

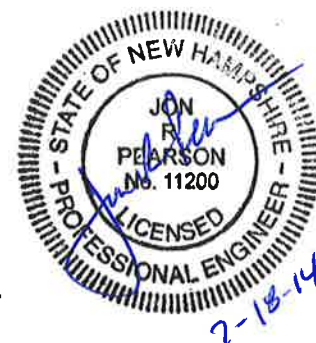
CITY OF PORTSMOUTH, NEW HAMPSHIRE

ADDENDUM NO. 2

To

PRIMARY CLARIFIER AND GRAVITY THICKENER REPLACEMENT

BID NO. 03-15



The following changes and additional information are hereby made part of the Contract Documents.

ANNOUNCEMENTS:

1. A pre-bid meeting was held on Monday July 14, 2014 at 1:30 pm at the Peirce Island Wastewater Treatment Facility. Meeting minutes and a list of attendees are provided in Attachment A to this Addendum.

SPECIFICATIONS

SECTION 00015 – TABLE OF CONTENTS

1. Page 00015-iii. Insert the following after “Existing Gravity Thickener Dome Shop Drawing”:

“APPENDIX E

Existing Aerated Grit Chamber Mechanical Drawing”

BID:

1. Page A-3.4. Delete the “Bid Schedule” and replace it with the attached “Bid Schedule”.

SECTION 01015 – SEQUENCE OF CONSTRUCTION OPERATIONS

1. Page 01015-4. Delete Paragraph 4.i.8 beginning “For the replacement of the gravity thickener mechanism...” and replace with the following:
 - “8. The existing aluminum dome cover on the existing gravity thickener shall not be removed to complete the work. The door and skin panels on the face of the dormer with the door may be removed and reinstalled with new stainless steel fasteners if necessary. Any damage to the dome or appurtenances of the cover structure resulting from the removal of the existing mechanism and installation of the new mechanism is to be repaired by the Contractor at no additional cost to the Owner.”
2. Page 01015-5. Delete Paragraph 4.i.9 in its entirety and replace with:

“Prior to removal or disassembly of the gravity thickener cover door or dormer face panel, a plan shall be submitted to the Engineer, in accordance with Section 01300. The submitted plan shall include the planned approach for removal and reinstallation of the

door or dormer face panel by the Contractor. The review will be only for information of the Owner and third parties for an overall understanding of the project relating to method of removal, handling, storing and re-installation. The Contractor shall remain responsible for the adequacy and safety of the means, methods and sequencing of construction and repair of damage to the door or other part of the cover caused by removal, handling, storage and reinstallation.”

3. Page 01015-5. Insert the following paragraph as Paragraph 4.i.12:

“12. The Gravity Thickener mechanism shall be operated for a minimum of one week prior to beginning work on a Primary Clarifier.”

4. Page 01015-5. Insert the following paragraph as Paragraph 4.i.13:

“13. The first Primary Clarifier mechanism to be replaced shall not be operated until the drive for the second Primary Clarifier has been delivered to the project site. The first Primary Clarifier mechanism to be replaced shall be operated for a minimum of one week prior to beginning work on the second Primary Clarifier.”

SECTION 01063 – MISCELLANEOUS REQUIREMENTS

1. Page 01063-1. Insert Paragraph 1.02.C as follows:

“C. The Contractor shall monitor the groundwater levels daily in the monitoring well while a clarifier, or thickener, or Primary Clarifier Influent Distribution Box is out of service. If the groundwater is less than 2 feet below the elevations noted in Paragraph 1.02.B for the out of service structure, the Contractor shall survey the monitoring points on the out of service structure established during the pre-construction survey to identify if any movement of the structure is observed. If movement is observed, the Contractor shall implement actions, such as filling the empty tank, to prevent further movement.”

SECTION 01151 – MEASUREMENT AND PAYMENT

1. Page 01015-4. Delete Paragraph 1.04.D through 1.04.E and replace with the following:

“D. Bid Item 4: Diesel Fuel

1. The Contractor shall include the lump sum allowance of \$50,000 for diesel fuel necessary for the operation of the temporary bypass pumps specified in Section 02602. The lump sum price for this item as established in the BID as an estimated figure to facilitate comparison of bids. The actual amount to be paid for under this item shall be the amount actually invoiced for the diesel fuel.
2. Payment to the Contractor under this item will be based on invoices for diesel fuel used by the bypass pump system without any Contractor or Subcontractor mark-up.

E. Bid Item 5: Mobilization

1. The lump-sum price for this item shall constitute full compensation for initiating the contract, exclusive of the cost of materials, and for mobilizing all machinery, tools, and other equipment necessary to carry on and complete the work.

2. The lump-sum price for this item shall not exceed five percent (5%) of the total amount of Items 1 through 3 as shown in the Bid. Payment for 75-percent of this item shall be payable when the Contractor is operational on site. For purposes of this policy, "Operational" shall mean the substantial commencement of work on site. The remaining 25-percent of this item shall be payable when the Contractor is fully demobilized from the project site.

F. Extra Work:

1. Extra work, if any, shall be performed and paid for in accordance with Article 17 of the General Conditions. Claims for extra work shall be made in accordance with Article 21 of the General Conditions."

SECTION 01390 – PRE- AND POST-CONSTRUCTION SURVEYS

1. Page 01390-1. Delete "corners of structures and structure foundations both front and rear" in Paragraph 2.01.A and replace with "elevation at 6 points around the perimeter of each primary clarifier and the gravity thickener. Mark the locations on the structure during the pre-construction survey and re-survey the same points during the post-construction survey."
2. Page 01390-2. Delete Paragraph 2.01.B in its entirety.
3. Page 01390-2. Delete "(4)" in Paragraph 2.01.C and replace with "(6)".
4. Page 01390-2. Add "in pre- and post-construction surveys" at the end of Paragraph 2.01.C.
5. Page 01390-2. Delete "The contour interval shall be 1 foot." in Paragraph 2.01.D.

SECTION 02602 – TEMPORARY BYPASS PUMPING

1. Page 02602-1. Delete "hydraulic calculations and" in Paragraph 1.02.E.
2. Page 02602-2. Delete "Calculations of static head, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted); System curve with suction lift performance" in Paragraph 1.03.C.6 and replace with "Pump curves showing pump operating range"
3. Page 02602-2. Delete Paragraph 1.03.C.11.
4. Page 02602-2. Delete Paragraph 1.03.C.12.
5. Page 02602-3. In Paragraph 1.04.B delete "The pumps may be electric or diesel powered" and replace with the following:

"B. The duty pumps shall be electrically powered. High-flow and standby pumps shall be diesel powered."
6. Page 02602-3. Delete Paragraph 1.04.B.1 and replace with the following:

"1. For the electric pumps required, the Owner shall pay for the electricity costs to operate the pumps."

7. Page 02602-4. In the second sentence of Paragraph 1.05.A, replace “a” with “one or both”.

8. Page 02602-5. Add the following sentence to the end of Paragraph 1.05.A:

“Rather than using the existing slide gates to isolate the Aerated Grit Chambers from the Primary Clarifier Influent Distribution Box, a plug may be used on the 36” pipe connecting the two structures.”

9. Page 02602-5. Delete Paragraph 1.05.B.1 through 1.05.B.4 and replace with the following:

“1. The estimated range of flows the wastewater treatment facility is expected to receive is as follows:

Minimum Flow: 1.00 MGD

Average Flow: 5.23 MGD

Peak Flow: 22.00 MGD

Two discharge points are required while one of the primary clarifiers is out of service because one primary clarifier cannot treat 22 MGD. The discharge points are the online primary clarifier and the Primary Clarifier Effluent Distribution Box. Flow to the operating primary clarifier will be maximized before any flow is pumped to the Primary Clarifier Effluent Distribution Box. The amount treated by a single primary clarifier will be determined in the field and approved by the Owner. The pump system shall have the capability of sending all 22 MGD to the operating primary clarifier(s) and, using separate pumps, up to 11 MGD to the Primary Clarifier Effluent Distribution Box. The following scenarios are envisioned:

- a. If the Primary Clarifier Influent Distribution Box is out of service at the same time as a primary clarifier, the bypass pumping system shall have capacity to pump up to 22.0 MGD to the operational primary clarifier and up to 11.0 MGD to the Primary Clarifier Effluent Distribution Box. Flow to the operating primary clarifier will be maximized before any flow is pumped to the Primary Clarifier Effluent Distribution Box. The use of valves and wyes on the bypass pumping system discharge to split the flow between the operational primary clarifier and the Primary Clarifier Effluent Distribution Box will not be allowed.
- b. If a primary clarifier is out of service and the Primary Clarifier Influent Distribution Box is operational, the bypass pumping system shall have capacity to pump up to 11.0 MGD to the Primary Clarifier Effluent Distribution Box. Flow to the operating primary clarifier will be maximized before any flow is pumped to the Primary Clarifier Effluent Distribution Box.
- c. If the Primary Clarifier Influent Distribution Box is out of service and both primary clarifiers are operational, the bypass pumping system shall have capacity to pump up to 11.0 MGD to each primary clarifier, up to a total capacity of 22.0 MGD.”

10. Page 02602-5. After Paragraph 1.05.B.7 insert the following:

“8. Flows discharged by the temporary bypass pumping system to a primary clarifier shall be discharged to the influent well at the center of the clarifier with suitable velocity dissipation to prevent resuspension of settled sludge”

SECTION 06130- FIBREGLASS DENSITY CURRENT BAFFLES

1. Page 06310-5. Delete Paragraph 2.03.B.3 in its entirety and replace with the following:

“ 3. Provide baffle panels mounted at a 45-degree angle from the vertical concrete tank walls with a minimum horizontal projection of 32 inches from the tank wall. Baffles to be located 3 feet below the bottom of the scum baffle or as directed by the Engineer.”

SECTION 09800 – PROTECTIVE COATING

1. Page 09800-1. In Paragraph 1.03.B, after the word “qualified” insert “and authorized by coating manufacturer”.

SECTION 09941- FIELD PAINTING

1. Page 09941-3. After Paragraph 1.05.A.7, insert the following:

“ 8. Submit notarized statement signed by paint manufacturer that Painting Subcontractor is authorized to apply the paint coatings submitted.”

SECTION 11361 – SLUDGE THICKENING EQUIPMENT – BRIDGE SUPPORTED

1. Page 11361-6. At the end of Paragraph 2.01.D insert “Note that Specification Section 01015 does not permit the existing aluminum dome to be removed for installation of the new thickener mechanism. The mechanism and drive shall be supplied in pieces sized to fit through the exiting door or dormer opening depending on the Contractor’s planned installation method.”
2. Page 11361-11. Insert the following as Paragraph 2.13:

“2.13 SCUM SKIMMER AND BAFFLE:

 - A. Provide a scum skimming device, scum trough, and continuous fiberglass baffle scum baffle around the tank perimeter on the inboard side of effluent weir. Scum trough and continuous fiberglass baffle and mounting brackets and fasteners to be provided by the thickener manufacturer, turned over to the Owner in accordance with the manufacturer’s long term storage requirements, and later installed under a separate contract.
 - B. Provide fiberglass scum baffle as indicated on the drawings and as specified in Section 06129.
 - C. Provide an automatic skimming device and scum trough, designed to collect and automatically convey floating material into a scum trough. Support the skimming device from rake arm consisting of fixed and hinged skimming blades. The fixed blade to cover the radius of tank from influent well to hinged blade. Make hinged blade of steel, the width of scum trough with a steel wearing plate on its outer edge, and with neoprene wipers on bottom. Make hinged blade constantly press against scum baffle of tank by spring to keep scum baffle scraped clean. Enclose spring in a weatherproof housing. Hinged blade to trail scum arm by not less than 18-in and be adjustable to vary quantity of liquid discharged with scum or to raise hinged blade above tank water surface if skimming is not desired. Provide a spring device to press hinged

scum blade against scum baffle. All support bearings to be self-lubricating and suitable for submersion.

- D. Fabricate scum trough (minimum 48-in by 48-in) of steel plate supported from tank wall and scum baffle. Locate top of beach 1/2 to 3/4 inches above maximum water surface indicated on drawings. Provide a 6 inch flanged outlet connection at low point of sloping trough bottom.
- E. All fasteners and anchors to be 316 stainless steel and provided by the manufacturer.
- F. Coordinate work of fiberglass scum baffle with scum trough supplier.”

APPENDIX E – EXISTING AERATED GRIT CHAMBER MECHANICAL DRAWING

- 1. Insert the attached drawing “2M-2 Aerated Grit Chamber Plans, Section & Details” as Appendix E.

DRAWINGS:

SHEET NO. 00 G-002 – OVERALL SITE PLAN – AREAS OF WORK

- 1. Delete the note reading “CONTRACTOR STAGING AND LAYDOWN AREA AVAILABLE UNTIL SEPTEMBER 1, 2015” and replace it with “CONTRACTOR STAGING AND LAYDOWN AREA AVAILABLE UNTIL OCTOBER 1, 2015. CONTRACTOR MAY BE ASKED TO RELOCATE STAGING AND LAYDOWN AREA TO ANOTHER AREA ON PEIRCE ISLAND PRIOR TO OCTOBER 1, 2015.”

SHEET NO. 55-DD-101 – GRAVITY THICKENER NO.1 PLANS & SECTIONS – DEMOLITION

- 1. Delete the two notes that read “Remove and relocate exist. dome and odor control ductwork during thickener renovation. Replace after new thickener mechanism is installed.” and replace the two notes with “Refer to Specification Section 01015 for the extent of allowable modifications to the existing dome.”

SHEET NO. 55 D-101 - GRAVITY THICKENER NO.1 PLAN & SECTION – MODIFICATION

- 1. Delete Sheet No. 55 D-101 and replace it with the attached Sheet No. 55 D-101 dated July 14, 2014.

QUESTIONS:

- 1. Question: Will there be a bid item for rock removal and disposal?

Answer: A review of the photographs from construction of the Primary Clarifier Influent Distribution Box shows that encountering rock is not expected. If rock is encountered it will be treated as extra work.

- 2. Question: Does the office for Engineer trailer need to be 12' wide?

Answer: Yes

3. Question: Are the pre- and post-construction surveys necessary?

Answer: Refer to the revisions to Specification Section 01390 contained in this Addendum.

4. Question: Is there a limit as to how fast a primary clarifier can be dewatered?

Answer: A primary clarifier can be dewatered in no less than 8 hours.

5. Question: Should the Contractor provide more than 11 MGD temporary bypass pumping capacity to the Primary Clarifier Effluent Distribution Box?

Answer: Refer to revisions to Specification Section 02602 contained in this Addendum.

AECOM
July 18, 2014

City of Portsmouth, NH
Department of Public Works

Pre-Bid Meeting Minutes and List of Attendees

AECOM Water

701 Edgewater Dr., Wakefield, Massachusetts 01880
T 781.246.5200 F 781-245-6293 www.aecom.com

Memorandum

Job No. 60323328
Date: July 14, 2014
To: File (conference sign in list attached)
From: Erik Meserve
Subject: City of Portsmouth, NH Bid No. 03-15 Primary Clarifier and Gravity Thickener Replacement Project Pre-Bid Conference

In accordance with the bidding procedure stated in the Invitation to Bid, on July 14, 2014, a Pre-Bid Conference for the Primary Clarifier and Gravity Thickener Replacement Project was held at the Peirce Island WWTF. A copy of the attendees list is attached. Following the conference a walkthrough of the WWTF was held.

General Discussion

Following an introduction of the representatives of the City and AECOM, AECOM presented an overview of the project. The Scope of the Work was reviewed, and the following major points were noted:

1. The bid opening date is July 24, 2014. Bids are to be received at the Finance/Purchasing Department, City Hall. Bids must be written and be within a separate sealed envelope noting the name of the project and the bidder's name. If bids are sent via UPS or FedEx, the bids must be within an envelope inside the UPS or FedEx package.
2. The contract documents are available through the City's Purchasing Department.
3. It was noted that all questions during the bid phase must be provided in writing and will be addressed in an addendum. No oral questions will be responded to. Questions must be received at least seven days before the bid date. If required, the final addenda will be issued five days before the bid date.
4. There are a number of work limitations that will be imposed on the Contractor (such as the number of units/pieces of equipment that can be taken off line at a time) due to the fact that the WWTF must maintain operation and meet permit during construction. Specification Sections 01010, 01015, and 01046 identify a number of these items.
5. Addendum No. 1 has been issued.

Questions

Following the project overview, a question and answer period was held. The questions asked and the answers provided are as follows:

Q1: Where in the primary clarifier should the temporary bypass pump discharge?

A1: Into the centerwell.



PEIRCE ISLAND WWTF
 PRIMARY CLARIFIER AND GRAVITY THICKENER REPLACEMENT
 BID OPENING DATE: JULY 24, 2014

SIGN IN SHEET
 PRE-BID MEETING AND SITE VISIT
 1:30 pm July 14, 2014

Name	Representing	Phone Number	Email
Erik Meserve	AECOM	781 224 6069	erik.meserve@aecom.com
PREET TOTHILL	KEYMONT	603 524 3103	preet.keymont@qgmail.com
MARY McPHEETERS	T. BUCK	207 703 6223	MARY@TBUCKCOU.NET
DAVE SULLIVAN	DESULLIVAN & ASSOC.	603 -474-2484	INFO@DAVIDESULLIVAN.COM
Justin Zalegowski	Luia for Rent	508-439-7458	jzalegowski@rainfirent.com
Andy Culver	Godwin Pumps	207-233-8322	andy@eminc.com
Jon Pearson	AECOM	781-224-6270	Jon.pearson@aecom.com
Terry Demarais	City of Portsmouth	603 766 1421	terry.demarais@cityofportsmouth.com
Doug Titusson	DT Construction Co	781-871-8200	doug@dtandcconstruction.com
Paula Annunzio	City of Portsmouth	603-427-1553	paunania@cityofportsmouth.com

Page A-3.4 Bid Schedule

BID SCHEDULE

Item No.	Estimated Quantity	Brief description; Unit or lump sum price bid in both words and figures	Total Figure
1	Lump Sum	Primary Clarifier and Gravity Thickener Replacement, complete, as described in the contract documents: The Lump Sum (LS) of: _____ dollars and _____ cents	\$ _____
2	20	Disposal of Debris from the Influent Distribution Box and Primary Clarifier Influent Piping, complete, as described in contract documents: Per Cubic Yard (CY): _____ dollars and _____ cents	\$ _____
3	Allowance	Concrete Repair: The Allowance of: Fifty Thousand _____ dollars and _____ No _____ cents	\$50,000.00
4	Allowance	Diesel Fuel: The Allowance of: Fifty Thousand _____ dollars and _____ No _____ cents	\$50,000.00
5	Lump Sum	Mobilization (maximum 5% of Items 1 through 4): The Lump Sum (LS) of: _____ dollars and _____ cents	\$ _____

Total Of Items 1 through 5 inclusively:

_____ dollars

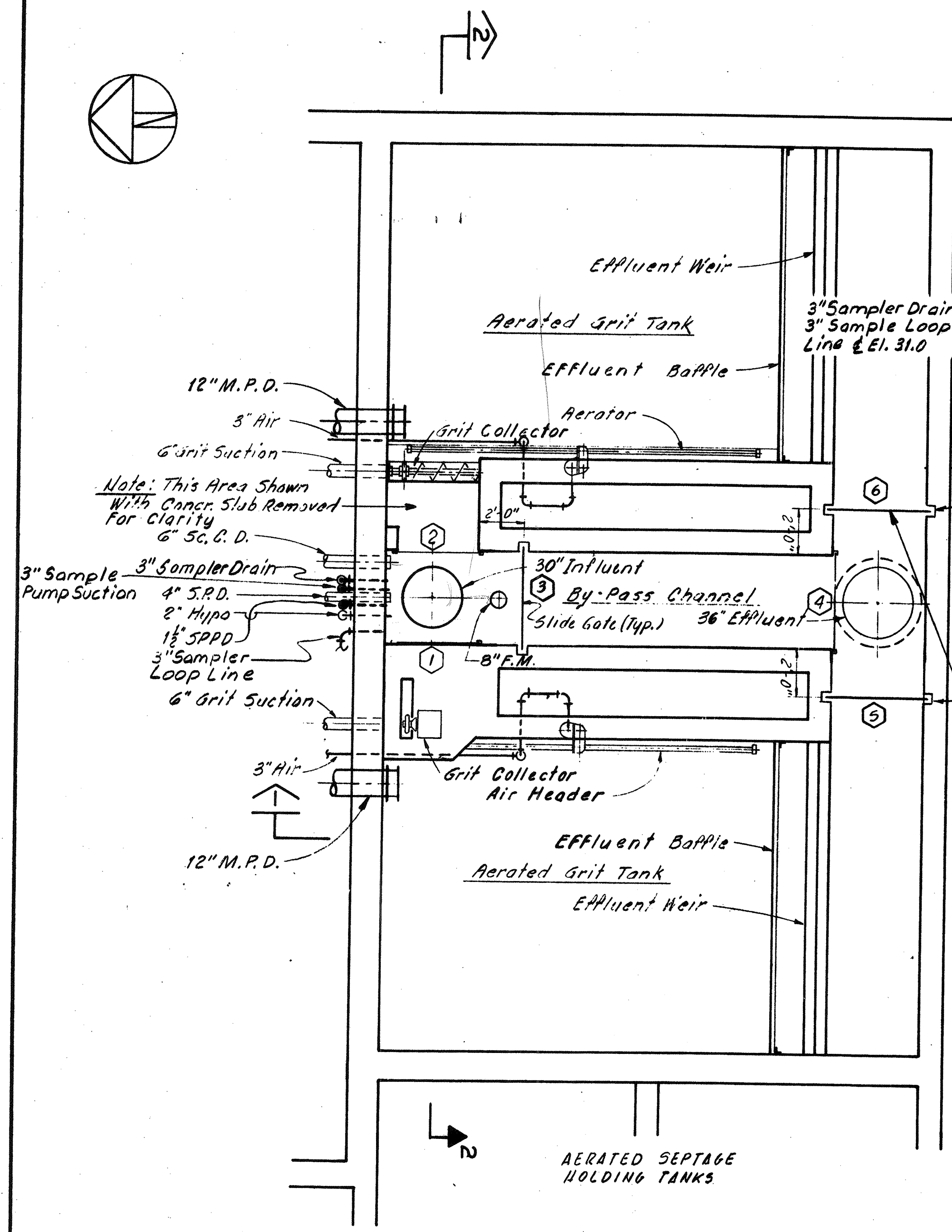
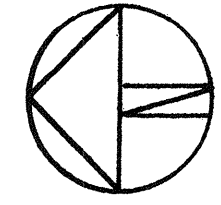
and _____ cents

\$ _____

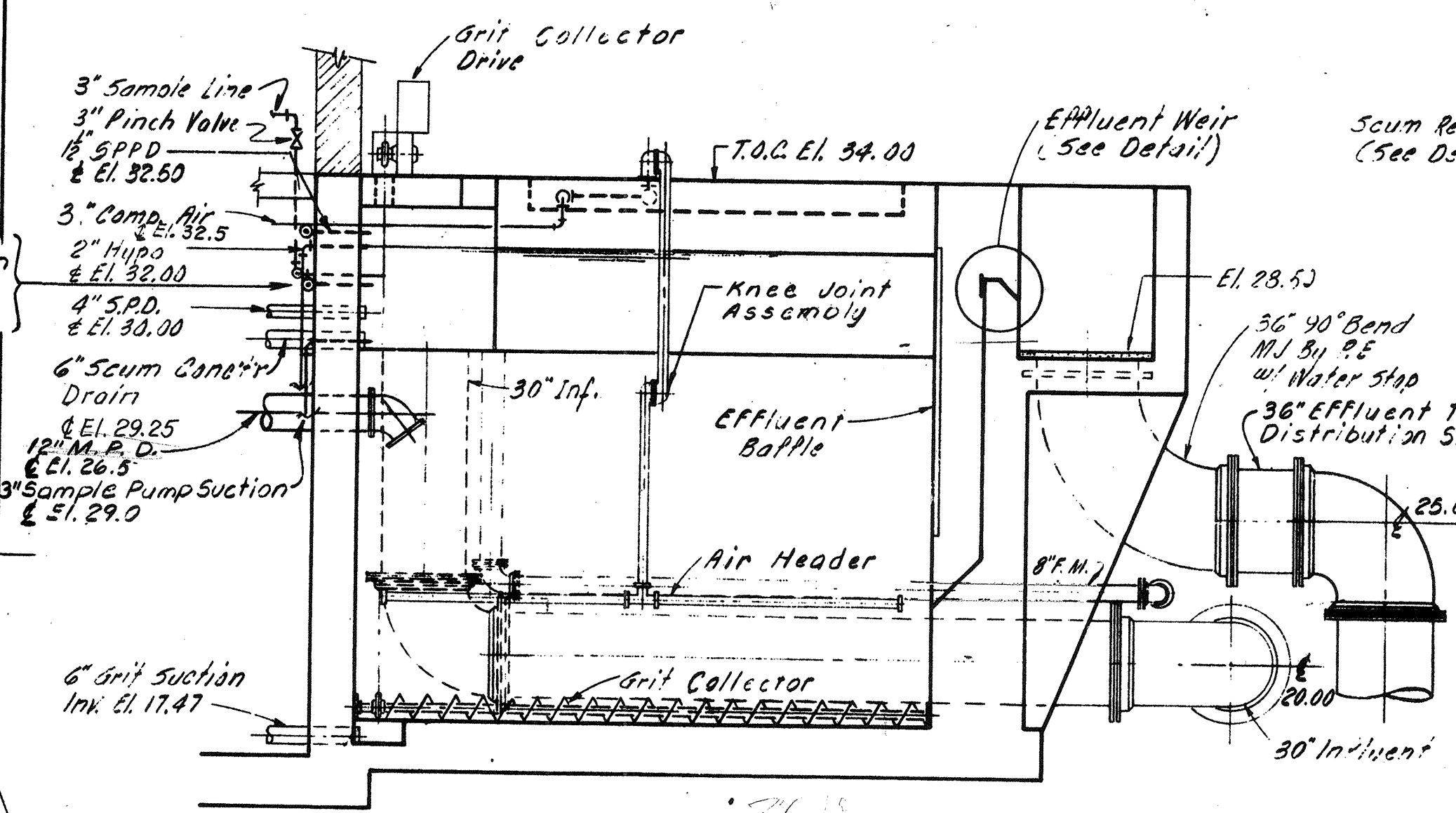
2M-2 Aerated Grit Chamber Plans, Sections & Details

And

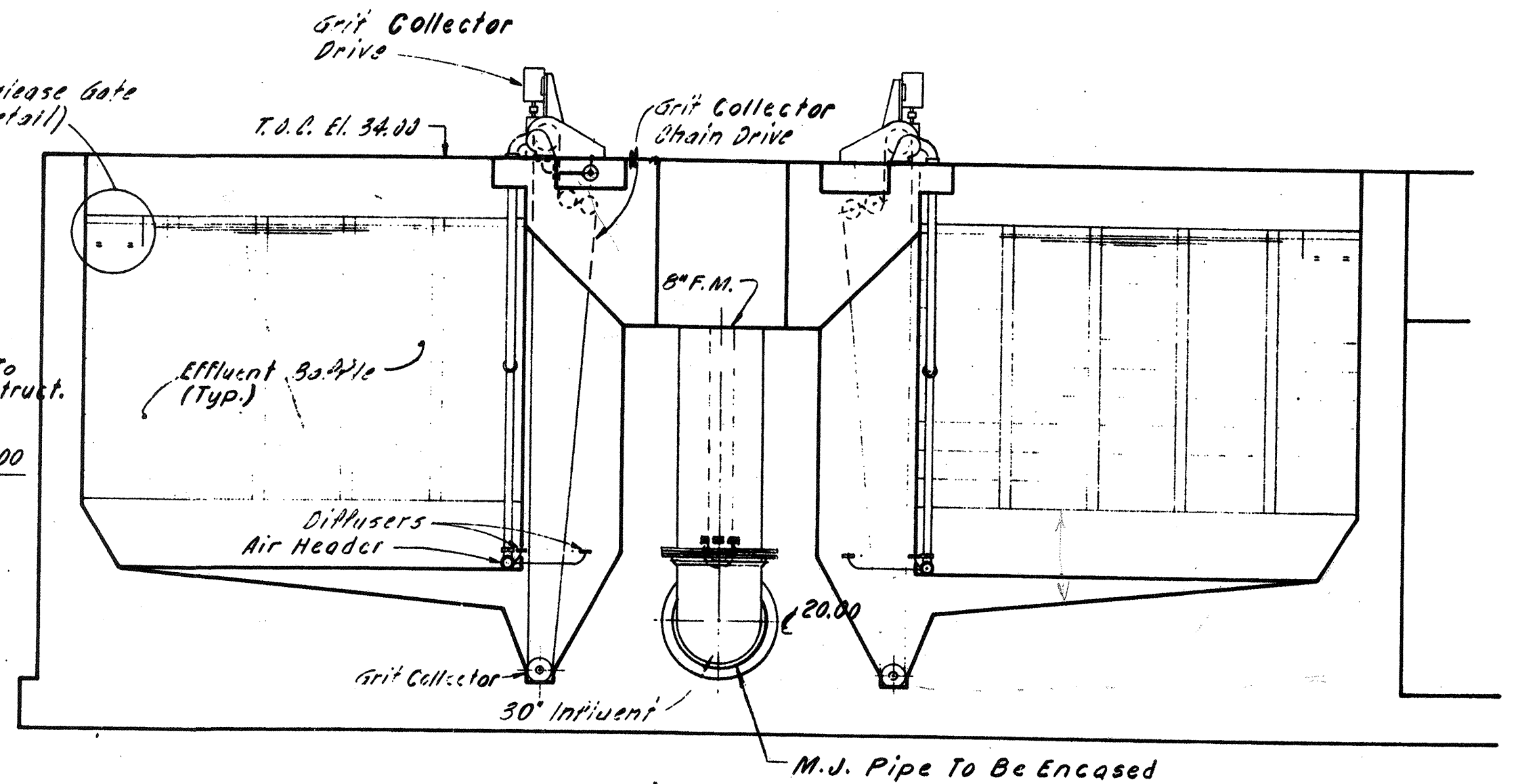
Sheet No. 55 D-101 Gravity Thickener No.1 Plan & Section – Modification



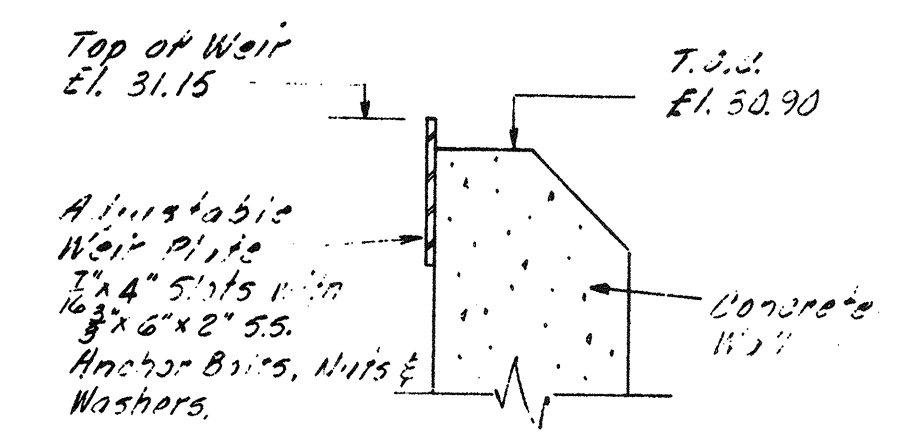
PLAN - AERATED GRIT CHAMBERS
SCALE 1/4" 1'-0"



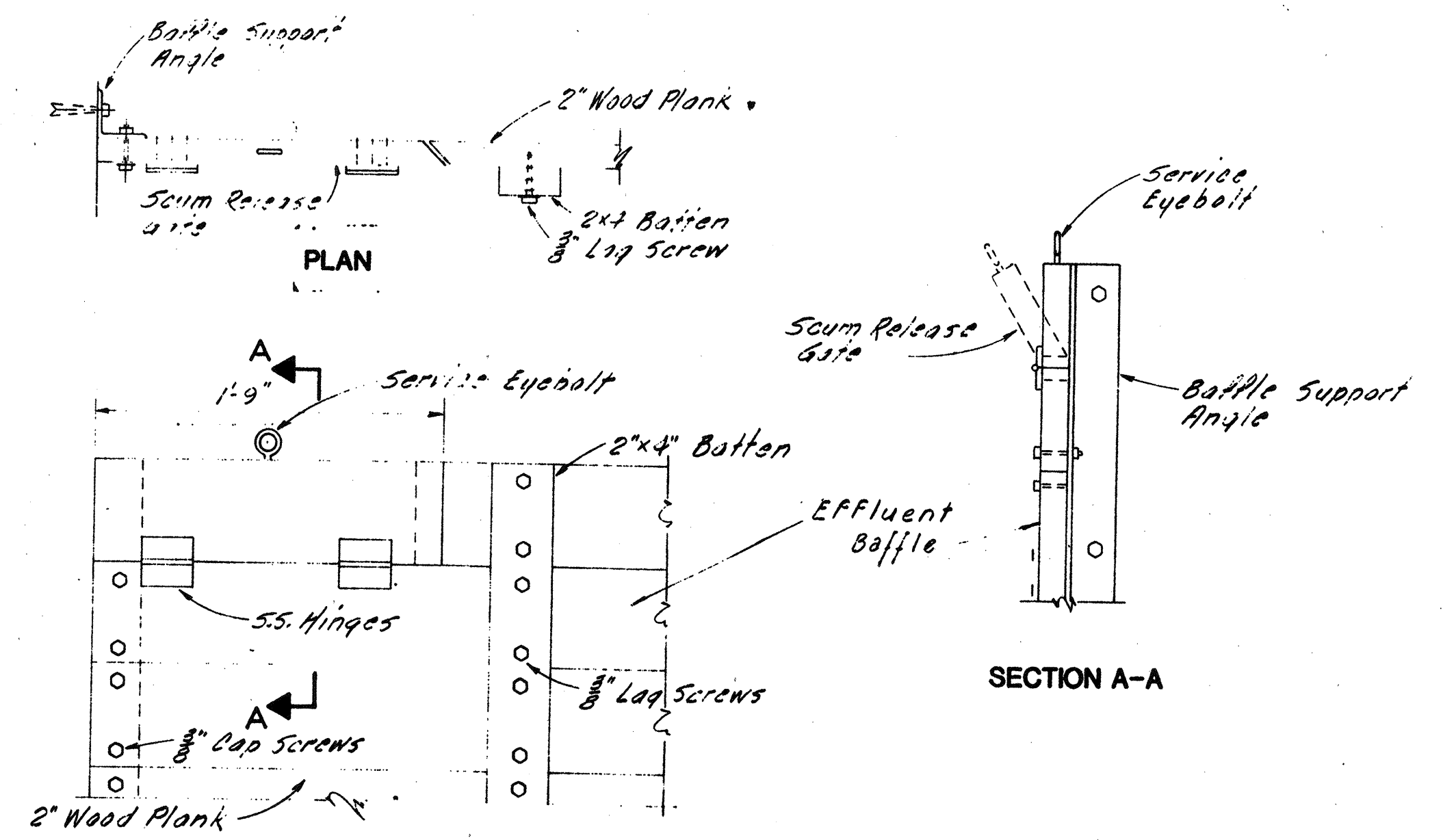
SECTION 1
SCALE 1/4" 1'-0"



SECTION 2
SCALE 1/4" 1'-0"



EFFLUENT WEIR DETAIL
NOT TO SCALE



SCUM RELEASE GATE DETAILS
NOT TO SCALE

NO.	DESCRIPTION	DATE
2	Revised To Record Plan	9/93
1	Drawing Revised	9/89
REVISIONS		

WHITMAN & HOWARD, INC.
45 WILLIAM STREET, WELLESLEY, MASS.

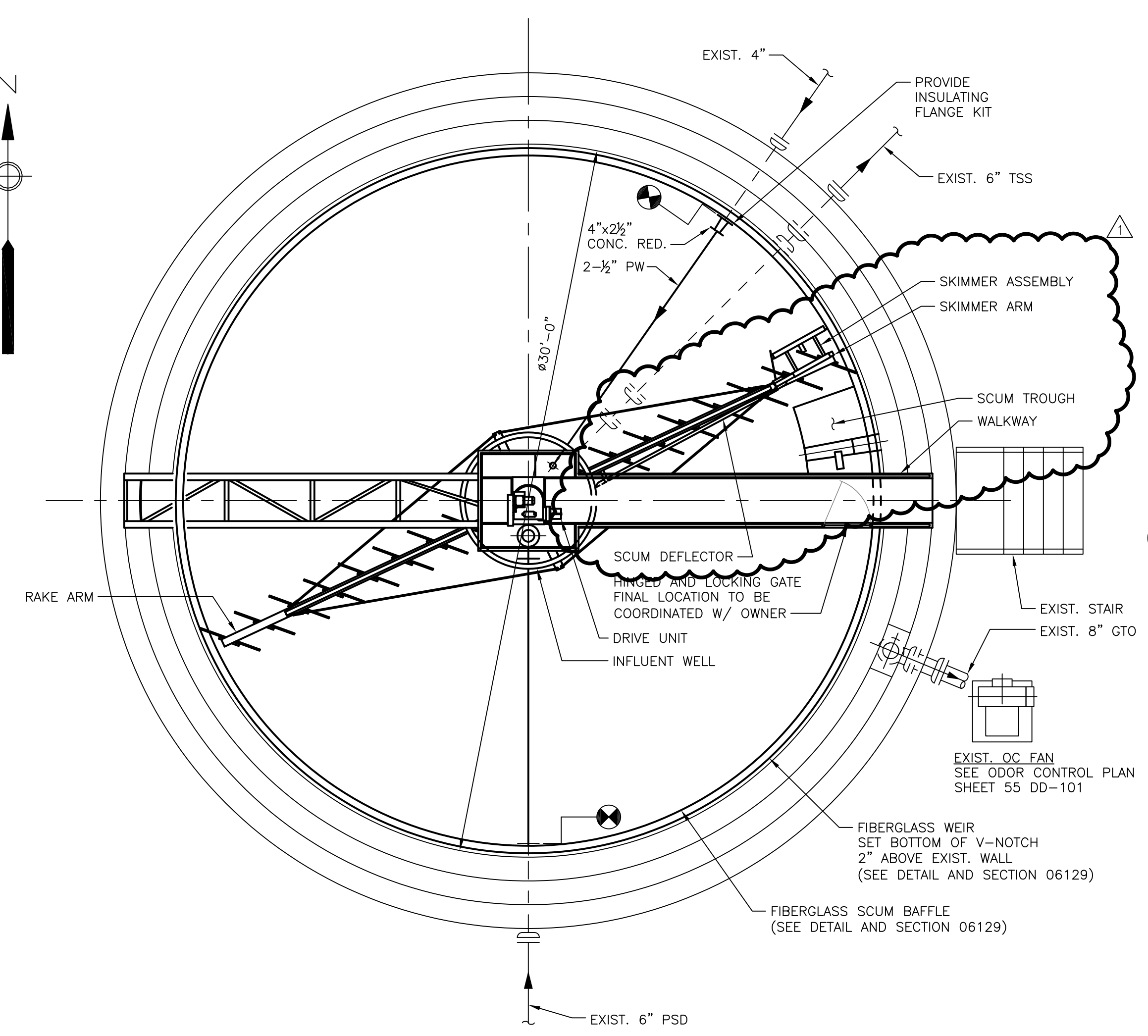
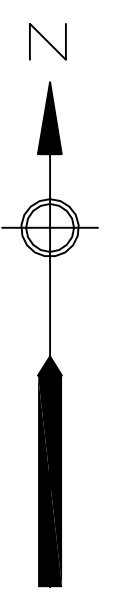


APPROVED				DESIGNED/DRAWN		CHECKED		SCALE		DATE	
[Signature]				T.E.P.		D.T.C.		S.E.S.		AS NOTED	
DRAWING NO. 2M-2				JOB NO. 85-163		CONTRACT NO. # 1		3		SEPT. 1985	
ORIGINAL FULL SIZE DRAWING = 4"				REPRODUCTIONS MAY BE REDUCED SIZE		SHEET 63		OF 106 SHEETS			

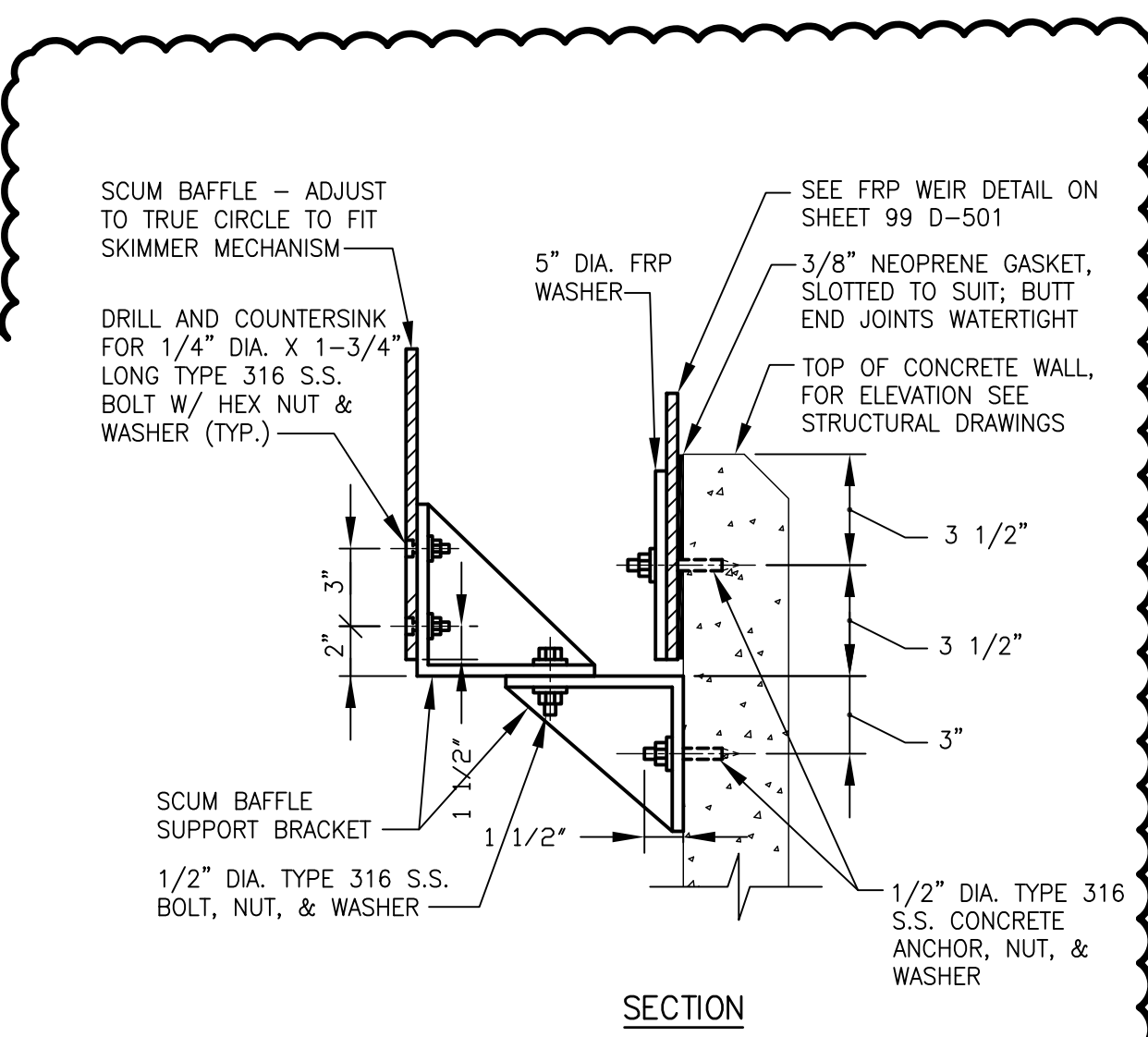
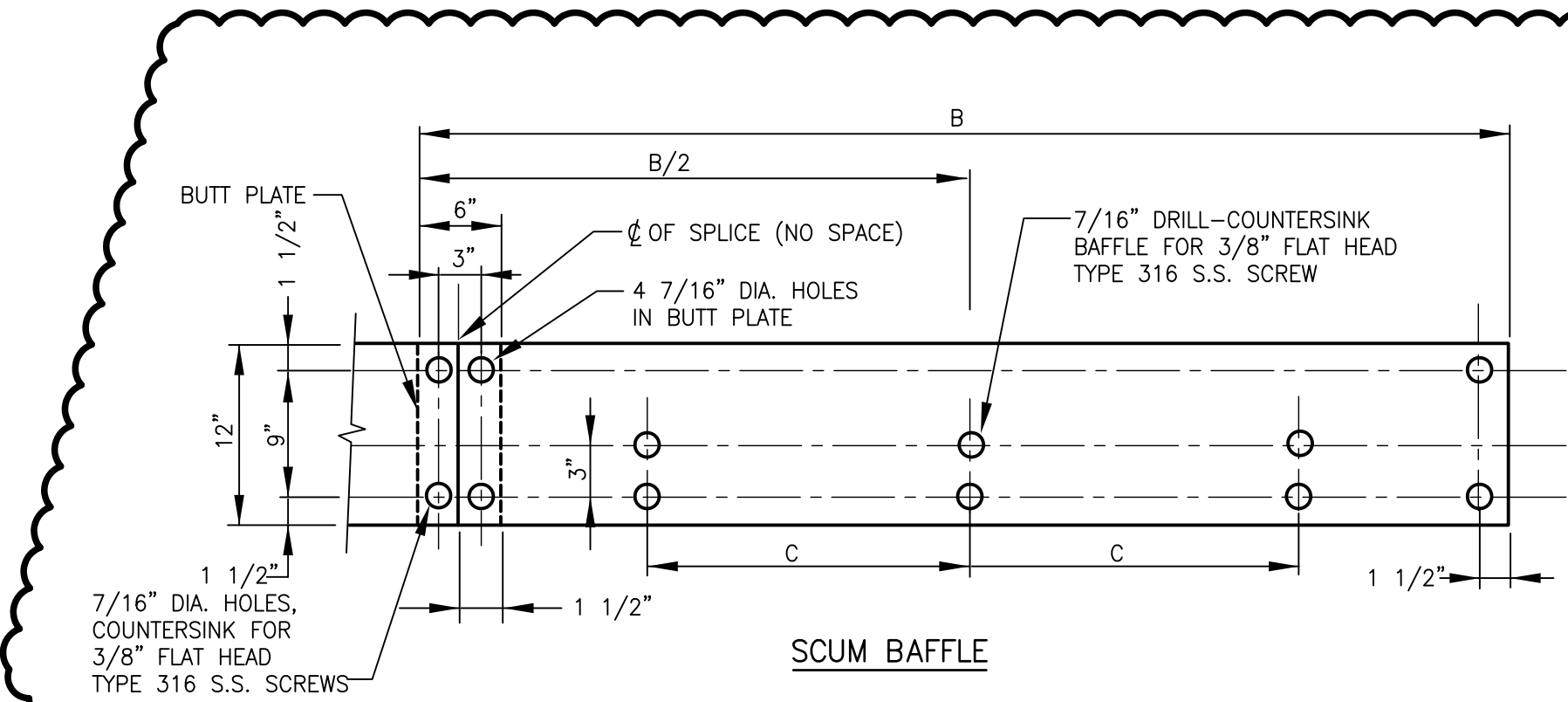
WASTEWATER TREATMENT FACILITY
PORTSMOUTH, N.H.
AERATED GRIT CHAMBERS
PLANS, SECTIONS & DETAILS

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 PLOT DATE: Monday, July 14, 2014 11:19:22 AM

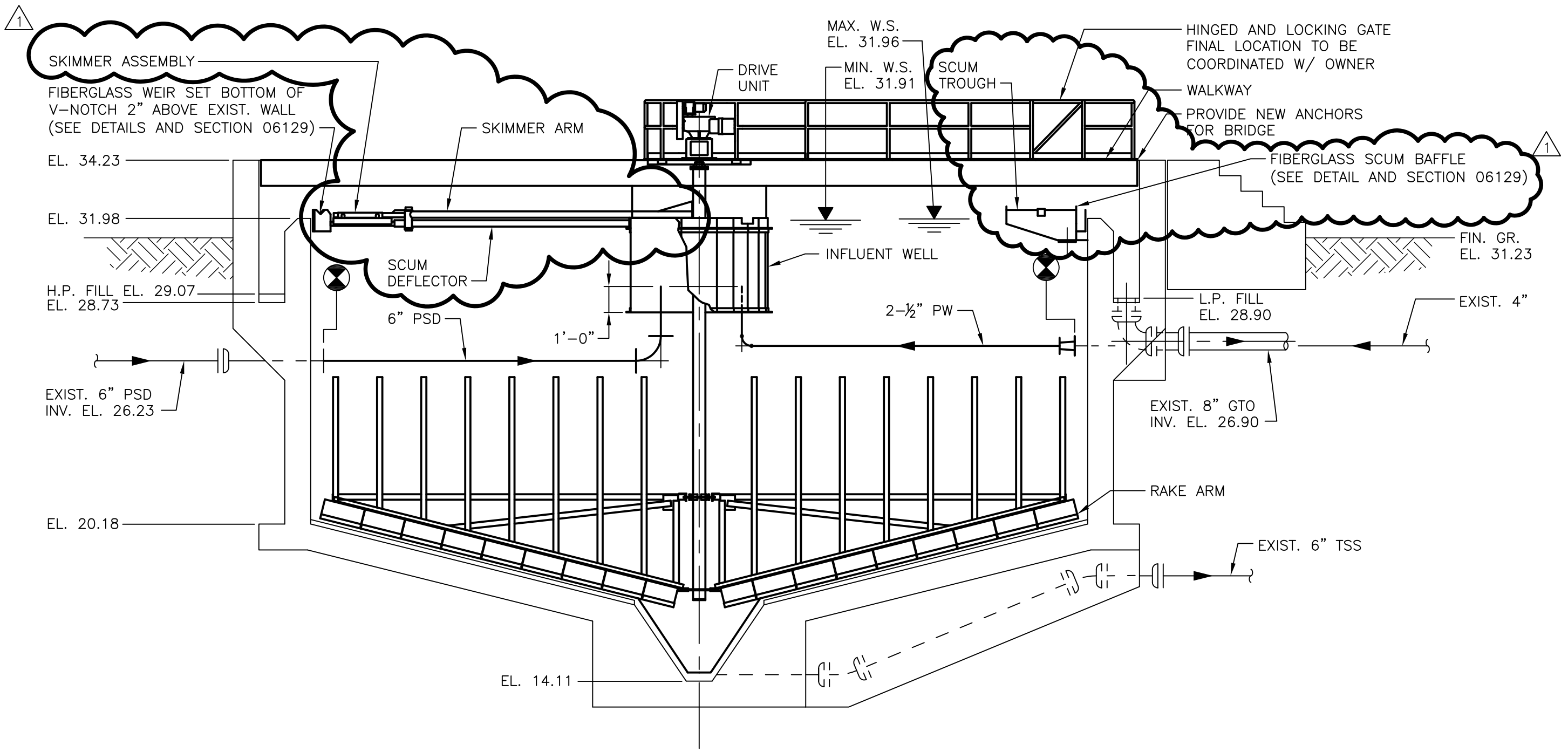
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PLAN
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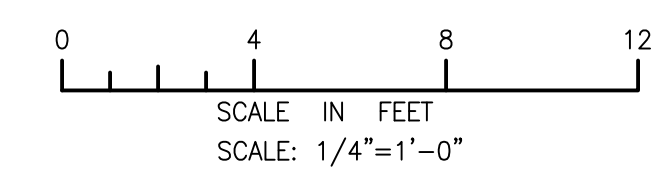


FRP CIRCULAR TANK SCUM BAFFLE
NTS



SECTION 1
SCALE: 1/4"=1'-0"

- NOTES:**
- SEE NOTE ON SHEET 55 DD-101 REGARDING REMOVAL OF EXISTING THICKENER DOME.
 - PROVIDE A SCUM SKIMMER, SCUM TROUGH, FIBERGLASS SCUM BAFFLE, 316 S.S. FASTENERS AND ANCHORS. TURN OVER TO THE OWNER IN ACCORDANCE WITH MANUFACTURER'S LONG TERM STORAGE REQUIREMENTS. THE SCUM SKIMMING SYSTEM TO BE INSTALLED UNDER BID PACKAGE 2.



CITY OF PORTSMOUTH, NH - DEPARTMENT OF PUBLIC WORKS PERCE ISLAND WWTF PRIMARY CLARIFIER AND GRAVITY THICKENER REPLACEMENT		PROJECT NO: 60301525	
GRAVITY THICKENER NO. 1 PLAN & SECTION-MODIFICATION MECHANICAL PROCESS		CAD DWG FILE: 55 D-101	
		DESIGNED BY: D. YURK	
		DRAWN BY: M. BENSON	
		DEPT CHECK: C. GALLIGAN	
		PROJ CHECK: E. MESERVE	
		DATE: JULY 2014	
		SCALE: AS NOTED	
		95 D-101	
AECOM AECOM TECHNICAL SERVICES, INC. 100 WATERLOO ST., SUITE 200 PORTSMOUTH, NH 03801 PHONE (603) 246-6200		7/14/14	MB
		DATE	MADE BY
		MARK	CHECKED
			DESCRIPTION
			SCUM SKIMMER AND BAFFLE
			DY
			REVISIONS