CLACKAMAS
WATER ENVIRONMENT SERVICES

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

June 13, 2024 BCC Agenda Date/Item: _____

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

Approval of a Contract with R.L. Reimers Co. for Chlorine Contact Basin Gate Replacement. Contract Value is $184,475.00. Funding through WES Sanitary Sewer Construction Fund. No County General Funds are involved.

Previous Board Action/Review	Presented at Issues – June 11, 2024.		
Performance Clackamas	1. This project supports the WES Strategic Plan to provide Enterprise Resiliency, infrastructure Strategy and Performance and Operational Optimization. 2. This project supports the County's Strategic Plan of building a strong infrastructure that delivers services to customers and honors, utilizes, promotes and invest in our natural resources.		
Counsel Review	Yes	**Procurement Review**	Yes
Contact Person	Jeff Stallard	**Contact Phone**	503-742-4694

EXECUTIVE SUMMARY: The final step in the conventional activated sludge treatment process at the Tri-City Water Resource Recovery Facility is disinfection of treated effluent with chlorine prior to discharge to the river. The chlorine contact basin (CCB) provides necessary retention time for disinfection to occur. The basin influent isolation gates, which are original to the facility, are operated seasonally for maintenance and cleaning of the CCB. The gates are in need of replacement. This contract is for the installation of two new owner-procured isolation gates. The contract includes installation and operation of a temporary bypass pumping system to direct flow around the CCB to allow for construction work to occur in the basin without disrupting the treatment efficacy of the facility. Work is anticipated to be completed during the summer of 2024.

RECOMMENDATION: Staff recommends that the Board of County Commissioners of Clackamas County, acting as the governing body of Water Environment Services, approve Contract #9561 with R.L. Reimers Co for Chlorine Contact Basin Gate Replacement.

Respectfully submitted,

Greg Geist
Director, WES

Attachment: Contract #9561 R.L. Reimers Co.

For Filing Use Only

WATER ENVIRONMENT SERVICES
PUBLIC IMPROVEMENT CONTRACT #9561

This Public Improvement Contract (the "Contract"), is made by and between Water Environment Services ("WES"), an intergovernmental entity formed pursuant to ORS Chapter 190, hereinafter called "Owner", and **R.L. Reimers Co.**, hereinafter called the "Contractor" (collectively the "Parties"), shall become effective on the date this Contract has been signed by all the Parties.

All capitalized terms in this Contract shall have the meanings identified in the Clackamas County General Conditions for Public Improvement Contracts (10/13/2021) ("General Conditions") referenced within the Instructions to Bidders.

Project Name: **RFQ# 2024-20 Tri-City Gate Replacement** ("Project")

1. **Contract Documents.** This Contract shall consist of the following documents ("Contract Documents"), hereby incorporated by reference, and are listed in descending order of precedence:
   A. This Public Improvement Contract
   B. Clackamas County General Conditions for Public Improvement Contracts (dated 10/13/2021) ("General Conditions") https://www.clackamas.us/finance/terms.html
   C. Exhibit A - Scope of Work
   D. Exhibit B - Contractor's Quote
   E. Performance and Payment Bonds

2. **Scope and Contract Price.** The Contractor hereby agrees to perform all Work described in, and reasonably inferred from, the Contract Documents, and further described in Exhibit A. The Owner agrees to pay the Contractor a sum not to exceed **One Hundred Eighty-Four Thousand Four Hundred Seventy-Five Dollars ($184,475.00)** for Work performed in accordance with the requirements of the Contract Documents.

3. **Representatives.** Contractor has named Ross Meyer it's Authorized Representative to act on its behalf. Owner designates, or shall designate, its Authorized Representative as indicated below (check one):

   ☒ Unless otherwise specified in the Work, the Owner designates Steven Rice as its Authorized Representative in the administration of this Contract. The above-named individual shall be the initial point of contact for matters related to Contract performance, payment, authorization, and to carry out the responsibilities of the Owner.

   ☐ Name of Owner's Authorized Representative shall be submitted by owner in a separate writing.

4. **Contractor Key Persons.** The Contractor's personnel identified below shall be considered Key Persons and shall not be replaced during the project without the written permission of Owner, which shall not be unreasonably withheld. If the Contractor intends to substitute personnel, a request must be given to Owner at least 30 days prior to the intended time of substitution. When replacements have been approved by Owner, the Contractor shall provide a transition period of at least 10 working days during which the original and replacement personnel shall be working on the project concurrently. Once a replacement for any of these staff members is authorized, further replacement shall not occur without the written permission of Owner. The Contractor's project staff shall consist of the following personnel:

Project Executive: Ross Meyer shall be the Contractor's Project executive, and will provide oversight and guidance throughout the Project term.

5. **Contract Dates.** The following critical dates are hereby set for this Project. Time is of the essence.
   A. COMMENCEMENT DATE: Upon Issuance of Notice to Proceed
   B. FINAL COMPLETION DATE: October 31, 2024

6. **Reserved.**

7. **Minimum Wage Rates. (Check one of the following):**

☐ Prevailing Wage Rates requirements do not apply to this Project because the maximum compensation for all Owner-contracted Work does not exceed $50,000.

☒ Prevailing Wage Rates requirements apply to this Project because the maximum compensation for all Owner-contracted Work is more than $50,000. Contractor and all subcontractors shall comply with the provisions of ORS 279C.800 through 279C.870, relative to Prevailing Wage Rates and the required public works bond, as outlined in Sections C.1, C.2, and G.2.3 of the General Conditions. The Bureau of Labor and Industries (BOLI) wage rates and requirements set forth in the following BOLI booklet (and any listed amendments to that booklet), which are incorporated herein by reference, apply to the Work authorized under this Contract:

PREVAILING WAGE RATES for Public Works Contracts in Oregon, January 5, 2024 and amended on April 5, 2024 which can be downloaded at the following web address:

http://www.oregon.gov/boli/WHD/PWR/Pages/pwr_state.aspx
The Work will take place in Clackamas County, Oregon

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

9. **Insurance Certificates and Required Performance and Payment Bonds.**

8.1 In accordance with Section G.3.5 of the General Conditions, Contractor shall furnish proof of the required insurance naming Clackamas County and the Owner as additional insureds. Insurance certificates may be returned with the signed Contract or may emailed to Procurement@clackamas.us.

8.2 In accordance with Section G. of the General Conditions, Contractor shall furnish performance and payment bonds, on the bond forms furnished by the Owner, and in a sum equal to the Contract Price.

10. **Execution and Counterparts.** This Contract may be executed in several counterparts, each of which shall be an original, all of which shall constitute one and the same instrument.

11. **Integration.** The Contract Documents constitute the entire agreement between the Parties. There are no other understandings, agreements or representations, oral or written, not specified herein regarding this Contract. Contractor, by the signature below of its authorized representative, hereby acknowledges that it has read this Contract, understands it, and agrees to be bound by its terms and conditions.

12. **Compliance with Applicable Law.** Contractor shall comply with all federal, state, county, and local laws, ordinances, and regulations applicable to the Work to be done under this Contract including, but not limited to, compliance with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract and failure to comply is a material breach that entitles County to exercise any rights and remedies available under this Contract including, but not limited to, termination for default.

13. **Responsibility for Taxes.** Contractor is solely responsible for payment of any federal, state, or local taxes required as a result of the Contract or the Work including, but not limited, to payment of the corporate activity tax imposed under enrolled HB 3427 (2019 Oregon regular legislative session). Contractor may not include its federal, state, or local tax obligations as part of the cost to perform the Work.

14. **Contractor Data.**
    R.L. Reimers Co.
    3939 Old Salem Road, NE, Suite 200
    Albany, Oregon 97321

    Contractor CCB # 60891 Expiration Date: 7/12/2025
    Oregon Business Registry # 118745-18 Entity Type: DBC State of Formation: Oregon

    Payment information will be reported to the IRS under the name and taxpayer ID# provided by the Contractor. Information must be provided prior to contract approval. Information not matching IRS records could subject Contractor to 28 percent backup withholding.

Signature Page Follows

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

R.L Reimers Co.

5/17/24
Authorized Signature Date

Ronald Reimers / President
Name / Title (Printed

Water Environment Services

Chair Date

Recording Secretary

Approved as to Form:

5/21/2024
County Counsel Date

EXHIBIT A – SCOPE OF WORK

Procurement Division
Public Services Building
2051 Kaen Road
Oregon City, OR 97045
(503) 742-5444 (Office)

REQUEST FOR QUOTES (RFQ) #2024-20

Issue Date: March 20, 2024

Project Name:	Tri-City Gate Replacement		
Quote Due Date/Time:	April 10, 2024, 2:00 PM PST		
Procurement Analyst:	Tralee Whitley	Email:	TWhitley@clackamas.us

SUBMIT QUOTES VIA EQUITY HUB'S BID LOCKER LOCATED AT
https://bidlocker.us/a/clackamascounty/BidLocker.

PLEASE NOTE: EMAIL SUBMISSIONS WILL NOT BE ACCEPTED.

1. ANNOUNCEMENT AND SPECIAL INFORMATION

Quoters are required to read, understand, and comply with all information contained within this Request for Quotes ("RFQ"). All quotes are binding upon Quoter for sixty (60) days from the Quote Due Date/Time. Quotes received after the Quote Due Date/Time may not be considered. If authorized in the RFQ and resulting contract, travel and other expense reimbursement will only be reimbursed in accordance with the Clackamas County Travel Reimbursement Policy in effect at the time the expense is incurred. The Policy may be found at https://www.clackamas.us/finance/terms.html.

RFQ Documents can be downloaded from OregonBuys at the following address: https://oregonbuys.gov/bso/ Document No. S- C01010-00009852. Prospective Quoters will need to sign in to download the information and that information will be accumulated for a Plan Holder's List. Prospective Quoters are responsible for obtaining any addenda or clarifying questions from OregonBuys.

Submitting Quotes: Bid Locker

Quotes will only be accepted electronically via a secure online submission service, Bid Locker. Email submissions to Clackamas County email addresses will no longer be accepted.

A. Completed quote documents must arrive electronically via Bid Locker located at https://bidlocker.us/a/clackamascounty/BidLocker.
B. Bid Locker will electronically document the date and time of all submissions. Completed documents must arrive by the deadline indicated above or as modified by Addendum. LATE QUOTES WILL NOT BE ACCEPTED.
C. Quoters must register and create a profile for their business with Bid Locker in order to submit for this project. It is free to register for Bid Locker.
D. Quoters with further questions concerning Bid Locker may review the Vendor's Guide located at https://www.clackamas.us/how-to-bid-on-county-projects .

All questions regarding this RFQ are to be directed to the Procurement Analyst named above. Quoters may not communicate with County employees or representatives about the RFQ during the procurement process until the Procurement office has notified Quoters of the selected Quoter. Communication in violation of this restriction may result in rejection of a Quoter.

2. SCOPE

The purpose of this RFQ is to purchase contractor services for

1. Removal and disposal of two existing 60" x 84" sluice gates and electric actuators.
2. Installation of two new replacement Owner-provided gates and electric actuators.
   a. Owner-provided gates are 60" x 84" Stainless Steel Slide Gates to be mounted to existing thimble.
3. Contractor to re-land existing power and control wiring to new actuator and confirm full functionality.
4. Provide Contractor-designed bypass pumping system as specified to accommodate Work while maintaining treatment capacity during construction.

Prevailing Wage Rates requirements apply to this project because the maximum compensation for all owner-contracted work is more than $50,000. The selected contractor and all subcontractors shall comply with the provision of ORS 279C.800 through 279C.870, relative to the Prevailing Wage Rates and the required public works bond.

PREVAILING WAGE RATES for Public Works Contracts in Oregon, January 5, 2024, which can be downloaded at the following web address: http://www.oregon.gov/boli/WHD/PWR/Pages/pwr_state.aspx. The Work will take place in Clackamas County, Oregon.

If Quotes are over $50K

- Performance and payment bonds will be required part of the final contract.
- Should quotes exceed $100,000, a bid bond must accompany submitted quote.

Project Estimate: $75,000.00

Key Dates:
Work must be substantially completed prior to August 31, 2024.

The following items are included and incorporated within this RFQ:

- CCB Gate Installation Specifications and Drawings (26 pages)
- Manufacturer-Provided Gate Installation Instructions (13 Pages)

3. SAMPLE CONTRACT

Submission of a Quote in response to this RFQ indicates Quoter's willingness to enter into a **Public Improvement contract** containing substantially the same terms of the below referenced contract, which can be found at: https://www.clackamas.us/finance/terms.html, with the below indicated requirements. No action or response to the sample contract is required under this RFQ.

The following insurance requirements will be applicable:

☒ Commercial General Liability: combined single limit, or the equivalent, of not less than $1,000,000 per occurrence, with an annual aggregate limit of $2,000,000 for Bodily Injury and Property Damage.

☒ Professional Liability: combined single limit, or the equivalent, of not less than $1,000,000 per occurrence, with an annual aggregate limit of $2,000,000 for damages caused by error, omission or negligent acts.

☒ Automobile Liability: combined single limit, or the equivalent, of not less than $1,000,000 per occurrence for Bodily Injury and Property Damage.

4. QUOTE

Quotes should be short and concise with the following information:

A. Company experience in these types of projects, including bypass installation and operation at least five (5) wastewater treatment facilities.
B. Preliminary bypass pumping plan, including pump type, number, location, capacity, and piping plan.
C. Experience of staff that will work on the project;
D. Not-to-exceed price to complete the project
E. References;
F. Estimated time to complete the project, including anticipated duration of bypass.
G. Clackamas County Certifications Form; and
H. Any additional information that Clackamas County should take into consideration for the project or qualifications.

5. EVALUATION

Quotes will be evaluated based on subjective factors including, but not limited to: Firm experience, staff experience, price/fees, references, and proposal to complete the project preliminary bypass pumping plan and project schedule.

QUOTE CERTIFICATION FORM
RFQ #2024-20

Submitted by: _____
(Must be entity's full legal name)

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

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

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

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

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

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

Name:_____ Date:_____

Signature:_____ Title:_____

Email:_____ Telephone:_____

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

Business Designation (check one):
☐ Corporation ☐ Partnership ☐ Sole Proprietorship ☐ Non-Profit ☐ Limited Liability Company

☐ Resident Quoter, as defined in ORS 279A.120
☐ Non-Resident Quote. Resident State: _____

CLACKAMAS COUNTY
INSTRUCTIONS TO QUOTERS

Quotes are subject to the applicable provisions and requirements of the Clackamas County Local Contract Review Board Rule C-047-0270 (Intermediate Procurements) and Oregon Revised Statutes.

QUOTE PREPARATION

1. **QUOTE FORMAT**: Quotes must be must be submitted as indicated in the RFQ.
2. **CONFORMANCE TO RFQ REQUIREMENTS**: Quotes must conform to the requirements of the RFQ. Unless otherwise specified, all items quoted are to be new, unused and not remanufactured in any way. Any requested attachments must be submitted with the quote and in the required format. Quote prices must be for the unit indicated on the quote. Failure to comply with all requirements may result in quote rejection.
3. **ADDENDA**: Only documents issued as addenda by Clackamas County serve to change the RFQ in any way. No other directions received by the Quoter, written or verbal, serve to change the RFQ document. NOTE: IF YOU HAVE RECEIVED A COPY OF THE RFQ, YOU SHOULD CONSULT OREGONBUYS (https://oregonbuys.gov/bso/view/login/login.xhtml) TO ENSURE THAT YOU HAVE NOT MISSED ANY ADDENDA OR ANNOUNCEMENTS. QUOTERS ARE NOT REQUIRED TO RETURN ADDENDUMS WITH THEIR QUOTE. HOWEVER, QUOTERS ARE RESPONSIBLE TO MAKE THEMSELVES AWARE OF, OBTAIN AND INCORPORATE ANY CHANGES MADE IN ANY ADDENDA ISSUED, AND TO INCORPORATE ANY CHANGES MADE BY ADDENDUM INTO THEIR FINAL QUOTE. FAILURE TO DO SO MAY, IN EFFECT, MAKE THE QUOTER'S QUOTE NON-RESPONSIVE, WHICH MAY CAUSE THE QUOTE TO BE REJECTED.
4. **USE of BRAND or TRADE NAMES**: Any brand or trade names used by Clackamas County in the specifications are for the purpose of describing and establishing the standard of quality, performance and characteristics desired and are not intended to limit or restrict competition. Quoters may submit quotes for substantially equivalent products to those designated unless the RFQ provides that a specific brand is necessary because of compatibility requirements, etc. All such brand substitutions shall be subject to approval by Clackamas County.
5. **PRODUCT IDENTIFICATION**: Quoters must clearly identify all products quoted. Brand name and model or number must be shown. Clackamas County reserves the right to reject any quote when the product information submitted with the quote is incomplete.
6. **FOB DESTINATION**: Unless specifically allowed in the RFQ, ***QUOTE PRICE MUST BE F.O.B. DESTINATION with all transportation and handling charges included in the Quote.***
7. **DELIVERY**: Delivery time must be shown in number of calendar days after receipt of purchase order.
8. **EXCEPTIONS**: Any deviation from quote specifications, or the form of sample contract referenced in this RFQ, may result in quote rejection at County's sole discretion.
9. **SIGNATURE ON QUOTE**: Quotes must be signed by an authorized representative of the Quoter. Signature on a quote certifies that the quote is made without connection with any person, firm or corporation making a quote for the same goods and/or services and is in all respects fair and without collusion or fraud. Signature on a quote also certifies that the Quoter has read and fully understands all quote specifications, and the sample contract referenced in this RFQ (including insurance requirements). No consideration will be given to any claim resulting from quoting without comprehending all requirements of the RFQ.
10. **QUOTE MODIFICATION**: Quotes, once submitted, may be modified in writing before the time and date set for quote closing. Any modifications should be signed by an authorized representative, and state that the new document supersedes or modifies the prior quote. Quoters may not modify quotes after quote closing time.
11. **QUOTE WITHDRAWALS**: Quotes may be withdrawn by request in writing signed by an authorized representative and received by Clackamas County prior to the Quote Due Date/Time. Quotes may also be withdrawn in person before the Quote Due Date/Time upon presentation of appropriate identification.
12. **QUOTE SUBMISSION**: Quotes may be submitted by returning to Clackamas County Procurement Division in the location designated in the introduction of the RFQ; however, no oral

or telephone quotes will be accepted. Envelopes, or e-mails containing Quotes should contain the RFQ Number and RFQ Title.

QUOTE EVALUATION AND AWARD

1. **PRIOR ACCEPTANCE OF DEFECTIVE PROPOSALS**: Due to limited resources, Clackamas County generally will not completely review or analyze quotes which fail to comply with the requirements of the RFQ or which clearly are not the best quotes, nor will Clackamas County generally investigate the references or qualifications of those who submit such quotes. Therefore, neither the return of a quote, nor acknowledgment that the selection is complete shall operate as a representation by Clackamas County that an unsuccessful quote was complete, sufficient, or lawful in any respect.
2. **DELIVERY**: Significant delays in delivery may be considered in determining award if early delivery is required.
3. **CASH DISCOUNTS**: Cash discounts will not be considered for award purposes unless stated in the RFQ.
4. **PAYMENT**: Quotes which require payment in less than 30 days after receipt of invoice or delivery of goods, whichever is later, may be rejected.
5. **INVESTIGATION OF REFERENCES**: Clackamas County reserves the right to investigate references and or the past performance of any Quoter with respect to its successful performance of similar services, compliance with specifications and contractual obligations, and its lawful payment of suppliers, sub-contractors, and workers. Clackamas County may postpone the award or execution of the contract after the announcement of the apparent successful Quoter in order to complete its investigation. Clackamas County reserves the right to reject any quote or to reject all quotes at any time prior to Clackamas County's execution of a contract if it is determined to be in the best interest of Clackamas County to do so.
6. **CLARIFICATION**: Clackamas County reserves the right to seek clarification of each Quote, or to make an award without further discussion of Quotes received.
7. **METHOD OF AWARD**: Clackamas County reserves the right to make the award by item, groups of items or entire quote, whichever is in the best interest of Clackamas County.
8. **QUOTE REJECTION**: Clackamas County reserves the right to reject any and all quotes for any reason including, but not limited to, a Quoter’s failure to constitute as a responsible bidder under ORS 279B.110 and LCRB C047-640-1-c-F-iii.
9. **QUOTE RESULTS**: Quoters who submit a quote will be notified of the RFQ results. Awarded quote files are public records and available for review by submitting a public records request or by appointment.

CLACKAMAS WATER ENVIRONMENT SERVICES

OREGON CITY, OREGON

CONTRACT DOCUMENTS

for the construction of the

TRI-CITY WRRF
CHLORINE CONTACT BASIN – GATE INSTALLATION

WES Project No. P700222312

CLACKAMAS
WATER
ENVIRONMENT
SERVICES

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VOLUME 1

SPECIFICATIONS

VOLUME 2

REFERENCE DRAWINGS

END OF SECTION

SPECIFICATIONS

SECTION 01 11 00 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

A. The completed Work will provide Owner with installation of two Owner-provided fabricated slide gates in the chlorine contact basin (CCB) at the Tri-City WRRF.
   1. Removal and disposal of two existing gates and electric actuators.
   2. Installation of two new replacement Owner-provided gates and electric actuators.
   3. Re-land existing power and control wiring to new actuator.
   4. Provide Contractor-designed bypass pumping system as specified to accommodate Work while maintaining treatment capacity during construction.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 REFERENCES

A. The following is a list of standards which may be referenced in this section:
   1. American Association of Nurserymen: American Standards for Nursery Stock.
   2. Federal Emergency Management Agency.
   3. NFPA, National Fire Prevention Standard for Safeguarding Building Construction Operations.
   4. Telecommunications Industry Association (TIA); Electronic Industries Alliance (EIA): 568B, Commercial Building Telecommunications Cabling Standard.
   5. U.S. Department of Agriculture: Urban Hydrology for Small Watersheds.
   6. U.S. Weather Bureau: Rainfall-Frequency Atlas of the U.S. for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years.

1.2 SUBMITTALS

A. Informational Submittals:
   1. Copies of permits and approvals for construction as required by Laws and Regulations and governing agencies.
   2. Temporary Utility Submittals:
      a. Electric power supply and distribution plans.
   3. Site specific safety plan

1.3 MOBILIZATION

A. Mobilization shall Include, but Not be Limited to, these Principal Items:
   1. Obtaining required permits.
   2. Providing onsite sanitary facilities and potable water facilities as specified and as required by Laws and Regulations, and governing agencies.
   3. Arrange for and erection of Contractor’s work and storage yard.
   4. Posting OSHA required notices and establishing safety programs and procedures.
   5. Have Contractor’s superintendent at Site full time.

1.4 PROTECTION OF WORK AND PROPERTY

A. Comply with Owner’s safety rules while on Owner’s property.

B. Keep Owner informed of serious onsite accidents and related claims.

C. Use of Explosives: No blasting or use of explosives will be allowed onsite.

PART 2 - PRODUCTS

2.1 TEMPORARY BYPASS PUMPING SYSTEM

A. Provide temporary bypass pumping system to allow bypassing of existing gates as shown on Drawings and as specified in Section 01 50 10, Bypass Pumping.

PART 3 - EXECUTION

3.1 TEMPORARY BYPASS PUMPING SYSTEM

A. As specified in Section 01 50 10, Bypass Pumping.

3.2 TEMPORARY UTILITIES

A. Power:
   1. Electric power will be available at or near Site. Determine type and amount available and make arrangements for obtaining temporary electric power service used during contract period.
   2. Contractor shall pay cost to connect to temporary power during construction. Cost of electric power will be borne by Owner.

B. Lighting: Provide temporary lighting to meet applicable safety requirements to allow erection, application, or installation of materials and equipment, and observation or inspection of the Work.

C. Heating, Cooling, and Ventilating:
   1. Provide as required to maintain adequate environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for installation of materials, and to protect materials, equipment, and finishes from damage due to temperature or humidity. Costs for temporary heat shall be borne by Contractor.
   2. Provide adequate forced air ventilation of enclosed areas to cure installed materials, to dispense humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gases.
   3. Pay all costs of installation, maintenance, operation, removal, and fuel consumed.

D. Water:
   1. Potable water is available at the site. Secure written permission for connection and use from Owner and meet requirements for use. Contractor shall pay cost to connect water during construction. Owner shall pay cost for water used during construction.
   2. Include costs to connect and transport water to construction areas in Contract Price.
   3. Provide a means to prevent water used for testing from flowing back into source pipeline.

E. Sanitary and Personnel Facilities:

1. Provide and maintain facilities for Contractor's employees, Subcontractors, and all other onsite employers' employees. Service, clean, and maintain facilities and enclosures.

F. Fire Protection: Furnish and maintain on Site adequate firefighting equipment capable of extinguishing incipient fires. Comply with applicable parts of National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241).

3.3 PROTECTION OF WORK AND PROPERTY

A. General:
1. Protect, shore, brace, support, and maintain underground pipes, conduits, drains, and other underground utility construction uncovered or otherwise affected by construction operations.
2. In areas where Contractor's operations are adjacent to or near a utility, such as gas, telephone, television, electric power, water, sewer, or irrigation system, and such operations may cause damage or inconvenience, suspend operations until arrangements necessary for protection have been made by Contractor.
3. Notify property owners and utility offices that may be affected by construction operation at least 2 days in advance: Before exposing a utility, obtain utility owner's permission. Should service of a utility become interrupted due to Contractor's operation, notify proper authority immediately. Cooperate with said authority in restoring service as promptly as possible and bear costs incurred.
4. Do not impair operation of existing sewer system. Prevent construction material, pavement, concrete, earth, volatile and corrosive wastes, and other debris from entering sewers, pump stations, or other sewer structures.
5. Maintain original Site drainage wherever possible.

B. Waterways: Keep ditches, culverts, and natural drainages continuously free of construction materials and debris.

C. Dewatering: Construct, maintain, and operate cofferdams, channels, flume drains, sumps, pumps, or other temporary diversion and protection works. Furnish materials required, install, maintain, and operate necessary pumping and other equipment for the environmentally safe removal and disposal of water from the various parts of the Work. Maintain foundations and parts of the Work free from water.

3.4 TEMPORARY CONTROLS

A. Water Pollution Control:
1. Do not dispose of volatile wastes such as mineral spirits, oil, chemicals, or paint thinner in storm or sanitary drains. Disposal of wastes into streams or waterways is prohibited. Provide acceptable containers for collection and disposal of waste materials, debris, and rubbish.

B. Erosion, Sediment, and Flood Control: Provide, maintain, and operate temporary facilities to control erosion and sediment releases, and to protect the Work and existing facilities from flooding during construction period.

3.5 STORAGE YARDS AND BUILDINGS

A. Temporary Storage Buildings:
   1. Provide environmental control systems that meet recommendations of manufacturers of equipment and materials stored.
   2. Arrange or partition to provide security of contents and ready access for inspection and inventory.
   3. Store combustible materials (paints, solvents, fuels) in a well-ventilated and remote building meeting safety standards.

3.6 PARKING AREAS

A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, Owner's operations, or construction operations.

B. Provide parking facilities for personnel working on the Project. No employee or equipment parking will be permitted on Owner's existing paved areas, except as specifically designated for Contractor's use.

3.7 CLEANING DURING CONSTRUCTION

A. In accordance with General Conditions, as may be specified in other Specification sections, and as required herein.

B. Wet down exterior surfaces prior to sweeping to prevent blowing of dust and debris. At least weekly, sweep all floors (basins, tunnels, platforms, walkways, roof surfaces), and pick up all debris and dispose.

C. Provide approved containers for collection and disposal of waste materials, debris, and rubbish. At least at weekly intervals, dispose of such waste materials, debris, and rubbish offsite.

D. At least weekly, brush sweep entry drive and roadways, and all other streets and walkways affected by the Work and where adjacent to the Work.

END OF SECTION

SECTION 01 50 10 – BYPASS PUMPING

PART 1 - GENERAL

1.1 GENERAL

A. Provide bypass pumping system, including but not limited to equipment, piping, appurtenances, and controls, required to intercept, convey, and discharge flow to be controlled. Include standby and emergency equipment. Bypass pumping system shall:
   1. Conform to regulatory requirements.
   2. Convey flow in enclosed pipes that are adequately protected from traffic or other hazards.
   3. Provide temporary flow metering to replace the functionality of existing flow metering instrumentation.
   4. Provide temporary inline sodium hypochlorite injection and mixing to replace functionality of existing dosing and mixing point.

B. Type and locations of bypass pumping system include:
   1. Pumping secondary clarifier effluent from secondary clarifier effluent structure or CCB influent structure to the downstream side of a contractor provided temporary bulkhead to isolate the section of the CCB in which Work is being performed.

C. Bypassing of untreated or partially treated sewage to surface waters or drainage courses is strictly prohibited during construction. In the event accidental bypassing is caused by the Contractor's operations, the Owner shall immediately be entitled to employ others to stop the bypassing and costs incurred there from, including any regulatory agency fines resulting there from, will be deducted from the Contractor's construction progress payments. If accidental bypass occurs, the Contractor shall immediately inform the Owner.

1.2 PERFORMANCE REQUIREMENTS

A. Flows are pumped from the Secondary Clarifier Effluent Box or CCB Influent Channel into the CCB downstream of the isolation gate. It is essential to the operation of the Tri-City WRRF that there be no restriction of flow for the duration of the Work.

B. N+1 redundancy must be maintained for equipment (pumping system meets firm capacity with largest unit out of service).

1.3 SUBMITTALS

A. Action Submittals:
   1. Flow Control Plan:
      a. Estimated schedule of Work.

b. Drawings locating bypass pumps, fuel storage (if applicable), and pipelines; temporary plugs or bulkheads shall be indicated where required for bypass pumping.
c. Locations where flow will be intercepted and discharged.
d. Control scheme for bypass pumping:
    1) Control wiring diagrams.
    2) Control narratives and setpoints.
e. Equipment List:
    1) Bypass pump size and capacities, number of each pump size, and power requirements, including standby equipment.
    2) Bypass piping size and materials.
    3) Fuel storage size, capacity, and containment (if applicable).
f. Operation plan for 24-hour, 7 days per week, including holidays, as requirement to maintain treatment through the WRRF.
g. Other information to completely describe temporary flow control facilities and conformance to specified requirements.
h. Detailed emergency procedures and response time for equipment failure.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Contractor or bypass pumping system supplier shall have at least 5 years' experience in the design, application, and supply of bypass pumping systems for municipal sewage treatment works.

B. The system shall be provided with a minimum of two duty diesel or electric driven pumps and one standby diesel or electric driven pump.

C. The bypass pumping system shall be from one of the following listed below:
    1. Rain for Rent
    2. "Or-equal" suppliers will be considered. "Or-equal" manufacturers for equipment of this section shall meet the minimum experience qualifications specified in this section.

2.2 GENERAL

A. Provide, install, maintain, and operate temporary bypass facilities, including pumps and temporary components such as dams, plugs, and bulkheads required to keep Owner's Water Resource Recovery Facility operations online.

B. Materials and equipment may be new or used at Contractor's option.

2.3 BYPASS PUMPING

A. Bypass Pumps:
   1. Fully automatic, self-priming units that do not require foot valves or vacuum pumps in priming system.
   2. Solids handling design with ability to pump minimum 3-inch diameter sphere.
   3. Able to run dry or recirculate flow for long periods of time to accommodate cyclical nature of flows.
   4. Diesel Engine (if applicable): Equipped to minimize noise. Noise levels shall not exceed 70 dBA at a distance of 10 feet from source. Provide sound attenuating enclosures as required.
   5. Standby Pump: One of each size onsite shall be available.
   6. Bypass pumping performance required at flow ranges from 0.5 mgd to 11 mgd.

B. Provide adequate equipment capacity and size to handle the range of flows at the treatment plant.

C. Bypass pumping facilities shall utilize variable flow pumping to prevent rapid changes in flow; flows shall not increase or decrease by more than 10 percent of flow.

D. Pumped flow shall be measured via a flowmeter.

2.4 PIPING

A. Temporary piping shall be Schedule 80 PVC or SDR 32.5, HDPE.

2.5 BULKHEADS

A. Temporary bulkheads: Provide with ability to remove quickly and without damaging the basin. Provide with eyebolts for quick removal.

B. Designed for the hydraulic loading.

C. Suggested locations shown on Drawings.

2.6 PIPE PLUGS

A. Pneumatic Plug: Provide with taps for connection of pressure gauges and air hoses, and flow-through capability.

B. Pipe Diameters 24 Inches and Smaller: Use mechanical plugs with rubber gaskets or pneumatic plugs with rubber boots.

C. Pipe Diameters Larger than 24 Inches:

1. Use inflatable bag stoppers made in two or more pieces or pneumatic plugs.
2. Manufacturers:
   a. Lansas.
   b. Cherne Industries.

PART 3 - EXECUTION

3.1 GENERAL

A. Notify Owner at least 7 days prior to implementing bypass pumping.

B. Install temporary systems and maintain flow around Work area in a manner that will not cause property damage, restrict site access or prevent access to equipment and unaffected Work areas.

C. Operate and maintain temporary systems 24 hours per day, 7 days per week, including without limitation, holidays, as required to control and treat flows.

D. Promptly remove from site all bypass pumping equipment and materials as soon as they are no longer needed.

3.2 EQUPMENT AND MATERIALS

A. Install and/or locate temporary equipment, appurtenances, and piping required for bypass pumping to maintain treatment through the Tri-City WRRF.

B. Provide all fuel to run and operate bypass pumping (if applicable).

3.3 FIELD QUALITY CONTROL

A. Notify Owner 24 hours prior to testing.

B. Hydrostatic Pressure Test for Pump Bypass System: Prior to initiating bypass pump(s), test piping with maximum pressure equal to 1.5 times maximum operating pressure of system.

C. Bypass Pump: Prior to interrupting flow through the plant, operate bypass pumping system for a minimum 48 hours and verify pump and controls operate as specified.

END OF SECTION

SECTION 01 11 00 – OWNER-FURNISHED GATES

PART 1 - GENERAL

1.1 OWNER-FURNISHED PRODUCTS

A. Fabricated Slide Gates
   1. Quantity: 2
   2. Size: 60 x 84 inch
   3. Point of Storage: Top of CCB Basin
   4. Estimated Weight of Product: 4,000 pounds each
   5. Special Handling or Storage Instructions: Follow manufacturer's instructions.
   6. Associated Special Services to be Provided by Owner:
      a. Coordination of process operation and shutdowns
      b. Manufacturer's Certification of proper installation.
      c. Performance Testing assistance.

1.2 INFORMATION FURNISHED BY OWNER

A. Shop Drawings

B. Manufacturer's installation, operation, and maintenance instructions

1.3 SUBMITTALS

A. Action Submittals:
   1. Show layout, location, and identification of materials provided by Contractor for installation of Owner-furnished products.
   2. Provide electrical and instrumentation diagrams to indicate connecting and interconnecting electrical and control work.

1.4 STORAGE AND MAINTENANCE

A. Store, protect, and maintain product to prevent damage until final acceptance of completed work. Damage to or loss of products after transfer to contractor shall be repaired to original condition, or replaced with new identical products.

1.5 INSURANCE REQUIREMENTS

A. Maintain insurance to protect Owner from loss should Owner-Furnished products be damaged for total valuation of $60,000 (two gates at $30,000 each).

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install products in conformance with Owner-furnished product Shop Drawings and installation instructions.

B. Provide all interconnecting structures, equipment, piping, electrical and instrumentation work, and appurtenances to achieve a complete and functional system.

C. Provide foundation pads for Owner-furnished products as shown. Verify exact dimensions and configuration of all pads, including penetrations, with Owner-furnished shop drawings.

D. Anchor bolts:
   1. Where required, provide anchor bolts, fasteners, washers, and templates needed for installation.
   2. Size and locate anchor bolts in accordance with Owner-furnished Shop Drawings and installation instructions.

E. Mechanical and electrical equipment shall be properly aligned, plumb and level, with no stresses on connecting piping or conduit. \

F. Verify operability and safety of electrical system needed to operate equipment. Check electrical system for continuity, phasing, grounding, and proper functions.

3.2 PRODUCT PROTECTION

A. Immediately after installation, lubricate components in accordance with manufacturer's instructions.

B. Furnish incidental supplies including lubricants, cleaning fluids, and similar products as needed for protecting and maintaining the Owner-furnished products.

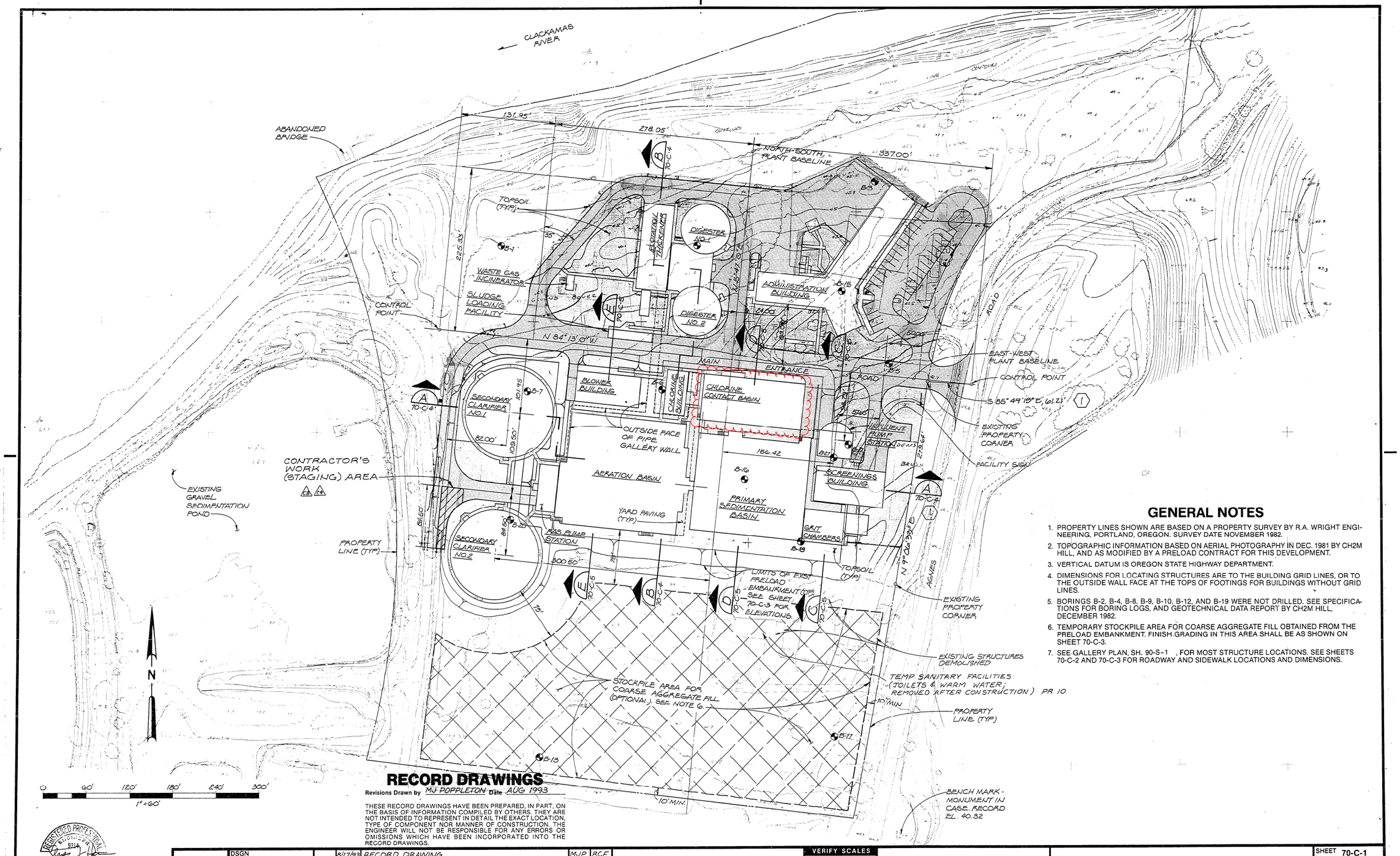
3.3 FUNCTIONAL AND PERFORMANCE TESTING

A. Functional Testing: Conduct on each gate and associated operator.

B. Performance Testing:
   1. Conduct on each gate in accordance with manufacturer's written instruction.
   2. Perform under actual or approved simulated operating conditions.
   3. Test for a continuous 30-minute period without malfunction.
   4. Adjust, realign, or modify units and retest if necessary.

END OF SECTION

REFERENCE DRAWINGS



GENERAL NOTES

1. PROPERTY LINES SHOWN ARE BASED ON A PROPERTY SURVEY BY R.A. WRIGHT ENGINEERING, PORTLAND, OREGON. SURVEY DATE NOVEMBER 1982.
2. TOPOGRAPHIC INFORMATION BASED ON AERIAL PHOTOGRAPHY IN DEC. 1981 BY CH2M HILL, AND AS MODIFIED BY A PRELOAD CONTRACT FOR THIS DEVELOPMENT.
3. VERTICAL DATUM IS OREGON STATE HIGHWAY DEPARTMENT.
4. DIMENSIONS FOR LOCATING STRUCTURES ARE TO THE BUILDING GRID LINES, OR TO THE OUTSIDE WALL FACE AT THE TOPS OF FOOTINGS FOR BUILDINGS WITHOUT GRID LINES.
5. BORINGS B-2, B-4, B-8, B-9, B-10, B-12, AND B-19 WERE NOT DRILLED. SEE SPECIFICATIONS FOR BORING LOGS, AND GEOTECHNICAL DATA REPORT BY CH2M HILL, DECEMBER 1982.
6. TEMPORARY STOCKPILE AREA FOR COARSE AGGREGATE FILL OBTAINED FROM THE PRELOAD EMBANKMENT. FINISH GRADING IN THIS AREA SHALL BE AS SHOWN ON SHEET 70-C-3.
7. SEE GALLERY PLAN, SH. 90-S-1 , FOR MOST STRUCTURE LOCATIONS. SEE SHEETS 70-C-2 AND 70-C-3 FOR ROADWAY AND SIDEWALK LOCATIONS AND DIMENSIONS.

RECORD DRAWINGS

Revisions Drawn by MJ POPPLETON Date AUG 1993

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL THE EXACT LOCATION, TYPE OF COMPONENT NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS.

REGISTERED PROFESSIONAL ENGINEER 9314 OREGON July 22, 1977 STEPHEN J. HAHN

CH2M HILL

DSGN C.R. COSBY
DR C.R. COSBY
CHK S.J. Hahn
APVD

NO.	DATE	REVISION	BY	APVD
8	8/17/93	RECORD DRAWING	MJP	RCF
7	6/90	MISCELLANEOUS PLANT ADDITIONS CONTRACT C9	RCF	JGG
6	4/20/87 9/29/86	MISCELLANEOUS PLANT ADDITIONS- CONTRACT C8 RECORD DRAWINGS	RCF JML	JGG JBL
(1)	7/1/83	ADDENDUM NO 3	VAP	JGG

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

TRI-CITY SERVICE DISTRICT
CLACKAMAS COUNTY, OREGON
SEWAGE TREATMENT PLANT

GENERAL SITE PLAN

SHEET 70-C-1
DWG. NO. 18 OF 436
DATE MAY 1983
PROJ NO. P 15600.A1

OVERLAY IDENTIFICATION
PROJ NO. CONTRACT

COMPOSITE	70-C-11	70-C-12	70-C-13			
OVERLAY	70-C-11	70-C-12	70-C-13			
SCREEN						

FORMAT 331-REFERENCE

FILM XE 3 DM PRINTED 10 82 A2

OPTION 1: TEMPORARY BYPASS PUMPING FROM SECONDARY CLARIFIER NO. 1

POTENTIAL STAGING AREA FOR AT GRADE PUMP(S)

POTENTIAL LOCATION FOR PUMP SUCTION OR INSTALLATION OF TEMPORARY SUMBERSIBLE BYPASS PUMP(S)

TEMPORARY POWER FOR ELECTRIC DRIVEN PUMPS AVAILABLE IN BLOWER BUILDING MCC OR RAS PUMP STATION MCC. CONFIRM WITH OWNER.

CONTROL POINT

EAST-WEST PLANT MAIN

ENTRANCE

BLOWER BUILDING

CHLORINE BUILDING

CHLORINE CONTACT BASIN

RETAINING WALL SEE A 210-S-6

EL 45 54 @ WALL IN CORNER

EXST SHOULDER OF PRELOAD EL 46±

TRANSFORMER PAD

SECONDARY CLARIFIER NO 1

4' CONCRETE SIDEWALK (TYP) SEE DETAIL 17 70-C 8

2'x2' FILLET (TYP)

½" PREMOLDED JOINT FILLER (TYP)

CURB RAMP (TYP) SEE DETAIL 9 70-C-7

AERATION BASIN

RAS PUMP STATION

EXST PRELOAD RIDGELINE EL 55 5±

YARD PAVING (TYP)

LOADING DOCK SEE SH 210-S-5

INFLUENT PUMP STATION

SCREENINGS BUILDING

GUARD POST (TYP) SEE DETAIL 242

PRIMARY SEDIMENTATION BASIN

GRIT CHAMBERS

EXST SHOULDER OF PRELOAD

YARD PAVING (TYP)

SECONDARY CLARIFIER NO 2

EXST PRELOAD RIDGELINE EL 46 5±

EXST SHOULDER OF PRELOAD EL 55±

4' PERSONNEL GATE

6' CHAIN LINK FENCE PROVIDE GERM-MOWING STRIP SEE DETAIL 1 70-C-7

20' DOUBLE-SWING GATE LOCATE PER CI 831

EXST SHOULDER OF PRELOAD EL 40±

APPROXIMATE LOCATION OF ABANDONED CISTERN

APPROXIMATE LOCATION OF 1" WATER LINE

'AGNES ROAD' DITCH SEE DETAIL 4 70-C 7

EXISTING UTILITY CLEANOUT

REMOVE EXISTING DRIVEWAY

PROVIDE 24" CULVERT INVT IN 44 00 INVT OUT 43 60 (REINF CONC PIPE)

APPROXIMATE LOCATION OF ABANDONED CISTERN

WOOD PILES

3 LONG TAPERED CURB SECTION (CI 422a)

FACILITY SIGN SEE SH 70-C 5

33' SLIDING GATE SEE SH 70-C 5

MATCH EXISTING GRADE RUNS

FILL BELOW THE FINISH CONTOURS SHOWN WITH "EARTH FILL" THIS AREA MAY ALSO BE USED AS A TEMPORARY STOCKPILE AREA FOR COURSE AGGREGATE FILL. COARSE AGGREGATE FILL SHALL BE COMPLETELY REMOVED PRIOR TO FINAL GRADING AND SEEDING OF THIS AREA

2% SLOPE TO MEET EXISTING GRADE

LIGHT GROUND COVER

BRUSH

HEAVY BRUSH

EQUIPMENT

ROCK

0 30' 60' 90' 120'
1"=30'

N

NOTES
1 GRADE UNIFORMLY BETWEEN SPOT ELEVATIONS GIVEN
NOTE 2 DELETED PER CI 422
3 FOR ROAD DETAILS, SEE SHEET 70-C-7
4 CONTINUE GRADING OF SOUTHERN PORTION UNIFORMLY TO MATCH EXISTING GROUND AT SOUTH PROPERTY LINE
5 THE MAIN ENTRANCE ROAD IS SHOWN IN FULL ON THIS SHEET AND 70-C-2 FOR PURPOSES OF CONTINUITY AND CLARITY
6 EXISTING STRUCTURES SHOWN ON THIS SHEET ARE TO BE DEMOLISHED
7 PROVIDE A 2' MINIMUM OPENING BEHIND TYPICAL CURB) AT LOCATION OF SLIDING GATE, (BOTH SIDES OF ROADWAY)
8 CONTRACTOR SHALL MAKE ALL NECESSARY CONTACT WITH LOCAL UTILITY COMPANIES (GAS, PHONE, ELECTRICITY, ETC) PRIOR TO COMMENCING WORK

RECORD DRAWINGS

Revisions Drawn by JML LOSTRA Date NOV 1986

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REGISTERED PROFESSIONAL ENGINEER 9314 OREGON JULY 22 1977 STEPHEN J HAHN

CH2M HILL

DSGN	CR COSBY
DR	CR COSBY
CHK	SJ Hahn
APVD	

NO	DATE	REVISION	BY	APVD
	11/12/86	RECORD DRAWING	JML	JBL

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

TRI-CITY SERVICE DISTRICT
CLACKAMAS COUNTY, OREGON
SEWAGE TREATMENT PLANT

GRADING PLAN—LIQUID PROCESS

SHEET 70-C-3
DWG. NO. 200F436
DATE MAY 1983
PROJ NO P 15600.A1

COMPOSITE OVERLAY SCREEN: 70-C-3 1 | 70-C-3 2 | 70-C-3 1 | 70-C-3 3

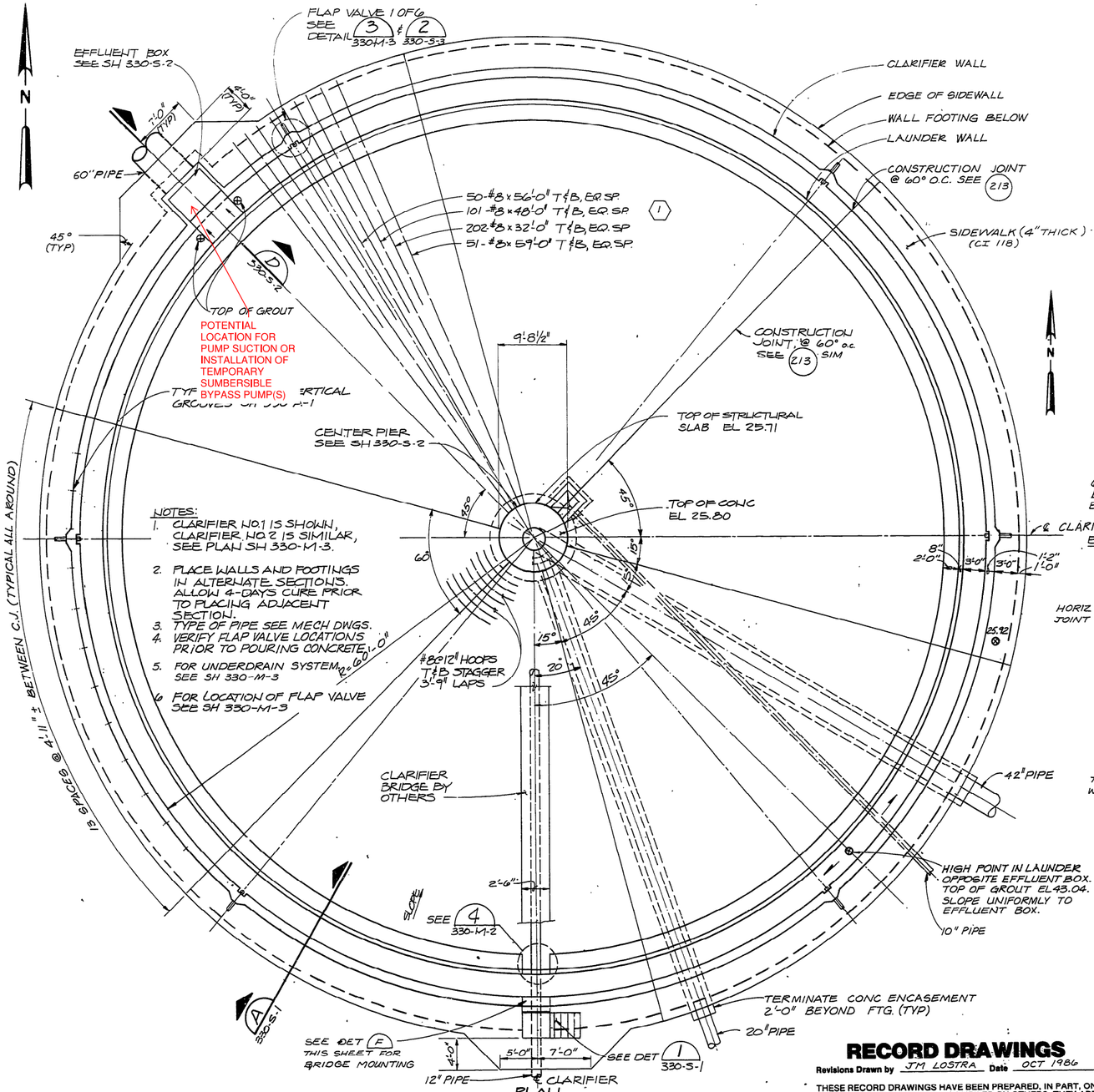
KEY IDENTIFICATION: CONSTRUCTION CONTRACT

FORMAT 381 3234 DC

FILM KE 3 DM PRINTED 10 87 A2

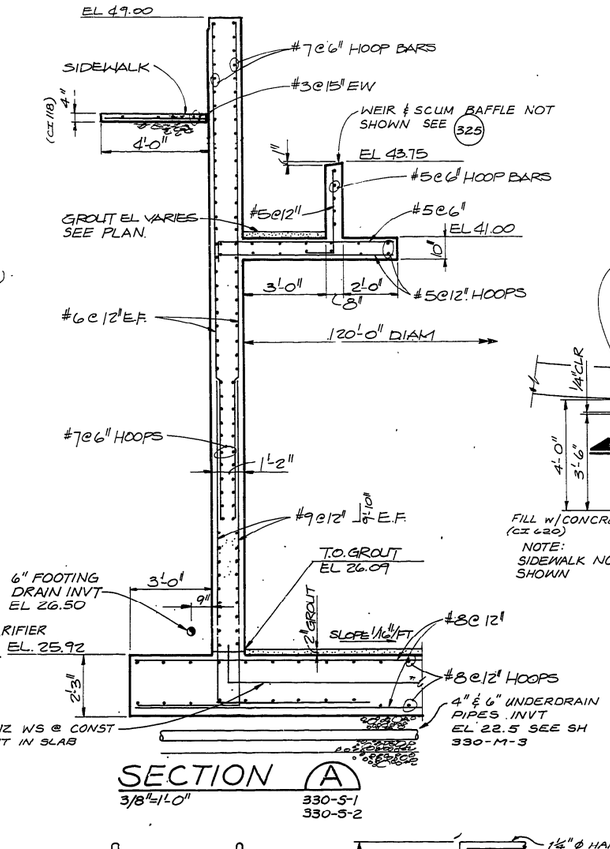
NOTE IF THIS MICROFILMED DRAWING IS LESS CLEAR THAN THIS NOTICE, IT IS DUE TO

OPTION 1: TEMPORARY BYPASS PUMPING FROM SECONDARY CLARIFIER NO. 1



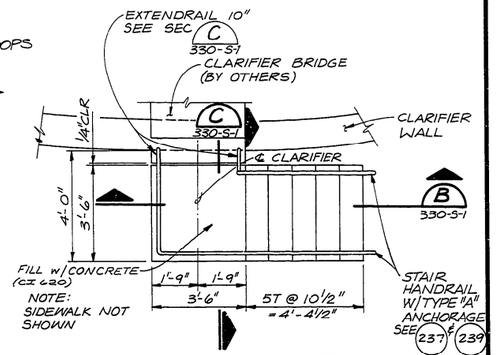
PLAN

1/8"=1'-0"



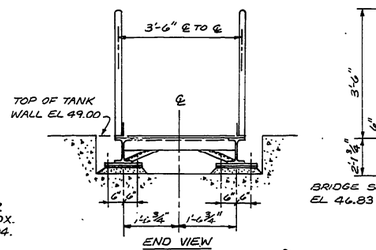
SECTION A

3/8"=1'-0" 330-S-1 330-S-2

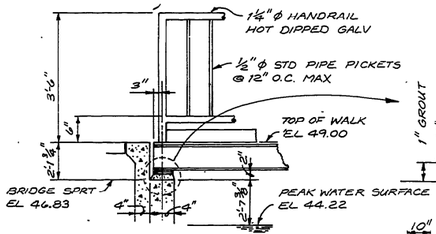


DETAIL 1

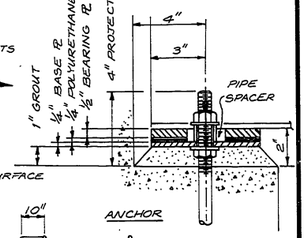
3/8"=1'-0" 330-S-1

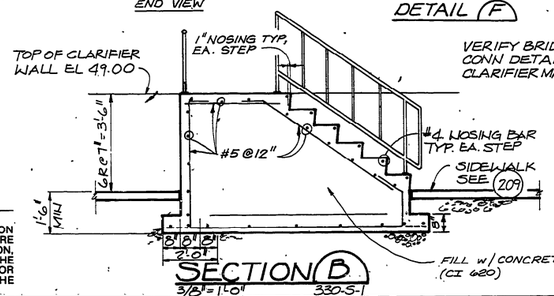


END VIEW



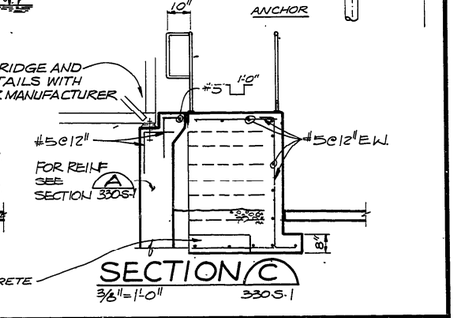
DETAIL F





SECTION B

3/8"=1'-0" 330-S-1



SECTION C

3/8"=1'-0" 330-S-1

SECONDARY CLARIFIER NO. 1

RECORD DRAWINGS

Revisions Drawn by JM LOSTRA Date OCT 1986

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REGISTERED PROFESSIONAL ENGINEER 11968 OREGON FEB. 17, 1978 LUIS L. ARANTE

CH2M HILL

DSGN Brenda Hollenbeck
DR G. BELL
CHK D.J. BRAITHWAITE
APVD

NO.	DATE	REVISION	BY	APVD
	10/9/86	RECORD DRAWING	JML	JBL
1	7/13/87	ADDENDUM NO 5	VAP	LGG

VERIFY SCALES
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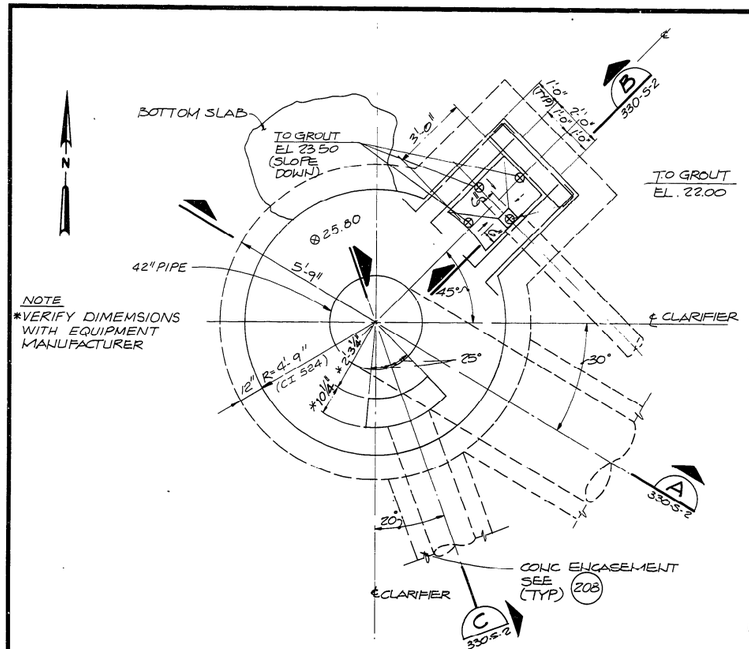
TRI-CITY SERVICE DISTRICT
CLACKAMAS COUNTY, OREGON
SEWAGE TREATMENT PLANT

SECONDARY CLARIFIER
PLAN & SECTIONS

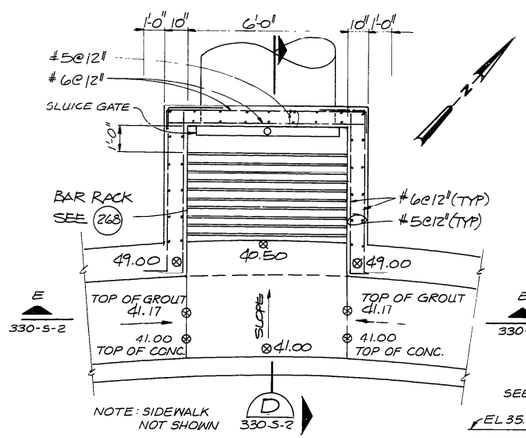
SHEET 330-S-1
DWG. NO. 1900F43%
DATE MARCH '83
PROJ NO. P 15600.A1

OPTION 1: TEMPORARY BYPASS PUMPING FROM SECONDARY CLARIFIER NO. 1



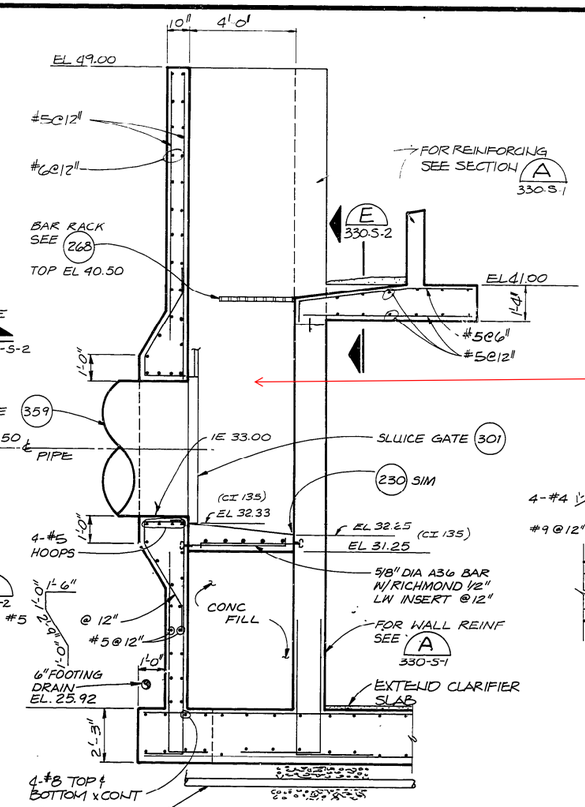
CENTER PIER - PLAN

3/8"=1'-0"



EFFLUENT BOX PLAN

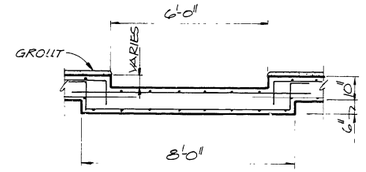
3/8"=1'-0"



SECTION D

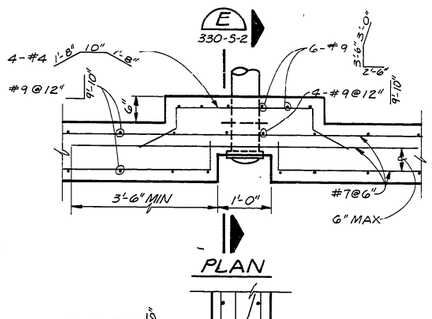
3/8"=1'-0" 330-S-1

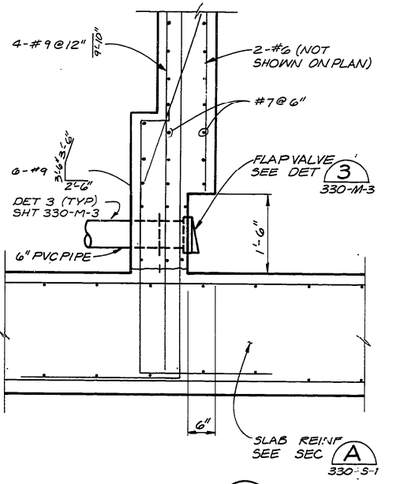
POTENTIAL LOCATION FOR PUMP SUCTION OR INSTALLATION OF TEMPORARY SUMBERSIBLE BYPASS PUMP(S)



SECTION E

3/8"=1'-0" 330-S-2

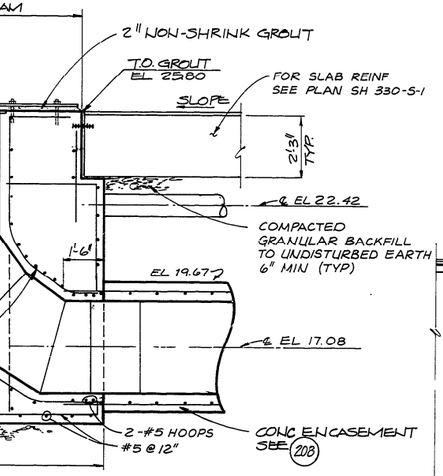




SECTION E

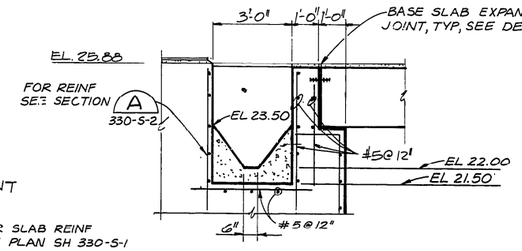
DETAIL 2

3/4"=1'-0" 330-S-2



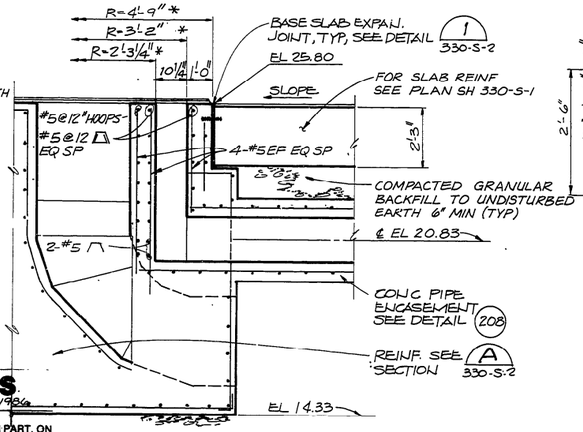
SECTION A

3/8"=1'-0" 330-S-2



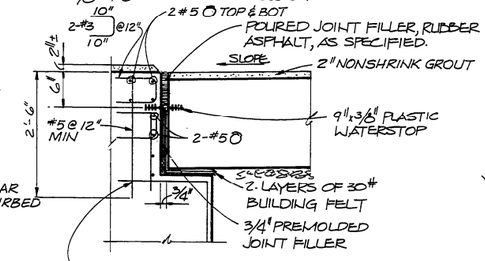
SECTION B

3/8"=1'-0" 330-S-2



SECTION C

3/8"=1'-0" 330-S-2



NOTE: TYPICAL AT BASE SLAB INTERSECTION WITH CENTER PIER

CLARIFIER CENTER PIER JOINT

DETAIL 1

N.T.S. 330-S-2

RECORD DRAWINGS

Revisions Drawn by JM LOSTRA. Date OCT 1986

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REGISTERED PROFESSIONAL ENGINEER 11,968 OREGON FEB. 17, 1983 LUIS L. ARAGON

CH2M HILL

DSGN Brandon A. Braith
DR G. BELL
CHK B.U. BRAITHWAITE
APVD Jerry Gilbert

NO.	DATE	REVISION	BY	APVD
	10/9/86	RECORD DRAWING	JML	JBL

BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

TRI-CITY SERVICE DISTRICT
CLACKAMAS COUNTY, OREGON
SEWAGE TREATMENT PLANT

SECONDARY CLARIFIER SECTIONS & DETAILS

SHEET 330-S-2
DWG. NO. 191 OF 496
DATE MARCH '83
PROJ NO. P 15600.A1

OVERLAY IDENTIFICATION | COMPOSITE | OVERLAY | SCREEN
PROJ NO.
CONTRACT

FORMAT 381-2234MG

NOTE: IF THIS MICROFILMED DRAWING IS LESS CLEAR THAN THIS NOTICE, IT IS DUE TO

OPTION 2: POTENTIAL LOCATION FOR PUMP SUCTION OR INSTALLATION OF TEMPORARY SUMBERSIBLE BYPASS PUMP(S)

INSTALL TEMPORARY FLOW METER IN BYPASS PIPING. INSTALL NECESSARY CONTROL WIRING AND TEMPORARY MEASURES REQUIRED TO REPLACE FUNCTIONALITY OF EXISTING FLOW METER FIT 4121 DURING BYPASS OPERATION

INSTALL TEMPORARY IN-LINE SODIUM HYPOCHLORITE INJECTION POINT AND MIXING TO REPLACE FUNCTIONALITY OF CHLORINE DOSING AND MIXING DURING BYPASS OPERATION

EXISTING GATES TO BE REMOVED AND REPLACED WITH OWNER-FURNISHED GATES

60" SE SEE SHEET 70-C-10 FOR CONTINUATION

3" W4 ℄ EL 43.00 DEFLECT TO CLR RAMP (CI 618)

1½" HV-1 WITH HOSERACK SEE PLACE ON BASIN MIDPOINT (394) (392)

TERMINATE @ EL 40.00 (TYP)

1½" HV-1 WITH HOSERACK SEE (394) (392)

1½" HV-1 WITH HOSERACK SEE (394) (392)

SECONDARY EFFLUENT SAMPLER 350-4140

2" PVC CONDUIT W/ LARGE RADIUS BENDS EMBEDDED IN TOPPING SLAB (CI 543)

FIT 4121

CHLORINE MIXER

5:0-4111

CHLORINE DIFFUSERS ℄ EL 40.00 SEE DETAIL 2 410-M-2

3" D FROM HDX SUMP SEE SHT 410-H-1 FOR CONTINUATION (CI 41)

℄ EL 42.50

A 410-M-2

3" V 331

UNION (TYP)

510-4112

60" X 84" SLUICE GATE (TYP. 2 PLACES) SEE SHT 410-S-1 (CI 322)

3" CS ℄ EL FOR CONTINUATION SEE SHEET 410-M-3

550-4281

550-4282

3'-0" PARSHALL FLUME (TYP. 2 PLACES)

FIT 4122

MOUNT 3" W4 TO SOUTH WALL AND PLACE 1½" HV-1 UP TO SOUTH WALL

1½" HV-1 WITH HOSERACK SEE (394) (392)

3" W4 ℄ EL 43.00

PE BYPASS FOR CONTINUATION SEE SH. 210-M-1

B 410-M-2

TYPE 1 (CI 503) SPRAY NOZZLE (TYP) TILT 45° BELOW HORIZONAL, SEE (336)

SCUM BAFFLE (TYP 2 PLACES) SEE DETAIL

1'-0"

1½" SA

1 410-M-2

TERMINATE @ EL 40.00 (TYP)

TYPE (391) SUPPORT (TYP) (CI 725)

PVC SLEEVE

1" SA ℄ EL 45.00 USE (368) FOR PIPE SPRT (TYP)

10" V-500 W/ EXTENSION STEM ℄ FLOOR BOX

72" PLE INVT ELEV. 30.50 SEE SHEET 70-C-10 FOR CONTINUATION

(359)

(531) TYP.

560-6391

FINAL EFFLUENT SAMPLER 350-4150

SEE 3 410-M-2

(363)

560-6392

37.50

A 410-M-2

BAR SCREEN ℄ EL. 37.50 SEE (268)

℄ EL 45.00 (TYP) USE (368) FOR PIPE SPRT W/ ADHESIVE ANCHORS PER SPEC.

1" SA ℄ EL 45.00

16" MECHANICAL (CI 92) SCUM SKIMMER 350-4160

SCUM SKIMMER OPERATORS ABOVE HOLE IN TOP SLAB (TYP) SIM TO (360)

PVC SLEEVE

WEIR ELEV. 40.75

VALVE STOP ℄ DRAIN BOX, SEE (345)

FOR WALL PENETRATION SEE (363) (TYP)

DET (363) W/CARBON STEEL SLEEVE & NO. 2 PAINT SYSTEM (CI 228)

38.00

(351)

1½" HV-1 WITH HOSERACK SEE (394) (392)

(363) (TYP)

(363) W/CARBON STEEL SLEEVE & NO. 2 PAINT SYSTEM (CI 228)

1½" HV-1 WITH HOSERACK SEE (394) (392) PLACE ON BASIN MIDPOINT

530-6311

530-6312

2" W3 ℄ 44.00

3" W4 ℄ EL. 43.00

FOR FLOOR PENETRATION SEE SH. 90-M-2

1½" SA ℄ EL 45.00

3" W4 ℄ EL 43.00 (CI 618)

10" W5 B.O.P. EL 32.67 FOR CONTINUATION SEE SH. 90-M-2

4" W4 ℄ EL. 43.00

3" W-3 FOR CONTINUATION SEE SH. 90-M-2

FOR CONTINUATION SEE SH. 90-M-2

CHLORINE CONTACT BASIN @ ELEV. 46.00

1/4" = 1'-0"

RECORD DRAWINGS

Revisions Drawn by JTL LOSTRA Date OCT '84

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REGISTERED PROFESSIONAL ENGINEER 11,870 OREGON SEP 24, 1981 JAMES G. GUETZ

CH2M HILL	DSGN	T.R.Ed					
	DR	L.A. LYLE					
	CHK	E.R.GRAHAM					
	APVD		NO.	DATE	REVISION	BY	APVD
				10/15/84	RECORD DRAWING	JTL	JBL

BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

TRI-CITY SERVICE DISTRICT
CLACKAMAS COUNTY, OREGON
SEWAGE TREATMENT PLANT

CHLORINE CONTACT BASIN
MECHANICAL PLAN

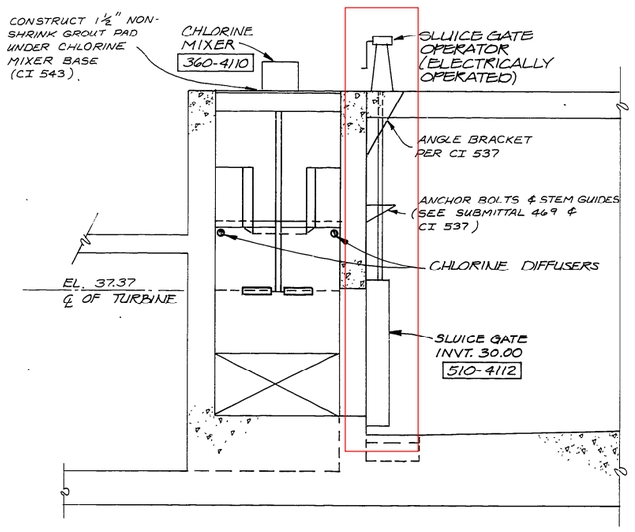
SHEET 410-M-1
DWG NO. 219 OF 436
DATE MAY 1983
PROJ NO. P 15600.A1

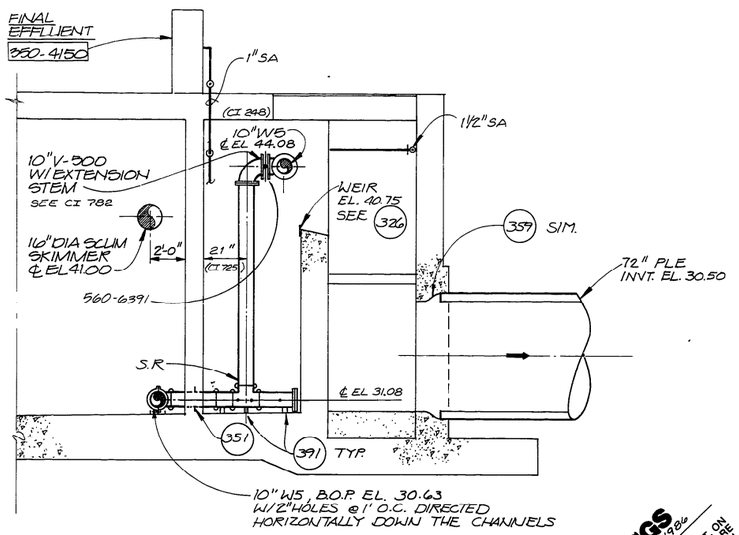
OVERLAY IDENTIFICATION			
PROJ NO.			
CONTRACT			
COMPOSITE	410-B1	410-M1	
OVERLAY	410-M1	410-M4	
SCREEN	410-S1		

FORMAT 381-1221-MG

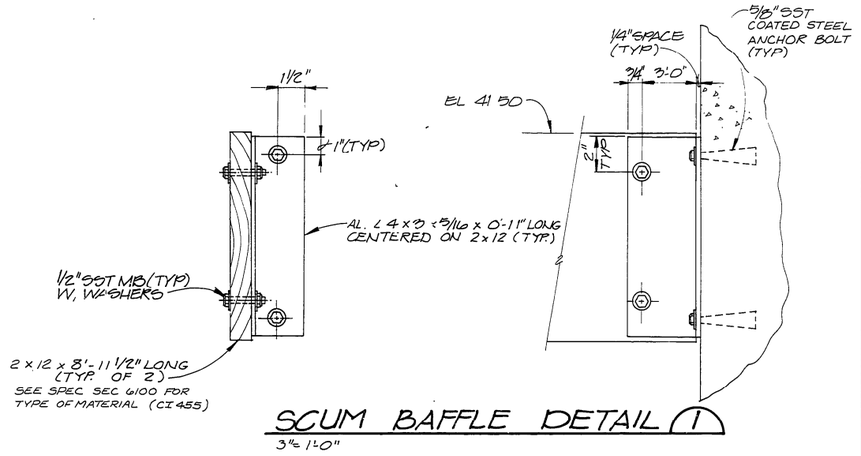
NOTE: IF THIS MICROFILMED DRAWING IS LESS CLEAR THAN THIS NOTICE, IT IS DUE TO THE QUALITY OF THE ORIGINAL DRAWING.

24X





SECTION A
1/4" = 1'-0"



SCUM BAFFLE DETAIL 1
3" = 1'-0"

RECORD DRAWINGS
Revisions Drawn by JML/LOSTRA Date OCT 1986
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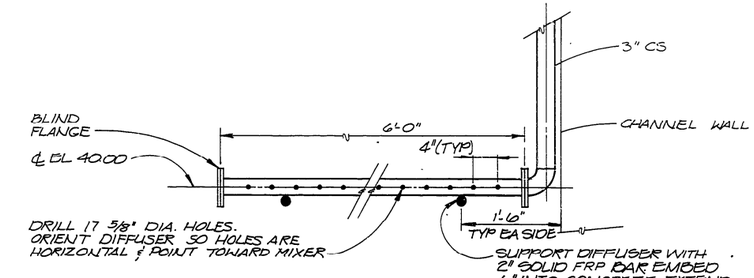
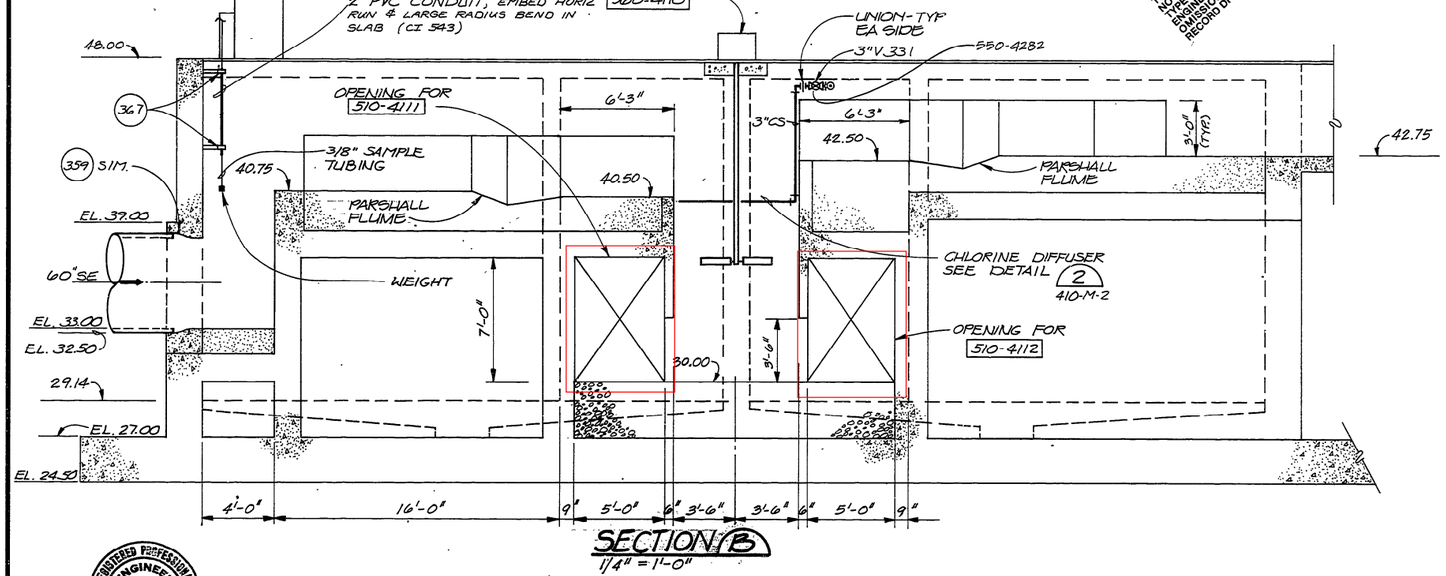
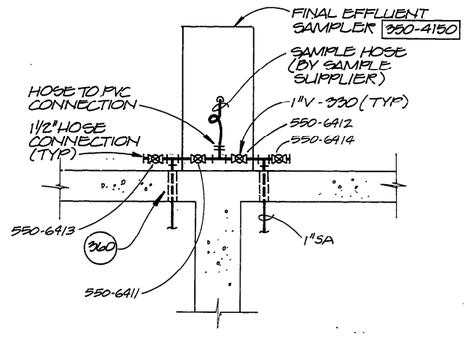


DETAIL 2
NTS — 410-M-2



SECTION B
1/4" = 1'-0"



FINAL EFFLUENT SAMPLER CONNECTION DETAIL 3
NTS — 410-M-1

REGISTERED PROFESSIONAL ENGINEER 11,870 OREGON SEP. 24, 1982 JAMES G. GOETZ

NO.	DATE	REVISION	BY	APVD
	10/15/86	RECORD DRAWING	JML	JBL
1	7/1983	ADDENDUM NO. 4 (DELETED)	VAP	

DSGN G.R. Carr
DR T.K. CROCKER
CHK G.F. GRAHAM
APVD

CH2M HILL

IF ONE INCH ON ORIGINAL DRAWING IS NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

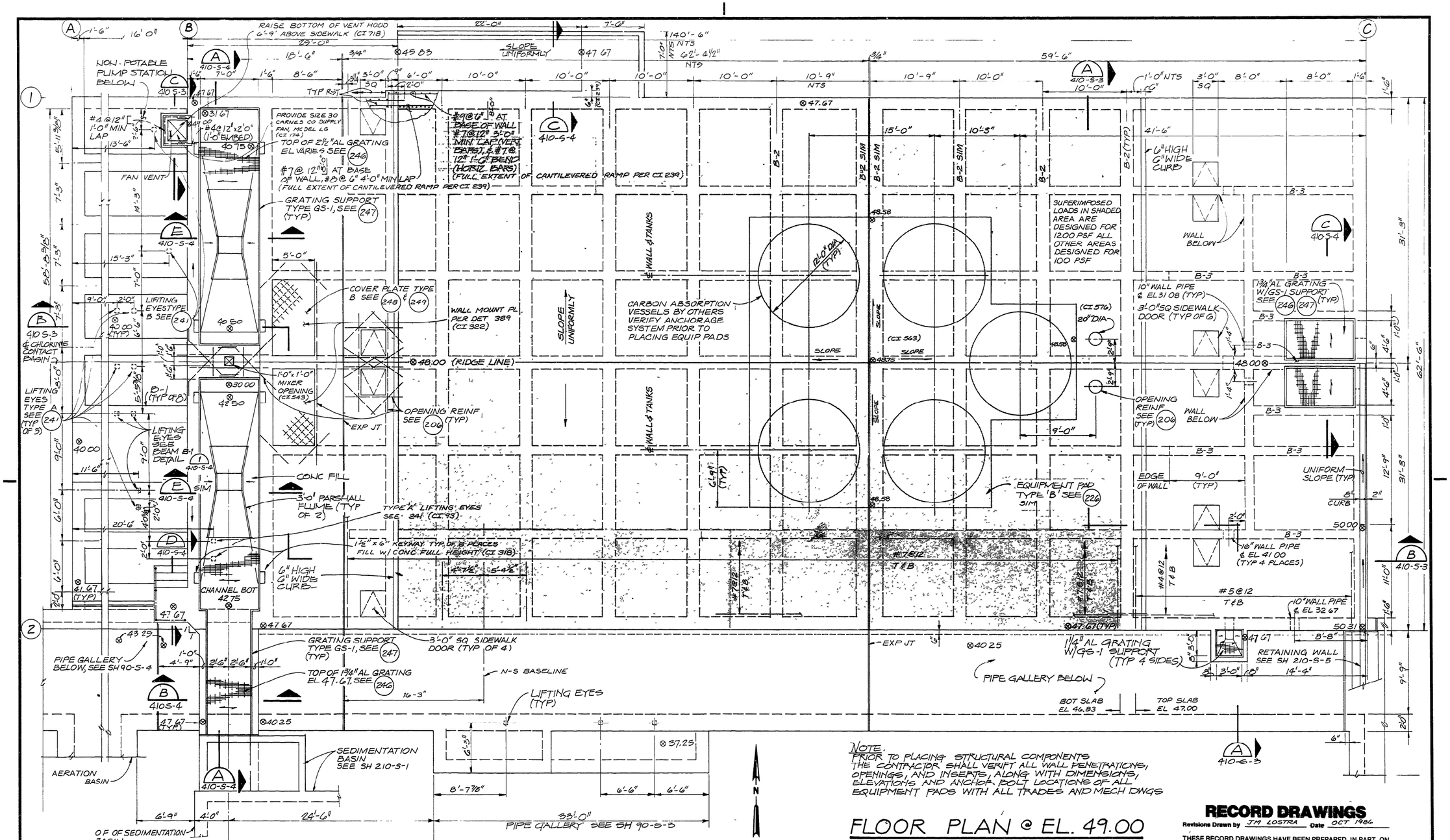
CHLORINE CONTACT BASIN MECHANICAL SECTIONS

SHEET 410 OF 2
DWG. NO. 220 OF 436
DATE MAY 1983
PROJ. NO. P-15600.A1

OVERLAY IDENTIFICATION — PROJ. NO. — CONTRACT
COMPOSITE — OVERLAY — SCREEN

FORMAT 381-2224MG — FILM HC — 4 SMIL PRINTED — 11 82

NOTE: IF THIS MICROFILMED DRAWING IS LESS CLEAR THAN THIS NOTICE, IT IS DUE TO THE QUALITY OF THE ORIGINAL



NOTE
PRIOR TO PLACING STRUCTURAL COMPONENTS THE CONTRACTOR SHALL VERIFY ALL WALL PENETRATIONS, OPENINGS, AND INSERTS, ALONG WITH DIMENSIONS, ELEVATIONS AND ANCHOR BOLT LOCATIONS OF ALL EQUIPMENT PADS WITH ALL TRADES AND MECH DWGS

FLOOR PLAN @ EL. 49.00

3/16" = 1'-0"

RECORD DRAWINGS

Revisions Drawn by JM LOSTRA Date OCT 1986

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OVERLAY IDENTIFICATION: COMPOSITE, OVERLAY, SCREEN
PROJ NO, CONTRACT

CH2M HILL

DSGN Linda Kabus
DR J BAREINGER
CHK BJ BRAITHWAITE
APVD

NO	DATE	REVISION	BY	APVD
	10/5/06	RECORD DRAWING	JML	JBL

VERIFY SCALE
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TRI-CITY SERVICE DISTRICT
CLACKAMAS COUNTY, OREGON
SEWAGE TREATMENT PLANT

CHLORINE CONTACT BASIN
FLOOR PLAN

SHEET 410-S-1
DWG NO. 215 OF 4776
DATE MAY 1983
PROJ NO P 15600.A1

OREGON 11968 FEB. 17, 1983 LUIS L. ARAGON

RECORD DRAWINGS
Revisions Drawn by JTT Date OCT 1986
THESE RECORD DRAWINGS HAVE BEEN PREPARED IN PART ON THE BASIS OF INFORMATION FURNISHED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT COMPLETE DETAIL OF THE CONSTRUCTION OR LOCATION OF THE FACILITY. THE ENGINEER HAS NOT DETAILED THE EXACT LOCATION, THE DIMENSIONS, OR THE MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS.

NOTES:
1. FOR COMPLETE CORNER & INTERSECTION REINF SEE (203).
2. VERT REINF NOT SHOWN FOR CLARITY.
3. FOR WALL PIPE LOCATION AND SIZE IN NON-POTABLE PUMP STATION SEE 410-M-3, 410-M-4, & 90-M-7.

FOUNDATION PLAN

3/16"=1'-0"

CH2M HILL	DSGN Linda Kobus DR J. BAREINGER CHK B.U. BRAITHWAITE APVD	NO.	DATE	REVISION	BY	APVD
		1	10/15/86	RECORD DRAWING	JML	JBL

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TRI-CITY SERVICE DISTRICT
CLACKAMAS COUNTY, OREGON
SEWAGE TREATMENT PLANT

CHLORINE CONTACT BASIN
FOUNDATION PLAN

SHEET 410-S-2
DWG. NO. 216OF436
DATE MAY 1983
PROJ. NO. P 15600:A1

OVERLAY IDENTIFICATION: COMPOSITE, OVERLAY, SCREEN
PROJ. NO.
CONTRACT

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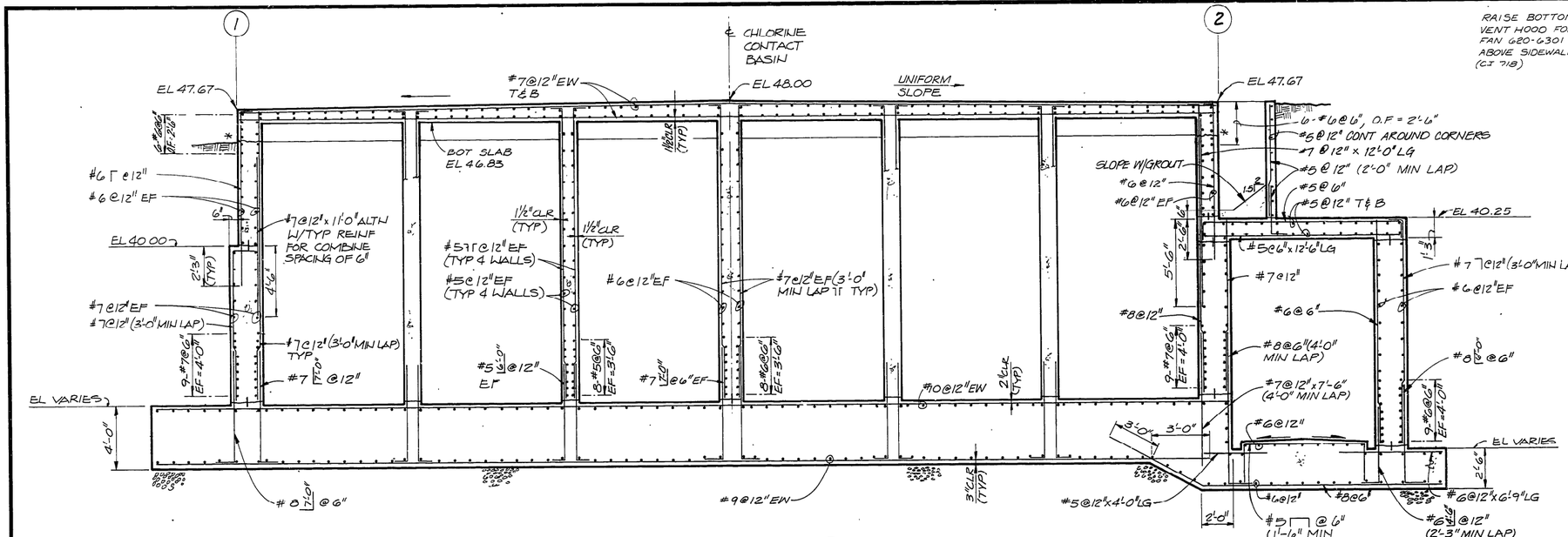
24X



RECORD DRAWINGS

Revisions Drawn by JM LOSTRA Date OCT 1986

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REGISTERED PROFESSIONAL ENGINEER 11,968 OREGON FEB. 17, 1982 LUIS L. ARAGON

CH2M HILL

DSGN Ofelia Kobos
DR J. BAREILGER
CHK D. BRAITHWAITE
APVD

NO.	DATE	REVISION	BY	APVD.
	10/15/86	RECORD DRAWING	JML	JML

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

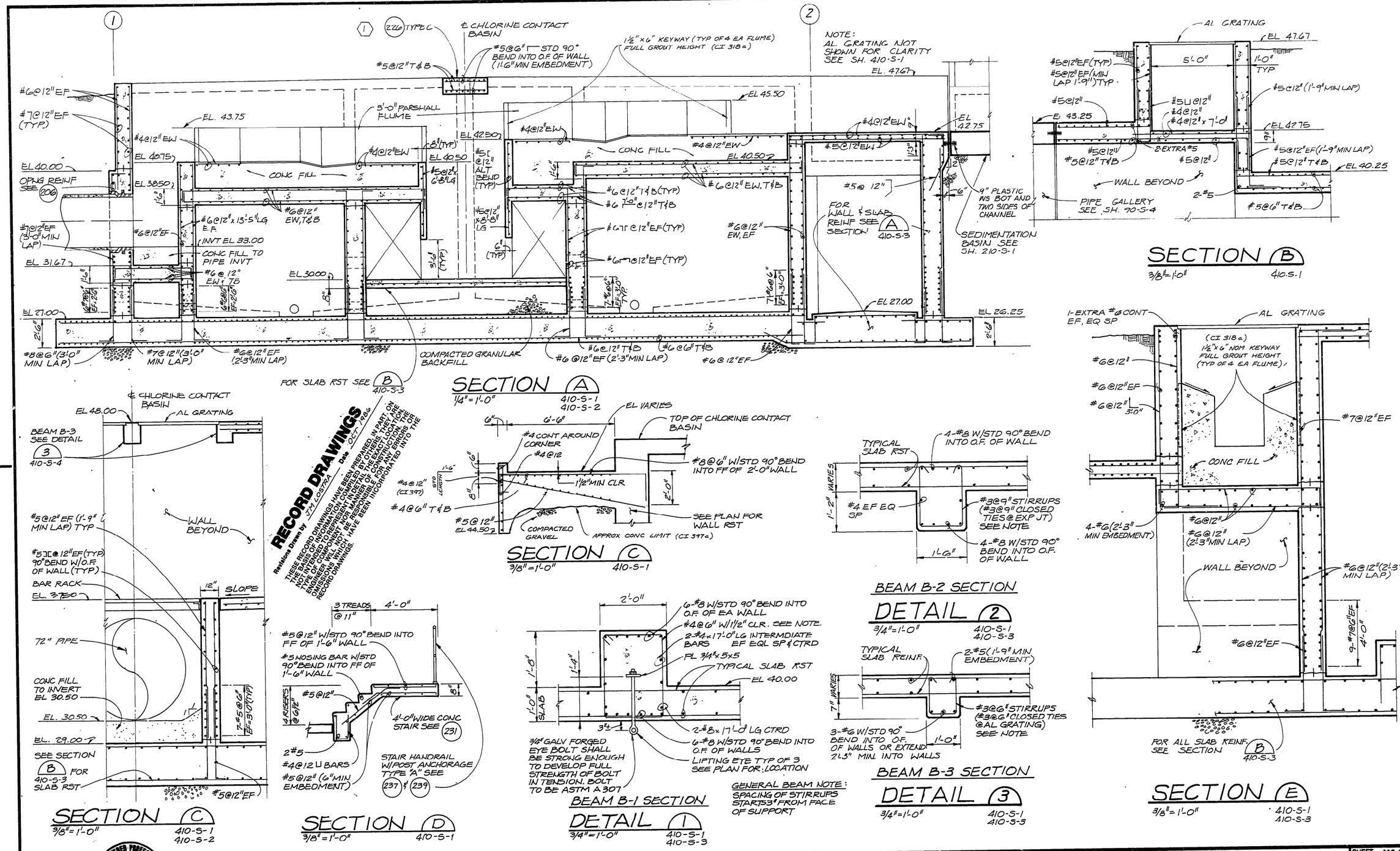
TRI-CITY SERVICE DISTRICT
CLACKAMAS COUNTY, OREGON
SEWAGE TREATMENT PLANT

CHLORINE CONTACT BASIN
SECTIONS & DETAIL

SHEET 410-S-3
DWG. NO. 217 OF 436
DATE MAY 1983
PROJ NO. P 15600.A1

COMPOSITE
OVERLAY
SCREEN
OVERLAY IDENTIFICATION
PROJ NO.
CONTRACT

NOTE: IF THIS MICROFILMED DRAWING IS LESS CLEAR THAN



RECORD DRAWINGS

Revisions Drawn by: T.T. LOSTRA Date: OCT '1986

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REGISTERED PROFESSIONAL ENGINEER OREGON 11,968 Luis L. Aragon FEB. 17, 1983 LUIS L. ARAGON

CH2M HILL

DSGN	Linda Kabus
DR	J. BARRINGER
CHK	R.L. BRAITHWAITE
APVD	

NO.	DATE	REVISION	BY	APVD
	10/15/84	RECORD DRAWING	JML	JBL
1	7/8/83	ADDENDUM NO 4	VAP	

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

TRI-CITY SERVICE DISTRICT
CLACKAMAS COUNTY, OREGON
SEWAGE TREATMENT PLANT

CHLORINE CONTACT BASIN
SECTIONS & DETAIL

SHEET	410-S-4
DWG. NO.	218 OF 430
DATE	MAY 1983
PROJ NO.	P 15600.A1

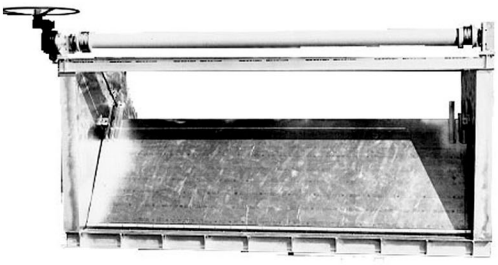
OVERLAY IDENTIFICATION: COMPOSITE, OVERLAY SCREEN, PROJ NO., CONTRACT

FILM NO. 381-22480

Waterman Industries

INSTALLATION MANUAL FOR

- ~~Sluice Gates~~
- Fabricated Gates
- ~~Drainage Gates~~
- ~~Specialty Gates~~



Waterman Industries • PO Box 458 • Exeter, CA 932221 • (800) 331-0808 • www.watermanusa.com

TABLE OF CONTENTS

FABRICATED SLIDE GATE INSTALLATION INSTRUCTIONS

FOREWORD

The purpose of this manual is to provide information to the contractors and associated personnel involved with installation and initial operation of equipment supplied by WATERMAN INDUSTRIES, INC. for this project. Although every care is taken in our factory to insure top quality equipment, we cannot be responsible for damage caused by negligence after shipping. Therefore, described herein are WATERMAN'S recommended methods of handling, storage, installation, adjustment and initial operation for standard situations, to be used in conjunction with the approved submittal drawings provided by WATERMAN INDUSTRIES, INC. If proper care and accuracy are exercised in the field when installing our gates, they will operate as designed at maximum efficiency. IT IS RECOMMENDED THAT THIS MANUAL BE READ IN ITS ENTIRETY BEFORE ATTEMPTING STEP-BY-STEP INSTALLATION.

THESE INSTRUCTIONS ARE DESIGNED FOR QUICK REFERENCE AND ARE INTENDED FOR GENERAL APPLICATIONS. THESE INSTRUCTIONS DO NOT SUPERSEDE THE INFORMATION CONTAINED IN THE O & M MANUAL HERETOFORE PROVIDED, AND SHALL NOT BE USED IN CONFLICT WITH SPECIFIC INSTALLATION NEEDS NOR PROPER INSTALLATION PROCEDURES.

IT IS THE SOLE RESPONSIBILITY OF THE JOBSITE ENGINEER AND/OR CONTRACTOR TO ASSURE THE PROPER STORAGE, HANDLING AND INSTALLATION PROCEDURE OF THE GATE AND ITS APPURTENANCES.

REVIEWING

CHECK COUNT all parts when you receive shipment. All individually shipped parts or assemblages are listed on the packing list. Should a shortage exist, notify WATERMAN INDUSTRIES immediately. We cannot be responsible for any shortages reported more than 30 days after receipt of shipment. Special care should be taken in accounting for and safely storing all bolts, nuts, and small items which are often misplaced at jobsites.

RECEIVING AND STORAGE

All WATERMAN gates and appurtenances are precision machinery and should be handled accordingly. While all parts are of rugged design, it is nevertheless possible to warp or damage machined surfaces, stems, etc., through improper storage and handling. To avoid all problems of this nature we recommend the following:

1. When any hoisting device is used to move, lift or install slide gates, be certain that:
   The gate is properly supported so as not to damage the gate parts.
   The stem should **NEVER** be used as a support.
2. Support **full** length of stems at all times if stem is separate from gate. Be sure not to damage threads.
3. Store equipment on an even, clean, dry surface to prevent distortion.
4. Cover all equipment to protect machined surfaces.
5. **DO NOT** stack equipment without protection.
6. Care for lifts as you would any precision machinery.

INSTALLATION INSTRUCTIONS - GENERAL

1. "Keep it straight." The gate, stem, stem guides and lift mechanism must always be perfectly aligned.

2. "Keep it clean." Assure that no concrete, grout or sealant is allowed to get into guide or seating areas or on stems.

3. "Keep it stress-free." Do not force gate or stem into stress or warpage conditions.

4. "Double-nut" the anchor bolts, pedestal and any other equipment that provides for and requires this type of mounting and alignment (plumb) adjustment. In these cases nuts should be placed in front of, and behind (or above and below) all mounting surfaces.

5. All unpainted aluminum in contact with concrete should be field painted prior to installation.

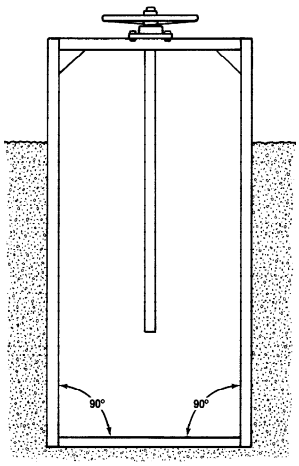
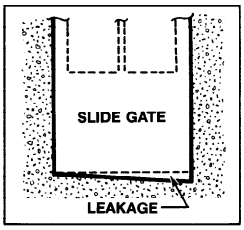
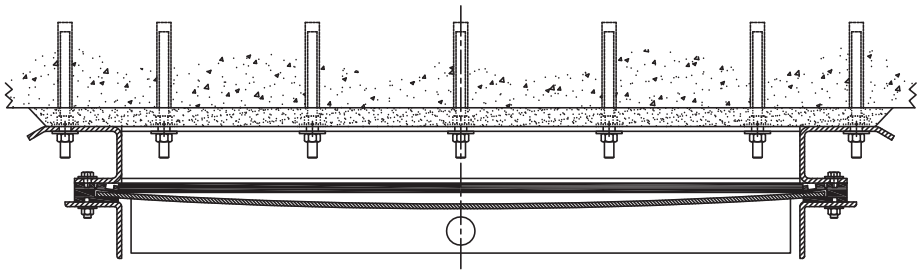


Figure 20

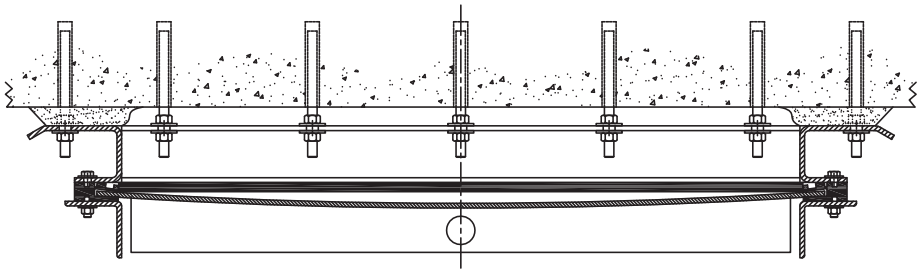


SIDE RAILS TO BOTTOM RAIL ANGLES MUST BE 90° TO ASSURE COMPLETE SEATING OF SLIDE.

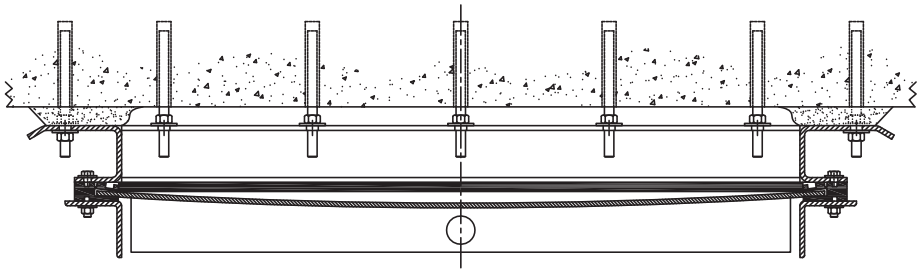
DASH ONE ADJUSTMENTS



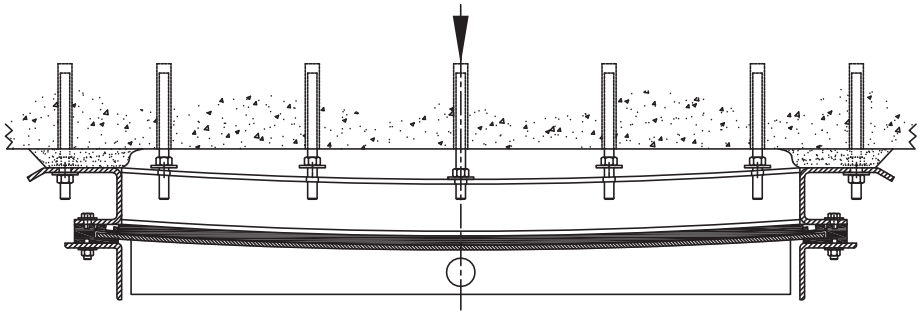
1) Gate shown, fully installed, with grout pad and exaggerated slide plate warpage. Please note gap between plate and top cross seal.



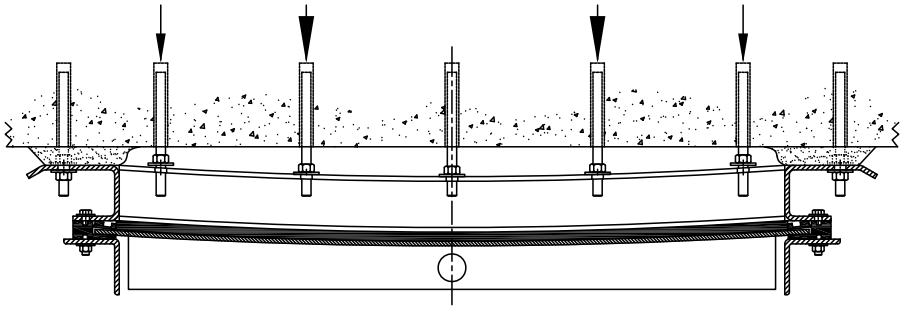
2) Remove grout from around anchor bolts between frame and structure at top cross rail.



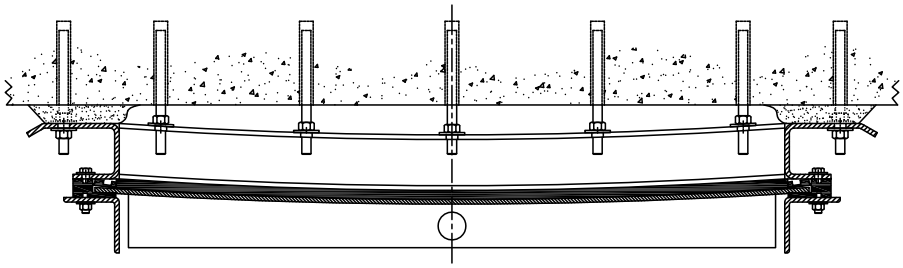
3) Remove outside nut and washer from cross rail anchor bolts, only.



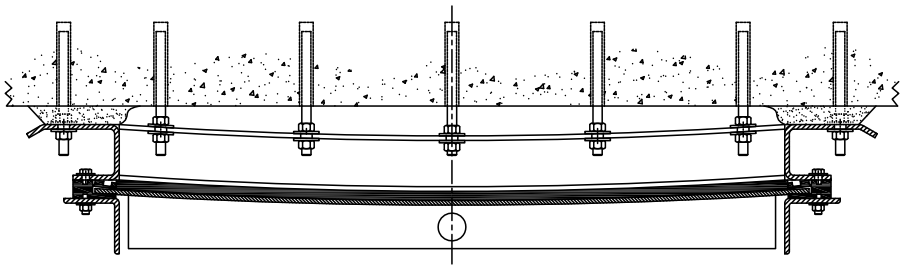
4) Tighten nut closest to the center of cross rail first, causing the rail to warp, until unable to fit a 0.002 feeler gauge between seal & back of slide plate.



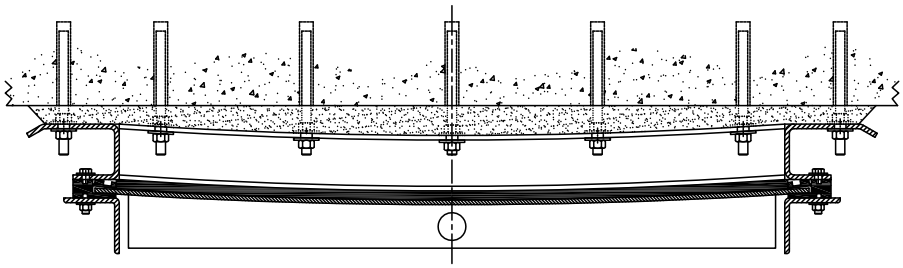
5) Adjust each other nut, moving out from center of cross rail until unable to fit a 0.002 feeler gauge between seal & back of slide plate.



6) Tighten each nut an additional 1/4 turn to insure a proper seal between slide plate and top cross rail seal.



7) Reattach each outer nut and washer to anchor bolts and tighten, as necessary.



8) Apply grout fill between frame and structure to insure a water tight seal.

STOP ! ! BEFORE PROCEEDING TO GROUT STAGE, PLEASE READ THE FOLLOWING

A. Keep seating surfaces flat! The flatter the sealing surface the better the sealing capability of the gate.

B. Check flatness of seating surfaces and any flushbottom seals utilizing a straight edge with slide open, then with feeler gauge with slide closed **prior** to grouting gate into place. Frame bolts may be adjusted to bring frame and sealing surfaces flat.

C. If bowing in frame is unavoidable, a single span over a long distance is preferable to a 'wavy' span with several peaks and valleys. It is also preferable for any bow to be out away from wall rather than back towards it.

D. Gates with metal to metal seats have no method for adjustment, therefore frame (and seating surface) flatness determines sealing capability. Frames should be flat within .010 over 24 inches.

E. Gates with rubber J-Bulb seats should be held flat to within 1/16 inch over 24 inch span. This is especially true when there is a seal across top of gate and gate is subjected to unseating head.

NOTE - if insufficient compression exists on seal in center of gate, slide will pull away from seal under unseating head causing gate to leak. However, if excessive compression on protrusion out from frame exists, the slide will tend to pull seal out of its retainer. This is especially true on galvanized steel and stainless steel gates.

F. Gates with ultrahigh molecular weight polyethylene (UHMW-PE) seals are built with slides that are more rigid than other slide gates. With cover open, the seals should be flat within .010 or less over 24 inch span when checked with straight edge. When gate is closed, a .002 inch feeler gauge should not be admitted between seats or flushbottom seal and slide.

(a) **Note** - 200 series gates do not have pressure bars or wedges. Bolts along side holding retainer bar are factory set between 20-35 ft. lbs. torque and should not be severely torqued down to attempt additional sealing due to an out of plumb frame.

(b) Sentinel Gates have side pressure bars and top wedges. Care must be taken when adjusting these items as it is physically possible to tighten adjusting bars and wedges to excess. When slide is properly adjusted, there should still be a small gap (1/16 to 1/64 inch) between back of UHMW-PE seat and frame, and no gaps where .002 inch feeler gauge can be admitted between top of seat and slide.

INSTALLATION OF SLIDE OR STOP GATE TO CONCRETE WALL

FLATBACK SEAT
TOP VIEW

1. Secure all anchor bolts in proper position in forms, checking carefully to see that size, projection, perpendicular and horizontal alignments conform to requirements shown on our installation drawings. **EXTREME CARE** must be exercised in this initial procedure since bolts which are improperly set will cause gate warpage and therefore excess leakage between the seating surfaces. **DO NOT FORCE GATE ONTO MISALIGNED BOLTS**. An optional method of mounting could be with tap in concrete anchors or studs after wall is poured and cured and forms removed. Install concrete anchor per manufacturer's recommended procedure, insuring stud projections are as shown on drawing. Use guide rail as template. Double nut anchors per following instructions (2).

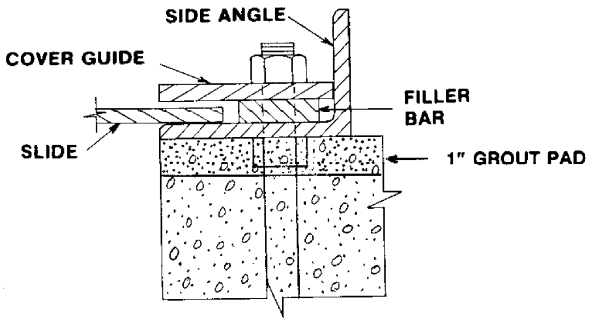


Figure 21

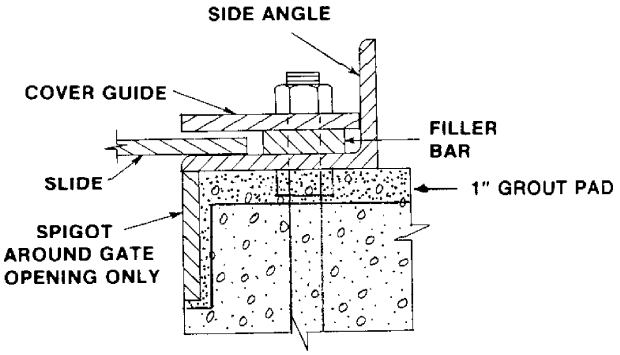
2. The preferable procedure is to "double-nut" the anchor bolt; i.e., provide a nut below the frame or flange mounting for plumb adjustment in addition to the securing top nut. This requires a blockout for later grouting. The nearby figures and the submittal drawings show this type of installation. In this manner, vertical and horizontal plumb can be assured by adjusting the nuts before filling the blockout with grout. Make certain the grout is of the non-shrink type.

3. If the above procedure is not used, it is very important that each mounting nut be tightened a small amount each time until the guide, frame or flange touches the wall initially. The guide should be checked to insure that both legs are parallel and plumb. At this time the need for shims or sealant will be apparent. The wall-mounted guide frame **must** be set plumb and straight regardless of the condition of the vertical concrete wall on which it is to be mounted. Do not induce warping during final tightening of the bolts.

INSTALLATION OF SPIGOTBACK GATES TO CONCRETE WALL

Spigotback gates are installed in the same manner as flatback gates specified above, with the following additions:

1. When setting the anchor bolts in the form, form a blockout for spigot to dimensions specified in drawing.
2. After gate is installed, and nuts tightened on bolts, grout in voids around spigotback with a dry pack concrete mix or a non-shrink grout.



SPIGOTBACK SEAT
TOP VIEW

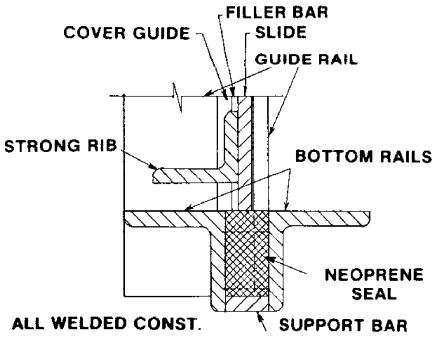
Figure 22

INSTALLATION OF SLIDE GATES WITH J-BULB SEALS

Follow same procedure as for spigotback or flatback gates as described above, with the following additions:

Check clearance between seal and slide following installation with a .002 inch feeler gauge. Gauge should not pass at any point around seal perimeter with gate in fully closed position. If adjustment of seal is necessary, refer to page 20 of this manual, "Procedure for replacing and adjusting J-bulb seals for fabricated slide gates." All gates with "J" seals will have flushbottom seals unless the gate is a downward opening weir type. Start the checking process across the flushbottom seal - then proceed to the sides and top.

Figure 23



FLATBACK SHOWN
ALSO AVAILABLE IN SPIGOTBACK
AND EMBEDDED TYPE FRAMES
FLUSHBOTTOM DETAIL

INSTALLATION OF EMBEDDED SLIDE OR STOP GATE

A gate and its guide frame are normally shipped with the slide (cover) in the guide and the assembly banded together, thus forming a compact factory-aligned unit. Two methods are available for installation:

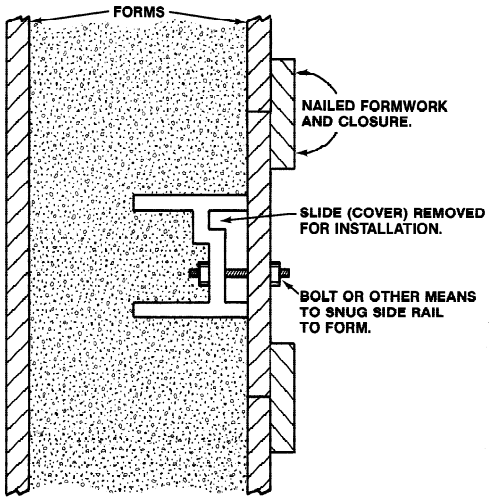
OPTION 1: INSTALLING GATE AT TIME OF CONCRETE POUR

This must be done with slide removed and can only be done in a channel mount.

1. Place the gate in a vertical and plumb position in the forms, and secure in place. Use timbers or other bracing on the inside of the opening to support the gate and prevent warpage during the pour. This is especially true on large gates.
2. Pour concrete, being **EXTREMELY CAREFUL** not to get any concrete in guide area.
3. After concrete has cured, remove forms and bracing. Thoroughly clean gate and guide of any concrete splash or splatter.

OPTION 2: INSTALLING GATE AFTER CONCRETE POUR

1. Form blockout in concrete to dimensions specified on installation drawing. Blockout should be designed in such a manner that dry pack or grout will lock into parent concrete.
2. After concrete has cured and forms have been removed, align gates in blockout, insuring gate is vertical and plumb.
3. Secure gate into place with non-shrink grout.
4. After grout has hardened, thoroughly clean gate and guide.



PLAN (TOP) VIEW OF TYPICAL METHOD
OF EMBEDDING SLIDE GATE.
ONLY ONE SIDE RAIL SHOWN. BOTTOM RAIL
REQUIRES SIMILAR FORMING. TOP HEAD
RAIL NOT NORMALLY IN CONCRETE.

Figure 24

PROCEDURE FOR INSTALLING STEM & STEM GUIDES (NON-SELF CONTAINED GATES)

1. Stems are shipped with limit nuts and couplings attached; these must be removed prior to installation. Stem connector bolt is attached to the gate cover and should also be removed.

2. After the gate has been mounted, lower drilled end of stem through head or cross rails and into stem connector bracket in gate slide.

3. Insert stem connector bolt and tighten nut.

4. Mount stem guides as stem is installed. Do not tighten stem guide assembly bolts. If stem guides are not the split type the guide portion must be assembled on the stem when lowered into place.

5. Install stem couplings as required, being sure to install keys, to tighten all set screws, or to drive in pins as required.

6. Take care not to bend stems or damage threads during installation.

7. Thoroughly clean and grease stem threads with heavy duty grease, such as Lubriplate, Mobilux grease #2EP or equal. (See maintenance section in O & M manual for equivalent greases.

PROCEDURE FOR INSTALLING MANUALLY OPERATED LIFT (PEDESTAL TYPE)

Lifts are factory lubricated, and do not need lubrication at time of installation.

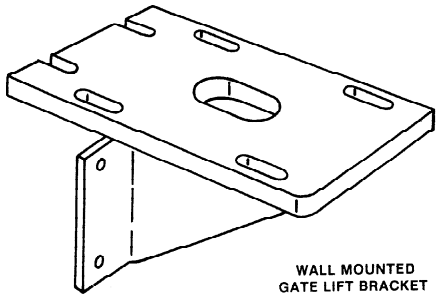
INSTALLATION ON OPERATING FLOOR (non self-contained gate)

1. Place one nut on each anchor bolt and thread it down against operating floor.
2. After assembling stem*, lower the lift over the upper threaded portion of stem carefully engaging threads of lift nut and stem. With electric motor operators in particular, the lift nut may be removed, and pedestal set over stem. Replace lift nut.

*If a limit nut is to be used to stop upward gate travel, it must be installed on the stem prior to installing the lift. (See page 19).

3. Bring base of lit over anchor bolts to about 1" from floor by rotating handwheel or crank and adjust lower nuts until proper vertical alignment is achieved.
4. Place and tighten top nut on anchor bolts against pedestal base flange and grout flange in place.
5. Once the lift is properly installed, apply tension to the stem with the lift and align the stem guides. Tighten stem guide assembly bolts.

Figure 25



INSTALLATION ON TOP WALL MOUNTING BRACKET

1. Mount top wall mounting bracket on anchor bolts, and secure with nuts. Top surface of bracket must be aligned perpendicular* with stem, and stem must pass approximately through center of stem slot.

   *If wall face or top is unduly rough or badly out of plumb, wall may need to be grout-faced to provide proper mounting surface for bracket.

2. After assembling stem*, lower the lift over the upper threaded portion of stem carefully engaging threads of lift nut and stem.

*If a limit nut is to be used to stop upward gate travel, it must be installed on the stem prior to installing the lift. (See page 19).

3. Bring base over top of bracket and mount with four bolts and nuts. Adjust floorstand until proper alignment is achieved. Tighten bolts.

4. Once the lift is properly installed, apply tension to the stem with the lift and align the stem guides. Tighten stem guide assembly bolts.

INSTALLATION OF ELECTRIC LIFTS

1. Install motor operated lifts in same manner as the manual lifts described previously. Make certain that if any limit nuts are used they do **not** bottom out before activating limit switches.

2. **IMPORTANT:** Alignment of lift and stem is of critical importance. Double check all components (stem, stem guides, brackets, pedestal, lift, etc.) to insure all are perfectly aligned.

3. USING MANUAL HANDWHEEL, OPEN GATE A MINIMUM OF THREE (3) INCHES PRIOR TO USING ANY ELECTRICAL CONTROLS. DOUBLE CHECK HANDWHEEL FOR PROPER ROTATION INDICATION.

4. Connect electrical power and any remote wiring in accordance with wiring diagrams. During wiring installation, should it become necessary to leave unit, close and tighten limit switch compartment and any open conduit taps so as not to leave electrical components unprotected from elements.

5. With gate open minimum of 3 inches, electrically operate gate to check for proper rotation and wiring. By having gate open, the direction of rotation can be checked without damaging the stem, stem cover or hoisting unit should gate move in wrong direction. If gate direction is incorrect, stop immediately and consult manufacturers instructions.

6. Once the unit has been installed, the manufacturer's directions should be followed closely in setting the closing and opening travel limit switches (See Field Adjustment). The torque switches have been properly set at the factory and should not need adjustment. Follow the manufacturer's instructions if it appears that adjustment is necessary.

7. Lifts are factory lubricated and do not need lubrication at the time of installation.

PROCEDURE FOR INSTALLING TANDEM LIFTS (PEDESTAL TYPE)

1. Mount the lifts as described for manual lifts, steps 1-3.

2. Install U-joints and interconnecting shaft between the two pedestals. Leave set screws a little loose for adjustments.

3. Measure distance from floor to shaft centerline. Adjust nuts on anchor bolts to ensure that both pedestals are level, and that the interconnecting shaft is level.

4. Tighten set screws on universal joints.

5. Proceed with steps 4 and 5 for manual lifts.

INSTALLATION OF LIMIT NUTS AND STEM COVERS

1. **IMPORTANT**: In those cases where a limit nut is used to stop **upward** gate travel, and pedestal lift is also used, limit nut must be installed on stem prior to installing lift.

2. After lift is installed, fully close gate.

3. Screw **downward** travel limit nut on stem until it just starts to bottom out on top of lift nut. *

* If gates have wedges which require adjustment, final setting and tightening of limit nut will have to be done after gate wedges are adjusted.

4. Screw stem cover into threaded bracket on top of lift. A thread sealant should be used on threads. Cover should be approximately 4 inches longer than gate height (stem travel).

INITIAL OPERATION OF GATES

1. After gate, stem guides, stem lifting mechanism, and other necessary apparatus have been installed, check the following prior to operation:
   a. Check all assembly and mounting hardware for proper tightness.
   b. Apply tension to stem and check for proper alignment.
   c. Remove any shipping stops on gates.
   d. Check gate guide grooves for any foreign matter, and clean as necessary.

2. If not done previously, or if gate stem has set some time after installation, thoroughly clean stem threads and lubricate * in accordance with stem installation instruction. (* See page 18, Note 7.)

3. Open gate slide to fully open position.

   a. For manually operated lifts, turn handwheel or handcrank in direction noted on handwheel or on lift housing.

   b. Gates moved by electric actuators normally have open & close push-buttons mounted on the actuator housing. After checking items 3, 4, 5, & 6 under "Installation of electric lifts", and with gate in the closed position, move gate open by pushing the "open" push-button. The gate should start toward the open position - the button can be released and the gate should continue to the full open position where the travel limit switch should automatically stop gate travel. Push the "close" button. The reverse travel should occur until the gate stops automatically in the closed position.

4. Clean all dirt, paint, concrete splatter, or other foreign material from seating surfaces, wedges, flushbottom seals, etc.

5. Seating surfaces of aluminum or fiberglass slide gates, including gates with UHMW polyethylene bearing strips require no lubrication.

6. Close gate completely and check for proper closure. (See "**CAUTION**"). On fabricated slide gates, check to see slide fits flat against seating surface. Check to be sure frame is not warped.
   CAUTION: Be extremely careful when closing gate so as not top apply excessive compressive force on stem. The stem under a compressive load is the weakest link in the system and can buckle (bow) if excessive force is applied to operator.

7. Set any limit nuts or position indicators as required per applicable instructions.

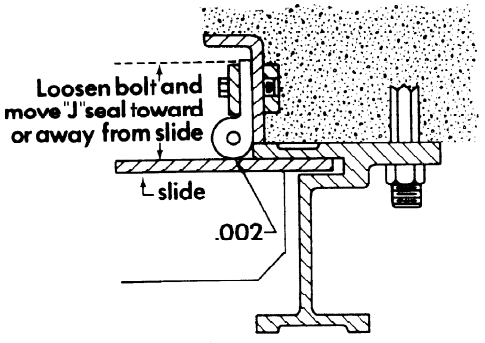
8. Cycle gates with operators to insure proper installation, alignment, and operation.

PROCEDURE FOR REPLACING AND ADJUSTING J-BULB SEALS FOR FABRICATED SLIDE GATES

1. Adjustment on J-Bulb seals are made at factory and should not need to be field adjusted, but if adjustment is necessary, carefully note the following instructions:

   a. To adjust J-Bulb seal, slide should be in the fully closed position. Begin by checking clearance between seals and slide with a .002 inch feeler gauge around entire perimeter, noting any points which allow passage of the gauge. Loosen hex head machine bolts adjacent to points requiring adjustment just enough to allow the seal to be moved. Push seal against the slide until feeler gauge will not enter, retighten bolts. Recheck entire perimeter and readjust if necessary.

   b. To replace J-Bulb seal, remove hex head machine bolts, nut plate seal retainer, and J-Bulb seal, carefully noting the position of each. Remove old J-Bulb seal and replace with new seal and assemble with seal retainer nut plate and hex head machine bolts, being careful not to overtighten bolts. To adjust new seal, follow instructions in paragraph "a".



"J" BULB SEAL ADJUSTMENT (TOP VIEW)
ONE SIDERAIL ONLY PICTURED

Figure 26

PROCEDURE FOR ADJUSTING SIDE PRESSURE BARS ON SENTINEL SLIDE GATES (FLATBACK MODEL SHOWN, OTHER MODELS SIMILAR)

A. **TO INCREASE SEAT PRESSURE:**

1. Loosen adjusting stud lock nut, (B).
2. Tighten outer nut (A) slightly until proper seating is attained.
3. Tighten locking nut, (B).

B. **TO DECREASE SEATING PRESSURE:**

1. Loosen nut, (A).
2. Tighten nut (B) slightly until proper seating is attained.
3. Tighten nut (A).

CHECK SEAT CLEARANCE AROUND FULL PERIPHERY. A .002" FEELER GAUGE SHOULD NOT PASS BETWEEN SEATS OR BETWEEN GATE BOTTOM AND BOTTOM SEAL. READJUST AS NECESSARY.

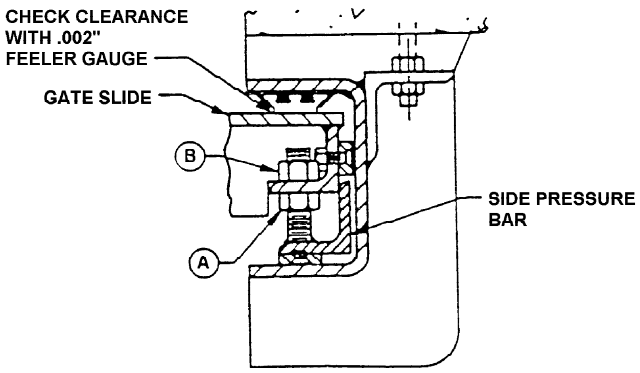


Figure 27

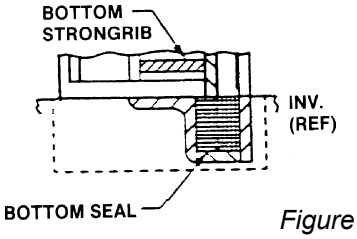
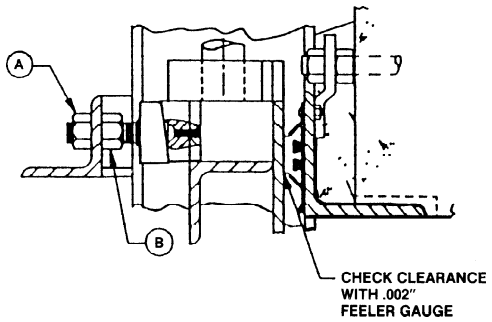


Figure 28

PROCEDURE FOR ADJUSTING TOP WEDGE ON SENTINEL & SLIDE GATES

Check seat clearance with .002" feeler gauge. If seats allow insertion of gauge follow Procedure A. If seats are binding, follow Procedure B.

Figure 29



A. **TO INCREASE SEAT PRESSURE:**

1. Loosen locking nut, (A).
2. Tighten adjusting nut (B) slightly until proper seating is attained.
3. Tighten locking nut, (A).

B. **TO DECREASE SEATING PRESSURE:**

1. Loosen nut, (B).
2. Tighten nut (A) slightly until proper seating is attained.
3. Tighten nut (B).

WEDGE SHOULD NOT BE ADJUSTED IN SO FAR AS TO PREVENT THE GATE BOTTOM FROM DEPRESSING THE BOTTOM SEAL. TO DO SO COULD CAUSE GATE DAMAGE.

PROCEDURE FOR SETTING COUNTER POSITION INDICATORS (MANUAL LIFTS)

1. A manually operated lift with counter position indicator, must be field set after gate is installed and adjusted.
2. After the lift has been properly installed, lower the gate until the slide just touches the bottom seal (or top seal for weir gates). This is the point of zero opening.
3. Remove counter housing and lift counter enough to disengage gears.
4. Set the indicator to zero and replace it on the lift, making sure that as the gears are engaged the indicator does not move from zero.
5. Note that in the full wedging position, the indicator will read less than zero.
6. If preferred, counter can be set at zero when gate is in closed position.

PROCEDURE FOR SETTING DIAL TYPE POSITION INDICATORS (MANUAL LIFTS)

1. Indicator must be field set after gate, stem, and lift are installed and adjusted. Indicator and gearing does not need to be disengaged when installing lift.
2. After the lift has been properly installed, lower the gate until the bottom seating surface of the cover just meets the bottom seating surface of the frame. This is the point of zero opening.
3. Remove four (4) screws holding dial cover plate and remove plate, being careful not to lose o-ring seal.
4. Loosen set screw in dial indicator, using 5/64 inch shortarm allen wrench. Rotate dial indicator until pointer aligns with last dial marking with "C" (closed) next to it. Retighten set screw.
5. Operate gate through one cycle (or at least minimum ¼ open) to insure dial indicator turns freely and returns to set position when gate is closed. Reinstall cover plate.
6. Note that when gate is in fully wedged position, the dial indicator pointer will align slightly below dial marking. If desired, dial indicator can be set to align with closed dial marking when gate is fully wedged.

PROCEDURE FOR SETTING CLEAR PLASTIC STEM COVER INDICATORS

1. Indicator strips are attached after the lift and stem cover have been installed and the gate has been adjusted for proper seating.
2. Be certain that the stem is clean and dry, inside and out. Use mild detergent or commercial cleaners specifically made for plastic.
3. Observe through the stem cover where the top of the stem is positioned when the gate is fully closed. Make a small mark on the outside of the stem cover at this point. This is your "zero" reference.
4. The mylar strip is graduated in increments with "0" at the bottom. Peel off the paper backing (the mylar strip is self-adhesive) then starting at the "zero" reference attach the mylar strip, taking care to avoid bubbles and wrinkles.
5. Cut off any excess strip that extends past the pipe cap.

PROCEDURE FOR INSTALLING A FLATBACK OR FLANGEBACK GATE ON A THIMBLE OR PIPE FLANGE

1. Place the thimble in correct position in the forms and secure in place. The top and bottom center line is marked on the flange face and should be aligned plumb. Thimble should be flush with, or projecting slightly from, the headwall face after forms are removed.

2. As shown in Figure 1 below, **USE TIMBERS OR OTHER BRACING** on the inside of the opening to support the thimble and prevent warpage during the pour. This is especially important on larger thimbles or when the concrete cover will be especially high.

3. Plug the tapped holes in the thimble with removable plugs provided. This will prevent concrete from entering the tapped holes.

4. Secure anchor bolts for guide rail extensions (or provide blockout) in the proper position as given on our installation drawings, (the certified submittal drawing provided by **WATERMAN VALVE**. Check projection and perpendicular alignment of these anchors.

5. Pour concrete. Use care not to tilt or move thimble from its original position in the forms.

6. Let concrete cure, then remove forms and bracing. Remove any spackle from machined face of the thimble and place studs into tapped holes provided.

7. Clean the back of the gate frame and the mounting flange or thimble thoroughly. Apply a thin coat of mastic (such as butyl rubber compound or black asphalt compound) to the contact surfaces and scrape off but do not wash.

8. Mount the **COMPLETELY ASSEMBLED** gate on the thimble lining up bolt holes. Place washers and nuts on studs and tighten uniformly to a near metal to metal contact.

9. Check clearance between gate seating surfaces with a .004" feeler gauge. In the event that the gate is not seating properly, make wedge adjustments. (See wedge adjustment instructions at end of this section.) Another cause of improper seating is warpage of the gate frame due to mounting on a thimble that has been warped during the pouring of the concrete. If steps one through five are strictly adhered to, this will be avoided and the mounting of the gate will be a simple procedure. Gate is now ready for installation of stem and appurtenances.

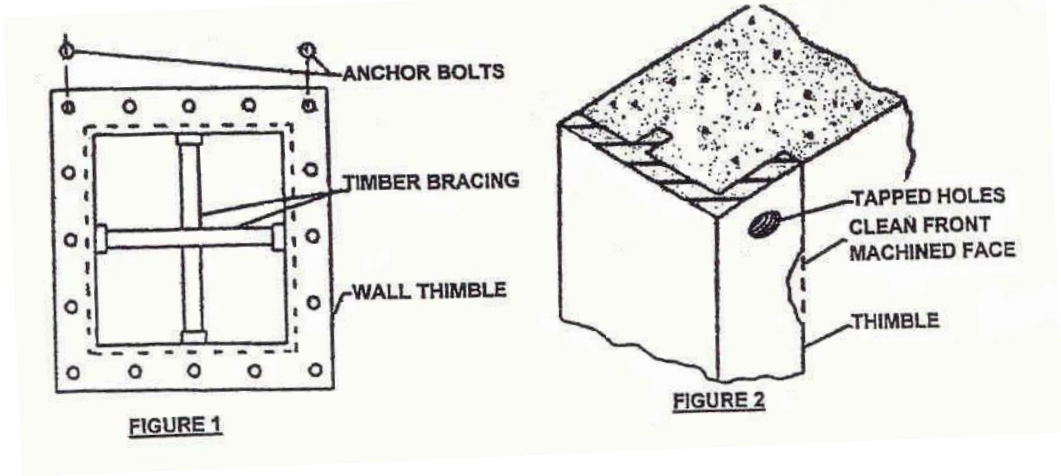


FIGURE 1 FIGURE 2

EXHIBIT B – CONTRACTOR'S QUOTE

R.L. REIMERS COMPANY
GENERAL CONTRACTORS

April 17th, 2024

Tralee Whitley
Clackamas County Procurement Division
2051 Kaen Rd
Oregon City, OR 97045

RE: Bid Proposal for Tri-City Gate Replacement RFQ #2024-20

R.L. Reimers is pleased to submit the following information for the above referenced quote.

Company Experience:

- Kellogg Creek WRRF Aeration Basin Improvements, 2023: Setup a complete plant bypass to isolate the influent channel of the Aeration Basins for concrete repair. Flows ranged from 1-8.6 MGD and were managed by utilizing two Flygt electric submersibles with a diesel standby.

- Bolton Pump Station Rehabilitation and Upgrades Project, 2022: Setup bypass pumping system to isolate the influent wet well for coating repair. The flows at the station were up to 3,100 GPM and managed by utilizing a Fygt electric submersible with a diesel standby.

- Dallas WWTP Influent Pump Station Repairs, 2021: Setup a complete plant bypass to isolate the influent pump station wet well for pump repairs. Flows ranged from 3-8 MGD and were managed by utilizing two diesel pumps.

- Woodburn Mill Creek Pump Station Improvements, 2020: Setup bypass pumping to isolate the influent wet well. The flows at the station were up to 6,000 GPM and managed by utilizing a Flygt electric submersible with a diesel standby.

- Lake Oswego Marylhurst Pump Station, 2019: Setup and managed bypass pumping to isolate the entire pump station for complete replacement. The flows at the station were up to 2,000 GPM and were managed by an Flygt electric submersible with diesel backup.

Preliminary Bypass Plan:

With the very large range of flows to manage on this project, we have two separate options on how to setup the plan. The first is meets the layout shown on the RFQ while the second deviates from those. The price for each option is outlined in the **Not-to-Exceed Price** section of this proposal.

- Per RFQ Design Option: We will setup four diesel driven pumps at the Effluent Box, each capable of 3,200 GPM at 40' TDH with the fourth pump meeting the N+1 redundancy. From this effluent box, we will manifold all pump discharges together and run a single 18"

HDPE DR17 pipeline to the downstream side of gates at the CCB. There will be a road ramp supplied at the Blower Building Driveway and the pipe will run on the edge of the up against the curb. We will valve the pipe at the CCB to alternate between the two CCBs to complete the gate replacements. The 60" SE line will be plugged with an inflatable plug to isolate the channel. We will have a 1,000-gallon fuel cube feeding the pumps which will allow for the system to run for approximately 3 days. The system will be monitored 24/7 using a Mission Mydro callout system utilizing cellular signal with four Reimers employees on the callout list and can add any WES staff desired. The system will monitor levels utilizing a pressure transducer and call-out on any pump failure or high levels. We will install a flowmeter in the 18" line near the CCB and tie-in to the plant SCADA at the FIT3121 location.

- Deviating from RFQ Design: We will setup three separate Flygt submersibles in basin of Secondary Clarifier No. 1, two capable of handling 2,000 GPM and one capable of handling 3,700 GPM with a diesel backup capable of 3,700 GPM for the N+1 redundancy. In order to get flows into Secondary Clarifier #1 and not back feed #2, we will remove a large section of the weirs along the launder wall. We will then manifold all the pipe together and all pump discharges together and run a single 18" HDPE DR17 pipeline to the downstream side of gates at the CCB. There will be a road ramp supplied at the Blower Building Driveway and the pipe will run on the edge of the up against the curb. We will valve the pipe at the CCB to alternate between the two CCBs to complete the gate replacements. The 60" SE line will be plugged with an inflatable plug to isolate the channel. We will install breakers in open locations of the RAS Pump Station to feed VFDs to run each pump. Each pump will run off a Flygt SmartRun VFD to keep the flows as consistent as possible to the CCB. We will need to core a couple holes in the RAS Pump Station Wall to get temporary conduit and wiring to the pump location. The system will be monitored 24/7 using a Mission Mydro callout system utilizing cellular signal with four Reimers employees on the callout list and can add any WES staff desired. The system will monitor levels utilizing a pressure transducer and call-out on any pump failure or high levels. We will install a flowmeter in the 18" line near the CCB and tie-in to the plant SCADA at the FIT3121 location.

Experience of Staff:

- Ross Meyer, Project Manager: 20 years of experience in the Wastewater Industry with over 30 successful bypass pump operations completed. Involved in all the bypass's listed in the **Company Experience** section.
- Jason Charlson, Superintendent: 7 years of experience in the Wastewater Industry and involved in all bypass's listed in the **Company Experience** section.
- Blair Duke, Foreman: 5 years of experience in the Wastewater Industry and involved in all bypass's listed in the **Company Experience** section.

Not-to-exceed Price:

Per RFQ Design Price = $196,175.00

Deviating from RFQ Design Option = $184,475.00

References:

- Mike Idehara, Project Manager with Clean Water Services
  Mobile: (503) 367-9070 Email: ideharam@cleanwaterservices.org

- Steven Rice, PE with Clackamas County – Water Environment Services
  Mobile: (971) 284-3710 Email: srice@clackamas.us

- Jessica Rinner, PE with Clackamas County – Water Environment Services
  Mobile: (503) 484-0365 Email: jrinner@clackamas.us

- Claudia Spaulding, Plant Manager at Dallas WWTP with Jacobs
  Mobile: (503) 623-8174 Email: claudia.spaulding@jacobs.com

Estimated Time to Complete:

The bypass will take approximately 5-6 days to setup/pressure test and would assume that we would want to have a 3-5 day run time on the bypass to prove functionality. Once functionality is proven, the gate replacement would take 6-8 days for both gates and would ideally complete testing after both gates are installed. From setup to breakdown of the bypass we would need roughly 4 weeks with 3 of those weeks on the bypass system.

PERFORMANCE AND PAYMENT BONDS

CLACKAMAS WATER ENVIRONMENT SERVICES

WATER ENVIRONMENT SERVICES
PUBLIC IMPROVEMENT CONTRACT

PERFORMANCE BOND

Bond No.: 109 87 58
Solicitation: #2024-20
Project Name: Tri-City Gate Replacement

The Hanover Insurance Company (Surety #1)
_____(Surety #2)*
** If using multiple sureties*

Bond Amount No. 1: $ 184,475.00
Bond Amount No. 2:* $ _____
Total Penal Sum of Bond: $ 184,475.00

We, R.L. Reimers Co. as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns firmly by these presents to pay unto Water Environment Services ("District"), the sum of (Total Penal Sum of Bond) $ 184,475.00 (Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety); and

WHEREAS, the Principal has entered into a contract with the District, along with the plans, specifications, terms and conditions of which are contained in the above-referenced Project Contract Documents; and

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Performance Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and all authorized modifications of the Contract which increase the amount of the work, the amount of the Contract, or constitute an authorized extension of the time for performance, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal herein shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things undertaken by Contractor to be performed under the Contract, upon the terms set forth therein, and within the time prescribed therein, or as extended as provided in the Contract, with or without notice to the Sureties, and shall defend, indemnify, and save harmless the District and Clackamas County and their elected officials, officers, employees and agents, against any direct or indirect damages or claim of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the Contract by the Principal or its subcontractors, and shall in all respects perform said contract according to law, then this obligation is to be void; otherwise, it shall remain in full force and effect for so long as any term of the Contract remains in effect.

Nonpayment of the bond premium will not invalidate this bond nor shall the District, be obligated for the payment of any premiums.

This bond is given and received under authority of Oregon Revised Statutes Chapter 279C and the Clackamas County Local Contractor Review Board Rules, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES.

Dated this 16th day of May, 2024.

PRINCIPAL: R.L. Reimers Co.

By: _____
Signature Ron Reimers

President
Official Capacity

Attest: _____
Corporation Secretary

SURETY: The Hanover Insurance Company
[Add signatures for each if using multiple bonds]

BY ATTORNEY-IN-FACT:
[Power-of-Attorney must accompany each bond]

Todd Brem
Name

Signature

13810 SW 31st Ct.
Address

Beaverton Type text here OR 97008
City State Zip

503-671-9172 503-671-9172
Phone Fax

CLACKAMAS WATER ENVIRONMENT SERVICES

WATER ENVIRONMENT SERVICES
PUBLIC IMPROVEMENT CONTRACT

PAYMENT BOND

Bond No.: 109 87 58
Solicitation: #2024-20
Project Name: Tri-City Gate Replacement

The Hanover Insurance Company (Surety #1)
_____ (Surety #2)*
* *If using multiple sureties*

Bond Amount No. 1: $ 184,475.00
Bond Amount No. 2:* $ _____
Total Penal Sum of Bond: $ 184,475.00

We, R.L. Reimers Co., as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns firmly by these presents to pay unto Water Environment Services ("District"), the sum of (Total Penal Sum of Bond) $184,475.00 (Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety); and

WHEREAS, the Principal has entered into a contract with the District, along with the plans, specifications, terms and conditions of which are contained in above-referenced Project Contract Documents; and

WHEREAS, the terms and conditions of the contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of contract prices, are made a part of this Payment Bond by reference, whether or not attached to the contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans and specifications, and schedule of contract prices which are set forth in the Contract and any attachments, and all authorized modifications of the Contract which increase the amount of the work, or the cost of the Contract, or constitute authorized extensions of time for performance of the Contract, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal shall faithfully and truly observe and comply with the terms, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things by it undertaken to be performed under said Contract and any duly authorized modifications that are made, upon the terms set forth therein, and within the time prescribed therein, or as extended therein as provided in the Contract, with or without notice to the Sureties, and shall defend, indemnify, and save harmless the District and Clackamas County and their elected officials, officers, employees and agents, against any claim for direct or indirect damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the Contract by the Contractor or its subcontractors, and shall promptly pay all persons supplying labor, materials or both to the Principal or its subcontractors for prosecution of the work provided in the Contract; and shall promptly pay all contributions due the State Industrial Accident Fund and the State Unemployment Compensation Fund from the Principal or its subcontractors in connection with the performance of the Contract; and shall pay over to the Oregon Department of Revenue all sums required to be deducted and retained from the wages of employees of the Principal and its subcontractors pursuant to ORS 316.167, and shall permit no lien nor claim to be filed or prosecuted against the District on account of any labor or materials furnished; and shall do all things required of

the Principal by the laws of this State, then this obligation shall be void; otherwise, it shall remain in full force and effect for so long as any term of the Contract remains in effect.
Nonpayment of the bond premium will not invalidate this bond nor shall the District be obligated for the payment of any premiums.

This bond is given and received under authority of Oregon Revised Statutes Chapter 279C and the Clackamas County Local Contractor Review Board Rules, the provisions of which hereby are incorporated into this bond and made a part hereof.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES:

Dated this 16th day of May, 2024.

PRINCIPAL: R.L. Reimers Co.

By: _____
Signature Ron Reimers

President
Official Capacity

Attest: _____
Corporation Secretary

SURETY: The Hanover Insurance Company
[Add signatures for each if using multiple bonds]

BY ATTORNEY-IN-FACT:
[Power-of-Attorney must accompany each bond]

Todd Brem
Name

_____
Signature

THE HANOVER INSURANCE COMPANY INCORPORATED 1972 NEW HAMPSHIRE

13810 SW 31st Ct.
Address

Beaverton OR 97008
City State Zip

503-671-9172 503-671-9172
Phone Fax

THE HANOVER INSURANCE COMPANY
MASSACHUSETTS BAY INSURANCE COMPANY
CITIZENS INSURANCE COMPANY OF AMERICA

POWERS OF ATTORNEY
CERTIFIED COPY

KNOW ALL MEN BY THESE PRESENTS: That THE HANOVER INSURANCE COMPANY and MASSACHUSETTS BAY INSURANCE COMPANY, both being corporations organized and existing under the laws of the State of New Hampshire, and CITIZENS INSURANCE COMPANY OF AMERICA, a corporation organized and existing under the laws of the State of Michigan, do hereby constitute and appoint

Todd Brem and/or Carol Brem

of **Beaverton, OR** and each is a true and lawful Attorney(s)-in-fact to sign, execute, seal, acknowledge and deliver for, and on its behalf, and as its act and deed any place within the United States, or, if the following line be filled in, only within the area therein designated any and all bonds, recognizances, undertakings, contracts of indemnity or other writings obligatory in the nature thereof, as follows:

Any such obligations in the United States, not to exceed Thirty Million and No/100 ($30,000,000) in any single instance

and said companies hereby ratify and confirm all and whatsoever said Attorney(s)-in-fact may lawfully do in the premises by virtue of these presents. These appointments are made under and by authority of the following Resolution passed by the Board of Directors of said Companies which resolutions are still in effect:

"RESOLVED, That the President or any Vice President, in conjunction with any Vice President, be and they are hereby authorized and empowered to appoint Attorneys-in-fact of the Company, in its name and as its acts, to execute and acknowledge for and on its behalf as Surety any and all bonds, recognizances, contracts of indemnity, waivers of citation and all other writings obligatory in the nature thereof, with power to attach thereto the seal of the Company. Any such writings so executed by such Attorneys-in-fact shall be as binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company in their own proper persons." (Adopted October 7, 1981 - The Hanover Insurance Company; Adopted April 14, 1982 - Massachusetts Bay Insurance Company; Adopted September 7, 2001 - Citizens Insurance Company of America)

IN WITNESS WHEREOF, THE HANOVER INSURANCE COMPANY, MASSACHUSETTS BAY INSURANCE COMPANY and CITIZENS INSURANCE COMPANY OF AMERICA have caused these presents to be sealed with their respective corporate seals, duly attested by two Vice Presidents, this **6th** day of **September 2013**.

THE HANOVER INSURANCE COMPANY
MASSACHUSETTS BAY INSURANCE COMPANY
CITIZENS INSURANCE COMPANY OF AMERICA

Robert Thomas, Vice President

Joe Brenstrom, Vice President

THE COMMONWEALTH OF MASSACHUSETTS)
COUNTY OF WORCESTER) ss.

On this **6th** day of **September 2013** before me came the above named Vice Presidents of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, to me personally known to be the individuals and officers described herein, and acknowledged that the seals affixed to the preceding instrument are the corporate seals of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, respectively, and that the said corporate seals and their signatures as officers were duly affixed and subscribed to said instrument by the authority and direction of said Corporations.

BARBARA A. GARLICK
Notary Public
Commonwealth of Massachusetts
My Commission Expires Sept. 21, 2018

Barbara A. Garlick, Notary Public
My Commission Expires September 21, 2018

I, the undersigned Vice President of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, hereby certify that the above and foregoing is a full, true and correct copy of the Original Power of Attorney issued by said Companies, and do hereby further certify that the said Powers of Attorney are still in force and effect.

This Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America.

"RESOLVED, That any and all Powers of Attorney and Certified Copies of such Powers of Attorney and certification in respect thereto, granted and executed by the President or any Vice President in conjunction with any Vice President of the Company, shall be binding on the Company to the same extent as if all signatures therein were manually affixed, even though one or more of any such signatures thereon may be facsimile." (Adopted October 7, 1981 - The Hanover Insurance Company; Adopted April 14, 1982 - Massachusetts Bay Insurance Company; Adopted September 7, 2001 - Citizens Insurance Company of America)

GIVEN under my hand and the seals of said Companies, at Worcester, Massachusetts, this 16th day of May 2024.

THE HANOVER INSURANCE COMPANY
MASSACHUSETTS BAY INSURANCE COMPANY
CITIZENS INSURANCE COMPANY OF AMERICA

J. Michael Pete, Vice President