This drawing was originally approved for construction by [name of engineer] on [date] and sealed by [name of engineer] a licensed professional engineer in the State of California. License No. [License number]. "CONSULTANT shall submit an electronic copy of the Record Drawings to OC San for review and acceptance. The acceptance of the Record Drawings shall be deemed a condition for completion of work.

The Contractor-generated drawings described in the Design Guidelines and the shop drawings will not be updated by the CONSULTANT.

The format and quantities for delivery of the submittals shall be listed below:

| Contents | Draft Record Drawings | Final Record Drawings |
|-----------------|------------------------------|------------------------------|
| Hard Copy Sets | 2 sets of bound 11x17 prints | None |

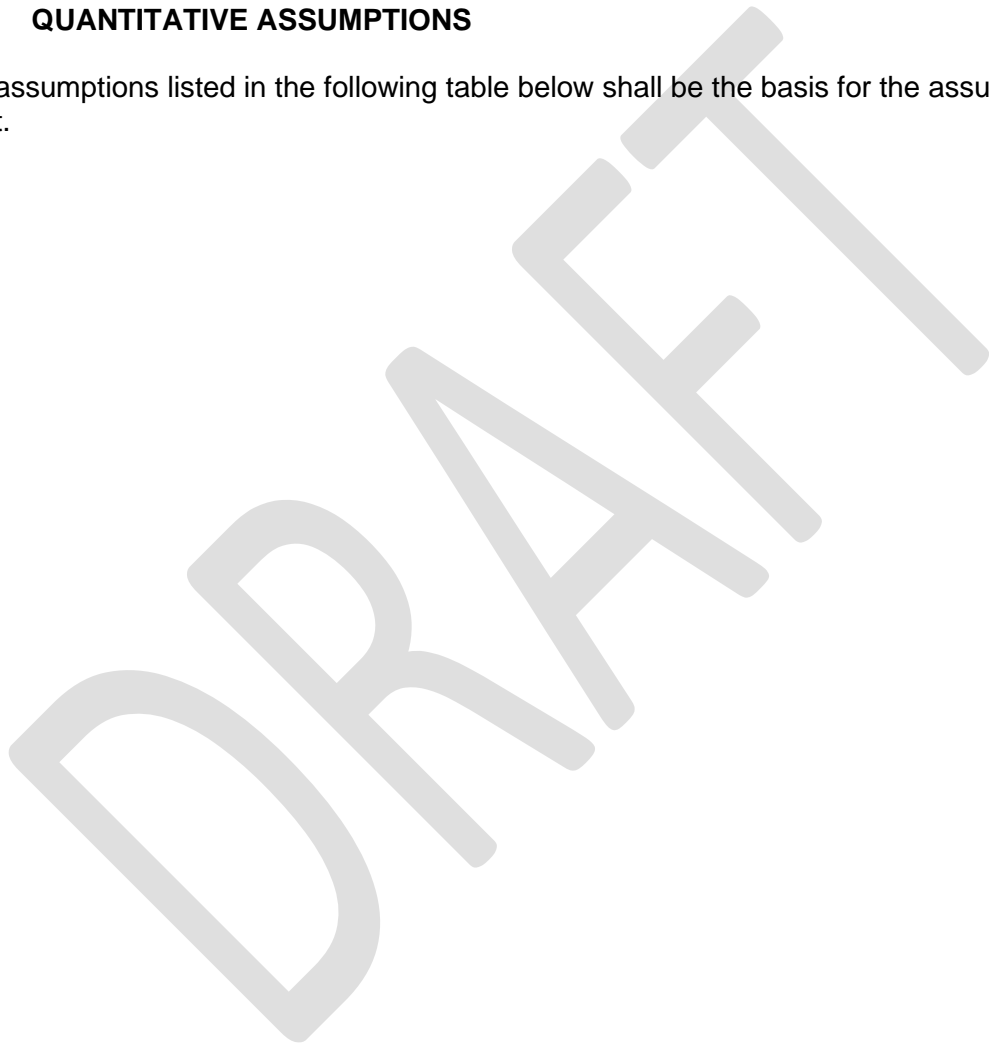
| | | |
|---|--------------------------------------|--------------------------------------|
| All related electronic files, including CAD and compiled PDFs | Transmit electronically via OneDrive | Transmit electronically via OneDrive |
|---|--------------------------------------|--------------------------------------|

IV. STAFF ASSISTANCE

The OC San staff member or designee assigned to work with the CONSULTANT on the construction phase of this project is Shahrzad Namini at (714) 593-7495, e-mail to: snamini@ocsd.com

V. QUANTITATIVE ASSUMPTIONS

The assumptions listed in the following table below shall be the basis for the assumed level of effort.



| Task | Description | Assumption |
|-------------|---|---|
| 4.1 | Project Management | 3,054 hours 76 months duration from construction NTP to construction completion |
| 4.2 | Initial Project Meetings | 318 hours |
| 4.3 | Submittals | 11,578 hours 759 original submittals 569 resubmittals |
| 4.4 | Requests for Information | 3,677 hours 670 RFIs |
| 4.5 | Design Changes | 1,583 hours |
| 4.5 | Cost Estimating for Design Changes | 400 hours |
| 4.6.1 | Construction Progress Meetings & Site Visits (not including meetings specified in Task 4.2) | 2,288 hours for site visits and progress meeting, including 240 progress meetings @ 1 hour each |
| 4.6.2 | On-Site Design Engineers | 3,000 hours (equivalent to 2 people, approx. 8 hours/week each during 4-year active construction) |
| 4.7 | Contractor's Baseline Construction Schedule Review | 124 hours |
| 4.8.1 | Geotechnical Engineering Support | 2,182 hours |
| 4.8.2 | Dewatering Support Services | 1,800 hours total, including 76 hours for management and coordination. See breakdown below. |
| 4.8.2.1 | Dewatering/observation well install observation | 290 hours. Assumes 4 weeks, 3 mobilizations. |
| 4.8.2.2 | Assess well performance | 180 hours. Assumes 2, 1-week field efforts. |
| 4.8.2.3 | Dewatering well rehabilitation | 172 hours. Assumes 2, 1-week field efforts. |
| 4.8.2.4 | Dewatering System Performance Assessment | 388 hours. Assumes 2, 10-week efforts. |
| 4.8.2.5 | Hydrogeologic oversight and consultation | 520 hours. Assumes 2 hours/week for 200 weeks. |

| | | |
|---------|--|---|
| 4.8.2.6 | Well deconstruction observation | 174 hours. Assumes 3, 1-week field efforts. |
| 4.8.3 | Structural Engineering Services | 374 hours for on-site visits and off-site inspections |
| 4.8.4 | Inspection and Factory Witnessed Testing | 244 hours for site and off-site visits |
| 4.8.5 | Fire protection Services | 142 hours |
| 4.8.6 | Archeological Monitoring | 276 hours |
| 4.8.7 | Contractor Assistance | 108 hours |
| 5.1 | Commissioning Team Meetings | 266 hours |
| 5.2 | Personnel Training | 558 hours |
| 5.3 | Equipment and Instrument Database | 108 hours |
| 5.4 | Commissioning Support | 1,016 hours |
| 5.5 | Operations Manual and Procedures (OMaP) | 1,435 hours |
| 6.1 | Final Inspection and Punch Lists | 256 hours |
| 6.2 | Record Drawings | 3,547 hours |

A-Side Primary Clarifiers Replacement at Plant No. 2 Contract No. P2-98A

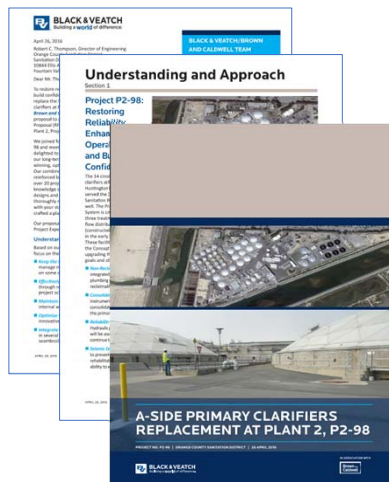
Presented by:
Jeff Mohr
Engineering
Manager
Operations
Committee
May 5, 2021

Consultant Services Award



1

Professional Construction Services



- July 2016: Black & Veatch Corporation selected for design in a qualifications-based competition
- Continuation of services during construction referenced in agreement.

2

2

Professional Construction Services

Services to be provided as needed (time and material)

- Shop drawing submittal review
- Requests for Information (RFIs)
- Change Order assistance
- Geotechnical and dewatering inspection
- Startup assistance, training, operating procedures
- Record drawings

3

3

Professional Construction Services - Negotiation

| | Original Proposal | Negotiated |
|----------------------------|-------------------|-------------|
| Total Hours | 54,141 | 38,334 |
| Total Fee | \$11,586,462 | \$8,400,000 |
| Percentage of Construction | 10.4% | 7.5% |

- Multiple meetings held with Consultant
- Clarified assumptions
- Ensured scope, estimated quantities for requests for support and record drawings are appropriate

4

4

Recommended Action

Recommend to the Board of Directors to:

- Approve a Professional Construction Services Agreement with Black & Veatch Corporation to provide construction support services for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A, for an amount not to exceed \$8,400,000; and
- Approve a contingency of \$840,000 (10%).

5

5

Questions



6

6



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1530

Agenda Date: 5/5/2021

Agenda Item No: 15.

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

SUBJECT:

A-SIDE PRIMARY CLARIFIERS REPLACEMENT AT PLANT NO. 2, CONTRACT NO. P2-98A

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION: Recommend to the Board of Directors to:

- A. Receive and file Bid Tabulation and Recommendation for A-Side Primary Clarifiers Replacement at Plant No. 2, Project No. P2-98A;
- B. Award a Construction Contract to PCL Construction, Inc. for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A, for an amount not to exceed \$111,405,880; and
- C. Approve a contingency of \$6,684,353 (6%).

BACKGROUND

The primary treatment process removes solids from screened wastewater upstream of biological treatment and is an essential part of the wastewater treatment process. This treatment is done in large concrete structures called primary clarifiers. The wastewater in the primary clarifiers emits detectable concentrations of hydrogen sulfide and other odorants, so the Orange County Sanitation District (OC San) covers all primary clarifiers and ventilates them to a foul air treatment system. The hydrogen sulfide in the foul air also creates conditions corrosive to both concrete and steel.

The primary treatment facilities at Plant No. 2 consist of fourteen 140-foot diameter circular clarifiers built between 1960 and 1985 with associated piping, distribution structures, sludge pumping, odor control, and power distribution. The clarifiers are divided into three groups referred to as the A-Side, consisting of four clarifiers, and the B-Side and C-Side, consisting of five clarifiers each. Each clarifier is covered with an aluminum geodesic dome connected to a foul air odor control system. The North Scrubber Complex treats foul air from the B-Side and C-Side clarifiers, and the South Scrubber Complex treats the foul air from the A-Side clarifiers.

RELEVANT STANDARDS

- Comply with California Public Contract Code Section 20103.8, award construction contract to lowest responsible bidder

- 24/7/365 treatment plant reliability
- Zero odor incidents/events under normal operating conditions for Plant Nos. 1 and 2

PROBLEM

In January 2016, OC San staff completed a detailed study of the conditions and rehabilitation requirements for the primary treatment facilities at Plant No. 2. The study concluded that the A-Side clarifiers could not be effectively rehabilitated due to structural deficiencies and severe corrosion. The South Scrubber Complex, which treats foul air from those clarifiers, is also at the end of its useful life.

PROPOSED SOLUTION

Award a Construction Contract for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A. This project will construct four new primary clarifiers, a new odor control and chemical facility, a new electrical distribution center, and ancillary utilities and facilities. After the new facilities are completed, the project will also demolish the four old primary clarifiers, a power building, and an air treatment facility.

TIMING CONCERNS

Until the primary clarifiers are replaced, existing structural and mechanical system deficiencies could require frequent and costly maintenance.

RAMIFICATIONS OF NOT TAKING ACTION

The primary treatment system at Plant No. 2 is aging and becoming less reliable. Due to the time required to replace the treatment facilities, it is important that the work be initiated at this time.

ADDITIONAL INFORMATION

The 2016 study also concluded that the B-Side and C-Side clarifiers would need an extensive rehabilitation, but that project could be postponed by 10 to 15 years by performing an interim rehabilitation project to address specific conditions such as coatings, concrete repair, and some pipeline relining. B/C-Side Primary Clarifiers Interim Repair at Plant No. 2, Contract No. P2-98B, is expected to complete construction in July 2021. This will allow the extensive rehabilitation project to be deferred until 2031.

Bid Procurement

OC San staff has long been concerned about the limited number of bidders on such a large and long-duration project. Staff has posted the project for two years on its upcoming construction opportunities list and has promoted it with general contractors at construction outreach events. To avoid competition for bidders among its own projects, staff postponed advertisements of this project until shortly before bids were opened on the Headworks Rehabilitation at Plant No. 1, Project No. P1-105.

In addition to site videos, photographs, and drone-footage of virtually all facilities provided to interested bidders, staff arranged a series of COVID-19 compliant site walks to further help bidders understand the facilities, access constraints, and other factors that might affect the final bids.

OC San advertised for bids on January 13, 2021 with bids scheduled to be received on March 16, 2021. One potential bidder requested a one-week delay in bid opening. In response, staff conducted a survey of the eligible potential bidders which suggested six contractors planned to submit bids, and that only the one prime bidder was requesting an extension. Based on that survey, staff chose not to change the bid date.

On March 16, 2021, three sealed bids were received. A summary of the bids follows:

| | |
|--------------------------------|----------------------|
| Engineer's Estimate | \$ 129,000,000 |
| <u>Bidder</u> | <u>Amount of Bid</u> |
| PCL Construction, Inc. | \$ 111,405,880 |
| Kiewit Infrastructure West Co. | \$ 112,849,000 |
| J.F. Shea Construction, Inc. | \$ 119,360,000 |

The bids were evaluated in accordance with OC San policies and procedures. A notice was sent to all bidders on March 31, 2021 informing them of the intent of OC San to recommend award of the construction contract to PCL Construction, Inc.

Staff recommends awarding a Construction Contract to the lowest responsive and responsible bidder, PCL Construction, Inc., for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A, for a total amount not to exceed \$111,405,880.

CEQA

This project is exempt from CEQA under the Class 2 categorical exemptions set forth in California Code of Regulations sections 15302. This is because the project involves replacement or reconstruction of existing structures and facilities where the new structure replaced will have substantially the same purpose and capacity as the structure replaced. A Notice of Exemption was filed with the Orange County Clerk-Recorder on April 26, 2018.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Adopted Budget, Fiscal Years 2020-2021 and 2021-22, Section 8, Page 82, Primary Treatment Rehabilitation at Plant No.2, Project No. P2-98) 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:

- Construction Contract
- Presentation

SN:dm:gc

PART A
CONTRACT AGREEMENT

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CONTRACT AGREEMENT
ORANGE COUNTY SANITATION DISTRICT

CONTRACT NO. P2-98A
A-SIDE PRIMARY CLARIFIERS REPLACEMENT AT PLANT 2

THIS AGREEMENT is made and entered into, to be effective, this May 26, 2021, by and between PCL Construction, Inc., hereinafter referred to as “CONTRACTOR” and the Orange County Sanitation District, hereinafter referred to as “OCSD”.

WITNESSETH

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

SECTION – 1 GENERAL CONDITIONS

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 OCSD. 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 OCSD'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 OCSD, to construct and complete the Project, in good workmanlike and substantial order. If CONTRACTOR fails to pay for labor or materials when due, OCSD 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, OCSD may settle them directly and deduct the amount of payments from the Contract Price and any amounts due to CONTRACTOR. In the event OCSD receives a stop payment notice from any laborer or material supplier alleging non-payment by CONTRACTOR, OCSD 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:

CONTRACT NO. P2-98A

A-SIDE PRIMARY CLARIFIERS REPLACEMENT AT PLANT 2

SECTION – 4 PLANS AND SPECIFICATIONS

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

CONTRACT NO. P2-98A

A-SIDE PRIMARY CLARIFIERS REPLACEMENT AT PLANT 2

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 OCSD, unless otherwise specified therein and shall diligently prosecute the Work to completion within one thousand nine hundred forty-four (1,944) calendar days from the date of the “Notice to Proceed” issued by OCSD, excluding delays caused or authorized by OCSD as set forth in Sections 7, 8, and 9 hereof, and applicable provisions in the General Conditions. The time for completion includes fifty (50) calendar days determined by OCSD likely to be inclement weather when CONTRACTOR will be unable to work.

In addition, CONTRACTOR shall accomplish such milestones within the periods of performance 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 OCSD, 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. OCSD 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”. OCSD’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 OCSD 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 OCSD pursuant to the Contract Documents, OCSD 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 OCSD’s ENGINEER. The decision of the ENGINEER shall be final.

SECTION – 9 CHANGES IN PROJECT

OCSD 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 OCSD-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. OCSD 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 Hundred Eleven Million Four Hundred Five Thousand Eight Hundred Eighty Dollars (\$111,405,880) 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. OCSD 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 OCSD’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 OCSD;
 - b. plus the value of material suitably stored at the worksite, treatment plant or approved storage yards subject to or under the control of OCSD since the commencement of the Work as determined by OCSD;
 - 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 OCSD 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, OCSD 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:

OCSD 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 OCSD. 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, OCSD 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 OCSD, 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 OCSD 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 OCSD'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 OCSD. 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 OCSD, 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 OCSD 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 Completion. The requirement for carrying the foregoing insurance shall not derogate from the provisions for indemnification of OCSD 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. OCSD 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 OCSD 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 OCSD herein, the requirement(s) providing the more protective coverage for both OCSD and the Third Parties shall control and be purchased and maintained by 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 OCSD, its or their officers, agents, or employees, and any other contractor or subcontractor performing Work or rendering services on behalf of OCSD 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 OCSD, its or their officers, agents, or employees. 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: Ten Million Dollars (\$10,000,000) 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 Ten Million Dollars (\$10,000,000) 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 OCSD 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 limits of liability coverage:
- Either (1) a combined single limit of Five Million Dollars (\$5,000,000) for bodily injury, personal injury and property damage;

Or alternatively, (2) One Million Dollars (\$1,000,000) per person for bodily injury, Two Million Dollars (\$2,000,000) per accident for bodily injury, and Two Million Dollars (\$1,000,000) per accident for 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 OCSD.
5. **Worker's Compensation/Employer's Liability:** CONTRACTOR shall provide such Worker's 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 Five Million Dollars (\$5,000,000) per claim and aggregate 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, OCSD 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. Errors and Omissions/Professional Liability Insurance: CONTRACTOR shall maintain in full force and effect, throughout the term of this Contract, standard industry form professional liability / errors and omissions insurance coverage with coverage limits of not less than Two Million Dollars (\$2,000,000) per claim and aggregate, 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 Contract, and for a period of five (5) years from the date of the completion of the Work hereunder.

In the event of termination of said policy during this period, CONTRACTOR shall obtain continuing insurance coverage for the prior acts or omissions of CONTRACTOR during the course of performing Work under the terms of this Contract. 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 Contract or until completion of the Work provided for in this Contract, 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 or omissions of CONTRACTOR during the course of performing Work under the terms of this Contract.

CONTRACTOR shall provide to the OCSD a certificate of insurance in a form acceptable to the OCSD 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.

B. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by OCSD. At the option of OCSD, either: the Insurer shall reduce or eliminate such self-insured retentions as respects OCSD, its Directors, officers, agents, CONSULTANTS, and employees; or CONTRACTOR shall provide a financial guarantee satisfactory to OCSD 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. OCSD, 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 OCSD 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 OCSD shall be excess only and not contributing with insurance provided under this policy.
2. Each insurance policy required herein shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, and that coverage shall not be cancelled for non-payment of premium except after ten (10) days prior written notice by certified mail, return receipt requested. Should there be changes in coverage or an increase in deductible or SIR amounts, CONTRACTOR undertakes to procure a manuscript endorsement from its insurer giving 30 days prior notice of such an event to OCSD, or to have its insurance broker/agent send to OCSD a certified letter describing the changes in coverage and any increase in deductible or SIR amounts. The certified letter must be sent Attention: Risk Management and shall be received not less than twenty (20) days prior to the effective date of the change(s). The letter must be signed by a Director or Officer of the broker/agent and must be on company letterhead, and may be sent via e-mail in pdf format.
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. OCSD recognizes that State Compensation Insurance Fund has withdrawn from participation in the A.M. Best Rating Guide process. Nevertheless, OCSD will accept State Compensation Insurance Fund for the required policy of worker's compensation insurance, subject to OCSD's option, at any time during the term of this Contract, to require a change in insurer upon twenty (20) days written notice. Further, OCSD 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 OCSD or its agent.

E. Verification of Coverage

CONTRACTOR shall furnish OCSD 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 OCSD before Work commences. OCSD 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. OCSD 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

OCSD, 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 11 85 or alternatively in both CG 20 10 10 01 and CG 20 37 10 01 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 OCSD 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 OCSD in the event of substantial failure by the CONTRACTOR to fulfill its obligations under this Agreement, or it may be terminated by OCSD 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 OCSD, 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 OCSD’s designs, Drawings and Specifications.

The CONTRACTOR guarantees for a period of at least one (1) year from the date of Final Completion 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. OCSD 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, OCSD 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 OCSD 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 OCSD 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 OCSD unless such assignment has had prior written approval and consent of OCSD and the Surety.

SECTION – 21 RESOLUTION OF DISPUTES

OCSD 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 OCSD, 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 OCSD: 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: PCL Construction, Inc.
3750 Schauffele Avenue, Suite 270
Long Beach, CA 90808

Copy to: Mike McKinney, President
PCL Construction, Inc.
3750 Schauffele Avenue, Suite 270
Long Beach, CA 90808

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

CONTRACTOR: PCL Construction, Inc.
3750 Schaufele Avenue, Suite 270
Long Beach, CA 90808

By _____

Printed Name

Its _____

CONTRACTOR's State License No. 913592 (Expiration Date – 04/30/2022)

OCSD: Orange County Sanitation District

By _____

David John Shawver
Board Chairman

By _____

Kelly A. Lore
Clerk of the Board

By _____

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 – “OCSD’s Right to Withhold Certain Amounts and Make Application Thereof”; and
9. General Conditions – “Final Payment.”

EXA-3 RETENTION AND ESCROW ACCOUNTS

A. Retention:

OCSD 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 OCSD 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 OCSD, 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, OCSD 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 OCSD's discovery of deficiencies in the Work or non-compliance with the Specifications or any other requirement of the Contract;
3. Sums expended by OCSD in performing any of the CONTRACTOR'S obligations under the Contract that the CONTRACTOR has failed to perform, and;
4. Other sums that OCSD is entitled to recover from the CONTRACTOR under the terms of the Contract, including without limitation insurance deductibles and assessments.

The failure of OCSD to deduct any of the above-identified sums from a progress payment shall not constitute a waiver of OCSD'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, OCSD 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 OCSD 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 OCSD 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 OCSD 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 OCSD 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 OCSD, 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 OCSD, arising out of or filed in connection with the Work. Prior progress payments shall be subject to correction in OCSD'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, OCSD 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 OCSD, 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 OCSD, 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 OCSD, and agreements are reached on all issues regarding the application for Final Payment, OCSD, in exchange for an executed release, satisfactory in form and substance to OCSD, 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 OCSD are specifically reserved, and shall release and waive all unreserved Claims against OCSD 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 OCSD which has not been communicated in writing by the CONTRACTOR to OCSD 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, OCSD may make Final Payment subject to resolution of those claims. OCSD 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 OCSD's acceptance of the application for Final Payment and irrespective of whether it is before or after Final Payment has been made, OCSD 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.

OCSD 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 OCSD 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 OCSD 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 OCSD 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: PCL Construction, Inc.

BF-14 SCHEDULE OF PRICES, Pages 1 - 2

Bid Submitted By: PCL CONSTRUCTION, 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 OCSD 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 provide all labor, materials, equipment and services for the construction of the Project per the Contract Documents.

All Work in the Contract Documents shall be included in Base Bid Items.

Bidders shall accurately reflect the cost to perform the Work. OCSD may reject unbalanced Bids. Refer to Part 2 – INSTRUCTIONS TO BIDDERS.

Bid Submitted By: PCL CONSTRUCTION, 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 | Approx Qty | Unit Price | Extended Price |
|----------|---|---------------------|------------|------------|------------------|
| 1. | Mobilization: As described in Division 01, Section 01155 and in conformance with the Contract Documents for the lump sum price of... | Lump Sum | 1 | | = \$6,000,000 |
| 2. | Shoring and Bracing: Provide all labor, equipment and materials necessary to provide sheeting, shoring and bracing for protection of life and limb in trenches, open excavations and confined spaces, and as described in Division 01, Section 01155 and in conformance with the Contract Documents for the lump sum price of... | Lump Sum | 1 | | = \$ 1,000,000 |
| 3. | Permits: Fees for all permits as described in Division 01, Section 01155 and in conformance with the Contract Documents for an allowance of... | Allowance | 1 | | = \$20,000 |
| 4. | All Other Portions of the Work: Except the Work of Item Nos. 1 through 3 and 5, as described in Division 01, Section 01155 and in conformance with the Contract Documents for the lump sum price of... | Lump Sum | 1 | | = \$ 103,385,880 |
| 5. | Demobilization: Including final progress payment, clean-up and restoration of the project site, and as described in Division 01, Section 01155 and in conformance with the Contract Documents for a lump sum price of... | Lump Sum | 1 | | = \$1,000,000 |

TOTAL AMOUNT OF BID (BASIS OF AWARD) \$ 111,405,880

A-Side Primary Clarifiers Replacement at Plant No. 2

Contract No. P2-98A

Presented by:
Jeff Mohr
Engineering
Manager
Operations
Committee
May 5, 2021

Construction Contract Award



1

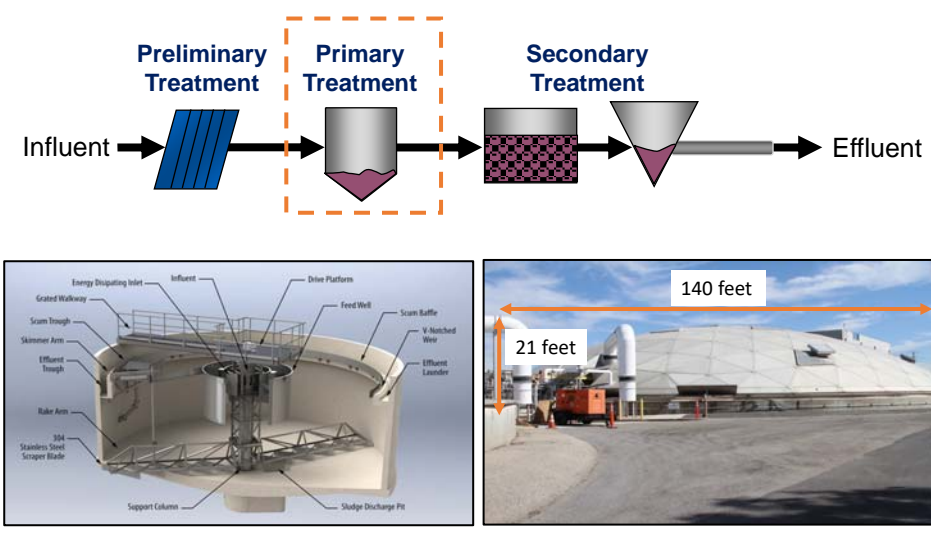
Plant No. 2 - Project Site Plan



2

2


Primary Treatment - Clarifiers



The diagram illustrates the wastewater treatment process flow: Influent enters through Preliminary Treatment (represented by a blue grating), then moves to Primary Treatment (a circular clarifier shown in a dashed orange box), followed by Secondary Treatment (a rectangular tank with a checkered pattern), and finally exits as Effluent. Below this, a detailed cutaway of a clarifier shows components like the Energy Dissipating Inlet, Drive Platform, Scum Baffle, and Sludge Discharge Pit. A photograph of a large clarifier building is shown with dimensions of 140 feet in length and 21 feet in height.

3

Existing Clarifier Mechanism



A photograph showing the interior of a clarifier under construction. A worker in a yellow safety vest and white hard hat stands in the foreground. The structure is a large, circular tank with a complex internal mechanism of metal beams and platforms. A date stamp in the bottom right corner of the photo reads "06/07/2019".

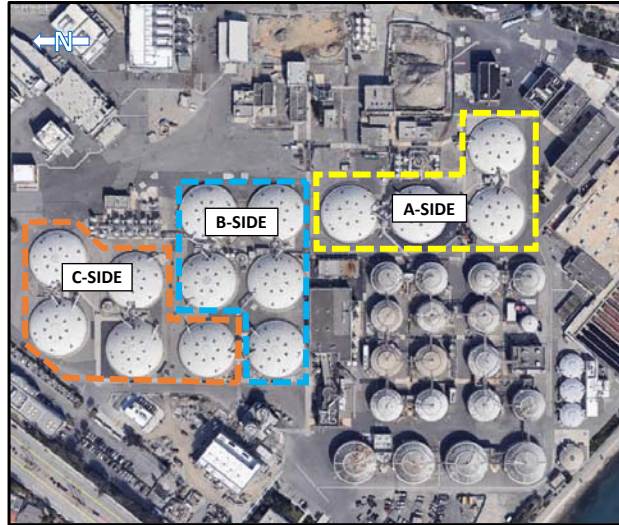
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Primary Treatment Rehabilitation

P2-98A Replace four A-Side Clarifiers

P2-98B: Interim repairs for B- & C-Sides
(Construction Complete June 2021)

P2-98C (now P2-133): Major Rehab for B- & C-Sides
(Construction Start 2031)



5

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A-Side Primary Clarifiers Require Replacement

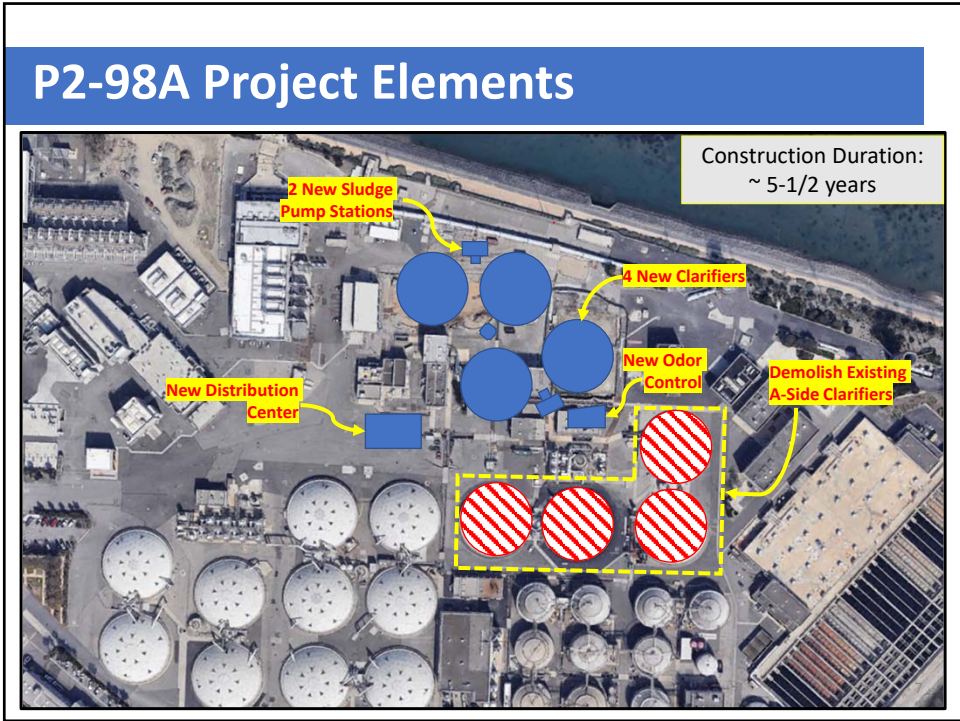


Built between 1960-1963

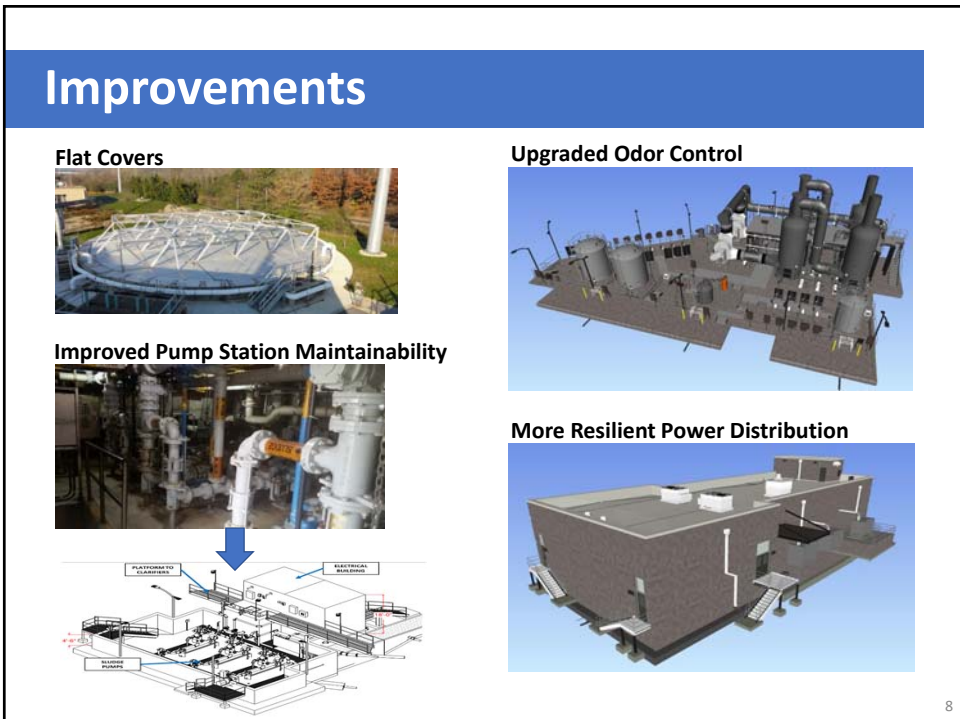


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8

Risk Management Process



Identify → **Analyze** → **Develop Response** → **Control**

- 57 project-specific risks identified
- Accept
 - Avoid
 - Mitigate
 - Transfer

- Strategies
- Action Plans

- Monitoring
- Reporting

| Risk Identification | Phase | Impact Categories | Risk Qualification | Risk Quantification | Risk Mitigation / Response | Phase of Mitigation | Responsible Party | General Notes |
|--------------------------------|--|-------------------|--------------------|---------------------|----------------------------|---------------------|-------------------|---|
| Risk Title | Description of Risk Event | All Phase | Design | Procurement | Construction | Operation | Decommissioning | Comments |
| CO2M Space | Inadequate space allocated for CO2M equipment and/or mobile bench space | X | X | X | X | X | X | Mitigation: Space requirements have been reviewed and compared to those needed during a 1510 which is currently in progress. COMPLETED |
| CO2M Tubing | Inadequate criteria for or management of tubing from CO2M | X | X | X | X | X | X | Mitigation: CO2M tube already installed for testing for use in SCALE . COMPLETED |
| Common Riser for CO2M | Inadequate control rates for CO2M for initial work prior to finalization testing. Control for risk begin with allowing blow out string, then need to increase for achieve required production | X | X | X | X | X | X | Mitigation: Project team to review the CO2M design, including SA/SC, requirements for CO2M, test scenario, and controls, in conjunction with H2O, brought from E&P |
| Efforts Involving up and | Local soil characteristics, handling, storage and movement will be required before well is completed off site to locate. Due to large number of construction projects at FT, there may be inadequate space on site for this activity, or the labor provided may be low which results in higher risk for this work activity | X | X | X | X | X | X | Mitigation: After evaluating existing costs of offsite processing, it was decided to investigate onsite. CO2M has made "2" a major milestone for this job during 2021 as shown on 1510200. COMPLETED |
| Quality of Materials | Quality of materials does not meet specified requirements, such as EOR additives used to ensure lower grade than indicated. | X | X | X | X | X | X | Mitigation: Conducted sampling of H2O2 including test requirements for chemical control materials. |
| Finalized Installation Methods | Insufficient definition of allowable installation methods requirements leading to settlement of existing basins. | X | X | X | X | X | X | Mitigation: Settlement control requirements for impacted basins and others are provided in open 1510s. Environmental Controls. COMPLETED |

Construction Dewatering Risk


- Construction delays
- Extended overhead costs
- More wells needed, higher costs
- Potential structural damage

Design Phase Responses

- Learn lessons from Plant 2 projects
- Performed dewatering study
- Specified stringent dewatering reqmts

Construction Phase Responses

- Geotech inspection of dewatering wells
- Weekly review of dewatering performance
- Review sampling data for biofouling
- Scope for as-needed support



Installation of dewatering well

Work Sequence and Shutdowns Risk

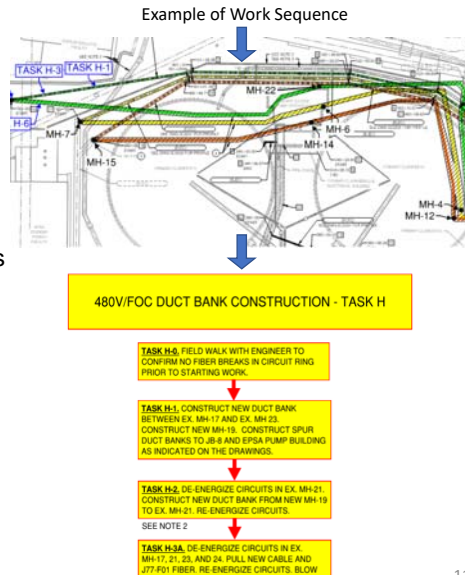
- Safety impacts
- Operational impacts
- Spills, permit violations
- Construction delays
- Change orders

Design Phase Responses

- Extensively tracked interdependencies
- Planned shutdowns in detail
 - 40 shutdowns itemized
 - 200 utility tie-ins
- Specified detailed work sequence

Construction Phase Responses

- Require 60-day shutdown notices
- Dedicated shutdown coordinators:
 - Engineering, O&M, Contractor



11

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Bid Results

| Bidder | Amount of Bid |
|--------------------------------|-----------------|
| Engineer's Estimate | \$129,000,000 |
| PCL Construction, Inc. | \$111,405,880 ★ |
| Kiewit Infrastructure West Co. | \$112,849,000 |
| J.F. Shea Construction, Inc. | \$119,360,000 |

12

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Construction Contingency

| | |
|------------------------|---------------|
| Construction Cost | \$111,405,880 |
| Contingency | \$6,684,353 |
| % of Construction Cost | 6% |

13

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Recommended Action



Recommend to the Board of Directors to:

- Receive and file Bid Tabulation and Recommendation for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A;
- Award a Construction Contract to PCL Construction, Inc. for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A, for a total amount not to exceed \$111,405,880; and
- Approve a contingency of \$6,684,353 (6%).

14

14

Questions



15



OPERATIONS COMMITTEE

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

Agenda Report

File #: 2021-1406

Agenda Date: 5/5/2021

Agenda Item No: 16.

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

SUBJECT:

CAPITAL IMPROVEMENT PROGRAM PROPOSED BUDGET FOR FY2021-22

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

Information Item.

BACKGROUND

Staff will present the proposed Capital Improvement Program (CIP) Budget to be included in the upcoming Fiscal Year 2021-22 budget book update.

RELEVANT STANDARDS

- Protect OC San assets
- Ensure the public's money is wisely spent

ATTACHMENT

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

- Presentation

AN:sa

Capital Improvement Program (CIP) FY 2021-22 Budget Update

Presented by:

Eros Yong

*Engineering
Manager*

*Operations
Committee*

May 5, 2021



1

FY 2021-22 Budget Update

Board Presentations:

February – Budget Assumptions

March – Revenue, Reserves, Insurance Overview

April – Operational Expenditures

May – Capital Improvement Program

June – Board adopts FY 2021-22 Budget Update

2

2

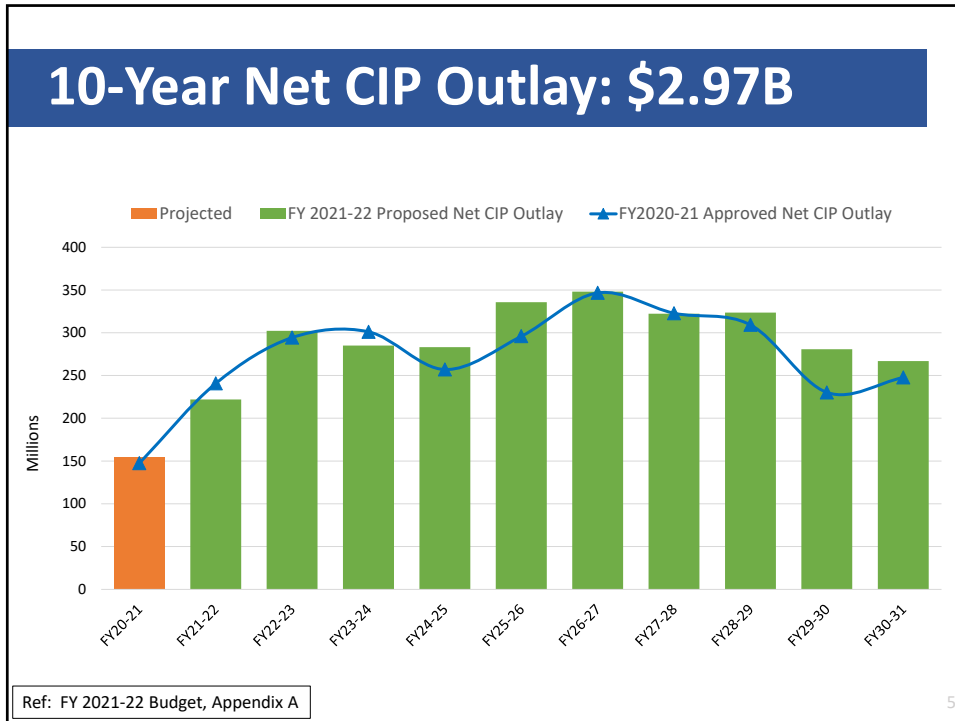


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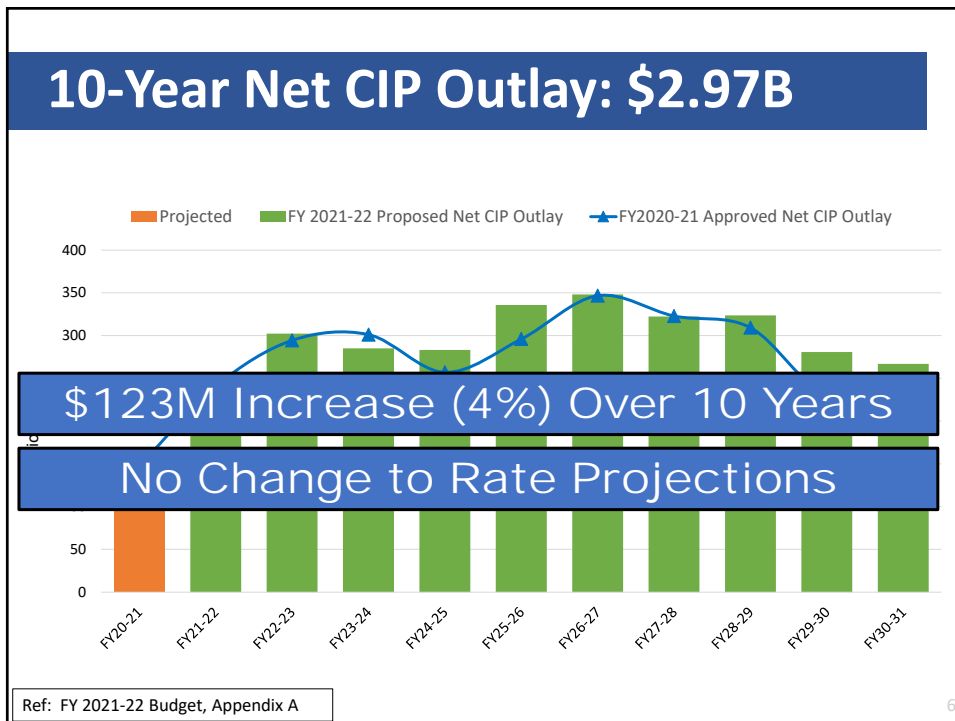
FY 2020-21 CIP Performance

| Performance Measure | Goal | Performance Projection |
|--|-------------------------------|------------------------|
| Net CIP Outlay | 85% - 105% (\$125M-\$155M) | 104% (\$154M) |
| Non-Construction Cost (% of Construction Costs) | < 37.5% | 35.6% |
| Cumulative Change Order Rate | < 5% | 5.8% |

4



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Total CIP Budget Authority

| Total CIP Budget Authority | Budget |
|--|----------------------------|
| FY 21-22 Proposed Total CIP Budget Authority | \$4.249 billion |
| FY 20-21 Approved Total CIP Budget Authority | \$4.179 billion |
| Net Change | \$70 million (1.7%) |

Ref: FY 2021-22 Budget, Appendix A
7

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Total CIP Budget Authority

| Net Change | \$70 million |
|---|----------------|
| Proposed New Projects | \$294 million |
| Proposed Project Budget Increases | \$160 million |
| Proposed Projects Budget Decreases | -\$117 million |
| Proposed Project Cancellations/Closures | -\$262 million |
| Capital Equipment Purchases | -\$5.3 million |

}

\$454M ↑

}

-\$384M ↓

Ref: FY 2021-22 Budget, Appendix A
8

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New Projects

| Project No. | Project Name | Proposed Budget | Start Date |
|-------------|---|-----------------|------------|
| 6-20 | Fairview Trunk Rehabilitation | \$17 M | 2021 |
| P1-140 | Activated Sludge-1 and Secondary Clarifier Rehabilitation | \$140 M | 2022 |
| P2-139 | Emergency Overflow Wingwalls Rehabilitation at Plant No. 2 | \$4 M | 2022 |
| P1-139 | Standby Generator Feeders for Plant No. 1 Secondary Systems | \$3 M | 2023 |

Ref: FY 2021-22 Budget, Appendix A

9

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Top Budget Increases

| Project No. | Project Name | Budget Increase | Proposed Budget | Phase |
|-------------|---|-----------------|-----------------|--------------|
| 3-68 | Los Alamitos Sub-Trunk Extension | \$33 M | \$117 M | Future |
| P1-138 | Industrial Control System and IT Data Center Relocation at Plant No. 1 | \$10 M | \$13 M | Future |
| 11-34 | Slater Pump Station Rehabilitation | \$4.4 M | \$31 M | Future |
| 11-33 | Edinger Pump Station Replacement | \$3.3 M | \$14 M | Future |
| P1-136 | 12.47 kV Switchgear Replacement at Central Generation at Plant No. 1 | \$2.2 M | \$17 M | Future |
| P1-126 | Primary Sedimentation Basins No. 3-5 Replacement at Plant No. 1 | \$9.3 M | \$127 M | Proj Develop |
| J-120 | Process Control Systems Upgrades | \$4.0 M | \$37 M | Proj Develop |
| 7-68 | MacArthur Force Main Improvements | \$1.0 M | \$3.5 M | Proj Develop |
| 7-65 | Gisler - Red Hill Interceptor Rehabilitation | \$18 M | \$39 M | Pre-Design |
| J-135 | Central Generation Engine Overhauls at Plant No. 1 and 2 | \$18 M | \$44 M | Pre-Design |
| 2-49 | Taft Branch Improvements | \$2.8 M | \$17 M | Pre-Design |
| 3-67 | Seal Beach Pump Station Replacement | \$8.1 M | \$87 M | Design |
| P1-133 | Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1 | \$3.9 M | \$14 M | Design |
| 3-64 | Rehabilitation of Western Regional Sewers | \$12 M | \$82 M | Design/Bid |
| 7-66 | Sunflower and Red Hill Interceptor Repairs | \$2.3 M | \$7 M | Design/Bid |
| SP-100 | EAM Software and Process Implementation | \$1.7 M | \$9.2 M | Construction |
| M-FE | Small Construction Projects Program | \$25 M | \$90 M | All |

Ref: FY 2021-22 Budget, Appendix A

10

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Top Budget Decreases

| Project No. | Project Name | Budget Decrease | Proposed Budget | Phase |
|-------------|--|-----------------|-----------------|--------------|
| 2-73 | Yorba Linda Pumping Station Removal and Dosing Station Installation | -\$3 M | \$11 M | Future |
| 7-64 | Main Street Pump Station Rehabilitation | -\$2 M | \$37 M | Future |
| J-136 | Power Building Structural Seismic Improvements at Plant No. 1 and 2 | -\$2 M | \$5 M | Future |
| P1-105 | Headworks Rehabilitation at Plant 1 | -\$66 M | \$340 M | Construction |
| P2-98 | Primary Treatment Rehabilitation at Plant No. 2 | -\$42 M | \$195 M | Construction |
| P2-123 | Return Activated Sludge Piping Replacement at Plant 2 | -\$0.8 M | \$10 M | Construction |
| P1-129 | Return Activated Sludge Piping Replacement at Activated Sludge Plant No. 1 | -\$1 M | \$9 M | Close Out |

Ref: FY 2021-22 Budget, Appendix A

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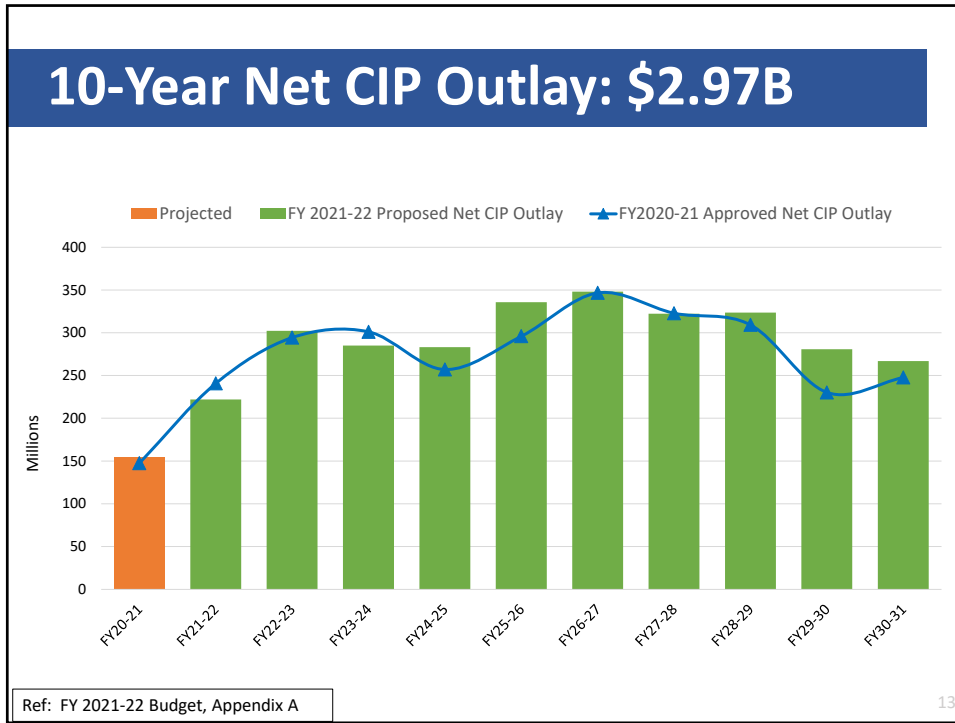
Project Closures

| Project No. | Project Name | Current Approved Budget | Unused Budget | Status |
|-------------|--|-------------------------|---------------|--------|
| 2-41-8 | SARI Rock Stabilizers Removal | \$5 M | \$1 M | Closed |
| 2-65 | Newhope - Placentia Trunk Grade Separation Replacement | \$4 M | \$0.1 M | Closed |
| 6-17 | District 6 Trunk Sewer Relief | \$7 M | \$0.1 M | Closed |
| P1-101 | Sludge Dewatering and Odor Control at Plant 1 | \$197 M | \$0.7 M | Closed |
| P1-115 | Title 24 Access Compliance and Building Rehabilitation Project | \$18 M | \$0.6 M | Closed |
| P2-110 | Consolidated Demolition and Utility Improvements at Plant 2 | \$30 M | \$0.5 M | Closed |

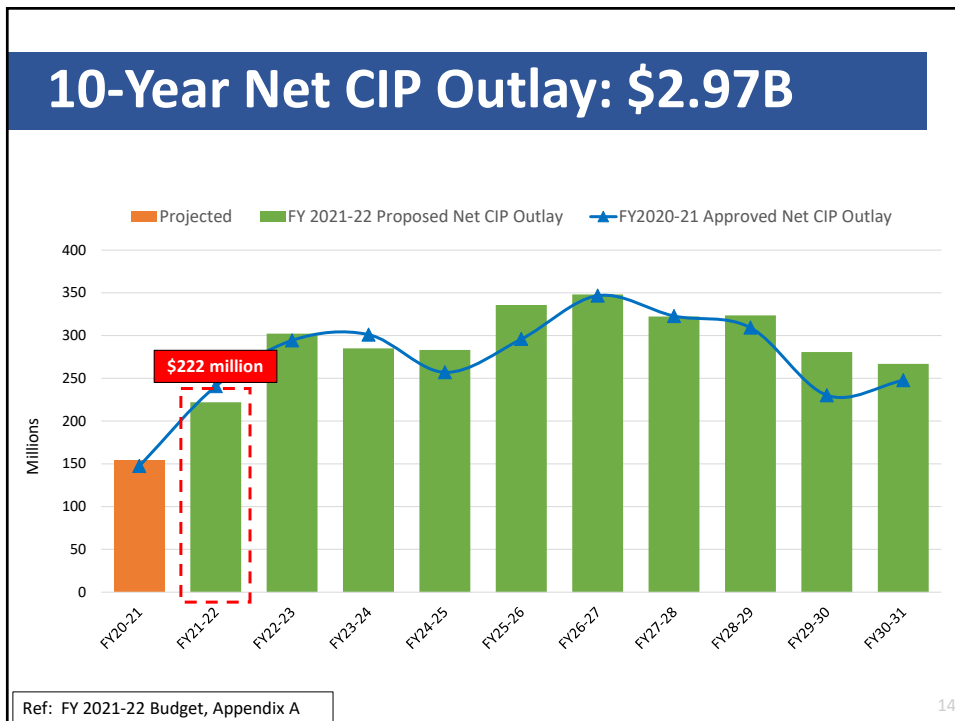
Ref: FY 2021-22 Budget, Appendix A

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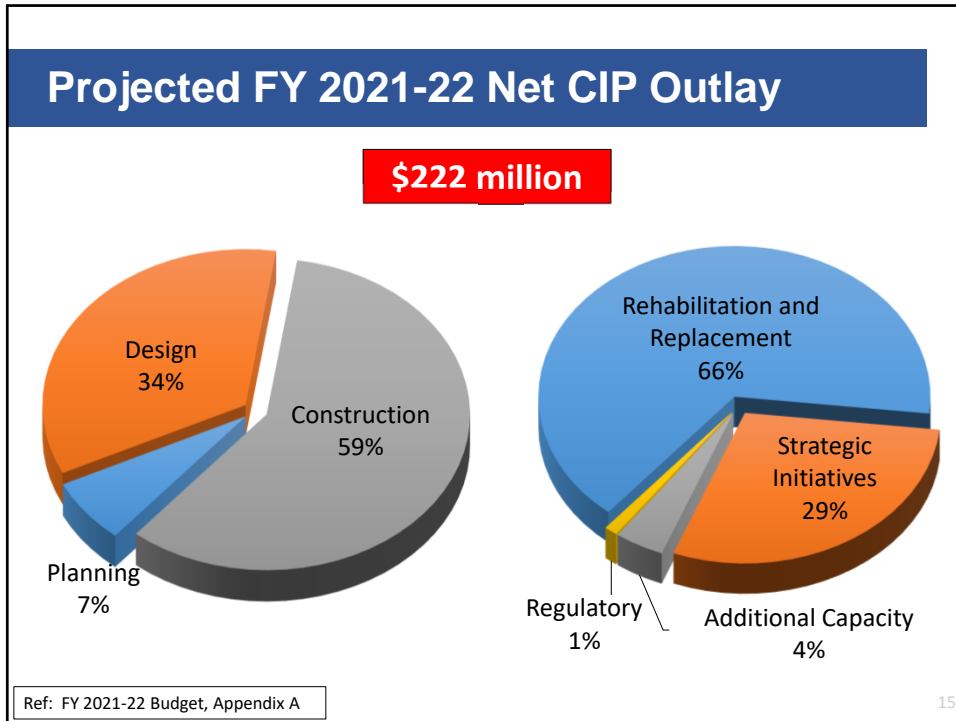
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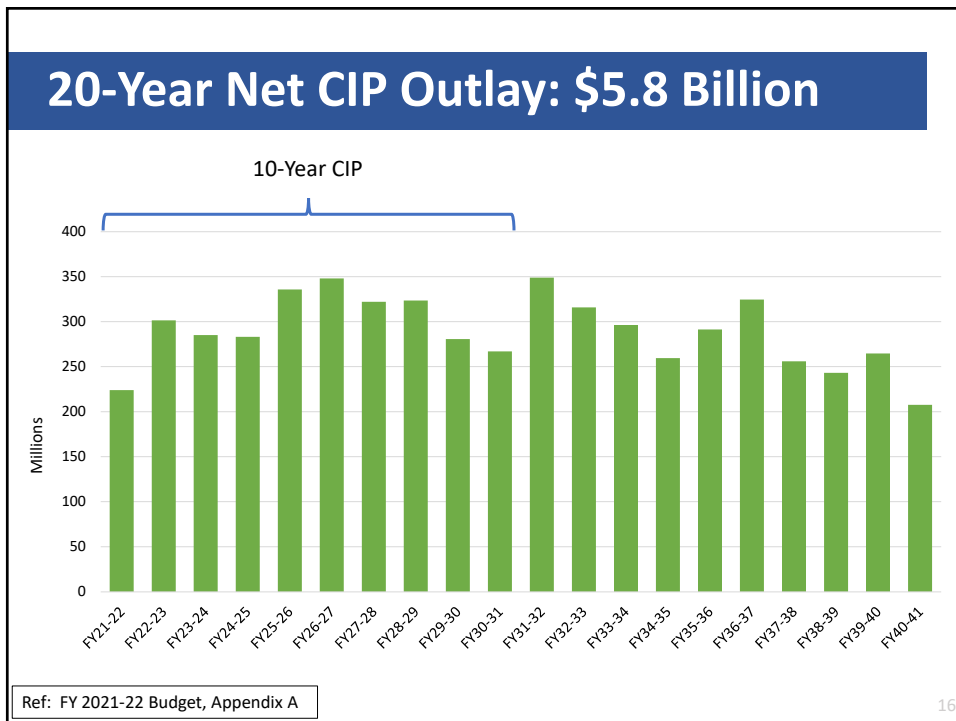
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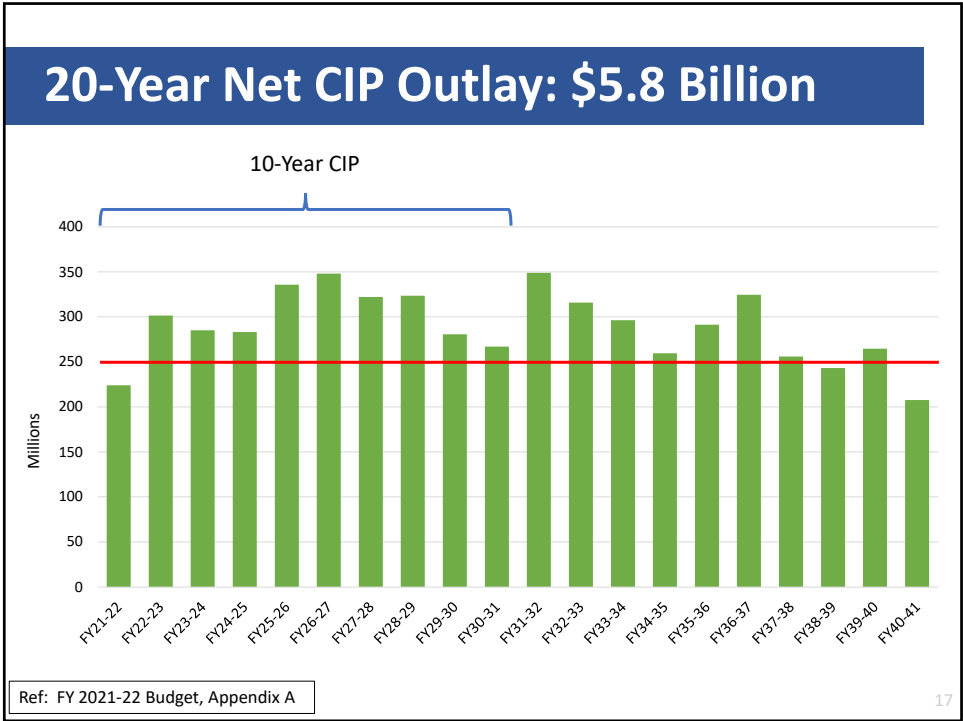
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Questions





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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.