# SKAGIT COUNTY Resolution # R20250071

	Page 1 of 49	RFQ		
RESOLUT	TON NO			
Request for Qualifications for a Profession	nal Engineer Firm for the Edison Subarea UV Sy	/stem		
WHEREAS RCW 39.80.030 requires that Professional Services: and,	t agencies publish in advance the agency's requ	uirement for		
WHEREAS the Planning and Develop Professional Engineering Firm for this project.	ment Services Department is interested in	securing a		
<b>WHEREAS,</b> the Planning and Developmengineering for this project.	ment Services Department has determined th	ne need for		
	<b>NOW, THEREFORE, BE IT RESOLVED</b> that the Board of Skagit County Commissioners hereby instructs the Clerk of the Board to issue a Request for Qualifications for an Engineering Firm for the following project:			
Edison Clean Water District Subar	rea UV Disinfection System Improvemer	nts		
The closing date for the submittal of statements <b>4:30 PM</b> on <b>TUESDAY</b> , <b>04/01/2025</b>	The closing date for the submittal of statements of qualifications will be the end of the business day, at <b>4:30 PM</b> on <b>TUESDAY</b> , <b>04/01/2025</b>			
PASSED this 17 day of MWM , 2025.				
SEAL COURS	BOARD OF COUNTY COMMISSIONER SKAGIT COUNTY, WASHINGTON Lisa Janicki, Chair Ron Wesen, Commissioner  Peter Browning, Commissioner	<b>₹</b> \$		

Attest:

Clerk of the Board

Approved as to form:

Approved as to Content:

Civil Deputy Prosecuting Attorney

Department Head

# **Requests for Qualifications**

**Skagit County** 

**Edison Clean Water District** 

Wastewater UV Disinfection System Improvements

# Legal Notice Request for Qualifications for Professional Services for Wastewater Treatment Improvements – Alternative 3a – Phase 1

**NOTICE IS HEREBY GIVEN:** that the Skagit County Planning & Development Services Department invites the submittal of written statements of qualifications from Consultants interested in providing Professional Engineering, Environmental Permitting, and related work for the following project:

Project Title: Wastewater Treatment Improvements - Phase 1

Proposal Due Date: 04/01/2025

Expected Time Period for Contract: April 2025 to April 30, 2026

Skagit County reserves the right to amend terms of this "Request for Qualifications" (RFQ), to circulate various addenda, or to withdraw the RFQ at any time.

**Contract Eligibility:** This procurement is open to those contractors that satisfy the minimum qualifications stated herein and that are available for work in Washington State.

# **Contents of the Request for Qualifications:**

- 1. Introduction
- 2. General Information for Contractors
- 3. Proposal Contents
- 4. Evaluation and Contract Award
- 5. Exhibits
  - a. A-1 Contractors Certifications
  - b. B-1 Contractors Profile and References
  - c. Edison Subarea Original Site Plans
  - d. Edison Large On-Site Septic System Design
  - e. UV Manual

# 1. Introduction

# 1.1. Purpose and Background

Skagit County owns a small-scale wastewater treatment facility in the Town of Edison consisting of approximately 75 residential and commercial connections, individual customer on-site STEP tanks, a gravity and pumped collection system, and plant featuring recirculating gravel filtration, and UV disinfection, with an effluent discharge to two adjacent drain fields including a 5-acre drain field and an Emergency Upflow Trench. The system has been in place for approaching 30 years and is managed by a volunteer Subarea Board together with contracted maintenance, operation, and administration personnel. The Edison system operates under the Department of Ecology (ECY) State Waste Discharge Permit #ST0045515 issued pursuant to Chapter 173-216 WAC.

The County is soliciting interest from engineering firms to provide professional engineering services for the design of improvements to the Wastewater UV Disinfection System. The project is scheduled to start in 2025.

# 1.2. Objective/Scope of Work

The objective of this RFQ is to hire a contractor with superior Engineering and communications skills as project managers for the Wastewater UV Disinfection System upgrade.

It is anticipated that the work will be accomplished according to the following tasks but are not limited to:

- **a.** Prepare a pre-design report establishing the size and configuration of the new UV system, size and channel modification, UV equipment, electrical, instrumentation and controls.
- b. Preparation of preliminary designs and preliminary estimate of construction cost.
- **c.** Preparation of Plans, Specifications, BID Documents, and final estimate of construction costs.
- **d.** Assistance during bidding, including advertisement, distribution of bid documents, maintaining a plan holders list, responding to bidders' questions, preparing and distributing addenda, attending bid opening, preparing bid tabulation, verifying bidder's references, and providing a recommendation for award to the County.
- **e.** Provide services during construction, including submittal review and office construction management, as requested by the County.
- **f.** Assistance with documentation of Quality Assurance Project Plan (QAPP) or equivalent to meet requirements of data reporting

# 1.3. Minimum Qualifications

By the time of contract execution, Contractor must be registered to do business with Washington State and have a current Unified Business Identifier (UBI),

Contractor must provide firm's/team's qualifications, demonstrated experience as an Engineering Firm and design of wastewater treatment facilities. Must have experience of performing tasks listed in section 1.2 and Project Management duties. The information should be focused on similar and/or complementary projects. The roles proposed for each team member as well as their qualifications in that area shall also be identified. The firm/team members should be able to exhibit appropriate licenses and certifications for each discipline for which they will be used. Copies of licenses and certifications shall be provided upon request.

## 1.4. Project Description

The Objective of this phase is to upgrade and expand the aging UV system to ensure its integrity and continue to disinfect effluent to reduce fecal coliform discharge. The system experiences excessive flows due to a combination of high seasonal ground water tables, king tides, and heavy rainfall. When flows to the treatment plant exceeds the system's design and permitted limits, the treated effluent is diverted to an infiltration trench referred to as the emergency upflow trench which discharges the treated effluent into the Edison Slough. To address this seasonal situation and to comply with our ECY Discharge Permit, Skagit County contracted with an engineering firm, Gray and Osborne, to produce a Capacity Plan to identify limiting factors and develop potential solutions to improve the treatment system. The draft Capacity Plan was completed in April 2023 and submitted to the Washington State Department of Ecology for review and approval. The Plan identified six (6) alternatives ranging from direct connection to the City of Burlington's wastewater treatment plant, to various expansion and improvements to the current treatment system. The highest-ranking alternative included the rehabilitation of the existing on-site drainfield to improve drainfield capacity and upgrades to the Ultraviolet (UV) treatment component to ensure the integrity of the disinfection system, thereby continuing to eliminate fecal coliform prior to discharge. Given the proximity of the Edison system to the Edison Slough these improvements will decrease any direct impact to the Samish Bay commercial shellfish growing areas. This proposal is to begin Phase 1 of the wastewater treatment and disposal system improvements by upgrading the UV system. The 2023 Gray and Osborne Capacity Plan Assigned Rough Order of Magnitude (ROM) costs for implementing all improvements of \$1,280,000. The ROM for the UV system upgrade (construction only) was set at \$124,000, and the County has received \$250,000 in grant funds to complete both the design and construction of this phase.

# 2. General Information for Contractors

# 2.1. RFQ Project Administrator Contact

The RFQ Project Administrator is the sole point of contact for this procurement. All communications between the Contractor and Skagit County upon receipt of this RFQ shall be with the RFQ Project Administrator, as follows:

Name:	Erin Langley
Address:	1800 Continental Place
City, State, Zip Code:	Mount Vernon, WA 98273
Email Address:	erinl@co.skagit.wa.us

Any other communication will be considered unofficial and non-binding. Contractors are to rely on written statements issued by the RFQ Project Administrator. Communication directed to parties other than the RFQ Project Administrator may result in disqualification of the Contractor.

## 2.2. Estimated Schedule of Procurement Activities

RFQ Published:	3/20/2025	
RFQ Advertised:	3/20/2025	
Deadline for Questions:	4/1/2025	
Deadline for SOQ:	4/1/2025	
Review and score of SOQ:	4/1/2025	
Consultant Interviews:	4/1/2025	
Consultant Selection:	4/1/2025	
Execute Contract:	Date of Execution	
Notice to Proceed/Begin Design:	TBD	
Completed Design:	TBD	
Completed System:	TBD	
End Contract:	4/30/2026	

<sup>\*</sup>Skagit County reserves the right to revise the above schedule at any time.

# 2.3. Submission of Proposals

Contractors are required to submit a hard copy of their Proposal including a cover letter with firm name, address, and contact information. The Proposal must be received by Skagit County no later than **4:30 PM**, Pacific Time, on **TUESDAY**, **04/01/2025**. Submission must be by mail or in-person drop off at the Commissioners Administrative Building at 1800 Continental Pl, Mount Vernon, WA 98273. The submission title shall read "Edison Subarea UV – Firm Name"

The submittal package (cover letter plus Statement of Qualifications (SOQ)) must not exceed seven (7) single -sided, letter size pages. Exceeding this limit will result in a five (5) point deduction per additional page. References will be contacted at random. Unresponsive references will receive zero (0) points. Cost proposals shall not be submitted with the SOQ.

Late Proposals will not be accepted and will be automatically disqualified from further consideration. All Proposals and any accompanying documentation become the property of Skagit County.

The Contractor's Proposal must respond to all of the solicitation requirements. Do not respond by referencing material presented elsewhere. The Proposal shall be considered complete and stand on its own merits. Failure to respond to any portions may result in rejection of the Proposal as non-responsive.

Include Contractor's contact information for this RFQ with firm name, title, email, and telephone number.

The Apparent Successful Contractor will be expected to enter into a contract which is substantially the same as the RFQ. In no event is a Contractor to submit its own standard contract terms and conditions in response to this solicitation. Contractors may submit exceptions as allowed in Exhibit A-1 – Contractor's Certification. All exceptions to the contract terms and conditions must be submitted as an attachment to Exhibit A-1 –

Contractor's Certification. Skagit County will review requested exceptions and accept or reject the same at its sole discretion.

## 2.3. Proprietary Information/Public Disclosure

Materials submitted in response to this competitive procurement shall become the property of Skagit County. All Proposals received shall remain confidential until Skagit County has announced an Apparent Successful Contractor; thereafter, the Proposals shall be deemed public records as defined under the Public Records Act, RCW Chapter 42.56.

## 2.4. Small & Diverse Businesses

Skagit County, in accordance with Washington law, encourages small and diverse businesses to compete for and participate in state procurements as contractors and as subcontractors to awarded bidders. See, e.g., RCW 39.19 (OMWBE certified businesses); RCW 43.60A.200 (WDVA certified veteran-owned businesses); and RCW 39.26.005 (Washington small businesses).

OMWBE Certification. Contractors may contact the Washington State Office of Minority and Women's Business Enterprises (OMWBE) regarding information on Minority-Owned and Women-Owned certified firms, state and federal certification programs, or to become certified. OMWBE can be reached by telephone, 866-208-1064, or through their website at OMWBE. OMWBE-Certified firms may provide their certification information on Exhibit A-2 – Contractor's Profile & References.

**WDVA Certification.** Contractors may contact the Washington State Department of Veterans' Affairs (WDVA) for information regarding Certified Veteran-Owned businesses or to become a Certified Veteran-Owned Business. The WDVA can be reached by telephone, (360) 725-2169, or through their website at WDVA. The qualification requirements to be a Certified Veteran-Owned Business are set forth in Exhibit A-1 – Contractor's Certification.

**Washington Small Businesses.** Contractors may contact OSOS about small and diverse business inclusion and qualification as a Washington Small Business. If you qualify as a Washington Small Business, identify yourself as such in WEBS. Call WEBS Customer Service at 360-902-7400. The qualification requirements to self-certify as a Washington Small Business are set forth in Exhibit A-1 – Contractor's Certification.

Americans with Disabilities Act (ADA) Information. Skagit County complies with the ADA and Section 504 of the Rehabilitation Act. Please contact Emily Derenne at emilyid@co.skagit.wa.us if you require this RFQ to be provided in an alternate format.

**Build America Buy America Act (BABA)** 

The *Build America Buy America Act*, enacted as part of the Infrastructure Investment and Jobs Act on November 15, 2021, established a domestic content procurement preference for all Federal financial assistance obligated for infrastructure projects after May 14, 2022. The domestic content procurement preference requires that all iron, steel, manufactured products, and construction materials used in covered infrastructure projects are produced in the United States.

## 2.5. Acceptance Period

Proposals must be provided between March 20, 2025, and April 1, 2025, for acceptance by Skagit County from the later of the due date for receipt of Proposals or receipt of best and final offers (if utilized). Contractor agrees that during the acceptance period it may not modify, withdraw, or cancel its Proposal.

## 2.6. Responsiveness

All Proposals will be reviewed by the RFQ Project Administrator to determine compliance with administrative requirements and instructions specified in this RFQ. Contractor is specifically notified that failure to comply with any part of the RFQ may result in rejection of the Proposal as non-responsive.

Skagit County also reserves the right, however at its sole discretion to wave minor administrative irregularities.

# 2.7. No Obligation Contract

This RFQ does not obligate the state of Washington or Skagit County to contract for services specified herein.

# 3. Proposal Contents

Proposals must be complete, legible, signed, and follow all instructions stated in the solicitation (including the exhibits). Unless otherwise specified in writing by Skagit County, submissions must be by mail or in-person drop off at the Commissioners Administrative Building at 1800 Continental Pl, Mount Vernon, WA 98273.

Contractors' Proposals must respond to all of the solicitation requirements. Do not respond by referencing material presented elsewhere. The Proposal shall be considered complete and stand

on its own merits. Failure to respond to any portions may result in rejection of the Proposal as non-responsive.

This section identifies the submittals that must be provided as instructed below to constitute a responsive Proposal. Proposals that do not include all of the applicable submittals identified below are considered non-responsive and will be rejected. In addition, a Contractor's failure to complete any submittal as instructed may result in the Proposal being rejected. Contractors may not provide unsolicited materials. For any supplemental materials expressly required by the Washington Office of Secretary of State (OSOS) in writing, Contractors must identify such supplemental materials with the Contractor's name.

Contractors must submit the following documents separately:

# EXHIBIT A-1 – CONTRACTOR'S CERTIFICATION

Complete the certification, attach any exceptions or required explanations, and submit it to the RFQ Project Manager using the following file naming convention:

ContractorName\_CERTIFICATION The certification must be complete. Where there are choices, bidders must check a box. The certification must be signed and submitted by a duly authorized representative of the Contractor.

- EXHIBIT A-2 CONTRACTOR'S PROFILE & REFERENCES
   Complete as instructed and submit to the RFQ Project Manager using the following file naming convention: ContractorName\_REFERENCES
- Statement of Qualifications (SOQ)

No form is provided for this submittal. The Contractor proposal must include the following and demonstrate that the minimum qualifications set forth in Section 1.3 are met:

# A. Project Management

- 1. **Project Team Structure/Internal Controls** Provide a description of the proposed project team structure and internal controls to be used during the course of the project. Provide an organizational chart of your firm indicating lines of authority for personnel involved in the performance of this potential contract and relationships of this staff to other programs or functions of the firm. This chart must also show lines of authority to the next senior level of management. Include who within the firm will have prime responsibility and final authority for the work.
- 2. **Staff Qualifications/Experience** Identify staff, who will be assigned to the potential contract, indicating the responsibilities and qualifications of such personnel, and include the amount of time each will be assigned to the project. Provide resumes for the named staff which include information on the individuals' particular skills related to this project, education, experience, significant

accomplishments and any other pertinent information. Contractor must commit that staff identified in its Proposal will actually perform the assigned work. Any staff substitution must have prior approval of Skagit County.

# **B. Experience of the Contractor**

Indicate the experience the Contractor demonstrates and the qualifications of Contractor for the performance of the potential contract. Include a list of contracts the Contractor has had during the last five years that relate to the Contractor's ability to perform the services needed under this RFQ. List contract reference numbers, contract period of performance, contact persons, telephone numbers, and fax numbers/e-mail addresses.

Submit to the RFQ Project Manager using the following file naming convention:

ContractorName\_MANAGEMENT

# 4. Evaluation and Contract Award

# 4.1. Evaluation of Qualifications (100 Points)

Consideration during the evaluation of qualifications will include, but are not limited to the following:

1.	Technical qualifications and experience of the Firm (25 points)	
2.	Experience with Wastewater Treatment Engineering (15 points)	
3.	Project approach and cost control measures (25 points)	
4.	Experience with UV Design (15 points)	
5.	Proposed Timeline (15 points)	
6.	Past Performances (5 points)	

# 4.2. Proposal Selection

A Selection Committee will review, evaluate, and rank the proposals. The Selection Committee will include, at a minimum, staff from Skagit County's Planning and Development Services.

## 4.3. Title VI Statement

Skagit County, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

# 5. RFQ Exhibits

Exhibit A - A-1 Contractors Certifications

Exhibit B - B-1 Contractors Profile and References

Exhibit C - Edison Subarea Original Site Plans

Exhibit D - Edison Large On-Site Septic System LOSS Design

Exhibit E - UV Manual

## EXHIBIT A-1 - CONTRACTOR'S CERTIFICATION

Competitive Solicitation:	RFQQ No. 25-02 issued December 2, 2024				
Contractor:	Type/print full legal name of Contractor				
Contractor's Address:	Type/print Contractor's Address				
	Corporation:		Domestic		Foreign
Contractor Organization Type:	Limited Liability Company (LLC):		Domestic		Foreign
Check appropriate box	Partnership:		Domestic		Foreign
	Sole Proprietorship:				
State of Formation: Type/print the state where the corporation, LLC, or partnership is formed – e.g. 'Washington' if domestic and the name of the state if 'Foreign' (i.e., not Washington')			-		
Doing Business Under Another Name: Check appropriate box	e: If Contractor HAS done business under another name, provide the				

Contractor, through the duly authorized undersigned, makes this certification as a required element of submitting a responsive Proposal. Contractor certifies, to the best of its knowledge and belief that the following are true, complete, correct, and made in good faith:

- UNDERSTANDING. Contractor certifies that Contractor has read, thoroughly examined, and fully
  understands all of the provisions in the solicitation (including all exhibits) and the terms and
  conditions of the contract and any amendments or clarifications to the solicitation, and agrees to
  abide by the same.
- 2. ACCURACY. Contractor certifies that Contractor has carefully prepared and reviewed its Proposal and fully attests to the accuracy of the same. Contractor further understands and acknowledges that OSOS shall not be responsible for any errors or omissions on the part of Contractor in preparing its Proposal. Contractor further certifies that the facts declared herein are true and accurate. Contractor further understands and acknowledges that the continuing compliance with these statements and all requirements of the solicitation are conditions precedent to the award or continuation of the resulting contract.

- 3. No COLLUSION, ANTI-COMPETITIVE PRACTICES, OR SHARING PROPOSAL INFORMATION. Contractor certifies that Contractor has not: (1) either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competition; (2) improperly shared information with other Contractors in connection with this solicitation; and (3) made any attempt and shall not make any attempt to induce any other person or firm to submit or not to submit a proposal for the purpose of restricting competition. If there is evidence of such communication, collusion, or anti-competitive activities among Contractors, OSOS reserves the right to disqualify such Contractors. Contractor, however, freely may join with other persons or organizations for the purpose of presenting a joint proposal.
- 4. FIRM OFFER. Contractor certifies that its Proposal pertaining to the above-referenced solicitation is a firm offer which cannot be withdrawn for a time period of sixty (60) days from and after the proposal due date specified in the solicitation. OSOS may accept such Proposal, with or without further negotiation, at any time within such period. In the event of a protest, Contractor's Proposal shall remain valid for such time period or until the protest and any related court action is resolved, whichever is later.
- 5. CONFLICT OF INTEREST. Contractor certifies that, in preparing its Proposal, Contractor has not been assisted by any current or former employee of the State of Washington whose duties relate (or did relate) to this solicitation or prospective contract and who was assisting in other than the employee's official, public capacity. Contractor further certifies that no such current or former public employee nor any member of such person's immediate family have any financial interest in the outcome of Contractor's Proposal.
- 6. No REIMBURSEMENT. Contractor certifies that Contractor understands that the State of Washington will not reimburse Contractor for any costs incurred in the preparation of Contractor's Proposal. All proposals become the property of the State of Washington, and Contractor claims no proprietary right to the ideas, writings, items, or samples unless so stated in the Proposal.
- 7. PERFORMANCE. Contractor certifies that Contractor understands that its submittal of a Proposal and execution of this Contractor's Certification certifies Contractor's willingness to comply with the terms of the contract, if awarded such. By submitting this Proposal, Contractor hereby offers to furnish the goods and/or services solicited pursuant to this solicitation in compliance with all terms, conditions, and performance requirements contained in this solicitation and the resulting contract or, if applicable, as detailed on a Contract Issues List, if permitted, in this solicitation.

8.	INSUR	ANCE. Contractor certifies as follows (must check one):
		CONTRACTOR HAS REQUIRED INSURANCE. Contractor <u>has</u> attached a current, valid certificate of insurance for each and all of the required insurance coverages as specified in the contract (note: Contractor must attach the insurance certificate).
		OR
		CONTRACTOR WILL OBTAIN REQUIRED INSURANCE. Contractor does not have a current, valid certificate of insurance for each and all of the required insurance coverages as specified in the contract but, if designated as the Apparent Successful Contractor, Contractor will provide such a certificate of insurance, without exception of any kind, to OSOS within twenty-four (24) hours of such designation or notification by OSOS or be deemed a nonresponsive Proposal.
		OR
	П	CONTRACTOR DOES NOT HAVE REQUIRED INSURANCE. As detailed on the attached

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explanation (Contractor to provide), Contractor does not have a current, valid certificate of insurance for each and all of the required insurance coverages as specified in the contract and, if designated as the Apparent Successful Contractor would not be able to provide such a certificate of insurance to OSOS within twenty-

		four (24) hours of such designation.
9.	RMENT. Contractor certifies as follows (must check one):	
		NO DEBARMENT. Contractor and/or its principals are <u>not</u> presently nor has ever been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from contracting with any federal, state, or local governmental entity within the United States.
		OR
		DEBARRED. As detailed on the attached explanation (Contractor to provide), Contractor and/or its principals presently are debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from contracting with a federal, state, or local governmental entity within the United States.
10.	CRIM one):	NAL OFFENSE. Contractor (including Contractor's officers) certifies as follows (must check
		NO CRIMINAL OFFENSE. Contractor has <u>not</u> , within the three (3)-year period preceding the date of this solicitation, been convicted or had a civil judgment rendered against Contractor for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a governmental contract; violation of any federal or state antitrust statute; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property. Contractor further certifies that it is not presently indicted or otherwise criminally or civilly charged by a governmental entity with commission of any of the offenses enumerated in this paragraph.
		OR
		CRIMINAL OFFENSE. As detailed on the attached explanation (Contractor to provide), within the three (3)-year period preceding the date of this solicitation, Contractor has been convicted or had a civil judgment rendered against Contractor for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a governmental contract; violation of any federal or state antitrust statute; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
11.	WAG	THEFT PREVENTION. Contractor certifies as follows (must check one):
		NO WAGE VIOLATIONS. Contractor has <u>NOT</u> been determined by a final and binding citation and notice of assessment issued by the Washington Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in <u>RCW 49.48.082</u> , any provision of RCW chapters <u>49.46</u> , <u>49.48</u> , or <u>49.52</u> within three (3) years prior to the date of the above-referenced solicitation date.
	_	OR
		VIOLATIONS OF WAGE LAWS. Contractor has been determined by a final and binding

citation and notice of assessment issued by the Washington Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, a provision of RCW chapters 49.46, 49.48, or 49.52 within three (3) years prior to the date of the above-referenced solicitation date.

		above referenced solicitation date.
12.	CIVIL	RIGHTS. Contractor certifies as follows (must check one):
		COMPLIANCE WITH CIVIL RIGHTS REQUIREMENTS. Contractor complies with all applicable requirements regarding civil rights. Such requirements prohibit discrimination against individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity, or national origin.  OR
		NON-COMPLIANCE WITH CIVIL RIGHTS REQUIREMENTS. Contractor does not comply with all applicable requirements regarding civil rights.
13.	Wor	KERS' RIGHTS (EXECUTIVE ORDER 18-03). Contractor certifies as follows (must check one):
		No Mandatory Individual Arbitration Clauses and Class or Collective Action Waivers FOR EMPLOYEES. Contractor does NOT require its employees, as a condition of employment, to sign or agree to mandatory individual arbitration clauses or class or collective action waivers.
		OR
		MANDATORY INDIVIDUAL ARBITRATION CLAUSES AND CLASS OR COLLECTIVE ACTION WAIVERS FOR EMPLOYEES. Contractor requires its employees, as a condition of employment, to sign or agree to mandatory individual arbitration clauses or class or collective action waivers.
14.	TERM	IINATION FOR DEFAULT OR CAUSE. Contractor certifies as follows (must check one):
		No Termination for Default or Cause. Contractor has <u>not</u> , within the three (3)-year period preceding the date of this solicitation, had one (1) or more federal, state, or local governmental contracts terminated for cause or default.
		OR
		TERMINATION FOR DEFAULT OR CAUSE. As detailed on the attached explanation (Contractor to provide), within the three (3)-year period preceding the date of this solicitation, Contractor has had one (1) or more federal, state, or local governmental contracts terminated for cause or default.
15.	TAXE	s. Contractor certifies as follows (must check one):
		TAXES PAID. Except as validly contested, Contractor is <u>not</u> delinquent and has paid or has arranged for payment of all taxes due to the State of Washington and has filed all required returns and reports as applicable.  OR
		DELINQUENT TAXES. As detailed on the attached explanation (Contractor to provide), Contractor has not paid or arranged for payment of all taxes due to the State of Washington and/or has not timely filed all required returns and reports as applicable.

16.	FINA	NCIALLY SOLVENT. Contractor certifies as follows (must check one):
		FINANCIALLY SOLVENT. Contractor is financially stable and solvent, has adequate cash reserves to meet all financial obligations, has not commenced bankruptcy proceedings voluntarily or otherwise, and is not subject to any judgments, liens, or encumbrances of any kind affecting title to any goods or services that are the subject of this solicitation.
		OR
		NOT FINANCIALLY SOLVENT. As detailed on the attached explanation (Contractor to provide), Contractor is not financially stable and solvent – i.e., Contractor does not have adequate cash reserves to meet all financial obligations, has commenced bankruptcy proceedings voluntarily or otherwise, or is subject to a judgment, lien, or encumbrance that affects title to the goods or services that are the subject of this solicitation.
17.		FUL REGISTRATION. Contractor, if conducting business other than as a sole proprietorship (e.g. ractor is a corporation, limited liability company, partnership) certifies as follows ( <i>must checl</i> :
		CURRENT LAWFUL REGISTRATION. Contractor is in good standing in the State of Washington and the jurisdiction where Contractor is organized, including having timely filed all required annual reports.
		OR
		DELINQUENT REGISTRATION. As detailed on the attached explanation (Contractor to provide), Contractor currently is not in good standing in the State of Washington and/or the jurisdiction where Contractor is organized.
18.	REGIS	TRATION WITH WASHINGTON SECRETARY OF STATE. Contractor certifies as follows (must check
		CONTRACTOR IS REGISTERED WITH WASHINGTON SECRETARY OF STATE. Contractor is registered with the Washington Secretary of State, such registration is active, and Contractor has the following Unified Business Identifier (UBI) number:  OR
		CONTRACTOR WILL REGISTER WITH WASHINGTON SECRETARY OF STATE. Contractor is not registered with the Washington Secretary of State but, if designated as an Apparent Successful Contractor, Contractor will register with the Washington Secretary of State to obtain a UBI number and provide proof of such registration satisfactory to OSOS within twenty-four (24) hours of such designation or notification by OSOS or be deemed a nonresponsive Proposal.
	_	OR
		CONTRACTOR IS NOT REGISTERED WITH WASHINGTON SECRETARY OF STATE. Contractor is not registered with the Washington Secretary of State and Contractor declines to register with the Washington Secretary of State. Note: OSOS requires all awarded Contractors (including Washington firms and out of state firms) to be registered with the Washington Secretary of State. Contractors who are not registered will not be awarded a contract.

19.		TRATION WITH WASHINGTON STATE DEPARTMENT OF REVENUE. Contractor certifies as follows (must k one):
		CONTRACTOR IS REGISTERED WITH WASHINGTON STATE DEPARTMENT OF REVENUE. Contractor is registered with the Washington State Department of Revenue, has a business license to do business in Washington, and has the following Unified Business Identifier (UBI) number:
		OR
		CONTRACTOR WILL REGISTER WITH WASHINGTON STATE DEPARTMENT OF REVENUE.  Contractor is not registered with the Washington State Department of Revenue but, if designated as an Apparent Successful Contractor, Contractor will register with the Washington State Department of Revenue for a business license and provide proof of such registration satisfactory to OSOS within twenty-four (24) hours of such designation or notification by OSOS or be deemed a nonresponsive Proposal.
	_	OR
		CONTRACTOR IS NOT REGISTERED WITH WASHINGTON STATE DEPARTMENT OF REVENUE.  Contractor is not registered with the Washington State Department of Revenue and Contractor declines to register with the Washington State Department of Revenue.  Note: OSOS requires all awarded Contractors (including Washington firms and out of state firms) to be registered with the Washington State Department of Revenue.  Contractors who are not registered will not be awarded a contract.
20.	SUBC	ONTRACTORS. Contractor certifies as follows (must check one):
		No Subcontractors. If awarded a contract, Contractor will <u>not</u> utilize subcontractors to provide the goods and/or services subject to this solicitation.  OR
		SUBCONTRACTORS. As detailed on the attached Exhibit A-2 Contractor's Profile and References, if awarded a contract, Contractor will utilize subcontractor(s) to provide the goods and/or services subject to this solicitation. In such event, Contractor further certifies that, as to the State of Washington, Contractor shall retain responsibility for its subcontractors, including, without limitation, liability for any subcontractor's acts or omissions. Note: Contractor must provide the precise legal name (including state of organization), business address, and federal tax identification number (TIN) for each subcontractor. Note: If the TIN is a SSN, do not provide the SSN.
21.	WASI	HINGTON SMALL BUSINESS. Contractor certifies as follows (must check one):
		WASHINGTON SMALL BUSINESS. Contractor is a Washington small business as defined in RCW 39.26.010. To qualify as a Washington Small Business, Contractor must meet three (3) requirements:
		<ul> <li>Location. Contractor's principal office/place of business must be located in and identified as being in the State of Washington. A principal office or principal place of business is a firm's headquarters where business decisions are made and the location for the firm's books and records as well as the firm's senior management personnel.</li> <li>Size. Contractor must be owned and operated independently from</li> </ul>
		Size. Contractor must be owned and operated independently from

all other businesses and have either: (a) fifty (50) or fewer employees; or (b) gross revenue of less than seven million dollars (\$7,000,000) annually as reported on Contractor's federal income tax return or its return filed with the Washington State Department of Revenue over the previous three consecutive years).

 WEBS Certification. Contractor must have certified its Washington small business status in Washington's Electronic Business Solution (WEBS).

OR

	NOT WASHINGTON SMALL BUSINESS. Contractor does not qualify as a Washington small		
business as defined in RCW 39.26.010.			

- 22. CERTIFIED VETERAN-OWNED BUSINESS. Contractor certifies as follows (must check one):
  - ☐ CERTIFIED VETERAN-OWNED BUSINESS. Contractor is a certified veteran-owned business under RCW 43.60A.190. To qualify as a certified veteran-owned business, Contractor must meet four (4) requirements:
    - 51% Ownership. Contractor must be at least fifty-one percent (51%) owned and controlled by:
      - (a) A veteran as defined as every person who at the time he or she seeks certification has received a discharge with an honorable characterization or received a discharge for medical reasons with an honorable record, where applicable, and who has served in at least one of the capacities listed in RCW 41.04.007;
      - (b) A person who is in receipt of disability compensation or pension from the department of veterans affairs; or
      - (c) An active or reserve member in any branch of the armed forces of the United States, including the national guard, coast guard, and armed forces reserves.
    - Washington Incorporation/Location. Contractor must be either an entity that is incorporated in the state of Washington as a Washington domestic corporation or, if not incorporated, an entity whose principal place of business is located within the State of Washington.
    - WEBS Certification. Contractor must have certified its veteranowned business status in Washington's Electronic Business Solution (WEBS).
    - WDVA Certification. Contractor must have provided certification documentation to the Washington Department of Veterans' Affairs WDVA) and be certified by WDVA and listed as such on WDVA's website (WDVA – Veteran-Owned Businesses).

OF

☐ NOT A CERTIFIED VETERAN-OWNED BUSINESS. Contractor does not qualify as a certified

veteran-owned business.

23. REFERENCES. Contractor certifies that the references provided to OSOS have worked with Contractor and that such individuals and firms have full permission, without any additional requirement or release, to provide such references and information to OSOS. Contractor hereby authorizes OSOS (or its agent) to contact Contractor's references and others who may have pertinent information regarding Contractor's prior experience and ability to perform the work set forth in this solicitation. Contractor hereby authorizes such individuals and firms to provide such references and release to OSOS information pertaining to the same.

Contractor further certifies that it shall provide immediate written notice to OSOS if, at any time prior to a contract award, Contractor learns that any of its certifications set forth herein were erroneous when submitted or have become erroneous by reason of changed circumstances.

I hereby certify, under penalty of perjury under the laws of the State of Washington, that the certifications herein are true and correct and that I am duly authorized to make these certifications on behalf of the Contractor listed herein.

CONTRA	ACTOR NAME: Print Name of Contractor – Print full leg	gal entity name of the firm submitting the Bid
By:		
<b>-</b> ,.	Signature of Contractor's authorized person	Print Name of person making certifications for Contractor
Title:		Place:
	Title of person signing certificate	Print city and state where signed
Date:		

Return this Contractor's Certification to the RFQQ Coordinator at: ivan.zavrazhnov@sos.wa.gov

# **EXHIBIT B-1 CONTRACTOR'S PROFILE & REFERENCES**

Competitive Solicitation:	RFQQ No. 25-02 issued December 2, 2024
Competitive Solicitation:	RFQQ No. 25-02 issued December 2, 2024

CONTRACTOR'S INFORMATION PROFILE	
Contractor:	Type/print full legal name of Contractor
	Business Name
Contractor's Address:	Address  City, State, Zip Code
Contractor's Unified Business Identifier Number (UBI):	LIDIAL
Note: A nine digit UBI number is assigned to each registered business in Washington.	UBI No
Contractor's Taxpayer Identification Number (TIN):	
Note: Your TIN will be either a number issued by the IRS (e.g., Employer Identification Number, Federal Tax Identification Number) or a number issued by the Social Security Administration (i.e., your Social Security Number). Do Not provide a Social Security Number.	
Is your firm certified as a minority- or woman-owned business with the Washington State Office of Minority and Women's Business Enterprises (OMWBE)?	Yes No No If yes, provide Contractor's MWBE certification no.:

Is your firm a self-certified Washington State Small Business?  Note: See Exhibit A-1 — Contractor's Certification for criteria to qualify as a Washington State Small Business.  Note: Regardless of size, a qualifying business must be owned and operated independently from all other businesses. In regard to size, the gross revenue thresholds, as reported on Contractor's tax returns, are as follows:  Microbusiness: Annual gross revenue of less than \$1,000,000  Minibusiness: Annual gross revenue of more than \$1,000,000, but less than \$3,000,000  Small Business: Annual gross revenue of less than \$7,000,000 over each of the three prior consecutive years.	Yes No Street Address City, State, Zip Code  If yes, what is your business size (based on annual gross revenue)?  Microbusiness Small Business
Is your firm certified as a Veteran-Owned Business with the Washington State Department of Veteran Affairs?  Note: See Exhibit A-1 – Contractor's Certification for criteria to qualify as a Certified Veteran-Owned Business.	Yes No No If yes, provide Contractor's WDVA certification no.:
CONTRACTOR'S PRIMARY POINTS OF CONTACT:	Authorized Representative:  Name: Email: Phone:  Contract Administrator:  Name: Email: Email: Phone:

EXHIBIT A-2 – CONTRACTOR'S PROFILE & REFERENCES: RFQQ No. 25-02

# REFERENCES

Provide at least three (3) references for Contractor including company name, contact name, title, phone number, email address, and a description of the work engagement upon which the reference is based.

	CONTRACTOR REFERENCES	
Company Name: Contact Name: Title: Phone: Email:	Description of Work Engagement:	
Company Name: Contact Name: Title: Phone: Email:	Description of Work Engagement:	
Company Name: Contact Name: Title: Phone: Email:	Description of Work Engagement:	
Company Name: Contact Name: Title: Phone: Email:	Description of Work Engagement:	
Company Name: Contact Name: Title: Phone: Email:	Description of Work Engagement:	

# **S**UBCONTRACTORS

Identify authorized subcontractors who will provide service on a contract resulting from this solicitation.

LEGAL NAME	SMALL, WOMEN OWNED, VETERAN OR OTHER DISADVANTAGED STATUS	POINT OF CONTACT NAME	PHONE NUMBER	EMAIL ADDRESS
		A.		

Return this Contractor's Profile & References to the RFQQ Coordinator at: ivan.zavrazhnov@sos.wa.gov

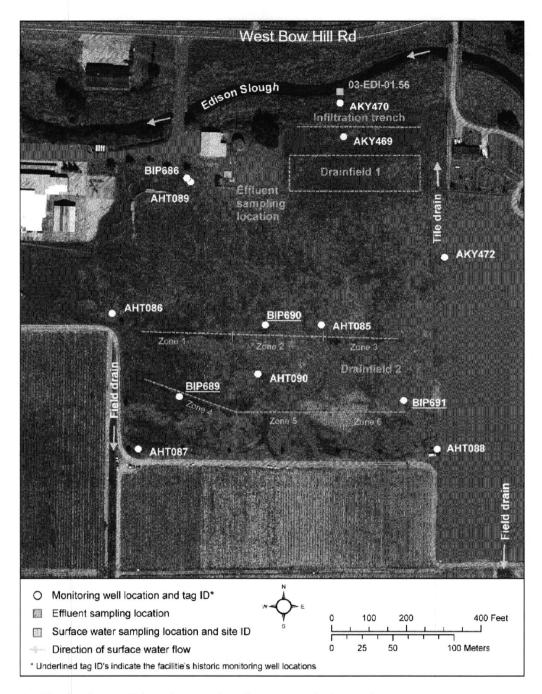


Figure 6. Monitoring well locations and surface water drainage features.

# Exhibit D

SKAGIT CO. CLEAN WATER DISTRICT:

EDISON SUB-AREA

PHASE 1 SEWER IMPROVEMENTS

SKAGIT COUNTY, WASHINGTON

# RECORD DRAWINGS

1 ACCENCAM AN NEW WORNTY MAP TC 00-01-96		
	1	

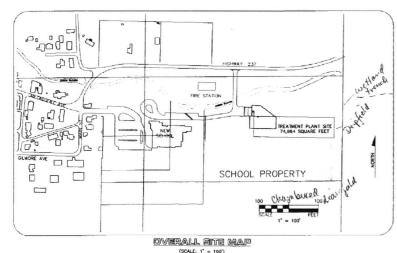
Wilson Engineering

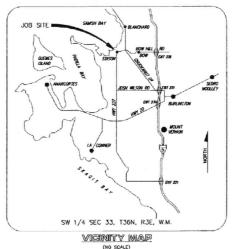
8 0 5 DUPONT STREET BELLINGHAM, WA 9 8 2 2 5 (3 6 0 ) 7 3 3 - 6 1 0 0 FA.X: (3 6 0 ) 6 4 7 - 9 0 6 1 DESIGNED BY:
TC
DRAWN BY:
TC
CHECKED BY:
MWC

Skagit Co. Clean Water District Edison Sub-Area PHASE I SEWER IMPROVEMENTS COVER SHEET

DATE
April 1996
SCALE
no scale

94077





### SHEET INDEX

- OVERALL SITE MAP, VICINITY MAP, AND INDEX
- HYDRAULIC PROFILE & SCHEMATIC
- 3. WEST SITE PLAN
- 4. CENTRAL SITE PLAN AND LEGEND
- 5. EAST SITE PLAN
- 6. TREATMENT PLANT SITE PLAN
- 7. GRAVEL FILTER CROSS SECTIONS
- RECIRCULATION TANK ELEVATIONS
- FILTER WALL & PUMP DETAILS
   DISPOSAL AND RECIRCULATION PUMP DETAILS
- 10. DISPOSAL FIELD PLAN
- 10A. DISPOSAL FIELD DETAILS
- 11. SCHOOL SEPTIC TANK & UV DETAILS
- 12. MISCELLANEOUS DETAILS

SEE SHEET E-1 FOR ELECTRICAL SHEET INDEX

RECORD DRAWING

Based upon least available beforealten
estated dering sensituation
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2.	REVISIONS	BY	DATE

Wilson Engineering

8 0 5 D U P D N T S T R E E T B E L L ! N G H A M, W A 9 8 2 2 5 [360] 733 - 610 0 F A X : [360] 647 - 90 61 DESIGNED BY:
TC
DRAWN BY:
TC
CHECKED BY:

Skagit Co. Clean Water District Edison Sub-Area

PHASE I SEWER IMPROVEMENTS

OVERALL SITE MAP, VICNITY MAP, AND INDEX
REPORT
REPORT
RESULTS OF THE SEWER IMPROVEMENTS
REPORT
RESULTS OF THE SEWER IMPROVEMENTS
RESULTS OF THE SEW

DATE SHEET
April 1996
SCALE 1
no scale OF
DEX JOB NUMBER
REQPAGE 26077 1.2

### **DESIGN CRITERIA**

#### WASTEWATER DESIGN CRITERIA

DESIGN AVERAGE BAILY FLOW \*
DESIGN AVERAGE PEAN FLOW
PEAN INSTANTABUS FLOW
DESIGN SENDERS FLOW
DESIGN RESIDENTIAL POPULATION
BOOK RESIDENTIAL POPULATION
BOOK LADAING ID. 437 MGG X 200mg/L X 8.33.1
TSS LADAING ID. 437 MGG X 200mg/L X 8.33.2 12,000 GPD 18,000 GPD 50 GPM 42 GPM 168 PEOPLE 500 STUDENTS 20 LBS/DAY 10 LBS/DAY \*ORIGINAL DESIGN FLOW WAS 24,000 GPD

#### RECIRCULATION TANK DESIGN CRITERIA

DESIGN BASIS
RECIRCULATION RATE
TANK DIMENSIONS
TANK VOLUME:
TOTAL:
OPERATING.
WATER SURFACE DEPTH 100% PEAK DAY FLOW 5 PER DAY 43'-0" x 14'-0" x 6'-3" 28,000 GALLONS 18,000 GALLONS 4'-0"

#### RECIRCULATING FILTER DESIGN CRITERIA

ORIGINAL DESIGN FLOW
MASTE LOADING 00 74,000 GPD
FILTER AREA
FILTER DIMEMSIONS
CURRENT DESIGN FLOM
HYDRAULIC LOADING (BOTH FILTERS)
HYDRAULIC LOADING (GNE FILTER) 24.000 GPD 5 GPD PER SF 4.800 SF 2 EA 48'0" x 50'0" 17.000 GPD 2.5 GPD PER SF PER SF 5.0 GPD PER SF PER SF

#### FILTER PUMP DESIGN CRITERIA

120,000 GALLONS 48 DOSES PER DAY 2,500 GALLONS DATLY DOSE VOLUME DOSE SCHEDULE \* DOSE VOLUME DOSE RATE OPERATING HEAD 125 GPM 20 FEET \*SCHEDULE IS ADJUSTABLE

#### DISINFECTION DESIGN CRITERIA

PEAK INSTANTANEOUS FLOW ULTRAVIOLET FLOW (APACITY 50 GPM 75,000 GPD

#### DRIP DISPOSAL FIELD OPERATING CRITERIA

1,065 GPD 0.04 GPD PER SF 26,667 SF 72'0" x 370'0" 2 FT 0.C. 2 FT 0.C. 6,660 1.13 GPH AT 15 PSI DESIGN FLOW DESIGN FLOM
SOIL ABSORPTION RATE
DISPOSAL FIELD AREA
DISPSPOSAL FIELD DIMENSIONS
DISPOSAL LINE SPACING
EMITTER DISCHARGE RATE

#### DRIP DISPOSAL FIELD FLUSHING CRITERIA

PART OF FIELD FLUSHED DURING FLUSHING OPERATION IONE HALF OF EAST OR WEST HALF! FLUSH OPERATION FREQUENCY FLUSH VOLUME SET POINT EMITTER FLUSH VELOCITY 25 PERCENT ONE PER MONTH 170 GALLONS 6.5 FT PER SECOND

#### DISCHARGE PUMP DESIGN CRITERIA

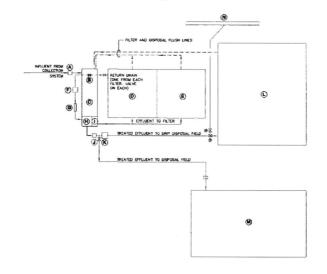
EMITTER DISCHARGE RATE 125 GPM 125 GPM 60 FEET 170 GALLONS PUMP RATE OPERATING HEAD PUMP DOSE VOLUME

#### NOTE

FOR EXPANDED WASTEWATER DISPOSAL FIELD DESIGN CRITERIA REFER TO RECORD DRAWINGS TITLED "WASTEWATER DISPOSAL FIELD IMPROVEMENTS"

## PROCESS SCHEMATIC

NO SCALE



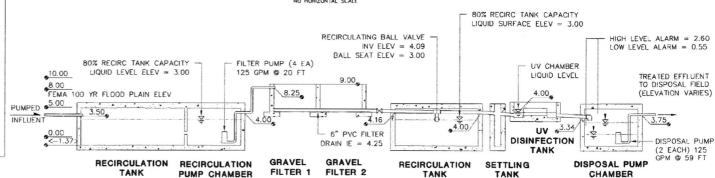
- (A) INFLUENT FLOW METER
- RECIRCULATING BALL VALVE
- RECIRCULATION TANK (D) GRAVEL FILTER NO. 1
- (E) GRAVEL FILTER NO. 2
- F SETTLING TANK
- @ UV SYSTEM
- (A) DISPOSAL PUMP CHAMBER
- RECIRCULATION PUMP CHAMBER (A) EFFLUENT FLOW METER
- ( PARTICLE FILTER
- C DRIP DISPOSAL FIELD
- EXPANDED WASTEWATER DISPOSAL FIELD
   INFILTRATION TRENCHES

# RECORD DRAWING

NOTE FOR RECORD DRAWINGS FOR THE SETTLING TANK (F) AND EXPANDED WASTEWATER DISPOSAL FIELD @B PEFER TO THE PLANSET "WASTEWATER DISPOSAL FIELD IMPROVEMENTS"

## HYDRAULIC PROFILE

SCALE: VERTICAL 1" = 5' NO HORIZONTAL SCALE



NOTE: ALL ELEVATIONS IN FEET (FT.).

	DESIGNED BY: Share	git Co. Clean Water District DATE SH	ET
805 DUPONT STREET	TC Drag	April 1990	- 1
3 UPDATE HIDRANUS PROTECT IN DI-20-97	DRAWN BY:	Edison Sub-Area SCALE	2
1 Jaco Defects FED PURSHED IN 19-77-56 [19:00-00 DEFECT IN 19:00-00 DE		PHASE I SEWER IMPROVEMENTS NO SCALE	F
LONSULTING ENGINEERS & SURVEYORS FAX: 13601647-9061	CHECKED BY: HYD	PRAULIC PROFILE & SCHEMATIC REQUESTED 1	2
NO. REVISIONS BY DATE	EDISON	WASHINGTON	

NSKAGITCON94077-PHASE INRECGED DRAWINGSNCO3.DWG, LAYOUTI, 03/03/04 11:53:09 AM, 0.5:1, BY: M. NAG

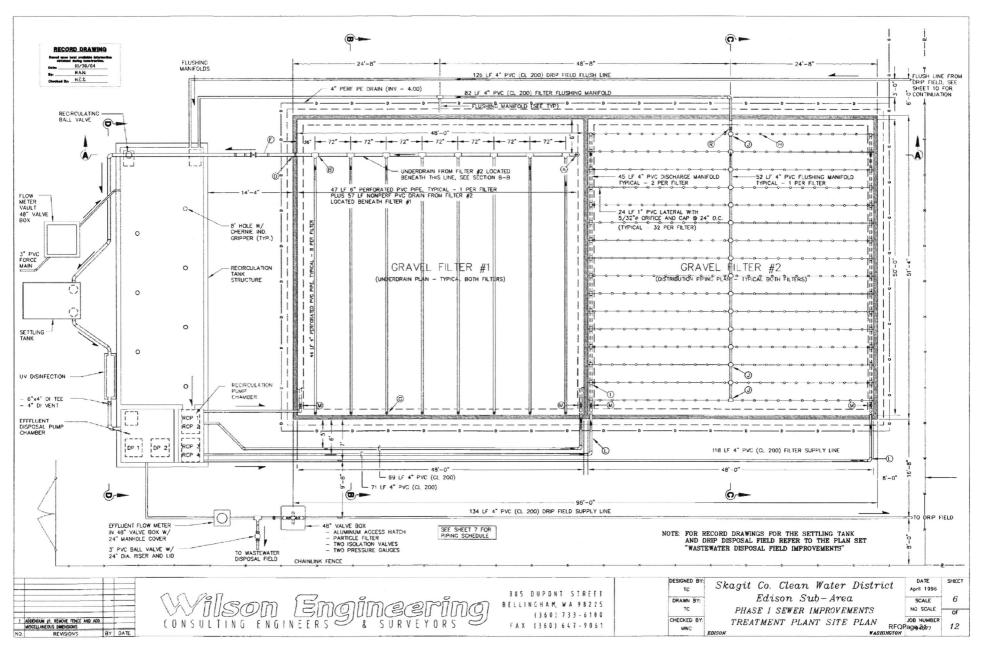
EXISTING MARKER POST FOR

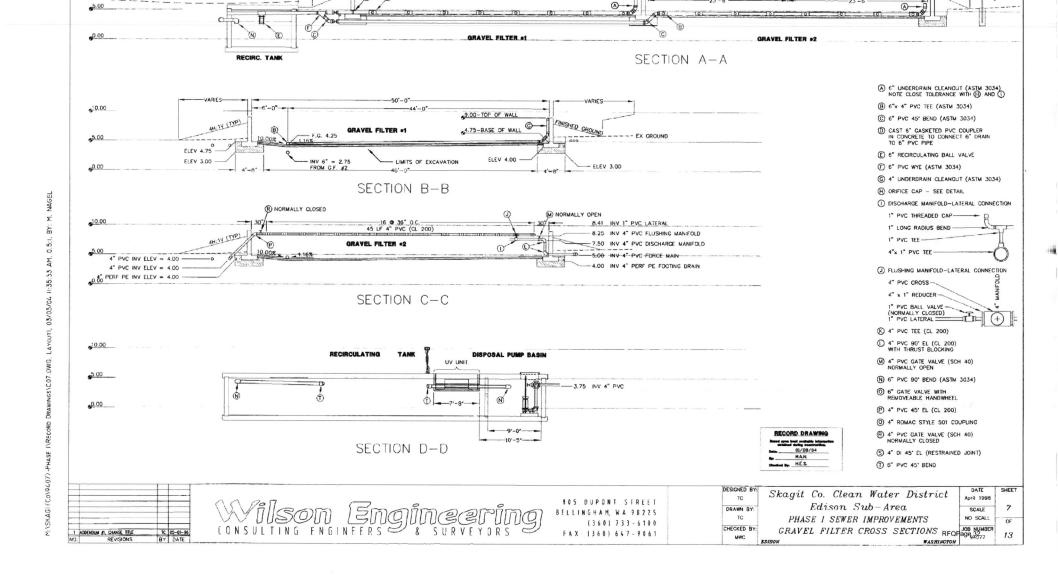
8" PVC SANITARY SEWER INV ELEV = 2.68 (DESIGN)

ALL PLUMBING, DIMENSIONS AND IMPROVEMENTS ASSOCIATED WITH TREATMENT AND DISPOSAL AREAS ARE SHOWN ON DETAILED PLANS-

Brogh-

MINSKAGITCON94077-PHASE INRECORD DRAWINGSNCO5.DWG, LAYOUTI, 03/03/04 11:26:35 AM, 0.5:1, BY: M. NAGEL





DISTRIBUTION PIPING PER FILTER #2

SEE FILTER WALL AND MEDIA DETAIL, SHEET 9

•10.00

NOTE: ORIFICES ARE STAGGERED ON ALTERNATE ROWS - SEE PLAN FOR ORIENTATION

48/30

-COMPACTED NATIVE BACKFILL

5.71

PERF PE DRAIN, INV ELEV - 4.00

12" GRAVEL BACKFILL FOR FOUNDATIONS,

SHEET

8

OF

April 1996

SCALE

1" = 5"

JOB NUMBER

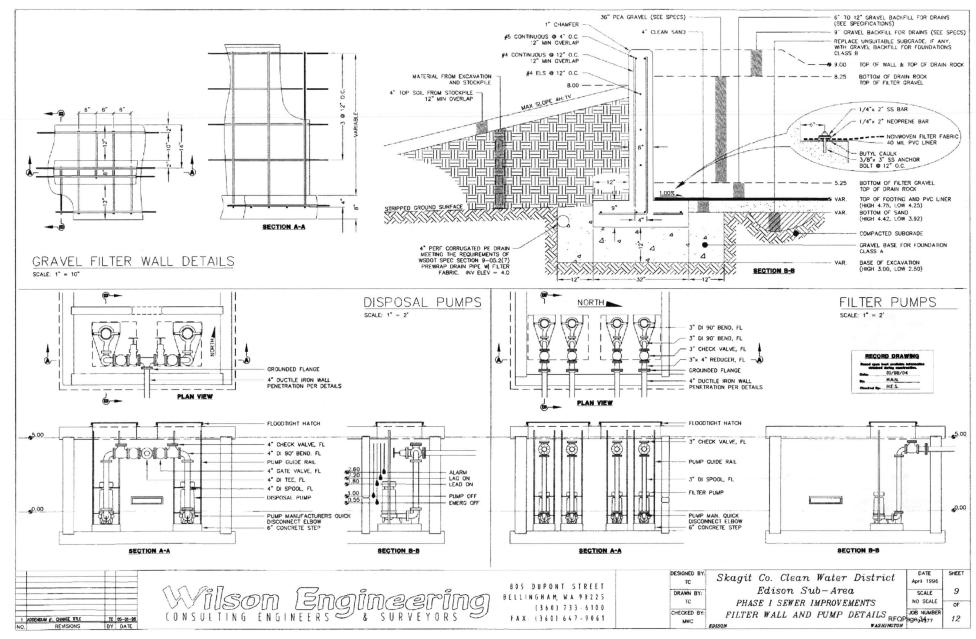
12" GRAVEL HACKELL FOR WALLS 10" PRECAST SLAB

CLASS A
GEOTEXTILE FABRIC

24/24

36/36

OPENING DIMENSION (TYP)



## RECIRCULATION PUMPS NAMEPLATE DATA

PUMP #	1	2	3	4		
MODEL #	S3HX300DC	S3HX300DC	S3HX300DC	S3HX300DC		
SERIAL #	S28374	S28375	S28376	S28377		
HP	3	3	3	3		
S.F.	1.2	1.2	1.2	1.2		
٧	208	208	208	208		
RPM	1750	1750	1750	1750		
FLA	10.9	10.9	10.9	10.9		
Ph	3					
Hz	60	80	60	60		
S.F.A.	12.8	12.8	12.8	12.8		
OP.TEMP.CODE	T4	T4	T4	T4		
IMPELLER	5.50	5.50	5.50	5.50		
CL. INSUL.	В	В	В	В		
DESIGN	В	В	В	В		
CODE	J	J	J	J		
BC	W	ı	н	В		
DATE CODE	8-96	8-96	8-96	8-96		

RECORD DRAYING

Based upon boot evaluable information
abritated deltay construction
Dates 01/08/04

By MAN.

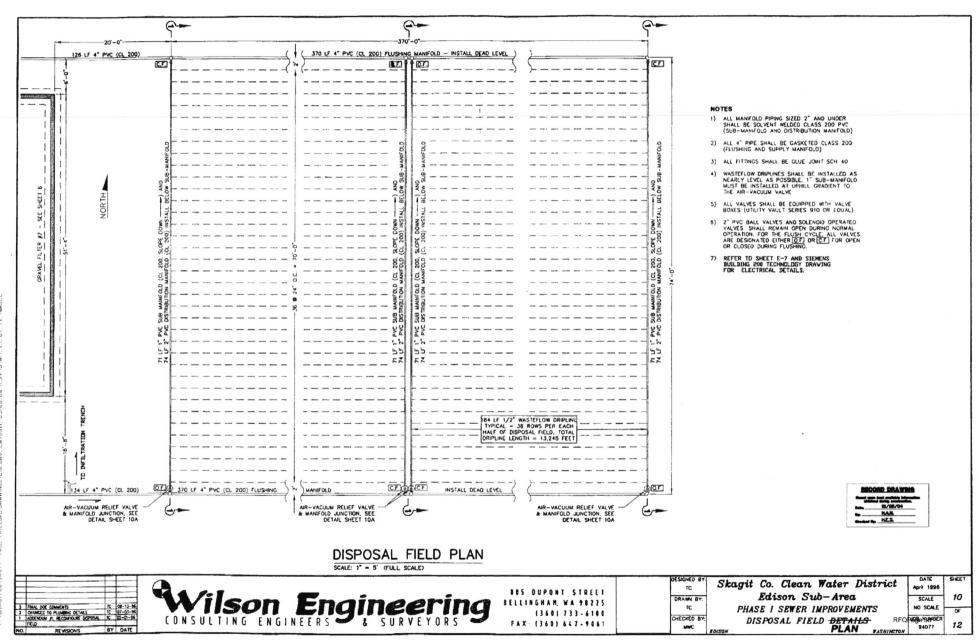
Caccade By HE.S.

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	ADDENDUM #1, CHANGE TITLE	TC	05-07-96
5.	REVISIONS	BY	DATE

Wilson Engineering Consulting Engineers & surveyors
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						1	3	6	0	)	7	3	3	-	6	1	0	0
	F	1		X		(	3	6	0	1	6	4	7		9	0	6	1

-	DESIGNED BY:	Skagit Co. Clean Water District	DATE April 1996	SHEE
	DRAWN BY:	$Edison \; Sub-Area$	SCALE	9A
	TC	PHASE I SEWER IMPROVEMENTS	NO SCALE	OF
	CHECKED BY:	DISPOSAL AND RECIRCULATION PUMP DETAILS OF RECIPED ASSESSMENT OF THE PROPERTY	08 NUMBER 1984077	12



THE VEX ACTION 20, 40 TO THE VEX ACTION TO THE VEX ACTION TO A VANCOUS AND ACTION TO THE VEX ACTION TO

UV MODULE (NOT SHOWN IN PLAN & END VIEW)

1/4" DIAMOND PLATE COVERS

WATER LEVEL

INLET

5.71

5.00

**9** 4.00

UV CHANNEL (SSL)

-- 25.00°---

9.00

1/4" DIAMOND PLATE COVERS

27.60

#4 CONTINUOUS @ 12" O.C. 12" MIN OVERLAP

TOP OF WALL

WATER LEVEL

5.71

5.00

4.00

SHEET

11

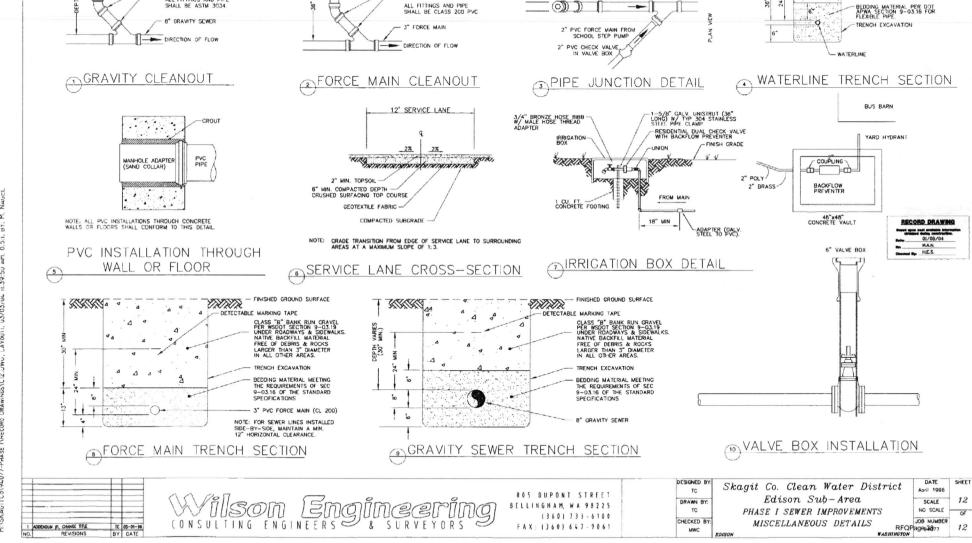
OF

12

SEE DETAIL SHEET 12

INLET

CLASS C 3,000 PSI CONCRETE PER CONTRACT SPECIFICATIONS (REBAR NOT SHOWN)



THREADED CAR - FOR INSTALLATION

ERON COMMINITY

PUMP CHAMBER

IN CONCRETE OR ASPHALT USE C.I.
CLEANOUT PER CRAVITY CLEANOUT

45" WYE AND 45" BEND OR

- PVC BALL CHECK VALVE

DETAIL

FINISHED GROUND SURFACE

CLASS "B" BANK RUN CRAVEL PER WSDOT SECTION 9-03.19 - UNDER ROADWAYS & SIDEWALKS. NATIVE BACKFILL MATERIAL FREE OF DEBRIS & ROCKS

LARGER THAN 3" DIAMETER

FORCE MAIN CLEANOUT PER DETAIL THIS SHEET

3" PVC FORCE MAIN FROM COMMUNITY PUMP CHAMBER

8" CAST IRON CLEANOUT DED

8 CAST INON CLEANOUT PER WDOT STANDARD PLAN B-18b. INSTALL FLUSH WITH CONCRETE SIDEWALK OR PAVING.

BEDDING MATERIAL MEETING

THE REQUIREMENTS OF SEC

9-03.16 OF THE STANDARD SPECIFICATIONS

45' WYE AND 45' BEND OR 90' LONG RADIUS WYE

ALL FITTINGS AND DIDE SHALL BE ASTM 3034

\*

4x[4#500 KCM, 3 1/2°C]-

ONE LINE DIAGRAM SYMBOL SCHEDULE

DESCRIPTION.

DEVICE OR EQUIPMENT TERMINAL

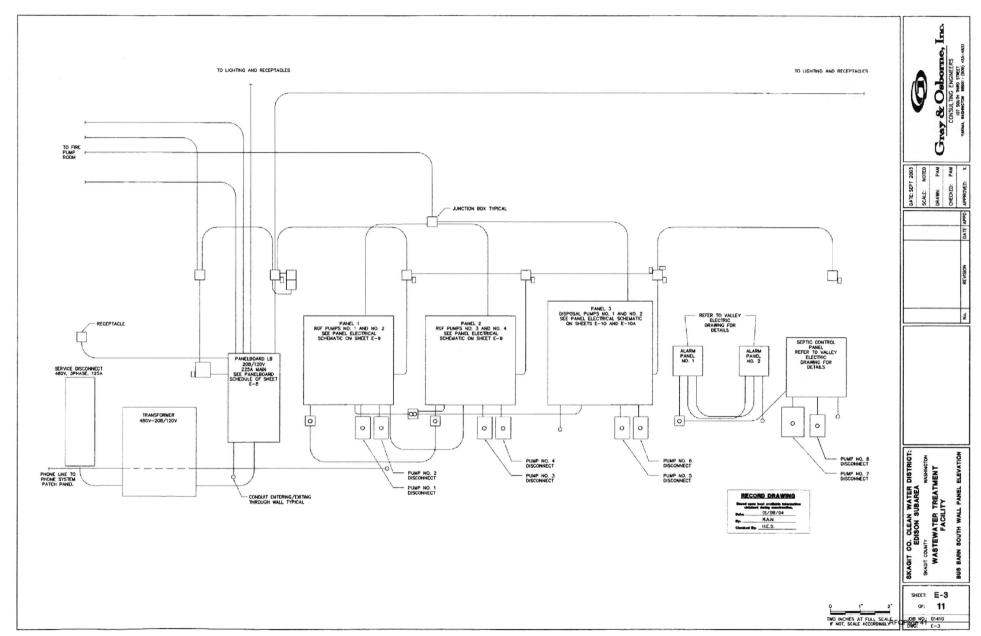
ELECTRICAL SHEET INDEX

DESCRIPTION

SHEET No.

Σ P. 03:05 2 03/03/04 PHASE

PANELBOARD LXB SEE SHEET E-4



NP-1

NP-4

NP-5

NP-B

NP-7

DRAIN FELD CONTROL PANEL NP-2 SOLENOID VALVE OPEN

NP-3 HIGH GROUND WATER LEVEL

HAND OFF AUTO

120VAC POWER

DRAIN FIELD ZONE NO. 1

DRAIN FIELD TONE NO 2

NP-1

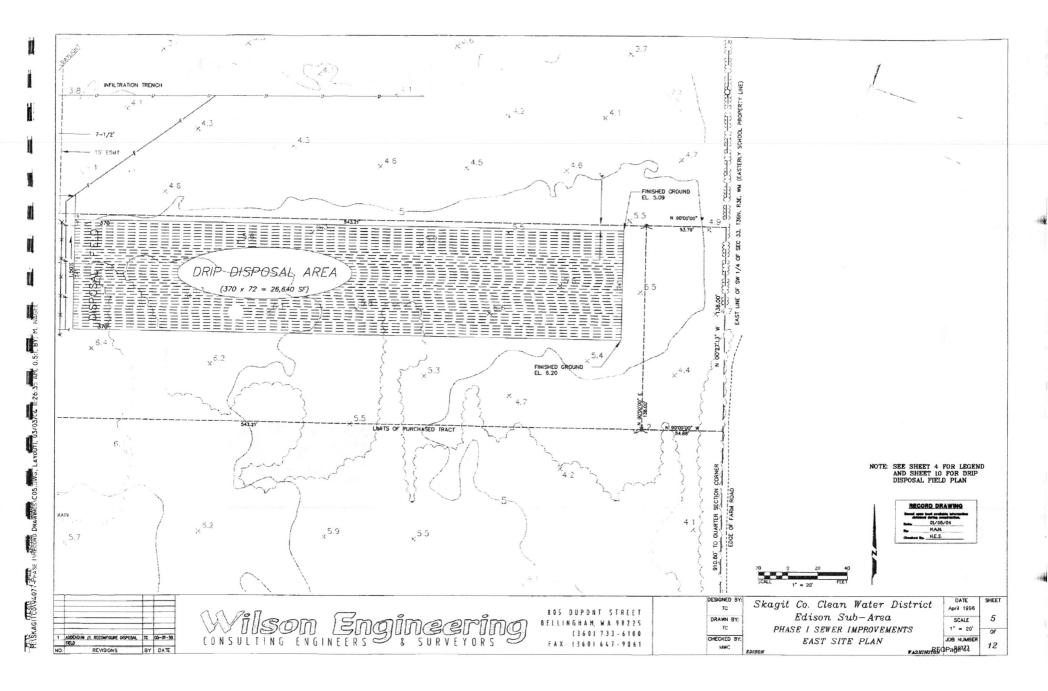
NP-2 NP-3 NP-2 NP-3

NP-6

(R) (R)

NP-5

(R) (R)



TO DRIP DISPOSAL FIELD

## 2.5 UV DISINFECTION SYSTEM

# 2.5.1 UNIT PROCESS DESCRIPTION

Ultraviolet (UV) disinfection uses ultraviolet light to disinfect wastewater. UV light is defined as electromagnetic radiation having a wavelength less than that of visible light (400 nanometers) and greater than that of x-rays (100 nanometers). The low pressure mercury lamp is the principal means of generating UV light for disinfection systems. The mercury lamp is used because 85 percent of the light output is monochromatic at a wavelength of 253.7 nanometers (nm), which is within the optimum range (250 nm to270 nm) for germicidal effects. To produce UV energy, the lamp, which contains mercury vapor, is charged by striking an electric arc. The excitation of the mercury vapor contained in the lamp results in the emission of UV light.

light causes a rearrangement UV(mutation) in the genetic code of microorganisms. Microorganisms are single-celled organisms which are made up of molecules. Deoxyribonucleic acid (DNA) and ribonucleic acid (RNA) are chain-like macromolecules that function in the storage and transfer of a cell's genetic information. Photochemical changes induced by UV radiation on the DNA of an organism primarily involve the dimerization of the two pyrimidine molecules. Dimerization occurs when two adjacent molecules form new bonds such that a double molecule is formed.

Formation of many double molecules along a DNA strand makes replication very difficult. UV light penetrating the DNA of a microorganism can also cause death in the organism.

Because only ultraviolet radiation reaches the bacteria, it is effective in altering the genetic material. However, visible and invisible particles can shield the bacteria from exposure to UV radiation.

UV transmittance is defined as the percentage of UV light at 254 nm not absorbed after passing through 1 cm of effluent sample. The percent transmittance depends on the amount and type of dissolved and suspended matter Reduced transmittance in the water. lowers the intensity of the light in the liquid, thus requiring longer exposure time in order to deliver the proper UV The visual clarity of a water sample is not always a good indicator of its UV transmittance since water that is clear to visible light may absorb invisible ultraviolet wavelengths.

Effluent flow from the recirculation tank flows into the ultraviolet disinfection system. The flow passes through a 6-inch pipe and into a stainless steel channel which houses the UV lamps. The design criteria and equipment data for the UV disinfection system can be seen in Table 2.5.

# TABLE 2.5 UV Disinfection System Design Criteria

Manufacturer	Trojan
Model No.	3075K-PTP
Peak Instantaneous Flow	45 gpm
Ultraviolet Flow Capacity	64,800 gpd
Total Suspended Solids	15 mg/L
Ultraviolet Transmittance @ 245.7 nm	60%
Effluent Standards (FC/100 ml, 30 day avg.)	100
No. of Lamps/Module	2
No. of Modules	3
UV Dosage @ 1 year	$2.75 \text{ mW} - \text{sec/cm}^2$
Rated Power Requirements	263 watts

# 2.5.2 OPERATION AND MAINTENANCE

### **GENERAL**

The indicators and controls for the UV disinfection system are located adjacent to the UV tank.

#### **MAINTENANCE**

The frequency of cleaning required for the UV tank will depend on the quality of effluent from the upstream processes and the chemical constituents. Fouling of the quartz sleeves occurs when charged particles adhere to their surface. As the coating builds, the UV light's intensity diminishes to where the buildup has to be removed for the system to remain effective. Cleaning should occur when there is a buildup on the quartz sleeves. The UV modules are removed from the channel and allowed to air dry. Each lamp is then wiped down with paper towels and cleaning solution (Lime-A-Way). Special care should be taken in handling the UV modules so that they are not damaged.

The effluent fecal coliform should not exceed 100/100 ml. If effluent analyses show fecal coliform counts approaching this level, the lamps should be cleaned. If cleaning does not subsequently reduce the fecal coliform count, then the lamps must be replaced.

The recommended maintenance schedule for the optimal operation of the UV system is to clean the lamps monthly and replace them annually.

#### START UP

The UV disinfection system can be started by closing the breakers. The operator should follow detailed start-up procedures in the manufacturers operation and maintenance manual to start the system.

## **SHUT DOWN**

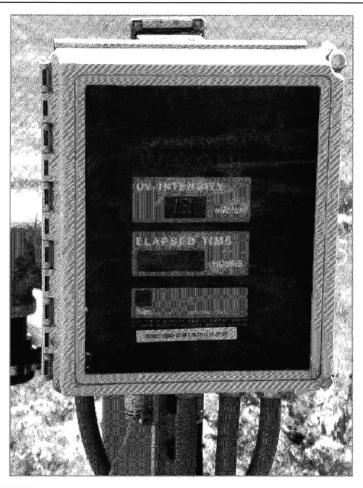
The UV disinfection system cannot be bypassed nor is there a valve in place to isolate the UV system.

#### OPERATIONAL PROBLEMS

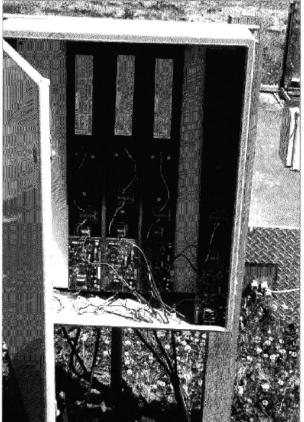
The manufacturer's manual should be consulted if operational problems occur with the ultraviolet disinfection equipment. Spare UV lamps have been provided in case one of the lamps fails or is broken.

For lamp replacement or cleaning, the individual modules must first be disabled by disconnecting the plug at the UV panel. The preferred sequence is to disable the two (2) outside modules, clean, and/or reinstall the modules. Then, repeat these steps with the middle, or third, module.

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MONITORING INTERFACE



**BALLAST ENCLOSURE** 

SKAGIT COUNTY - EDISON SUB-AREA

FIGURE 2.5 UV DISINFECTION SYSTEM



Gray & Osborne, Inc.