



INFORMATIONAL MEMORANDUM

TO: **Transportation & Infrastructure Committee**
 FROM: **Hari Ponnekanti, Public Works Director**
 BY: **Adib Altallal, Utilities Engineer**
 CC: **Mayor Allan Ekberg**
 DATE: **February 5, 2021**
 SUBJECT: **Sewer Lift Stations No. 2, 4, and 12**
Project Nos. 90440205, 91640202
Design and Construction Management Agreement

ISSUE

Approve design and construction management agreement with PACE Engineers for the Sewer Lift Station No. 2 Upgrades, Sewer Lift Station No. 4 Electrical Upgrades, and Sewer Lift Station No. 12 Wet Well Remediation projects.

BACKGROUND

The aging electrical and physical assets of Sewer Lift Stations No. 2, 4, and 12 prompted for investigative work in 2016 and the subsequent hiring of PACE as the consultant engineer to design the various upgrades necessary to provide a safe and functioning system. Additionally, in January 2021 during a routine repair of the Sewer Lift Station 2 force main, a sizeable crack was discovered along the entire force main connecting the sewer lift station to the manhole.

DISCUSSION

PACE was the primary design consultant on these projects and are well suited to perform the rest of the design and subsequent construction management services as required by the City.

FINANCIAL IMPACT

The PACE consultant contract is proposed in the amount of \$71,410.00. The funds required to complete the construction management services will be from the 2021 Sewer budget for the Sewer Lift Station No. 2 Retrofit, Sewer Lift Station No. 4 Electrical Upgrades, and Sewer Lift Station No. 12 Wet Well Repair.

	<u>Contract</u>	<u>2021 Budget</u>
PACE Contract	\$71,410.00	\$150,000.00

RECOMMENDATION

Council is being asked to approve the design and construction management agreement with PACE Engineers in the amount of \$71,410.00 for the Sewer Lift Station No. 2 Retrofit, Sewer Lift Station No. 4 Electrical Upgrades, and Sewer Lift Station No. 12 Wet Well Remediation projects and to consider this item on the Consent Agenda at the February 22, 2021 Special Meeting.

Attachments: 2021 CIP Pages 68, 71, 72
 Pace Engineers Agreement, scope of work, & fee
 Sewer Lift Station Drawings

CITY OF TUKWILA CAPITAL PROJECT SUMMARY

2021 to 2026

PROJECT: Annual Sewer Repair Program Project No. 9xx40201

DESCRIPTION: Reduce sewer line infiltration and inflow (I & I) through groundwater intrusion or storm events as a result of damaged deteriorating systems or illicit connections. Includes small repairs and capital maintenance.

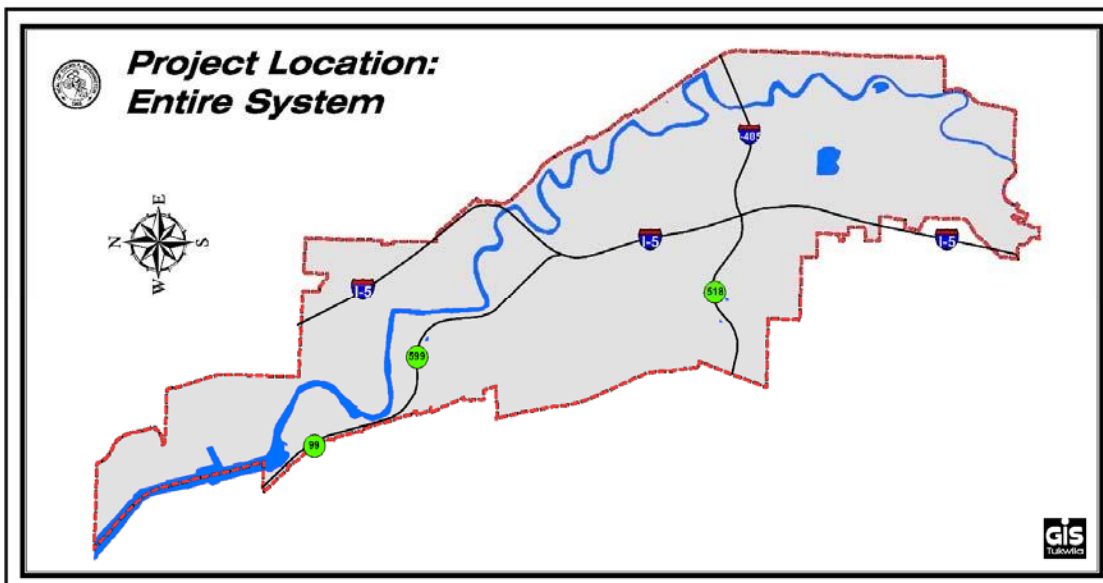
JUSTIFICATION: Decreases treatment, discharge, and pumping costs.

STATUS: Annual program is determined after pipeline TV inspection reports are completed.

MAINT. IMPACT: Less maintenance costs through rehabilitation of aging system.

COMMENT: Ongoing project, only one year actuals shown in first column.

FINANCIAL (in \$000's)	Through Estimated									TOTAL
	2019	2020	2021	2022	2023	2024	2025	2026	BEYOND	
EXPENSES										
Design	0	15	75	75	70	70	70	70	500	945
Land (R/W)										0
Const. Mgmt.		10	112	120	105	105	115	115	200	882
Construction	0	75	750	800	700	700	700	700	1,000	5,425
TOTAL EXPENSES	0	100	937	995	875	875	885	885	1,700	7,252
FUND SOURCES										
Awarded Grant										0
Proposed Grant										0
Mitigation Actual										0
Mitigation Expected										0
Utility Revenue	0	100	937	995	875	875	885	885	1,700	7,252
TOTAL SOURCES	0	100	937	995	875	875	885	885	1,700	7,252



CITY OF TUKWILA CAPITAL PROJECT SUMMARY

2021 to 2026

PROJECT: Sewer Lift Stations & Generator Upgrades

Project No. 90440206

DESCRIPTION: This project will be used to replace/upgrade the seven sewer lift stations and backup generators in phases.

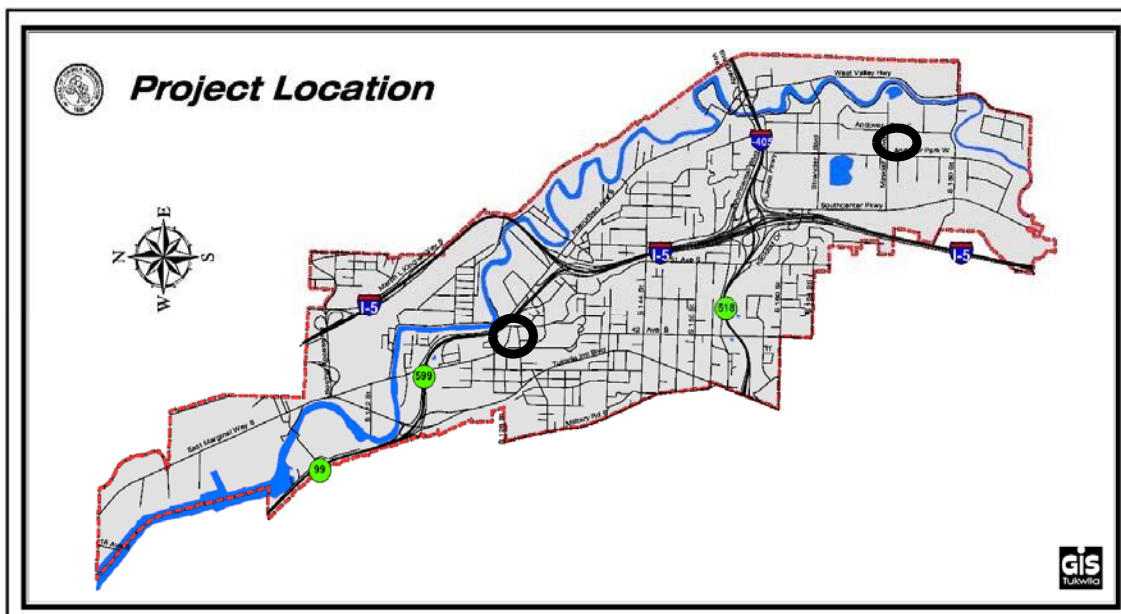
JUSTIFICATION: Aging sewer system requires the replacement of motors, pumps, and controls at older lift stations to reduce maintenance. Generators have a lifespan of 15 years and need to be replaced more frequently than pumps.

STATUS: Sewer Lift Stations No. 3 & 4 are at the end of their life cycles and need to be rebuilt with backup generators. Lift Station No. 4 is scheduled for 2020/2021, and Lift Station No. 3 is scheduled for 2024/2025. Lift Station No. 5 is in beyond.

MAINT. IMPACT: New pumps will reduce the liability of the existing pumps that are obsolete and prone to fail.

COMMENT: Additional right-of-way or property will be required for the new backup generators to be installed.

FINANCIAL (in \$000's)	Through Estimated									TOTAL
	2019	2020	2021	2022	2023	2024	2025	2026	BEYOND	
EXPENSES										
Design		5	5			20	20		100	150
Generators		50	25			10	10		10	105
Const. Mgmt.		10	10			50	50		100	220
Construction		300	200			400	400		700	2,000
TOTAL EXPENSES	0	365	240	0	0	480	480	0	910	2,475
FUND SOURCES										
Awarded Grant										0
Proposed Grant										0
Mitigation Actual										0
Mitigation Expected										0
Utility Revenue	0	365	240	0	0	480	480	0	910	2,475
TOTAL SOURCES	0	365	240	0	0	480	480	0	910	2,475



CITY OF TUKWILA CAPITAL PROJECT SUMMARY

2021 to 2026

PROJECT: Sewer Lift Station No. 2 Upgrades Project No. 90440205

DESCRIPTION: Install new pumps, motors, control system, backup generator and 2,700 LF of force main from Minkler Blvd to Strander Blvd.

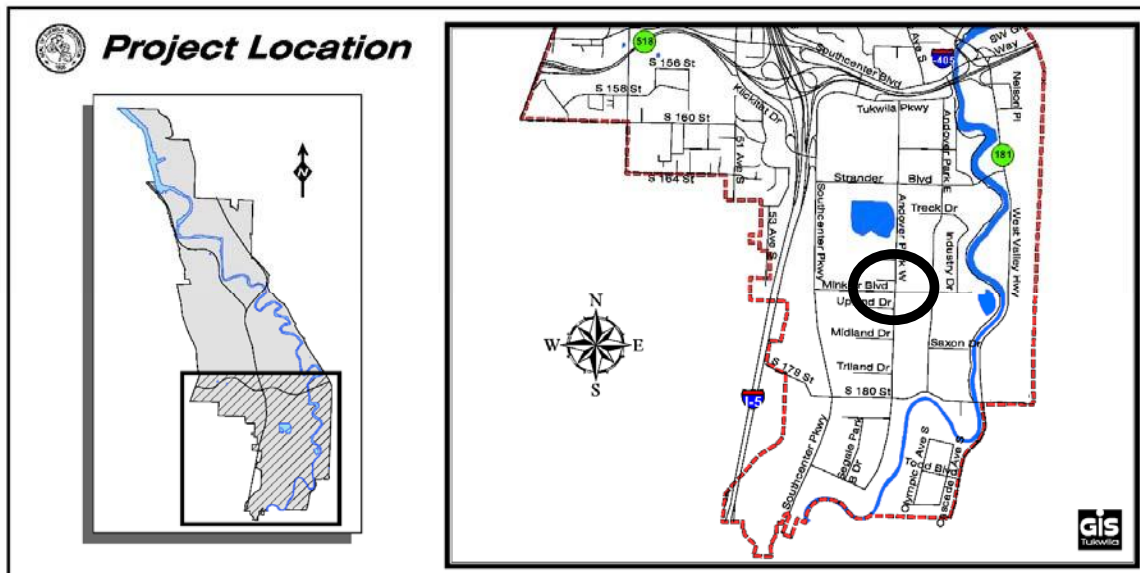
JUSTIFICATION: Sewer Lift Station No. 2 upgrade will account for the future full development of Tukwila South.

STATUS: Generator replacement, concrete slab, pump upsizing, and replacement of pump's motor control system are scheduled for 2020/2021

MAINT. IMPACT: Reduce liability if the existing slab breaks the power connection at the sewer lift station.

COMMENT: See Tukwila South development agreement for future funding and ULID requirements.

FINANCIAL (in \$000's)	Through Estimated									TOTAL	
	2019	2020	2021	2022	2023	2024	2025	2026	BEYOND		
EXPENSES											
Design	102	30								100	232
Land (R/W)											0
Const. Mgmt.		50	20							200	270
Construction	35	800	150							2,000	2,985
TOTAL EXPENSES	137	880	170	0	0	0	0	0	0	2,300	3,487
FUND SOURCES											
Awarded Grant											0
Proposed Bond/ULID										2,300	2,300
Mitigation Actual											0
Mitigation Expected											0
Utility Revenue	137	880	170	0	0	0	0	0	0	0	1,187
TOTAL SOURCES	137	880	170	0	0	0	0	0	0	2,300	3,487



PROFESSIONAL SERVICES AGREEMENT

(Includes consultants, architects, engineers, accountants, and other professional services)

THIS AGREEMENT is entered into between the City of Tukwila, Washington, hereinafter referred to as "the City", and PACE Engineers, hereinafter referred to as "the Consultant", in consideration of the mutual benefits, terms, and conditions hereinafter specified.

1. **Project Designation.** The Consultant is retained by the City to perform design and construction management services in connection with the projects titled Sewer Lift Station 2 Retrofit, Sewer Lift Station 4 Electrical Upgrades, and Sewer Lift Station 12 Wet Well Repair.
2. **Scope of Services.** The Consultant agrees to perform the services, identified on Exhibits "A" attached hereto, including the provision of all labor, materials, equipment and supplies.
3. **Duration of Agreement; Time for Performance.** This Agreement shall be in full force and effect for a period commencing upon execution and ending December 31, 2021, unless sooner terminated under the provisions hereinafter specified. Work under this Agreement shall commence upon written notice by the City to the Consultant to proceed. The Consultant shall perform all services and provide all work product required pursuant to this Agreement no later than December 31, 2021 unless an extension of such time is granted in writing by the City.
4. **Payment.** The Consultant shall be paid by the City for completed work and for services rendered under this Agreement as follows:
 - A. Payment for the work provided by the Consultant shall be made as provided on Exhibits "B" attached hereto, provided that the total amount of payment to the Consultant shall not exceed \$71,410.00 without express written modification of the Agreement signed by the City.
 - B. The Consultant may submit vouchers to the City once per month during the progress of the work for partial payment for that portion of the project completed to date. Such vouchers will be checked by the City and, upon approval thereof, payment shall be made to the Consultant in the amount approved.
 - C. Final payment of any balance due the Consultant of the total contract price earned will be made promptly upon its ascertainment and verification by the City after the completion of the work under this Agreement and its acceptance by the City.
 - D. Payment as provided in this section shall be full compensation for work performed, services rendered, and for all materials, supplies, equipment and incidentals necessary to complete the work.
 - E. The Consultant's records and accounts pertaining to this Agreement are to be kept available for inspection by representatives of the City and the state of Washington for a period of three (3) years after final payments. Copies shall be made available upon request.

5. **Ownership and Use of Documents.** All documents, drawings, specifications and other materials produced by the Consultant in connection with the services rendered under this Agreement shall be the property of the City whether the project for which they are made is executed or not. The Consultant shall be permitted to retain copies, including reproducible copies, of drawings and specifications for information, reference and use in connection with the Consultant's endeavors. The Consultant shall not be responsible for any use of the said documents, drawings, specifications or other materials by the City on any project other than the project specified in this Agreement.
6. **Compliance with Laws.** The Consultant shall, in performing the services contemplated by this Agreement, faithfully observe and comply with all federal, state, and local laws, ordinances and regulations, applicable to the services rendered under this Agreement.
7. **Indemnification.** The Consultant shall defend, indemnify and hold the City, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or resulting from the acts, errors or omissions of the Consultant in performance of this Agreement, except for injuries and damages caused by the sole negligence of the City.

Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Consultant and the City, its officers, officials, employees, and volunteers, the Consultant's liability hereunder shall be only to the extent of the Consultant's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Consultant's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

8. **Insurance.** The Consultant shall procure and maintain for the duration of the Agreement, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, or employees. Consultant's maintenance of insurance as required by the agreement shall not be construed to limit the liability of the Consultant to the coverage provided by such insurance, or otherwise limit the City's recourse to any remedy available at law or in equity.

A. **Minimum Amounts and Scope of Insurance.** Consultant shall obtain insurance of the types and with the limits described below:

1. **Automobile Liability** insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000 per accident. Automobile Liability insurance shall cover all owned, non-owned, hired and leased vehicles. Coverage shall be written on Insurance Services Office (ISO) form CA 00 01 or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage.
2. **Commercial General Liability** insurance with limits no less than \$2,000,000 each occurrence, \$2,000,000 general aggregate. Commercial General Liability insurance shall be at least as broad as ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, stop-gap independent contractors and personal injury and advertising injury. The City shall be named as an additional insured under the Consultant's Commercial General Liability insurance policy with respect to the work performed for the City using an additional insured endorsement at least as broad as ISO endorsement form CG 20 26.
3. **Workers' Compensation** coverage as required by the Industrial Insurance laws of the State of Washington.

4. Professional Liability with limits no less than \$2,000,000 per claim and \$2,000,000 policy aggregate limit. Professional Liability insurance shall be appropriate to the Consultant's profession.
- B. **Public Entity Full Availability of Contractor Limits.** If the Contractor maintains higher insurance limits than the minimums shown above, the Public Entity shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract or whether any certificate of insurance furnished to the Public Entity evidences limits of liability lower than those maintained by the Contractor.
- C. **Other Insurance Provision.** The Consultant's Automobile Liability and Commercial General Liability insurance policies are to contain, or be endorsed to contain that they shall be primary insurance with respect to the City. Any Insurance, self-insurance, or insurance pool coverage maintained by the City shall be excess of the Consultant's insurance and shall not be contributed or combined with it.
- D. **Acceptability of Insurers.** Insurance is to be placed with insurers with a current A.M. Best rating of not less than A:VII.
- E. **Verification of Coverage.** Consultant shall furnish the City with original certificates and a copy of the amendatory endorsements, including but not necessarily limited to the additional insured endorsement, evidencing the insurance requirements of the Contractor before commencement of the work. Upon request by the City, the Consultant shall furnish certified copies of all required insurance policies, including endorsements, required in this Agreement and evidence of all subcontractors' coverage.
- F. **Notice of Cancellation.** The Consultant shall provide the City with written notice of any policy cancellation, within two business days of their receipt of such notice.
- G. **Failure to Maintain Insurance.** Failure on the part of the Consultant to maintain the insurance as required shall constitute a material breach of contract, upon which the City may, after giving five business days notice to the Consultant to correct the breach, immediately terminate the contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the City on demand, or at the sole discretion of the City, offset against funds due the Consultant from the City.
9. **Independent Contractor.** The Consultant and the City agree that the Consultant is an independent contractor with respect to the services provided pursuant to this Agreement. Nothing in this Agreement shall be considered to create the relationship of employer and employee between the parties hereto. Neither the Consultant nor any employee of the Consultant shall be entitled to any benefits accorded City employees by virtue of the services provided under this Agreement. The City shall not be responsible for withholding or otherwise deducting federal income tax or social security or for contributing to the state industrial insurance program, otherwise assuming the duties of an employer with respect to the Consultant, or any employee of the Consultant.
10. **Covenant Against Contingent Fees.** The Consultant warrants that he has not employed or retained any company or person, other than a bonafide employee working solely for the Consultant, to solicit or secure this contract, and that he has not paid or agreed to pay any company or person, other than a bonafide employee working solely for the Consultant, any fee, commission, percentage, brokerage fee, gifts, or any other consideration contingent upon or resulting from the award or making of this contract. For breach or violation of this warrant, the City shall have the right to annul this contract without liability, or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

11. **Discrimination Prohibited.** Contractor, with regard to the work performed by it under this Agreement, will not discriminate on the grounds of race, religion, creed, color, national origin, age, veteran status, sex, sexual orientation, gender identity, marital status, political affiliation, the presence of any disability, or any other protected class status under state or federal law, in the selection and retention of employees or procurement of materials or supplies.
12. **Assignment.** The Consultant shall not sublet or assign any of the services covered by this Agreement without the express written consent of the City.
13. **Non-Waiver.** Waiver by the City of any provision of this Agreement or any time limitation provided for in this Agreement shall not constitute a waiver of any other provision.
14. **Termination.**
 - A. The City reserves the right to terminate this Agreement at any time by giving ten (10) days written notice to the Consultant.
 - B. In the event of the death of a member, partner or officer of the Consultant, or any of its supervisory personnel assigned to the project, the surviving members of the Consultant hereby agree to complete the work under the terms of this Agreement, if requested to do so by the City. This section shall not be a bar to renegotiations of this Agreement between surviving members of the Consultant and the City, if the City so chooses.
15. **Applicable Law; Venue; Attorney's Fees.** This Agreement shall be subject to, and the Consultant shall at all times comply with, all applicable federal, state and local laws, regulations, and rules, including the provisions of the City of Tukwila Municipal Code and ordinances of the City of Tukwila. In the event any suit, arbitration, or other proceeding is instituted to enforce any term of this Agreement, the parties specifically understand and agree that venue shall be properly laid in King County, Washington. The prevailing party in any such action shall be entitled to its attorney's fees and costs of suit. Venue for any action arising from or related to this Agreement shall be exclusively in King County Superior Court.
16. **Severability and Survival.** If any term, condition or provision of this Agreement is declared void or unenforceable or limited in its application or effect, such event shall not affect any other provisions hereof and all other provisions shall remain fully enforceable. The provisions of this Agreement, which by their sense and context are reasonably intended to survive the completion, expiration or cancellation of this Agreement, shall survive termination of this Agreement.
17. **Notices.** Notices to the City of Tukwila shall be sent to the following address:

City Clerk
City of Tukwila
6200 Southcenter Boulevard
Tukwila, WA 98188

Notices to Consultant shall be sent to the following address:

Ken Nilsen, P.E.
11255 Kirkland Way #300
Kirkland, WA 98033
18. **Entire Agreement; Modification.** This Agreement, together with attachments or addenda, represents the entire and integrated Agreement between the City and the Consultant and supersedes all prior negotiations, representations, or agreements written or oral. No amendment or modification of this Agreement shall be of any force or effect unless it is in writing and signed by the parties.

DATED this _____ day of _____, 20_____.

CITY OF TUKWILA

CONSULTANT

Allan Ekberg, Mayor

By: _____

Printed Name: _____

Title: _____

Attest/Authenticated:

Approved as to Form:

City Clerk, Christy O'Flaherty

Office of the City Attorney



November 3, 2020

Mr. Adib Altallal
Public Works
City of Tukwila
6300 Southcenter Blvd
Tukwila, Washington 98188

**Subject: *Lift Station Retrofit Projects (LS's #2, #4 and #12)
Proposal for Construction Support Services - Revised***

Dear Adib:

PACE Engineers, Inc., appreciates the opportunity to submit this proposal for providing construction administration support for the Lift Stations Retrofit (LS #2, #4 and #12) Project.

It is our understanding that the City will be providing the inspection and construction management for this project but would like support from the PACE team for specific items associated with the construction and pump station start-up. Follett Engineers, the electrical consultant on this project, will be supporting PACE in this effort along with QCIC which will provide coating inspection. Based on our understanding, our proposed scope of work is as follows:

Scope of Work – Construction Support Services

1. Attend the pre-construction conference.
2. Review material submittals for compliance with the contract documents for all three lift stations with Follet Engineers coordinating all the electrical submittals.
3. Respond to RFIs and contractor questions for all three lift stations with Follet Engineers coordinating all the electrical RFI's and Systems Interface (under separate contract with the City) providing additional support on LS #4 as needed.
4. Prepare change orders as necessary, including all documentation and coordination with the contractor.
5. Attend the pump station start-up and testing for LS #2 and LS #4 (LS #12 does not require start-up).
6. Final walk through and punch list for all three lift stations with Follet Engineers coordinating all the electrical submittals.
7. Provide inspection of the coating for LS #12 wetwell rehab. QCIC has budgeted 3-site visits for this process.

Fee Estimate

We propose to provide the services listed above on a time-and-expense basis for a fee of **\$48,412**. The breakdown for the above fee is shown on the attached budget worksheets. This amount is not to be exceeded without prior authorization for revised or additional scope of services. If the City would like the PACE team to provide inspection or other construction support services, we would be happy to

November 3, 2020
Mr. Adib Altallal
City of Tukwila
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Engineers | Planners | Surveyors

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include those additional services.

Again, we are pleased to submit this scope of work to accomplish the above tasks for the Lift Station Retrofit Projects. Please do not hesitate to contact me at 425.827.2014 or kenn@paceengrs.com if you have any comments or questions.

Sincerely,

PACE Engineers, Inc.



Kenneth H. Nilsen, P.E.
Vice President

Attachment

SCOPE OF SERVICES LS #2 REVISIONS INCL. NEW FORCEMAIN, LS #4 and LS #12 Bid Documents

Project Understanding

The existing sanitary sewer Lift Station No. 2 located at the southwest corner of Andover Park West and Minkler Boulevard is a critical infrastructure serving the area south of Minkler Boulevard from I-5 on the west to the Green River and City limits on the east. The forcemain leaving Lift Station No. 2 recently experienced a break requiring emergency repairs. City staff would like to replace this existing forcemain with a new line that is sized for the future build out flows and to straighten the alignment within the road section.

The PACE team had previously prepared a combined set of construction documents for LS #2, LS #4 and LS #12. It is the City's desire to split out LS #4 and LS#12 into a separate set of construction documents and also create a new set of construction documents for LS #2 including the proposed forcemain improvements with Andover Park West. This attached scope of work and budget plan provides for:

- Creating a separate set of construction plans and specs for LS #4 and LS #12. This includes both civil and electrical work
- Creating a new set of construction plans and specs for LS #2, including the previously designed civil and electrical improvements along with the new forcemain design within Andover Park West.
-

Scope of Services

This proposal includes necessary civil and electrical services necessary to bring these projects to construction this winter. PACE will be the prime consultant for the entire Scope of Work and will oversee and administer this Scope of Work. PACE will complete all civil engineering services in-house. PACE will subcontract with Follett Engineering for the electrical engineering portion of the project.

We anticipate starting this work immediately. The estimated cost for this work is approximately **\$23,000** - (see Exhibit B). The budget is based on our 2021 Municipal Rates.

SCOPE OF WORK

Task 1 – Project Management/Coordination/Meetings

PACE will provide project administration and coordination of the project. The following items are included in this task:

- Attend coordination meetings with the City as required. For budgetary purposes we are budgeting one review meeting with the City.
- Coordination with subconsultant (Follett Engineering).
- In-house project administration, scheduling, and direction of design team staff.
- Quality Assurance review of all plans and documents.

Task 2 – Construction Document Update

The PACE Team will update the plans and specifications to produce new bid ready sets of bid documents with the anticipation of going to bid the winter. Specific items are as follows:

- Update the Project Manual (specifications) specific to LS #2 improvements including the new forcemain.
- Update the Project manual for a combined project including both LS #4 and LS #12.
- Update the civil and electrical plans set specific to LS #2 including the new forcemain.
- PACE will also confirm the hydraulics of the new forcemain to verify the size of the new main (it is anticipated that an 18-inch forcemain is sufficient) including the determination if there is sufficient size within the drywell to upsize the existing and proposed pipes and fittings. If there is insufficient room within the drywell, the upsizing would occur outside of the lift station.
- Update the civil and electrical plans set specific to the combined project including LS #4 and LS #12 as previously designed.
- Provide updated anticipated construction cost estimates for each project.

Project Name: **Tukwila LS's** Location: **Tukwila** Prepared By: **KHN**
 Project #: Billing Group #: Task #: Date: **11/2/2020**

Staff Type # (See Labor Rates Table)	Staff Type Hourly Rate	Labor Hours by Classification										Hour Total
		1	14	75	118							
Drawing/Task Title	Job Title	Senior Principal Engineer	Project Engineer	CAD Tech II	Sr. Project Administrator							
CM SUPPORT												
Task 5 - CM Support LS's		15	68	6	2							91
Precon (one meeting all 3 LS's)			6									6.0
Submittal Reviews (all 3 LS's - electrical to Vince)		4	16									20.0
RFI's (all 3 LS's - electrical to Vince)		2	12									14.0
Pump Station Start-up (#2 only - Vince only #4 and #12 not needed)		2	6									8.0
Punch List and Final walk through (all 3 LS's)		2	12									14.0
Addendums (all 3 LS's)		1	8	4	2							15.0
Misc Items		4	8	2								14.0
Hours Total		15.0	68.0	6.0	2.0							91.0
Labor Total		\$3,540	\$11,356	\$708	\$236							\$15,840.00

Expenses	rate/unit	Reimbursable	
		Quantity	Cost
Postage/Courier			
Plotter			
Photo/Video			
Mileage/Travel/Per Diem			
Miscellaneous			
Technology Fee (2% of labor)			\$316.80
Total			\$316.80

Subconsultants	
Electrical LS #2 CM	\$12,274
Electrocal LS #4 CM	\$12,274
Coating Inspection LS#12	\$3,500
Subconsultant Subtotal	28,048.00
Markup	15%
Total	\$32,255.20

PACE Billed Labor Total	\$15,840.00
Reimbursable Expenses	\$316.80
Subconsultants	\$32,255.20
Total Project Budget	\$48,412.00

PACE Engineers

Project Budget Worksheet - 2021 Washington EOR Rates

Project Name: **LS #2 Revisions Incl New Foremain** Location: **Tukwila** Prepared By: **KN**
 Project #: Billing Group #: Task #: Date: **1/22/2021**

Labor Hours by Classification												
Staff Type # (See Labor Rates Table) Staff Type Hourly Rate	Labor Code	1	14	74	118							
		\$240	\$170	\$132	\$120							
Drawing/Task Title	Job Title	Senior Principal Engineer	Project Engineer	CAD Tech III	Sr. Project Administrator						Hour Total	Dollar Total
Task 1 - Project Management		8									8.0	\$1,920
Task 2 -Revisions to Plans Civil and electrical												
Civil Plans		4	36	24							64.0	\$10,248
Electrical Plans		2	2								4.0	\$820
Specifications		2	4		16						22.0	\$3,080
QA		4	4		2						10.0	\$1,880
Hours Total		20.0	46.0	24.0	18.0						108.0	
Labor Total		\$4,800	\$7,820	\$3,168	\$2,160							\$17,948.00

Expenses	rate/unit	Reimbursable	
		Quantity	Cost
Postage/Courier			
Plotter			
Photo/Video			
Mileage/Travel/Per Diem			
Miscellaneous			
Technology Fee (2% of labor)			\$450.00
Total			\$450.00

Subconsultants	
Utility Locate	
Mechanical Engineer	
Electrical Engineer	\$4,000
Geotechnical Engineer	
I & C Engineer	
Subconsultant Subtotal	4,000.00
Markup	15%
Total	\$4,600.00

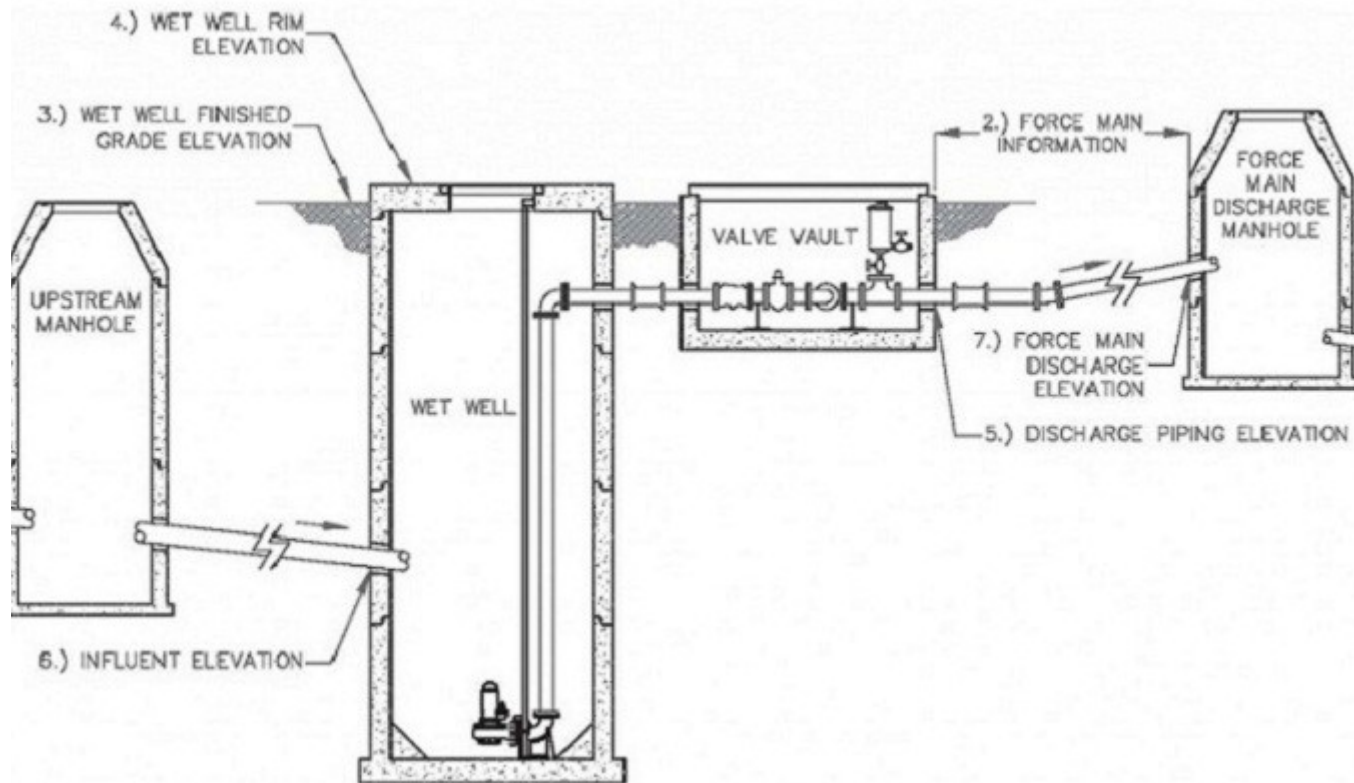
PACE Billed Labor Total	\$17,948.00
Reimbursable Expenses	\$450.00
Subconsultants	\$4,600.00
Total Project Budget	\$22,998.00

**PACE Engineers, Inc. 2021 Washington
Billing Rate Table = Engineer of Record Rates**

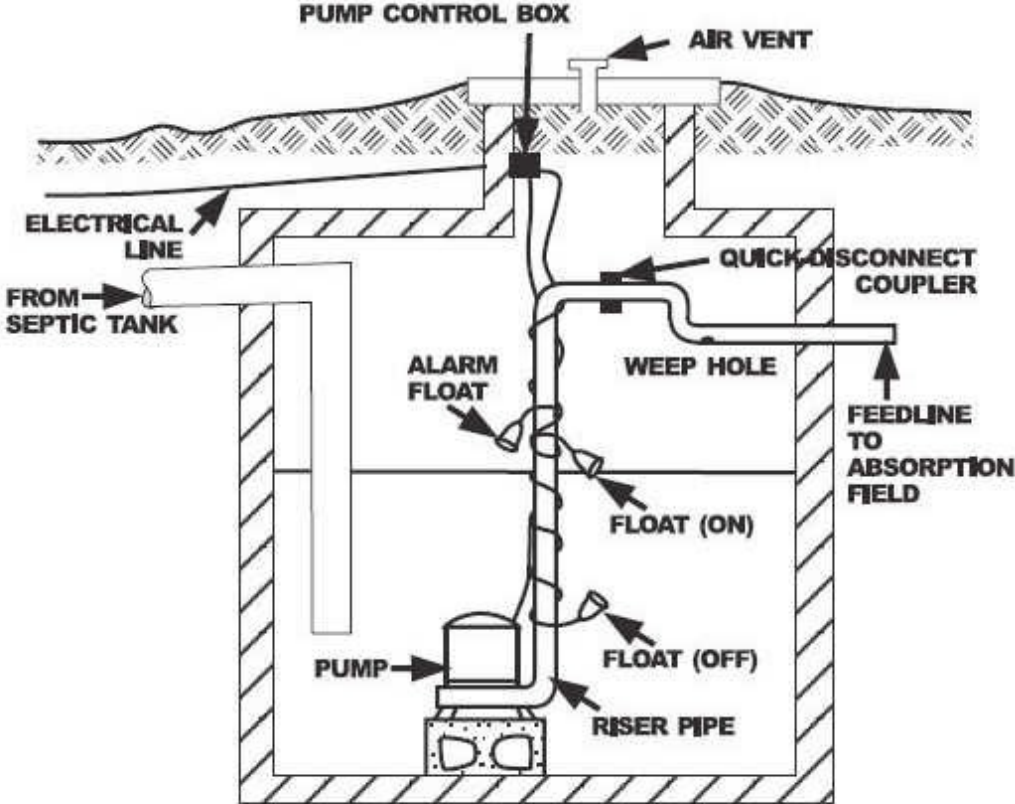
Staff Type	ST#	Billing Rate
Senior Principal Engineer	1	\$240.00
Senior Principal Planner	2	\$240.00
Principal Engineer	10	\$222.00
Sr. Project Manager	11	\$205.00
Project Manager	12	\$190.00
Sr. Project Engineer	13	\$180.00
Project Engineer	14	\$170.00
Sr. Engineer	15	\$158.00
Engineer II	16	\$132.00
Engineer I	17	\$120.00
Jr. Engineer	18	\$109.00
Sr. Structural Engineer	19	\$180.00
Sr. Project Designer	20	\$180.00
Project Designer II	21	\$170.00
Project Designer I	22	\$158.00
Project Designer	23	\$144.00
Designer II	24	\$120.00
Designer I	25	\$109.00
Designer III	26	\$132.00
Designer	27	\$92.00
IT Manager	28	\$180.00
Principal Planner	30	\$222.00
Sr. Project Planner	31	\$180.00
Project Planner	32	\$170.00
Sr. Planner	33	\$158.00
Planner III	34	\$144.00
Planner II	35	\$132.00
Planner I	36	\$120.00
Jr. Planner	37	\$92.00
Planner	38	\$109.00
Intern	39	\$74.00
Sr. Principal Surveyor	40	\$205.00
Principal Surveyor	41	\$190.00
Survey Project Manager	43	\$180.00
Sr. Project Surveyor	44	\$170.00
Sr. Survey Tech	45	\$144.00
Project Surveyor	46	\$158.00
Survey Tech II	48	\$92.00
Survey Tech I	49	\$74.00
Survey Tech IV	51	\$120.00
Two-Person Crew	58	\$205.00
Sr. Two-Person Crew	59	\$222.00
GIS Analyst III	62	\$144.00
GIS Analyst II	63	\$132.00
GIS Analyst I	64	\$120.00
GIS Tech	65	\$109.00
Sr. Project GIS Analyst	66	\$170.00
Sr. GIS Analyst	67	\$158.00
Engineer III	68	\$144.00

**PACE Engineers, Inc. 2021 Washington
Billing Rate Table = Engineer of Record Rates**

Staff Type	ST#	Billing Rate
Survey Tech III	69	\$109.00
CAD Manager	70	\$158.00
Sr. CAD Tech	71	\$144.00
CAD Tech	72	\$92.00
Project CAD Tech	73	\$158.00
CAD Tech III	74	\$132.00
CAD Tech II	75	\$120.00
CAD Tech I	76	\$109.00
Jr. CAD Tech	77	\$74.00
Sr. Project Inspector	80	\$158.00
Sr. Inspector	81	\$144.00
Inspector III	82	\$132.00
Inspector II	83	\$120.00
Inspector I	84	\$109.00
Inspector	85	\$92.00
Jr. Inspector	86	\$74.00
Engineer Tech	87	\$74.00
Engineer Tech I	88	\$92.00
Planning Project Manager	89	\$190.00
Project Administrator	91	\$109.00
Sr. Office Tech	92	\$92.00
Office Tech III	93	\$74.00
Office Tech II	94	\$63.00
Office Tech I	95	\$49.00



Pumping tank (generic)



Source: US EPA, Purdue University 1990