

## **PROFESSIONAL SERVICES AGREEMENT**

This PROFESSIONAL SERVICES AGREEMENT, (hereinafter referred to as "Agreement"), is made and entered into to be effective the 23rd day of April, 2025, by and between the ORANGE COUNTY SANITATION DISTRICT, (hereinafter referred to as "OC SAN"), and Black & Veatch Corporation, (hereinafter referred to as "CONSULTANT"). OC SAN and CONSULTANT are referred to herein collectively as the "Parties" or individually as a "Party."

### **WITNESSETH:**

WHEREAS, OC SAN desires to engage CONSULTANT for a **Digital Asset Management Study, Project No. PS23-04** to provide professional services for the development of a digital plan that will enhance the sharing and analysis of asset data and improve decision making; and

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

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

WHEREAS, at its regular meeting on «BoardMeetingDate» the Board of Directors, by Minute Order, accepted the recommendation of the Operations Committee to approve this Agreement.

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

### **1. SCOPE OF WORK**

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

- A. The CONSULTANT shall be responsible for the professional quality, technical accuracy, and completeness and coordination of the work and services furnished by the CONSULTANT under this Agreement, including the work performed by its subconsultants (Subconsultants). Where approval by OC SAN is indicated, it is understood to be conceptual approval only and does not relieve the CONSULTANT of responsibility for complying with all applicable laws, regulations, codes, industry standards, and liability for damages caused by errors, omissions, noncompliance with industry standards, and/or negligence on the part of the CONSULTANT or its Subconsultants.
- B. CONSULTANT is responsible for the quality of work prepared under this Agreement and shall ensure that all work is performed to the highest industry standards for clarity, uniformity, and completeness. CONSULTANT shall timely respond to all of OC SAN's questions, comments, suggestions, corrections, and recommendations. All comments from OC SAN, or its agent, shall be

incorporated into the work prior to the next review deadline or addressed, in writing, as to why the comment(s) has/have not been incorporated. CONSULTANT shall ensure that each submittal is 100% accurate for the level of work submitted (i.e., correct references, terms, capitalization, or equal status, spelling, punctuation, etc.)

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

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

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

- E. All professional services performed by the CONSULTANT, including, but not limited to, all drafts, data, correspondence, proposals, and reports compiled or composed by the CONSULTANT, pursuant to this Agreement, are for the sole use of OC SAN, its agents and employees. Neither the documents nor their contents shall be released to any third party without the prior written consent of OC SAN. This provision does not apply to information that (a) was publicly known, or otherwise known to the CONSULTANT, at the time that it was disclosed to the CONSULTANT by OC SAN, or (b) subsequently becomes publicly known to the CONSULTANT other than through disclosure by OC SAN.
- F. "OC SAN 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 OC SAN or others in performing the CONSULTANT's services under this AGREEMENT."
- G. "CONSULTANT shall not be responsible for delays caused by circumstances beyond its reasonable control, including, but not limited to (1) strikes, lockouts, work slowdowns or stoppages or accidents, and (2) acts of God. Without limiting the above, 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 nor liable for, unknown future changes due to the COVID-19 pandemic, including, without limitation, additional restrictions by government agencies or others (such as the availability of the site for access or client or consultant staff or others) to the extent they delay or otherwise impact the Project. In that event, CONSULTANT will notify OC SAN and Consultant shall be entitled to reasonable and equitable adjustment to the contract schedule and price to account for such impacts. The parties shall negotiate such changes in good faith to equitably address any such unexpected impacts.”

## **2. COMPENSATION**

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

### **A. Total Compensation**

Total compensation shall be in an amount not to exceed Seven Hundred Ninety-Nine Thousand Nine Hundred Seventeen Dollars (\$799,917). Total compensation to CONSULTANT including burdened labor (salaries plus benefits), overhead, profit, direct costs, and Subconsultant(s) fees and costs shall not exceed the sum set forth in Attachment “E” - Fee Proposal.

### **B. Labor**

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

### **C. Overhead**

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

### **D. Profit**

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

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

E. Subconsultants

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

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

F. Direct Costs

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

G. Other Direct Costs

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

H. Reimbursable Direct Costs

OC SAN will reimburse the CONSULTANT for reasonable travel and business expenses as described in this section and further described in Attachment “D” - Allowable Direct Costs to this Agreement. The reimbursement of the above-mentioned expenses will be based on an “accountable plan” as considered by Internal Revenue Service (IRS). The plan includes a combination of reimbursements based upon receipts and a “per diem” component approved by IRS. The most recent schedule of the per diem rates utilized by OC SAN can be

found on the U.S. General Service Administration website at <https://www.gsa.gov/travel/plan-book/per-diem-rates>.

The CONSULTANT shall be responsible for the most economical and practical means or management of reimbursable costs inclusive but not limited to travel, lodging and meals arrangements. OC SAN shall apply the most economic and practical method of reimbursement which may include reimbursements based upon receipts and/or “per diem” as deemed the most practical.

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

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

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

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

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

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

#### I. Limitation of Costs

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

### **3. REALLOCATION OF TOTAL COMPENSATION**

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

### **4. PAYMENT**

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

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

If OC SAN determines that the work under this AGREEMENT, or any specified task 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 task.

OC SAN may, at the discretion of the Director of Engineering, retain an amount equal to that which ensures that the total amount paid to that date does not exceed the percentage of the completed work for each task 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 task basis. In the event OC SAN's Director of Engineering determines that no satisfactory progress has been made since the prior payment, or in the event of a delay in the work progress for any reason, OC SAN shall have the right to withhold any scheduled proportionate profit payment.

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

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

## **5. PREVAILING WAGES**

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

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

- A. To the extent CONSULTANT's employees and/or Subconsultants who will perform work during the design and preconstruction phases of a construction contract for which Prevailing Wage Determinations have been issued by the DIR and as more specifically defined under Labor Code Section 1720 et seq, CONSULTANT and Subconsultants shall comply with the registration requirements of Labor Code Section 1725.5. Pursuant to Labor Code Section 1771.4, the work is subject to compliance monitoring and enforcement by the DIR.

- B. The CONSULTANT and Subconsultants shall maintain accurate payroll records and shall comply with all the provisions of Labor Code Section 1776, and shall submit payroll records to the Labor Commissioner pursuant to Labor Code Section 1771.4(a)(3). Penalties for non-compliance with the requirements of Section 1776 may be deducted from progress payments per Section 1776.
- C. Pursuant to Labor Code Section 1776, the CONSULTANT and Subconsultants shall furnish a copy of all certified payroll records to OC SAN and/or general public upon request, provided the public request is made through OC SAN, the Division of Apprenticeship Standards or the Division of Labor Enforcement of the Department of Industrial Relations.
- D. The CONSULTANT and Subconsultants shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulations Section 16461(e).

## **7. DOCUMENT OWNERSHIP – CONSULTANT PERFORMANCE**

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

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

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

## **8. INSURANCE**

- A. General

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



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

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

**B. General Liability**

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

C. Umbrella Excess Liability

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

D. Automobile/Vehicle Liability Insurance

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

E. Drone Liability Insurance

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

F. Workers' Compensation Insurance

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

G. Errors and Omissions/Professional Liability

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

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

Agreement. Said coverage shall be evidenced by either a new policy evidencing no gap in coverage or by separate extended “tail” coverage with the present or new carrier.

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

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

#### H. Cyber Liability Insurance

CONSULTANT shall maintain in full force and effect, throughout the term of this Agreement, cyber liability insurance coverage in an amount of not less than One Million Dollars (\$1,000,000) with limits in accordance with the provisions of this paragraph. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by CONSULTANT in this Agreement and shall include, but not be limited to, claims involving infringement of intellectual property, including but not limited to infringement of copyright, trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction or alteration of electronic information, release of private or confidential information (including but not limited to personally identifiable information), extortion and network security liability arising from the unauthorized use of, access to, or tampering with computer systems or from the introduction of a computer virus into or otherwise causing damage to CONSULTANT or OC SAN's computer system or network and the data, programs, and software. Such policy shall cover costs associated with restoring, updating, or replacing data, as well as costs associated with a privacy breach.

If the policy of insurance is maintained on a “claims made” basis, CONSULTANT shall maintain such coverage for an additional three (3) years following termination or expiration of this Agreement.

CONSULTANT shall provide to OC SAN a certificate of insurance in a form acceptable to OC SAN indicating any 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.

#### I. Proof of Coverage

The CONSULTANT shall furnish OC SAN with original certificates and amendatory endorsements effecting coverage. Said certificates and endorsements shall conform to the requirements herein stated. All certificates

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

- Certificate of Insurance ACORD Form 25 or other equivalent certificate of insurance form
- Additional Insurance (General Liability) The combination of (ISO Forms) CG 20 10 and CG 20 37  
  
All other additional insured endorsements must be submitted for approval by OC SAN, and OC SAN may reject alternatives that provide different or less coverage to OC SAN.
- Additional Insured (Automobile Liability) Submit endorsement provided by carrier for OC SAN approval.
- Waiver of Subrogation Submit workers' compensation waiver of subrogation endorsement provided by carrier for OC SAN approval.
- Cancellation Notice No endorsement is required. However, CONSULTANT is responsible for notifying OC SAN of any pending or actual insurance policy cancellation, as described in Article I. Cancellation and Policy Change Notice, below.

J. 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  
18480 Bandilier Circle  
Fountain Valley, CA 92708  
Attention: Contracts, Purchasing & Materials Management Division

K. Primary Insurance

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

L. Separation of Insured

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

M. 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.

N. Deductibles and Self-Insured Retentions

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

O. Defense Costs

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

P. 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.

Q. Limits Are Minimums

If the CONSULTANT maintains higher limits than any minimums shown above, then OC SAN requires and shall be entitled to coverage for the higher limits maintained by CONSULTANT.

## **9. SCOPE CHANGES**

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

## **10. PROJECT TEAM AND SUBCONSULTANTS**

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

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

## **11. ENGINEERING REGISTRATION**

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

## **12. AUDIT PROVISIONS.**

- A. OC SAN retains the reasonable right to access, review, examine, and audit, any and all books, records, documents, and any other evidence of procedures and practices that OC SAN determines are necessary to discover and verify that the CONSULTANT is in compliance with all requirements under this Agreement. The CONSULTANT shall include OC SAN's right as described above, in any and all of their subcontracts, and shall ensure that these rights are binding upon all Subconsultants.
- B. OC SAN retains the right to examine CONSULTANT's books, records, documents and any other evidence of procedures and practices that OC SAN determines are necessary to discover and verify all direct and indirect costs, of whatever nature, which are claimed to have been incurred, or anticipated to be incurred or to ensure CONSULTANT's compliance with all requirements under this Agreement during the term of this Agreement and for a period of three (3) years after its termination.

- C. CONSULTANT shall maintain complete and accurate records in accordance with generally accepted industry standard practices and OC SAN's policy. The CONSULTANT shall make available to OC SAN for review and audit, all project related accounting records and documents, and any other financial data within 15 days after receipt of notice from OC SAN. Upon OC SAN's request, the CONSULTANT shall submit exact duplicates of originals of all requested records to OC SAN. If an audit is performed, CONSULTANT shall ensure that a qualified employee of the CONSULTANT will be available to assist OC SAN's auditor in obtaining all Project related accounting records and documents, and any other financial data.

### **13. LEGAL RELATIONSHIP BETWEEN PARTIES**

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

### **14. NOTICES**

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

ORANGE COUNTY SANITATION DISTRICT  
18480 Bandilier Circle  
Fountain Valley, CA 92708  
Attention: Irene Green  
Copy: Nasrin Nasrollahi, Project Manager

CONSULTANT:

Black & Veatch Corporation  
Matthew Thomas, PE  
220 Commerce, Suite 200  
Irvine, CA 92602

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

## **15. TERMINATION**

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

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

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

## **16. DOCUMENTS AND STUDY MATERIALS**

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

## **17. COMPLIANCE**

### **A. Labor**

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

### **B. Air Pollution**

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

### **C. Iran Contracting Act**

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

### **D. California Air Resources Board Mobile Source Regulations**

CONSULTANT and its subconsultants and subcontractors shall comply with the following California Air Resources Board Mobile Source Regulations:



- Advanced Clean Fleet (ACF): 13 CCR 2013-2013.4; 13 CCR 2015-2015.6
- Truck & Bus Regulation (T&B): 13 CCR 2025
- Clean Truck Check (CTC): 13 CCR 2195-2199.1
- Off-Road Diesel Amendments (ORD): 13 CCR 2449-2449.2

## **18. AGREEMENT EXECUTION AUTHORIZATION**

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

## **19. DISPUTE RESOLUTION**

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

## **20. ATTORNEY'S FEES, COSTS AND NECESSARY DISBURSEMENTS**

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

## **21. WARRANTY**

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

## **22. INDEMNIFICATION**

To the fullest extent permitted by law, CONSULTANT shall indemnify, defend (at CONSULTANT's sole cost and expense and with legal counsel approved by OC SAN, which approval shall not be unreasonably withheld), protect and hold harmless OC SAN and all of OC SAN's officers, directors, employees, consultants, and agents (collectively the “Indemnified Parties”), from and against any and all claims, damages, liabilities, causes of action, suits, arbitration awards, losses, judgments, fines, penalties, costs and expenses (including, without limitation, attorneys' fees, disbursements and court costs, and all other professional, expert or CONSULTANT's fees and costs and OC SAN's general and administrative expenses; individually, a “Claim”; collectively, “Claims”) which may arise from or are in any manner related, directly or indirectly, to any work performed, or any operations, activities, or services provided by CONSULTANT in carrying out its obligations under this Agreement to the extent of the negligent, recklessness and/or willful misconduct of CONSULTANT, its principals, officers, agents, employees, CONSULTANT's suppliers, CONSULTANT, Subconsultants, subcontractors, and/or anyone employed directly or indirectly by any of them, regardless

of any contributing negligence or strict liability of an Indemnified Party. Notwithstanding the foregoing, nothing herein shall be construed to require CONSULTANT to indemnify the Indemnified Parties from any Claim arising solely from:

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

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

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

## **23. DUTY TO DEFEND**

The duty to defend hereunder is wholly independent of and separate from the duty to indemnify and such duty to defend shall exist regardless of any ultimate liability of CONSULTANT and shall be consistent with Civil Code section 2782.8. Such defense obligation shall arise immediately upon presentation of a Claim by any person if, without regard to the merit of the Claim, such Claim could potentially result in an obligation to indemnify one or more Indemnified Parties, and upon written notice of such Claim being provided to CONSULTANT. Payment to CONSULTANT by any Indemnified Party or the payment or advance of defense costs by any Indemnified Party shall not be a condition precedent to enforcing such Indemnified Party's rights to indemnification hereunder. In the event a final judgment, arbitration, award, order, settlement, or other final resolution expressly determines that the claim did not arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the CONSULTANT, to any extent, then OC SAN will reimburse CONSULTANT for the reasonable costs of defending the Indemnified Parties against such claims.

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

## **24. COMPLIANCE WITH OC SAN POLICIES AND PROCEDURES**

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

## **25. CLOSEOUT**

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

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

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

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

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

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

## **26. ENTIRE AGREEMENT**

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

## **27. CONSULTANT's OPINIONS OF COST**

“OC SAN 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. OC SAN 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. Notwithstanding the forgoing, CONSULTANT shall perform its services in accordance with the standard of care set forth in Section 1 of this Agreement.”

**THIS SECTION INTENTIONALLY LEFT BLANK**

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

**CONSULTANT: BLACK & VEATCH CORPORATION**

By \_\_\_\_\_ Date \_\_\_\_\_  
\_\_\_\_\_  
Printed Name & Title

**ORANGE COUNTY SANITATION DISTRICT**

By \_\_\_\_\_ Date \_\_\_\_\_  
Ryan P. Gallagher  
Board Chairman

By \_\_\_\_\_ Date \_\_\_\_\_  
Kelly A. Lore  
Clerk of the Board

By \_\_\_\_\_ Date \_\_\_\_\_  
Kevin Work  
Purchasing & Contracts Manager

Attachments: Attachment "A" – Scope of Work and Exhibits 1, 2 & 3  
Attachment "B" – Labor Hour Matrix  
Attachment "C" – Not Attached  
Attachment "D" – Allowable Direct Costs  
Attachment "E" – Fee Proposal - Final  
Attachment "F" – Not Used  
Attachment "G" – Not Attached  
Attachment "H" – Not Used  
Attachment "I" – Cost Matrix and Summary - Final  
Attachment "J" – Not Attached  
Attachment "K" – Not Attached (none utilized)  
Attachment "L" – Contractor Safety Standards (Revision 11)  
Attachment "M" – Not Attached

IG:ms

# **ATTACHMENT “A”**

## **SCOPE OF WORK**

## **ATTACHMENT "A"**

### **SCOPE OF WORK**

Digital Asset Management Plan

Project No. PS23-04

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## I. SUMMARY

Provide professional engineering services to develop a Digital Asset Management Plan for the Orange County Sanitation District.

## II. BACKGROUND AND GENERAL PROJECT DESCRIPTION

### BACKGROUND

In 2019, OC SAN re-structured its organization and created an asset management team comprised of a core team of Asset Engineers (AE) to be the “ambassadors” for their assigned areas. The AEs track all major, critical assets (both linear and vertical types) in Excel files called “Asset Registries.” Information in the Registries include project numbers of asset installation, year of installation, location-based unique identifiers (Loop Tag Number), condition details and estimates of remaining useful life (RUL).

The AEs work with the O&M area teams to keep asset registry information up-to-date, investigate asset issues, resolve problems, understand the condition of all major assets, and develop short-term to long-term plans for those assets. The main delivery for the Asset Management Team is an annual Asset Management Plan (AMP) which in part summarizes the monthly presentations given to the Asset Management Council (AMC). These presentations include a summary of condition scorings for the major assets, key issues or concerns for the area, and recommended short-, medium- and long-term (or 1-, 5- and 10-year) plans to ensure OC SAN assets will operate reliably to deliver the required level of service at the lowest lifecycle cost with an acceptable level of risk.

The following information is provided as an example for the asset registries, AMC presentations and 2023 AMP:

- Asset registries for all process areas at Plant Nos. 1 and 2, and pump stations (See **Exhibit 1** for examples),
- Presentations to the monthly AMC (See **Exhibit 2** for examples),
- 2023 AMP (**Exhibit 3**).

### GENERAL PROJECT DESCRIPTION

This project will improve OC SAN’s asset management program by improving the asset registries, incorporating business intelligence (BI) solutions and creating a risk assessment framework. The project will take existing information collected and developed by the OC SAN AEs, available Maximo maintenance reports, financial data, and GIS based information to produce a digital asset management program that includes informative PowerBI dashboards, and a framework for risk-based decision making based on the assets’ criticality and consequence of failure. A digital asset management program will enhance the sharing and analysis of asset data and improve decision making.



### III. PROJECT SCHEDULE

Table 1 lists the time frames associated with each major project deliverable and with OC SAN's review and approval of those deliverables. CONSULTANT shall comply with the deadlines indicated in that 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).
Submit draft Technical Memorandum 1 (TM 1)	80 workdays from the Project NTP.
OC SAN Review of draft TM 1	10 workdays from receipt of Draft TM 1
Submit draft Technical Memorandum 2 (TM 2)	80 <del>5</del> workdays from receipt of OC SAN comments on draft TM
OC SAN Review of draft TM 2	10 workdays from receipt of Draft TM 2
Submit draft Technical Memorandum 3 (TM 3)	70 <del>10</del> workdays from receipt of OC SAN comments on draft TM 2.
OC SAN Review of draft TM 3	10 workdays from receipt of Draft TM 3
Submit draft Technical Memorandum 4 (TM 4)	50 <del>30</del> workdays from receipt of OC SAN comments on draft TM
OC SAN Review of draft TM 4	10 workdays from receipt of Draft TM 4
Submit Draft Project Report	30 <del>5</del> workdays from receipt of OC SAN comments on draft TM
OC SAN Review of draft Project Report	15 workdays from receipt of draft Project Report
Submit Final Project Report	20 workdays from receipt of OC SAN comments on draft Project Report.

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

### IV. PROJECT EXECUTION

#### **TASK 1 – Review Asset Registries and Recommend Improvements**

##### **Task 1.1 – Improvement Opportunities**

OC SAN AEs maintain 35 asset registries in MS Excel format for Plant Nos. 1 and 2, and pump stations. These registries track major civil, mechanical, structural, electrical and instrumentation assets. CONSULTANT shall review existing asset registries for the different process areas and

identify inconsistencies and discrepancies within the asset registries. CONSULTANT shall conduct up to three (1.5 hours each) interviews and consultations with the area engineers to understand current asset management tracking practices, challenges, and remaining useful life calculations and identify gaps and discrepancies in the asset registry data. **Reviews of each of the asset registries (up to 35) will consist of best practice reviews and serve as a gap assessment for recommendations. Review of asset registries will focus on data fields that are expected to be used in dashboards (naming conventions, class, type, location, size, RUL (and pertaining condition fields) risk fields). Review will focus on data duplication/redundancy, asset identification and naming standards, and understanding asset RUL and criticality definitions. Validation of existing data, calculations, RUL, etc. is not included in this Task.** Recommendations and best practices shall be developed to ensure consistency and accuracy in asset registry tracking, including guidance on standardizing data formats and naming conventions.

After the review, CONSULTANT shall provide **findings**, recommendations and strategies for improving the consistency and accuracy of asset registries and to propose efficient methods for maintaining and updating asset registries in the future. This Task includes providing general guidelines of what type of assets shall be included in the registries based on criticality and consequence of failure.

NOTE: Asset registries for gravity sewers are excluded from this task.

### **Task 1.2 – Database Management**

The asset registries are currently in Excel format, saved on OC SAN SharePoint. The CONSULTANT shall identify the best asset registry system architecture for easy access, maintenance, and compatibility for the risk assessment framework and asset management dashboards (Tasks 2 and 3).

Based on the findings from data review and interviews, the CONSULTANT shall develop a set of recommendations for asset registries database management. The recommendations will be discussed in a workshop with the AEs and OC SAN IT staff to share the objectives of the asset registry database and to identify the best solution. The format of the datasets, the location of the data (e.g., cloud, OC SAN SharePoint), security considerations, and access shall be included in the discussions. During the workshop, the preferred database format and architecture will be selected.

CONSULTANT shall use three test asset registries, **up to 1,500 assets total**, (one process area at Plant No. 1, one process area at Plant No. 2, and one of the Pump Stations- total 3 out of 35 asset registries) and bring them to the new format based on the selected data architecture and feedback from IT. The implementation will be supported by the OC SAN IT Department for access and security.

CONSULTANT shall:

1. Prepare and submit a draft Technical Memo 1 detailing findings, recommendations, and implementation strategies.
2. Prepare and submit a Final Technical Memo 1. **The Technical Memo graphics will be limited to those created and used in the workshop discussions and will be updated to reflect the outcomes of the workshop. No new graphics will be created.**

3. The Draft and Final Technical Memo 1 shall be submitted in both native format (including all graphics and drawings) and searchable PDF format.
4. Implementation of the new asset registry database for 3 selected test areas.

NOTE: Asset registries for gravity sewers are excluded from this task.

### **Task 1.3 – Reformatting Asset Registries – Optional**

CONSULTANT shall provide level of effort for full implementation of OC SAN asset registries in the new selected database format including reformatting, cleaning up data and exporting to the new selected data architecture. ~~This Task is optional and will be discussed during project negotiation with selected CONSULTANT. CONSULTANT shall assume up to 300 hours for this optional task.~~ Implementation of this task will be limited to up to 300 hours for all asset registries. This Task and associated level of effort will be revisited and validated following completion of Task 1.2.

#### **Deliverables:**

1. Draft Technical Memo 1
2. Final Technical Memo 1
3. Asset Registry Database for 3 selected process areas

### **TASK 2 – Develop Risk Assessment Framework**

CONSULTANT shall develop a framework for risk-based analysis using asset criticality (consequence of failure) and remaining useful life (likelihood of failure). The risk scoring system shall take into account asset condition and age, redundancy (backup and standby units), performance and reliability (based on history of corrective maintenance, condition monitoring data, spare parts availability and obsolescence) and other factors as recommended by the CONSULTANT and agreed upon by OCSAN. OC SAN has already developed remaining useful life (RUL) scores based on asset age, condition, performance and other factors for every major, critical asset. The RUL score is rated from 1 to 5, assets with score of 1 have more than 20 years of remaining useful life, and assets with a score of 5 have less than 5 years remaining useful life. Field based condition assessment information is used for RUL when available. The Consequence of Failure (CoF) for the major, critical assets shall be formulated as part of Task 2. As part of this Task, CONSULTANT shall recommend the approach for CoF and risk assessment framework to be at the asset level, or process level. The recommended approach shall be discussed with OC SAN in a workshop and the selected approach will be used for implementation (Task 2.3).

The goal of this framework is to help OC San prioritize future projects and optimize the capital improvement and small project delivery program. The benefits include increased asset reliability, lower maintenance costs and lower risk of asset failure.

NOTE: The gravity sewer system is included in this task.

### **Task 2.1. Consequence Of Failure**

Using available data, Consultant shall suggest a straightforward method for determining the Consequence of Failure (CoF) for major, critical assets either at asset level or process level. This evaluation shall consider environmental, social, and financial impacts, applying a triple bottom line approach to measure the effects of asset failure on level of service. This process will ensure that the importance and potential impact of each asset (or asset groups) failing are clearly understood and quantified, allowing for an effective risk-based decision making.

CONSULTANT shall develop an appropriate criticality scoring methodology for critical assets in main process areas (gravity sewers and pump stations, preliminary, primaries, secondaries, solids handling, Cengen and gas handling). After developing the methodology, CONSULTANT shall lead ~~up to~~ three 2-hour workshop with OC SAN team to ~~review and validate the scoring methodology discuss asset criticality scoring methodology and receive feedback from OC San stakeholders.~~

### **Task 2.2. Risk Score**

Asset risk shall be scored using the RUL and CoF for the major, critical assets either at asset level or process level. The resulting risk score shall be plotted on a risk matrix and assets (or group of assets) with high likelihood of failure and high consequence of failure shall be prioritized for repairs or replacement.

CONSULTANT shall:

- Meet with OC SAN asset engineers to understand how the remaining useful life scores have been developed based on field condition assessments and asset age.
- Develop the risk-based prioritization framework based on LoF and CoF and include feedback from OC SAN.

### **Task 2.3. Implementation Of Risk Assessment Framework**

CONSULTANT shall develop the CoF and risk assessment scores for each major critical asset in three process areas that were selected as part of Task 1.2. The CoF shall meet all the requirements listed under Task 2.1 and 2.2. The results of this task shall be summarized in Technical Memo 2 outlining the CoF score in a table format and the basis for the scoring system. ~~CONSULTANT shall recommend and develop the CoF and risk assessment framework for critical assets at the process and asset level. This approach and framework will be developed with and approved by OC SAN (in workshops) to implement this Task. CONSULTANT shall recommend a strategy and process for implementing the developed risk scores for effective maintenance and CIP strategies to mitigate the risks identified, extend RUL of critical assets, and better prioritize future projects. This includes a prioritized table format report of the evaluated risk scores.~~

~~CONSULTANT shall recommend how the risk scores will be implemented and used to better prioritize future projects.~~

### **Deliverable:**

- Draft Technical Memo 2 - A risk-based prioritization approach, outlining details of methodology, data used, and the Consequence of Failure approach. The memo shall also detail the scoring system and method for calculating risk scores.
- Final Technical Memo 2 - A risk-based prioritization approach.

### **TASK 3 – Design Asset Management and Maintenance Dashboards**

CONSULTANT shall develop and implement up to 12 business intelligence dashboards tailored to the specific needs of OC SAN. The dynamic asset management dashboards will be developed using a business intelligence software to support visualization of the major, critical assets, maintenance key performance indicators, condition assessments, remaining useful life of assets, risk-based prioritization, etc.

#### **Task 3.1 – Dashboard Development**

In an initial workshop, CONSULTANT shall meet with OC SAN stakeholders to review the OC SAN goals for dashboard development, present sample dashboard content that may be beneficial to OC SAN, and review the Key Performance Indicators that the asset management team is currently presenting in the AMP, Chapter 3. Based on the meeting discussion, CONSULTANT shall propose up to 12 different draft asset management dashboards using Microsoft Power BI to support the goals of the asset management program and stakeholder needs. A second workshop will be scheduled to present the draft dashboards to OC SAN stakeholders for feedback and comments. Dashboard design and layout shall be finalized based on the feedback from stakeholders. The dashboards may use SQL queries, data import from SharePoint, or other databases maintained by OC SAN.

Dashboard development will be limited to up to 12 dashboard pages as specified in the scope.

Dashboards developed in subsequent tasks will include only the features and functionalities specified in the Dashboard Requirements Document (PPTX) developed in Task 3.1.

#### **Task 3.2 – Dashboard Implementation**

After finalizing the format and content of the selected dashboards, CONSULTANT shall work with the OC SAN IT Department to implement the dashboards in the selected platform, create data connections, and create selected visualizations for each dashboard. OC SAN IT will provide the support needed for data access and security concerns. If any required data sources are not currently available or not in the correct format (column names and format), CONSULTANT shall generate a representative mock dataset (test data) in the appropriate format to generate dashboards. This step ensures that all queries and logic behind each dashboard are correct and full implementation will be possible in the future.

Data sources assumed for this application include near-real-time data from the OC SAN Sharepoint system, daily reports from Maximo, SCADA system, the OC San GIS database, Info360 Asset database for OC SAN's linear assets, ~~and other available OC SAN datasets.~~

Each dashboard will be developed through a maximum of three iterations:

- Conceptual (30%)
- Final Draft (90%)

- Final (100%)

At each level of completion (30%, 90%, 100%), OC SAN will complete a review and compile a unified set of comments and provide said comments to CONSULTANT in a single document. Where feasible, multiple dashboards which are being completed concurrently will be grouped into the same review work sessions to reduce the number of work sessions required.

#### **Deliverables:**

- Draft Technical Memo 3- Asset Management Maintenance Dashboards Summary Report including business solution platform selection, dashboard content and data sources.
- Final Technical Memo 3 - Asset Management Maintenance Dashboards Summary Report.
- Up to 12 Dynamic Business Intelligent Dashboards.

### **TASK 4 - Identify Future Am Program Improvement Opportunities**

CONSULTANT shall identify future improvement opportunities for the OC San Asset Management Program, which may include improving our RUL scoring process, how to optimize OC San CIP planning, life cycle costing, updating and improving the dashboard, and other automation recommendations. If any of the recommended data for future dashboard creation is not currently available, CONSULTANT shall provide recommendations for collecting the data and reports and how to use them for future improvement opportunities. CONSULTANT shall prioritize opportunities for improvements in asset management practices and identify specific actions required by OC SAN to achieve the recommended improvement opportunities. This task includes one 4-hour workshop to present and discuss the AMP improvement opportunities. The results of this task shall be summarized in Technical Memo 4 documenting the recommended improvement opportunities and results of the workshop.

#### **Deliverables:**

- Draft Technical Memo 4 – Future AM Program Improvement Opportunities
- Final Technical Memo 4 – Future AM Program Improvement Opportunities

### **TASK 5 – Prepare Final Report**

Prepare a Draft Final Project report that integrates the information developed in Tasks 1 through 3 of this scope of work. The report shall also include the recommendations developed as part of Task 4 as a separate chapter. A final 1-hr virtual workshop will be held to review the final project draft document. After acceptance of the draft report, the CONSULTANT shall submit final report document and electronic files in native electronic format (MS Word, PDF and PowerBI source files). Review comments on Draft Final Report will not include substantive revisions to content reviewed in prior tasks.

#### **Deliverables:**

- Draft Final Report

- Final Report

## **TASK 6 – Project Management**

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

### **Task 6.1 Project Management Progress Meetings**

CONSULTANT shall prepare an agenda and conduct **1- hour** monthly project management meetings with OC SAN's Project Manager and CONSULTANT's Project Manager **for the duration of the project (18 months)**. The purpose of the meetings will be to review CONSULTANT's overall project progress and monthly Progress Report. Other meetings shall be scheduled on an as-needed basis.

### **Task 6.2 Project Schedule**

CONSULTANT shall create a detailed project schedule. The schedule shall include milestones for all dates listed in Section III – Project Schedule. Schedule updates **in PDF format** shall be submitted with the monthly Progress Report.

At a minimum, the schedule shall indicate the following:

1. Projected start date and finish date for each activity
2. Each project task and subtask in the WBS with predecessors and successors
3. Major meetings and workshops
4. Physical percent complete for each activity in the WBS and percent complete by Phase

### **Task 6.3 Progress Reports**

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

- Work activities completed to date, in the current reporting period, and projected for the coming month.
- A brief description of outstanding issues and their potential for impact on scope, schedule (design and construction), budget (design and construction) and quality.
- Potential changes in the project scope or design scope.
- Budget status including estimates of actual costs to date, earned value, costs to complete, and costs at completion.
- Schedule status with a description of any variances between scheduled and forecasted milestone dates.

- A discussion of corrective actions to be taken to avoid or mitigate cases where the project schedule is expected to be delayed.

#### **Task 6.4 Project Invoices**

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

- Budget
- Current billing period invoicing
- Previous billing period “total invoiced to date”
- Budget Amount Remaining
- Current billing period “total percent invoiced to date”

Approval of an invoice by OC SAN requires a Progress Report for the period covered by the invoice. Payment of an invoice will be delayed until the Progress Report is submitted.

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

#### **TASK 7 – Meetings And Workshops**

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

CONSULTANT shall assume the following meetings will be required.



Task	Description	Number of Workshops	Proposed Topics
N/A	Project Kickoff	1	1 hour - Discuss Project overview, and objectives, project team, and schedule (virtual meeting)
1	Asset Registries	3	1.5 hour – Asset Registries (virtual meeting)
2	Consequence Of Failure	Up to 3	<del>2-hour workshops discussing CoF</del> 2 workshops (8 hour total) with 4 working groups to define criteria and review scoring methodology (in-person meetings) 1 workshop (4 hour) with combined working groups to review draft risk scores, LOS and distribution of risk (virtual meeting)
2	Risk Assessment Workshop	1	Risk Assessment Framework (virtual meeting)
3	Dynamic Asset Management Dashboard Workshops	24	2 hour - 2 workshops with stakeholders to conceptualize dashboards and available data sources. (virtual meetings)  2 hour - 2 workshops to develop requirements and receive feedback on storyboards. (virtual meetings)  <del>Initial workshop with Stakeholders to discuss the intent and available data and second workshop to present draft dashboards and receive feedback</del>
3	Dashboard Users Training	1	2 hours - Training for end users to demonstrate use, functionality and capabilities (virtual meeting)
4	Future AM Opportunities	1	4-hour Future improvement opportunities (virtual meeting)

CONSULTANT shall transmit the minutes to the OC SAN Project Manager within 3 business days of the meeting in OneNote using OC SAN's template, or an approved substitution.

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

CONSULTANT shall develop a detailed agenda for these workshops at the beginning of the project, and coordinate with the SANITATION DISTRICT's Project Manager to set tentative dates, material to be covered, and attendee lists for each.

## **TASK 8 – Quality Control**

### **Quality Control Requirements**

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

The reviewer shall attest to their review in the form of a written affidavit outlining the submittal subject and identifying the corrected deficiencies. **This task includes QC efforts for all tasks and documentation of QC reviews will be provided with each submittal as requested.**

## **V. GENERAL REQUIREMENTS**

### **GENERAL**

#### **WORKING HOURS**

Meetings with OC SAN staff shall be scheduled from Monday through Thursday between the hours of 8:00 AM and 4:00 PM. CONSULTANT shall refer to the Engineering Design Guidelines, Chapter 01, Section 01.3.5 "CONSULTANT Inspection of Treatment Facilities" for further requirements.

#### **SOFTWARE**

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

- o Windows 10 Professional
- o Esri software ArcGIS Pro 3.x (eGDB, fGDB, shapefile, or REST formats)
- o Microsoft Edge
- o AutoCAD Plant 3D ver 2024 (for P&ID drawings only)
- o Autodesk software 2024 (AutoCAD, AutoCAD Map3D or compatible dwg file format)
- o Microsoft Office 360
- o Microsoft Power BI
- o Maximo 7.6.x
- o Primavera P6 for scheduling
- o Database software as defined elsewhere in the project Scope of Work
- o On-premise SQL Databases

Any software that the CONSULTANT needs to comply with these standards shall be purchased and maintained by the CONSULTANT at no additional cost to OC SAN. In the event OC SAN provides the CONSULTANT with access to OC SAN software and hardware at an OC SAN

facility in order to facilitate performance of their work, all software shall remain the property of OC SAN. Only software licensed to OC SAN shall be installed on OC SAN equipment. In addition, only OC SAN IT Department staff will perform the installation of this software.

## **EXHIBITS**

additional reference material available:

(Available with the solicitation documents, in PlanetBids)

- |                  |  |
|------------------|--|
| <b>Exhibit 1</b> | <b>Sample Asset Registries for Areas 11, 20 &amp; 22</b>                               |
| <b>Exhibit 2</b> | <b>Sample Monthly Asset Management Council Presentations for Areas 10, 20 &amp; 22</b> |
| <b>Exhibit 3</b> | <b>2023 Asset Management Plan</b>  |

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