CLACKAMAS
WATER ENVIRONMENT SERVICES

GREGORY L. GEIST | DIRECTOR
Water Quality Protection
Surface Water Management
Wastewater Collection & Treatment

April 30, 2026 BCC Agenda Item: _____

Board of County Commissioners
Acting as the governing body of Water Environment Services
Clackamas County

Approval of a Personal Services Contract with Stantec Consulting Services for on-call engineering construction services. Contract Value is $1,000,000 for 4 years. Funding is through WES Sanitary Sewer Operating and Construction Funds. No County General Funds are involved.

Previous Board Action/Review: N/A
Performance Clackamas: 1. This project supports WES' strategic plan to upgrade WES' infrastructure to ensure the sustainable delivery of reliable, high-quality, and climate-resilient clean water services that support the growth and vitality of our communities, natural environment, and economy.
2. This project supports the County's Strategic Priorities of Strong Infrastructure, Vibrant Economy, and Safe, Secure and Livable Communities.
Counsel Review: Yes **Procurement Review:** Yes
Contact Person: Jeff Stallard **Contact Phone:** 503-742-4694

EXECUTIVE SUMMARY: WES encounters urgent projects and engineering needs that arise outside of the annual planning and capital improvement process. These can include emergency repair design, regulatory compliance support, specialty technical analysis, and smaller capital or operational projects.

Under the current procurement process, engaging engineering services for these smaller or urgent projects often requires repetitive contracting efforts, which can be time-consuming and delay project delivery. Establishing on-call contracts will allow WES to streamline procurement, improve efficiency, and ensure timely response.

WES conducted a competitive solicitation process to identify qualified engineering firms capable of providing services in 4 categories, Wastewater Conveyance and Treatment Engineering, Water Resources Engineering, Engineering Construction Services, and Wastewater Process Engineering and Operational Support. Work in these categories will include a wide range of services, including planning, design, permitting, and construction support. Multiple firms were selected to ensure adequate availability, specialized expertise, and competitive pricing.

The on-call contracts do not obligate funding at the time of award. Task orders issued under these contracts will be funded through approved sanitary sewer operating and construction budgets.

RECOMMENDATION: Staff recommends that the Board of County Commissioners of Clackamas County, acting as the governing body of Water Environment Services, approve Contract #1288 with Stantec Consulting Services Inc. for on-call engineering construction services.

Respectfully submitted,

Greg Geist
Director, WES
Attachment: Contract#1288 Stantec Consulting Services Inc.

For Filing Use Only

WATER ENVIRONMENT SERVICES
PERSONAL SERVICES CONTRACT
Contract # 0000001288

This Personal Services Contract (this "Contract") is entered into between Stantec Consulting Services Inc. ("Contractor"), and Water Environment Services, an intergovernmental entity formed pursuant to ORS Chapter 190 ("District").

ARTICLE I.

1. **Effective Date and Duration.** This Contract shall become effective upon signature of both parties. Unless earlier terminated or extended, this Contract shall expire on **June 30, 2030**.

2. **Scope of Work.** Contractor shall provide On-Call Engineering Services ("Work"), further described in **Exhibit A.** The Contractor is approved to provide services for the following classes of Work:

   ☐ 1) Wastewater Conveyance and Treatment Engineering
   ☐ 2) Water Resources Engineering
   ☒ 3) Engineering Construction Services
   ☐ 4) Wastewater Process Engineering and Operational Support

   This Contract is on an "on-call" or "as-needed basis" for Work.

   When the District wishes Contractor to perform the Work, the District will submit an official Clackamas District Task Order form (found at: https://www.clackamas.us/finance/terms.html) detailing the scope of Work, the entity on whose behalf the Work will be performed, and the total compensation, pursuant to the fee schedule set forth in this Contract. Contractor may not perform Work until the County Task Order form has been executed by the parties. In the event a project authorized under the County Task Order extends beyond the expiration of this Contract, the County Task Order shall remain in effect under the terms of this Contract until the completion or expiration of the authorized task.

   No task order shall modify or amend the terms and conditions of this Contract.

3. **Consideration.** The District agrees to pay Contractor, from available and authorized funds, a sum not to exceed **one million dollars ($1,000,000.00)** for accomplishing the Work required by this Contract. Because this is an on-call or as-needed contract, and the exact amount of Work needed, if any, is unknown, nothing herein shall be construed as a promise to pay Contractor the full $1,000,000.00 authorized herein. Consideration rates are on a time and materials basis in accordance with the rates and costs specified in Exhibit A. If any interim payments to Contractor are made, such payments shall be made only in accordance with the schedule and requirements in Exhibit A.

4. **Invoices and Payments.** Unless otherwise specified, Contractor shall submit monthly invoices for Work performed. Invoices shall describe all Work performed with particularity, by whom it was performed, and shall itemize and explain all expenses for which reimbursement is claimed. The invoices shall include the total amount billed to date by Contractor prior to the current invoice. If Contractor fails to present invoices in proper form within sixty (60) calendar days after the end of the month in which the services were rendered, Contractor waives any rights to present such invoice thereafter and to receive payment therefor. Payments shall be made in accordance with ORS 293.462 to Contractor following the District's review and approval of invoices submitted by Contractor. Contractor shall not submit invoices for, and the District will not be obligated to pay, any amount in excess of the maximum compensation amount set forth above. If this maximum compensation

amount is increased by amendment of this Contract, the amendment must be fully effective before Contractor performs Work subject to the amendment.

Invoices shall reference the above Contract Number and be submitted to: Wes-Payables@clackamas.us

5. **Travel and Other Expense.** Authorized: ☐ Yes ☒ No
If travel expense reimbursement is authorized in this Contract, such expense shall only be reimbursed at the rates in the Clackamas County Contractor Travel Reimbursement Policy, hereby incorporated by reference and found at: https://www.clackamas.us/finance/terms.html. Travel expense reimbursement is not in excess of the not to exceed consideration.

6. **Contract Documents.** This Contract consists of the following documents, which are listed in descending order of precedence and are attached and incorporated by reference, this Contract, Exhibit A, and Exhibit B. Unless explicitly agreed to by the parties in this Contract, any additional terms and conditions that may be contained in Exhibit A are void.

7. **Contractor and District Contacts.**

Contractor	District
Administrator: Heather Stephens Phone: 503-220-5437 Email: heather.stephens@stantec.com	Administrator: TDB Phone: Email:

Payment information will be reported to the Internal Revenue Service ("IRS") under the name and taxpayer ID number submitted. (See I.R.S. 1099 for additional instructions regarding taxpayer ID numbers.) Information not matching IRS records will subject Contractor payments to backup withholding.

ARTICLE II.

1. **Access to Records.** Contractor shall maintain books, records, documents, and other evidence, in accordance with generally accepted accounting procedures and practices, sufficient to reflect properly all costs of whatever nature claimed to have been incurred and anticipated to be incurred in the performance of this Contract. District and their duly authorized representatives shall have access to the books, documents, papers, and records of Contractor, which are directly pertinent to this Contract for the purpose of making audit, examination, excerpts, and transcripts. Contractor shall maintain such books and records for a minimum of six (6) years, or such longer period as may be required by applicable law, following final payment and termination of this Contract, or until the conclusion of any audit, controversy or litigation arising out of or related to this Contract, whichever date is later.

2. **Availability of Future Funds.** Any continuation or extension of this Contract after the end of the fiscal period in which it is written is contingent on a new appropriation for each succeeding fiscal period sufficient to continue to make payments under this Contract, as determined by the District in its sole administrative discretion.

3. **Captions.** The captions or headings in this Contract are for convenience only and in no way define, limit, or describe the scope or intent of any provisions of this Contract.

4. **Compliance with Applicable Law.** Contractor shall comply with all applicable federal, state and local laws, regulations, executive orders, and ordinances, as such may be amended from time to time.

5. **Counterparts.** This Contract may be executed in several counterparts (electronic or otherwise), each of which shall be an original, all of which shall constitute the same instrument.

6. **Governing Law.** This Contract, and all rights, obligations, and disputes arising out of it, shall be governed and construed in accordance with the laws of the State of Oregon and the ordinances of Clackamas County without regard to principles of conflicts of law. Any claim, action, or suit between District and Contractor that arises out of or relates to the performance of this Contract shall be brought and conducted solely and exclusively within the Circuit Court for Clackamas County, for the State of Oregon. Provided, however, that if any such claim, action, or suit may be brought in a federal forum, it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this section be construed as a waiver by the District of any form of defense or immunity, whether sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States or otherwise, from any claim or from the jurisdiction of any court. Contractor, by execution of this Contract, hereby consents to the personal jurisdiction of the courts referenced in this section.

7. **Indemnity, Responsibility for Damages.** Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay which may be caused by, or result from, any act, omission, or neglect of Contractor, its subcontractors, agents, or employees. The Contractor agrees to indemnify and defend the District and Clackamas County, and their officers, elected officials, agents and employees from and against all claims, actions, losses, liabilities, including reasonable attorney and accounting fees, and all expenses incidental to the investigation and defense thereof, arising out of or based upon Contractor's acts or omissions in performing under this Contract. Provided, however, that pursuant to ORS 30.140(4), Contractor's duty to defend obligations arising from or related to Contractor's professional negligence, or related to professional services provided by Contractor, are limited to reimbursement of reasonable defense costs (including reasonable attorney fees) of District and Clackamas County in an amount not to exceed the proportionate fault of Contractor, as determined by adjudication, alternative dispute resolution, or otherwise resolved by settlement agreement.

   However, neither Contractor nor any attorney engaged by Contractor shall defend the claim in the name of District or Clackamas County ("County"), purport to act as legal representative of District or County, or settle any claim on behalf of District or County, without the approval of the Clackamas County Counsel's Office. District or County may assume their own defense and settlement at their election and expense.

8. **Independent Contractor Status.** The service(s) to be rendered under this Contract are those of an independent contractor. Although the District reserves the right to determine (and modify) the delivery schedule for the Work to be performed and to evaluate the quality of the completed performance, District cannot and will not control the means or manner of Contractor's performance. Contractor is responsible for determining the appropriate means and manner of performing the Work. Contractor is not to be considered an agent or employee of District for any purpose, including, but not limited to: (A) The Contractor will be solely responsible for payment of any Federal or State taxes required as a result of this Contract; and (B) This Contract is not intended to entitle the Contractor to any benefits generally granted to District employees, including, but not limited to, vacation, holiday and sick leave, other leaves with pay, tenure, medical and dental coverage, life and disability insurance, overtime, Social Security, Workers' Compensation, unemployment compensation, or retirement benefits.

9. **Insurance.** Contractor shall secure at its own expense and keep in effect during the term of the performance under this Contract the insurance required and minimum coverage indicated below. The insurance requirements outlined below do not in any limit the amount of scope of liability of Contractor under this Contract. Contractor shall provide proof of said insurance and name the District

and Clackamas County as an additional insureds on all required liability policies. Proof of insurance and notice of any material change should be submitted to the following address: Clackamas County Procurement Division, 2051 Kaen Road, Oregon City, OR 97045 or the County Contract Analyst.

Required - Workers Compensation: Contractor shall comply with the statutory workers' compensation requirements in ORS 656.017, unless exempt under ORS 656.027 or 656.126.
☒ Required – Commercial General Liability: combined single limit, or the equivalent, of not less than $1,000,000 per claim, with an annual aggregate limit of $2,000,000 for Bodily Injury and Property Damage.
☒ Required – Professional Liability: combined single limit, or the equivalent, of not less than $1,000,000 per occurrence, with an annual aggregate limit of $2,000,000 for damages caused by error, omission or negligent acts.
☒ Required – Automobile Liability: combined single limit, or the equivalent, of not less than $1,000,000 per accident for Bodily Injury and Property Damage.

The policy(s) shall be primary insurance as respects to the District. Any insurance or self-insurance maintained by the District shall be excess and shall not contribute to it. Any obligation that District agree to a waiver of subrogation is hereby stricken.

10. **Limitation of Liabilities.** This Contract is expressly subject to the debt limitation of Oregon counties set forth in Article XI, Section 10, of the Oregon Constitution, and is contingent upon funds being appropriated therefore. Any provisions herein which would conflict with law are deemed inoperative to that extent. Except for liability arising under or related to Article II, Section 13 or Section 20 neither party shall be liable for (i) any indirect, incidental, consequential or special damages under this Contract or (ii) any damages of any sort arising solely from the termination of this Contact in accordance with its terms.

11. **Notices.** Except as otherwise provided in this Contract, any required notices between the parties shall be given in writing by personal delivery, email, or mailing the same, to the Contract Administrators identified in Article 1, Section 6. If notice is sent to District, a copy shall also be sent to: Clackamas County Procurement, 2051 Kaen Road, Oregon City, OR 97045. Any communication or notice so addressed and mailed shall be deemed to be given five (5) days after mailing, and immediately upon personal delivery, or within 2 hours after the email is sent during District's normal business hours (Monday – Thursday, 7:00 a.m. to 6:00 p.m.) (as recorded on the device from which the sender sent the email), unless the sender receives an automated message or other indication that the email has not been delivered.

12. **Ownership of Work Product.** All work product of Contractor that results from this Contract (the "Work Product") is the exclusive property of District. District and Contractor intend that such Work Product be deemed "work made for hire" of which District shall be deemed the author. If for any reason the Work Product is not deemed "work made for hire," Contractor hereby irrevocably assigns to District all of its right, title, and interest in and to any and all of the Work Product, whether arising from copyright, patent, trademark or trade secret, or any other state or federal intellectual property law or doctrine. Contractor shall execute such further documents and instruments as District may reasonably request in order to fully vest such rights in District. Contractor forever waives any and all rights relating to the Work Product, including without limitation, any and all rights arising under 17 USC § 106A or any other rights of identification of authorship or rights of approval, restriction or limitation on use or subsequent modifications. Notwithstanding the above, District shall have no rights in any pre-existing Contractor intellectual property provided to District by Contractor in the performance of this Contract except to copy, use and re-use any such Contractor intellectual property for District use only.

13. **Representations and Warranties.** Contractor represents and warrants to District that (A) Contractor has the power and authority to enter into and perform this Contract; (B) this Contract, when executed and delivered, shall be a valid and binding obligation of Contractor enforceable in accordance with its terms; (C) Contractor shall at all times during the term of this Contract, be qualified, professionally competent, and duly licensed to perform the Work; (D) Contractor is an independent contractor as defined in ORS 670.600; and (E) the Work under this Contract shall be performed in accordance with the standard of professional skill and care required for a project of similar size, location, scope, and complexity, during the time in which the Work is being performed. The warranties set forth in this section are in addition to, and not in lieu of, any other warranties provided. The Contractor shall be responsible for the technical accuracy of its services and documents resulting therefrom, and District shall not be responsible for discovering deficiencies therein. The Contractor shall correct such deficiencies without additional compensation except to the extent such action is directly attributable to deficiencies in information furnished by the District.

14. **Survival.** All rights and obligations shall cease upon termination or expiration of this Contract, except for the rights and obligations set forth in Article II, Sections 1, 6, 7, 10, 12, 13, 14, 15, 17, 20, 21, 25, 27, 28 and 32, and all other rights and obligations which by their context are intended to survive. However, such expiration shall not extinguish or prejudice the District's right to enforce this Contract with respect to: (a) any breach of a Contractor warranty; or (b) any default or defect in Contractor performance that has not been cured.

15. **Severability.** If any term or provision of this Contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the particular term or provision held to be invalid.

16. **Subcontracts and Assignments.** Contractor shall not enter into any subcontracts for any of the Work required by this Contract, or assign or transfer any of its interest in this Contract by operation of law or otherwise, without obtaining prior written approval from the District, which shall be granted or denied in the District's sole discretion. In addition to any provisions the District may require, Contractor shall include in any permitted subcontract under this Contract a requirement that the subcontractor be bound by this Article II, Sections 1, 7, 8, 13, 16, and 27 as if the subcontractor were the Contractor. District's consent to any subcontract shall not relieve Contractor of any of its duties or obligations under this Contract.

17. **Successors in Interest.** The provisions of this Contract shall be binding upon and shall inure to the benefit of the parties hereto, and their respective authorized successors and assigns.

18. **Tax Compliance Certification.** The Contractor shall comply with all federal, state and local laws, regulation, executive orders and ordinances applicable to this Contract. Contractor represents and warrants that it has complied, and will continue to comply throughout the duration of this Contract and any extensions, with all tax laws of this state or any political subdivision of this state, including but not limited to ORS 305.620 and ORS chapters 316, 317, and 318. Any violation of this section shall constitute a material breach of this Contract and shall entitle District to terminate this Contract, to pursue and recover any and all damages that arise from the breach and the termination of this Contract, and to pursue any or all of the remedies available under this Contract or applicable law.

19. **Termination.** This Contract may be terminated for the following reasons: (A) by mutual agreement of the parties or by the District (i) for convenience upon thirty (30) days written notice to Contractor, or (ii) at any time the District fails to receive funding, appropriations, or other expenditure authority as solely determined by the District; or (B) if Contractor breaches any Contract provision or is declared insolvent, District may terminate after thirty (30) days written notice with an opportunity to cure.

Upon receipt of written notice of termination from the District, Contractor shall immediately stop performance of the Work. Upon termination of this Contract, Contractor shall deliver to District all documents, Work Product, information, works-in-progress and other property that are or would be deliverables had the Contract Work been completed. Upon District's request, Contractor shall surrender to anyone District designates, all documents, research, objects or other tangible things needed to complete the Work.

20. **Remedies.** If terminated by the District due to a breach by the Contractor, then the District shall have any remedy available to it in law or equity. If this Contract is terminated for any other reason, Contractor's sole remedy is payment for the goods and services delivered and accepted by the District, less any setoff to which the District is entitled.

21. **No Third Party Beneficiaries.** District and Contractor are the only parties to this Contract and are the only parties entitled to enforce its terms. Nothing in this Contract gives, is intended to give, or shall be construed to give or provide any benefit or right, whether directly, indirectly or otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Contract.

22. **Time is of the Essence.** Contractor agrees that time is of the essence in the performance this Contract.

23. **Foreign Contractor.** If the Contractor is not domiciled in or registered to do business in the State of Oregon, Contractor shall promptly provide to the Oregon Department of Revenue and the Secretary of State, Corporate Division, all information required by those agencies relative to this Contract. The Contractor shall demonstrate its legal capacity to perform these services in the State of Oregon prior to entering into this Contract.

24. **Force Majeure.** Neither District nor Contractor shall be held responsible for delay or default caused by events outside the District or Contractor's reasonable control including, but not limited to, fire, terrorism, riot, acts of God, or war. However, Contractor shall make all reasonable efforts to remove or eliminate such a cause of delay or default and shall upon the cessation of the cause, diligently pursue performance of its obligations under this Contract.

25. **Waiver.** The failure of District to enforce any provision of this Contract shall not constitute a waiver by District of that or any other provision.

26. **Public Contracting Requirements.** Pursuant to the public contracting requirements contained in Oregon Revised Statutes ("ORS") Chapter 279B.220 through 279B.235, Contractor shall:
    a. Make payments promptly, as due, to all persons supplying to Contractor labor or materials for the prosecution of the work provided for in the Contract.
    b. Pay all contributions or amounts due the Industrial Accident Fund from such Contractor or subcontractor incurred in the performance of the Contract.
    c. Not permit any lien or claim to be filed or prosecuted against District on account of any labor or material furnished.
    d. Pay the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.
    e. As applicable, the Contractor shall pay employees for work in accordance with ORS 279B.235, which is incorporated herein by this reference. The Contractor shall comply with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract, and failure to comply is a breach entitling District to terminate this Contract for cause.
    f. If the Work involves lawn and landscape maintenance, Contractor shall salvage, recycle, compost, or mulch yard waste material at an approved site, if feasible and cost effective.

27. **No Attorney Fees**. In the event any arbitration, action or proceeding, including any bankruptcy proceeding, is instituted to enforce any term of this Contract, each party shall be responsible for its own attorneys' fees and expenses.

28. **Reserved.**

29. **Reserved.**

30. **Key Persons.** Contractor acknowledges and agrees that a significant reason the District is entering into this Contract is because of the special qualifications of certain Key Persons set forth in the contract. Under this Contract, the District is engaging the expertise, experience, judgment, and personal attention of such Key Persons. Neither Contractor nor any of the Key Persons shall delegate performance of the management powers and responsibilities each such Key Person is required to provide under this Contract to any other employee or agent of the Contractor unless the District provides prior written consent to such delegation. Contractor shall not reassign or transfer a Key Person to other duties or positions such that the Key Person is no longer available to provide the District with such Key Person's services unless the District provides prior written consent to such reassignment or transfer.

31. **Reserved.**

32. **Merger.** THIS CONTRACT CONSTITUTES THE ENTIRE AGREEMENT BETWEEN THE PARTIES WITH RESPECT TO THE SUBJECT MATTER REFERENCED THEREIN. THERE ARE NO UNDERSTANDINGS, AGREEMENTS, OR REPRESENTATIONS, ORAL OR WRITTEN, NOT SPECIFIED HEREIN REGARDING THIS CONTRACT. NO AMENDMENT, CONSENT, OR WAIVER OF TERMS OF THIS CONTRACT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY ALL PARTIES. ANY SUCH AMENDMENT, CONSENT, OR WAIVER SHALL BE EFFECTIVE ONLY IN THE SPECIFIC INSTANCE AND FOR THE SPECIFIC PURPOSE GIVEN. CONTRACTOR, BY THE SIGNATURE HERETO OF ITS AUTHORIZED REPRESENTATIVE, IS AN INDEPENDENT CONTRACTOR, ACKNOWLEDGES HAVING READ AND UNDERSTOOD THIS CONTRACT, AND CONTRACTOR AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.

By their signatures below, the parties to this Contract agree to the terms, conditions, and content expressed herein.

Stantec Consulting Services Inc.

Stephens, Heather Digitally signed by Stephens, Heather DN: CN="Stephens, Heather", OU=Internal, OU=users, OU=stantec, DC=corp, DC=ads Date: 2025.09.24 15:33:08-07'00'

Authorized Signature Date

Name / Title (Printed)

644410-91

Oregon Business Registry #

FBC/New York

Entity Type / State of Formation

Water Environment Services

Signature Date

Name: _____

Title: _____

Approved as to Form:

9/24/2025

County Counsel Date

EXHIBIT A
RFP 2025-01
Water Environment Services Engineering Master Contract
On-Call Engineering Services
Published January 27, 2025

EXHIBIT B
CONTRACTOR'S PROPOSAL

Stantec

Water Environment Services (WES) On-Call Engineering Services

Stantec Consulting Services Inc.

RFP #2025-01: Water Environment Services Engineering Master Contract
On-Call Engineering Services

Introduction

February 20, 2025

Clackamas County
Water Environment Services
150 Beavercreek Road, #430
Oregon City, OR 97045

RE: Request for Proposals (RFP) – On-Call Engineering Services
Request for Proposals # 2025-01

Dear Members of the Selection Committee:

Water Environment Services (WES) and Stantec Consulting Services, Inc. (Stantec, a registered corporation) have successfully worked together over the past several years on a variety of projects that support your delivery of reliable service to your customers. Helping you successfully serve your customers like this fulfills Stantec's core principle to design with community in mind.

The Stantec team is excited to continue this collaborative partnership with you in the areas of Wastewater Conveyance and Treatment Engineering, Engineering Construction Services, and Wastewater Process Engineering and Operational Support.

We live and work in the Oregon City area, and we have a shared interest with you and the surrounding community. This shared interest underpins our commitment to supporting you in your mission, and our combined team offers these benefits:

- **Full service capabilities and proven client commitment.** As a large, global firm with a strong local presence, we bring diversity of expertise to support any wastewater system issue or construction challenge that may arise. Our nationally recognized technical experts cover an array of disciplines, from wastewater treatment, pumping and conveyance, construction management; to process optimization and operational support.
- **Responsive and Dependable Local Leadership.** Our Contract Managers, Heather Stephens and Brian Gomolski, and Design Manager, Adam Odell, all have a long and cherished working history with you. Our clients will attest to our ability to respond when needed, meeting challenging deadlines while working within your budget with efficient use of staff, every time.

We realize that this important RFP will attract other firms and teams, but we believe that Stantec has something unique to offer: our history of serving you, our proven ability to deliver projects of any size and complexity for you and other municipal governments, and our commitment to leaving a positive legacy for all stakeholders. We

hope this is conveyed in our proposal, and we ask that you select Stantec's team as your partner.

As the Vice President at Stantec's Portland office, Dick Talley is the point of contact for this contract and is legally authorized to bind Stantec to all comments made in this proposal, represent Stantec in any negotiations, and sign the Master Contract that may result from this proposal. We accept all conditions contained in the RFP. Should you have questions or need further information, please contact Dick at (503) 957-9148. This Statement of Qualifications (SOQ) is valid for a period of 90 days.

The following categories are covered by this SOQ:

1. Category 1 – **Wastewater Conveyance and Treatment Engineering**
2. Category 3 – **Engineering Construction Services**
3. Category 4 – **Wastewater Process Engineering and Operational Support**

Respectfully,

Dick Talley

Dick Talley, PE, PMP
Vice President and Regional Growth Leader
Stantec Consulting Services, Inc.
601 SW 2nd Avenue Suite 1400
Portland, OR 97204
T: (503) 226-7377
F: (503) 226-0023

1.

Wastewater Conveyance and Treatment Engineering

A.

Firm Resources

Firm Resources

Stantec is a multi-disciplinary engineering firm founded in 1954 that consistently tops Engineering News Record's (ENR's) list of water and wastewater engineering firms. For over 70 years, we have had strong roots in the Pacific Northwest and a footprint that now spans the globe. We have more than 31,000 employees working in over 450 locations across six continents. Here in the Pacific Northwest, we have six permanent offices staffed with more than 250 engineers, designers, program managers, project managers, construction managers, inspectors, financial and project controls personnel that are readily available and will be supporting your projects. Our local resources available to support the performance of your projects are highlighted on the following pages of this SOQ.

We're Successful in the Neighborhood and Around the World

#1

Top 25 International Design Firms – Environment – Wastewater Treatment; Engineering News Record, December 2022

$195B

in completed projects under various capital programs

2,500+

wastewater treatment plant projects delivered

Since our Portland office opened in 1991, we have been a close partner with agencies like WES on many local and regional public wastewater conveyance and treatment engineering projects for numerous wastewater utility clients throughout Oregon and Washington. We are known for delivering high-value public works projects that respect the financial constraints that guide public works expenditures – projects that properly and efficiently perform the intended purpose while delivering long-life service and the optimal life-cycle cost/benefit.

Our clients depend on us to design their projects because of our proven track record, accountability, strong sense of client loyalty, consistent professionalism, and our commitment to excellent service and schedule compliance. We continue to serve under several public utility on-call contracts throughout Oregon and Washington. Under these contracts, we have successfully completed numerous task orders for Portland Water Bureau, Bureau of Environmental Services, the Cities of Beaverton, Grants Pass, and Vancouver and utility agencies including Tualatin Valley Water District (TVWD), McMinnville Water & Light (MW&L), and Clark Public Utilities (CPU).

The success that our team will deliver on your projects is built on a solid foundation consisting of:

- Dedicated, local team with strong technical expertise and project management skills
- Clear organizational structure with a single point of contact for all service areas
- National experts with Oregon experience who will advise and provide quality reviews.

B.

Local Experience

Local Experience

Our locally-based team has successfully delivered hundreds of wastewater conveyance and treatment engineering designs throughout the region, from the City of Anacortes in northern Washington to the City of Ashland in southern Oregon – and many public utilities in between. The following pages provide descriptions of similar projects completed within the last five years. We invite you to contact the references to learn more about our ability to successfully deliver your projects.

> "Stantec has exceeded our expectations and in particular, on our water system, they quickly developed affordable solutions, developed and secured sufficient funding and have our necessary capital improvements underway into design and procurement within a year of starting. As the Public Works Director for Sandy, I greatly appreciate and respect Stantec's experience, expertise, and ability to plan and execute projects to completion."
>
> Jenny Coker, Public Works Director, City of Sandy

Kellogg Creek WRRF - Influent Pump Station Rehabilitation | Clackamas WES | 2020 - 2023

Key Staff: Heather Stephens (Project Manager), Adam Odell (Design Manager), Matt Perkins (Structural Lead)

The influent pumps at the Kellogg Creek Water Resource Recovery Facility (WRRF) had reached the end of their useful life and required extensive maintenance. Clackamas Water Environment Services (WES) selected Stantec to provide design and construction services associated with replacing pumps, discharge piping, and related power control infrastructure. The project met overall schedule and has been in operation for over a year with no issues reported to date. Stantec utilized excess design budget to assist with a faulty HVAC system and site grading problems. The project was broken into Phase 1 and Phase 2. Phase 1 rectified pumps installed by others which had excessive ragging and vibration issues. Phase 2 installed additional pumps.

Phase 1: Stantec reviewed the original pump performance data and replacement pump submittals, provided technical support to WES during installation of the replacement pumps (also Flygt N-impeller), developed draft specifications, and provided draft documents for new variable frequency drives.

Phase 2: Stantec provided detailed bid-ready construction documents for replacing the rest of the pumps and companion VFDs, performed CFD modeling to improve suction characteristics as well as structural rotodynamic analysis to ensure pumps do not achieve a critical frequency causing excessive vibration, and designed mitigation devices such as straightening vanes to improve suction hydraulics.

Reference: Steven Rice | Capital Improvements Manager | (971) 284-3710 | SRrice@clackamas.us

Sandy Utilities Program | Owner's Representative | Sandy, OR | 2021 – Ongoing

Key Staff: Dick Talley (Contract Manager), Heather Stephens (Project Manager), Adam Odell & Aaron Eder (Design Managers), Will Seymour (Electrical).

Stantec's local engineers have been providing services directly to the City of Sandy. We have supported several small design packages with the purpose of rapidly upgrading the wastewater system to meet DEQ compliance. Projects have included upgrading standby generator capabilities and site civil improvements at the Sleepy Hollow PS. Full rehab and doubling of capacity at the Northside PS. WWTP projects have included WAS metering and pumping replacement, scum pit pump replacement, and expansion of the large equalization pond. Several other projects are upcoming which include a blower (process air) evaluation, and a new raw sewage influent pump station. Our team has used a unique approach to bidding these small, one-of-a-kind projects. By working with the City and issuing an RFP, we've solicited a roster of on-call contractors and use a Progressive-Design-Build methodology for executing each project.

Reference: AJ Thorne | Assistant Public Works Director | (503) 489-2162 | ajthorne@ci.sandy.or.us

Marine Park WWTP - Influent Pump Station Rehabilitation | City of Vancouver | Vancouver, WA | 2023 – Ongoing

Key Staff**:** Dick Talley (Contract Manager), Adam Odell (Project Manager/Mechanical Lead), Matt Perkins (Structural), George Tey (Mechanical QC)

The City of Vancouver wished to replace two 13 MGD raw wastewater influent pumps prior to the headworks at the Marine Park WWTP. Stantec reviewed past flowrates and made recommendations for new pump capacities to meet future flows. We prepared pre-purchase documents and advertised, but the bid day price was in excess of the City's

budget. Stantec worked with the City's preferred pump manufacturer (Flygt) and was able to utilize the City Operator budget to purchase the pumps and negotiate a more favorable price. Stantec worked with the City's preferred integrator during design to ensure all the Owners O&M requests were met, including incorporating conduit and cable routing from the previous project to ensure easier pump removal. This project is currently under construction.

Reference: Frank Dick | City Supervising Engineer | (503) 539-8940 | Frank.Dick@cityofvancouver.us

Southside Interceptor Rehab, and Phase 4 and Phase 5 Rehab | City of Vancouver | 2019 – 2021 & 2023 – Ongoing

Key Staff: Dick Talley (Contract Manager), Adam Odell (Design Manager), Andrew Johnson (Civil Lead), Aaron Eder (CIPP QC)

These two, independent projects, rehabilitated the City's main sewer trunk line which terminates at the West Side WWTP. The Southside Interceptor was the first project rehabbing the city's largest pipe (42") and was identified to have a high likelihood of failure due to corrosion and high consequence of failure. It began at the WWTP, crossed under a major railroad switchyard, and extended several miles near downtown. After an extensive evaluation of the pipeline, including specialty inspection and review of several trenchless technologies, the City selected UV cured pipe. The project included CCTV camera review, MH rehabilitation and design of a complicated bypass pumping plan.

Following the Southside project, Stantec was selected again to rehab the second largest trunk sewer in the city which runs through National Federal Historic property (Fort Vancouver) and crosses under Interstate 5. Stantec evaluated how to cross I-5 with a bypass pumping strategy, coordinated with our in-house archeologist for construction on Historic property, coordinated with Washing DOT for permitting, and designed the CIPP system. Stantec provided an extensive evaluation of the pipeline, including specialty inspection using Propipe, and CCTV camera review.

Reference: Sheryl Hale | City Supervising Engineer | (360) 487-7151 | Sheryl.Hale@cityofvancouver.us

C.

Project Team

Project Team

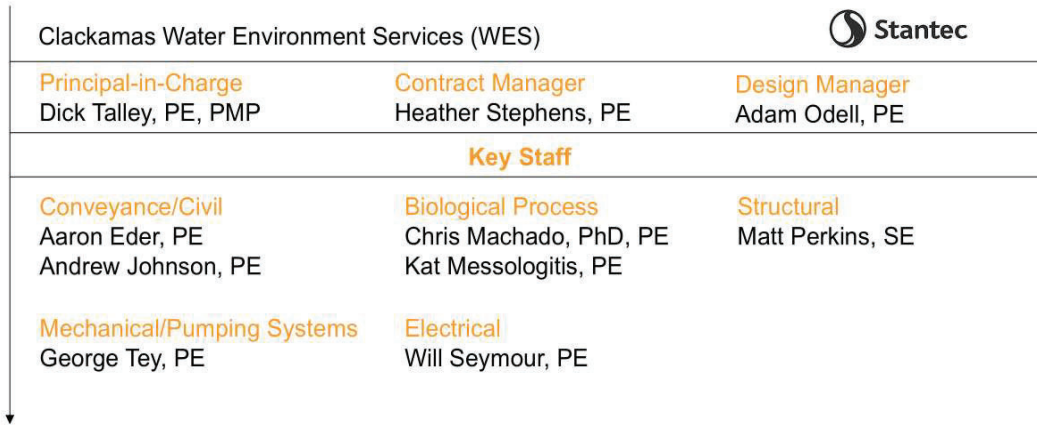
The ideal partner for WES will have the technical skills and experience to help you answer key questions and develop solutions for project challenges, the tools required to help you make confident decisions, and the local resources to move your projects forward. On-Call project assignments require a team that can respond quickly to scoping requests, efficiently mobilize the right team to address your needs, and coordinate with your staff and project stakeholders to deliver the projects you need. We offer the following benefits:

Strong Project Leadership **Depth of Technical Capabilities** **Trusted Local Partnership**

For this On-Call Contract, Dick Talley, Vice President, will serve as Principal-in-Charge. At Dick's side is Heather Stephens, who will serve as Contract Manager. Their roles are separate but complementary. Dick's focus includes providing leadership, authorization, and client service support, while Heather's focus is solely on your projects as an advocate for you. She will oversee staffing availability, overall schedule and budget management, project delivery, and quality control practices. Supporting Heather will be Design Manager Adam Odell. These three key leaders were specifically chosen for their direct and successful involvement in the design and construction of wastewater conveyance and treatment engineering for public utilities. The team most recently worked together on your Kellogg Creek WRRF Influent Pump Station Rehabilitation. As such, your partnership with Stantec engineers provides a cohesive team that has a long history of working together on projects comparable to yours.

The organizational chart shows the responsibilities of our team members and identifies the resources we intend to commit to providing the required services under this contract. This is followed by brief descriptions of their tenure in the field and relevant experience.

Heather will be supported by task leads for each discipline. These discipline leads are responsible for execution of assigned work tasks and will direct and guide the technical development of deliverables. They are all experienced in delivering On-Call wastewater services to municipal clients, and many have a long and cherished history of working with you.



Dick Talley, PE, PMP
Principal-in-Charge
Yrs. Experience: 34
Portland, OR

Throughout his career, Dick has gained experience with program management and controls, schedule, budget, scope and risk management, design development, bidding, procurement, construction oversight and management, alternate project delivery processes, engineering, and management for municipal and heavy civil projects ranging in total project value from $500,000 to over $1 billion for cities, districts and private industry. Dick brings a unique style of collaboration and client service that he has learned over the past three-plus decades and prides himself on his ability to consistently deliver projects that meet all objectives for quality, schedule and budget both for his client and his company. The single most important measurement of his accomplishments is reflected in that over 75% of Dick's projects have been for past clients who have asked that he join them on their project. This repeat endorsement attests to his performance.

Dick served as Project Manager on the Tri-City WPCP Lime Silo Replacement, Willamette Pump Station Rehabilitation, and Tri-City WPCP Blower Replacement Projects. As Principal-in-Charge, Dick will provide leadership and authorization for Stantec's commitment and will serve as a resource for WES's project manager.

Heather Stephens, PE
Contract Manager
Yrs. Experience: 29
Portland, OR

Heather is the Regional Wastewater Practice Leader at Stantec in Portland, Oregon, with 29 years of experience in the planning, design, and management of wastewater, conveyance, and treatment systems. With a focus on municipal clients Heather has completed dozens of projects involving the planning and design of wastewater facilities, wastewater treatment process engineering, wastewater system master planning, and asset management. She understands the challenges facing wastewater utilities in the Pacific Northwest, has spent her entire career in Oregon, and helps communities develop holistic strategies to build resources and build reliable facilities that benefit local communities. WES can count on Heather to be engaged for the full duration of the project.

Heather served as Project Manager for the successful Kellogg Creek WRRF Influent Pump Station Rehabilitation Project. As Contract Manager, Heather will coordinate with WES to document project objectives and scope; coordinate staffing and execution of On-Call tasks; manage specific On-Call tasks as appropriate, manage overall schedule and budget, project delivery, and quality control practices.

Adam Odell, PE
Design Manager
Yrs. Experience: 18
Portland, OR

Adam has 18 years of experience in civil, mechanical, hydraulics, and process engineering. Adam has led design teams and managed On-Call task orders for pump station projects throughout the Portland Metropolitan area. His recent work includes leading the Marine Park Influent Pump Station Upgrades for the City of Vancouver, Kellogg Creek WRRF Influent Pump Station Rehabilitation for WES, and a low-pressure membrane tertiary filtration project for the City of Meridian, ID. Adam brings several important attributes to this project: history and experience working with WES, an understanding of wastewater process design, and civil and field engineering experience in the local area. His duties as Design Manager are to lead task orders, coordinate and manage the design team, and identify company resources to execute tasks in Wastewater Conveyance and Treatment Engineering.

Aaron Eder, PE
Senior Conveyance Engineer
Yrs. Experience: 30
Portland, OR

Aaron is a Senior Principal and Regional Conveyance Practice Leader with 30 years of experience and is a licensed civil engineer in Oregon and Washington. He works almost exclusively on municipal wastewater, water, and storm drainage pipeline projects, including pipe and manhole rehabilitation, large-diameter conveyance and smaller diameter distribution and collection system mains, installed via traditional open-cut as well as trenchless methods including jack-and-bore, horizontal drilling (HDD), pipe ramming and microtunnelling. Throughout his career, Aaron has designed over 40 miles of wastewater and water pipelines for various municipalities in Oregon and Washington, such as TriMet, the Cities of Portland (BES and PWB), Beaverton, Hillsboro, Tigard, Lake Oswego, The Dalles, Woodburn, and Vancouver, Clean Water Services, Tualatin Valley Water District, McMinnville Water & Light, Clark Public Utilities, and Clark Regional Wastewater District.

Chris Machado, Ph.D., PE
Technical Advisor
Yrs. Experience: 28
Denver, CO

Chris is one of Stantec's wastewater practice leaders and has nearly 30 years of experience that include process design, facility assessment and planning, process optimization, design management, and engineering services during construction. Chris is an expert in biological nutrient removal and has participated in numerous wastewater treatment projects involving both nitrogen and phosphorus removal. Chris has planned and assessed over 20 facilities in the West of the United States, including the recent Apache Junction Sewer District's Water Reclamation Facility Phasing Plan (Apache Junction, AZ) and the 2018 Facility Plan for the Metro Water Recovery (Denver, CO). He has authored and co-authored several book chapters, including the Water Environment Federation Manual of Practices No. 8 (Chapter 15 Sidestream Treatment), No. 28 (Chapter 4 Facility Plan), and Nutrient Roadmap (Chapter 5 Alternatives Evaluation).

George Tey, PE | Senior Mechanical Engineer | Yrs. Experience: 34 | Pasadena, CA

George is a senior pump station specialist who has experience leading the mechanical design, providing technical direction, and assuring quality control. He has participated in all Portland Metropolitan area pump station projects for clients including Clean Water Services, City of Vancouver, and Clackamas Water Environment Services.

Katerina Messologitis, PE | Process Engineer | Yrs. Experience: 8 | Portland, OR

Katerina's experience ranges from facility planning to full-scale plant design and operation. Katerina is well versed in wastewater process modeling, piloting, and water quality and treatment optimization studies through her involvement in projects across the Western U.S. Her experience has provided her with skills to close the loop between planning, testing, design, and operations.

Matt Perkins, SE, PE | Structural Engineer | Yrs Experience: 16 | Portland, OR

Matt is a structural engineer and project technical leader whose responsibilities include leading engineering teams, coordinating with contractors, and leading communications with clients. Matt's structural engineering experience includes the evaluation of existing structures, detailed structural analysis and design, engineering services during construction, management of engineering teams, and value engineering reviews. His project experience ranges from seismic evaluation of small pump stations to complete designs of treatment facilities.

Will Seymour, PE | Associate Electrical Engineer | Yrs Experience: 14 | Portland, OR

Will is a subject matter expert on the design of power distribution, medium voltage and life safety systems. Will can leverage his experience representing owners, contractors, and consultants to provide key insights to develop constructible and cost-effective installations. Currently, he is supporting the City of Sandy wastewater program providing utility coordination, schematic designs and permit ready construction documents.

Andrew Johnson, PE | Civil Engineer | Yrs Experience: 6 | Portland, OR

Andrew is a civil engineer working on condition assessments and pipe rehabilitation and replacement projects. He is NASSCO-certified for PACP, LACP and MACP. Andrew brings experience as a project engineer for trenchless rehabilitation for gravity sewers and pipeline design for pressure pipes.

D.

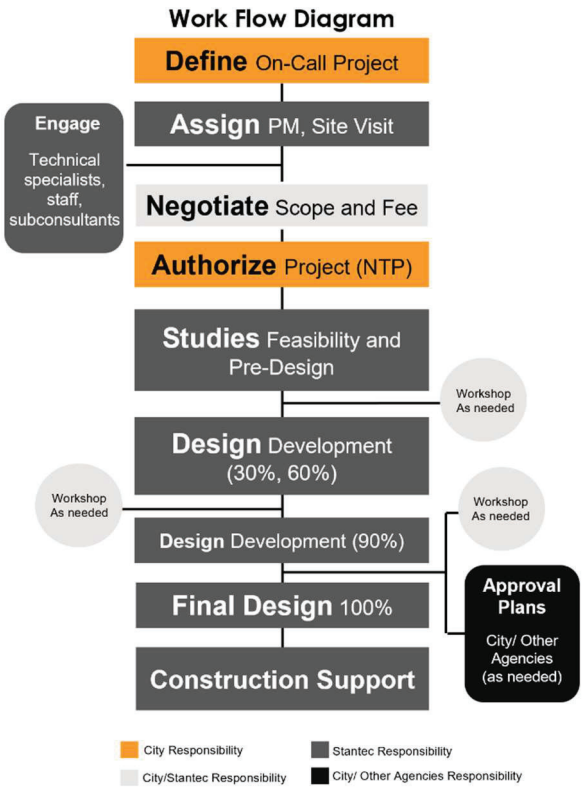
Our Approach

Our Approach

Approach for addressing specific projects will differ somewhat based on the size, complexity, schedule, and budget for each project. For every project, our approach is centered on:

- Developing a **clear understanding** of the City's needs, project constraints, and existing information available to define the project and support project execution
- Assigning the **right task manager and project team** to each project so the City has strong local support and experienced subject matter exports to address project needs
- Using **proven project delivery processes** from initial scoping to project close-out

Typical Project Workflow



Every project is unique, but each project – large or small – will follow a similar process to verify that Stantec understands your goals and objectives and achieves the outcomes you expect. In order to illustrate our approach, the Work Flow Diagram for a typical project is presented on the left.

When WES initiates a project, your Project Manager will contact Heather, who will engage Adam and the appropriate team members. Heather will contact your Project Manager within 24 hours and will set up a time to discuss the project needs, schedule a visit to the project site, and identify required team resources. Heather and Adam will engage Stantec resources to provide the required technical capabilities, and will begin to develop the project scope, schedule, and budget. With authorization from WES, we will also reach out to key stakeholders or project partners to help define project scope requirements or constraints. This information will be shared with your Project Manager in draft format and will be revised through collaborative discussion until your needs are met. Once you issue the Notice to Proceed, the Stantec team will prepare a Project Plan and schedule a kickoff meeting with WES staff.

The Kickoff meeting will be used to review the Project Plan, agree on the project delivery schedule and WES staff involvement, and discuss any data or information requests. Work will then proceed through the phases included in the scope of work, which could include preliminary studies, alternatives analyses, pre-design evaluation, and final design document preparation.

The Stantec team will coordinate with WES staff throughout project execution, with regular contact between the task order manager and your Project Manager to review work progress, budget and schedule status, and relevant project issues. At every project milestone, documents will be provided to you for review, and a workshop conducted to discuss your comments and agree upon next steps. Subsequent milestone deliverables will include a Comment Log documenting the comments received previously and the actions reflected in the current deliverable. At the end of the project, the Stantec team will remain available to assist you with project implementation. This may include providing information needed to support subsequent budgeting and capital planning, providing engineering support during the bid and construction phases of work, or providing full construction management and inspection.

Project Management Approach

Stantec's approach to managing and completing projects under the On-Call contract will be based on our team's successful history managing wastewater engineering task orders. We understand that effective planning processes create an environment of collaboration and coordination while clearly defining expectations. Your staff are busy, and On-Call projects often have critical schedule drivers. Therefore clear, consistent, and effective project management processes are of paramount importance.

Stantec utilizes a standardized project management (PM) framework of best management practices for all projects, large and small. This system is consistent with Project Management Institute methods and compliant with the International Organization for Standardization (ISO). A summary of the Stantec PM Framework is shown in the graphic to the right. All Stantec project managers receive training and must pass written tests on all 10 steps of the PM Framework.

Key Elements of the PM Framework are described more in the graphic to the right.

STANTEC'S PM FRAMEWORK

0 Prepare proposal, including a preliminary Project Plan with scope, budget, resources, deliverables, and schedule. Conduct document an independent review of the final proposal.

1 Obtain written instructions to proceed and execute an approved written contract. Obtain written subconsultant agreements.

2 Prepare Project Management Plan with appropriate level of detail. Conduct/document independent review.

3 Establish hard copy and/or electronic project record directories. File project records.

4 Complete a Health, Safety & Environment (HSE) risk management assessment, document all projects involving field work.

5 Monitor the project management dashboard regularly. Follow best practices for managing project financials, including time, work in progress, accounts receivable, and estimates to complete.

6 Obtain client's written approval on scope of service changes in a timely manner.

7 Conduct and document a quality review of all final deliverables prior to issue.

8 Conduct and document an independent review of all final deliverables prior to issue.

9 Close off the project financials and close out the project files.

Appendix

Richard Talley PE, PMP

Contract Manager

48 years of experience · Portland, Oregon

Over his 48-year career, Dick has experience with design development, bidding, procurement, construction oversight and management, alternate project delivery processes, engineering, and management for raw water supply, diversion and delivery projects, raw, finished and wastewater pump stations, water and waste water treatment plants, storage, and collection/distribution system projects ranging in total project value from $500,000 to $150 million for cities and water districts.
Dick's directly applicable experience includes the design and delivery of many water system improvements and in particular providing annual distribution replacement projects for cities and water districts over his career. This experience has resulted in Mr. Talley being responsible for the replacement of over 750,000 feet of 6 to 16 inch PVC C-900 and ductile iron distribution systems, services connections, meters, multitude of pressure reducing stations, and 2 to 10 MGD pumping stations over the past 30 years.

EDUCATION

BS/BSc, Civil Engineering, University of Wyoming, Wyoming

REGISTRATIONS

Professional Engineer #PE 6110, State of Wyoming, Valid Until: 2025

Professional Engineer #50870, State of Washington, Valid Until: 2025

Professional Engineer #88473PE, State of Oregon, Valid Until: 2025

PROJECT EXPERIENCE

Bull Run Filtration Facility | Portland Water Bureau | Portland, Oregon | Principal in Charge

Dick serves as the Principal in Charge for the design of a new greenfield conventional water treatment facility to filter 125 MGD of raw water supply from the Bull Run Watershed.

Corrosion Control Facility | Portland Water Bureau | Portland, Oregon | Principal in Charge

Dick served as the Principal in Charge for the design of a new corrosion facility to improve alkalinity, pH, and chemical addition for corrosion control of the Bull Run Watershed supply.

Willamette River WTP Expansion | City of Wilsonville | Wilsonville, Oregon | Principal in Charge

Dick served as the Principal in Charge for the design of a replacement ozone system, seismic improvements, and a new power supply for the existing Willamette River Treatment Plant.

Willamette Water Supply Program (WWSP) | Tualatin Valley Water District (TVWD), City of Hillsboro (Hillsboro), and City of Beaverton (Beaverton) | Hillsboro and Beaverton, Oregon, United States | Principal-in-Charge

Stantec is serving as Program Manager of the Willamette Water Supply Program, which will provide a new supply of potable water to serve over 300,000 residents for the next 100 years. The program includes 18 miles of 66-in steel pipe, 8 miles of 48- to 60-in steel pipe, 6 miles of 36- to 54-in steel pipe, a new water treatment plant, and 30-MG of terminal storage. Dick has been invested in the Program for the past five years, developing master plans, evaluating pipeline routing options, and investigating various intake locations and configurations in the Willamette River as the Program has evolved. As the Program was defined, Dick represented Stantec and our capabilities, securing the Client's confidence in our ability to provide adequate staffing, resources, and the technical experience necessary to deliver over the nominally decade long project. Today, Dick maintains an active role, supporting the Program as a client advocate and providing technical input and quality control reviews, evaluating staffing needs, and supporting client engagement.

Heather Stephens PE

Senior Principal, Wastewater Leader

29 years of experience · Portland, Oregon

Heather Stephens, PE, is a Senior Wastewater Leader in Stantec's Portland, Oregon office. She has 23 years of experience in the planning and design of wastewater conveyance and treatment systems serving public utilities throughout the western United States. With a focus on municipal clients Heather has completed dozens of projects involving the design of wastewater facilities, wastewater treatment process engineering, wastewater system master planning, pipeline design, and asset management. She has a strong background in nutrient removal and resource recover in wastewater treatment systems, and brings a big picture vision to successfully handle complex projects for her clients. In addition to her technical skills, Heather is highly regarded for her ability to work with project teams, communicate challenging issues effectively, and successfully integrate efforts on large, complex projects.

EDUCATION

MS, Civil Engineering, University of Washington, Seattle, Washington

BS, Civil Engineering, Harvey Mudd College, Claremont, California

REGISTRATIONS

Professional Engineer #44916, State of Washington

Registered Civil Engineer #58599, Professional Engineers of Oregon

PROJECT EXPERIENCE

Phase 2 Expansion and Organic Waste Sustainability Plan | City and County of Honolulu | Honolulu, Hawaii | Project Technical Lead

Heather is co-Technical Lead of a joint venture team between Stantec and RM Towill to provide planning, design, and construction services for the Phase 2 Expansion of the Sand Island Wastewater Treatment Plant (WWTP). The facility currently provides advanced primary treatment and is constructing Phase 1 of an expansion to upgrade the facility to meet full secondary treatment standards. Phase 1 expansion will provide 20 MGD of secondary treatment capacity, and Phase 2 will provide secondary treatment for the remaining 90 MGD of capacity. The project also includes preparing an Organic Waste Sustainability Plan identifying potential sources of organic material for co-digestion, assessing markets for residual products (biosolids and biogas), and evaluating alternatives for organics management, co-digestion, and energy recovery at the Sand Island WWTP. As Technical Lead, Heather provides oversight and direction for technical teams, coordinates information sharing to allow multiple efforts to proceed in parallel and leads workshops to present information and facilitate decision-making.

Secondary Treatment Expansion Program Management Support (STEP) | Bureau of Environmental Services (BES) | Portland, Oregon | Task Leader

Heather is leading engineering services for the Columbia Boulevard Wastewater Treatment Plant (CBWPT) to provide assistance associated with the Secondary Treatment Expansion Program (STEP). The $400 million capital is invested in the secondary and solids handling process units, with related upgrades to the electrical system and support facilities. The scope of services includes developing engineering discipline and CAD/BIM design guidelines, documenting design review practices and responsibilities for efficient staff input, providing subject matter experts to review design deliverables, and preparing uniform Division 0 and 1 specifications for use under alternative project delivery methods.

Kellogg Creek WRRF - Influent Pump Station Rehabilitation | Clackamas Water Environment Services | Milwaukie, Oregon | Project Manager

The influent pumps at the Kellogg Creek Water Resource Recovery Facility (WRRF) had reached the end of their useful life and required extensive maintenance. This project included design and construction services associated with replacing the pumps, discharge piping, and related power and control infrastructure. Heather managed the design team's efforts to prepare construction documents for Owner review, Agency approval, and bidding. When the need for additional services arose, Heather coordinated with the Owner to define scope requirements and execute CFD modeling to improve suction characteristics as well as structural rotodynamic analysis to ensure the pumps do not achieve a critical frequency causing excessive vibration.

Adam Odell PE

Civil Engineer

18 years of experience · Portland, Oregon

Adam has 15 years experience working on water, wastewater, pump station, and civil engineering projects in Oregon. He focuses on civil engineering, mechanical engineering, hydraulics, hydraulic modeling, and process engineering. His recent work includes lead mechanical engineer for Lewiston Idaho's new 15 MGD membrane filtration system, design manager for the City of Beaverton's and the City of Portland's corrosion control facility upgrades, and lead civil engineer for the 32 MGD Lake Oswego-Tigard Water Treatment Plant. Adam brings two important attributes to this project: an understanding of water process design, and extensive mechanical and field engineering experience in Oregon.

EDUCATION

BS Environmental Engineering, Oregon State University, Corvallis, Oregon

BS Mathematics, Linfield College, McMinnville, Oregon

REGISTRATIONS

Professional Engineer #77866PE, Oregon State Board of Examiners for Engineering & Land Surveying

PROJECT EXPERIENCE

Tri-City WRRF – Phase II Solids Handling Improvement Project | Tri-City WRRF | Oregon CIty, Oregon | Lead Engineer

This project includes the expansion and refurbishment for all solids handling facilities at the WRRF. Facilities considered include new anaerobic stabilization, dewatering facilities including cake storage and load-out, electrical upgrades, sludge blend tanks, liquid sludge storage, biogas utilization and septage receiving.

Willamette Pump Station | Tri-City Service District | West Linn, Oregon | Design Manager

Design Manager current conditions evaluation of the pump station, the largest in the District. After previous evaluations of problematic pump clogging left the District without a firm solution, he helped evaluate the pump station holistically and provide a firm solution without leaving the district with a stranded investment.

Tri-City Blower Rehabilitation Evaluation and Design, Clackamas County | Tri-City | Clackamas County, Oregon | Design Manager

Adam provided technical troubleshooting, evaluation and "near term" masterplaning to help the District rehabilitate problematic process and membrane air scour blowers. Adam was the lead mechanical engineer coordinating the full demolition of eight existing blowers and the design of 5 rotary screw and 4 high speed centrifugal blowers all while keeping the facility online.

Tri-City WPCP - Pilot MBR Operation | Water Environment Services | Oregon City, Oregon | Project Engineer

Adam operated a pilot MBR from GE/Zenon to study and verify the design criteria for the full-scale application of MBR technology at the Tri-City WPCP for both wet- and dry-weather conditions. Adam's responsibilities included implementing the experimental plan, sampling, operations, development/execution of performance goals, and preparing the summary report.

Tri-City WRRF – Phase I Liquids Expansion | Lake Oswego-Tigard Water Treatment Plant | Oregon City, Oregon | Lead Civil Engineer

Adam served as a project engineer, designer and resident engineer throughout the entire lifecycle of the Tri-City WPCP Phase I Expansion. Design duties included the hydraulic modeling and development of the hydraulic profile, designs of effluent drop boxes, and utility water design. Adam performed the analysis for the flow control valves, lime feed system, and plumbing design. He also served as project engineer for a 15% pre-design intended to develop accurate cost data that was to be presented to the public. Adam developed the planning criteria, unit process technical memos, and assisted in the development of site layouts and design of unit process equipment. His responsibilities included developing/designing the headworks and liquids processes as well as developing certain solids handling processes.

Willamette Pump Station | Tri-City Service District | West Linn, Oregon | Project Engineer

After previous evaluations of problematic pump clogging left the District without a firm solution, Adam helped evaluate the pump station holistically and provide a firm solution without leaving the district with a stranded investment.

Aaron Eder PE

Principal Conveyance Engineer

29 years of experience · Portland, Oregon

Aaron is a principal and regional conveyance practice leader with 29 years of experience and is a licensed civil engineer in Oregon and Washington. He works almost exclusively on municipal water, wastewater, and storm drainage pipeline projects. His specialty is in the efficient performance of civil site design and pipeline design projects, including pressure reducing stations, large-diameter conveyance and smaller diameter distribution and collection system mains, installed via traditional open-cut as well as trenchless methods including jack-and-bore, horizontal directional drilling, pipe ramming, and microtunelling. Throughout his career, Aaron has designed over 14 pressure reducing and metering stations and over 40 miles of pipelines for various municipalities in Oregon and Washington, such as TriMet, the Cities of Portland, Beaverton, Hillsboro, Tigard, Lake Oswego, The Dalles, Woodburn and Vancouver, Tualatin Valley Water District, McMinnville Water & Light, Clark Public Utilities, and Clark Regional Wastewater District. He is also the author of several project articles that have been featured in assorted publications, including AWWA's MainStream, OpFlow, and Water Matters, APWA Reporter, Underground Construction, Site Solutions, The Military Engineer, and Government Engineering.

EDUCATION

MS, Civil Engineering, Portland State University, Portland, OR

BS, Civil Engineering, University of Washington, Seattle, WA

PROJECT EXPERIENCE

Meridian Pump Station Upgrade | City of Beaverton | Beaverton, OR | Project Technical Lead

Aaron led the design effort for a new 2,000 gpm booster pump station currently under construction. His duties include management of the design team, preparation of plans and specifications, and coordination with cost estimators for the preparation of the opinion of probable construction costs.

Bridge Road Intertie | Clark Public Utilities | Vancouver, Washington | Project Technical Lead

Aaron led the management of the design team and preparation of water pipeline plans and profiles, for 1,600 feet of 3-inch HDPE water pipeline installed via HDD under the North Fork of the Lewis River, specifications and bid quantities, and preparation of the Opinion of Probable Construction Costs.

Sandy Drinking Water Reinvestment Program (SDWRP) | Bull Run | Sandy, Oregon | Task Lead

Serving as an extension of City of Sandy staff in a Program Manager / Owner's Representative role, Aaron led the development of the conceptual design of the new 5 mgd pump station and 11,000 feet of 24-inch DI water main.

Willamette Blvd Bridge Main Replacement | Portland Water Bureau | Portland, Oregon | Project Technical Lead

Aaron led the design of approximately 1,200 feet of 24-inch ductile iron water transmission main, including a trenchless crossing of BNSF railroad tracks. The existing 20-inch steel water main is hanging under the Willamette Blvd Bridge over BNSF tracks. The bridge is in poor condition, and the main has been documented to be in poor condition and has been slip-lined as a temporary repair. The design began with an evaluation of alternatives using weighted criteria including seismic resilience, constructability, construction cost, public/business impacts, life expectancy, maintenance, and schedule. Aaron's responsibilities included preparation of plans, specifications, and coordination with MWH Constructors for the preparation of the Opinion of Probable Construction Costs.

Scholls Ferry Road Water System Improvements | City of Beaverton | Beaverton, OR | Project Technical Lead

Aaron led the fast-track design effort for approximately 1,000 feet of open-cut 16-inch DI suction and discharge pipelines in advance of the Meridian Pump Station. His duties include management of the design team and routine and frequent coordination with the City in order to facilitate a fast-track design so that the project could be bid and constructed in advance of Washington County's proposed overlay of SW Scholls Ferry Road.

Chin (George) Tey PE

Principal Mechanical Engineer

34 years of experience · Pasadena, California

Chin (George) is a principal mechanical engineer with over three decades of experience in planning, design, and construction of mechanical and process piping for water and wastewater treatment facilities and pumping stations. He has worked as a mechanical engineer, project engineer, and project coordinator on numerous multi-disciplinary projects with mechanical and piping design responsibilities spanning from conceptual preliminary design through detailed design, engineering services during construction, field inspection, and start-up. Additionally, George is a recognized thought leader in the industry who serves on the Pump Intake Design (HI-9.8); Pump Piping Design (HI-9.6.6); Pump Viibrations (HI-9.6.4); Pump Performance Testing (HI-14.6); and Pump Installation, Operation, and Maintenance (HI-14.4) Committees for the Hydraulic Institute Standard (HI).

EDUCATION

BS, Mechanical Engineering, Southern Illinois University, Carbondale, Illinois

MS, Mechanical Engineering, Southern Illinois University, Carbondale, Illinois

PROJECT EXPERIENCE

Tri-City Pollution Control Plant Expansion Project Phase 1 | Clackamas/Oregon City, Oregon, United States | QA/QC Review

George provided the mechanical QA/QC review for the master planning, design, and construction support for an expansion of the Tri-City Wastewater Pollution Control Plant (WPCP) at a constrained site bounded by a freeway, river, abandoned landfill, and future residential development. A unique combination of conventional and innovative wastewater treatment technology was used to ensure a high level of treatment capability within a small footprint. The expansion increased average dry weather flow capacity from 8 to 12 mgd and increased peak wet weather flow capacity from 60 to 70 mgd with provisions to easily increase the average dry weather flow (ADWF) capacity up to 40 mgd.

Baker River Project Floating Surface Collector and Pumping System | Puget Sound Energy | Concrete, Washington | Pump Station Technical Reviewer

Chin was responsible for assisting the design team for the design system and technical review of a floating surface collector (FSC) with pumping and piping system. The project consisted of a floating surface collector with four horizontal axial pumps, each has a capacity of 180 cfs, 150 bhp, and four secondary fish screen pumps, at a capacity of 40 cfs, 40 bhp each.

Sunset and Heathfield Pump Stations and Force Main Upgrades | King County Wastewater Treatment Division | Seattle/Bellevue, Washingon, United States | Pump Station Technical Reviewer

George was responsible for assisting the design team in developing design criteria and technical review of a 30-MGD pump station expansion and rehabilitation project. The project included the addition of new pumps and motors, replacement of VFD and switchgear equipment, and evaluation of the pipe sizing to increase capacity from 18 to 30 MGD peak capacity. It also included eight dry pit solid handling raw sewer pumps, each capable of moving 6,000 GPM up to a height of 180 feet and powered by 450-BHP motors. Operation of the pumping systems was assessed and because the pump station building exteriors could not be modified, they were designed so all new equipment would fit inside the current facility footprints. The team's innovative approach to using solids handling pumps with non-standard 500-hz motors minimized power requirements to both facilities, resulting in millions of dollars in capital and life-cycle cost savings.

Willamette Water Supply Program (WWSP) | Tualatin Valley Water District (TVWD), City of Hillsboro (Hillsboro), and City of Beaverton (Beaverton) | Hillsboro and Beaverton, Oregon, United States | Mechanical and Piping Technical Reviewer

The WWSP will provide a new seismically resilient supply of potable water to serve over 300,000 residents, which is designed to meet future demand and provide redundancy in case of an emergency event. It encompasses over 31 miles of 48- to 66-inch steel pipe employing cut and cover and numerous trenchless sections, a new water treatment plant, extensive modifications to an existing river intake and pump station, and 15 MG of terminal storage. George provided mechanical and piping technical review of the system.

Chris Machado PhD, PE

Senior Principal Engineer

24 years of experience · Denver, Colorado

Chris is one of Stantec's Wastewater Sector Leaders with over 20 years of experience. Chris has served as project manager, design manager, process lead, process engineer, engineering services during construction support, and technical advisor in several projects, including planning, design, and construction.

EDUCATION

ME, Hydraulic Engineering, Federal University of Ouro Preto, Minas Gerais

MS, Geotechnical Engineering, Federal University of Ouro Preto, Minas Gerais

BS, Civil Engineering, Federal University of Ouro Preto, Minas Gerais

PhD, Civil and Environmental Engineering, University of Nevada Las Vegas

PROJECT EXPERIENCE

Boulder Water Resource Recovery Facility Sidestream Nutrient Removal Business Case Evaluation | City of Boulder | Boulder, Colorado | Process Lead

Chris was responsible for process evaluations and alternative analysis for a business case evaluation (BCE) comparing expansion of Boulder's existing post-aerobic digestion process to sidestream deammonification treatment for nitrogen removal. The project included review of historical operating data and flow and load projections to develop 20-year planning criteria for each alternative and identify expansion triggers through the planning period. The BCE considered capital improvements and annual operating costs, as well as qualitative considerations, including physical implementation, technology maturity and adaptability, and compatibility with existing and planning liquid and solids treatment. The evaluation resulted in a sidestream nitrogen management roadmap indicating optimal implementation timing for capital investments.

Sand Island Wastewater Treatment Plant (SIWWTP) Secondary Treatment Phase 2 Expansion | City and County of Honolulu | Honolulu, HI | Technical Advisor

As Technical Advisor, Chris provides process support for the planning and design team, as well quality control reviews. SIWWTP is the largest treatment plant in Hawaii, treating an average flow of 65 MGD, with a wet weather peak flow of 240 MGD. The Phase 2 expansion will provide an additional 90 MGD of secondary treatment capacity required to meet full secondary standards. Phase 2 will add peak flow equalization, upgrade preliminary and primary treatment, expand solids treatment processes to treat additional waste-activated solids generated by the new secondary process.

Pocatello Water Pollution Control Facility Plan | City of Pocatello | Pocatello, Idaho | Process Engineer

Chris led a process team and reviewed and analyzed process operation data; evaluated plant performance; developed alternatives; reviewed process planning criteria; developed Biowin™ process model for alternative evaluation including impact of recycle streams on BNR. Chris prepared and delivered operator training in process modeling. Stantec's efforts as part of the Keller-Stantec Facility Plan team for the 12 MGD City of Pocatello's WPCF included an evaluation of plant treatment capacities, treatment optimization and upgrades to the BNR system modeling. Stantec evaluated upgrade alternatives to the overloaded biosolids handling systems and alternatives for future solids dewatering facilities, maintenance capital improvements with condition assessments.

Tri-City Solids Improvements Project Phase I | Clackamas, Oregon | Process Engineer/Technical Advisor

Chris reviewed and analyzed process data, reviewed process functionality, developed a master plan for future facilities, developed and evaluated process upgrade alternatives, reviewed technologies, reviewed process modeling, and performed quality review and capacity evaluations. This project included planning and engineering to assess, expand, and rehabilitate the solids handling processes at the Tri-City Water Pollution Control Plant, a facility with two 1-MGD mesophilic digesters, a thickening process, a dewatering process with centrifuges, and a truck loading/cake storage facility. The project included estimate of flows and loads, definition of existing facilities capacity and future capacity needs, technology screening, identification of digestion feedstock, evaluation of alternative biogas utilization technologies, and preparation of conceptual design.

Katerina Messologitis PE

Process Engineer

8 years of experience · Portland, Oregon

Katerina's experience ranges from facility planning to full-scale plant design and operation. She is well versed in wastewater process modelling, piloting, and water quality and treatment optimization studies through her involvement in projects across the Western U.S. Her broad range of experience has provided her with skills to close the loop between planning, testing, design, and operations.

EDUCATION

Master of Science, Civil Engineering, University of New Hampshire, Durham, New Hampshire

Bachelor of Science, Environmental Engineering, University of New Hampshire, Durham, New Hampshire

REGISTRATIONS

Professional Engineer #93853PE, State of Oregon, 5/11/2021

PROJECT EXPERIENCE

Pocatello Water Pollution Control Aeration System Upgrades | City of Pocatello | Pocatello, Idaho | Process Engineer

Katerina developed a process model (BioWin™) for the Pocatello WPCF to identify treatment bottlenecks and optimization opportunities with the current treatment processes. Katerina developed the sampling and analysis plan and summarized existing operational and water quality data to calibrate and validate the model. During the process evaluation, Katerina identified that the aeration equipment was reaching capacity. Katerina completed an aeration system master plan and was the design engineer for the aeration system upgrades (replacement of the aeration diffusers and aeration header). Katerina also conducted a BioWin training for the Pocatello WPCF staff, which included a summary of general BioWin™ capabilities, an overview of the Pocatello WPCF plant model, and a tutorial on how to alter the simulation to evaluate various operational scenarios.

Spanish Fork & Mapleton WRF Design & Operational Strategies | Cities of Spanish Fork & Mapleton | Spanish Fork & Mapleton, UT | Process Engineer

Katerina provided engineering support for the Spanish Fork and Mapleton WRF design through process modelling. The model was used to support the design of the aeration system (fine bubble air diffusers, blowers) and operational strategies for chemical and biological phosphorus removal. A sensitivity analysis was conducted on influent TKN to evaluate the flexibility of the biological nutrient removal process.

Redmond WPCF Facility Plan | City of Redmond | Redmond, OR | Engineering Support

Katerina worked with the City of Redmond on a facility plan for the City's Wastewater Pollution Control Facility (WPCF). She conducted a study on the historical flows and loads to project future loading rates to the WPCF during a 20-yr study period. Katerina also conducted an alternatives analysis of biological treatment and to increase the capacity of the WPCF to meet future flows and loads. These results are summarized with a capital improvement plan submitted to the City.

Everett Water Pollution Control Facility | City of Everett | Everett, Washington | Process Modeler / Alternative Analysis

Katerina built a biological process model of a complex wastewater treatment plant which uses trickling filters, aerated solids contact basins, and an aerated lagoon with multiple recycle streams. Katerina developed a sampling and analysis plan and summarized existing operational and water quality data to calibrate and validate the process simulation. She built, calibrated, and validated the process simulation using BioWin software by EnviroSim. The validated model was used for a capacity assessment using projected future flow and load data, and to evaluate future process alternatives to meet new regulatory requirements and anticipated future flows and loads.

Sand Island WWTP Phase 2 Secondary Treatment Planning & Upgrades | City & County of Honolulu | Honolulu, HI | Process Engineer

Katerina worked on the secondary treatment alternatives evaluation to help the City and County of Honolulu (CCH) select a secondary treatment technology which will be used to treat 70 mgd of wastewater prior to an ocean discharge. Katerina compared each technology against the City's evaluation criteria. Katerina used BioWin™ to confirm the treatment capacity limitations of each technology and evaluate the impacts of the secondary treatment alternatives on the entire WWTP. She also joined the Stantec and CCH team on a 2-week European tour to visit with 10 utilities operating the technologies of interest. Katerina is continuing her involvement with the project through piloting and conceptual design of the selected treatment technology.

Matthew Perkins PE SE

Structural Engineer

16 years of experience · Portland, Oregon

Matt is a structural engineer and project technical leader whose responsibilities include leading engineering teams, coordinating with contractors, and leading communications with clients. Matt's structural engineering experience includes the evaluation of existing structures, detailed structural analysis and design, engineering services during construction, management of engineering teams, and value engineering reviews. His project experience ranges from seismic evaluation of small pump stations to complete designs of treatment facilities. Matt has experience working around the country and overseas, but his experience is focused on projects in Oregon and Washington, with traditional design, bid build, design build teams, and construction manager/general contractor delivery methods. Matt is a registered professional engineer in Oregon, Washington, California, and Hawaii, and a registered Structural Engineer in Oregon. He is registered with the State of Oregon as a General Post-Earthquake Inspector and has been trained in Rapid Visual Screening of Buildings for Potential Seismic Hazards (FEMA P-154).

EDUCATION

MEng, Civil Engineering, Portland State University, Portland, Oregon

BS, Civil Engineering, Oregon State University, Corvallis, Oregon

REGISTRATIONS

Professional Engineer #53058, State of Washington

Professional Engineer #82642PE, State of Oregon

Professional Engineer #81644, State of California

Professional Engineer #18723, State of Hawaii

Licensed Structural Engineer #82642PE, State of Oregon

PROJECT EXPERIENCE

Willamette Pump Station Rehabilitation | Water Environment Services | West Linn, Oregon

Matt served as lead structural engineer for Water Environment Services Willamette Pump Station Rehabilitation Project. Mr. Perkins evaluated the existing pump station using ASCE 41 Tier 1 evaluation requirements. The process included meeting with operators to discuss current pump station performance, review of the as-built drawings, and site observations.

Willamette River Crossing | James W. Fowler Company | Portland, Oregon | Structural Design Lead

The project involves the design and construction of a new drinking water pipeline under the Willamette River. Matt is responsible for the seismic design of buried steel pipelines through liquefiable soils, conceptual design of temporary structures, and coordination with the design-build contractor.

Tri-City Pollution Control Plant Expansion Project Phase 1 | Clackamas/Oregon City, Oregon, United States | Staff Engineer

Mr. Perkins served as staff engineer during design, and resident engineer during construction and start-up of the Tri-City Water Pollution Control Plan (WPCP) Phase 1 Expansion, located in Oregon City, Oregon. The project involves the $80M expansion of the existing conventional activated sludge (CAS) process, with 10 mgd of membrane bioreactors (MBR). Additionally, the design included several innovative sustainable technologies, including “green” roofs, “green” roads and bioswales for natural storm water treatment and infiltration. The project was designed under a very tight schedule using the CM/GC (contractor procured at 70% design). During design, Mr. Perkins assisted with the structural design of the MBR and UV Building. During construction, Mr. Perkins was responsible for submittal review, responding to requests for information, structural observations. The project received Best Project of 2012 award of merit from Engineering News-Record (ENR) magazine and the Project of the Year award from the National Association of Clean Water Agencies and the Daily Journal of Commerce. In addition, the project was featured in American Infrastructure Magazine and Treatment Plant Operator Magazine.

Las Vegas Water Pollution Control Facilities Upgrades | City of Las Vegas | Las Vegas, Nevada

Mr. Perkins served as Structural Designer for the City of Las Vegas’s Facility Upgrades for the Las Vegas Water Pollution Control Facilities Project. The project involves upgrades and modifications to existing egress paths, access bridges, and fall protection evaluations.

Will Seymour PE

Project Manager, Electrical

15 years of experience · Portland, Oregon

With over 9 years of experience, Will excels in the design of electrical systems for healthcare, higher education, commercial, and industrial projects. His proficiency encompasses BIM models, electrical drawings, and accompanying specifications. He seamlessly blends high-quality design with construction services so that projects align with program requirements. Employing a broad perspective and robust problem-solving skills, Will's project leadership and teamwork abilities make him an indispensable member of our Stantec team.

EDUCATION

Bachelor of Science Mechanical Engineering, California Polytechnic State University, San Luis Obispo, California

REGISTRATIONS

Professional Engineer #88208PE, State of Oregon

PROJECT EXPERIENCE

LLUMC Dennis and Carol Troesh Medical Campus | Loma Linda University Medical Center | Loma Linda, California

Electrical, technology, audiovisual, acoustics, and security design for the campus redevelopment of an existing medical center to provide for 1M sf expansion and 100,000 sf of renovations, site development, structured and surface parking additions, new 10MW emergency generator plant, and expansion of the campus central energy plant. Technology design services include: inside and outside plant, structured cabling systems, procurement, selection and design of nurse call systems, wireless LAN, CCTV and access control systems, infant abduction system, distributed antenna systems, paging and public address systems, personal communication systems, data center, migration planning and implementation, audiovisual and medical communications systems. The project provides a new university hospital, adult patient care tower, new children's hospital, diagnostics and treatment, administrative and support services, new cafeteria, and new conference/education center.

Oregon Health & Science University (OHSU) Hospital Expansion | Portland, Oregon | Electrical Engineer

Leading role in the preconstruction team of 14-Story hospital tower developed under an IPD process

Swedish Medical Center First Hill Northwest Tower & Block 95 | Seattle, California, United States | Electrical Designer

Developed detailed design of power systems for brownfield hospital.

Ben Franklin Transit Fleet Conversion to Zero Emissions Study | Richland, WA | Electrical Design

Develop concept design of electrical distribution for fleet electrification coordinated with local utilities.

TriMet Columbia Operations Facility | Portland, OR | Electrical Designer

Develop preliminary electrical distribution for 30 acre brownfield being developed into transit operations maintenance and storage facility.

Albany Transit Operations Facility | David Evans & Associates | Albany, OR | MEP Design Project Manager

Design of greenfield facility for bus storage with infrastructure for conversion to zero emissions fleet.

BRIC Expansion Infill | BCA Architects | Bend, OR | Electrical Designer

Electrical design of 5,000 square foot high tech lab space

Project Triton | Bend, Oregon | Project Manager/Electrical Engineer

Project Manager and electrical design for a new two-story 94,500 SF commercial manufacturing facility that houses a commercial dry process train, and all necessary supporting unity operations for production of oral solid dosage pharmaceutical products. Elements of the facility include process suites, warehousing spaces, a GMP QC lab, office/administration spaces, and back-of-house spaces.

Lonza BRIC N CTM Suite Expansion | Bend, Oregon | Project Manager/Electrical Engineer

Project Manager and electrical design for the expansion of building the infrastructure to accommodate phase 1 clinical manufacturing at the BRIC facility. The expansion includes the design, construction, and qualification of four suites, an entry/exit gowning vestibule, clean storage space, and utility infrastructure to support clinical manufacturing.

Andrew Johnson

Civil Engineering, PE

5 years of experience · Portland, Oregon

Andrew is a civil engineer-in-training working on water and wastewater projects in the Portland, Oregon office. He has experience using AutoCAD, Civil 3D, Microstation, and InRoads for civil design.

EDUCATION

BS, Civil Engineering, Oregon State University, Corvallis, Oregon

REGISTRATIONS

Professional Engineer #104933, State of Oregon, 2024-Present

PROJECT EXPERIENCE

WATER

Corrosion Control Improvements Project | Portland Water Bureau (PWB) | Gresham, Oregon | Project Designer

In response to a regulatory order to reduce lead exposure linked to building plumbing and fixtures, Stantec was selected to design new chemical feed systems on the 212-MGD Bull Run Water Supply. Andrew served as a project engineer, focusing on the civil design and drafting of the site and 1,500 feet of small diameter chemical pipes, which supported the selection and development of a treatment strategy to increase the alkalinity and pH of water at customer taps, new soda ash and carbon dioxide feed systems to be constructed at the Lusted Hill Treatment Facility, and engineering services during construction.

North Willamette Boulevard Bridge Main Replacement | Portland Water Bureau | Portland, Oregon | Project Designer

Andrew was a project engineer for the design of approximately 1,200 feet of 24-inch ductile iron water transmission main, including a trenchless crossing of BNSF railroad tracks. The existing 20-inch steel water main is hanging under the Willamette Blvd Bridge over BNSF tracks. The bridge is in poor condition, and the main has been documented to be in poor condition and has been slip-lined as a temporary repair. The design began with an evaluation of alternatives using weighted criteria including seismic resilience, constructability, construction cost, public/business impacts, life expectancy, maintenance, and schedule. Andrew's responsibilities include preparation of plans for both construction and land use purposes.

Reservoir and Pump Station No 2 | City of North Plains | North Plains, OR | Project Engineer

Andrew was a project engineer for the design a 2 MG steel reservoir, booster pump station, and implementation of a new SCADA control system. The project site also required extensive ground improvements. Andrew's responsibilities include preliminary design, OPCC review, preparation of plans and specifications for bid, and construction services.

Southside Interceptor Rehabilitation Phase 1 | City of Vancouver | Vancouver, Washington | Engineer

Andrew was a staff engineer for the rehabilitation design of a 42-inch concrete sewer pipe using UV-cure cured-in-place pipe. Due to the critical service provided by this interceptor pipe, the high consequences associated with a potential sewer failure in the vicinity of the active railroad, and the deteriorated condition of the pipe, the client wished to rehabilitate the pipe using trenchless technologies. The project also required significant bypass pumping design to keep the interceptor in service. Andrew's responsibilities include design, drafting, and support during construction services.

WWTP Utility Water Pump Station and Air Gap | City of Vancouver | Vancouver, Washington | Project Designer

Stantec was selected to provide the design for an air gap in order to prevent contamination of a groundwater well that is used for utility water throughout the wastewater treatment plant. A new utility water pump station was constructed adjacent to the air gap tank. Andrew served as a staff engineer focusing on the civil and mechanical design and drafting of the new pump station and retrofit of the existing air gap break tank.

Southside Interceptor Rehabilitation Phase 4&5 | City of Vancouver | Vancouver, Washington | Project Engineer

3.

Engineering Construction Services

A.

Firm Resources

Firm Resources

Stantec is a multi-disciplinary engineering firm founded in 1954 that consistently tops Engineering News Record's (ENR's) list of water and wastewater engineering firms. For over 70 years, we have had strong roots in the Pacific Northwest and a footprint that now spans the globe. We have more than 31,000 employees working in over 450 locations across six continents. Here in the Pacific Northwest, we have six permanent offices staffed with more than 250 engineers, designers, program managers, project managers, construction managers, inspectors, financial and project controls personnel that are readily available and will be supporting your projects. Our local resources available to support the performance of your projects are highlighted on the following pages of this SOQ.

We're Successful in the Neighborhood and Around the World

#1

Top 25 International Design Firms – Environment – Wastewater Treatment; Engineering News Record, December 2022

$195B

in completed projects under various capital programs

2,500+

wastewater treatment plant projects delivered

Since our Portland office opened in 1991, we have been a close partner with agencies like WES on many local and regional public wastewater conveyance and treatment engineering projects for numerous wastewater utility clients throughout Oregon and Washington. We are known for delivering high-value public works projects that respect the financial constraints that guide public works expenditures – projects that properly and efficiently perform the intended purpose while delivering long-life service and the optimal life-cycle cost/benefit.

Our clients depend on us to design their projects because of our proven track record, accountability, strong sense of client loyalty, consistent professionalism, and our commitment to excellent service and schedule compliance. We continue to serve under several public utility on-call contracts throughout Oregon and Washington. Under these contracts, we have successfully completed numerous task orders for Portland Water Bureau, Bureau of Environmental Services, the Cities of Beaverton, Grants Pass, and Vancouver and utility agencies including Tualatin Valley Water District (TVWD), McMinnville Water & Light (MW&L), and Clark Public Utilities (CPU).

The success that our team will deliver on your projects is built on a solid foundation consisting of:

- Dedicated, local team with strong technical expertise and project management skills
- Clear organizational structure with a single point of contact for all service areas
- National experts with Oregon experience who will advise and provide quality reviews.

B.

Local Experience

Local Experience

Our locally-based team has successfully delivered hundreds of wastewater conveyance and treatment engineering designs throughout the region, from the City of Anacortes in northern Washington to the City of Ashland in southern Oregon – and many public utilities in between. The following pages provide descriptions of similar projects completed within the last five years. We invite you to contact the references to learn more about our ability to successfully deliver your projects.

> "I would recommend other agencies to consider Stantec as a partner firm to help them achieve their goals of a major capital upgrade. Most valuable has been their assistance in focusing us on critical risks to the success of the project, something that can easily get lost when a world of issues are in play"
>
> Muriel Gueissaz-Teufel, STEP Program Manager, City of Portland, BES

Willamette Water Supply Program (WWSP) | Tualatin Valley Water District | Beaverton, OR | 2015 – Ongoing

Key Staff: Wes Silva, Grant Schoepper, Todd Tubbert, Steve Clapper, Bennie Bitz, Marc Krekos

Stantec is serving as the program and construction manager for the WWSP, which will provide a new seismically resilient supply of potable water (120-MGD) to serve more than 300,000 residents and some of the state's largest employers for the next 100 years. Benefiting a consortium of TVWD, the City of Hillsboro, the City of Beaverton, and other partners, the project encompasses more than 31-miles of 48 to 66-inch steel pipe employing cut and cover and numerous trenchless sections installed by micro-tunneling, pipe jacking, and auger bore, a new water treatment plant, and 114-ML of terminal storage. Pipeline work has included close coordination with heavily traveled roadways and railroads, these projects have also included major transportation improvement elements. Having already completed several projects under the program, we are currently in the 10th year of an 11-year contract for overall program and construction management services.

Our team is effectively managing the entire construction process from project development through delivery method analysis, contractor selection, and successful project completion. We have utilized the resources of our 31,000-person firm along with deep network resources across the water utility construction management industry, to

mobilize highly qualified staff, including program construction management professionals.

This project is relevant because it provided CM services for all projects designed by other engineering consulting firms, provided overall construction management services including oversight of budgets, schedules, and activities of Stantec and resident engineers, inspectors, and its large team of subconsultants. Lastly, Stantec established electronic records and reporting tools for its internal needs as well as reporting to the Owner.

Reference: Mike Britch | WWSP Manager | (503) 941-4565 | mike.britch@tvwd.org

Bureau of Environmental Services (BES) Secondary Treatment Expansion Program (STEP) | City of Portland | Portland, OR | 2018 – Ongoing

Key Staff: Brian Gomolski, Bret Koehler

Since 2018, Stantec has provided program and project management, project controls, engineering services, construction management, value engineering, and staffing to support the City of Portland's BES STEP. STEP is a $650 million CIP investment in process and infrastructure improvements to expand the secondary treatment capacity and solids handling at the Columbia Boulevard Wastewater Treatment Facility (WWTF). These projects include two new secondary clarifiers, return activated sludge pump station, new plant-wide electrical substation, an early centrifuge installation to familiarize plant staff with its operation, and a new boiler and HVAC systems for existing facilities.

Stantec's team members have flexed to meet the Program needs over the course of this program from four at the project's inception up to a maximum of 20 individuals depending upon the activities occurring at the plant. The Stantec staff are integrated with nearly 50 City staff. In addition to program support, Stantec has established a program management office to support and train project managers for CIP projects within the City of Portland. We have also established a framework of engineering and Building Information Model (BIM) guidelines, equipment naming and tagging conventions, standards for document templating and reporting, audit and quality control standards, Plant Health and Safety Plans, design guidelines for civil/site, architecture, mechanical, electrical, instruments and controls, structural, seismic and levels of service unique to STEP.

Reference: Muriel Gueissaz-Teufel | Engineering Manager | (971) 201-2567 | muriel.gueissaz.teufel@portlandoregon.gov

Sorrento Pump Station Aquifer Storage and Recovery No, 5 and Sexton Mountain Pump Station Upgrade Projects | City of Beaverton | Beaverton, OR | 2020 – 2024

Key Staff: Wes Silva

Stantec served as the designer and construction manager for the City of Beaverton's Sorrento pump station and the Sexton Mountain reservoir and pump station projects. The scope of the project included installation of two new pump stations, horizontal split case and vertical turbine driven pumps, chemical storage and feed equipment, a deep well submersible pump for the Aquifer Storage and Recovery 5 drinking water well, a 100 KW hydro turbine, ADA curb ramps and sidewalks, site and stormwater improvements, associated yard piping, and installation of a 250,000-gallon bolted steel flow to waste tank. Other improvements included seismic retrofits to existing masonry block municipal structures, structural foundations, retaining walls, and enhanced site security. CM was provided for each of the two projects and included technical submittal reviews, RFI review and responses, permitting, stakeholder coordination, QA/QC, startup and facility commissioning, construction progress meeting and reporting. The project was designed and constructed with an accelerated schedule under the CM/GC alternative delivery model.

Reference: Brion Barnett | Senior Water Engineer | (503) 526-2592 | bbarnett@beavertonoregon.gov

E-Interceptor CIPP Sewer Rehabilitation Phase 1 and 2A | City of Vancouver | Vancouver, WA | July 2024 – November 2024

Key Staff: Wes Silva

Stantec provided construction management and resident inspection services for approximately 4,500 lineal feet of 54 and 48-inch cured-in-place pipe (CIPP) structural liners to fully rehabilitate a deteriorated sanitary sewer interceptor. The project also included bypass pumping of approximately 12 MGD of wet weather flows, odor and noise control, curing water treatment and disposal, cleaning and sediment removal, existing manhole rehabilitation with epoxy liners, closed-circuit television (CCTV) inspections, roadway restoration(s) and public communications. Stantec provided construction management services under an existing task order services contract with the City. Services provided included resident inspection, preconstruction and regular construction progress meetings, payment application review, shop drawing reviews, response to RFIs, claim management, and QA/QC. Stantec established the electronic record, reporting and document control protocols that were implemented throughout the project.

Reference: Jessie Uribe | City Engineer | (360) 487-7175 | jessie.uribe@cityofvancouver.us

C.

Project Team

Project Team

The ideal partner for WES will have the technical skills and experience to help you answer key questions and develop solutions for project challenges, the tools required to help you make confident decisions, and the local resources to move your projects forward. On-Call project assignments require a team that can respond quickly to scoping requests, efficiently mobilize the right team to address your needs, and coordinate with your staff and project stakeholders to deliver the projects you need. We offer the following benefits:

Strong Project Leadership **Depth of Technical Capabilities** **Trusted Local Partnership**

For this On-Call Contract, Dick Talley, Vice President, will serve as Principal-in-Charge. At Dick's side is Brian Gomolski, who will serve as Contract Manager. Their roles are separate but complementary, Dick's focus includes providing leadership, authorization, client service support, while Brian's focus is solely on your projects as an advocate for you. He will oversee staffing availability, overall schedule and budget management, project delivery, and quality control practices. Supporting Brian will be Construction Management Lead Wes Silva. These three key leaders were specifically chosen for their direct and successful involvement in the engineering construction services.

Wes will be supported with highly experienced construction managers dedicated to each individual task order. These construction / task managers are responsible for execution of assigned work tasks and will direct and guide the construction process using the techniques we will outline in the approach section. They are all experienced in delivering On-Call construction services to municipal clients.

We have assembled a 100% local, high-performance team for WES—selecting members for their technical qualifications, relevant experience, availability to provide the CM and inspection services anticipated for the next five years, and proven ability to participate on a collaborative team while providing services in an on-call or programmatic fashion. This team provides sufficient depth and breadth of experience delivering construction management services for roadway, facility, and water / wastewater utility conveyance projects anticipated under the scope of this contract. The identified key team members represent a sampling of our overall capabilities in construction management and inspection.

Dick Talley, PE, PMP
Principal-In-Charge
Yrs. Experience: 34
Portland, OR

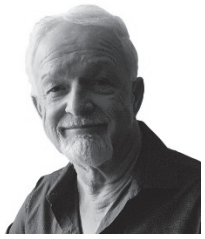
Throughout his career, Dick has gained experience with program management and controls, schedule, budget, scope and risk management, design development, bidding, procurement, construction oversight and management, alternate project delivery processes, engineering, and management for municipal and heavy civil projects ranging in total project value from $500,000 to over $1 billion for cities, districts and private industry. Dick brings a unique style of collaboration and client service that he has learned over the past three-plus decades and prides himself on his ability to consistently deliver projects that meet all objectives for quality, schedule and budget both for his client and his company. The single most important measurement of his accomplishments is reflected in that over 75% of Dick's projects have been for past clients who have asked that he join them on their project. This repeat endorsement attests to his performance.

As Principal-in-Charge, Dick will provide leadership and authorization for Stantec's commitment and will serve as a resource for WES's project manager.

Brian Gomolski, CCM
Contract Manager
Yrs. Experience: 32
Portland, OR

Brian is a highly skilled construction management professional with over 30 years of experience in overseeing wastewater construction projects involving all construction disciplines. He has proven success managing the entire project lifecycle, from planning to turnover for operation for numerous successfully completed projects. Brian's expertise lies in preparing bidding, legal, and general requirement specification sections for construction documents, performing constructability reviews, and providing bid phase services for the successful completion of public works projects. Brian supervises support staff, inspectors, and subconsultants and expertly manages construction contract change. He is proficient in the development of schedule, risk, and construction management plans, developing and analyzing construction project schedules, administering construction contracts, and controlling construction quality. With over a decade of program construction management experience, Brian is highly skilled in developing work package plans and analyzing various delivery systems approaches. With his excellent communication skills, Brian effectively manages coordination between WWTP operations and construction contractors. Brian provided construction management services for the Tri-City WRRF Solids Handling Improvements Project with a former employer.

 **Wes Silva, PE** **CM Lead** **Yrs. Experience: 20** **Portland, OR**	Wes has over 20 years of experience in the planning, design, and construction of utility conveyance and water resource projects for various agencies, municipalities, and private entities. He has provided engineering analysis, design, and construction management services on several stormwater, wastewater, and potable water conveyance projects. Wes has become proficient at all aspects of contract administration, negotiations, inspection services, records, startup, operation and maintenance. Wes' demonstrated expertise in Construction Management ensures that quality is maintained while balancing performance, schedule, cost, and delivery.
 **Bret Koehler, PE** **CM** **Yrs. Experience: 11** **Portland, OR**	Bret has over 10 years of experience in design and construction management of water and wastewater infrastructure projects for various municipalities. He has provided construction contract administration services, inspection, contractor coordination, and has acted as the interface between wastewater treatment plant staff and the contractor at operating wastewater treatment plants. He has performed constructability reviews. Bret conducts project meetings, manages submittals, RFIs, reviews contract schedules, issues, reviews and negotiates construction contract change orders.
 **Grant Schoepper** **CM** **Yrs. Experience: 12** **Portland, OR**	Grant brings over 12 years of comprehensive experience in planning, estimating, and leading heavy civil construction projects and crews. He expertly coordinates and optimizes resources to maximize budgets and meet strict deadlines. Grant has worked extensively on heavy civil, earthwork, utilities, site development, WWTPs, and roadway restoration projects, leading both the design and construction management efforts. Grant pays particular attention to contract technical requirements, quality control testing, field surveying needs, and documentation to ensure construction is performed within the designated scope, schedule and budget.
 **Marc Krekos** **CM/Inspection** **Yrs. Experience: 37** **Portland, OR**	Marc has 37 years of experience in construction management and inspection including extensive experience delivering construction services on water and wastewater treatment facilities, water transmission lines, outfalls, sewer systems, and force mains. He excels at construction administration tasks include documenting daily activities and responding to contractor clarifications and payment requests. Marc has a long history of successful construction inspection for excavation, dredging, landfill liners, and other environmental projects.

 **Todd Tubbert** **Construction Manager** **Yrs. Experience: 25** **Portland, OR**	Todd has 25 years of experience working on large water and wastewater infrastructure projects including: large diameter water transmission lines, groundwater supply and treatment, aquifer storage and recovery wells, combined sewer overflow storage, and water and wastewater treatment plant rehabilitation and expansion projects. Todd's geological background and construction management skill set has given him the ability to manage and implement program and project management systems to effectively deliver construction projects. Todd's expertise focuses on managing contract compliance, overseeing construction inspections, resolving project issues, and setting a strong example for construction health and safety.
 **Ricky Hyatt, PE** **Inspection** **Yrs. Experience: 20** **Portland, OR**	Rick has more than 20 years in civil construction with 10 years as a construction inspector on both traditional open cut methods and trenchless installations. Extremely dependable and professional, ability to interpret and apply construction plans, specifications, codes and laws, knowledge of and experience in construction survey practices, effective problem solver and partner with contractors, engineering and field personnel for project success, committed to safety, prepare and delivers timely project documentation, knowledge of construction practices, equipment, materials, quality standards and test methods.
 **Bennie Bitz** **Inspection** **Yrs. Experience:** **Portland, OR**	Bennie has extensive experience in field engineering, subcontract administration and coordination, resource management, and traffic control supervision. His recent projects include the Willamette Water Supply Program PLM_1.3 Waterline Project where he is the lead inspector on 3.3 miles of 66-inch polyurethane-coated, mortar-lined steel water pipeline through the City of Wilsonville. The alignment is primarily beneath existing city streets through a busy industrial district and includes two trenchless sections installed via auger bore tunneling.
 **Steve Clapper** **Inspection** **Yrs. Experience: 29** **Portland, OR**	Steve has more than 29 years in construction and construction management of public projects. His experience includes federal, state, and municipal water, sewer, and transportation projects. He specializes in water and sewer pipelines, civil infrastructure, and treatment plants. His inspection experience with water and wastewater systems has included working closely with operations personnel and coordinating with permitting and communications teams. Steve's skills are applied to infrastructure projects for quality management, safety, scheduling and estimating.

D.

Our Approach

Our Approach

Our Construction Management (CM) team works in concert with the designer and the contractor to document and manage the construction-related aspects of the project and work collaboratively to resolve any issues that arise during construction.

Our CM team focuses exclusively on how to best meet your objectives for cost, schedule, and quality of work. We select from a local pool of highly skilled technical professional and senior staff to best apply the specific services, tools, and techniques that match the needs of our clients and their projects. Stantec's CM processes incorporate knowledge of construction as well as industry best practice management techniques.

We provide these services within the framework of WES's practices and procedures and can use our own procedures where they serve the needs of the project. The CM team coordinates between the owner, engineer of record, and contractor to manage the completion of tasks to scope, budget, schedule, quality and safety.

Construction inspectors make sure that day-to-day project activities run smoothly, and quality is maintained. Stantec's experienced inspectors are onsite to recognize issues and bring them to the attention of the construction manager and contractor for a quick resolution.

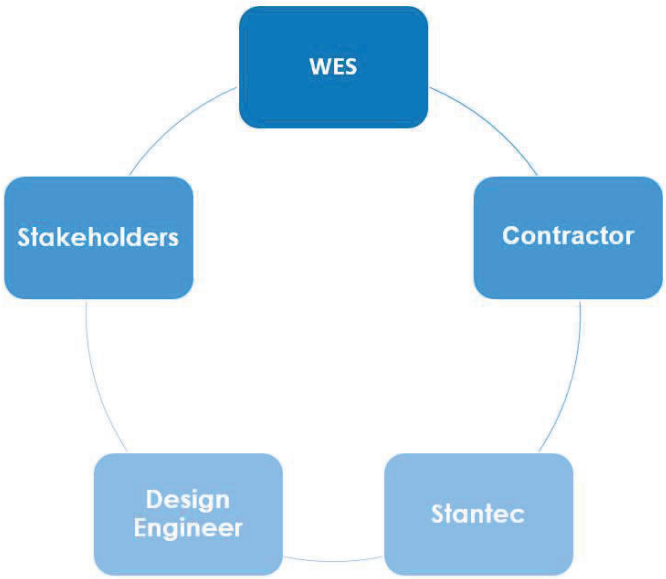
In the sections below, we highlight key elements that will be performed by the construction management and inspection team to provide successful delivery of your project, on-time, on-budget, and in accordance with the Contract Requirements.

Our CM approach acknowledges the abilities and contributions of all team members, emphasizing effective partnership, communication, and teamwork to deliver the outlined services. As work orders are requested of Stantec and scopes of work are developed, the leadership team, consisting of Dick, Brian, and Wes, will create a construction management plan to direct our team's services throughout the construction contract duration and identify suitable and available staff for these services. This approach aims to maintain consistency in management and inspection during the construction period. Brian will collaborate with the team to develop and secure approval from WES for an agreed-upon level of effort and budget proposal for each task order. Brian will ensure that the appropriate resources are assigned for each task order and will manage scope, schedule, and budget on behalf of our team. Our assigned construction manager will be primarily responsible for leading the team towards the successful completion of each assignment and providing technical guidance and support.

How We Help Provide for Contractor On-Time, On-Budget Performance

We believe the successful delivery of a construction project on-time and on budget is centered on collaborative communication with the contractor and project stakeholders and providing a pathway for continuous planning of the work. Effective contracting involves strategic foresight and planning. Stantec's team will help the contractor recognize and solve problems early by focusing on Schedule, development of a good quality assurance program, identify risk items and collaboratively manage risk as a team. Our CM team will resolve outstanding matters such as RFI's, change order requests, and pay applications as efficiently and timely as possible. On projects, the CM team cannot allow unresolved matters to languish.

Through the construction management leadership of Wes Silva, he will establish the foundations of communication and documentation for the project team as a whole at the beginning of the project. Tailoring the CM processes, document controls and procedures specific to the project is paramount. Processes that we want to ensure are established include the requirement for baseline schedules and schedules of values as submittals by the contractor(s) These need to have sufficient contingency, management reserve and schedule float to accommodate the uncertainties that exist in today's global market, supply chain disruptions, and labor shortages. Lastly, we will insist on monthly schedule updates, bi-weekly look-ahead schedules and progress reporting and regular construction progress meetings.



The construction managers will lead the construction meetings with the contractor to review project status, review two-week look ahead schedules, establish key decision points and action items, as well as discuss actions needed for all project team stakeholders (WES, the design engineer, Stantec, and the selected contractor).

The processes and procedures that our CM leadership team develops will form the basis for communicating with the contractor and working with them to ensure there has been effective planning for the work.

Appendix

Richard Talley PE, PMP

Contract Manager

48 years of experience · Portland, Oregon

Over his 48-year career, Dick has experience with design development, bidding, procurement, construction oversight and management, alternate project delivery processes, engineering, and management for raw water supply, diversion and delivery projects, raw, finished and wastewater pump stations, water and waste water treatment plants, storage, and collection/distribution system projects ranging in total project value from $500,000 to $150 million for cities and water districts.
Dick's directly applicable experience includes the design and delivery of many water system improvements and in particular providing annual distribution replacement projects for cities and water districts over his career. This experience has resulted in Mr. Talley being responsible for the replacement of over 750,000 feet of 6 to 16 inch PVC C-900 and ductile iron distribution systems, services connections, meters, multitude of pressure reducing stations, and 2 to 10 MGD pumping stations over the past 30 years.

EDUCATION

BS/BSc, Civil Engineering, University of Wyoming, Wyoming

REGISTRATIONS

Professional Engineer #PE 6110, State of Wyoming, Valid Until: 2025

Professional Engineer #50870, State of Washington, Valid Until: 2025

Professional Engineer #88473PE, State of Oregon, Valid Until: 2025

PROJECT EXPERIENCE

Bull Run Filtration Facility | Portland Water Bureau | Portland, Oregon | Principal in Charge

Dick serves as the Principal in Charge for the design of a new greenfield conventional water treatment facility to filter 125 MGD of raw water supply from the Bull Run Watershed.

Corrosion Control Facility | Portland Water Bureau | Portland, Oregon | Principal in Charge

Dick served as the Principal in Charge for the design of a new corrosion facility to improve alkalinity, pH, and chemical addition for corrosion control of the Bull Run Watershed supply.

Willamette River WTP Expansion | City of Wilsonville | Wilsonville, Oregon | Principal in Charge

Dick served as the Principal in Charge for the design of a replacement ozone system, seismic improvements, and a new power supply for the existing Willamette River Treatment Plant.

Willamette Water Supply Program (WWSP) | Tualatin Valley Water District (TVWD), City of Hillsboro (Hillsboro), and City of Beaverton (Beaverton) | Hillsboro and Beaverton, Oregon, United States | Principal-in-Charge

Stantec is serving as Program Manager of the Willamette Water Supply Program, which will provide a new supply of potable water to serve over 300,000 residents for the next 100 years. The program includes 18 miles of 66-in steel pipe, 8 miles of 48- to 60-in steel pipe, 6 miles of 36- to 54-in steel pipe, a new water treatment plant, and 30-MG of terminal storage. Dick has been invested in the Program for the past five years, developing master plans, evaluating pipeline routing options, and investigating various intake locations and configurations in the Willamette River as the Program has evolved. As the Program was defined, Dick represented Stantec and our capabilities, securing the Client's confidence in our ability to provide adequate staffing, resources, and the technical experience necessary to deliver over the nominally decade long project. Today, Dick maintains an active role, supporting the Program as a client advocate and providing technical input and quality control reviews, evaluating staffing needs, and supporting client engagement.

Brian Gomolski

Construction Manager

32 years of experience · Portland, Oregon

Brian is a highly skilled Construction Management professional experienced in overseeing wastewater construction projects involving all construction disciplines. He has proven success managing the entire project lifecycle, from planning to turnover for operation for numerous successfully completed projects. Brian's expertise lies in preparing bidding, legal, and general requirement specification sections for construction documents, performing constructability reviews, and providing bid phase services for the successful completion of public works projects. He is also adept at coordinating construction activities with continuous plant operation and providing solutions to construction issues with project team members. Brian supervises support staff, inspectors, and subconsultants and expertly manages construction contract change. He is proficient in the development of schedule, risk and construction management plans, developing and analyzing construction project schedules, administering construction contracts, and controlling construction quality. With over a decade of program Construction Management experience, Brian is highly skilled in developing work package plans and analyzing various delivery systems approaches. As Certified Construction Manager with over 20 years of municipal wastewater project experience, Brian is an expert in construction management best practices. With his excellent communication skills, Brian effectively manages coordination and communications between WWTP operations and construction contractors. He oversees project startup and close-out management to ensure the project scope is completed on time and within budget. Brian is committed to managing high-quality construction projects, and his experience and expertise make him an invaluable asset to this team.

EDUCATION

B.S., Architectural Engineering, University of Colorado, 1991

REGISTRATIONS

Certified Construction Manager: Construction Manager Certification Institute (CMCI), No. 1626, 2009

Engineer-In-Training: Colorado, 1991

Licensed Construction Manager (LCM): Idaho, No.

CM-15512, 2003 (inactive)

PROJECT EXPERIENCE

WASTEWATER

Secondary Treatment Expansion Program | City of Portland Bureau of Environmental Services (BES) | Portland, OR | Construction Manager

Brian is the construction manager for several of the projects included in Portland's $650M CM/GC program to expand the secondary treatment capacity at the Columbia Boulevard Treatment Plant. His duties include value engineering and constructability review, construction management, and startup and commissioning. Specifically, he oversees the construction of a new Solids processing facility worth $155M, a new plant-wide electrical substation worth $7M, a centrifuge installation costing $3M, and $3M in boiler and HVAC systems.

Tri-City Water Resource Recovery Facility | Clackamas County Water Environment Services | Oregon City, OR | Construction Manager

Brian was the owner's representative Construction Manager for a $33.5 million Design-Bid-Build project to enhance the solids handling at Tri-City's active wastewater treatment plant. Brian's responsibilities included management of the construction contract, document controls, schedule reviews, pay application reviews, RFI and submittal reviews, change management, coordinating system outage requests with operations, commissioning, startup, and turn over. The project included the installation of a 1.3-million-gallon anaerobic digester, a dewatering and digester control building, a digester gas purification system, a digester gas storage system, a 600-kW cogeneration engine, and renovation of systems in the existing thickening building, cogeneration building, and two existing anaerobic digesters.

Spokane City Hall | City of Spokane | Spokane, WA | 2001 | Cost Estimator

Brian prepared the construction cost estimates for upgrading the historic downtown building, including lead paint removal, repainting, installing a roof and rooftop deck, and replacing the main entry doorways. The total cost of the upgrades was $850,000.

Weston Silva PE

Construction Manager

20 years of experience · Bellevue, Washington

Weston (Wes) Silva has over 20 years of experience in the planning, design, and construction of utility conveyance and water resource projects for various agencies, municipalities, and private entities. He has provided engineering analysis, design, and construction management services on several stormwater, wastewater, and potable water conveyance projects in environments ranging from rural to densely populated urban communities. He has been responsible for developing and maintaining a team-based approach to project execution, including several alternative project deliveries. Through his work on numerous construction assignments, he has become proficient at all aspects of contract administration, negotiations, inspection services, records, startup, operation and maintenance. Wes' demonstrated expertise in Construction Management ensures that quality is maintained while balancing performance, schedule, cost, and delivery.

EDUCATION

BS, Civil Engineering, University of New Hampshire, Durham, New Hampshire

REGISTRATIONS

Professional Engineer #49283, Commonwealth of Massachusetts

Professional Engineer #96507PE, Oregon State Board of Examiners for Engineering & Land Surveying

PROJECT EXPERIENCE

WASTEWATER

Sorrento Aquifer Storage, Chemical Feed and Booster Pump Station | City of Beaverton, OR | Beaverton, Oregon | Construction Manager

Wes served as the Construction Manager for the City of Beaverton's new Sorrento pump station, chemical feed and aquifer storage and recovery facility. The scope of the project included installation of a new Sorrento pump station with three vertical turbine driven pumps, chemical storage and feed equipment, a deep well submersible pump and downhole flow control valve for the Aquifer Storage and Recovery 5 (ASR 5) drinking water well, associated yard piping, electrical plumbing and HVAC trade improvements, demolition, and site improvements, Other miscellaneous work included modifications to the City's existing ASR 2 and ASR 4 facilities, installation of a 250,000 gallon bolted steel flow to waste tank, permitting and stakeholder coordination. The project was designed and constructed with an accelerated schedule under the Construction Manager/General Contractor alternative delivery model. Wes managed all technical submittal reviews, RFI responses, permits and design revisions with the project team as well as supported the project design with quality control and assurance technical reviews.

E-Interceptor Rehabilitation Phase 1 and 2A | City of Vancouver, WA | Vancouver, WA | Construction Manager

Wes served as the Construction Manager for the City of Vancouver, WA's E-Interceptor Rehabilitation Project. The Project involved approximately 4,500 lineal feet of 54-inch and 48-inch Cured-In- Place Pipe (CIPP) thermal-cured lining to rehabilitate an existing sanitary sewer main. Additional work under the project included manhole and service lateral rehabilitations, bypass pumping of flows, and surface restorations. Construction Management and Resident Inspection services were provided by Stantec under an on-call engineering services Contract with the City of Vancouver to ensure that the work was delivered on time and on budget, all while meeting the requirements of the Contract for Construction. Project specific services provided under the on-call included leading construction progress and preconstruction meetings, meeting minutes, submittal reviews, RFI responses, schedule review and coordination, public communications, payment application reviews, claims review and processing, quality control and testing, and full-time resident inspection. These services were implemented and lead to the successful delivery of the project, all while managing several of the contractor's designed components of the Project which included stringent odor control, temporary bypass piping, traffic control, noise and dust control, and laboratory testing of the work.

Bret Koehler PE

Construction Management

13 years of experience · Portland, Oregon

Bret has over 10 years of experience in design and construction management of water and wastewater infrastructure projects for various municipalities. He has provided construction contract administration services, inspection, contractor coordination, and has acted as the interface between wastewater treatment plant staff and the contractor at operating wastewater treatment plants. He has performed constructability reviews. Bret conducts project meetings, manages submittals, RFIs, reviews contract schedules, issues, reviews and negotiates construction contract change orders.

EDUCATION

BS, Environmental Engineering, Oregon State University, Corvallis, Oregon

Civil/Chemical and Process Engineering, University of Canterbury, Christchurch, New Zealand

REGISTRATIONS

Professional Engineer #062070166 , State of Illinois

PROJECT EXPERIENCE

WASTEWATER

City of Portland Secondary Treatment Expansion Program | Stantec | Portland, Oregon | Construction Manager

Bret acted as the Owner's Representative Construction Manager for the installation of two (2) greenfield 145-foot diameter Secondary Clarifiers and a structural steel Return Activated Sludge Pumping Station with a vegetated roof system.Bret ran progress meetings, managed submittals and RFIs, provided schedule reviews, tracked change events,and negotiated contract change orders. Acted as the interface between the City Plant Staff and the contractor to develop and coordinate WWTP process shut-downs. Researched inquiries from the contractor to prevent delays and ensure the project remained on schedule.

California Water Service Staff Augmentation—Potable Water Infrastructure Improvements | Jacobs Engineering | Bay Area Peninsula, California | Construction Manager/Project Manager

Managed multiple potable water infrastructure improvement projects, including two water storage tanks and five potable water station improvement projects.

Cutter Lateral Reach 21—Water Treatment Plant & Conveyance Pipeline | Jacobs Engineering | Bloomfield, New Mexico | Resident Engineer

Bret oversaw civil, structural, and architectural elements of a greenfield drinking water treatment plant and a 24/20-inch HDPE/PVC conveyance pipeline. He also provided field coordination between the design-build team and sub-contractorsto maintain schedule and compliance to contract documents.

San Mateo Wastewater Treatment Plant Renovations | Jacobs Engineering/CH2M | San Mateo, California | Assistant Construction Manager

Supported renovation work at the San Mateo Wastewater Treatment Plant, including crane replacements, thickener mechanisms, and secondary clarifier mechanisms.

San Clean Water Program | CH2M | San Mateo, California | Project Engineer

Provided utility coordination, project management, and contract management support for various infrastructure projects in the San Clean Water Program.

Water and Sanitation Project | Engineers Without Borders | Chicago, Illinois/Guatemala | Sanitation Design Team Volunteer

Led post-assessment presentations and developed alternative analysis reports to support water and sanitation projects in Guatemala.

Chicago Department of Water Management Projects | CH2M | Chicago, Illinois | Force Account Engineer

Reviewed construction projects impacting the Chicago Department of Water Management's assets, ensuring compliance with city requirements and facilitating integration into the existing system.

** denotes projects completed with other firms*

Grant Schoepper

Construction Manager

29 years of experience · Portland, Oregon

Grant brings comprehensive experience in planning, estimating, and leading heavy civil construction projects and crews. He expertly coordinates and optimizes resources to increase budgets and meet strict deadlines.

EDUCATION

MS, Civil Engineering, Portland State University, Portland, OR

BS, Civil Engineering, University of Washington, Seattle, WA

REGISTRATIONS

Professional Engineer #36345, State of Washington

Professional Engineer #62653PE, State of Oregon

PROJECT EXPERIENCE

Willamette Water Supply Program PLM_4.1 Waterline Project | Grant (Construction Manager)| Sherwood, OR | Construction Manager

Grant is the construction manager for this waterline project that includes 4200 LF of 66-inch polyurethane-coated, mortar-lined steel water pipeline though the city of Sherwood. The alignment is entirely beneath existing city streets along highly traveled SW Tualatin-Sherwood Road, across US-99W via pipe jacking and along Roy Rogers Road. The project is being delivered in partnership with Washington County and includes major transportation improvement elements.

Willamette Water Supply Program PLM_4.2 Waterline Project | Grant (Construction Manager) | Sherwood & Tualatin, OR | Construction Manager

Grant is the construction manager for this waterline project that includes 7100 LF of 66-inch polyurethane-coated, mortar-lined steel water pipeline though the cities of Sherwood and Tualatin. The alignment is entirely beneath existing city streets along highly traveled SW Tualatin-SherwoodRoad and includes three trenchless sections constructed via auger bore. The project is being delivered in partnership with Washington County and included major transportation improvement elements.

Willamette Water Supply Program PLM_4.4 Waterline Project | Grant (Construction Manager) | Sherwood, OR | Construction Manager

Grant is the construction manager for this waterline project that includes 3000 LF of 66-inch polyurethane-coated, mortar-lined steel water pipeline though the city of Sherwood. The alignment is entirely beneath existing city streets along highly traveled Roy Rogers Road. The project is being delivered in partnership with Washington County as part of a road widening project.

James W. Fowler | Various Municipalities | Portland, OR | Project Manager

Grant was the general contractor specializing in a variety of heavy civil projects including wastewater treatment, water treatment and underground utilities around the West Coast. His duties included:

- Oversaw the construction of projects at wastewater treatment plants and a storm drain project.
- Tasks included scheduling of work, procuring materials, preparing and submitting pay estimates, submittals, RFIs, and maintaining a relationship with the project owner.
- Project owners included City of Gresham, City of Lake Oswego, City of Newberg, and City of Portland.

Estimator, Kerr Contractors | Woodburn, OR | Estimator

Grant was the general contractor specializing in earthmoving, road building, and underground utilities in Oregon and Washington.

- Prepared and estimated a variety of projects including roads, site development, underground utilities, and airport construction.
- Project owners included ODOT, Port of Portland, Washington County, Clackamas County, and an assortment of private developers.

** denotes projects completed with other firms*

Marc Krekos

Inspection

37 years of experience · Portland, Oregon

Marc has 37 years of experience in construction management and inspection including extensive experience delivering construction services on water and wastewater treatment facilities, water transmission lines, outfalls, sewer systems, and force mains. He excels at construction administration tasks including documenting daily activities, and responding to contractor clarifications and payment requests. Marc has a long history of successful construction inspection for evacuation, dredging, landfill liners, and other environmental projects.

EDUCATION

A.S., Civil Engineering Technology, Portland Community College, 1985

PROJECT EXPERIENCE

Willamette Water Supply Program MPE_1.2 and MPE_1.3 Waterline Projects

Marc is a construction inspector on more than six miles of 48-inch polyurethane-coated, mortar lined steel water pipeline along SW Scholls Ferry Road in Beaverton. The project also includes more than three miles of 16-inch ductile iron water pipeline for the City of Beaverton, 2000 LF of 24-inch ductile iron waterline, a Pressure and Flow Control Facility, an open cut railroad crossing, and seven trenchless crossings installed by microtunneling, pipe jacking, and auger bore.

Willamette Water Supply Program PLM_5.1 Waterline Project

As part of the $1.6B Willamette Water Supply Program, Marc was the lead inspector on 1.3 miles of 66-inch epoxy coated, mortar lined steel raw water pipeline along Roy Rogers Road in rural Washington County south-east of the city of Beaverton. The work included open cut and trenchless pipeline installation, valve vaults, cathodic protection systems, an intertie vault with the City of Tigard, and final disinfection and testing.

Industrial Waste Treatment Facility | Confidential Client | Hillsboro, Oregon| Quality Assurance Field Management

Marc provided Quality Assurance Field Management for this new $300M, 7 mgd industrial waste treatment facility project. Marc's responsibilities included quality assurance of all construction, including rebar and structural concrete placement, earthwork, piping installation and hydrostatic testing.

Former BBI Solvent Recycling Facility, Treatment Plant | Honeywell International Inc. | Portland, Oregon | Construction Management

Marc provided construction management for the $2.5 M construction of a 2,300 ton soil removal action at the source site and a new Groundwater Treatment Facility down gradient. He was responsible for documenting daily activities, overseeing the soil removal action confirming that all of the contamination had been removed, foreseeing potential contractor problems, addressing contractor clarifications and conflicts, and responding to payment requests. Marc performed a 6-week operational shakedown of the plant before turning it over to OMI.

Natural Treatment System Irrigation and Pipeline | Roseburg Urban Sanitary Authority | Roseburg, Oregon | Construction Manager

Marc managed construction of a natural treatment system for secondary wastewater effluent. He was responsible for documenting daily activities, overseeing all parts of the embankment fill construction foreseeing potential contractor problems, addressing contractor clarifications and conflicts, and responding to payment requests. He performed a 6-week operational shakedown of the plant before turning it over to the client.

Todd Tubbert PE

Construction Manager

25 years of experience · Portland, Oregon

Todd has 25 years of experience working on large water and wastewater infrastructure projects including: large diameter water transmission lines, groundwater supply and treatment, aquifer storage and recovery wells, combined sewer overflow storage, and water and wastewater treatment plant rehabilitation and expansion projects. Todd's geological background and construction management skill set has given him the ability to manage and implement program and project management systems to effectively deliver construction projects. Todd's expertise focuses on managing contract compliance, overseeing construction inspections, resolving project issues, and setting a strong example for construction health and safety.

EDUCATION

BS, Civil Engineering, University of New Hampshire, Durham, New Hampshire

REGISTRATIONS

Professional Geologist – PG 2685 (FL)

30 Hour OSHA – Construction Safety & Health

PADI Advanced Open Water SCUBA Diver

PDIC Open Water SCUBA Diver

CPR and First Aid Certified

PROJECT EXPERIENCE

Willamette Water Supply Program (WWSP), Hillsboro, Oregon (Construction Manager)
Client: Tualatin Valley Water District, the City of Hillsboro, and the City of Beaverton

The $1.6B Willamette Water Supply Program includes multiple projects crossing six cities the supply water to multiple agencies. Todd has served as a Construction Manager on four projects focusing on management of the construction contractor's scope, schedule, budget, management of materials testing, and reporting into the program controls system.

Willamette Water Supply Program (WWSP) – PLM_5.2 Pipeline Project, (Construction Manager)
Client: Tualatin Valley Water District, the City of Hillsboro, and the City of Beaverton

The $15M PLM_5.2 Project included the installation of approximately 9,890 linear feet of 66-inch-diameter cement mortar-lined polyurethane-coated welded steel waterline and a trenchless crossing beneath Scholls Ferry Road. The project was on a tight timeline to be delivered before major redevelopment in South Beaverton.

E-Interceptor Rehabilitation Phase 1 and 2A | City of Vancouver, WA | Vancouver, WA | Construction Manager

The $144M RES_1.0 – PLM_5.3 Project, delivered through a CM/GC construction contract, includes a new 15MG pre-stressed concrete reservoir, a water quality building, valve and flowmeter vaults, and associated yard piping and sitework. The pipeline work includes the installation of approximately 20,182 linear feet of 66-inch diameter cement mortar-lined polyurethane-coated welded steel pipe. The project also includes installation of 120 linear feet of 84-inch steel casing pipe via trenchless construction methods.

Supply Program (WWSP) – PLW_1.3 Pipeline Project, (Construction Manager)
Client: Tualatin Valley Water District, the City of Hillsboro, and the City of Beaverton

The $29M PLW_1.3 Project includes the installation of approximately 6,326 linear feet of 66-inch-diameter cement mortar-lined polyurethane-coated welded steel waterline and approximately 3,857 linear feet of 30-inch ductile iron pipe. The project included a 500 LF microtunnel below Butternut creek and associated 60-foot deep secant pile shafts. The work included the provision and installation of large diameter valves, vaults, manway assemblies, blowoff assemblies and appurtenances.

Willamette Water Supply Program (WWSP) – Wilsonville Area Pipeline Project – PLW_1.1 Pipeline Project (Construction Manager)
Client: Tualatin Valley Water District, the City of Hillsboro, and the City of Beaverton

This $7M project included more than 4,000 linear feet of 48-inch cement mortar-lined polyurethane-coated welded steel waterline, distribution system connections, and a 230 LF trenchless crossing beneath Tualatin Valley Highway installed via auger bore. This work included railroad track crossing and was delivered in coordination with a developer creating new streets and homesites as part of a major development.

Bennie Bitz PE

Construction Inspector

32 years of experience · Portland, Oregon

Bennie has extensive experience in field engineering, subcontract administration and coordination, resource management, and traffic control supervision.

EDUCATION

Bachelor of Science, Construction Engineering Management, Oregon State University, Corvallis, Oregon

REGISTRATIONS

Engineer in Training No. 9397EIT – Oregon

Certified Traffic Control Supervisor – Washington

USACE Certified-Construction Quality Management for Contractors

PROJECT EXPERIENCE

Willamette Water Supply Program PLM_1.3 Waterline Project | 2022-Present
Bennie is the lead inspector on 3.3 miles of 66-inch polyurethane-coated, mortar-lined steel water pipeline though the city of Wilsonville. The alignment is primarily beneath existing city streets through a busy industrial district and includes two trenchless sections installed via auger bore tunneling. The project also includes turn lanes, curb ramps and other street improvements for the City of Wilsonville.

Washington Park Reservoir Improvements Project | Portland, OR
QA/QC Manager. Ensure all aspects of construction is compliant with the contract drawings, specifications and approved submittals while incorporating all pertinent RFI's, CCD's and field orders, produced daily field
reports and coordinated all required Owner related inspections.

Ridgewood View Park Reservoir & Pump Station | Portland, OR
Construction Manager/QA/QC Manager. Verified all aspects of construction were compliant with the contract documents, coordinated special inspections, document review (RFI, CDC, submittal, NOC, pay application), produced daily reports, erosion/sediment control inspections, progress photos. Filled in for the contractor's QA/QC manager performing duties including checking each concrete load for temperature/batch time and tracking discharge, creating a curing schedule for the contractor to track removal of curing measures, ensuring curing measures are active for the appropriate period for each placement.

Republic Services Maintenance Facility | Wilsonville, OR
Superintendent. Responsible for all facets of construction, including schedule maintenance, subcontractor coordination, special inspection coordination, scheduled City of Wilsonville building inspections, pay application review, daily reports, progress photos, RFI and change order review. At the time of hiring, the job was 2 ½ weeks behind schedule and in one month, it was 1 ½ weeks ahead of schedule.

Durham Wastewater Treatment Plant, Tigard, OR | Construction Manager
In charge of field work and daily inspections. QA/QC responsibilities, including hydro and pressure testing of all lines ranging from 2"- 84", coordinate special inspections (rebar, concrete, structural steel, decking, welding, in-place density, epoxy anchors), daily reports, progress photos and pay application review.

North Marion County Disposal Facility, Woodburn, OR | Construction Manager
In charge of field work and daily inspections. QA/QC responsibilities, including hydro and pressure testing of all lines ranging from 2"- 84", coordinate special inspections (rebar, concrete, structural steel, decking, welding, in-place density, epoxy anchors), daily reports, progress photos, RFPs, change orders, and pay application review. "Guy on Site" responsible for total job completion.

Lower Tualatin Pump Station | Tualatin, OR | Construction Manager

In charge of field work and daily inspections. QA/QC responsibilities, including hydro and pressure testing of all lines ranging from 2"- 84", coordinate special inspections (rebar, concrete, structural steel, decking, welding, in-place density, epoxy anchors), daily reports, progress photos, RFPs, change orders, pay application reviews, close out, and punch list.

Rick Hyatt PE

Construction Inspector

20 years of experience · Portland, Oregon

Rick has more than 20 years in civil construction with 10 years as a construction inspector on both traditional open cut methods and trenchless installations. Extremely dependable and professional, ability to read and interpret and apply construction plans, specifications, codes and laws, knowledge of and experience in construction survey practices, effective problem solver and partner with contractors, engineering and field personnel for project success, committed to safety, effective communication skills oral and written, prepare and delivers timely project documentation, knowledge of construction practices, equipment, materials, quality standards and test methods.

PROJECT EXPERIENCE

WASTEWATER

Willamette Water Supply Program PLM_4.3 Waterline Project

Rick is the lead tunnel inspector on 2.4 miles of 66-inch polyurethane-coated, mortar lined steel water pipeline along Roy Rogers road in rural Washington County north of the City of Sherwood. The reach includes a 1,900-foot, 84-inch microtunnel beneath the Tualatin River and a 500-foot, 84-inch microtunnel beneath Chicken Creek.

Willamette Water Supply Program 1.0 Project

Rick was a construction inspector on Phase 1 of this raw water facilities and pipeline project on the property of the existing operating Wilsonville Willamette Water Treatment Plant. Phase 1 of the project included a new intake screen and seismic modifications in the Willamette River, ground improvements with deep soil mixing and jet grouting, structural modifications to the existing pump station, 3000 LF of 66-inch welded steel waterline, an 80-inch trenchless crossing installed via pipe ramming, electrical ductbanks, and auger-cast deep foundation piles.

Construction Inspector for the Heath-field pump station | Bellevue, WA

Rick provided inspections QA/QC services for trench less work 1900’ x 30” hdpe. Installed via horizontal drill method, 24” TR flex ductile iron pipe (sanitary) install open cut method. Enforce environmental specifications, traffic control and public outreach. Inspections for shaft build and de- watering, QA/QC for restoration - asphalt and concrete, hydro seed, structure rehab and replacement. Helped contractors follow plans and specifications

60-inch Steel Pemalock Install | Sarasota, FL

Construction inspector for the installation of 60- inch steel permalock pipe via microtunnel method. Rick provided time in motion reports, collecting important data from the control both, enforcing specifications while monitoring contractor progress also providing daily photo logs and reports. There were two drives, the first one approximately 680 feet and the second being 560 feet.

Powell Butte Reservoir 50-million-gallon reservoir- 2 cells all concrete | Portland, OR | Construction Inspector

Responsibilities included QA - QC for rebar and concrete placement of floor, walls, columns (30”). QA-QC rebar size and spacing. QA - QC - vibrating and curing of concrete. Inspections of Electrical conduit and duct bank and handhold placement. Inspections of electrical control panel placement. Each cell had 274 - 30’’ x 35’ concrete columns - reinforced rebar size and spacing inspected for the columns also. Reservoir 600’ x 450’ x 35’

Calleguas, Ca

Construction Inspector for the installation of over 700 feet of 42-inch steel casing via auger boring beneath creeks, flood control levees, railroads and roadways, with the longest drive reaching 255 feet. Provided daily reports, photos and updates dealing with the contractor’s progress and activities. Monitored the drilling data and compliance with the plans and specifications.

Steve Clapper

Construction Manager

20 years of experience · Portland, Oregon

Steve has more than 29 years in construction and construction management of public projects. His experience includes federal, state, and municipal water, sewer, and transportation projects. He specializes in water and sewer pipelines, civil infrastructure, and treatment plants. His inspection experience with water and wastewater systems has included working closely with operations personnel and coordinating with permitting and communications teams. Steve's skills are applied to infrastructure projects for quality management, safety, scheduling and estimating.

REGISTRATIONS

Confined Space Training

OSHA 30 Hour Training

Excavation Competent Person

First Aid and CPR

CMAA Construction Management

PROJECT EXPERIENCE

WASTEWATER

Willamette Water Supply Program Inspector WTP 1.0 Water Treatment Plant | Sherwood, OR | 2022 - Present

Steve is the Assistant Construction Manager for this 60 MGD, $400M greenfield water treatment plant with ballasted flocculation, Ozone, UV, and filtration processes. He is responsible for oversight of inspectors for civil, structural, and yard piping scopes, including mass excavation, blasting, concrete, and structural steel.

Willamette Water Supply Program Inspector, PLM_1.1 Pipeline Project

Steve was the lead Inspector for this project that included more than 1,300 LF of 66" diameter welded steel water transmission line. The project included an open cut creek crossing that was limited by an in-water work window, work within an active roadway, a crossing of an existing 63-inch waterline, as well as blowoff and air release appurtenances. Steve was the lead inspector responsible for monitoring the contractor's adherence to the contract documents and permit conditions, providing daily reports and photographs, and managing third-party quality assurance testing.

Pipeline Inspector, SDS North Pipeline 1C/2A

During the planning phase of this 6.1-mile, 66-in-dia raw water pipeline, Steve reviewed drawings and submittal specifications, providing value engineering and constructability review. During construction, he provided inspection and coordination with outside stakeholders and property owners.

Willamette Water Supply Program Inspector, PLM 2.0 Pipeline Project

Steve was the pipeline inspector for more than 3000 LF of 66" diameter welded steel waterline. The project was delivered in partnership with the City of Wilsonville and ODOT to construct a waterline, a sewer main, and a new road through an environmentally sensitive area. Steve monitored and inspected the contractor's adherence to the contract documents, provided daily reports and photographs, and managed third-party quality assurance testing.

Willamette Water Supply Program Inspector, PLM_3.0 Pipeline Project

Steve was the Lead Inspector for this project which included more than 14,000 LF of 66" diameter welded steel waterline and a trenchless railroad crossing. The project was delivered in partnership with Washington County while constructing the new 124th Avenue project. Steve monitored and inspected the contractor's adherence to the contract documents, provided daily reports and photographs, and managed third-party quality assurance testing.

Construction Inspector, Southern Delivery System (SDS) Program, Colorado Springs Utilities (CSU) | Colorado Springs, CO | 2011-2016

Steve was a key member of the Southern Delivery System (SDS) Program for the Colorado Springs Utilities (CSU), an $880M regional project. Phase 1 of this program includes 47 miles of 90- and 66-in-dia raw-water pipeline, over 4 miles of large-diameter finished water distribution pipeline, three pump stations, and significant public involvement. Steve worked on the following SDS projects:

4.

Wastewater Process Engineering and Operational Support

A.

Firm Resources

Firm Resources

Stantec is a multi-disciplinary engineering firm founded in 1954 that consistently tops Engineering News Record's (ENR's) list of water and wastewater engineering firms. For over 71 years, we have had strong roots in the Pacific Northwest and a footprint that now spans the globe. We have more than 31,000 employees working in over 450 locations across six continents. Here in the Pacific Northwest, we have six permanent offices staffed with more than 250 engineers, designers, program managers, project managers, construction managers, financial and project controls personnel that are readily available and will be supporting your projects. Our local resources available to support the performance of your projects are highlighted on the following pages of this SOQ.

We're Successful in the Neighborhood and Around the World

#1

Top 25 International Design Firms – Environment – Wastewater Treatment; Engineering News Record, December 2022

$195B

in completed projects under various capital programs

2,500+

wastewater treatment plant projects delivered

Since our Portland office opened in 1991, we have been a close partner with agencies like WES providing process evaluation, planning, troubleshooting, alternatives analysis, and operational support for numerous wastewater utilities throughout Oregon and Washington. We are known for delivering cost effective solutions that optimize existing infrastructure and provide reliable performance.

Our clients depend on us for technical support because of our proven track record, accountability, strong sense of client loyalty, consistent professionalism, and our commitment to excellent service and schedule compliance. We continue to serve under several public utility on-call contracts throughout Oregon and Washington. Under these contracts, we have successfully completed numerous task orders for Portland Water Bureau, Bureau of Environmental Services, the Cities of Beaverton, Grants Pass, and Vancouver, and the King County Wastewater Treatment Division.

The success that our team will deliver on your projects is built on a solid foundation consisting of:

- Dedicated, local team with strong technical expertise and project management skills
- Clear organizational structure with a single point of contact for all service areas
- National experts with Oregon experience who will advise and provide quality reviews
- Broad experience with both time-tested and emerging treatment processes and process simulation tools

B.

Local Experience

Local Experience

Our Portland-based team has successfully delivered hundreds of wastewater conveyance and treatment engineering designs throughout the region, from the City of Anacortes in northern Washington to the City of Ashland in southern Oregon – and many public utilities in between. The following pages provide descriptions of similar projects completed within the last five years. We invite you to contact the references to learn more about our ability to successfully deliver your projects.

> "Through the course of our manipulations we've found that the training we were given was very effective, so we who attended the training have been able to easily avoid any roadblocks that might otherwise have crept up and can teach the others at the same time. Thanks, again, not only for building such a robust tool for our future use but also for teaching us how to use it effectively! We look forward to routinely using both the operational planning capabilities and the educational benefits we now have at our disposal."
>
> Marshall Dunn, Operations Supervisor, City of Pocatello, regarding BioWin model development and training

Pocatello Water Pollution Control Facility Process Optimization | City of Pocatello | Pocatello, ID | 2020 - 2021

Key Staff: Heather Stephens, Katerina Messologitis

The Pocatello Water Pollution Control Facility (WPCF) is an enhanced biological phosphorus removal (EBPR) facility that is required to achieve a low effluent total phosphorus concentration (approximately 0.3 mg-P/L) and a low effluent ammonia concentration (approximately 5 mg-N/L). Historically, the performance of the EBPR process was sufficient to meet the effluent requirements, however, the aeration system was outdated and was often operated at its capacity to achieve the effluent ammonia requirement. Stantec conducted an aeration study to evaluate the capacity of the existing aeration system and identify optimization opportunities for more efficient operation of the swing and aeration zones. All optimization scenarios were evaluated using BioWin™, a wastewater process modeling software, with the intent of estimating the current and future aeration system demands.

As part of the aeration study, Stantec also worked with Redmon Engineering Company to evaluate the condition of the existing ceramic diffusers through laboratory testing. The test results were used to determine the degree of fouling of the diffusers and identify potential impacts to the blowers by comparing the performance of the existing diffusers before and after cleaning to the performance of new diffusers.

The study identified that the blower capacity and headloss across the existing diffusers (after acid cleaning) were inadequate to meet the current and future aeration demand.

Stantec recommended a phased approach for the aeration system replacement to "right-size" the system. The first phase was to replace the aeration diffusers (completed in 2024), which reduced the operating pressure of the blower system to allow the blowers to operate closer to the design point. The next phase will confirm the aeration system demand in BioWin™ using the updated diffuser information to size the blowers for the swing and aeration zones.

During the development of the BioWin™ process model, Stantec provided a BioWin™ training for the plant staff to allow them to evaluate operational scenarios and use the model as a training tool for new staff.

Reference: Levi Adams | WPC Superintendent | (208) 234-6256 | ladams@pocatello.gov

Idaho Falls Sidestream Treatment Evaluation | City of Idaho Falls | Idaho Falls, ID | 2023

Key Staff: Heather Stephens

The City of Idaho Falls WWTP was in the process of upgrading their dewatering process from sludge drying beds and storage lagoons to a more efficient screw press dewatering system. The dewatering screw presses will be operational in 2024 and generate liquid and solid streams. The sidestream evaluation was performed as part of an overall Facility Plan to analyze the nutrient-laden liquid stream's impact on the overall treatment system and evaluate the need for a potential sidestream treatment.

Due to the City's enhanced biological nutrient removal system within the wastewater treatment plant, followed by anaerobic digestion upstream of the dewatering process, the filtrate stream was expected to have high concentrations of ammonia and phosphorus. A filtrate storage tank, or equalization basin, was constructed as part of the dewatering project. The basin allowed for a controlled return of nutrient-laden water back into the plant's liquid treatment stream. To mitigate adverse effects of the phosphate-rich filtrate, ability to dose chemical coagulant is included in the dewatering project. However, the coagulant is not anticipated to mitigate high ammonia load. The sidestream evaluation considered options to reduce the return ammonia load and recommended that the MBBR technology, ANITA™ MOX, to not overload the secondary treatment system.

Reference: Carl Utter | Wastewater Division Superintendent | (208) 612-8114 | cutter@idahofalls.gov

San Jose Struvite Mitigation Mass Balance | San Jose-Santa Clara Regional Wastewater Facility | San Jose, CA | 2023

Key Staff: Sara Arabi, Nate Brown

The San Jose RWF is a tertiary WRRF with a design capacity of 167 MGD. The WRF has historically experienced struvite formation the sludge exporting pipelines which was removed using chemical cleaning. After commissioning of the Temperature Phase Anaerobic Digestion process, struvite deposit build up has been observed in the cooling Heat Exchangers (HEX) and reduced the hydraulic capacity and cooling performance. A sampling and analysis program was formed to better understand the struvite formation potential, quantifying the load of phosphorus throughout the plant and specifically in the solids processing trains.

Typically, WRRFs target soluble P removal to reduce the potential for struvite formation. P load to the digesters can be reduced by adjusting the anoxic fraction of the biological process to avoid EBPR. Other longer-term struvite mitigation strategies recommended were flash cooling, pre-dewatering struvite sequestration/recovery, and post-dewatering struvite recovery.

CNLV WRF EBPR Process Optimization | City of North Las Vegas | Las Vegas, NV | 2022 – 2023

Key Staff: Chris Machado, Katerina Messologitis

The City of North Las Vegas Water Reclamation Facility (CNLV WRF) is an enhanced biological phosphorus removal (EBPR) facility that is required to achieve a low effluent total phosphorus concentration (approximately 0.3 mg-P/L) and a low effluent ammonia concentration (approximately 0.6 mg-N/L). Historically, CNLV WRF has had trouble meeting these low phosphorus permit limits biologically and supplements the EBPR process with ferric chloride to improve phosphorus removal efficiency.

Stantec conducted a process optimization study to identify and evaluate potential opportunities to improve the stability of the biological phosphorus removal process. The study targeted key process parameters, such as chemical addition, solids retention time, hydraulic retention time, and oxidation reduction potential, all of which can also impact MBR performance. Seven optimization scenarios were developed focusing on three themes: peak flow management, solids loading in the MBR (chemical and biological), and dissolved oxygen concentration in the MBR and recycle streams.

All optimization scenarios were evaluated using BioWin™, a wastewater process modeling software, with the intent of shortlisting several optimization alternatives to test on the full-scale process. The simulation results were used to estimate process performance, such as MBR permeate phosphorus, ammonia, and nitrate concentrations, under varying operational conditions.

CNLV WRF implemented two of the optimization scenarios at full-scale and observed similar results to the process modelling scenarios, which has resulted in less ferric chloride addition. Stantec is continuing to work with the CNLV on additional optimization and process modelling scenarios to further improve the performance of the biological system.

Reference: Bryce Burrell | Operations Supervisor | (702) 633-1159 | burrellb@cityofnorthlasvegas.com

C.

Project Team

Project Team

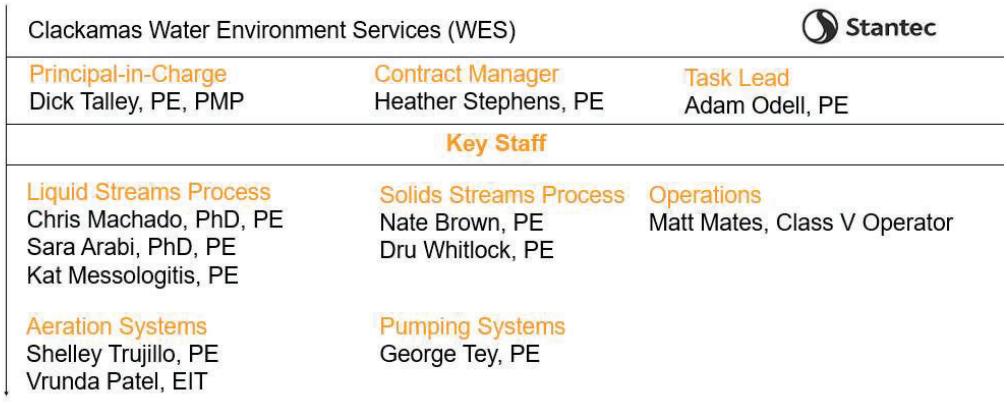
The ideal partner for WES will have the process engineering and operational experience to help you answer key questions and develop solutions for troubleshooting challenges, the tools required to help you make confident decisions, and the local resources to move your operations forward. On-Call project assignments require a team that can respond quickly to scoping requests, efficiently mobilize the right team to address your needs, and coordinate with your staff and project stakeholders to deliver the projects you need. We offer the following benefits:

Strong Project Leadership **Depth of Technical Capabilities** **Trusted Local Partnership**

For this On-Call Contract, Dick Talley, Vice President, will serve as Principal-in-Charge. At Dick's side is Heather Stephens, who will serve as Contract Manager. Their roles are separate but complementary. Dick's focus includes providing leadership, authorization, and client service support, while Heather's focus is solely on your projects as an advocate for you. She will oversee staffing availability, overall schedule and budget management, project delivery, and quality control practices. Heather will work closely with Task Lead Adam Odell who has supported WES on projects at both the Tri-City and Kellogg Creek Water Resource Recovery Facilities since 2007 Adam will provide day-to-day oversight of task teams and coordinate directly with the WES Project Manager and Operations and Maintenance (O&M) staff. Heather and Adam will work together to understand WES' needs, develop an approach to achieve your objectives, and engage the right team members to deliver the work.

The organizational chart shows the responsibilities of our team members and identifies the resources we intend to commit to addressing your needs under this contract. This is followed by brief descriptions of their tenure in the field and relevant experience.

Heather and Adam will be supported by subject matter experts in all aspects of wastewater process design and operation. These experienced technical staff are responsible for execution of assigned work tasks and will direct and guide the technical development of deliverables. They are all experienced in delivering On-Call wastewater services to municipal clients, and have a diverse background in all aspects of wastewater treatment plant operation.



 **Dick Talley, PE, PMP** **Principal-in-Charge** **Yrs. Experience: 34** **Portland, OR**	Throughout his career, Dick has gained experience with program management and controls, schedule, budget, scope and risk management, design development, bidding, procurement, alternate project delivery processes, engineering, and management for municipal and heavy civil projects ranging in total project value from $500,000 to over $1 billion for cities, districts and private industry. Dick brings a unique style of collaboration and client service that he has learned over the past three-plus decades and prides himself on his ability to consistently deliver projects that meet all objectives for quality, schedule and budget both for his client and his company.
 **Heather Stephens, PE** **Contract Manager** **Yrs. Experience: 29** **Portland, OR**	Heather is the Regional Wastewater Practice Leader at Stantec in Portland, Oregon, with 29 years of experience in the planning, design, and management of wastewater, conveyance, and treatment systems. With a focus on municipal clients, Heather has completed dozens of projects involving process engineering and optimization. She understands the challenges facing wastewater utilities in the Pacific Northwest, and helps communities develop holistic strategies to build resources and build reliable facilities that benefit local communities. WES can count on Heather to be engaged for the full duration of the project.
 **Adam Odell, PE** **Task Lead** **Yrs. Experience: 18** **Portland, OR**	Adam has 18 years of experience in civil, mechanical, hydraulics, and process engineering. Adam has led design teams and managed On-Call task orders for several local clients including the City of Sandy and Vancouver. Adam has worked on several optimization projects including a grit removal optimization project for Sand Island, HI, a membrane process enhancement for Newport, OR, and has helped develop engineering standards for BES. Adam brings several important attributes to this project: history and experience working with WES, an understanding of wastewater process design.
 **Chris Machado, Ph.D., PE** **Liquid Streams Process** **Yrs. Experience: 28** **Denver, CO**	Chris is one of Stantec's wastewater practice leaders and has over 20 years of experience that include process design, facility assessment and planning, process optimization, design management, and engineering services during construction. Chris is an expert in biological nutrient removal and has participated in numerous wastewater treatment projects involving both nitrogen and phosphorus removal. Chris has planned and assessed over 20 facilities in the West of the United States, including the recent Apache Junction Sewer District's Water Reclamation Facility Phasing Plan (Apache Junction, AZ) and the 2018 Facility Plan for the Metro Water Recovery (Denver, CO).

 **Sara Arabi, Ph.D., PE** **Liquid Streams Process** **Yrs. Experience: 19** **Fort Collins, CO**	Sara has 19 years of experience in environmental consulting, research, and process engineering for water/wastewater treatment. Her primary background and area of expertise is wastewater treatment plant modeling, design and optimization—including biological nutrient removal and membrane-based processes, for wastewater treatment facilities across North America. She adeptly serves clients with thorough alternatives evaluation, design, troubleshooting, and WWTP disposal impact assessment. Her depth of experience also encompasses process sizing and cost estimation for physical/ chemical treatment, biological treatment, and membrane-based processes.
 **Katerina Messologitis** **Liquids Stream Process** **Yrs. Experience: 8** **Portland, OR**	Katerina's experience ranges from facility planning to full-scale plant design and operation. Katerina is well versed in wastewater process modeling, piloting, and water quality and treatment optimization studies through her involvement in projects across the Western U.S. Her experience has provided her with skills to close the loop between planning, testing, design, and operations. Katerina has built process models and trained operations staff on how to troubleshoot their plant.
 **Shelley Trujillo** **Aeration** **Yrs. Experience: 25** **Denver, CO**	Shelley is a wastewater practice leader at Stantec with more than 25 years of treatment experience in biological nutrient removal, aeration/blower, and WWTP projects. Over her tenure with Stantec, she has gained experience with all facets of a WWTP and knows how to collaborate with O&M staff to make sure Stantec's designs are flexible to meet client's needs. Shelley also has worked on more than a dozen blower projects and is intimately familiar with the blower vendors and technologies in the market. She is driven to help clients become leaders in treatment efficiency and reliability.
 **Vrunda Patel** **Aeration** **Yrs. Experience: 6** **Bellevue, WA**	Vrunda has 6 years of wastewater process and aeration design experience on a wide variety of municipal wastewater treatment improvements projects ranging from mainstream (liquid), biosolids and advanced controls improvements. Her process expertise includes wastewater simulations (SIMBA#), aeration and blower system design, process optimization and energy efficiency. Vrunda is an aeration system design and modelling specialist. Additional experience includes data analytics, data driven modeling, real-time online monitoring systems and enhancing data management and analytics software.

 **Matt Mates** **Operational Lead** **Yrs. Experience: 43** **Bellevue, WA**	Matt offers more than 40 years of experience in the wastewater industry. He performs tasks at varying levels within operations, coupling strategic planning with process and operations optimization and management to develop risk-based operational strategies for municipal wastewater treatment and operational readiness projects. Matt applies best practices from his work on state-of-the-art BNR facilities around the globe. He also has extensive experience developing O&M documentation and training plant operators. Matt leverages his detail process design and simulation experience to provide extra value to clients.
 **Nate Brown** **Solids Streams Process** **Yrs. Experience: 20** **Denver, CO**	With 20 years of process and mechanical design experience, Nate has managed and delivered 100+ global large-scale wastewater treatment projects from planning through construction and startup. He is a subject matter expert in solids management, sidestream nutrient removal, and recovery schemes. Nate will offer passion and expertise in aeration system optimization and biosolids treatment, bringing innovative solutions and efficient project delivery for wastewater treatment initiatives.
 **Dru Whitlock** **Solids Stream Process** **Yrs. Experience: 31** **Salt Lake City, UT**	A global practice leader for our wastewater services, Dru has more than 30 years of research, science, and engineering experience, including extensive biosolids experience, specializing in anaerobic digestion, biogas utilization, and energy management optimization. His design experience includes preliminary and detailed design of processes like conventional and advanced anaerobic digestion, cogeneration, activated sludge biological and chemical nutrient removal systems, and composting and odor control systems.
 **George Tey** **Pumping** **Yrs. Experience: 34** **Pasadena, CA**	George is a senior pump station specialist who has experience leading the mechanical design, providing technical direction, and assuring quality control. He has participated in all Portland Metropolitan area pump station projects for clients including Clean Water Services, City of Vancouver, and Clackamas Water Environment Services.

D.

Our Approach

Our Approach

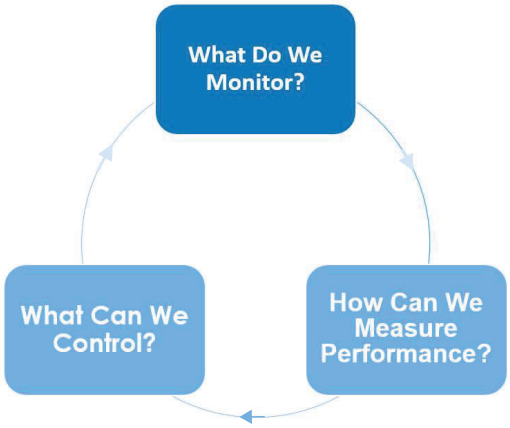
Stantec's approach to process engineering and operational support follows a methodical strategy. The approach will be tailored depending on WES' operational needs; however, the general philosophy is to begin by evaluating each unit process individually, comparing performance efficiencies against the process design criteria and reputable established criteria (EPA Guidelines, WEF Manuals of Practice, etc.), identifying and addressing data gaps, and assessing opportunities for process modification or infrastructure changes to maintain continuous and reliable treatment performance.

The first step is to understand the Process Flow Diagram and Process and Instrumentation Diagrams, review the information collected on a regular basis, and meet with O&M staff to understand typical performance, periodic/seasonal changes, and relevant maintenance history. Database information can include daily monitoring report (DMR) and process control laboratory data, the sampling and analysis plan, chemical consumption, energy consumption, and maintenance records.

Our team has found that the typical goals owners seek to achieve from the type of tasks WES outlined in this category are:

- Determine whether additional sampling and analysis can provide potential performance indicators to better manage process effectiveness,
- Solve problems cost-effectively through operational modifications or equipment replacement, and
- Support training of operations staff to communicate the process control philosophy, provide support in use of process control tools, and ensure that appropriate safety and emergency response protocols are in place.
- Identify long-term recommendations such as changes in staffing responsibilities or routine O&M activities to achieve desired outcomes.

Based on our knowledge of WES's main treatment facilities (Tri-City and Kellogg Water Resource Recovery Facilities) there are simple but key parameters that can be quickly evaluated to identify potential operational benefits. The table below shows an example of typical performance measures for each unit process and the benefits of examining these performance measures. For each task order in this Category, Stantec will work closely with WES staff to determine the scope of the assessment desired.



Creating a Culture of Persistent Process Optimization

Treatment Unit or Process	Data Analyzed	Benefit
Grit Removal	Pounds of grit per millions of gallons treated	Reduce grit in the digesters
Primary Treatment	TSS and BOD removal efficiency. Volume of primary sludge pumped and the percent solids content.	Reduce load to the secondary system resulting in reduced aeration demand; increase biogas production
Secondary Treatment (conventional)	SRT. Total nitrogen removed. Air and power consumed. RAS and WAS rates. Microbial morphology.	Stable process operation and consistent permit compliance
Secondary Treatment (MBR)	Flux and TMP. Air consumed	Energy savings
Thickening (GBT)	Polymer consumption, solids carryover	Reduced chemical cost and increased digester SRT
Digestion	Pounds of VS destroyed. Volatile acid to alkalinity ratio. Methane quality and quantity	Reliable Class B solids production, higher gas production and quality
Dewatering (centrifuge)	Polymer consumption, centrate quality, torque	Energy savings and reduced volume of sludge (higher liquid removal)
Disinfection	Effluent quality. UV transmittance. Chlorine demand, residual, and dose.	Reduced chemical and energy consumption

The specific approach used to provide process engineering and operational support will depend on the objective of the task order, available information, urgency of the issue or timeframe for providing input, and the budget available to support the effort. Once assigned a Task Order, Stantec will meet with the WES Project Manager and project stakeholders to establish the foundation of the work. Efforts to tackle process and operational analysis could include the following activities:

- **Process and hydraulic modeling** to assess the existing plant performance and evaluate alternatives for improvement or optimization
- **Process performance and capacity assessments** to determine the facility's ability to handle increased flow/load or meet new performance requirements
- **Condition assessment** such as blower evaluation or pump testing
- **Technology assessments** to evaluate new treatment technologies or equipment replacements to improve process performance
- **Pilot test planning and implementation** to validate the expected performance of new treatment configurations or technologies
- **Alternative analysis** to develop process improvement alternatives and determine the recommended approach based on criteria that are important to WES.

Appendix

Richard Talley PE, PMP

Contract Manager

48 years of experience · Portland, Oregon

Over his 48-year career, Dick has experience with design development, bidding, procurement, construction oversight and management, alternate project delivery processes, engineering, and management for raw water supply, diversion and delivery projects, raw, finished and wastewater pump stations, water and waste water treatment plants, storage, and collection/distribution system projects ranging in total project value from $500,000 to $150 million for cities and water districts.
Dick's directly applicable experience includes the design and delivery of many water system improvements and in particular providing annual distribution replacement projects for cities and water districts over his career. This experience has resulted in Mr. Talley being responsible for the replacement of over 750,000 feet of 6 to 16 inch PVC C-900 and ductile iron distribution systems, services connections, meters, multitude of pressure reducing stations, and 2 to 10 MGD pumping stations over the past 30 years.

EDUCATION

BS/BSc, Civil Engineering, University of Wyoming, Wyoming

REGISTRATIONS

Professional Engineer #PE 6110, State of Wyoming, Valid Until: 2025

Professional Engineer #50870, State of Washington, Valid Until: 2025

Professional Engineer #88473PE, State of Oregon, Valid Until: 2025

PROJECT EXPERIENCE

Bull Run Filtration Facility | Portland Water Bureau | Portland, Oregon | Principal in Charge

Dick serves as the Principal in Charge for the design of a new greenfield conventional water treatment facility to filter 125 MGD of raw water supply from the Bull Run Watershed.

Corrosion Control Facility | Portland Water Bureau | Portland, Oregon | Principal in Charge

Dick served as the Principal in Charge for the design of a new corrosion facility to improve alkalinity, pH, and chemical addition for corrosion control of the Bull Run Watershed supply.

Willamette River WTP Expansion | City of Wilsonville | Wilsonville, Oregon | Principal in Charge

Dick served as the Principal in Charge for the design of a replacement ozone system, seismic improvements, and a new power supply for the existing Willamette River Treatment Plant.

Willamette Water Supply Program (WWSP) | Tualatin Valley Water District (TVWD), City of Hillsboro (Hillsboro), and City of Beaverton (Beaverton) | Hillsboro and Beaverton, Oregon, United States | Principal-in-Charge

Stantec is serving as Program Manager of the Willamette Water Supply Program, which will provide a new supply of potable water to serve over 300,000 residents for the next 100 years. The program includes 18 miles of 66-in steel pipe, 8 miles of 48- to 60-in steel pipe, 6 miles of 36- to 54-in steel pipe, a new water treatment plant, and 30-MG of terminal storage. Dick has been invested in the Program for the past five years, developing master plans, evaluating pipeline routing options, and investigating various intake locations and configurations in the Willamette River as the Program has evolved. As the Program was defined, Dick represented Stantec and our capabilities, securing the Client's confidence in our ability to provide adequate staffing, resources, and the technical experience necessary to deliver over the nominally decade long project. Today, Dick maintains an active role, supporting the Program as a client advocate and providing technical input and quality control reviews, evaluating staffing needs, and supporting client engagement.

Heather Stephens PE

Senior Principal, Wastewater Leader

29 years of experience · Portland, Oregon

Heather Stephens, PE, is a Senior Wastewater Leader in Stantec's Portland, Oregon office. She has 23 years of experience in the planning and design of wastewater conveyance and treatment systems serving public utilities throughout the western United States. With a focus on municipal clients Heather has completed dozens of projects involving the design of wastewater facilities, wastewater treatment process engineering, wastewater system master planning, pipeline design, and asset management. She has a strong background in nutrient removal and resource recover in wastewater treatment systems, and brings a big picture vision to successfully handle complex projects for her clients. In addition to her technical skills, Heather is highly regarded for her ability to work with project teams, communicate challenging issues effectively, and successfully integrate efforts on large, complex projects.

EDUCATION

MS, Civil Engineering, University of Washington, Seattle, Washington

BS, Civil Engineering, Harvey Mudd College, Claremont, California

REGISTRATIONS

Professional Engineer #44916, State of Washington

Registered Civil Engineer #58599, Professional Engineers of Oregon

PROJECT EXPERIENCE

Kellogg Creek WRRF - Influent Pump Station Rehabilitation | Clackamas Water Environment Services | Milwaukie, Oregon | Project Manager

The influent pumps at the Kellogg Creek Water Resource Recovery Facility (WRRF) had reached the end of their useful life and required extensive maintenance. This project included design and construction services associated with replacing the pumps, discharge piping, and related power and control infrastructure. Heather managed the design team's efforts to prepare construction documents for Owner review, Agency approval, and bidding. When the need for additional services arose, Heather coordinated with the Owner to define scope requirements and execute CFD modeling to improve suction characteristics as well as structural rotodynamic analysis to ensure the pumps do not achieve a critical frequency causing excessive vibration.

Everett WPCF Facilities Plan | City of Everett | Everett, Washington | Project Manager

Heather led a team of experts that developed a comprehensive wastewater facility plan. The existing plant has limited liquid and solids capacity for future growth, is subject to flooding associated with extreme weather and potential sea level rise and has limited resiliency to withstand a seismic event. The plant lacked the ability to provide nutrient removal likely required under new regulatory standards for dischargers to the Puget Sound. The facility plan provided recommended improvements to address existing condition and capacity deficiencies, incrementally add nutrient removal, increase capacity, and provide reliable treatment into the future.

Redmond WPCF Facility Plan Update | City of Redmond | Redmond, Oregon | Project Manager

Stantec conducted a process evaluation and identified capital improvements needed to provide sufficient treatment capacity and reliably increase production of Class A biosolids. Heather led the team's efforts in consolidating this information and preparing a Facility Plan Update that meets Oregon DEQ requirements for SRF funding, expanding the scope of the study to include assessment of the service area natural resources, collection system needs, and support facility improvements.

Pocatello Water Pollution Control Facility Plan | City of Pocatello | Pocatello, Idaho | Wastewater Process Lead

Stantec provided biological process evaluation and recommendations for improvements to the City of Pocatello WPCF to reliably provide treatment of liquids and solids streams for a 20-year planning horizon. Stantec developed a biological process model to optimize process operation to comply with effluent phosphorus limits and to support future operational decisions. Stantec supported the City with upgrades to the secondary treatment aeration system resulting from the Facility Plan recommendations.

Adam Odell PE

Civil Engineer

18 years of experience · Portland, Oregon

Adam has 15 years experience working on water, wastewater, pump station, and civil engineering projects in Oregon. He focuses on civil engineering, mechanical engineering, hydraulics, hydraulic modeling, and process engineering. His recent work includes lead mechanical engineer for Lewiston Idaho's new 15 MGD membrane filtration system, design manager for the City of Beaverton's and the City of Portland's corrosion control facility upgrades, and lead civil engineer for the 32 MGD Lake Oswego-Tigard Water Treatment Plant. Adam brings two important attributes to this project: an understanding of water process design, and extensive mechanical and field engineering experience in Oregon.

EDUCATION

BS Environmental Engineering, Oregon State University, Corvallis, Oregon

BS Mathematics, Linfield College, McMinnville, Oregon

REGISTRATIONS

Professional Engineer #77866PE, Oregon State Board of Examiners for Engineering & Land Surveying

PROJECT EXPERIENCE

Tri-City WRRF – Phase II Solids Handling Improvement Project | Tri-City WRRF | Oregon CIty, Oregon | Lead Engineer

This project includes the expansion and refurbishment for all solids handling facilities at the WRRF. Facilities considered include new anaerobic stabilization, dewatering facilities including cake storage and load-out, electrical upgrades, sludge blend tanks, liquid sludge storage, biogas utilization and septage receiving.

Willamette Pump Station | Tri-City Service District | West Linn, Oregon | Design Manager

Design Manager current conditions evaluation of the pump station, the largest in the District. After previous evaluations of problematic pump clogging left the District without a firm solution, he helped evaluate the pump station holistically and provide a firm solution without leaving the district with a stranded investment.

Tri-City Blower Rehabilitation Evaluation and Design, Clackamas County | Tri-City | Clackamas County, Oregon | Design Manager

Adam provided technical troubleshooting, evaluation and "near term" masterplaning to help the District rehabilitate problematic process and membrane air scour blowers. Adam was the lead mechanical engineer coordinating the full demolition of eight existing blowers and the design of 5 rotary screw and 4 high speed centrifugal blowers all while keeping the facility online.

Tri-City WPCP - Pilot MBR Operation | Water Environment Services | Oregon City, Oregon | Project Engineer

Adam operated a pilot MBR from GE/Zenon to study and verify the design criteria for the full-scale application of MBR technology at the Tri-City WPCP for both wet- and dry-weather conditions. Adam's responsibilities included implementing the experimental plan, sampling, operations, development/execution of performance goals, and preparing the summary report.

Tri-City WRRF – Phase I Liquids Expansion | Lake Oswego-Tigard Water Treatment Plant | Oregon City, Oregon | Lead Civil Engineer

Adam served as a project engineer, designer and resident engineer throughout the entire lifecycle of the Tri-City WPCP Phase I Expansion. Design duties included the hydraulic modeling and development of the hydraulic profile, designs of effluent drop boxes, and utility water design. Adam performed the analysis for the flow control valves, lime feed system, and plumbing design. He also served as project engineer for a 15% pre-design intended to develop accurate cost data that was to be presented to the public. Adam developed the planning criteria, unit process technical memos, and assisted in the development of site layouts and design of unit process equipment. His responsibilities included developing/designing the headworks and liquids processes as well as developing certain solids handling processes.

Willamette Pump Station | Tri-City Service District | West Linn, Oregon | Project Engineer

After previous evaluations of problematic pump clogging left the District without a firm solution, Adam helped evaluate the pump station holistically and provide a firm solution without leaving the district with a stranded investment.

Chris Machado PhD, PE

Senior Principal Engineer

24 years of experience · Denver, Colorado

Chris is one of Stantec's Wastewater Sector Leaders with over 20 years of experience. Chris has served as project manager, design manager, process lead, process engineer, engineering services during construction support, and technical advisor in several projects, including planning, design, and construction.

EDUCATION

ME, Hydraulic Engineering, Federal University of Ouro Preto, Minas Gerais

MS, Geotechnical Engineering, Federal University of Ouro Preto, Minas Gerais

BS, Civil Engineering, Federal University of Ouro Preto, Minas Gerais

PhD, Civil and Environmental Engineering, University of Nevada Las Vegas

PROJECT EXPERIENCE

Boulder Water Resource Recovery Facility Sidestream Nutrient Removal Business Case Evaluation | City of Boulder | Boulder, Colorado | Process Lead

Chris was responsible for process evaluations and alternative analysis for a business case evaluation (BCE) comparing expansion of Boulder's existing post-aerobic digestion process to sidestream deammonification treatment for nitrogen removal. The project included review of historical operating data and flow and load projections to develop 20-year planning criteria for each alternative and identify expansion triggers through the planning period. The BCE considered capital improvements and annual operating costs, as well as qualitative considerations, including physical implementation, technology maturity and adaptability, and compatibility with existing and planning liquid and solids treatment. The evaluation resulted in a sidestream nitrogen management roadmap indicating optimal implementation timing for capital investments.

Sand Island Wastewater Treatment Plant (SIWWTP) Secondary Treatment Phase 2 Expansion | City and County of Honolulu | Honolulu, HI | Technical Advisor

As Technical Advisor, Chris provides process support for the planning and design team, as well quality control reviews. SIWWTP is the largest treatment plant in Hawaii, treating an average flow of 65 MGD, with a wet weather peak flow of 240 MGD. The Phase 2 expansion will provide an additional 90 MGD of secondary treatment capacity required to meet full secondary standards. Phase 2 will add peak flow equalization, upgrade preliminary and primary treatment, expand solids treatment processes to treat additional waste-activated solids generated by the new secondary process.

Pocatello Water Pollution Control Facility Plan | City of Pocatello | Pocatello, Idaho | Process Engineer

Chris led a process team and reviewed and analyzed process operation data; evaluated plant performance; developed alternatives; reviewed process planning criteria; developed Biowin™ process model for alternative evaluation including impact of recycle streams on BNR. Chris prepared and delivered operator training in process modeling. Stantec's efforts as part of the Keller-Stantec Facility Plan team for the 12 MGD City of Pocatello's WPCF included an evaluation of plant treatment capacities, treatment optimization and upgrades to the BNR system modeling. Stantec evaluated upgrade alternatives to the overloaded biosolids handling systems and alternatives for future solids dewatering facilities, maintenance capital improvements with condition assessments.

Tri-City Solids Improvements Project Phase I | Clackamas, Oregon | Process Engineer/Technical Advisor

Chris reviewed and analyzed process data, reviewed process functionality, developed a master plan for future facilities, developed and evaluated process upgrade alternatives, reviewed technologies, reviewed process modeling, and performed quality review and capacity evaluations. This project included planning and engineering to assess, expand, and rehabilitate the solids handling processes at the Tri-City Water Pollution Control Plant, a facility with two 1-MGD mesophilic digesters, a thickening process, a dewatering process with centrifuges, and a truck loading/cake storage facility. The project included estimate of flows and loads, definition of existing facilities capacity and future capacity needs, technology screening, identification of digestion feedstock, evaluation of alternative biogas utilization technologies, and preparation of conceptual design.

Sara Arabi PhD, PE, BCEE, MBA

Principal, Wastewater Practice Leader

20 years of experience · Fort Collins, Colorado

Sara has 19 years of experience in environmental consulting, research, and process engineering for water/wastewater treatment. Her primary background and area of expertise is wastewater treatment plant modeling, design and optimization—including biological nutrient removal and membrane-based processes, landfill leachate, food/beverage, and power/metals for wastewater treatment facilities across North America. She adeptly serves clients with thorough alternatives evaluation, design, troubleshooting, and WWTP disposal impact assessment. Her depth of experience also encompasses process sizing and cost estimation for physical/ chemical treatment, biological treatment, and membrane-based processes for leachate treatment. She has experience with over 25 landfill leachate treatment/management studies, designs, or evaluations--including several landfill leachate treatment plants in Ontario, Alberta, and British Columbia, and several states in the U.S. Participating in organizations like WEF, Rocky Mountain Water Environment Association, and Environment Research and Education Foundation keeps Sara up to date on current trends and innovations to serve clients with relevant, leading-edge solutions.

EDUCATION

PhD, Chemical and Biochemical Engineering, Western University, London, Ontario

Master of Business Administration, University of Illinois - Urbana Champaign, Urbana , Illinois

Bachelor of Science, Chemical Engineering, Sharif University of Technology, Tehran, Tehran

PROJECT EXPERIENCE

Facilities Planning* | Camarillo Sanitation District | Camarillo, California | Project Engineer

Sara was involved with data analysis, process review and mass balance analysis, process modeling, conceptual evaluation, flows and loads analysis, alternatives evaluation, and capacity assessment for solids and liquids treatment alternatives for a 7-MGD facility.

Steam and Aeration Blower Renovations Project* | Central Contra Costa Sanitary District (CCCSD) | Martinez, California | Project Engineer

Sara was involved with data analysis and review, characterization study, process modeling, alternatives analysis, and process optimization for the 54 MHD facility. The process optimization included optimization of the anaerobic selectors, conversion to MABRs, hydraulic assessment, and kinetic studies. Alternative analysis included IFAS and step feed BNR, with conceptual aeration system design.

City of Omaha Facilities Master Plan* | City of Omaha | Omaha, Nebraska | Project Engineer

Sara provided data analysis, flows and loads estimation, process modeling, and development of liquid treatment alternatives for two wastewater treatment facilities with a combined capacity of over 110 MGD. Alternatives included biological nutrient removal, membrane aerated biofilm reactors, and activated granular sludge. Sidestream treatment included deammonification. Sara developed conceptual sizing, an implementation schedule, and cost estimates.

City of Lincoln Nutrient Removal Study* | City of Lincoln | Lincoln, Nebraska | Project Engineer

Sara provided data analysis, flows and loads estimation, process modeling, and development of liquid treatment alternatives for Theresa Street WRRF (22 MGD). The alternatives included BNR, MABR, and AGS, and she conducted conceptual sizing for BNR and AGS as well as cost estimates. Sidestream treatment included deammonification and P recovery.

Cedar Rapids WPCF Secondary Process and Solids Improvements* | City of Cedar Rapids | Cedar Rapids, Iowa | Project Engineer

Sara was involved in the development of solids and energy mass balances and process modeling for alternatives evaluation for anerobic pretreatment of 2 MGD of industrial wastewater and 25 MGD domestic wastewater. The secondary process design involved pilot study and preliminary design of AGS process. The solids improvement project included preliminary design of Cambi THP process and sidestream nitrogen removal (deammonification).

** denotes projects completed with other firms*

Katerina Messologitis PE

Process Engineer

8 years of experience · Portland, Oregon

Katerina's experience ranges from facility planning to full-scale plant design and operation. She is well versed in wastewater process modelling, piloting, and water quality and treatment optimization studies through her involvement in projects across the Western U.S. Her broad range of experience has provided her with skills to close the loop between planning, testing, design, and operations.

EDUCATION

Master of Science, Civil Engineering, University of New Hampshire, Durham, New Hampshire

Bachelor of Science, Environmental Engineering, University of New Hampshire, Durham, New Hampshire

REGISTRATIONS

Professional Engineer #93853PE, State of Oregon, 5/11/2021

PROJECT EXPERIENCE

Pocatello Water Pollution Control Facility (WPCF) Facility Plan, Process Modeling & Optimization | City of Pocatello | Pocatello, Idaho | Process Modeler

Katerina developed a process model (BioWin™) for the Pocatello WPCF to identify treatment bottlenecks and optimization opportunities with the current treatment processes. Katerina developed the sampling and analysis plan and summarized existing operational and water quality data to calibrate and validate the model. During the process evaluation, Katerina identified that the aeration equipment was reaching capacity. Katerina completed an aeration system master plan and was the design engineer for the aeration system upgrades. Katerina also conducted a BioWin training for the Pocatello WPCF staff, which included a summary of general BioWin™ capabilities, an overview of the Pocatello WPCF plant model, and a tutorial on how to alter the simulation to evaluate various operational scenarios.

Magna Water Reclamation Facility (WRF), Process Performance Evaluation | Magna District | Magna, UT| Process Engineer

Katerina developed a process model for the Magna WRF (oxidation ditch process) to evaluate the efficiency of the current surface aerators and estimate the capacity of the aeration system using future flows and loads. Katerina identified that the influent BOD load exceeded the design criteria of the surface aerators and she recommended aeration system upgrades to achieve the required level of treatment. Katerina provided operational recommendations for to meet current and future permit requirements.

City of North Las Vegas WRF Biological Phosphorus Removal Process Optimization | City of North Las Vegas | North Las Vegas, NV | Process Modeler

Katerina worked as the process modeler on the City of North Las Vegas (CNLV) WRF process optimization project aimed at improving the stability of the biological phosphorus removal process. Katerina reviewed historical data and operational control strategies calibrate and validate a process model using BioWin™. She worked with the CNLV to develop optimization scenarios to evaluate key process parameters which could impact the process performance. Katerina used the simulation results to estimate process performance under varying operational conditions and identify alternatives to advance to full-scale testing. The stability of the biological process performance was improved after implementing the optimization strategies.

Industrial Waste Stream Treatment, Full-Scale Commissioning & Operations Support | Confidential | Process Support

Katerina provided engineering and operational support for the commissioning of Oregon's largest advanced wastewater treatment facility, which includes membrane bioreactor and reverse osmosis treatment technologies. Katerina developed startup phasing schedules for the treatment process (seeding plan) and was responsible for operating and maintaining more than thirty on-site water quality instruments and analyzers for process monitoring and control. Katerina also monitored the full-scale plant performance during startup and recommended operational changes to improve performance.

Spanish Fork & Mapleton WRF Design & Operational Strategies | Cities of Spanish Fork & Mapleton | Spanish Fork & Mapleton, UT | Process Engineer

Katerina provided engineering support for the Spanish Fork and Mapleton WRF design through process modelling. The model was used to support the design of the aeration system (fine bubble air diffusers, blowers) and operational strategies for chemical and biological phosphorus removal. A sensitivity analysis was conducted on influent TKN to evaluate the flexibility of the biological nutrient removal process.

Shelley Trujillo PE

Senior Principal Water & Wastewater

25 years of experience · Denver, Colorado

Shelley is the Regional Wastewater Practice Leader for Stantec and has 25 years of engineering experience focused on water and wastewater process planning and design. She specializes in biological nutrient removal (BNR) and the design and optimization of blowers and aeration systems. Her experience includes project management, project technical leadership, quality reviewer, and process and project engineer roles for projects ranging from Colorado, across the United States, and around the world. Shelley brings demonstrated expertise in planning, process design, chemical system design, detailed design delivery, and regulatory approvals and maintains a close relationship with Colorado Department of Public Health and the Environment.

EDUCATION

BS, Civil Engineering, New Mexico State University, Las Cruces, NM

MS, Environmental Engineering, University of Notre Dame, Notre Dame, IN

REGISTRATIONS

Professional Engineer #PE.0039411, State of Colorado, Year Awarded: 2005/06/10; Expires: 10/31/2021

Professional Engineer #25630, State of New Mexico

PROJECT EXPERIENCE

North Secondary Upgrades and Intensification at Robert. W. Hite Treatment Facility (PAR 1411) | Metro Water Recovery | Denver, CO | Process Aeration Lead and CMAR lead

Shelley is currently the lead process engineer for aeration system upgrades at the 226-MGD Robert W. Hite Facility North Secondary Complex. The project includes a full replacement of the aeration blowers, a new blower building, new aeration piping, and new aeration diffusers. Shelley is also using her Construction Manager-at-Risk experience to guide Metro through the process, which is newer to them.

Primary and Phosphorus Sidestream Treatment Upgrades Project | City of Greeley | Greeley, Colorado | Project Manager

Shelley is leading a project including preliminary influent pumping upgrades, raw water screen and grit removal replacement, primary clarifier upgrades, and addition of a new blower, emergency generators, and a sidestream phosphorus sequestration system at the Greeley Wastewater Treatment Reclamation Facility.

Phosphorus Upgrades Project (PUP) | City of Boulder | Boulder, Colorado | Aeration Lead and CMAR Lead

Shelley was the aeration lead for the conversion to low dissolved oxygen and the addition of biological phosphorus removal. This new process will result in additional treatment capacity without increasing treatment volume by intensifying the process with hydrocyclones and a highly technical control scheme. Stantec is working in partnership with inCTRL on this project by using the model-based system to right-size the aeration system. Shelly is additionally working with the City to develop the project as one of their first large Construction Manager-at-Risk (CMAR) delivery projects. She hosted an alternative delivery workshop, helped to write the Request for Proposals, and has assisted the city through the CMAR process.

South Platte Renew Chemical Phosphorus Removal and UV Disinfection Design | City of Englewood | Englewood, CO | Project Manager

Shelley led a $16 million project to upgrade a 50-MGD facility and implement phosphorus removal through Chem-P and a UV disinfection system retrofit. This yielded the state’s first hybrid disinfection system, saving the facility over a million dollars in construction of the new UV system. The facility is in line with Colorado Department of Public Health and the Environment's voluntary incentive program and will continue to meet the facilities rated capacity.

Chemical Phosphorus Removal | City of Longmont | Longmont, Colorado | Project Manager/Engineer of Record

Shelley was Project Manager and Engineer of Record for a $10 million upgrade project to enable the City to meet upcoming Regulation 85 limits for phosphorus. The design included a new coagulant storage and feed building and multiple coagulant dosing points around the plant.

Vrunda Patel

Process Designer

6 years of experience · Bellevue, Washington

Vrunda has 5 years of wastewater process and aeration design experience on a wide variety of municipal wastewater treatment improvements projects ranging from mainstream (liquid), biosolids and advanced controls improvements. Her process expertise includes wastewater simulations (SIMBA#), aeration and blower system design, process optimization and energy efficiency. Vrunda is an aeration system design and modelling specialist. Additional experience includes data analytics, data driven modeling, real-time online monitoring systems and enhancing data management and analytics software.

EDUCATION

Master's of Science in Environmental engineering, University of Illinois at Urbana-Champaign, Urbana-Champaign , Illinois

Bachelor's of Engineering in Civil Engineering, Sarvajanik College of Engineering and Technology , Surat, Gujarat

PROJECT EXPERIENCE

MUNICIPAL WASTEWATER TREATMENT

Phosphorus Upgrades Project (PUP) | City of Boulder | Boulder, Colorado | Process and Modeling Specialist

While at inCTRL solutions, Vrunda worked closely with Stantec on a project to upgrade an existing secondary activated sludge process to biological nitrogen and phosphorus removal. She conducted extensive process and mechanical modeling for the design of a low dissolved oxygen ammonia-based aeration control system with considerations for the impacts of a common aeration header with post-aerobic digestion (PAD).

Metro Denver PAR 1411 | Denver, Colorado | Process and modelling specilaist

while at inCTRL, Vrunda worked with Stantec and Metro on PAR 1411. Her efforts on PAR 1411 included the development of an extensive integrated SIMBA# model comprised of process, mechanical, and control models for the entire North Secondary Complex. She also calibrated a SIMBA# model from an existing BioWin model and then expanded that model to include the complete RWHTF. Continuing her work at metro after joining Stantec, Vrunda is involved with the process team and has since help write ER and PDR and coordinated with different disciplines for 30% design etc.

Fort Worth, TX, USA* | Aeration specialist

Vrunda was the process and aeration specialist responsible for modeling the detailed aeration and process system at VCWRF to perform a high-level risk- analysis of their aeration system and its process controls to allow proper planning for the future. As a result of the aeration design and modeling, she was able to identify a critical bottleneck that the overall increase of the system pressure was caused due to the closed manual valves at the basin droplegs amongst other piping and control limitations. She was a co-author on a WEFTCEH2020 paper “Performing a high-level risk-assessment for an activated sludge system”.

Toronto, Canada* | Process Engineer

Vrunda developed a complex and detailed integrated model including process, aeration and control system for one of the largest plant in Canada rated for 220 MGD to provide inputs the client on aeration upgrades. She modeled a very detailed aeration system which included all the pipes, fittings and equipment at the facility. She developed various advanced controls to analyze system performance and recommended tailored solutions that focus on ease of operation and energy efficiency.

Aeration and control upgrades, Wisconsin, USA* | Process Engineer

Vrunda was the project manager and lead process engineer for this multiphase project. She developed a detailed process and mechanical model of an oxidation ditch for an equipment manufacturer. For Phase I, Vrunda modeled an existing oxidation ditch facility to evaluate the system performance and identify bottlenecks. She was able to demonstrate the process and equipment limitations for achieving the desired nitrification goals and meet the permit. For Phase II, she implemented advanced controls like ABAC-SRT, and model based predictive controls (MBPC) in the SIMBA# model along with the equipment sequencing for aeration supply to evaluate system performance. She also built an optimization tool for the aerators in the oxidation ditch to achieve aeration efficiency.

** denotes projects completed with other firms*

Matthew Mates V-5709 California Grade V

Startup, Commissioning, and Training

43 years of experience · Bellevue, Washington

Stantec

Matt's experience in the wastewater and water reuse industry encompasses industrial and large municipal wastewater and water reuse treatment facilities and providing knowledge transfer to client staff, equipping them with the skills and tools to optimize their own operational infrastructure into the future. His background includes operational readiness projects, SCADA/and Distributed Control System (DCS) system development, facility automation, and risk-based operational strategies development and implementation. Matt has commissioned treatment plants up to 500 MGD, managing processes and team building. As a certified wastewater operator, he has supported the startup of numerous AWT facilities worldwide.

EDUCATION

Bachelor of Arts (BA), Science and Technology, Clark University, Massachusetts

Course, Epidemiology and Toxicology, University of California, Berkeley

Correspondence Course, Wastewater Treatment Courses I-III and Industrial WWT (IV-V), California State University, Sacramento

Wastewater Engineering Correspondence Course, Wastewater Management, Michigan State University, Michigan

Wastewater Studies, American Water Institute, American Water College

CERTIFICATIONS & TRAINING

Certificate, Wastewater Treatment, Southern Maine Vocational Technical Institute, New England Regional Wastewater Institute, Maine, 1979

Certification, California Wastewater Operators License Grade V V-5709, San Francisco, California, 1987

MEMBERSHIPS

Member, Water New Zealand

PROJECT EXPERIENCE

Pro2D Modelling Project * | Jacobs USA | Senior Operations and Process Specialist

Involved as a lead in developing and managing the process modelling in Pro2D of all Jacobs 100 WWTPs to current conditions. This is an internal company project to provide the plants a baseline model. The model may highlight process areas that may need evaluation and a cost area that man need further improvement.

O&M Cost Development for Boneo WWTP* | Southeast Water | Melbourne, Victoria | Senior Operations and Process Specialist

Matt was responsible for the Operations baseline costing for Southeast water prior to the DBO process released to market for competitive bid. This includes developing the power, chemical, biosolids, laboratory, labour costs associated with contract operations for various durations and permutations for the Boneo WWTP.

Biowin Modelling for Winter and Summer Periods at Mangere WWTP* | Watercare | Auckland, Auckland | Senior Operations and Process Specialist, Lead Process Engineer

Biowin Calibration and Validation of the Summer and Winter Period Performance testing periods. Matt as the Lead Process Engineer performed the calibration and validation modelling for performance testing periods at the Mangere Wastewater Treatment Plant in 2018-1019. Organization of S&A necessary for calibration. This period is to prove design intent to contract standard. Biowin model calibration including validation modelling for Winter and Summer periods. Analysis, data generation and report writing.

Hutt Valley Wastewater Treatment Plant* | Hutt Valley Water Services | Pauatahanui, Wellington | Senior Operations Specialist

The current plant uses an activated sludge contact stabilization process for cBOD5 and TSS removal only with primary sludge in-line thickening, DAFs, and High-G dewatering followed by thermal drying (direct drying). This continues to be a successful project for CH2M Hill/BECA. For this 25-year joint venture design, build, operate, Matt worked on the bid, preliminary design, and did all process operational costing for the bid. He was intimately involved with plant commissioning and start-up especially providing troubleshooting capacity and operations process modelling.

** denotes projects completed with other firms*

Nathan Brown PE

Principal Process-Mechanical Engineer

20 years of experience · Denver, Colorado

Nate has 20 years of process and mechanical design experience encompassing a wide variety of wastewater treatment planning, evaluation, and design projects. His technical expertise includes mainstream and sidestream nutrient removal and recovery, secondary aeration and blower design, biosolids treatment, and beneficial reuse of coproducts derived from wastewater treatment. Nate's passion for decarbonizing wastewater treatment is evidenced by his work designing innovative treatment solutions including S2EBPR, deammonification, thermal hydrolysis, and sidestream phosphorous recovery to help clients reduce energy and resource consumption. His efforts—which have helped clients around the globe solve whole-plant issues associated with Bio-P and Chem-P removal—have ranged from pre-design and master planning efforts through final design of projects delivered with both conventional and alternative project delivery methods. Nate has additionally served as a technical advisor and quality reviewer.

EDUCATION

BS, Mechanical Engineering, Iowa State University, Ames, Iowa

MS, Biorenewable Resources and Technology, Iowa State University, Ames, Iowa

MS, Mechanical Engineering, Iowa State University, Ames, Iowa

REGISTRATIONS

Professional Engineer #PE.0043196, State of Colorado, Awarded 6/25/2009, expires 10/31/2025

PROJECT EXPERIENCE

WASTEWATER TREATMENT PLANTS

Nuisance Struvite and Dewaterability (PAR 1280) | Metro Water Recovery | Denver, Colorado | Design Manager

Nate was Design Manager for a phosphorus sequestration and recovery improvements project at the 220-MGD Robert W. Hite Treatment Facility. The goal of the project was to mitigate the negative impacts of biological phosphorus removal—namely struvite deposition and reduced dewatering efficiency—within the biosolids. The project began with an extended evaluation phase including digester piloting and detailed predesign of three improvements options. This included chemical sequestration, centrate recovery plus waste activated sludge (WAS) phosphorus release, and pre-dewatering sequestration/recovery. Ultimately a MagPrex™ pre-dewatering approach was selected using a triple-bottom-line approach. Nate led the equipment contracting with the technology supplier and split the physical improvements into two work packages to speed delivery. The improvements have successfully improved biosolid dewatering, eliminated phosphorus recycle, and reduced nuisance struvite generation.

Solids Master Planning Services | AlexRenew | Alexandria, Virginia | Review Lead

Stantec is providing solids master planning services including evaluation of existing facilities, planning for near-term improvements, and preparation for possible future restrictions on land application due to impacts from contaminants of emerging concern such as microplastics and per- and polyfluoroalkyl substances (PFAS). Nate is managing a team of approximately 10 engineers investigating solids alternatives and biogas utilization options to establish a long-term roadmap. The evaluation compares financial and non-financial criteria and scoring. Nate is also providing technical quality review and assurance support for conceptual design of a $250 million thermal dryer upgrade project.

Hornsby Bend Biosolids Management Plant Process Ammonia Removal Facility Project | City of Austin | Austin, Texas | Technical Advisor

Nate is currently providing technical guidance and quality control and assurance in support of the planning and design of an 1.1-MGD ANITA™Mox moving bed bioreactor anammox process at the Hornsby Bend Biosolids Management Plant. The upgrades, currently at 30% design, will treat high-strength centrate prior to lagoon discharge to improve the water quality at the nearby Hornsby Bend Bird Observatory.

Reuse Upgrades Study | Los Angeles Bureau of Sanitation | Los Angeles, California | Process-Mechanical Engineer

Nate provided process evaluation and modelling effort to retrofit existing pure oxygen reactors with biological nutrient removal (BNR) activated sludge and membrane bioreactors (MBR). The intent of the improvements, which are currently being piloted at 4 MLD, is to provide high-quality reusable effluent to industrial user and parks throughout the City.

Dru Whitlock PE

Global Practice Leader, Wastewater

31 years of experience · Salt Lake City, Utah

A global practice leader for our wastewater services, Dru has more than 29 years of research, science, and engineering experience, including extensive biosolids experience, specializing in anaerobic digestion, biogas utilization, and energy management optimization. His design experience includes preliminary and detailed design of processes like conventional and advanced anaerobic digestion, cogeneration, activated sludge biological and chemical nutrient removal systems, and composting and odor control systems. He is an active member of the Water Environment Federation (WEF) Residuals and Biosolids Committee (RBC) and Chair of the WEF RBC Bioenergy Subcommittee. He was the co-investigator of the foundational 2010 WERF study entitled 05-CTS-3 Waste Activated Sludge Solids Reduction Study.

EDUCATION

MBA, Business Administration, University of Utah, Salt Lake City, Utah

BS, Environmental Engineering, Utah State University, Logan, Utah

REGISTRATIONS

Professional Engineer #343868-2202, State of Utah, Board of Professional Engineers and Land Surveyors

PROJECT EXPERIENCE

Morris Forman Water Quality Treatment Center Biosolids Processing Solution | Louisville Metropolitan Sewer District | Louisville, KY | Technical Advisor

Dru was a technical advisor for a $200 million progressive design-build expansion of the 120-MGD Morris Forman Water Quality Treatment Center--expanding the solids handling capacity to an annual average of 135 dry ton per day (dtpd) with a monthly maximum of 180 dtpd through the implementation of THP and the use of the existing anaerobic digesters. Stantec conducted extensive evaluation to determine if the gas produced by the facility was best used for CHP or for the creation of renewable natural gas (RNG) for export and determined that RNG offered the best value. The project involved installation of new sludge handing equipment, new dewatering centrifuges, a facility to receive sludge from regional facilities, THP with feed bins, heat exchangers and boilers, side stream ammonia treatment, and digester and odor control upgrades. Dru's treatment process input and review services focused on gas use and value engineering. He will also be integral to the value engineering efforts that will compare process intensification options that could save money for the client, including the procurement documents for the THP pretreatment. This project includes the CAMBI THP system.

AlexRenew Solids Master Planning | Alexandria, VA | Wastewater Subject Matter Expert

Stantec is leading AlexRenew through a master plan that will provide a high-level framework for handling solids generated from all parts of the AlexRenew Water Resource Recovery Facility and recovery of beneficial resources with a road map anticipating disruptions and adaptations.

Biosolids Study* | Salt Lake City Water Reclamation Plant | Salt Lake City, Utah | Senior Technologist and Assistant Project Manager

Dru led the development of a robust, cost-effective, wastewater biosolids management plan for the Salt Lake City Water Reclamation plant including the development of improvements to solids conveyance and screening, determining the type of anaerobic digester cover replacement, digester mixing system assessment, analysis of the impacts on biosolids production of internal plant recycle streams, and assessment of potential future regulatory requirements governing phosphorus removal.

Composting Facility Design Basis* | South Valley Sewer District/South Valley Water Reclamation Facility | Utah | Project Manager

Dru managed and led a team of engineers in the evaluation of an enclosed (or semi-enclosed) aerated static pile composting facility with complete odor and VOC treatment. Odor attenuation was handled by biofilters. The objective of the project was to develop a design baseline for CAPEX, OPEX, and NPV development. SVSD evaluated more conventional biosolids disposal alternatives with aerated static pile composting. Ultimately, the client could not get approval from the board. Several years later SVSD implemented a thermal drying system for Biosolids reuse and distribution.

** denotes projects completed with other firms*

Chin (George) Tey PE

Principal Mechanical Engineer

34 years of experience · Pasadena, California

Chin (George) is a principal mechanical engineer with over three decades of experience in planning, design, and construction of mechanical and process piping for water and wastewater treatment facilities and pumping stations. He has worked as a mechanical engineer, project engineer, and project coordinator on numerous multi-disciplinary projects with mechanical and piping design responsibilities spanning from conceptual preliminary design through detailed design, engineering services during construction, field inspection, and start-up. Additionally, George is a recognized thought leader in the industry who serves on the Pump Intake Design (HI-9.8); Pump Piping Design (HI-9.6.6); Pump Viibrations (HI-9.6.4); Pump Performance Testing (HI-14.6); and Pump Installation, Operation, and Maintenance (HI-14.4) Committees for the Hydraulic Institute Standard (HI).

EDUCATION

BS, Mechanical Engineering, Southern Illinois University, Carbondale, Illinois

MS, Mechanical Engineering, Southern Illinois University, Carbondale, Illinois

PROJECT EXPERIENCE

Tri-City Pollution Control Plant Expansion Project Phase 1 | Clackamas/Oregon City, Oregon, United States | QA/QC Review

George provided the mechanical QA/QC review for the master planning, design, and construction support for an expansion of the Tri-City Wastewater Pollution Control Plant (WPCP) at a constrained site bounded by a freeway, river, abandoned landfill, and future residential development. A unique combination of conventional and innovative wastewater treatment technology was used to ensure a high level of treatment capability within a small footprint. The expansion increased average dry weather flow capacity from 8 to 12 mgd and increased peak wet weather flow capacity from 60 to 70 mgd with provisions to easily increase the average dry weather flow (ADWF) capacity up to 40 mgd.

Baker River Project Floating Surface Collector and Pumping System | Puget Sound Energy | Concrete, Washington | Pump Station Technical Reviewer

Chin was responsible for assisting the design team for the design system and technical review of a floating surface collector (FSC) with pumping and piping system. The project consisted of a floating surface collector with four horizontal axial pumps, each has a capacity of 180 cfs, 150 bhp, and four secondary fish screen pumps, at a capacity of 40 cfs, 40 bhp each.

Sunset and Heathfield Pump Stations and Force Main Upgrades | King County Wastewater Treatment Division | Seattle/Bellevue, Washingon, United States | Pump Station Technical Reviewer

George was responsible for assisting the design team in developing design criteria and technical review of a 30-MGD pump station expansion and rehabilitation project. The project included the addition of new pumps and motors, replacement of VFD and switchgear equipment, and evaluation of the pipe sizing to increase capacity from 18 to 30 MGD peak capacity. It also included eight dry pit solid handling raw sewer pumps, each capable of moving 6,000 GPM up to a height of 180 feet and powered by 450-BHP motors. Operation of the pumping systems was assessed and because the pump station building exteriors could not be modified, they were designed so all new equipment would fit inside the current facility footprints. The team's innovative approach to using solids handling pumps with non-standard 500-hz motors minimized power requirements to both facilities, resulting in millions of dollars in capital and life-cycle cost savings.

Willamette Water Supply Program (WWSP) | Tualatin Valley Water District (TVWD), City of Hillsboro (Hillsboro), and City of Beaverton (Beaverton) | Hillsboro and Beaverton, Oregon, United States | Mechanical and Piping Technical Reviewer

The WWSP will provide a new seismically resilient supply of potable water to serve over 300,000 residents, which is designed to meet future demand and provide redundancy in case of an emergency event. It encompasses over 31 miles of 48- to 66-inch steel pipe employing cut and cover and numerous trenchless sections, a new water treatment plant, extensive modifications to an existing river intake and pump station, and 15 MG of terminal storage. George provided mechanical and piping technical review of the system.

Proposal Certification

PROPOSAL CERTIFICATION
RFP #2025-01

Submitted by: Stantec Consulting Services Inc. (New York)

(Must be entity's full legal name, and State of Formation)

Each Proposer must read, complete and submit a copy of this Proposal Certification with their Proposal. Failure to do so may result in rejection of the Proposal. By signature on this Proposal Certification, the undersigned certifies that they are authorized to act on behalf of the Proposer and that under penalty of perjury, the undersigned will comply with the following:

SECTION I. OREGON TAX LAWS: As required in ORS 279B.110(2)(e), the undersigned hereby certifies that, to the best of the undersigned's knowledge, the Proposer is not in violation of any Oregon Tax Laws. For purposes of this certification, "Oregon Tax Laws" means the tax laws of the state or a political subdivision of the state, including ORS 305.620 and ORS chapters 316, 317 and 318. If a contract is executed, this information will be reported to the Internal Revenue Service. Information not matching IRS records could subject Proposer to 24% backup withholding.

SECTION II. NON-DISCRIMINATION: That the Proposer has not and will not discriminate in its employment practices with regard to race, creed, age, religious affiliation, sex, disability, sexual orientation, gender identity, national origin, or any other protected class. Nor has Proposer or will Proposer discriminate against a subcontractor in the awarding of a subcontract because the subcontractor is a disadvantaged business enterprise, a minority-owned business, a woman-owned business, a business that a service-disabled veteran owns or an emerging small business that is certified under ORS 200.055.

SECTION III. CONFLICT OF INTEREST: The undersigned hereby certifies that no elected official, officer, agent or employee of Clackamas County is personally interested, directly or indirectly, in any resulting contract from this RFP, or the compensation to be paid under such contract, and that no representation, statements (oral or in writing), of the County, its elected officials, officers, agents, or employees had induced Proposer to submit this Proposal. In addition, the undersigned hereby certifies that this proposal is made without connection with any person, firm, or corporation submitting a proposal for the same material, and is in all respects fair and without collusion or fraud.

SECTION IV. COMPLIANCE WITH SOLICITATION: The undersigned further agrees and certifies that they:

1. Have read, understand and agree to be bound by and comply with all requirements, instructions, specifications, terms and conditions of the RFP (including any attachments); and
2. Are an authorized representative of the Proposer, that the information provided is true and accurate, and that providing incorrect or incomplete information may be cause for rejection of the Proposal or contract termination; and
3. Will furnish the designated item(s) and/or service(s) in accordance with the RFP and Proposal; and
4. Will use recyclable products to the maximum extend economically feasible in the performance of the contract work set forth in this RFP.

Name: Dick Talley Date: February 20, 2025

Signature: Dick Talley Title: Vice President and Regional Growth Leader

Email: dick.talley@stantec.com Telephone: (503) 957-9148

Oregon Business Registry Number: 644410-91 OR CCB # (if applicable): _____

Business Designation (check one):

☒ Corporation ☐ Partnership ☐ Sole Proprietorship ☐ Non-Profit ☐ Limited Liability Company

☒ Resident Quoter, as defined in ORS 279A.120

☐ Non-Resident Quote. Resident State: _____