



Water Division · 202 Fleming Hill Road · Vallejo · CA · 94589 · 707.648.4307

October 4, 2018

TO: Prospective Bidders

SUBJECT: ADDENDUM No. 1

FILE: FHWTP Flocculation and Sedimentation Basins 1 & 8 Equipment Upgrade WT7093

The following changes shall be made in the Bid Specifications of the bid documents and plans for the subject project:

This addendum is hereby made a part of the contract documents to the same extent as if they were originally included therein. Receipt of this addendum shall be acknowledged with the bid for FHWTP Flocculation and Sedimentation Basins 1 & 8 Equipment Upgrade WT7093.

BID OPENING:

1. Bid opening remains unchanged. October 11, 2018 at 2:00 p.m.

TIME TO SUBMIT BID QUESTIONS:

1. Page 6 – Item 6 is revised as follows:

The cut off time for submission of bid questions is 4:00 P.M (Pacific Time) on Friday, October 5, 2018. Any questions received after this time will not be responded to.

SPECIFICATIONS:

1. Page 1 – Time of Completion of the Work Paragraph is revised as follows:

Time of completion of the work is 150 calendar days from the date of issuance of the Notice to Proceed by the City.

2. Bid Sheet – Pages 11 through 12;

Replace bid sheet in its entirety by the attached Bid Sheet.

Revisions:

Removed unit price column and adjusted/corrected item numbers.

3. Page 01 35 24–5, Section 1.4 is revised as follows:

1.4 PROJECT SAFETY OVERSIGHT

A dedicated Site Safety Officer shall be on-site at all times during the construction activities to ensure compliance with OSHA requirements and the requirements of this section.

4. Section 01 00 25

Replace this section in its entirety by the attached revised section.

Revisions:

Adjusted/corrected bid item numbers

5. Section 40 23 00 – 2.1(C) is revised as follows:

All pipes shall be Schedule 10, groove-end, stainless steel 316, unless otherwise shown on the plans. Grooved end pipes shall be joined by mechanical pipe couplings. Mechanical pipe couplings shall be self-centering and shall engage and lock in place the grooved pipe and pipe fittings ends in a positive watertight couple. Couplings shall be the rigid grooved type for radius grooved pipe. Coupling assembly shall be securely held together by two or more stainless steel 316 bolts and nuts. Coupling shall hold in place a composition water-sealing gasket designed so that internal water pressure serves to increase the seal's water tightness.

DRAWINGS:

1. Sheets 3 through 8 and 12 through 21 are replaced with the attached Sheets 3 through 8 and 12 through 21.

Revisions:

Sheet 3 and 4: Note 3 revised.

Sheet 5: Revised Notes. Moved Chain and Flight Details to Sheet 7.

Sheet 6: Revised Notes.

Sheet 7: Revised Notes. Moved Chain and Flight Details from Sheet 5.

Sheet 8. Changed Plan View Description. Corrected Basin 1 Stage 3 View.

Sheets 12-20: Corrected cross-references for section views. Updated some

notes.

Sheets 21: Added notes. Combined and modified Details 5 and 6.

ANSWERS TO TIMELY SUBMITTED QUESTIONS:

The following are answers to the timely submitted questions that were not addressed in the above changes to the specifications and/or drawings.

- 1) Question: Bid item 2 – Traffic Control. The work takes place inside the existing plant. What is to be included with this bid Item?

Response: It shall include all required measures to control the traffic within the existing plant. There are scheduled chemical deliveries and other traffic (public visitors, works and postal deliveries). The contractor shall implement measures to minimize interruptions to said traffic due to construction activities such as movement of equipment and materials. Coordination with the Treatment Operations staff will be required.

- 2) Question: What is the anticipated contract award date?

Response: It is anticipated that the contract will go for the City Council approval on November 13th, 2018. With full contract execution approximately 4 weeks after the City Council's approval.

- 3) Question: Are the submittals approved for City provided equipment, and the equipment released to fabrication? If so what is the anticipated delivery date or dates?

Response: All of the submittals for the City provided equipment have been approved. Chain and Flight equipment is already onsite at the plant. Flocculation equipment, scum trough and launders are expected to be delivered by early to mid-December.

- 4) Question: Note 1 of the general notes on drawing 2 requires the use of the operation and maintenance manuals for field verification. Have these manuals been delivered to the City?

Response: Chain and Flight manuals have been delivered to the City. Other manuals are expected to be available couple weeks before or with the delivery of the equipment.

- 5) Question: Does the City's purchase order with the vendors required delivery to the jobsite?

Response: All of the equipment will be delivered to the plant. The equipment may

need to be moved by the contractor from the current location to the staging area after the contractor reviews the inventory and accepts ownership of the equipment.

- 6) Question: Does the City's purchase order with the vendors include the costs for manufacturer's services as required by Section 46 41 33 – 3.2 and 46 43 11 – 3.2? If not, what are the costs that should be included in the associated bid items?

Response: The existing purchase order does not include costs for manufacturer's services as required by the mentioned sections. You may contact the manufacturers to request a quote to provide manufacturers services as per the above mentioned sections.

Flocculation Equipment
Manufacturer: Evoqua
Bearings Manufacturer: JMS Equipment
Local Representative: MISCOWater
Contact Info:

Nate Miller
415-794-0984
nmiller@miscowater.com

Sandy Clarke
925-225-1900
sclarke@miscowater.com

Chain and Flight Equipment
Manufacturer: Brentwood - Polychem
Local Representative: The Coombs-Hopkins Company

Brad Leidecker
925-947-6733 Office
925-948-8987 Direct
925-876-0646 Mobile
brad@coombshopkins.com

- 7) Question: Does the City's purchase order with the vendors include seismic calculations for anchoring?

The contractor is not responsible for any seismic calculations for the anchors for the City provided equipment as long as the size and depth of the anchors are shown on the plans or in approved submittals.

- 8) Question: Will a 3rd party construction manager be hired for inspection services?

Response: No. The inspection services will be performed by the City staff. The inspection for proper installation and alignment of the equipment shall be performed by the equipment manufacturers as outlined.

- 9) Question: Will Basins 1 & 8 be taken out of service by the City for the full duration of the project? Will the basins be cleaned by the City?

Response: The basins will be taken out of service by the City. The City is flexible and can accommodate both or single basin(s) out of service for up to few weeks depending on the time of the year and system water demands. This will need to be coordinated with the Treatment Operation staff.

- 10) Question: The bill of materials for the flocculation equipment states that the equipment for each stage is for Basins 1 & 8. Do the quantities listed include materials for both basins or do we need to double the listed quantities to include both basins?

Response: The quantities for the flocculation equipment are for both basins.

- 11) Question: Sheet 6. Please confirm that the flocculation equipment is to be salvaged for the City (note 1) and the chain & flight equipment is to be disposed by the contractor (note 3).

Response: All of the equipment identified for removal shall be removed and be disposed of. Equipment that can be recycled shall be recycled as to meet the requirements of Section 02 42 13.

- 12) Question: Sheet 6. In general, what hardware is being supplied by the launder and scum trough supplier?

Response: The approved submittals for the launders and scum troughs are attached. The supplier will provide all of the supports for the launders except for the I-beams.

- 13) Question: Sheet 6. Please refer to note 4 of the flocculator demo notes. Please describe the procedure for testing the concrete for soundness, pull out tests? For bidding purposes how many concrete pedestal/bases should we assume will be replaced? Or will these be replaced via change order.

Response: Schmidt Hammer/Rebound Hammer procedure should be used for testing the concrete for soundness, no destructive testing. For bidding purposes assume no pedestal/bases will require replacement. A change order will be issued if repair or replacement of the pedestal is required.

14) Question: Sheet 21. We are to provide new spray nozzles, blow off assembly, and wye strainers, but have not found a specification for anything other than the ball valves. In addition, it is not clear what the layout (spacing) or quantities will be required.

Response: Spray nozzles shall be 1/4" with a 128 degree spray angle (flat spray) at 20psig or equal. Five (5) sprayers will be required per spray piping run for a total of thirty five (35) sprayers (Basin 1 only).

Wye Strainers shall match pipe size, stainless steel 316 with 1/32-inch perforation per spray piping run (Basin 1 only).

Blow off assemblies at the end of spray piping runs shall be as follows:

Ball Valve with a 90 degree bend per spray piping run for sedimentation basin (Basin 1 only).

Ball Valve with two 90 degree bends per spray piping run for flocculation basin (Basin 1 only).

15) Question: As a general note we are concerned that the existing anchors for equipment that we are demolishing will conflict with the desired locations of new anchors. What is to be done if this issue is encountered? Has all the new equipment being providing been coordinated with the existing anchors to avoid conflict? Flag note 1 on sheets 13-16 seems to address this issue but only for the collectors.

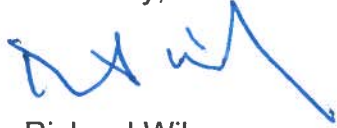
Response: This issue was coordinated with the manufacturers. The flocculation equipment should not have any issues since the pillow block bearings have a different anchor pattern. However, if any of the existing anchors for scum troughs or launders are in conflict and the location of the equipment cannot be slightly adjusted and/or the existing anchors are non-reusable, then either the existing anchor will need to be removed or the anchor pattern will need to be adjusted per manufacturer's recommendation.

16) Question: Will all the electrical work be completed by the City for new work as well?

Response: All of the electrical work will be done by the City.

If you have any questions regarding this addendum, please contact Assistant Engineer, Makar Sokol at (707) 648-5204, or makar.sokol@cityofvallejo.net.

Sincerely,



Richard Wilson
Engineering Manager – Water

Attachments:

Bid Sheet
Section 01 00 25
JMS Approved Submittals for Launderers and Scum Troughs
Drawing Sheets 3-8 and 12-21

THIS ADDENDUM NO. 1 MUST BE ATTACHED TO THE BID DOCUMENTS

Acknowledgment of Receipt:

Bidders Signature

Date

ATTACHMENTS TO ADDENDUM NO. 1

CITY OF VALLEJO
 WATER DEPARTMENT
 ENGINEERING DIVISION

BID SHEET

FOR THE

**FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND
 SEDIMENTATION BASINS 1 & 8 EQUIPMENT UPGRADE PROJECT – WT7093**

<u>ITEM No.</u>	<u>DESCRIPTION OF ITEM</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT</u>	<u>TOTAL AMOUNT</u>
1	Mobilization/Demobilization	1	LS	\$
2	Traffic Control	1	LS	\$
3	Verification of Existing Utilities and Facilities	1	LS	\$
4	Demolition, Salvage and Abandonment	1	LS	\$
5	Installation of Flocculation Equipment	1	LS	\$

<u>ITEM No.</u>	<u>DESCRIPTION OF ITEM</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT</u>	<u>TOTAL AMOUNT</u>
6	Installation of Chain and Flight Equipment	1	LS	\$
7	Installation of Miscellaneous Equipment	1	LS	\$
8	Pressure and Leakage Testing and Disinfection of Pipe	1	LS	\$
9	Startup and Testing	1	LS	\$

TOTAL BID SUMMARY

Total Bid \$ _____
(IN FIGURES)

Total Bid \$ _____
(IN WORDS)

BIDDER'S SIGNATURE _____

SECTION 01 00 25

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Methods of measurement and payment for specific items of Work under this Contract. Refer also to General Provisions for administrative aspects of payments by the Owner to the Contractor.

1.2 REQUIREMENT

- A. Payment for the various items of the Bid Schedule as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the Work all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the California Division of Industrial Safety and the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenant items of work.

1.3 LUMP SUM WORK

- A. Contractor's cost for "Lump Sum Work" shall cover all Work indicated by the Contract Documents. Lump Sum Work will be paid for on a progress payment basis in accordance with the provisions of the General Provisions.

1.4 BID COMPONENTS AND PAYMENT

A. BID ITEM NO. 1 – MOBILIZATION/DEMOBILIZATION

1. No measurement shall be made for this item.
2. Payment for Mobilization/Demobilization will be made at the lump sum price named in the Bid Schedule under Item No. 1. No payment for mobilization or any part thereof will be approved for payment under the Contract until all following mobilization items listed have been completed as specified:
 - a. Moving on to the site all of Contractor's equipment required for first month operations.
 - b. Establishing fire protection system, if required.
 - c. Arranging for and erection of Contractor's work and storage yard.

- d. Having all OSHA required notices and establishment of safety programs.
 - e. Performing all required documentation of existing site conditions.
 - f. Having the Contractor's superintendent at the jobsite full time.
 - g. Submitting initial submittals.
 - h. Erosion control plan and installation.
 - i. Construction staking.
3. This item shall be paid in proportion to the percentage of job completion.
- B. BID ITEM NO. 2 - TRAFFIC CONTROL**
- 1. No measurement shall be made for this item.
 - 2. Payment for Traffic Control will be made at the lump sum price named in the Bid Schedule under Item No. 2 and shall constitute full compensation for furnishing all labor, materials, tools, equipment, incidentals, and all the work involved and necessary for traffic control, construction signing and traffic control maintenance, complete in place, including preparation of traffic control plans, notices, signs, barricades, delineators, sign relocations and maintenance, flaggers, and auxiliary police services to complete this project as specified in these specifications.
 - 3. This item shall be paid in proportion to the percentage of job completion.
- C. BID ITEM NO. 3 – VERIFICATION OF EXISTING UTILITIES AND FACILITIES**
- 1. No measurement shall be made for this item.
 - 2. Payment for Verification of Existing Utilities and Facilities shall be made at the lump sum price named in the Bid Schedule under Item No. 4 and shall constitute full compensation for furnishing all labor, materials, tools, equipment, incidentals, and all the work involved and necessary for the verification of the location and elevation of the existing utilities and facilities, including surveying, and preparation of field investigation report to ensure proper installation of all materials and equipment, all in accordance with the requirements of the Contract Documents.
 - 3. This item shall be paid in proportion to the percentage of job completion.
- D. BID ITEM NO. 4 – DEMOLITION, SALVAGE AND ABANDONMENT**
- 1. No measurement shall be made for this item.
 - 2. Payment for Demolition, Salvage and Abandonment will be made at the lump sum price named in the Bid Schedule under Item No. 6 and shall constitute full compensation for demolishing, removal, disposal, recycling and associated work, for all of the equipment noted in specifications and plans, all in accordance with the requirements of the Contract Documents.
 - 3. This item shall be paid in proportion to the percentage of job completion.
- E. BID ITEM NO. 5 – INSTALLATION OF FLOCCULATION EQUIPMENT**

1. No measurement shall be made for this item.
2. Payment for Installation of Flocculation Equipment will be made at the lump sum price named in the Bid Schedule under Item No. 7 and shall constitute full compensation for furnishing all labor, materials, tools, equipment, incidentals, and all the work involved for installation of flocculation equipment.
3. Contractor shall refer to the specifications and plans for bills of materials to be purchased by the City. All other equipment and materials necessary for installation of flocculation equipment shall be furnished by the Contractor.
4. This item shall be paid in proportion to the percentage of job completion.

F. BID ITEM NO. 6 – INSTALLATION OF CHAIN AND FLIGHT EQUIPMENT

1. No measurement shall be made for this item.
2. Payment for Installation of Chain and Flight Equipment will be made at the lump sum price named in the Bid Schedule under Item No. 8 and shall constitute full compensation for furnishing all labor, materials, tools, equipment, incidentals, and all the work involved for installation of Chain and Flight equipment.
3. Contractor shall refer to the specifications and plans for bills of materials to be purchased by the City. All other equipment and materials necessary for installation of Chain and Flight equipment shall be furnished by the Contractor.
4. This item shall be paid in proportion to the percentage of job completion.

G. BID ITEM NO. 7 – INSTALLATION OF MISCELLANIOUS EQUIPMENT

1. No measurement shall be made for this item.
2. Payment for Installation of Miscellaneous Equipment will be made at the lump sum price named in the Bid Schedule under Item No. 9 and shall constitute full compensation for furnishing and installation of miscellaneous equipment such as piping, valves, fittings, spray nuzzles, scum troughs, launders, stainless steel bracings and others.
3. Contractor shall refer to the specifications and plans for bills of materials to be purchased by the City. All other equipment and materials necessary for installation of miscellaneous equipment shall be furnished by the Contractor.
4. This item shall be paid in proportion to the percentage of job completion.

H. BID ITEM NO. 8 – PRESSURE TESTING AND DISINFECTION OF PIPE

1. No measurement shall be made for this item.
2. Payment for Pressure and Leakage Testing and Disinfection of piping will be made at the lump sum price named in the Bid Schedule under Item No. 10 and shall constitute full compensation for testing and disinfecting pipelines including: preparation of a testing plan, submittal of pipe test

records, pumps, hoses, gauges; non-destructive testing; preparation of a disinfection plan, disinfectant, as well as all labor, tools, equipment and incidentals necessary for performing all work involved, complete in place, as described in these contract documents, and as directed by the Engineer, all in accordance with the requirements of the Contract Documents.

3. This item shall be paid in proportion to the percentage of job completion.

I. BID ITEM NO. 9 – STARTUP AND TESTING

1. No measurement shall be made for this item.

2. Payment for Startup and Testing will be made at the lump sum price named in the Bid Schedule under Item No. 11 and shall constitute full compensation for coordination with equipment manufacturer, testing and commissioning, as well as all labor, tools, equipment and incidentals necessary for performing all work involved, complete in place, as described in these contract documents, and as directed by the Engineer, all in accordance with the requirements of the Contract Documents.

3. This item shall be paid in proportion to the percentage of job completion.

1.5 SCHEDULE OF VALUES

A. Format: Identify each line item in the Schedule of Values with number and title of the major Specification sections. Submit typed schedule on 8½ x 11-inch paper; Contractor's standard form or media-driven printout will be considered on request.

B. At the pre-construction meeting, submit a preliminary Schedule of Values to the Owner's Representative for review. The Contractor shall incorporate any review comments from the Owner's Representative, and submit a final Schedule of Values at least 21 days prior to submitting the first Application for Payment.

C. The Schedule of Values shall assign a fair, reasonable and equitable dollar value for each activity on the Contractor's construction schedule. The Schedule of Values shall include anticipated progress payments for each item in the bid schedule through the final payment. In addition, a detailed breakdown of lump sum prices shall be included in the Schedule of Values.

D. The Schedule of Values shall specifically indicate installed cost for materials and equipment for each bid and sub-bid item.

E. Each activity's assigned value shall consist of labor, equipment and materials cost and a prorata contribution to overhead and profit. Breakdown shall be so organized as to facilitate assessment of work and payment of subcontractors.

F. The sum of the assigned values shall equal the lump sum price of the activity.

G. If, in the opinion of the Owner's Representative or Owner, the Schedule of Values is not balanced, the Contractor shall provide documentation substantiating the cost allocations of those activities believed to be unbalanced. Cost allocation will be considered unbalanced if an activity on the construction schedule has been assigned a disproportionate allocation of labor, direct, or overhead and profit costs which result in progress payment request(s) which would create a condition where

insufficient funds are available to complete the unfinished work. Upon request by Owner, support values shall be given with data that will substantiate their accuracy. Upon Owner's request, the Contractor shall submit additional detailed cost information.

- H. Upon acceptance of the Schedule of Values, it shall be used as a basis for processing all progress payment requests.

1.6 PROGRESS PAYMENT REQUESTS

- A. Submit Progress Payment Requests during the course of the project in conformance with the General Provisions.

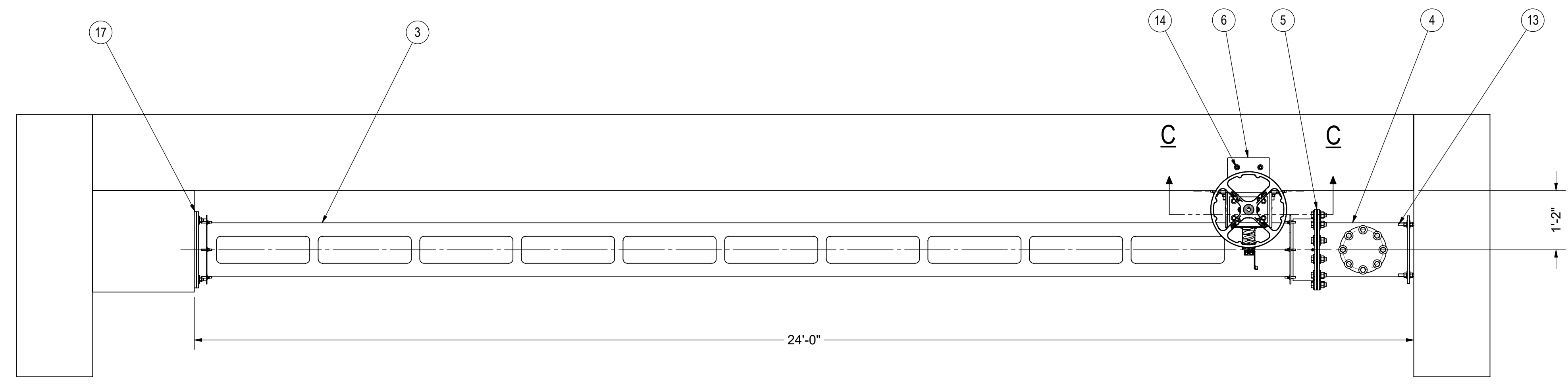
PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

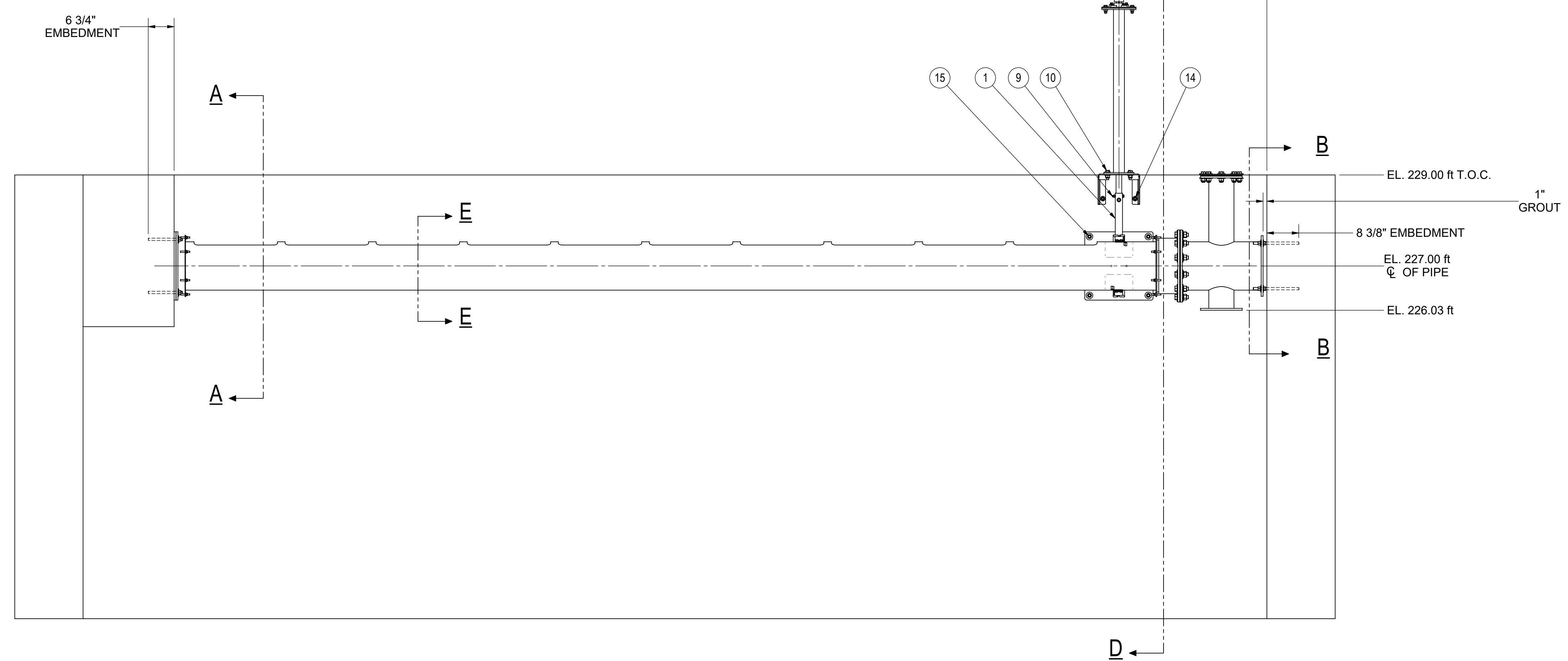
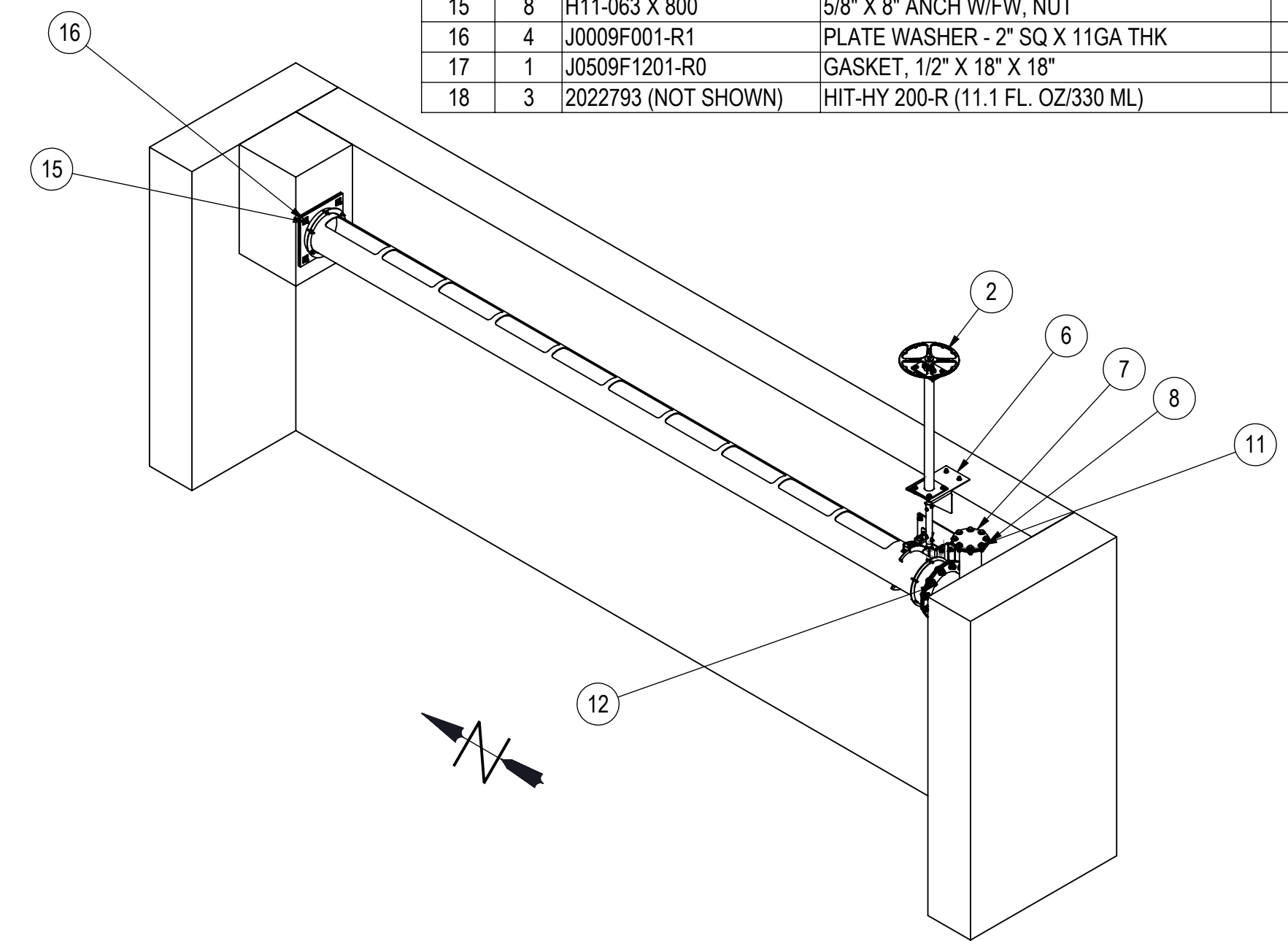
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PARTS LIST				
ITEM	QTY.	PART NUMBER	DESCRIPTION	COMMENTS
1	1	18034-SA01	SHOP ASSEMBLY, WORM GEAR MOUNT	JMS
2	1	18034-SA03	SHOP ASSEMBLY, OPERATOR STAND	JMS
3	1	18034-SA04	SHOP ASSEMBLY, SCUM TROUGH BASIN 1	JMS
4	1	18034-M01	CROSS, W/CLEAN OUT	316 SS
5	1	18034-F07	GASKET, Ø12" 2	NEOPRENE
6	1	18034-F08	WALL MOUNT, FLOOR STAND,, PL. .250" X 20 1/8" X 20 11/16"	316 SS
7	1	18034-F09	COVER, CLEAN OUT Ø11" X 1/4"	316 SS
8	1	18034-F10	GASKET, COVER Ø11" X 1/4"	NEOPRENE
9	2	H00-038 X 275	3/8" X 2 3/4" HHMB W/2FW, LNUT	316 SS
10	4	H00-063 X 200	5/8" X 2" HHMB W/2FW, LNUT	316 SS
11	8	H00-075 X 225	3/4" X 2 1/4" HHMB W/2FW, LNUT	316 SS
12	12	H01-088 X 300	7/8" X 3" HHMB W/2FW, LW, NUT	316 SS
13	4	H10-063 X 1200	5/8" X 12" ANCH W/2FW, LW, 2NUT	316 SS
14	4	H11-050 X 600	1/2" X 6" ANCH W/FW, NUT	316 SS
15	8	H11-063 X 800	5/8" X 8" ANCH W/FW, NUT	316 SS
16	4	J0009F001-R1	PLATE WASHER - 2" SQ X 11GA THK	316 SS
17	1	J0509F1201-R0	GASKET, 1/2" X 18" X 18"	NEOPRENE
18	3	2022793 (NOT SHOWN)	HIT-HY 200-R (11.1 FL. OZ/330 ML)	HILTI



PLAN VIEW

3'-3" LOCATION TO BE VERIFIED BY CONTRACTOR



- NOTES:
- PARTS LIST INDICATES QTY. FOR ONE ASSEMBLY. TOTAL ASSEMBLIES REQ'D FOR JOB 2 : QTY 1 AS SHOWN (18034-GA01) QTY 1 OPPOSITE HAND (18034-GA02)
 - SCUM TROUGH DESIGN ALLOWS FOR BASIN WITH CONSTRUCTION TOLERANCE OF +/-1".
 - EACH SCUM TROUGH IS SHIPPED WITH GEAR AND WALL BEARING(S) ASSEMBLED ON IT. LOWER ENTIRE ASSEMBLY TO DESIRED ELEVATION.
 - PACKING NUTS TO BE LOOSENED FOR ASSEMBLY. TIGHTEN EVENLY AFTER ALL IS ASSEMBLED AND ONLY ENOUGH TO SEAL. EXCESSIVE TIGHTNESS WILL CAUSE EXTRA LOAD ON THE HANDWHEEL.
 - CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS.
 - NO SPARE PARTS INCLUDED.
 - AFTER INSTALLATION IS COMPLETE, SET JACK BOLT(S) ON WORM GEAR MOUNT. (SEE REFERENCE DIMENSION ON 18034-SA01)
 - 18034-GA02 IS THE MIRROR IMAGE OF 18034-GA01. SCUM TROUGH 18034-SA04 WILL BE REPLACED WITH 18034-SA05.

REV.	DATE	BY	DESCRIPTION
A	8/27/2018	PEH	ORIGINAL ISSUE

PROJECTION ANGLE

JMS JIM MYERS & SONS INC.
www.jmsequipment.com
(704) 554-8397 (704) 554-9113 (FAX)

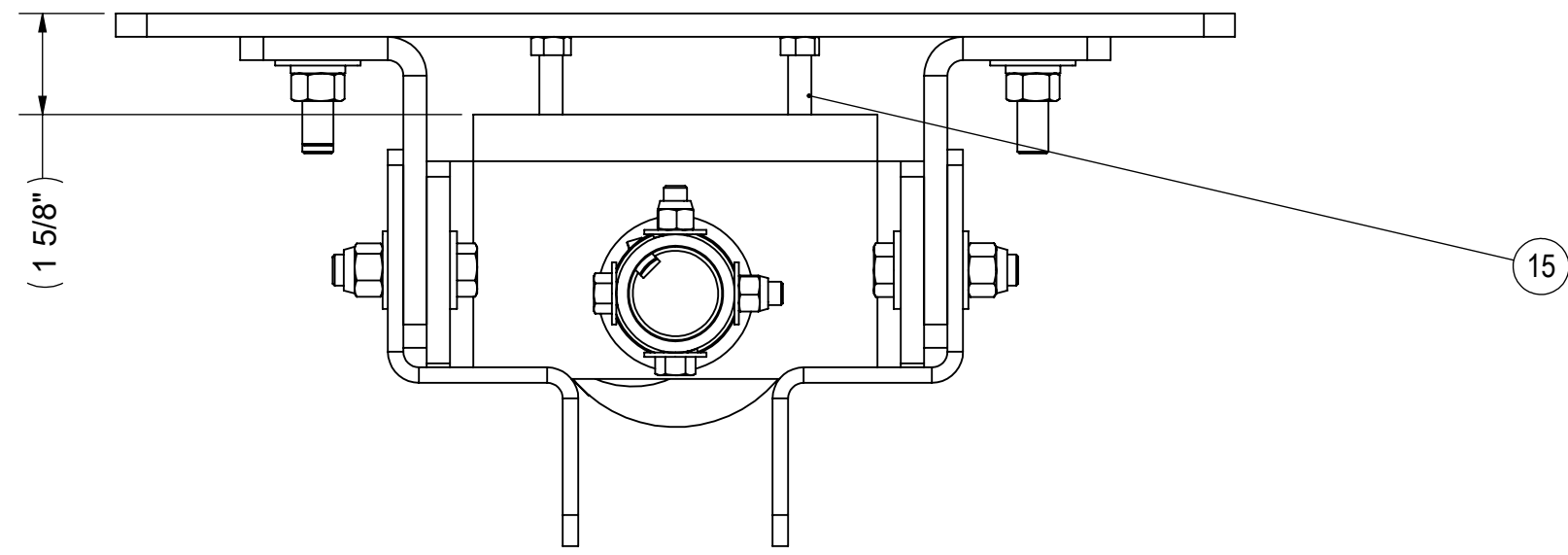
DRAWING OF SCUM TROUGH BASIN 1
JOB NAME VALLEJO, CA WTP
JOB LOC. VALLEJO, CA
CUSTOMER MISCOWATER

PROPERTY OF JIM MYERS & SONS, INC. THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF JIM MYERS & SONS, INC. AND MAY ONLY BE USED FOR THE LIMITED PURPOSES OF EVALUATING PROPOSAL INSTALLING, OPERATING OR MAINTAINING JIM MYERS & SONS, INC. EQUIPMENT. DISCLOSURE, DUPLICATION, MODIFICATION, OR OTHER USE OF THIS DRAWING IS NOT PERMITTED WITHOUT THE PRIOR WRITTEN PERMISSION OF JIM MYERS & SONS, INC.

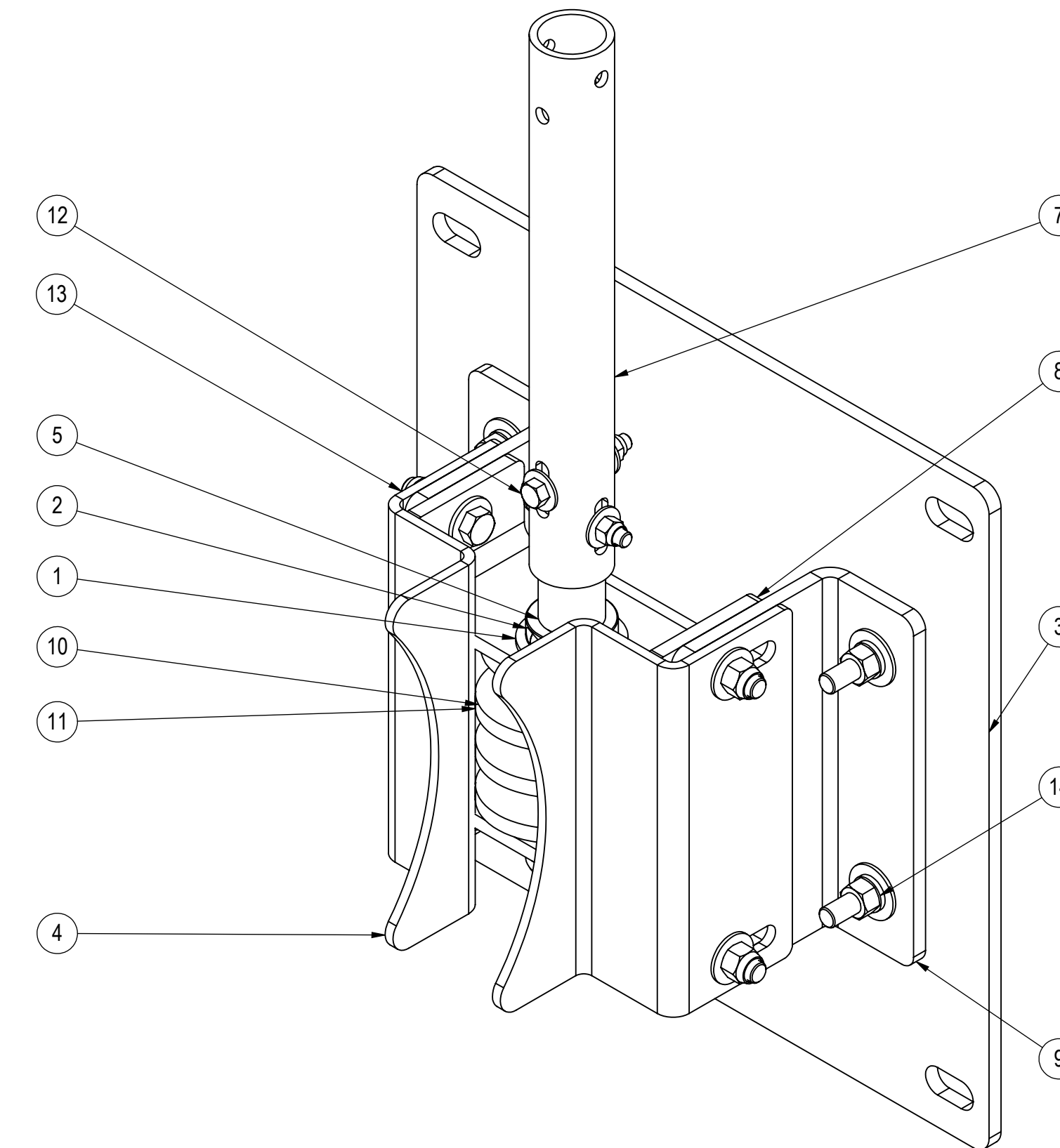
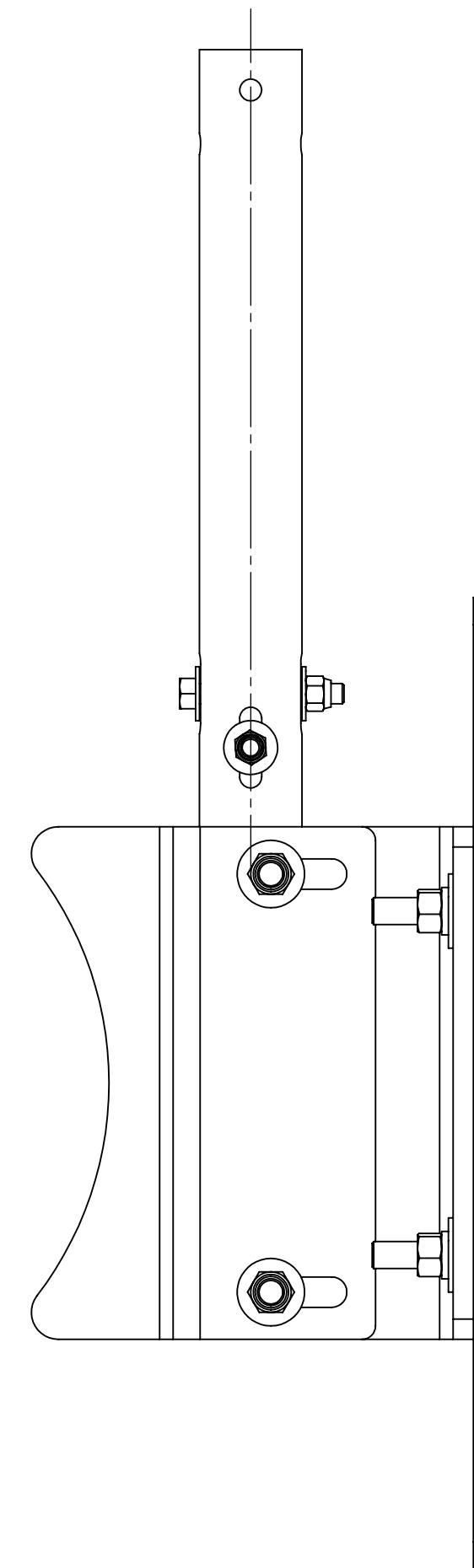
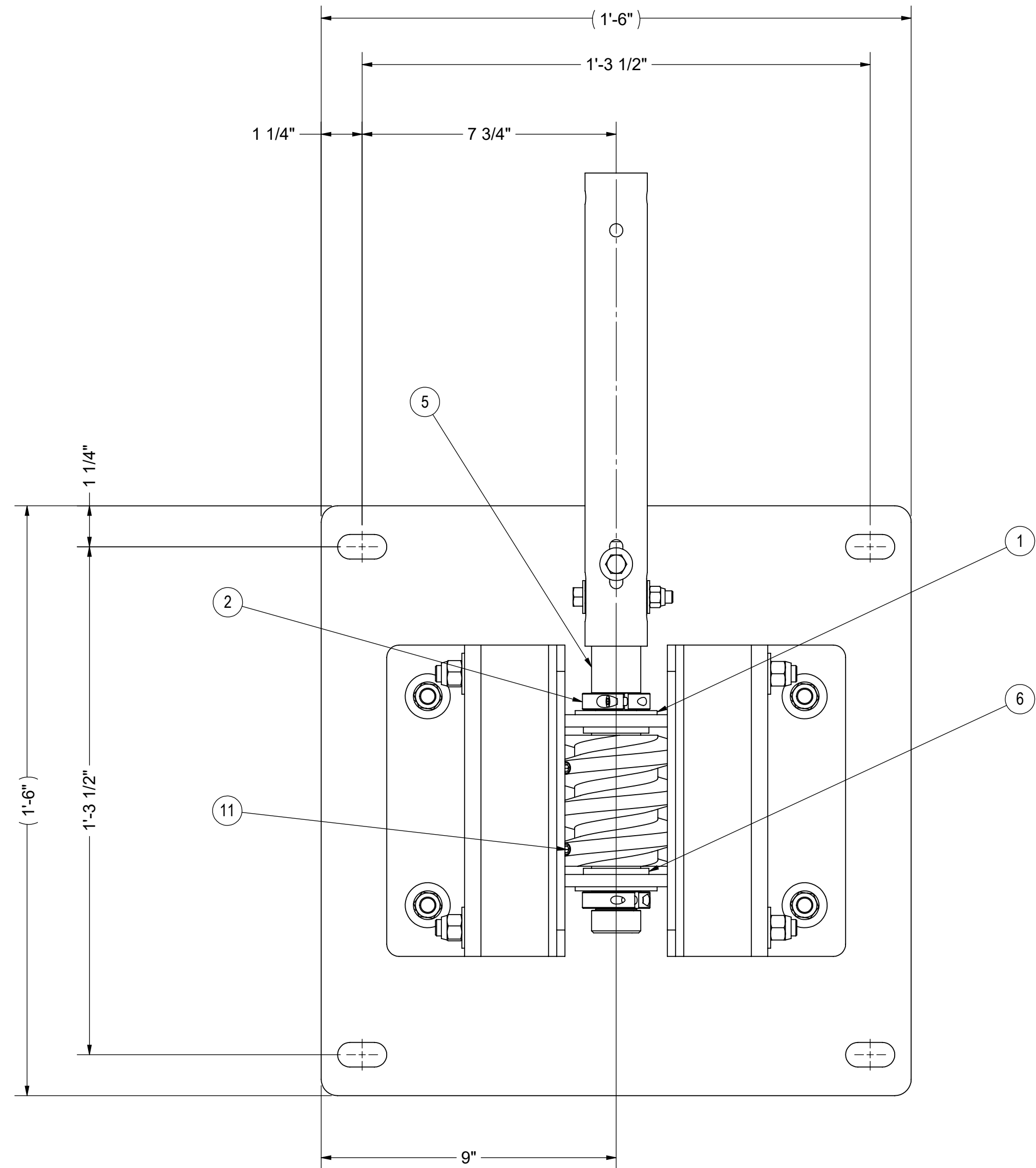
FOR APPROVAL ONLY
NOT FOR CONSTRUCTION

ENGR. _____
DRAWN BY _____ DATE 8/27/2018
CKD. BY JJJ DATE 8/27/2018

18034-GA01 1 OF 2
CONTR. NO. SHEET



PARTS LIST				
ITEM	QTY.	PART NUMBER	DESCRIPTION	COMMENTS
1	2	5906k526	BRONZE THRUST BEARING	MCMMASTER
2	2	6436K41	TWO-PIECE SHAFT COLLAR, 1 1/4" ID X 2 1/16" OD X 1/2"	McMASTER
3	1	18034-M02	WELDMENT, WORM GEAR MOUNT PLATE	304 SS
4	2	18034-F01	GUIDE PL 0.25" X 8 3/4" X 9 1/2"	316 SS
5	1	18034-F02	DRIVE SHAFT, RB Ø1 1/2" X 12"	316 SS
6	2	18034-F03	SHAFT BUSHING, RB Ø2" OD X 1 1/2" ID X 9/16" (6338K442)	MCMMASTER
7	1	18034-F04	DRIVE SHAFT CONNECTOR, Ø1 1/2" SCH 80 X 1'-2 7/16"	316 SS
8	1	18034-F05	WORM GEAR MOUNT, PL 3/8" X 11 9/16" X 12 3/8"	316 SS
9	2	18034-F06	MOUNT ANGLE, 3/8" X 9 1/2" X 7 1/4"	316 SS
10	1	J0514F001-R0	NYLON PINION WORK DRIVE (RH THD)	NYLON 6/6
11	2	038 X 050 SS	Ø3/8 X 1/2" SET SCREW	316 SS
12	2	H00-038 X 275	3/8" X 2 3/4" HHMB W/2FW, LNUT	316 SS
13	4	H00-050 X 200	1/2" X 2" HHMB W/2FW, LNUT	316 SS
14	4	H31-050	1/2" FW, LW, NUT	316 SS
15	2	H41-038 X 250	3/8" X 2 1/2" TAP BOLT W/ JAM NUT	316 SS



NOTES:
 1. PARTS LIST INDICATES QTY. FOR ONE ASSEMBLY. TOTAL ASSEMBLIES REQ'D FOR JOB 2.

REV.	DATE	BY	DESCRIPTION
A	8/28/2018	PEH	ORIGINAL ISSUE

PROJECTION ANGLE

JMS JIM MYERS & SONS INC.
 www.jmsequipment.com
 (704) 554-8397 (704) 554-9113 (FAX)

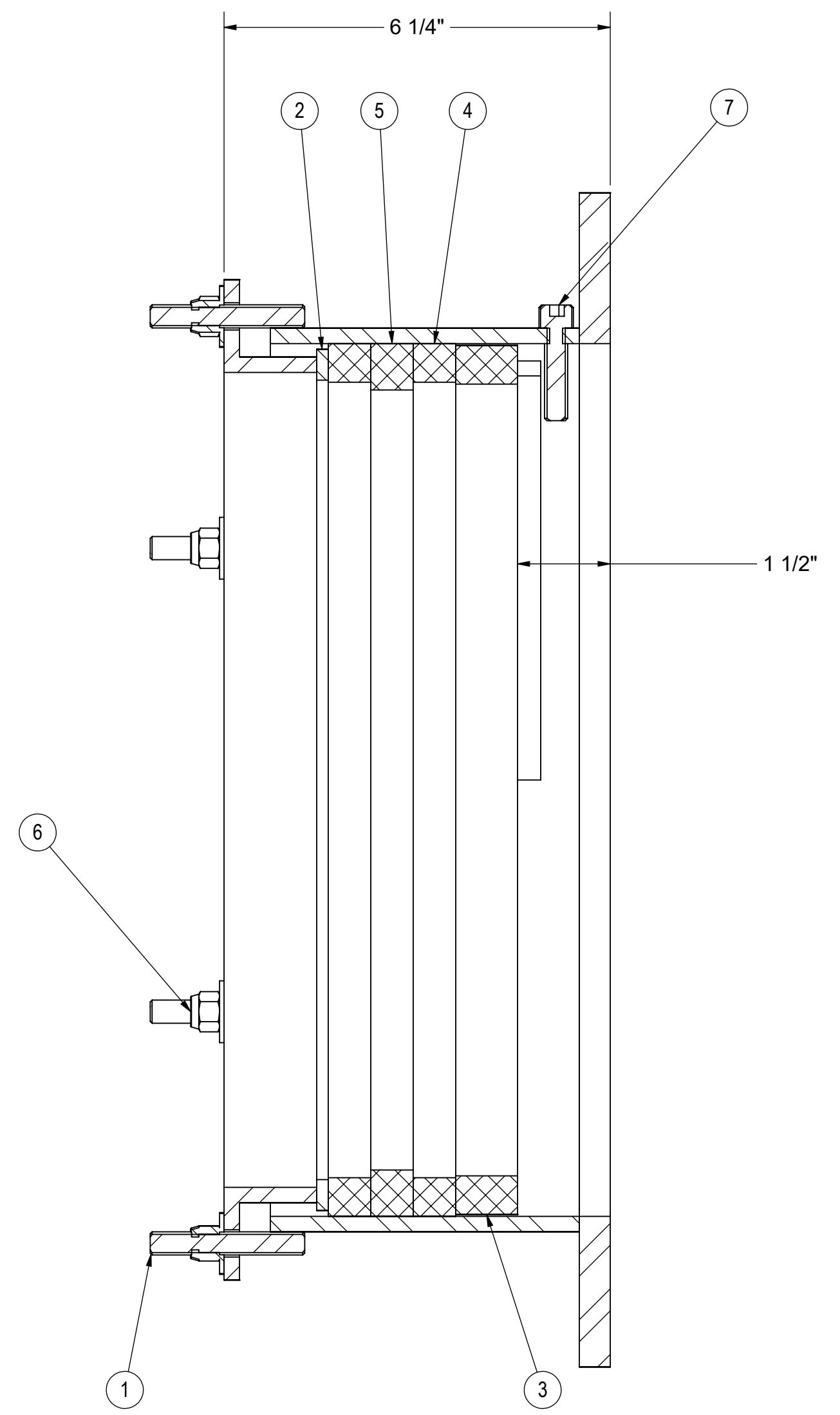
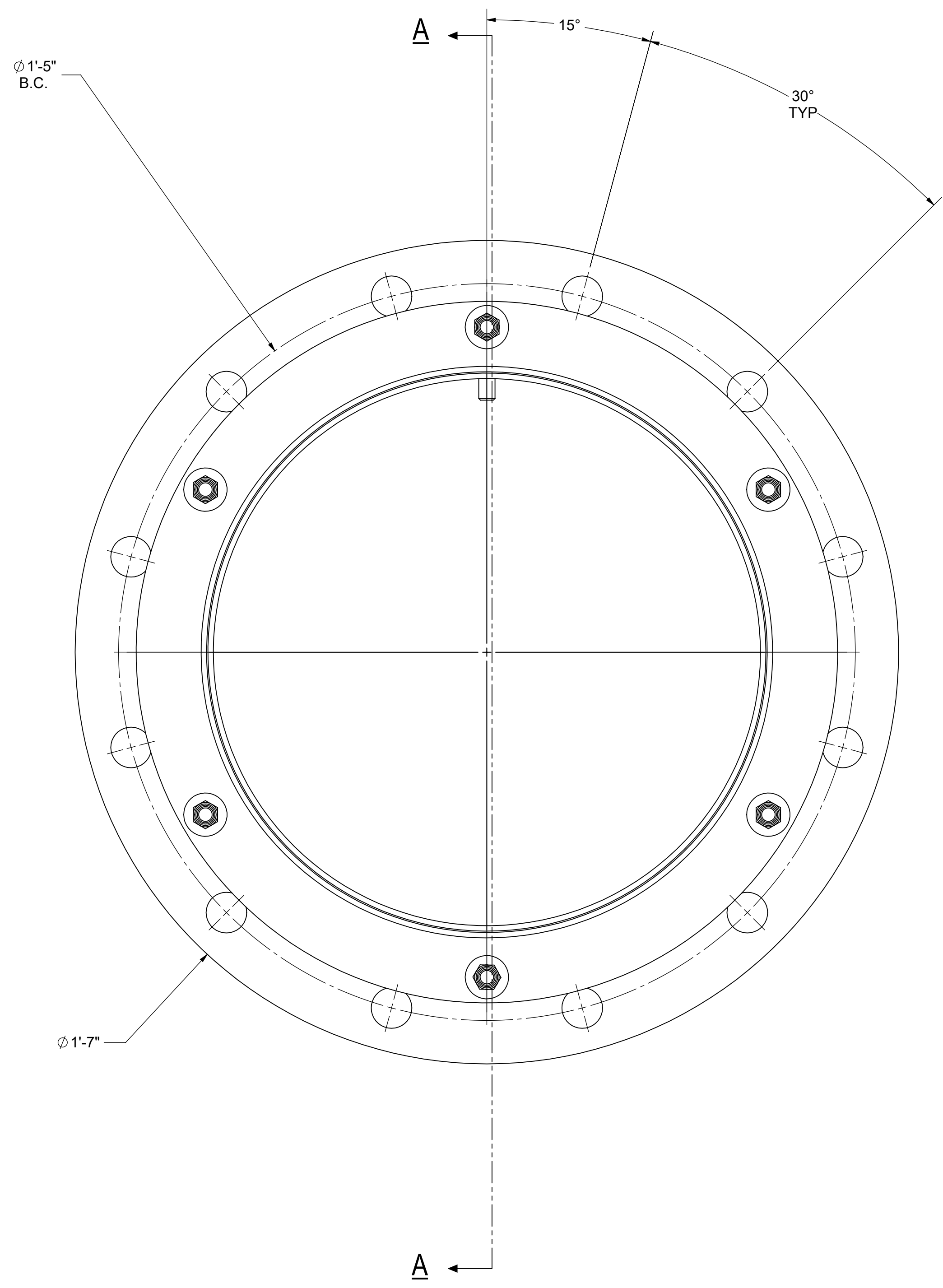
DRAWING OF SHOP ASSEMBLY, WORM GEAR MOUNT
 JOB NAME VALLEJO, CA WTP
 JOB LOC. VALLEJO, CA
 CUSTOMER MISCOWATER

ENGR.	
DRAWN BY	PEH DATE 8/28/2018
CKD. BY	JJH DATE 8/28/2018
18034-SA01	
CONTR. NO.	

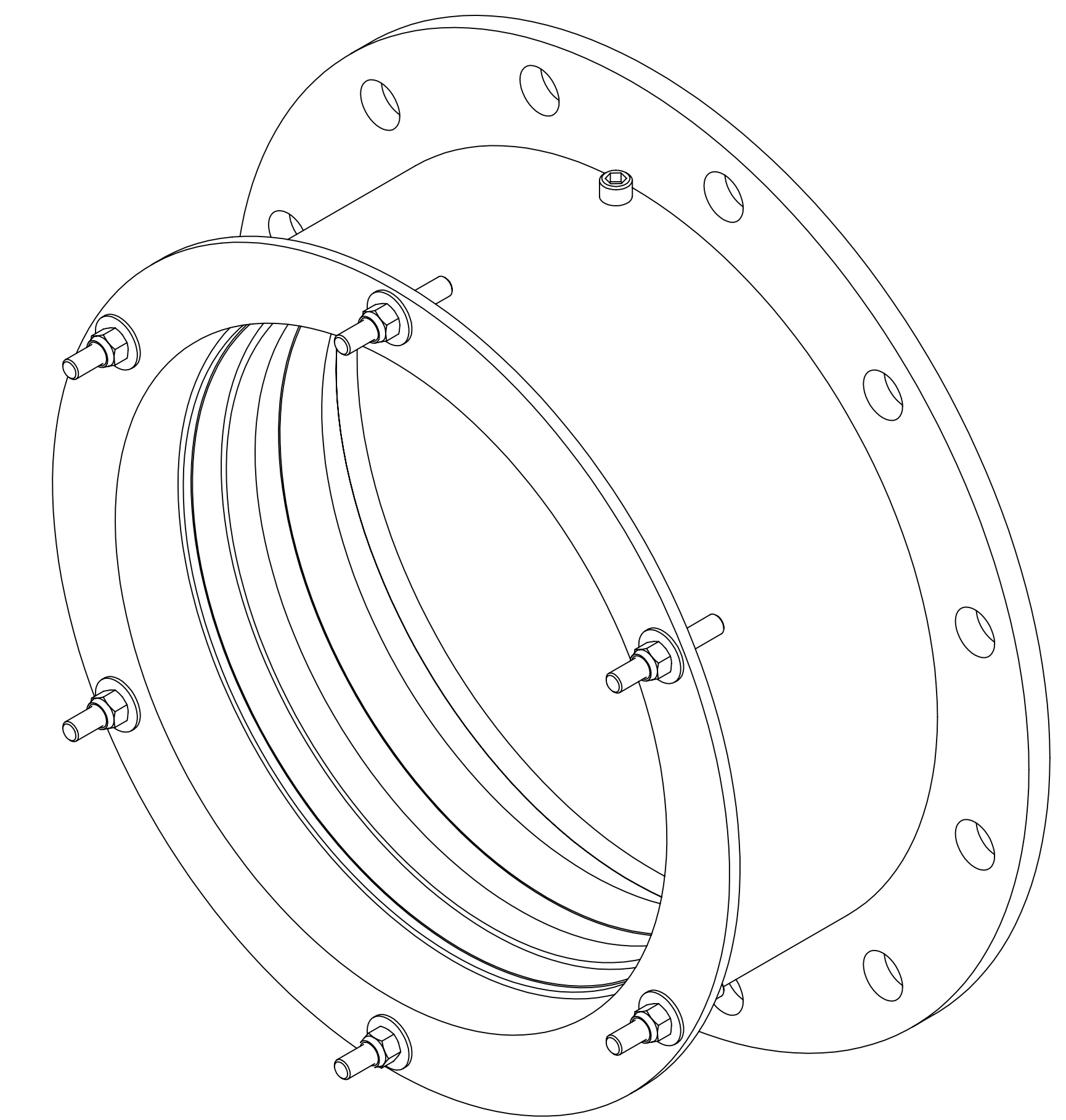
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PARTS LIST				
ITEM	QTY.	PART NUMBER	DESCRIPTION	COMMENTS
1	1	18034-M03	WELDMENT, Ø12" WALL BRG - BLIND END	316 SS
2	1	J0506M12-R0	WELDMENT, 12" ANGLE RING PACKING GLAND	316 SS
3	1	J0507F1201-R0	Ø12" BEARING	UHMW
4	2	J0512F1201-R0	11/16" PACKING (2 ROWS)	PALMETTO
5	1	J0512F1202-R0	FOAM, 1" X 1" X ~44 3/8"	FOAM
6	6	H33-038	3/8" FW, LNUT	316 SS
7	1	SHCS-038 X 150	3/8" X 1 1/2" X SHCS	316 SS



SECTION A-A



NOTES:
 1. PARTS LIST INDICATES QTY. FOR ONE ASSEMBLY. TOTAL ASSEMBLIES REQ'D FOR JOB 2.

A	8/28/2018	PEH	ORIGINAL ISSUE
REV.	DATE	BY	DESCRIPTION

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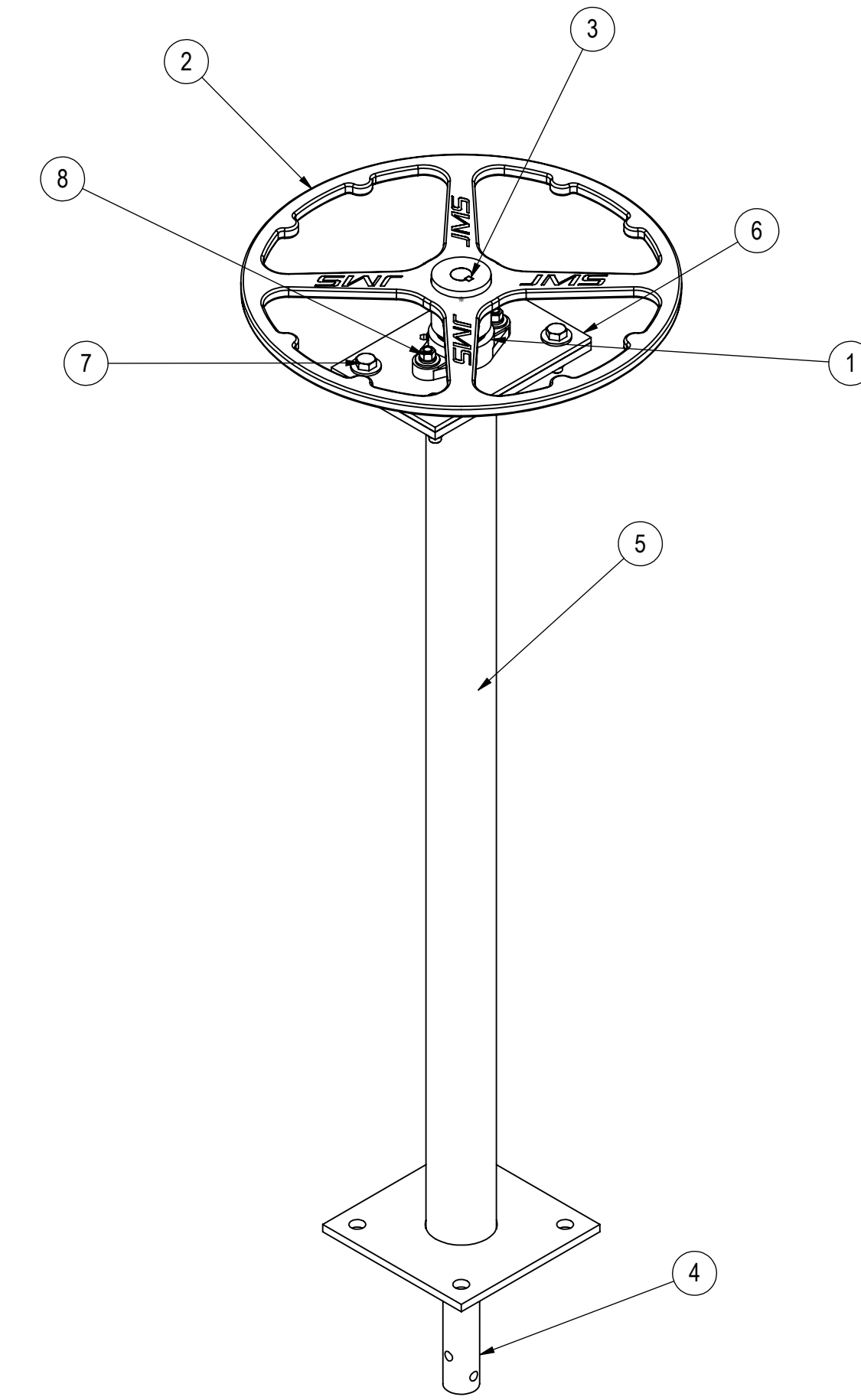
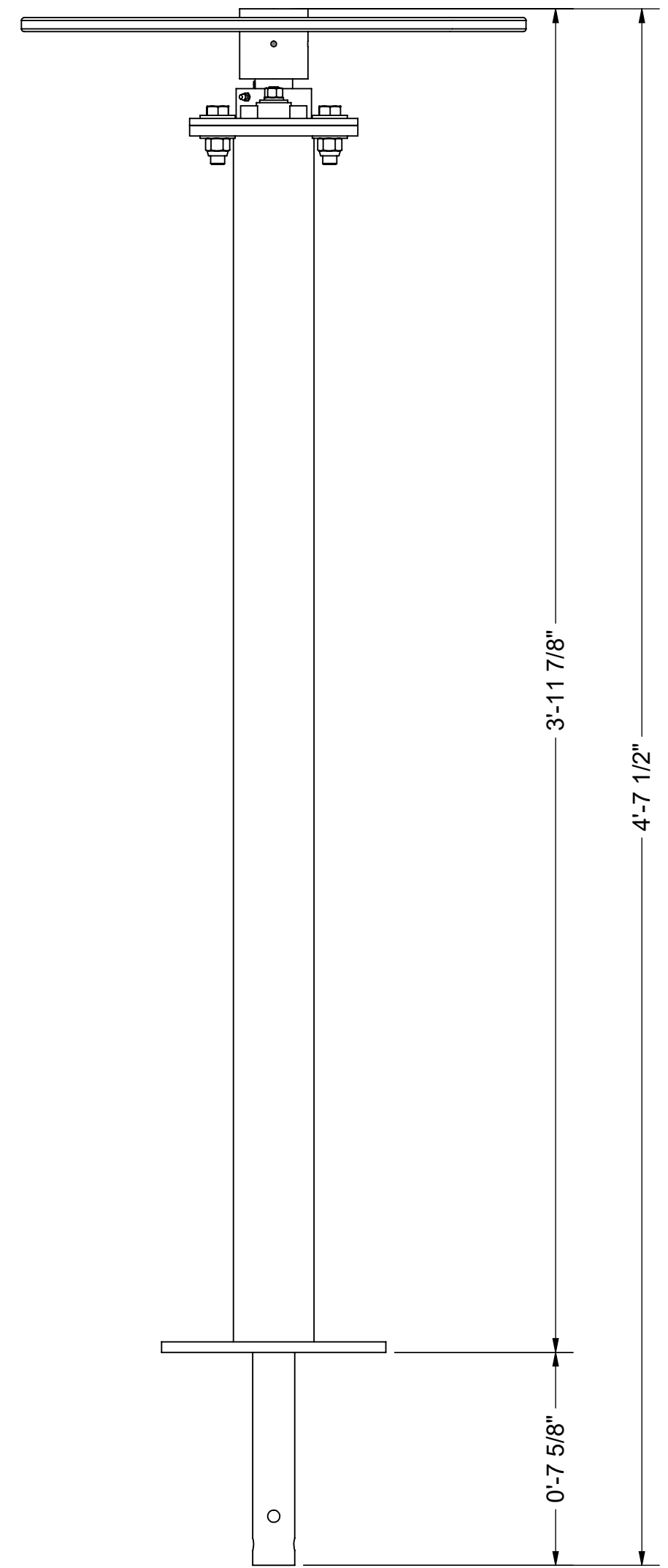
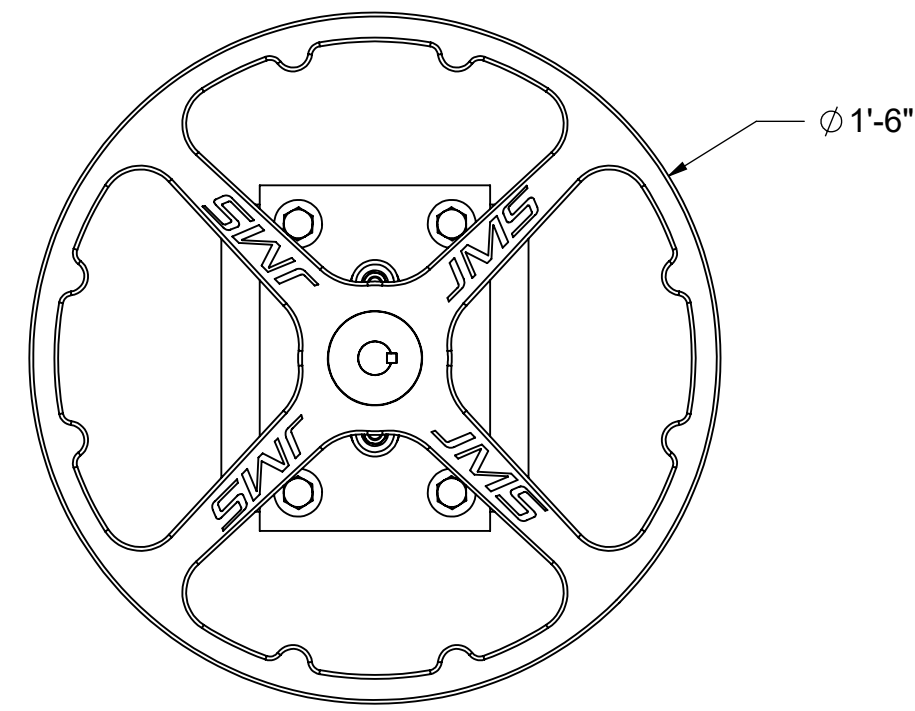
DRAWING OF: Ø12" WALL BEARING, OPEN END
 JOB NAME: VALLEJO, CA WTP
 JOB LOC: VALLEJO, CA
 CUSTOMER: MISCOWATER

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ENGR.
 DRAWN BY: PEH DATE: 8/28/2018
 CKD. BY: JJH DATE: 8/28/2018

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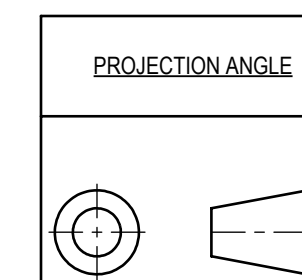
PARTS LIST				
ITEM	QTY.	PART NUMBER	DESCRIPTION	COMMENTS
1	1	FX3-U214N-K75	7/8" FLANGE BEARING	LINK BELT/REXNORD
2	1	18034-M05	WELDMENT, HANDWHEEL	316 SS
3	1	18034-F12	KEY, 1/4" SQ. X 2 1/2"	316 SS
4	1	18034-F13	SHAFT, Ø1 1/2" X 4'-7 1/2"	316 SS
5	1	J0013M001-R1	FLOOR STAND	JMS
6	1	J0014M001-R2	WELDMENT, HANDWHEEL ADAPTER PLATE	316 SS
7	4	H00-050 X 175	1/2" X 1 3/4" HHMB W/2FW, LNUT	316 SS
8	2	H31-038	3/8" FW, LW, NUT	316 SS
9	2	025 X 050	Ø1/4 X 1/2" SET SCREW (NOT SHOWN)	316 SS



NOTES:

- PARTS LIST INDICATES QTY. FOR ONE ASSEMBLY. TOTAL ASSEMBLIES REQ'D FOR JOB 2.

REV.	DATE	BY	DESCRIPTION
A	8/29/2018	PEH	ORIGINAL ISSUE



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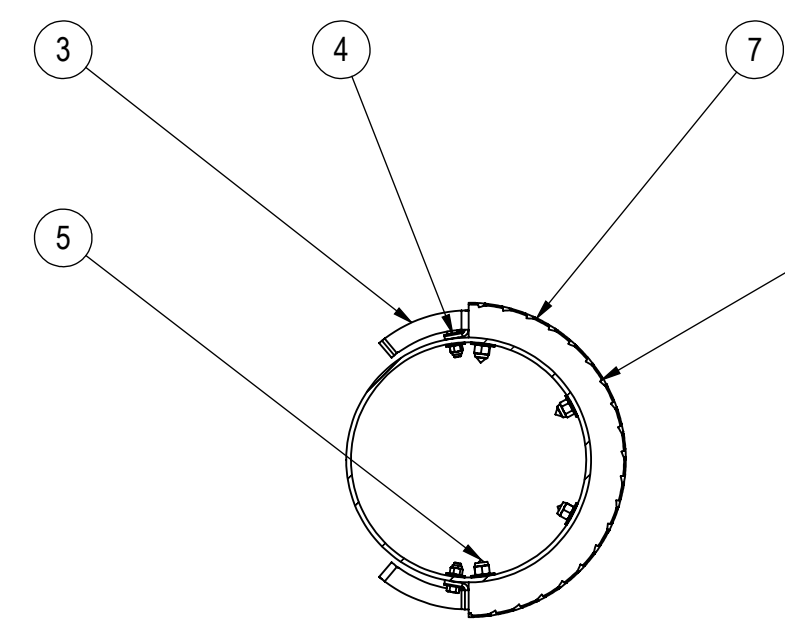
DRAWING OF: SHOP ASSEMBLY, OPERATOR STAND
 JOB NAME: VALLEJO, CA WTP
 JOB LOC: VALLEJO, CA
 CUSTOMER: MISCOWATER

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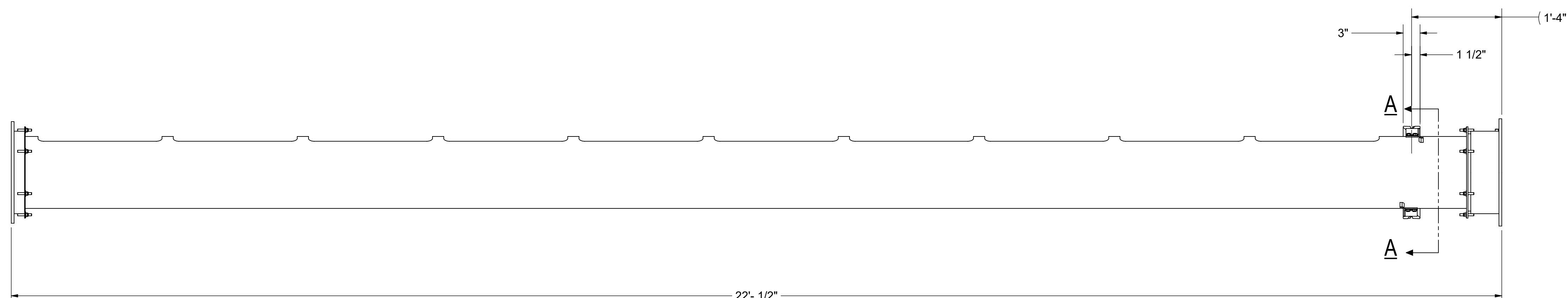
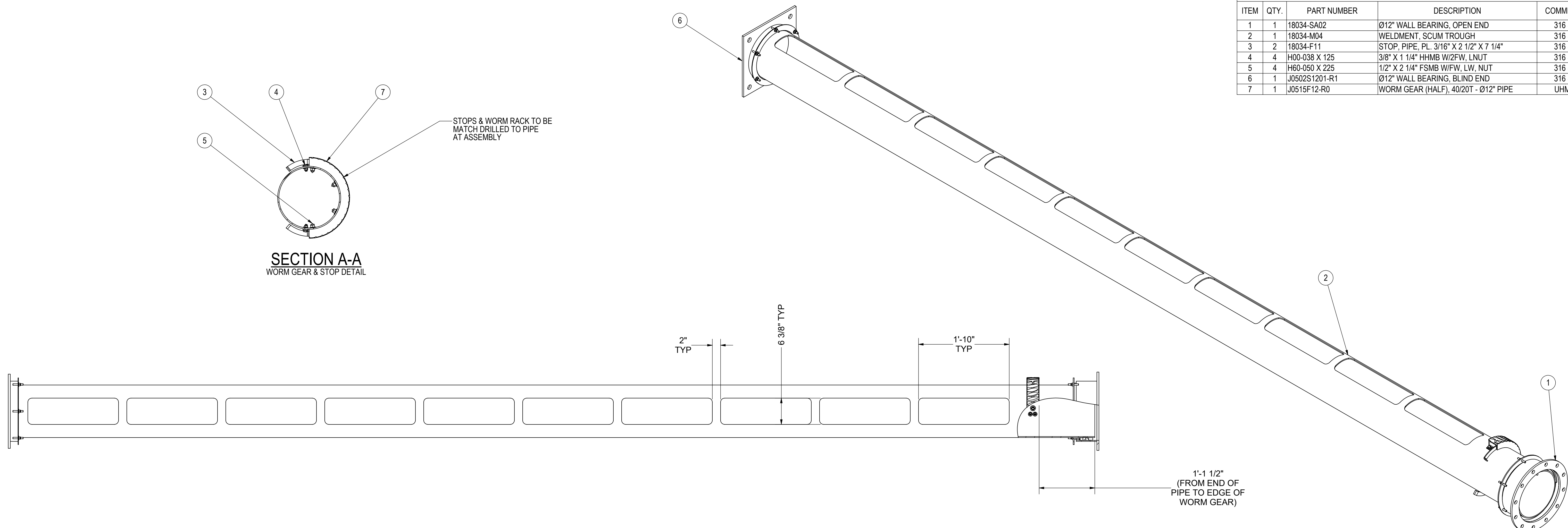
ENGR.
 DRAWN BY: PEH DATE: 8/29/2018
 CKD. BY: JJH DATE: 8/29/2018
 18034-SA03 1 OF 1
 CONTR. NO. SHEET

PARTS LIST				
ITEM	QTY.	PART NUMBER	DESCRIPTION	COMMENTS
1	1	18034-SA02	Ø12" WALL BEARING, OPEN END	316 SS
2	1	18034-M04	WELDMENT, SCUM TROUGH	316 SS
3	2	18034-F11	STOP, PIPE, PL. 3/16" X 2 1/2" X 7 1/4"	316 SS
4	4	H00-038 X 125	3/8" X 1 1/4" HHMB W/2FW, LNUT	316 SS
5	4	H60-060 X 225	1/2" X 2 1/4" FSMB W/FW, LW, NUT	316 SS
6	1	J0502S1201-R1	Ø12" WALL BEARING, BLIND END	316 SS
7	1	J0515F12-R0	WORM GEAR (HALF), 40/20T - Ø12" PIPE	UHMW



SECTION A-A
WORM GEAR & STOP DETAIL

STOPS & WORM RACK TO BE MATCH DRILLED TO PIPE AT ASSEMBLY



- NOTES:
- PARTS LIST INDICATES QTY. FOR ONE ASSEMBLY. TOTAL ASSEMBLIES REQ'D FOR JOB 1.
 - 18034-SA04 IS USED IN FLOCCULATION BASIN 1.

REV.	DATE	BY	DESCRIPTION
A	8/28/2018	PEH	ORIGINAL ISSUE

PROJECTION ANGLE

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JIM MYERS & SONS INC.
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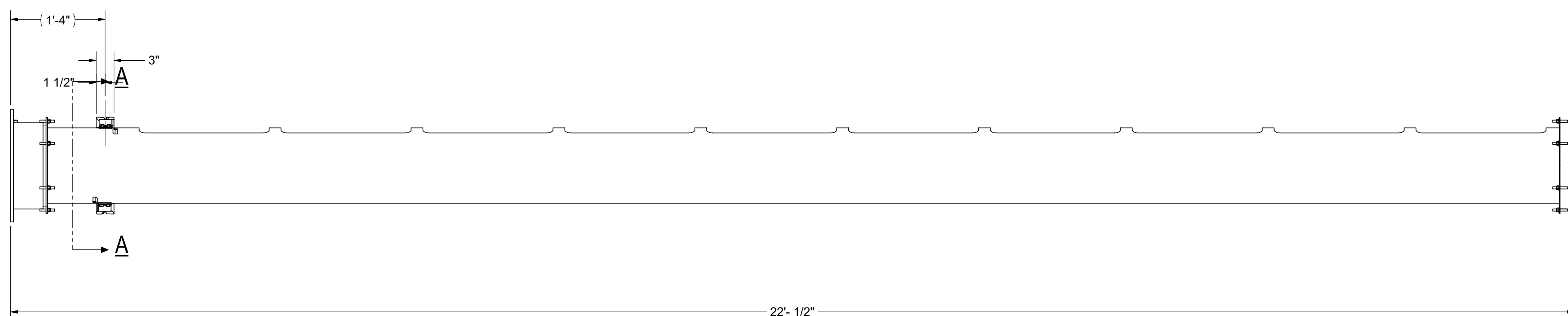
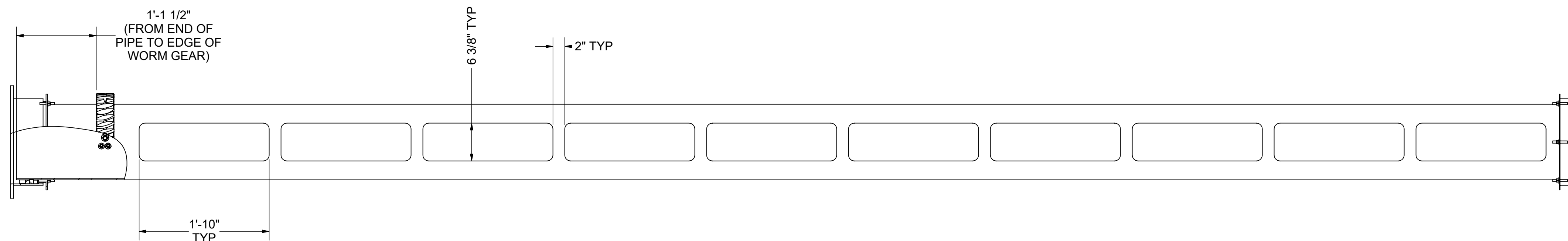
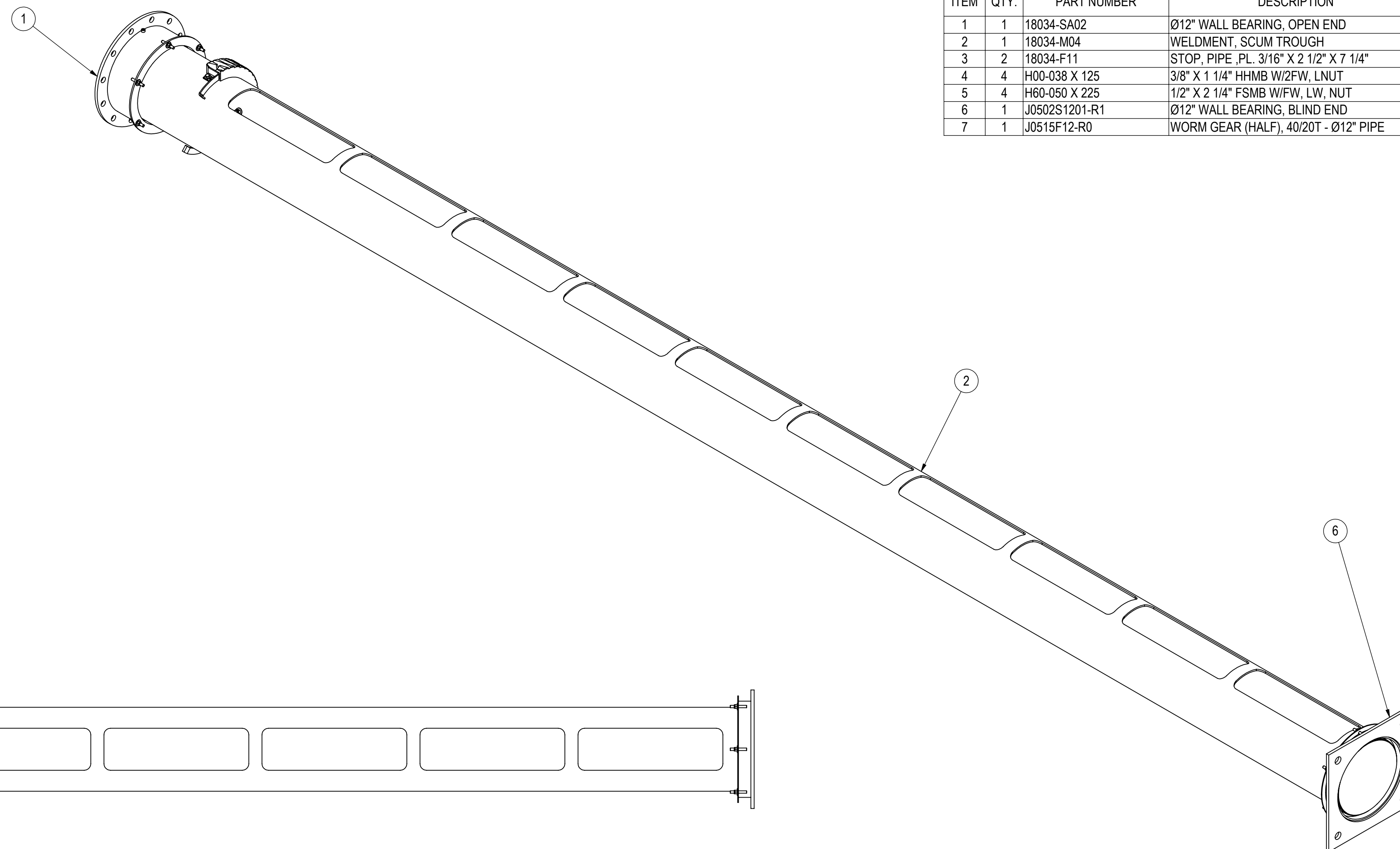
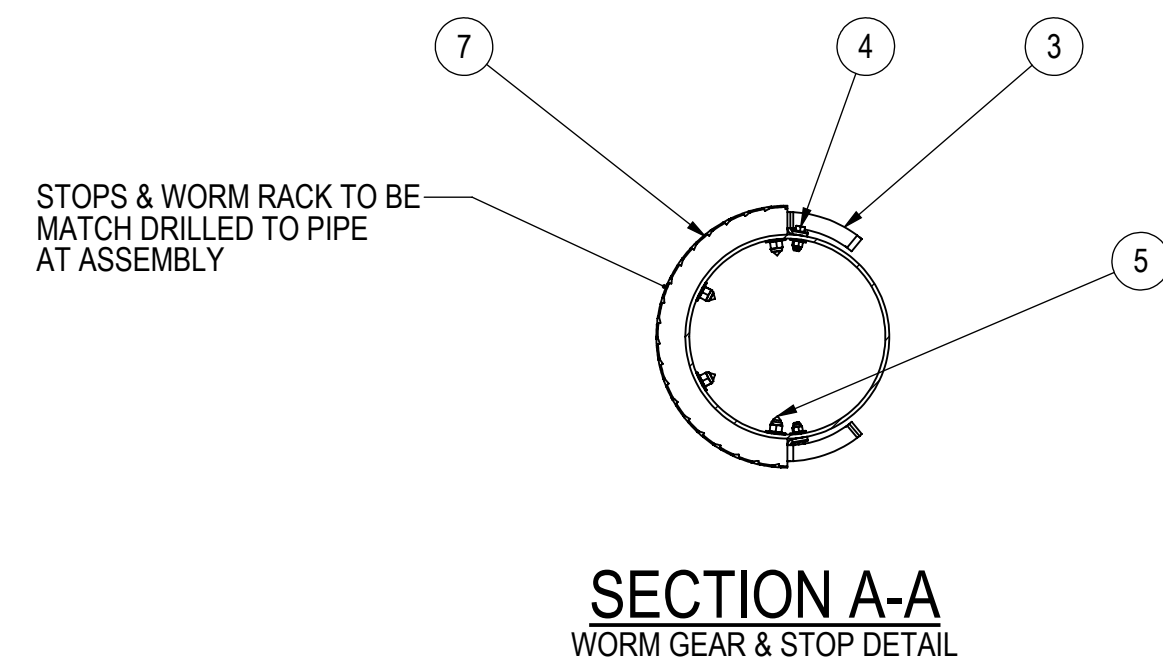
DRAWING OF: SHOP ASSEMBLY, SCUM TROUGH BASIN 1
 JOB NAME: VALLEJO, CA WTP
 JOB LOC: VALLEJO, CA
 CUSTOMER: MISCOWATER

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 DRAWN BY: PEH DATE: 8/28/2018
 CKD. BY: JJH DATE: 8/28/2018

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PARTS LIST				
ITEM	QTY.	PART NUMBER	DESCRIPTION	COMMENTS
1	1	18034-SA02	Ø12" WALL BEARING, OPEN END	316 SS
2	1	18034-M04	WELDMENT, SCUM TROUGH	316 SS
3	2	18034-F11	STOP, PIPE, PL. 3/16" X 2 1/2" X 7 1/4"	316 SS
4	4	H00-038 X 125	3/8" X 1 1/4" HHMB W/2FW, LNUT	316 SS
5	4	H60-060 X 225	1/2" X 2 1/4" FSMB W/FW, LW, NUT	316 SS
6	1	J0502S1201-R1	Ø12" WALL BEARING, BLIND END	316 SS
7	1	J0515F12-R0	WORM GEAR (HALF), 40/20T - Ø12" PIPE	UHMW



- NOTES:
- PARTS LIST INDICATES QTY. FOR ONE ASSEMBLY. TOTAL ASSEMBLIES REQ'D FOR JOB 1.
 - 18034-SA05 IS USED IN FLOCCULATION BASIN 8.

REV.	DATE	BY	DESCRIPTION
A	8/28/2018	PEH	ORIGINAL ISSUE

PROJECTION ANGLE

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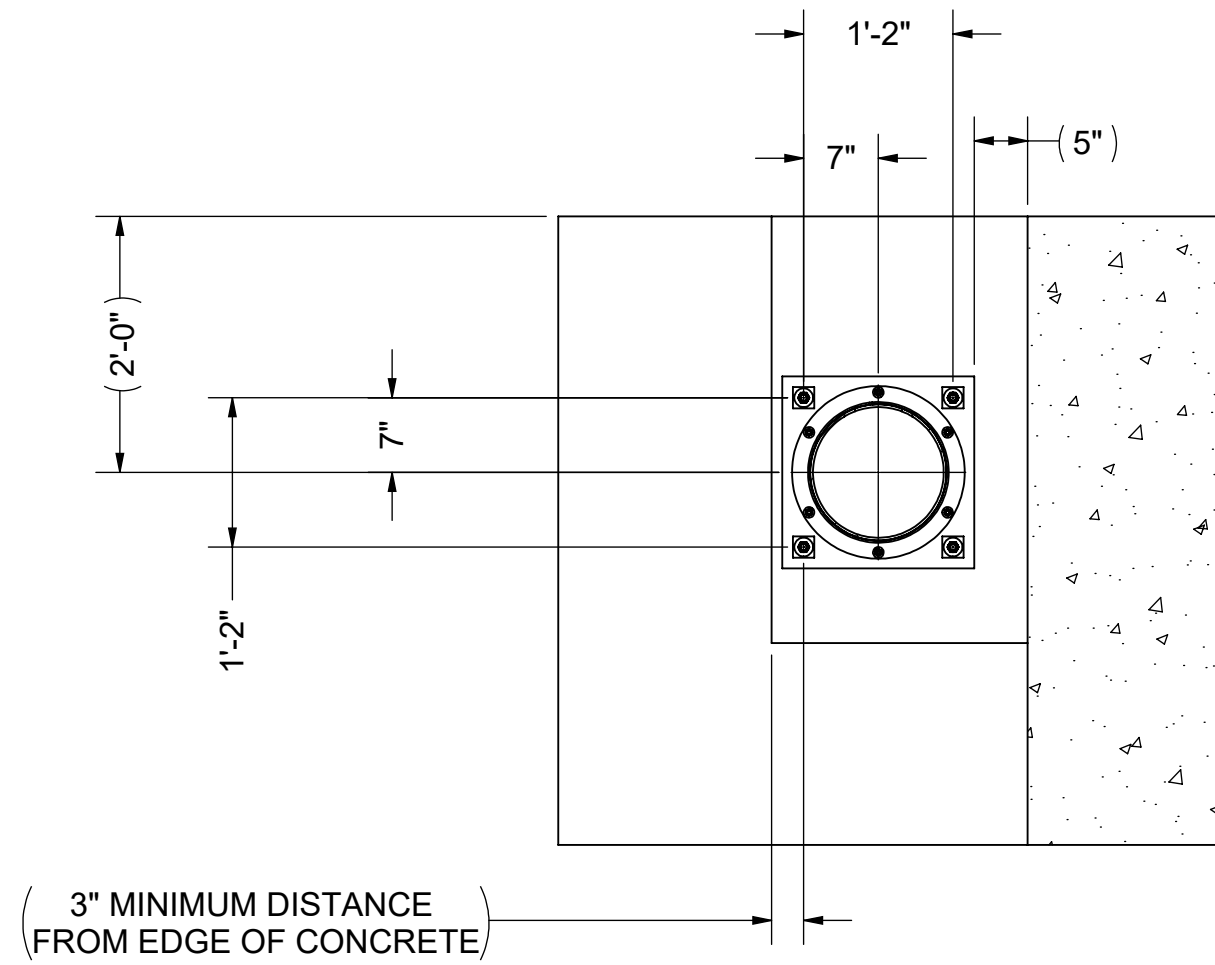
DRAWING OF: SHOP ASSEMBLY, SCUM TROUGH BASIN 8
 JOB NAME: VALLEJO, CA WTP
 JOB LOC: VALLEJO, CA
 CUSTOMER: MISCOWATER

PROPERTY OF JIM MYERS & SONS, INC. THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF JIM MYERS & SONS, INC. AND MAY ONLY BE USED FOR THE LIMITED PURPOSES OF EVALUATING PROPOSAL INSTALLING, OPERATING OR MAINTAINING JIM MYERS & SONS, INC. EQUIPMENT. DISCLOSURE, DUPLICATION, MODIFICATION, OR OTHER USE OF THIS DRAWING IS NOT PERMITTED WITHOUT THE PRIOR WRITTEN PERMISSION OF JIM MYERS & SONS, INC.

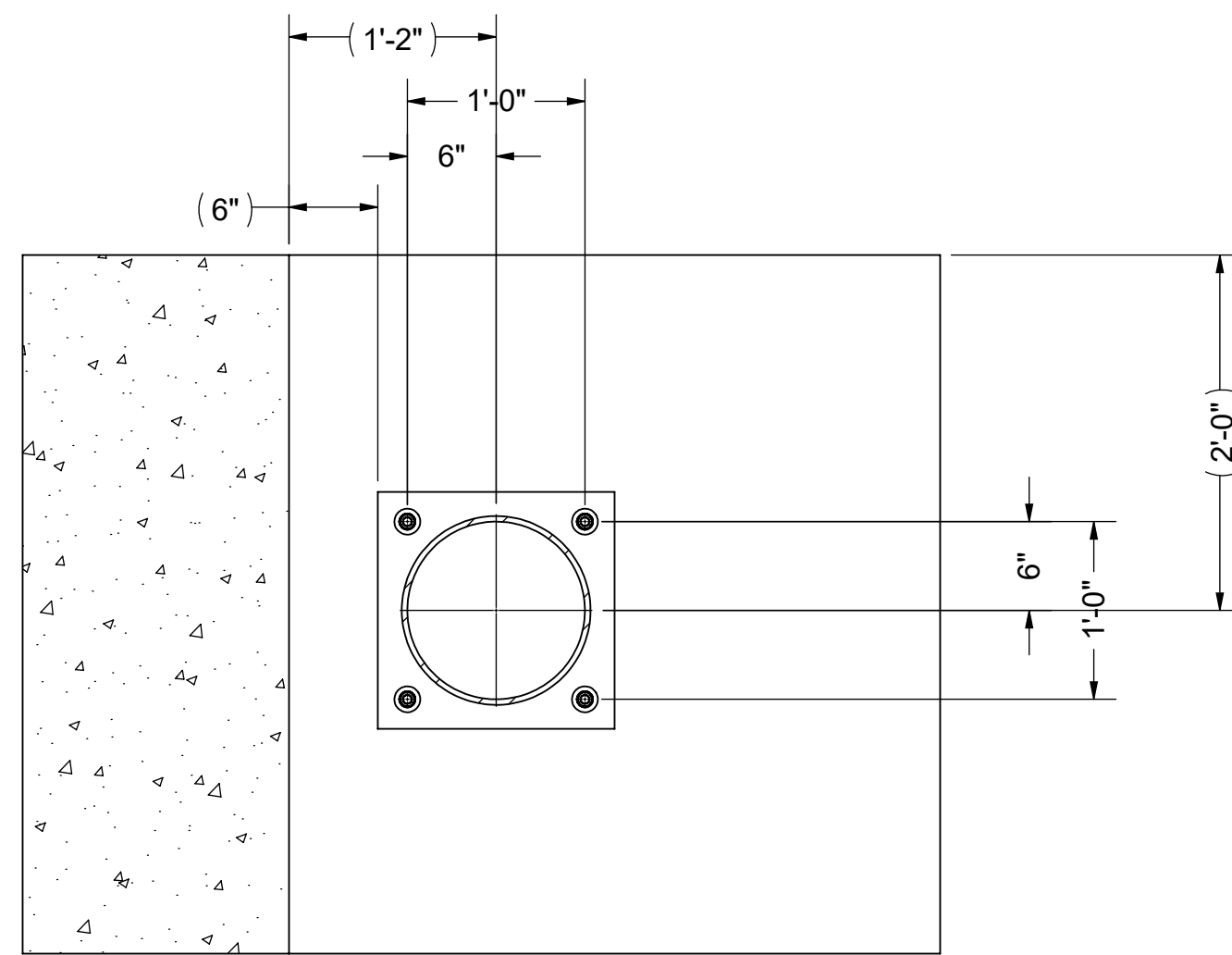
ENGR.
 DRAWN BY: PEH DATE: 8/28/2018
 CKD. BY: JJH DATE: 8/28/2018

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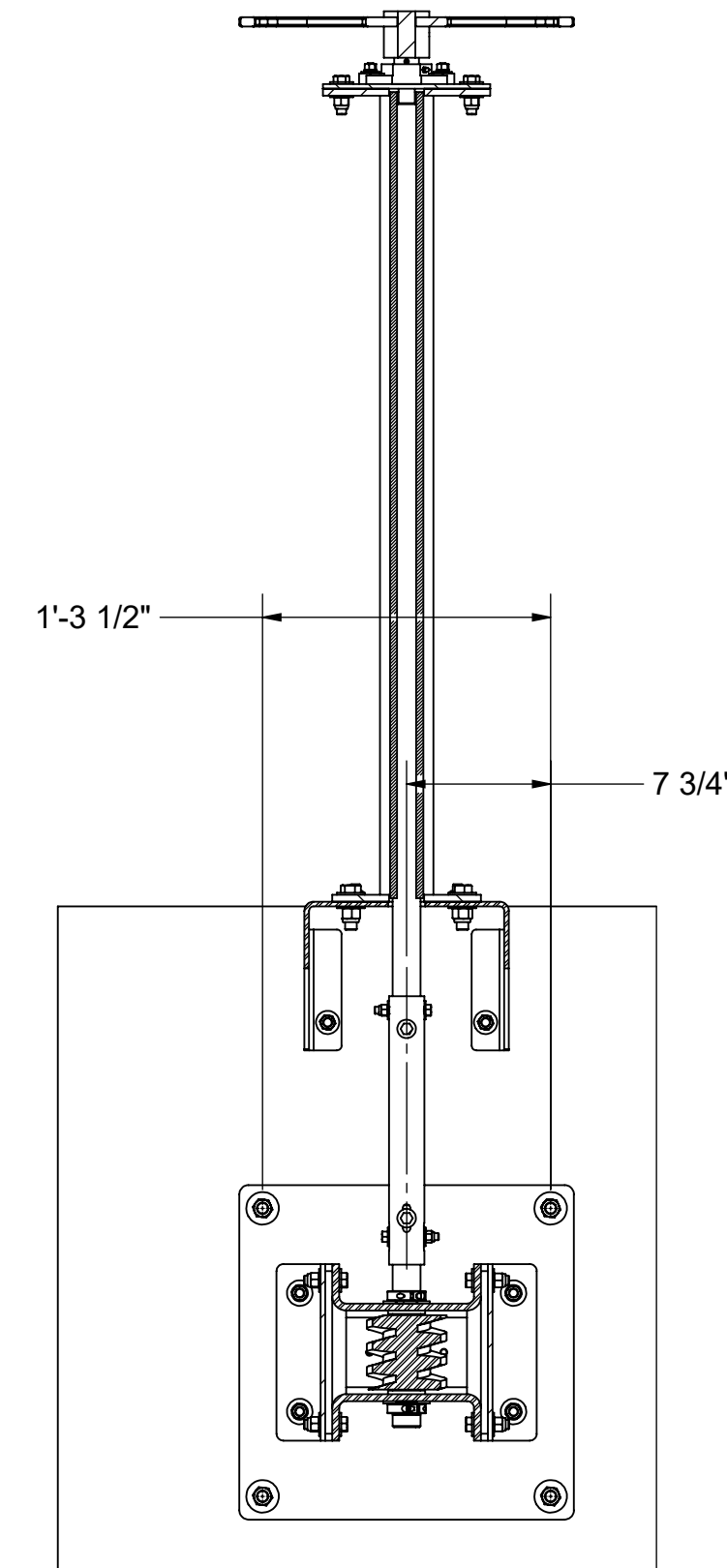
18034-SA05 1 OF 1
CONTR. NO. SHEET



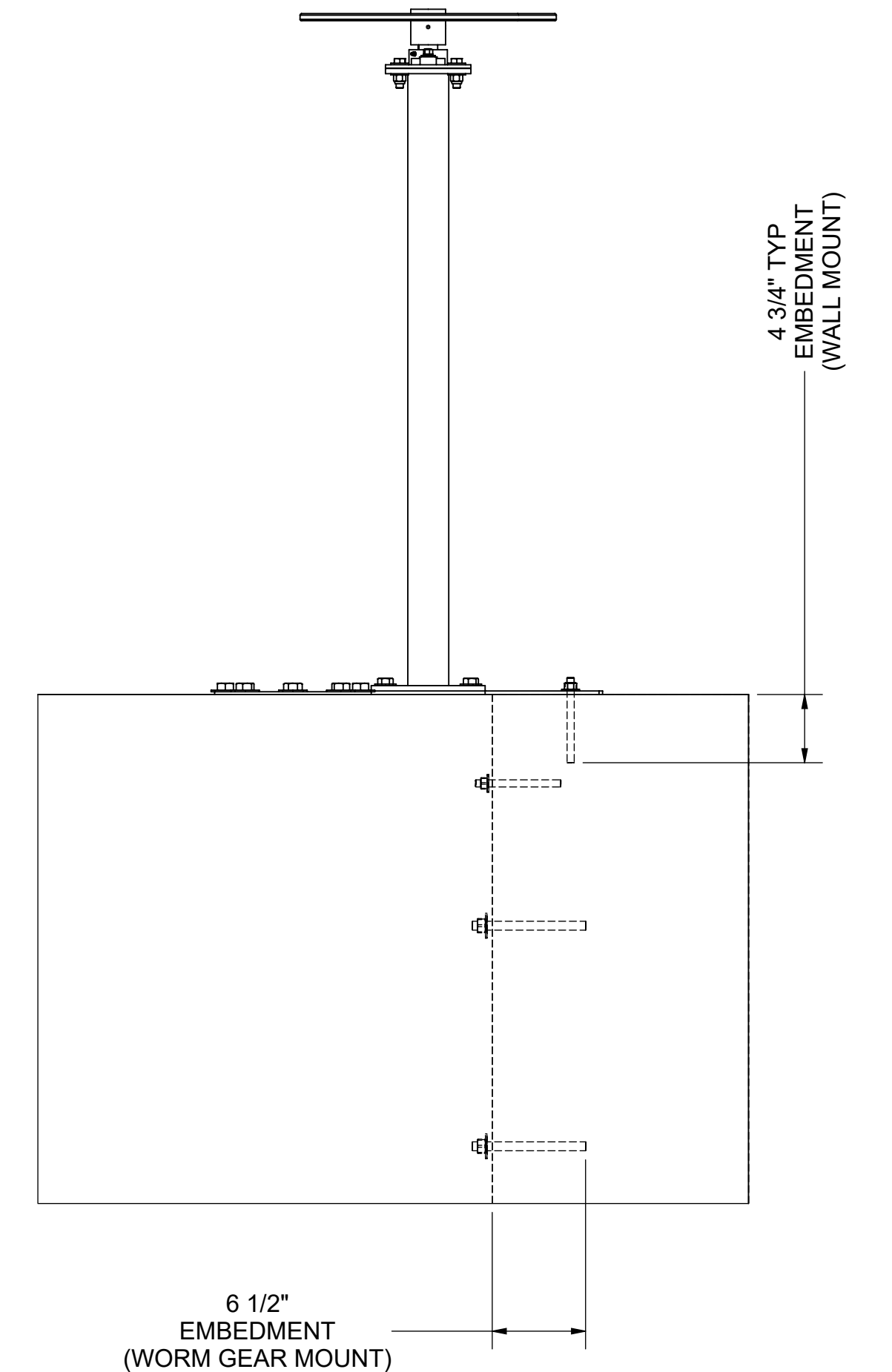
SECTION A-A
WALL BEARING DETAIL



SECTION B-B
CROSS MOUNT DETAIL

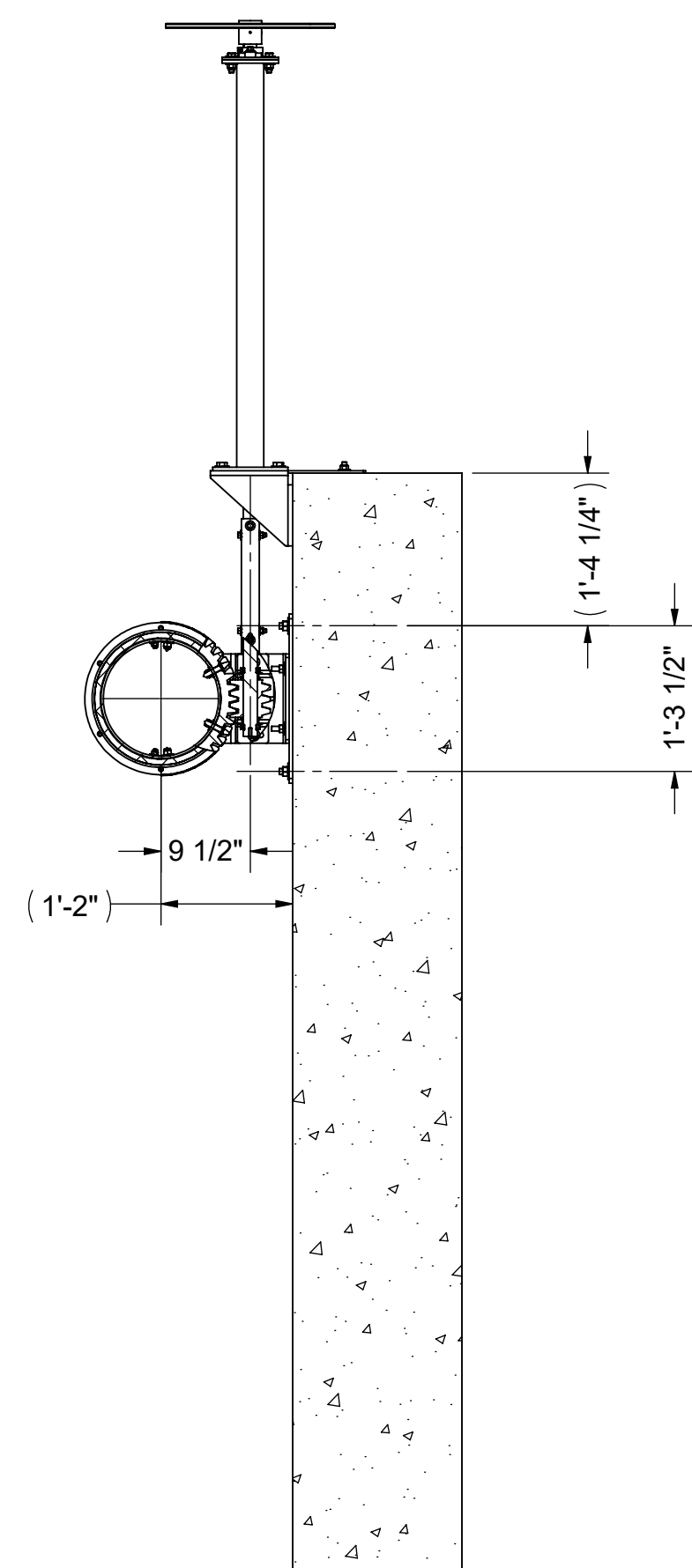


SECTION C-C
WORM GEAR AND STAND
ANCHOR DETAIL

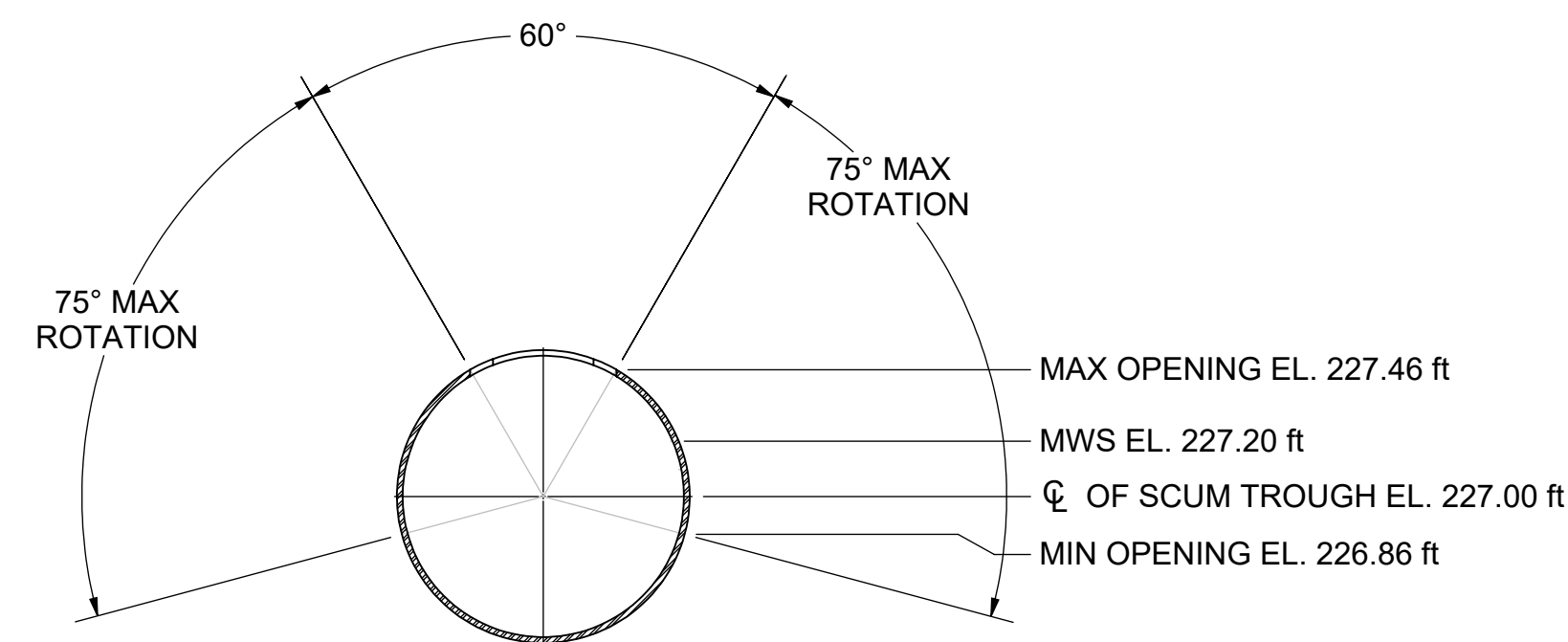


SECTION D-D
WORM GEAR LOCATION DETAIL

(3" MINIMUM DISTANCE FROM EDGE OF CONCRETE)



SECTION D-D
WORM GEAR LOCATION DETAIL



SECTION E-E
SCUM TROUGH OPENING & TRAVELING DETAIL

A	8/27/2018	PEH	ORIGINAL ISSUE
REV.	DATE	BY	DESCRIPTION

REVISIONS

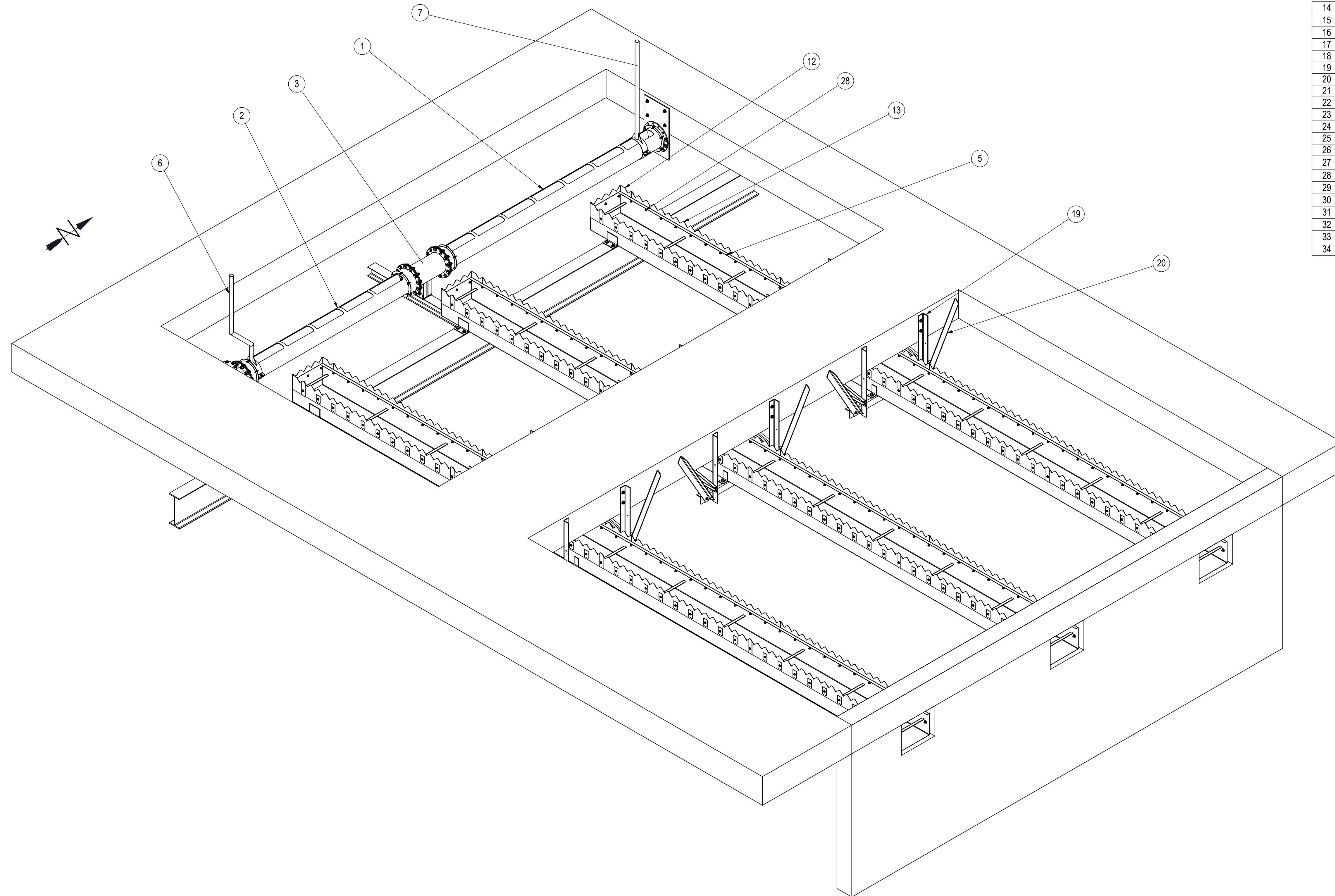
PROJECTION ANGLE		
		JIM MYERS & SONS INC. www.jmsequipment.com (704) 554-8397 (704) 554-9113 (FAX)
DRAWING OF	SCUM TROUGH, BASIN 1	
JOB NAME	VALLEJO, CA WTP	
JOB LOC.	VALLEJO, CA	
CUSTOMER	MISCOWATER	
ENGR.		
DRAWN BY	DATE	8/27/2018
CKD. BY	JJH	DATE 8/27/2018

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18034-GA01
CONTR. NO.

2 OF 2
SHEET



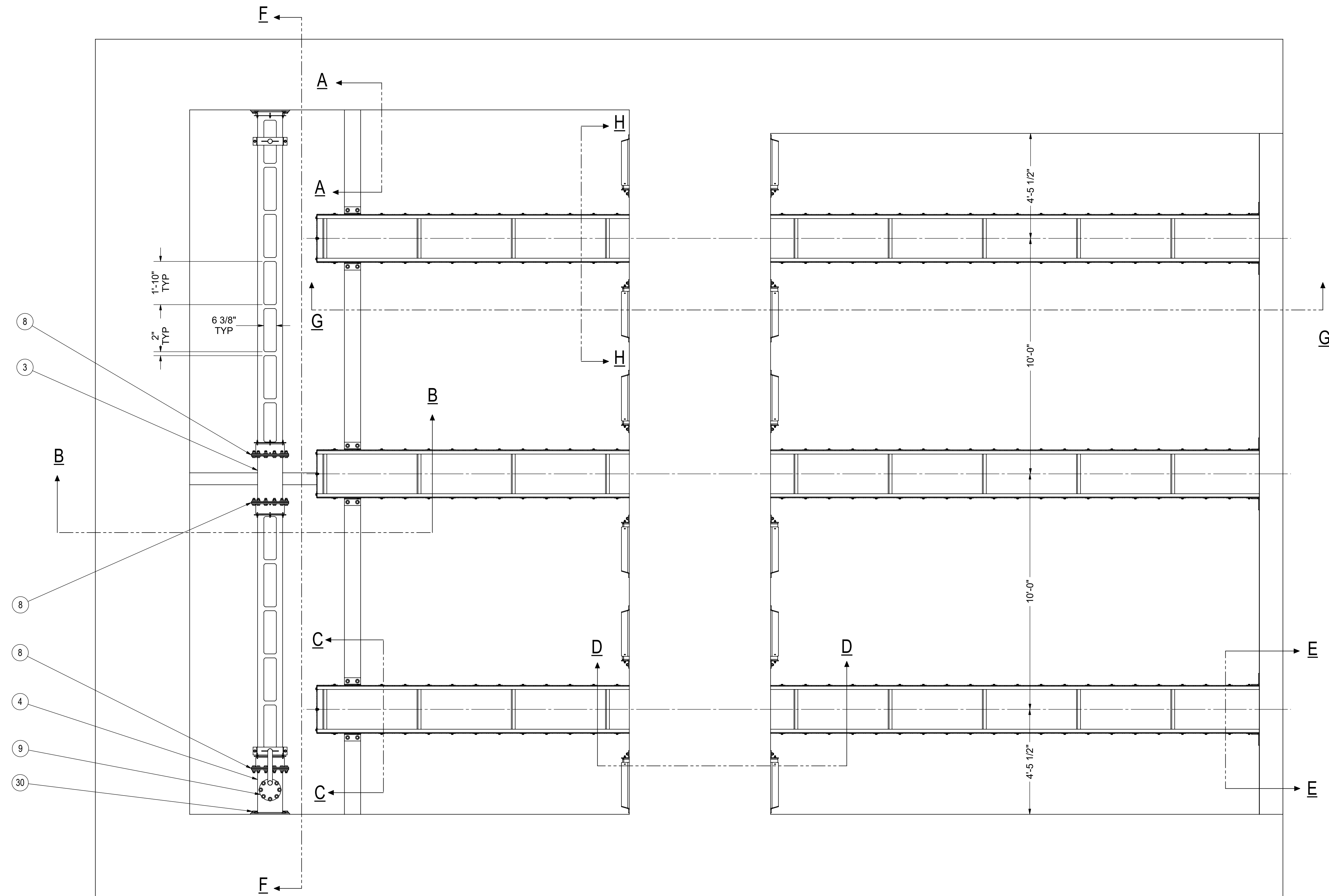
PARTS LIST				
ITEM	QTY.	PART NUMBER	DESCRIPTION	COMMENTS
1	1	18034-SA10	14'-8" SCUM TROUGH, SED BASIN 1	316 SS
2	1	18034-SA11	11'-3" SCUM TROUGH, SED BASIN 1	316 SS
3	1	18034-M10	WELDMENT, COUPLER, SCUM TROUGH SED BASIN	316 SS
4	1	18034-M11	WELDMENT, CROSS, W/CLEAN OUT SED BASIN	316 SS
5	3	18034-M20	WELDMENT, TROUGH ASSEMBLY	316 SS
6	1	18034-M30	WELDMENT, LEVER, ANGLED	316 SS
7	1	18034-M31	WELDMENT, LEVER, STRAIGHT	316 SS
8	3	18034-F07	GASKET, Ø17"	NEOPRENE
9	1	18034-F09	COVER, CLEAN OUT Ø11" X 1/4"	316 SS
10	1	18034-F10	GASKET, COVER Ø11" X 1/4"	NEOPRENE
11	2	18034-F14	MOUNT, CROSS PL. 1/2" X 20" X36"	316 SS
12	3	18034-F21	WEIR PLATE, TROUGH END PL. 12GA X 10" X -42 1/4"	316 SS
13	18	18034-F22	WEIR PLATE PL. 12GA X 10" X -120"	316 SS
14	6	18034-F23	WEIR PLATE PL. 12GA X 10" X -111"	316 SS
15	225	18034-F24	WASHER, PLATE PL. 12GA X 3" X 5"	316 SS
16	24	18034-F25	PLATE, SPLICEPL. 12GA X 3" X 10"	316 SS
17	6	18034-F30	SUPPORT, TROUGH BOTTOMPL. L5" X 3 1/2" X 3/8" X 66"	316 SS
18	12	18034-F31	ANGLE, TROUGH BOTTOMPL. L6" X 4" X 1/2" X 3 1/2"	316 SS
19	6	18034-F32	SUPPORT, TROUGH HANGERPL. L4" X 4" X 3/8" X 46"	316 SS
20	12	18034-F33	SUPPORT, TROUGH HANGER ANGLEPL. L4" X 4" X 3/8" X -50"	316 SS
21	6	18034-F34	ANGLE, TROUGH END BOTTOM PL. L6" X 4" X 1/2" X 8 1/4"	316 SS
22	3	18034-F35	ANGLE, TROUGH END BOTTOM WALL PL. L6" X 4" X 1/2" X 24"	316 SS
23	2	18034-F36	STRAP, PIPE PL. 1/4" X 4" -21 3/16"	316 SS
24	6	18034-F37	SUPPORT, TROUGH HANGER ANGLE PL. L2" X 2" X 1/4" X 80"	316 SS
25	6	18034-F38	SUPPORT, TROUGH HANGER TRANS PL. L2" X 2" X 1/4" X 79"	316 SS
26	6	18034-F39	ANGLE, TROUGH END BOTTOM SIDE PL. L6" X 4" X 1/2" X 18"	316 SS
27	6	18034-F40	SUPPORT, TROUGH HANGER, LEFT PL. L4" X 4" X 3/8" X 46" (FORMED)	316 SS
28	277	H00-050 X 175	1/2" X 2" HHMB W/2FW, LNUT	316 SS
29	32	H00-075 X 225	3/4" X 2 1/4" HHMB W/2FW, LNUT	316 SS
30	184	H00-088 X 300	7/8" X 3" HHMB W/2FW, LNUT	316 SS
31	6	H11-063 X 900	5/8" X 9" ANCH W/FW, NUT	316 SS
32	56	H11-075 X 1200	3/4" X 1'-0" ANCH W/FW, NUT	316 SS
33	28	H00-063 X 225	5/8" X 2 1/4" HHMB W/2FW, LNUT	316 SS
34	15	2022793 (NOT SHOWN)	HIT-HY 200-R (11.1 FL. OZ/330 ML)	HILTI

- NOTES:
- PARTS LIST INDICATES QTY. FOR ONE ASSEMBLY. TOTAL ASSEMBLIES REQ'D FOR JOB 2. QTY 1 AS SHOWN (18034-GA03) QTY 1 OPPOSITE HAND (18034-GA04)
 - SCUM TROUGH DESIGN ALLOWS FOR BASIN WIDTH CONSTRUCTION TOLERANCE OF +/-1".
 - PACKING NUTS TO BE LOOSENED FOR ASSEMBLY. TIGHTEN EVENLY AFTER ALL IS ASSEMBLED AND ONLY ENOUGH TO SEAL. EXCESSIVE TIGHTNESS WILL CAUSE EXTRA LOAD.
 - CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS.
 - ALL ANCHOR LOCATION HOLES TO BE VERIFIED. IF REQUIRED, DRILL NEW HOLES AT ASSEMBLY. DO NOT DRILL IN EXISTING ANCHOR HOLE LOCATION.
 - NO SPARE PARTS INCLUDED.
 - 18034-GA04 IS THE MIRROR IMAGE OF 18034-GA03.

A	9/13/2018	PEH	ORIGINAL ISSUE
REV.	DATE	BY	DESCRIPTION
REVISIONS			
DRAWING OF		JIM MYERS & SONS INC.	
JOB NAME		www.jmsequipment.com	
JOB LOC.		(704) 554-8397 (704) 554-9113 (FAX)	
CUSTOMER		JIM MYERS & SONS, INC.	
ENGR.		N/A	
DRAWN BY		PEH DATE 9/13/2018	
CKD. BY		JJH DATE 9/13/2018	
18034-GA03		1 OF 5	
CONTR. NO.		SHEET	

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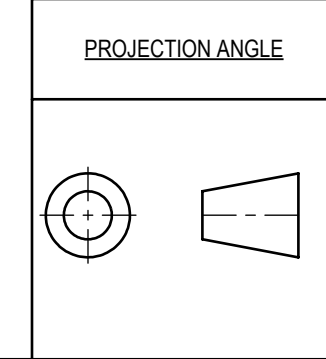


REV.	DATE	BY	DESCRIPTION
A	9/13/2018	PEH	ORIGINAL ISSUE

REVISIONS

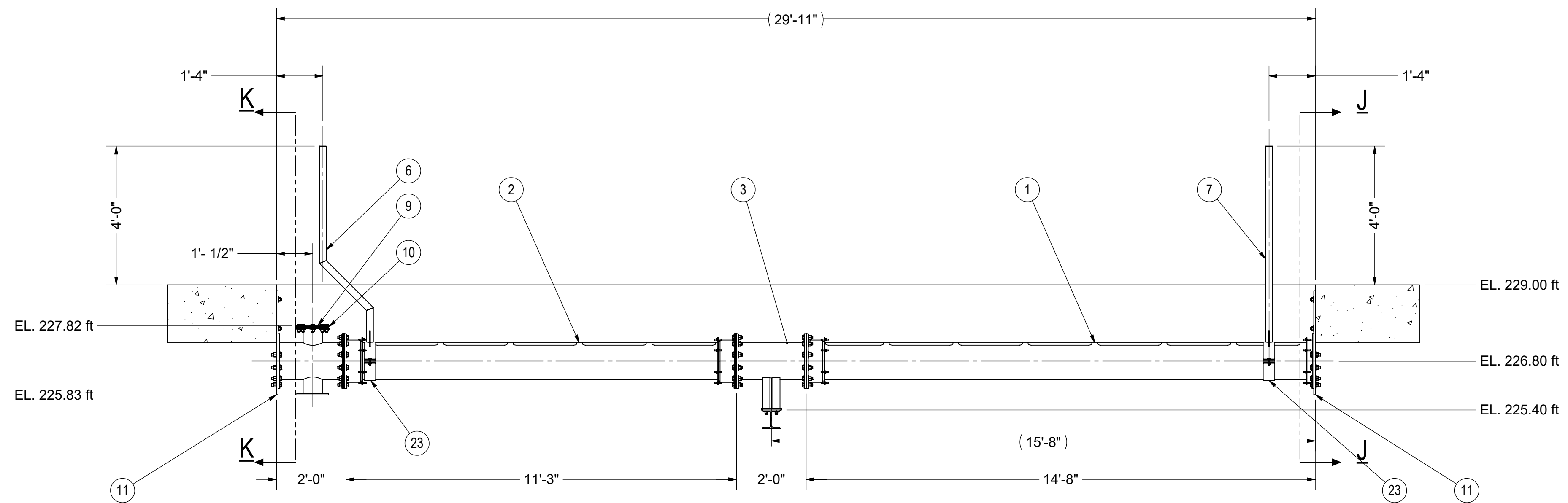
JMS
 JIM MYERS & SONS, INC.
 www.jmsequipment.com
 (704) 554-8397 (704) 554-9113 (FAX)

DRAWING OF	ASSY. SCUM TROUGH & LAUNDER BASIN 1
JOB NAME	VALLEJO, CA WTP
JOB LOC.	VALLEJO, CA
CUSTOMER	MISCOWATER
ENGR.	N/A
DRAWN BY	PEH DATE 9/13/2018
CKD. BY	JJH DATE 9/13/2018

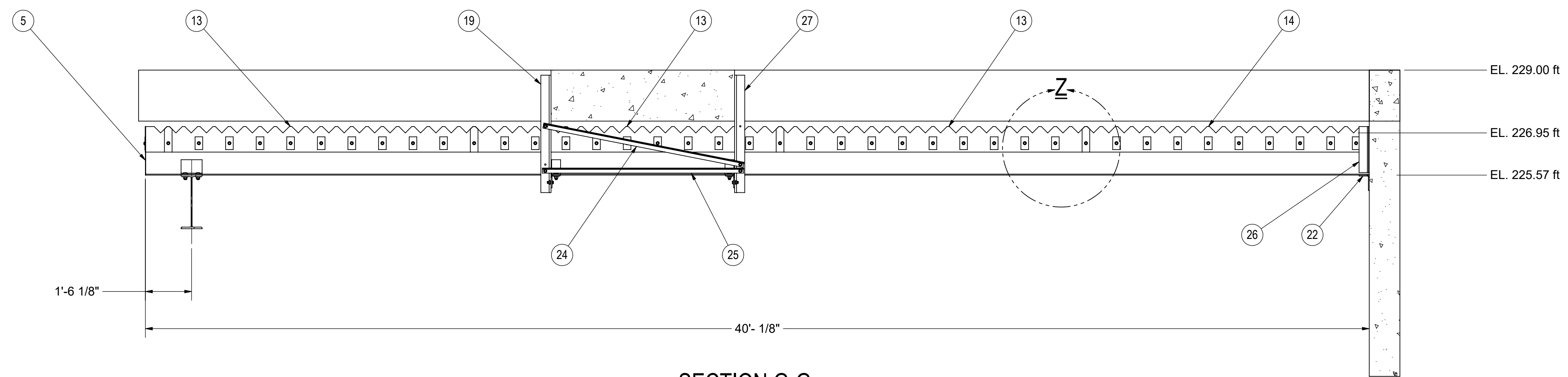


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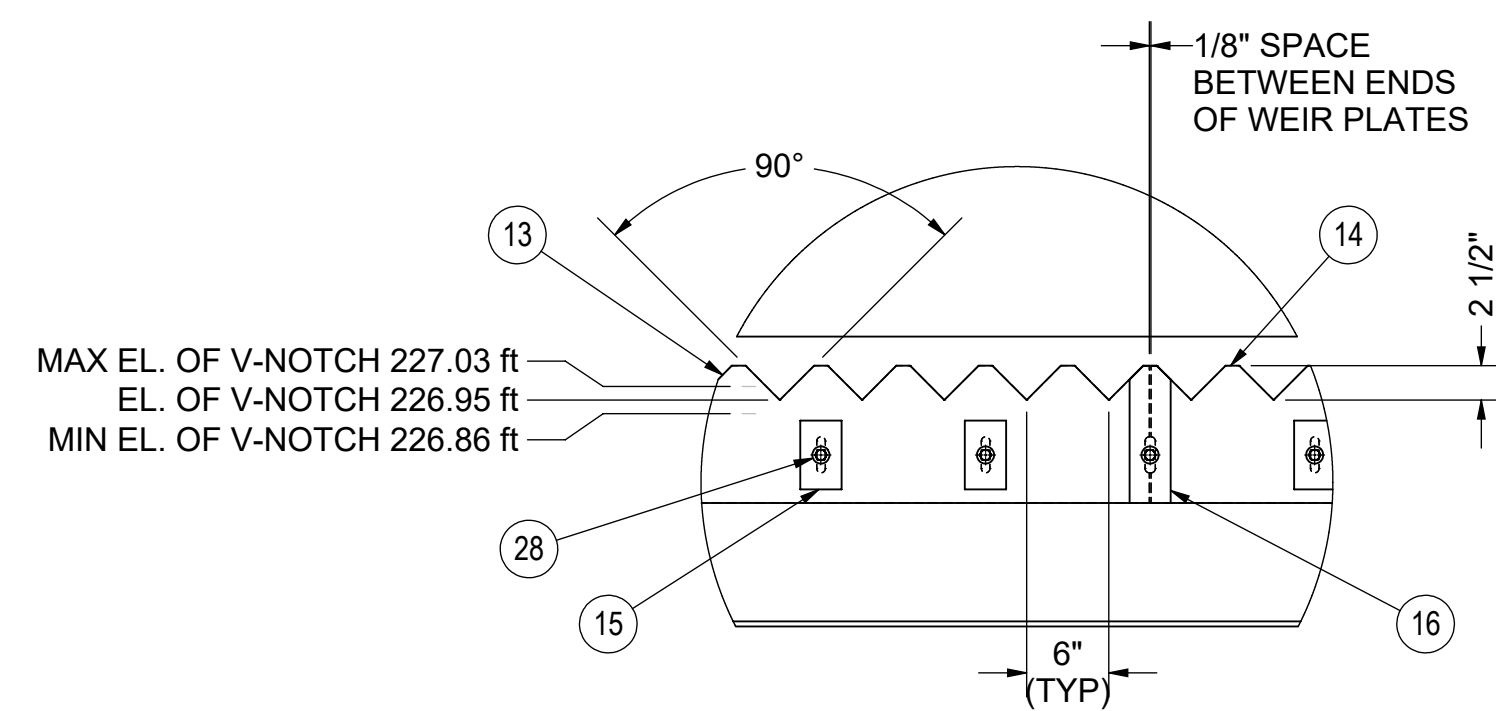
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SECTION F-F



SECTION G-G

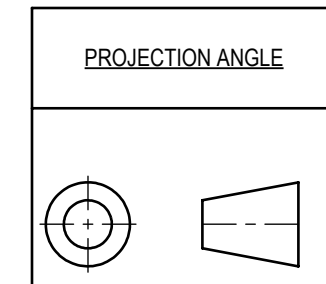


DETAIL Z

A	9/13/2018	PEH	ORIGINAL ISSUE
REV.	DATE	BY	DESCRIPTION

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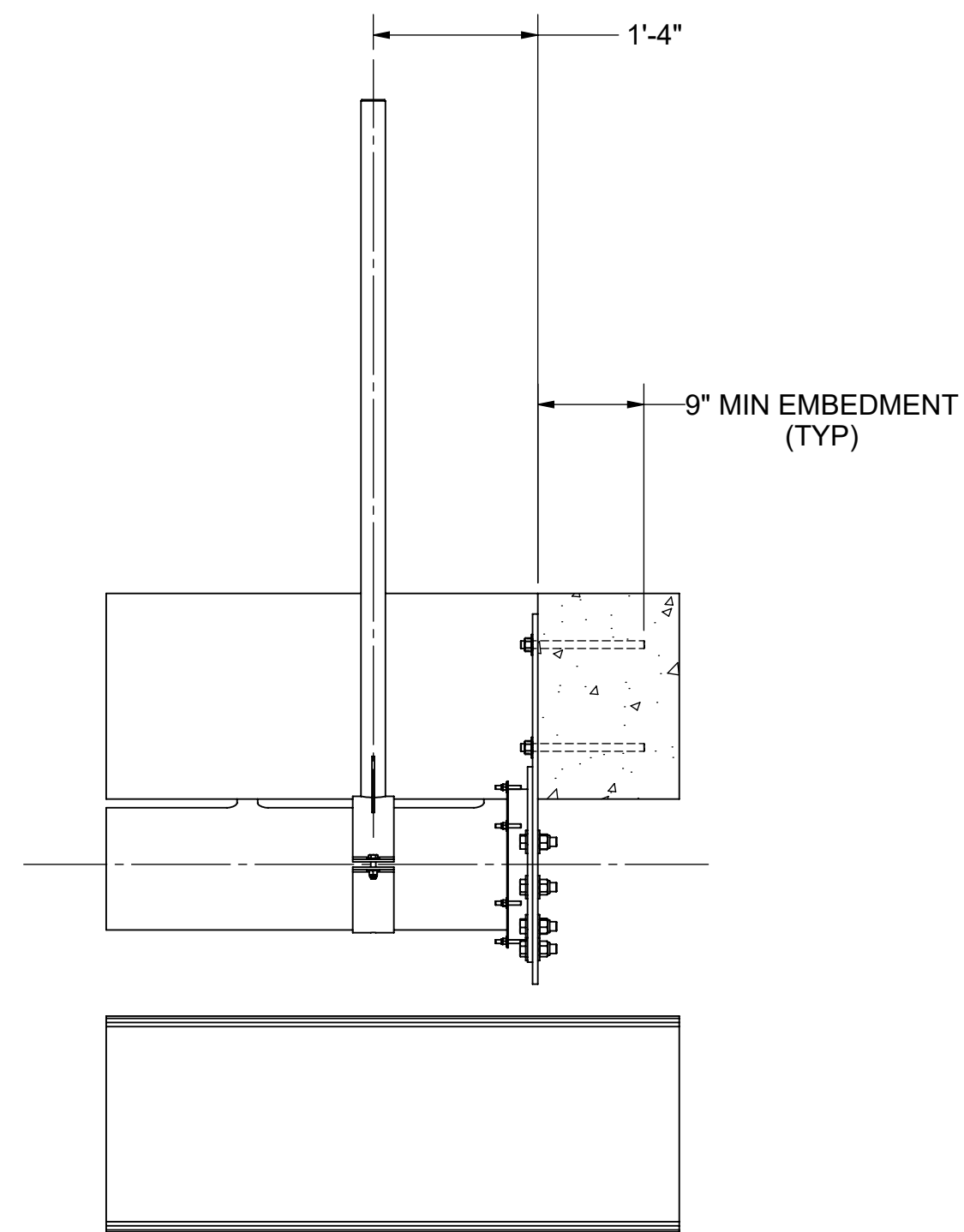
DRAWING OF		ASSY. SCUM TROUGH & LAUNDER BASIN 1	
JOB NAME		VALLEJO, CA WTP	
JOB LOC.		VALLEJO, CA	
CUSTOMER		MISCOWATER	
ENGR.		N/A	
DRAWN BY		PEH	DATE 9/13/2018
CKD. BY		JJH	DATE 9/13/2018



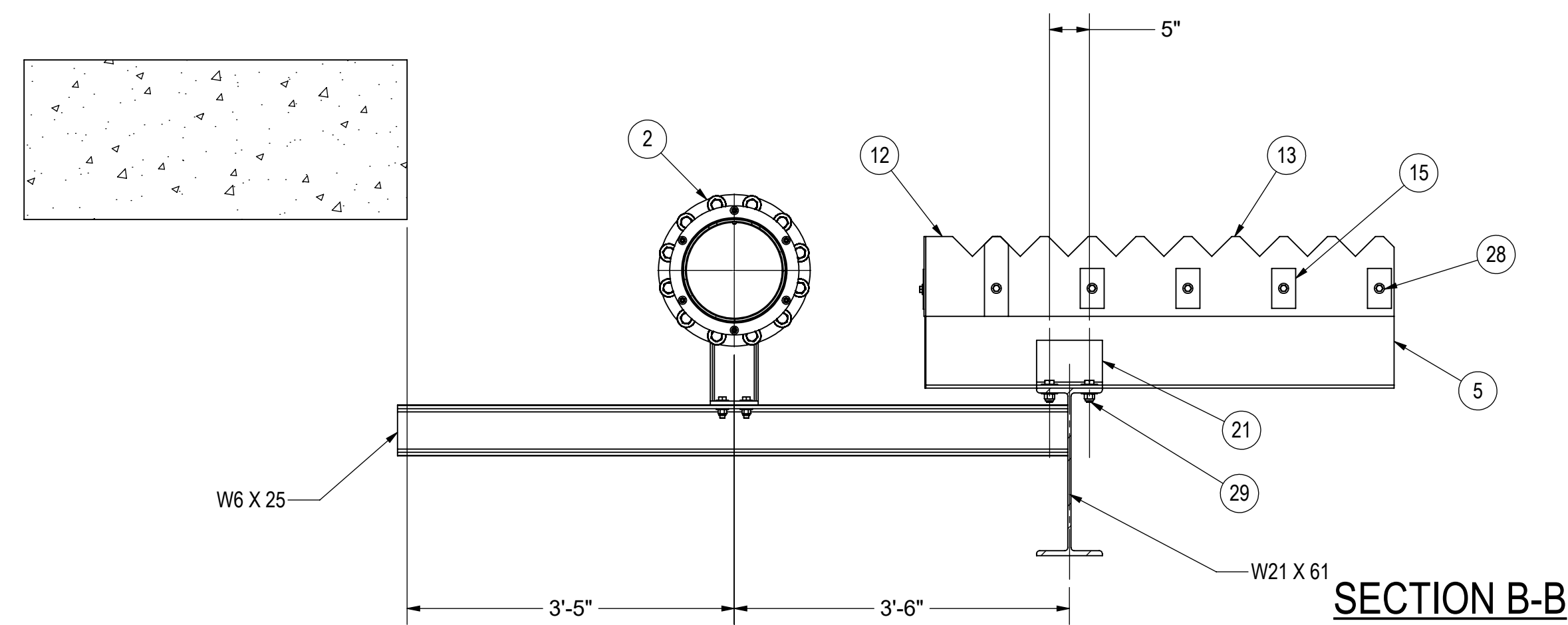
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www.jmsequipment.com
(704) 554-8397 (704) 554-9113 (FAX)

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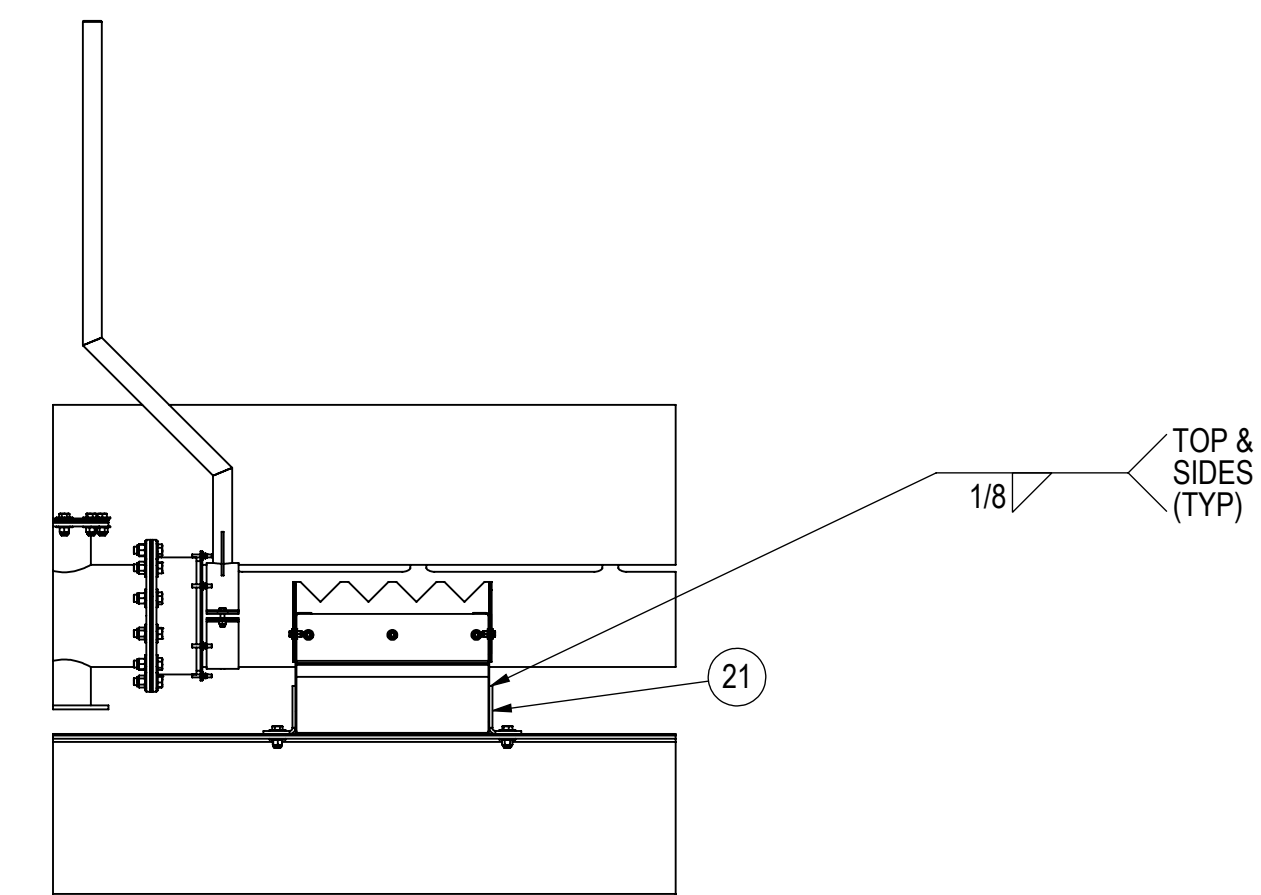
FOR APPROVAL ONLY
NOT FOR CONSTRUCTION



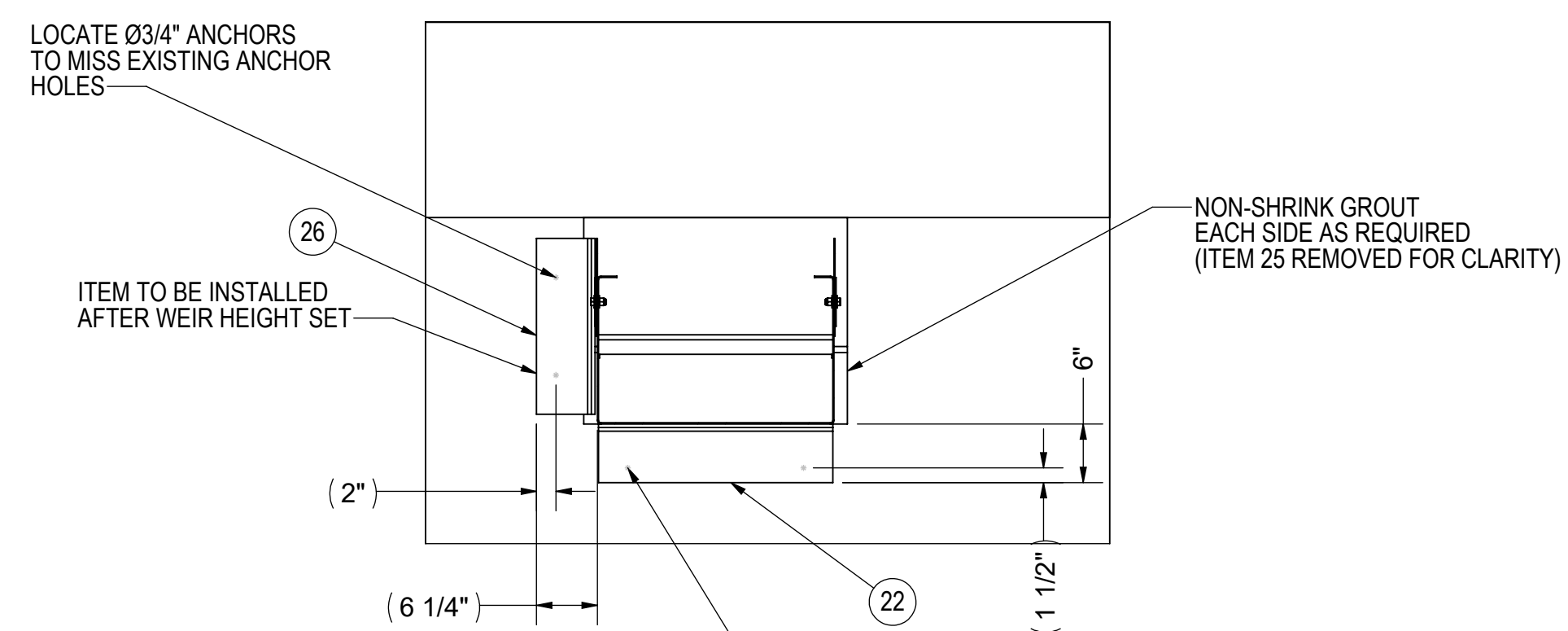
SECTION A-A



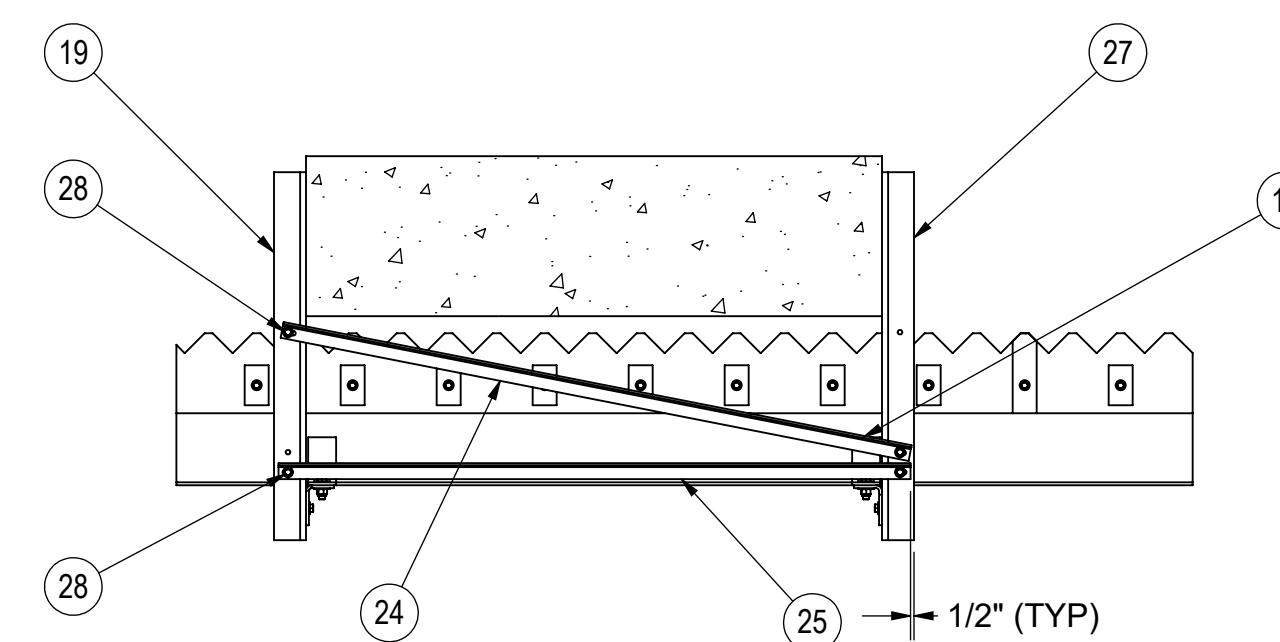
SECTION B-B



SECTION C-C



SECTION E-E



SECTION D-D

A	9/13/2018	PEH	ORIGINAL ISSUE
REV.	DATE	BY	DESCRIPTION

PROJECTION ANGLE

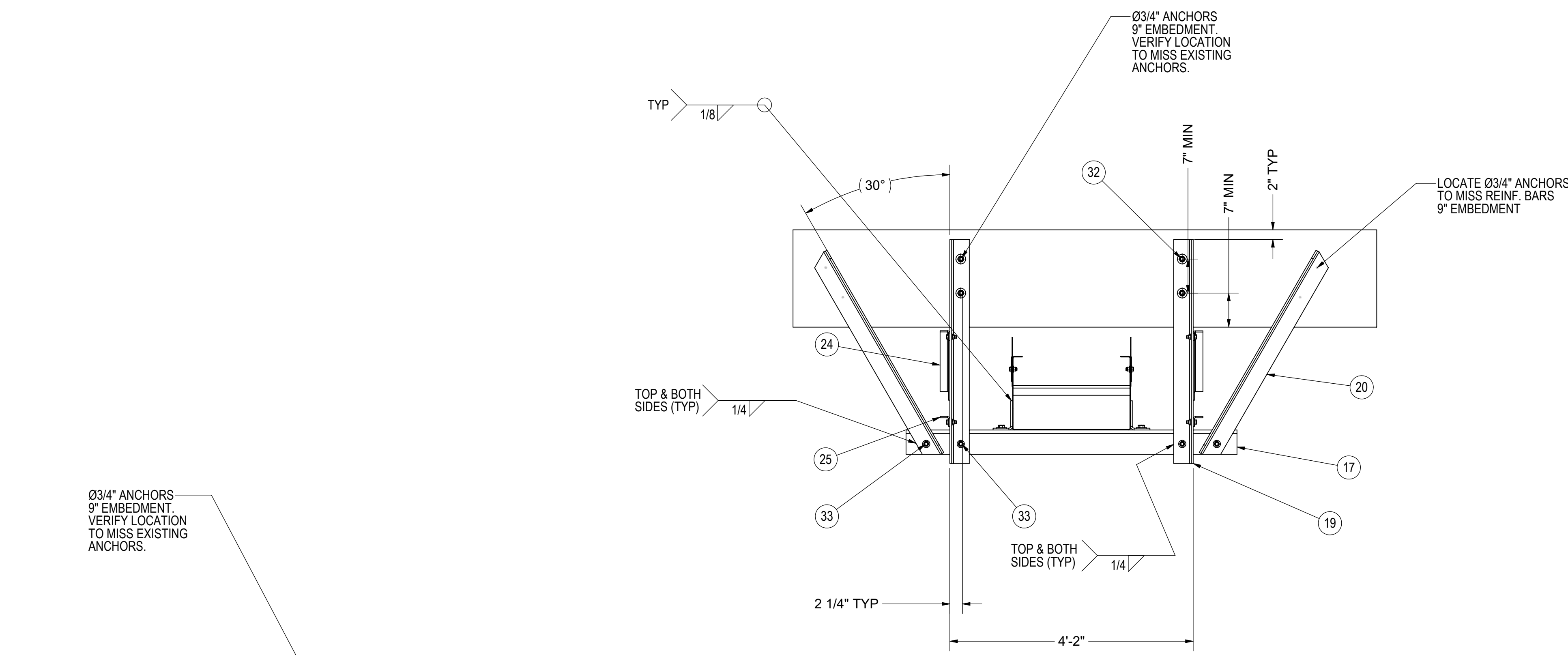
JMS
JIM MYERS & SONS, INC.
www.jmsequipment.com
(704) 554-8397 (704) 554-9113 (FAX)

DRAWING OF: ASSY. SCUM TROUGH & LAUNDER BASIN 1
 JOB NAME: VALLEJO, CA WTP
 JOB LOC: VALLEJO, CA
 CUSTOMER: MISCOWATER
 ENGR: N/A
 DRAWN BY: PEH DATE: 9/13/2018
 CKD. BY: JJH DATE: 9/13/2018

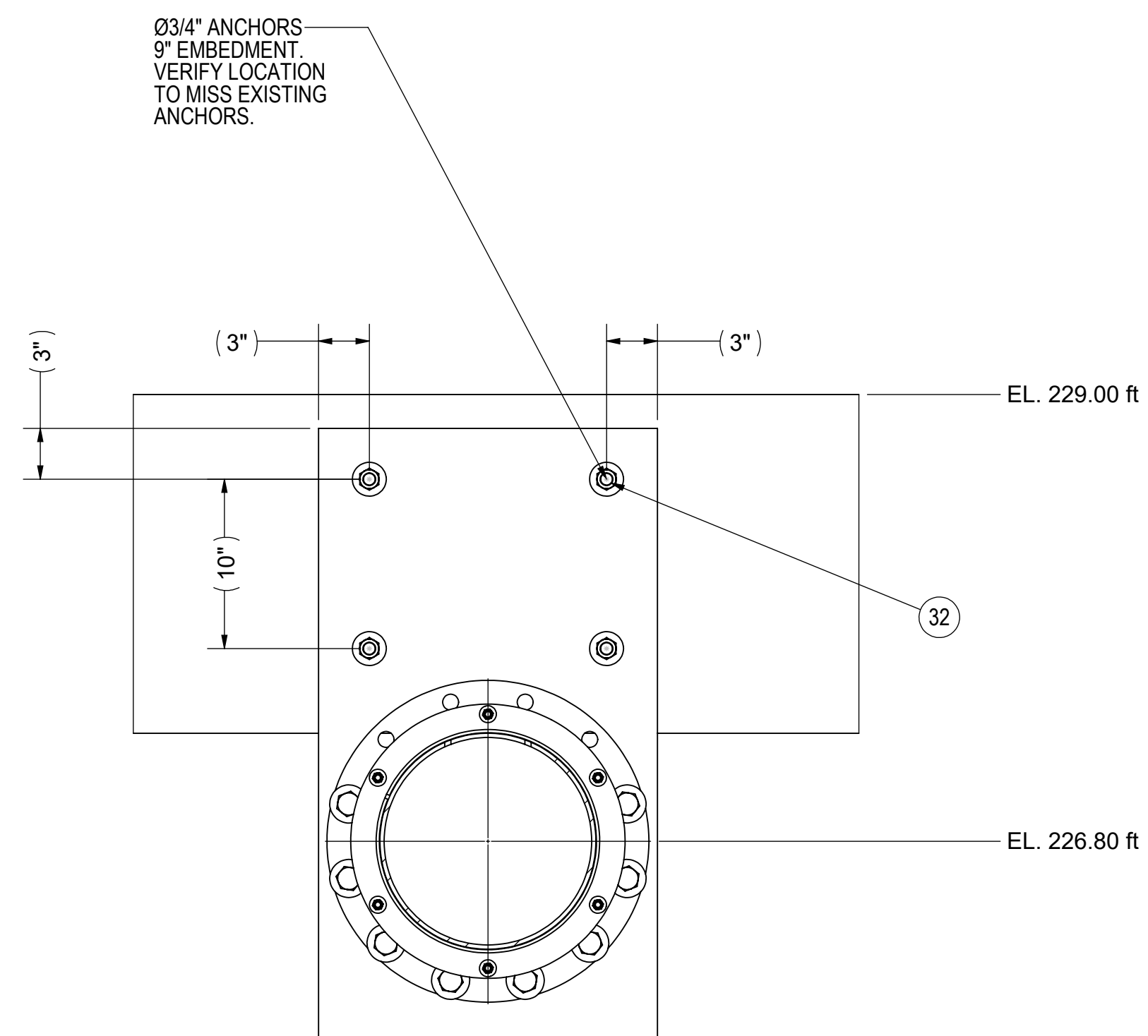
PROPERTY OF JIM MYERS & SONS, INC. THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF JIM MYERS & SONS, INC. AND MAY ONLY BE USED FOR THE LIMITED PURPOSES OF EVALUATING PROPOSAL INSTALLING, OPERATING OR MAINTAINING JIM MYERS & SONS, INC. EQUIPMENT. DISCLOSURE, DUPLICATION, MODIFICATION, OR OTHER USE OF THIS DRAWING IS NOT PERMITTED WITHOUT THE PRIOR WRITTEN PERMISSION OF JIM MYERS & SONS, INC.

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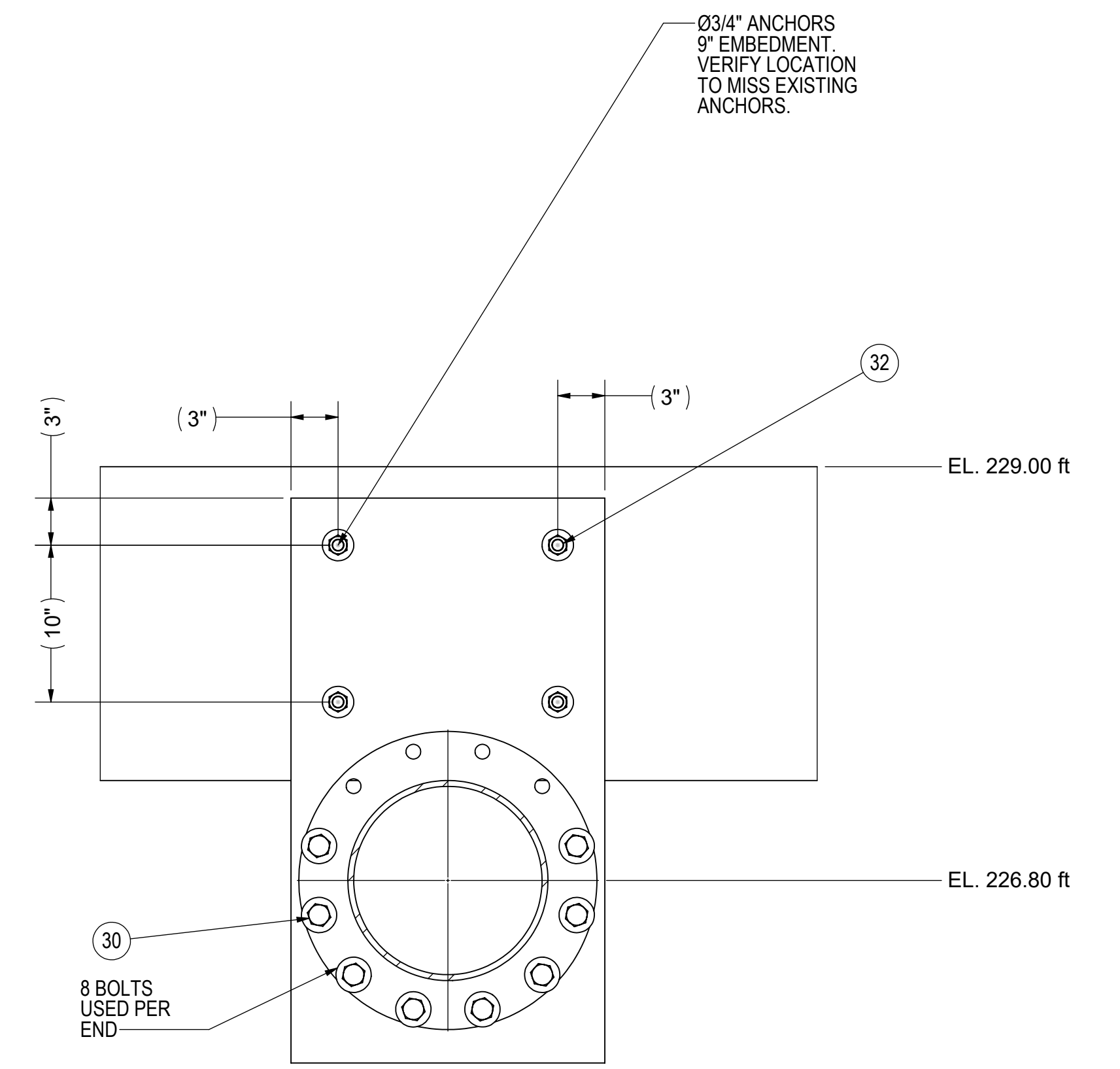
REVISIONS	
18034-GA03	4 OF 5
CONTR. NO.	SHEET



SECTION H-H



SECTION J-J



SECTION K-K

A	9/13/2018	PEH	ORIGINAL ISSUE
REV.	DATE	BY	DESCRIPTION

PROJECTION ANGLE

JMS
JIM MYERS & SONS INC.
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(704) 554-8397 (704) 554-9113 (FAX)

DRAWING OF: ASSY. SCUM TROUGH & LAUNDER BASIN 1
 JOB NAME: VALLEJO, CA WTP
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PROPERTY OF JIM MYERS & SONS, INC. THIS DRAWING CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF JIM MYERS & SONS, INC. AND MAY ONLY BE USED FOR THE LIMITED PURPOSES OF EVALUATING PROPOSAL INSTALLING, OPERATING OR MAINTAINING JIM MYERS & SONS, INC. EQUIPMENT. DISCLOSURE, DUPLICATION, MODIFICATION, OR OTHER USE OF THIS DRAWING IS NOT PERMITTED WITHOUT THE PRIOR WRITTEN PERMISSION OF JIM MYERS & SONS, INC.

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10/3/2018 9:06 PM V:\WATER\7093 - FH/PT SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\7093 - FH/PT-BASINS 1 AND 8 REVISED.DWG

BILL OF MATERIALS – CHAIN AND FLIGHT EQUIPMENT – BASIN 1:PROVIDED BY THE CITY

Table with 5 columns: ITEM, PART NUMBER, QTY, UNITS, DESCRIPTION. Contains 57 rows of material specifications for Basin 1 equipment.

BILL OF MATERIALS – CHAIN AND FLIGHT EQUIPMENT – BASIN 8:PROVIDED BY THE CITY

Table with 5 columns: ITEM, PART NUMBER, QTY, UNITS, DESCRIPTION. Contains 57 rows of material specifications for Basin 8 equipment.

BILL OF MATERIALS – NOTES:

- 1. CHAIN AND FLIGHT, FLOCCULATION AND OTHER EQUIPMENT AND MATERIALS ARE BEING PROVIDED BY THE CITY OF VALLEJO AS DETAILED IN THE BILL OF MATERIALS.
2. ANY ADDITIONAL EQUIPMENT, MATERIALS AND MISCELLANEOUS ANCHORS, SCREWS, BOLTS, NUTS, ADHESIVE, ANCHORING SYSTEM, ETC. REQUIRED TO COMPLETE THE PROJECT BEYOND WHAT IS PROVIDED SHALL BE AT THE CONTRACTOR'S EXPENSE.
3. MISCELLANEOUS PIPING, VALVES, FITTINGS AND OTHER PIPING EQUIPMENT AND MATERIALS ARE TO BE FURNISHED BY THE CONTRACTOR. ESTIMATED QUANTITIES (BASIN 1) FOR THE PIPING ARE AS FOLLOWS: 1 1/2" PIPE - 200 LF, 2" PIPE - 90 LF, 4" PIPE - 180 LF, 6" PIPE - 150 LF. ESTIMATED QUANTITIES (BASIN 8) FOR PIPING ARE AS FOLLOWS: 2" PIPE - 15 LF, 4" PIPE - 40 LF, 6" PIPE - 150 LF. CONTRACTOR SHALL FIELD VERIFY THE QUANTITIES FOR PIPING, VALVES, FITTINGS AND OTHER MATERIALS.



CITY OF VALLEJO

WATER DEPARTMENT

APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER

FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093

BILL OF MATERIALS BASIN 1 & 8 CHAIN & FLIGHT EQUIPMENT

Table with 2 columns: CITY PROJECT # (WT 7093), DESIGN BY (J JACKSON), DRAWN BY (R. ZAMBRANA), CHECKED BY (M. SOKOLU R. WILSON), DATE (02/12/18), SCALE (N/A), SHEET (3 OF 21 SHEETS), DRAWING FILE # (WT 7093)

BILL OF MATERIALS – FLOCCULATION EQUIPMENT BASIN 1 & 8: PROVIDED BY THE CITY



ITEM	QTY.	SAP PN	LEGACY PN/ DRAWING NO	DESCRIPTION	MAT'L	WT
STAGE 1 (BASIN #1 & #8)						
35	2		12699-120-100-316SS	COMPRSSN CPLG - RIBBED (2.94X2.44)	316SS	110
36	2		12699-111-100-316SS	STUFFING BOX ASSEMBLY - 2.437" DIA	316SS	90
37	2		12699-114-3	COUPLING - TAPERED GRID + COVER		
40	8		12699-115-100-316SS	TURBINE DISC ASSY (HALF)	316SS	1424
41	40		12699-115-4-316SS	TURBINE DISC BLADE	316SS	
42	40		12699-115-5-316SS	TURBINE DISC BLADE	316SS	
44	4		12699-209-103-316SS	SHAFT EXTENSION ASSY (62.69" LG)	316SS	648
			12699-114-2	HALF COUPLING SWEATED ONTO SHAFT END		
45	2		12699-124-100-316SS	TURBINE HUB SHAFT ASSY (149.75" LG)	316SS	700
46	2		12699-124-101-316SS	TURBINE HUB SHAFT ASSY (137.88" LG)	316SS	650
52	2		12699-123-100-316SS	COMPRSSN CPLG - RIBBED (2.94X2.94)	316SS	10
100	2		12699-114-1	HALF COUPLING SWEAT ONTO REDUCER SHAFT		
STAGE 2 (BASIN #1 & #8)						
77	4		12699-113-100-316SS	COMPRSSN CPLG - RIBBED (2.44X2.44)	316SS	220
78	2		12699-111-100-316SS	STUFFING BOX ASSEMBLY - 2.437" DIA	316SS	90
80	2		12699-114-3	COUPLING - TAPERED GRID + COVER		
84	32		12699-203-1	PADDLE BLADE (LAMINATED FIR)	WOOD	868
87	16		12699-205-1-316SS	PADDLE ARM	316SS	144
88	16		12699-205-2-316SS	PADDLE ARM	316SS	144
89	32		12699-206-1-316SS	CROSS BRACE - PADDLE ARM	316SS	360
90	64		12699-207-1-316SS	REINFORCEMENT PLATE - PADDLE ARM	316SS	17
95	2		12699-209-101-316SS	SHAFT ASSY - PADDLE HUB (149.75"LG)	316SS	576
96	2		12699-209-102-316SS	SHAFT ASSY - PADDLE HUB (137.88"LG)	316SS	540
99	2		12699-209-103-316SS	SHAFT "EXTENSION" ASSY (62.69" LG)	316SS	162
			12699-114-2	HALF COUPLING SWEATED ONTO SHAFT END		
100	2		12699-114-1	HALF COUPLING SWEAT ONTO REDUCER SHAFT		
STAGE 3 (BASIN #1 & #8)						
77	4		12699-113-100-316SS	COMPRSSN CPLG - RIBBED (2.44X2.44)	316SS	220
78	2		12699-111-100-316SS	STUFFING BOX ASSEMBLY - 2.437" DIA	316SS	90
79	2		12699-114-101	COUPLING ASSY (2.88X2.44)		78
84	24		12699-203-1	PADDLE BLADE (LAMINATED FIR)	WOOD	868
85	8		12699-204-1-316SS	PADDLE ARM	316SS	144
86	8		12699-204-2-316SS	PADDLE ARM	316SS	144
89	16		12699-206-1-316SS	CROSS BRACE - PADDLE ARM	316SS	360
90	48		12699-207-1-316SS	REINFORCEMENT PLATE - PADDLE ARM	316SS	17
94	2		12699-209-100-316SS	SHAFT EXTENSION ASSY (62.69" LG)	316SS	230
95	2		12699-209-101-316SS	SHAFT ASSY - PADDLE HUB (149.75"LG)	316SS	576
96	2		12699-209-102-316SS	SHAFT ASSY - PADDLE HUB (137.88"LG)	316SS	540
100	2		12699-114-1	HALF COUPLING SWEAT ONTO REDUCER SHAFT		
COMPLETE						

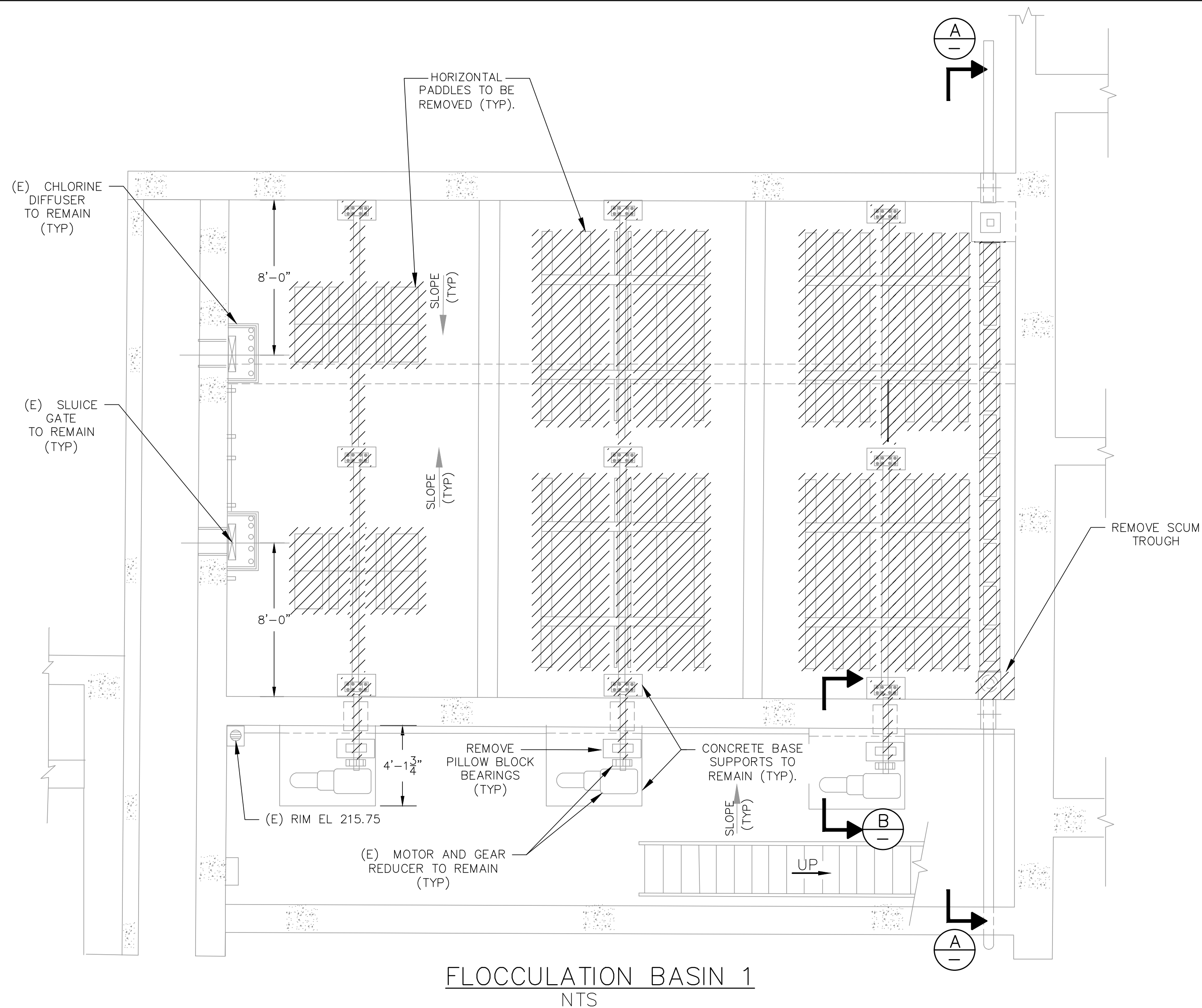
PILLOW BLOCK BEARINGS FOR FLOCCULATION EQUIPMENT,
SCUM TROUGHS, CROSSES FOR SCUM TROUGHS AND
LAUNDERS ARE PROVIDED BY THE CITY.

BILL OF MATERIALS – NOTES:

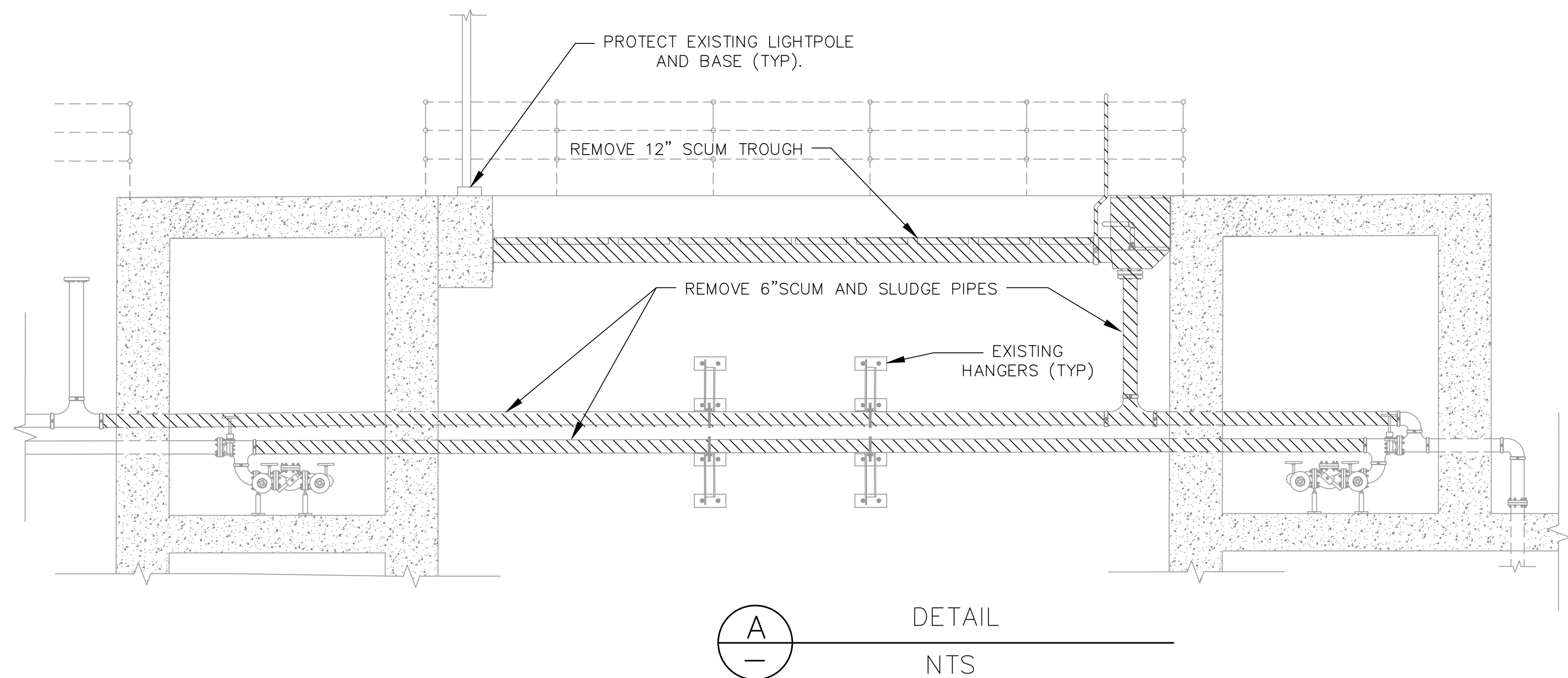
- CHAIN AND FLIGHT, FLOCCULATION AND OTHER EQUIPMENT AND MATERIALS ARE BEING PROVIDED BY THE CITY OF VALLEJO AS DETAILED IN THE BILL OF MATERIALS.
- ANY ADDITIONAL EQUIPMENT, MATERIALS AND MISCELLANEOUS ANCHORS, SCREWS, BOLTS, NUTS, ADHESIVE, ANCHORING SYSTEM, ETC. REQUIRED TO COMPLETE THE PROJECT BEYOND WHAT IS PROVIDED SHALL BE AT THE CONTRACTOR'S EXPENSE.
- MISCELLANEOUS PIPING, VALVES, FITTINGS AND OTHER PIPING EQUIPMENT AND MATERIALS ARE TO BE FURNISHED BY THE CONTRACTOR. ESTIMATED QUANTITIES (BASIN 1) FOR THE PIPING ARE AS FOLLOWS: 1 1/2" PIPE – 200 LF, 2" PIPE – 90 LF, 4" PIPE – 180 LF, 6" PIPE – 150 LF. ESTIMATED QUANTITIES (BASIN 8) FOR PIPING ARE AS FOLLOWS: 2" PIPE – 15 LF, 4" PIPE – 40 LF, 6" PIPE – 150 LF. CONTRACTOR SHALL FIELD VERIFY THE QUANTITIES FOR PIPING, VALVES, FITTINGS AND OTHER MATERIALS.

10/3/2018 9:06 PM V:\WATER\7093 - FHWP SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\7093 - FHWP-BASINS 1 AND 8 REVISED.DWG

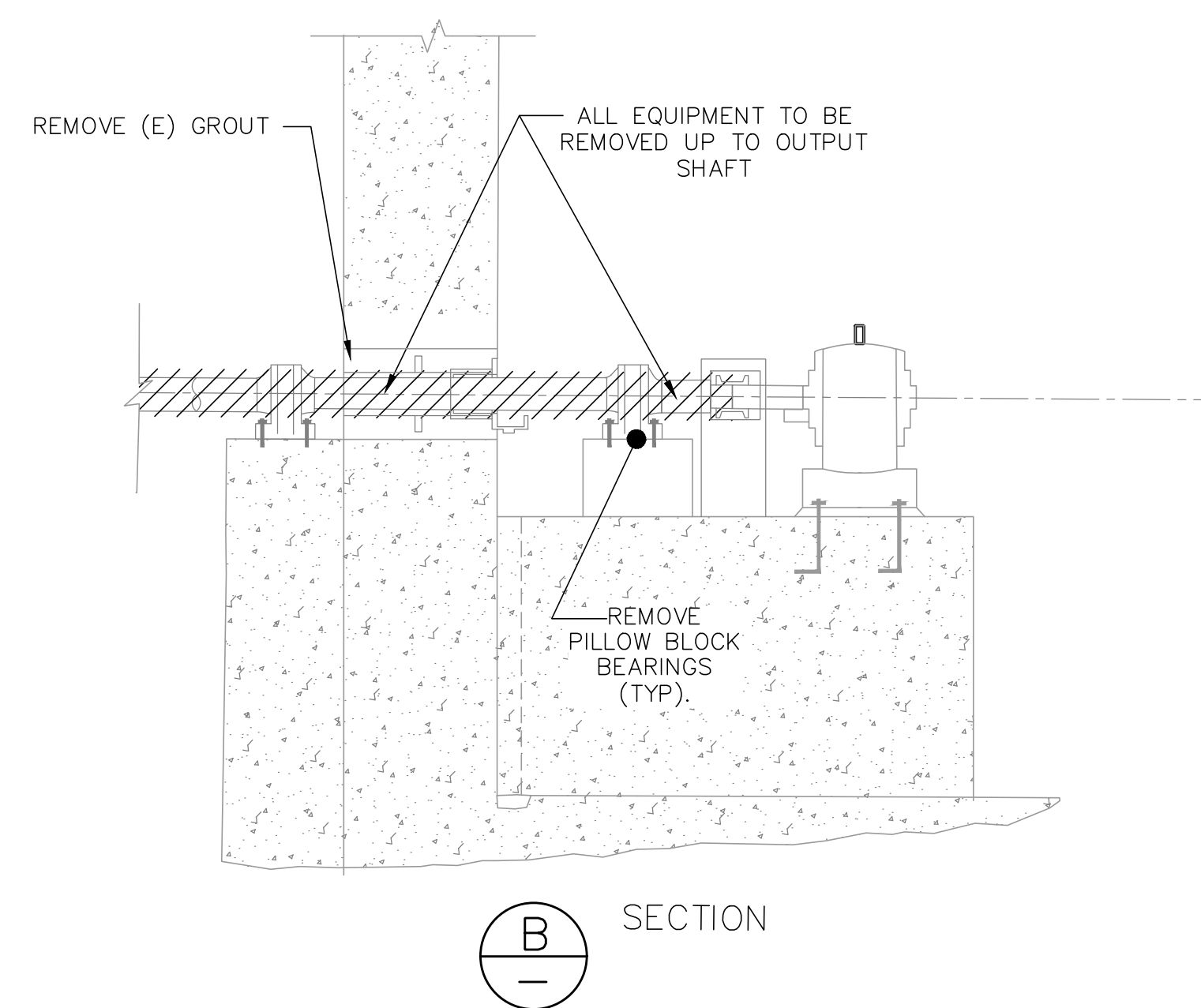
INIT.							
REVISION							
MARK							
DATE							
							
CITY OF VALLEJO WATER DEPARTMENT							
APPROVED:  RICHARD WILSON, PE. – ENGINEERING MANAGER							
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 BILL OF MATERIALS BASIN 1 & 8 FLOCCULATION EQUIPMENT							
CITY PROJECT # WT 7093							
DESIGN BY J JACKSON							
DRAWN BY R. ZAMBRANA							
CHECKED BY M. SOKOL R. WILSON							
DATE 02/12/18							
SCALE N/A							
SHEET 4							
OF 21 SHEETS DRAWING FILE # WT 7093							



FLOCCULATION BASIN 1
NTS



A
DETAIL
NTS



B
SECTION

BASIN NOTES:

1. LOCATIONS FOR BASIN 8 ARE MIRROR LOCATIONS OF BASIN 1.

DEMO NOTES:

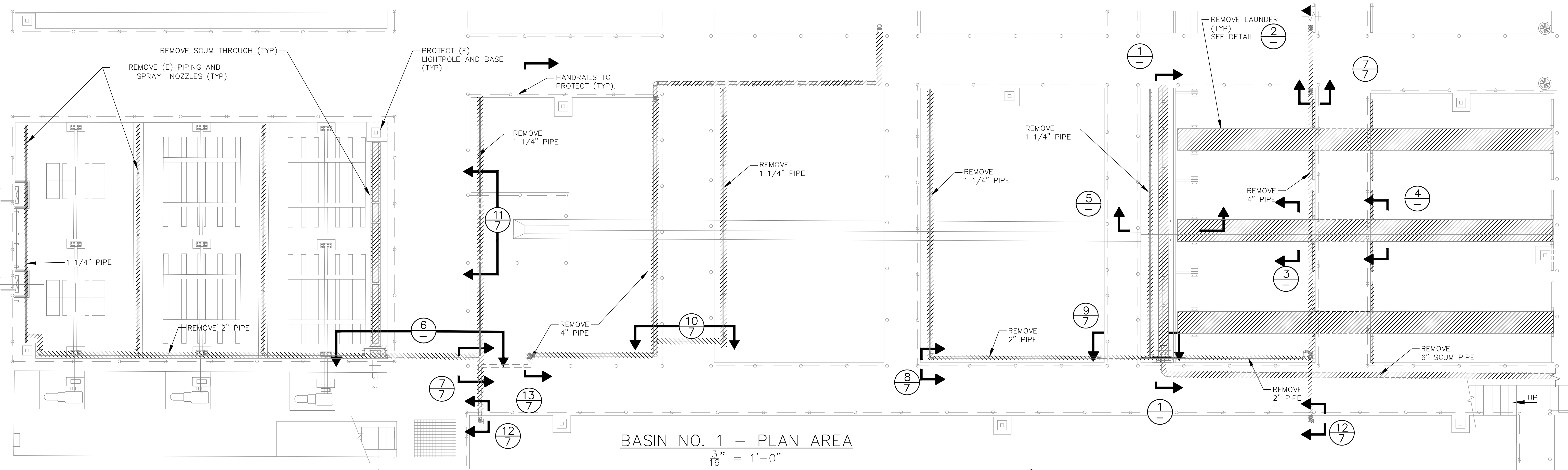
1. ALL MATERIAL AND EQUIPMENT REMOVED SHALL BE DISPOSED BY THE CONTRACTOR, RECYCLE IF APPLICABLE..
2. ALL PIPE SUPPORTS TO REMAIN. REPLACE U-BOLTS (SS 316).
3. CONCRETE PEDESTAL/BASES TO REMAIN ONLY AFTER FIRST TESTING CONCRETE WITH THE SCHMIDT HAMMER. IF ANY SPALLING OR SOFTNESS, BASE/ PEDESTAL TO BE REMOVED COMPLETELY AND A NEW ONE INSTALLED IN ITS PLACE.

LEGEND:

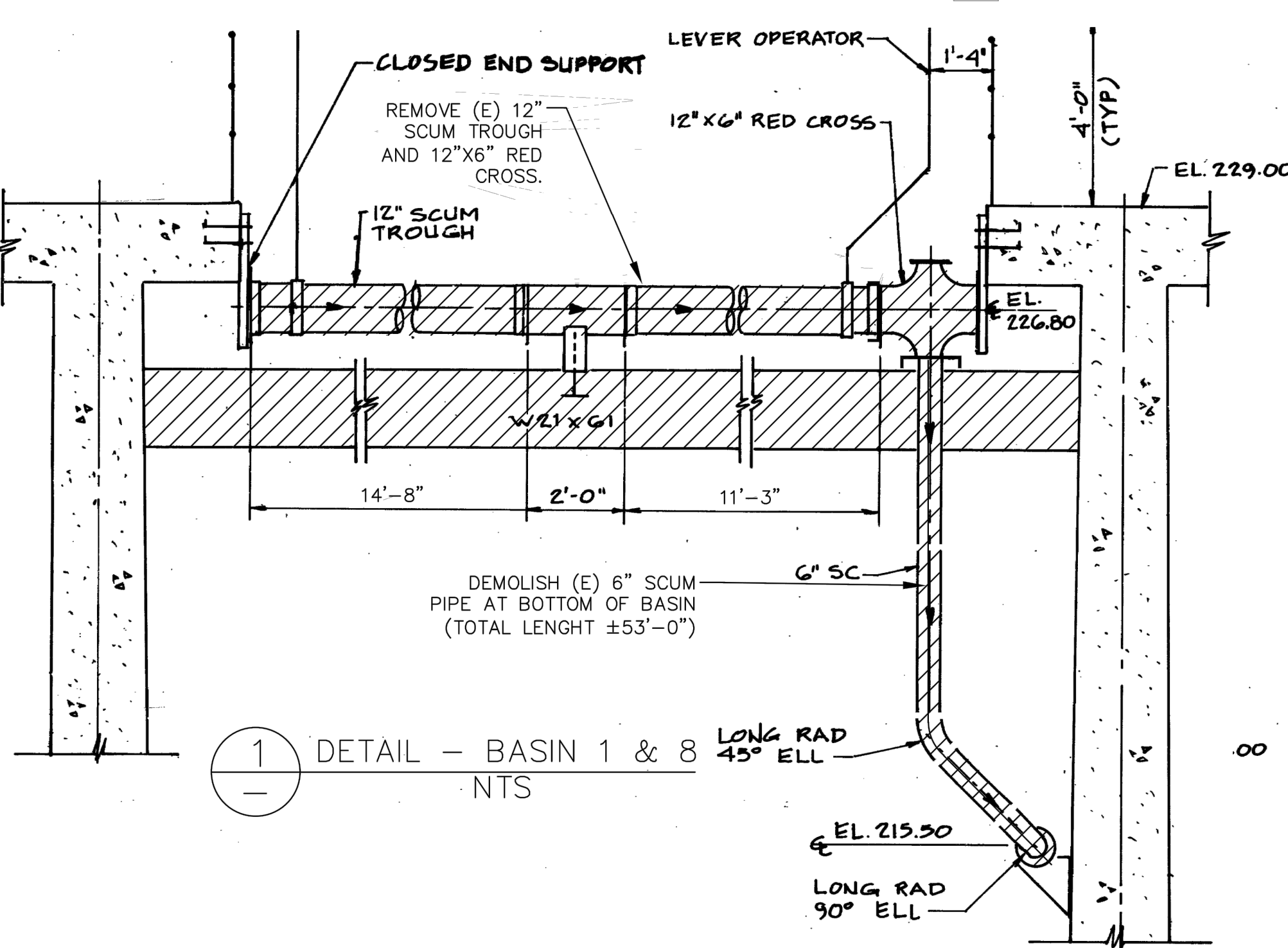
REMOVE AND REPLACE

INIT.	
REVISION	
MARK	
DATE	
CITY OF VALLEJO WATER DEPARTMENT	
APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER	
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093	
DEMO PLAN - BASIN 1 & 8	
CITY PROJECT #	WT 7093
DESIGN BY	J JACKSON
DRAWN BY	R. ZAMBRANA
CHECKED BY	M. SOKOL/R. WILSON
DATE	02/12/18
SCALE	AS SHOWN
SHEET	5
OF 21 SHEETS	
DRAWING FILE #	WT 7093

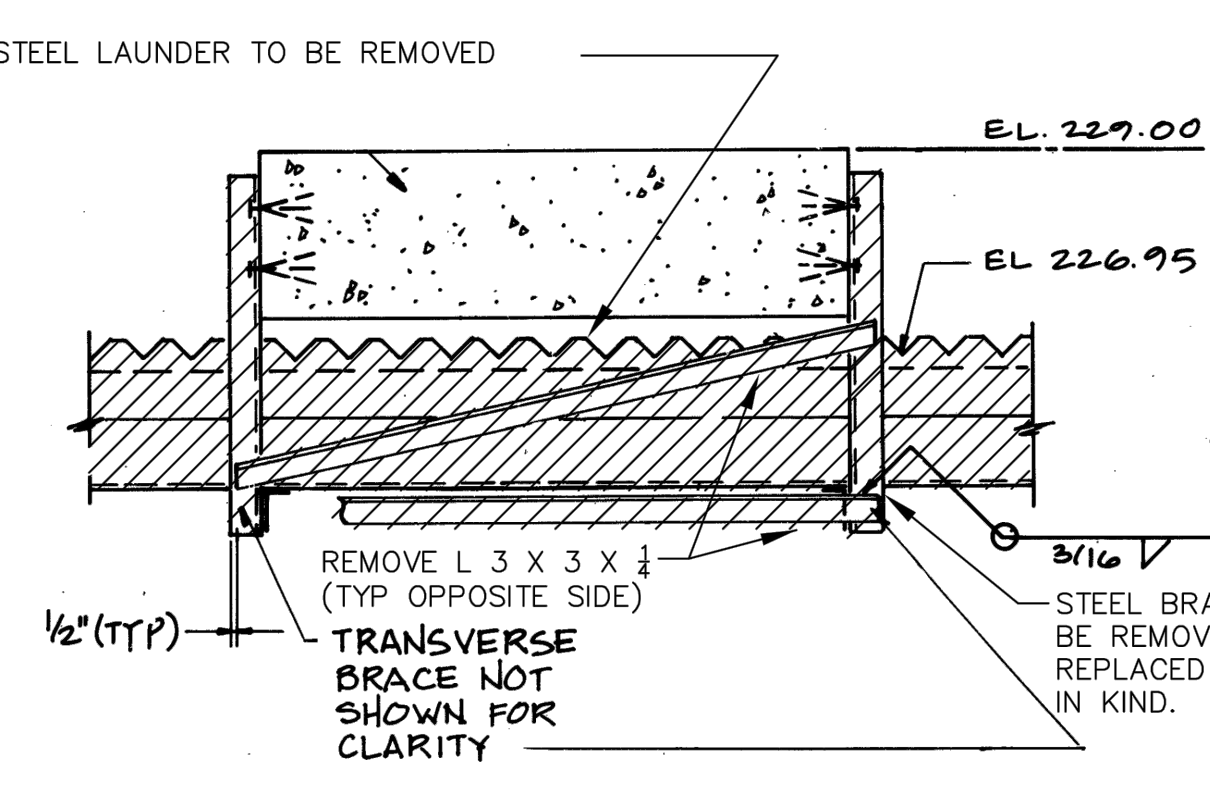
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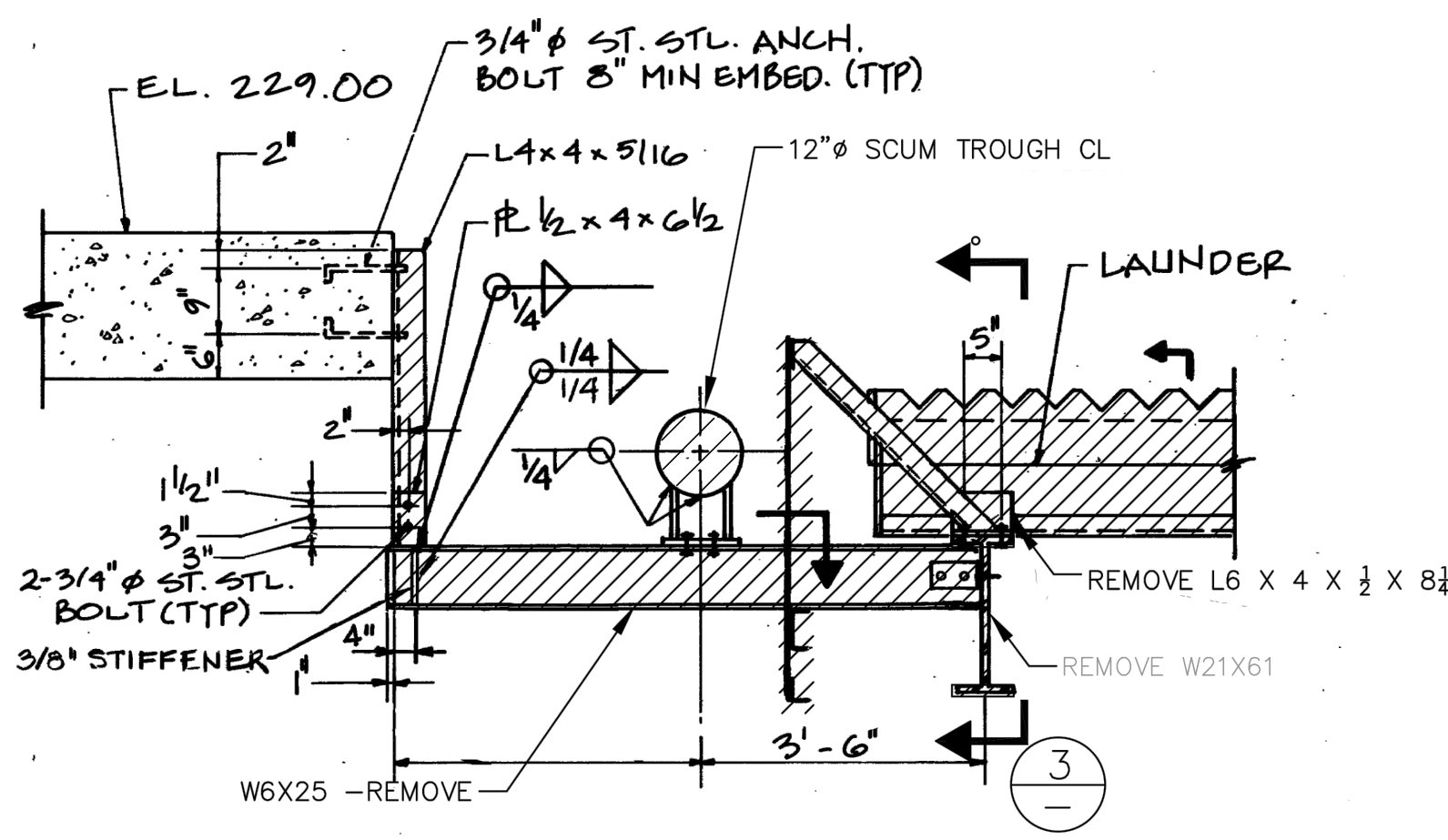
BASIN NO. 1 - PLAN AREA
 $\frac{3}{16}'' = 1'-0''$



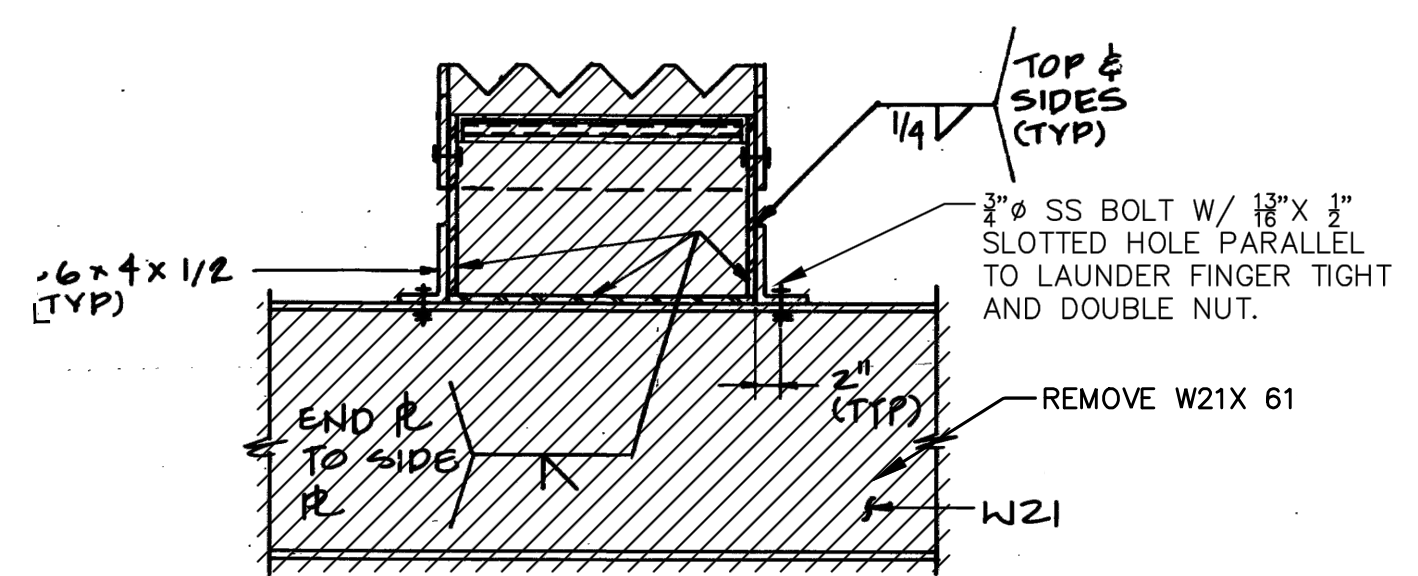
1 - DETAIL - BASIN 1 & 8
 NTS



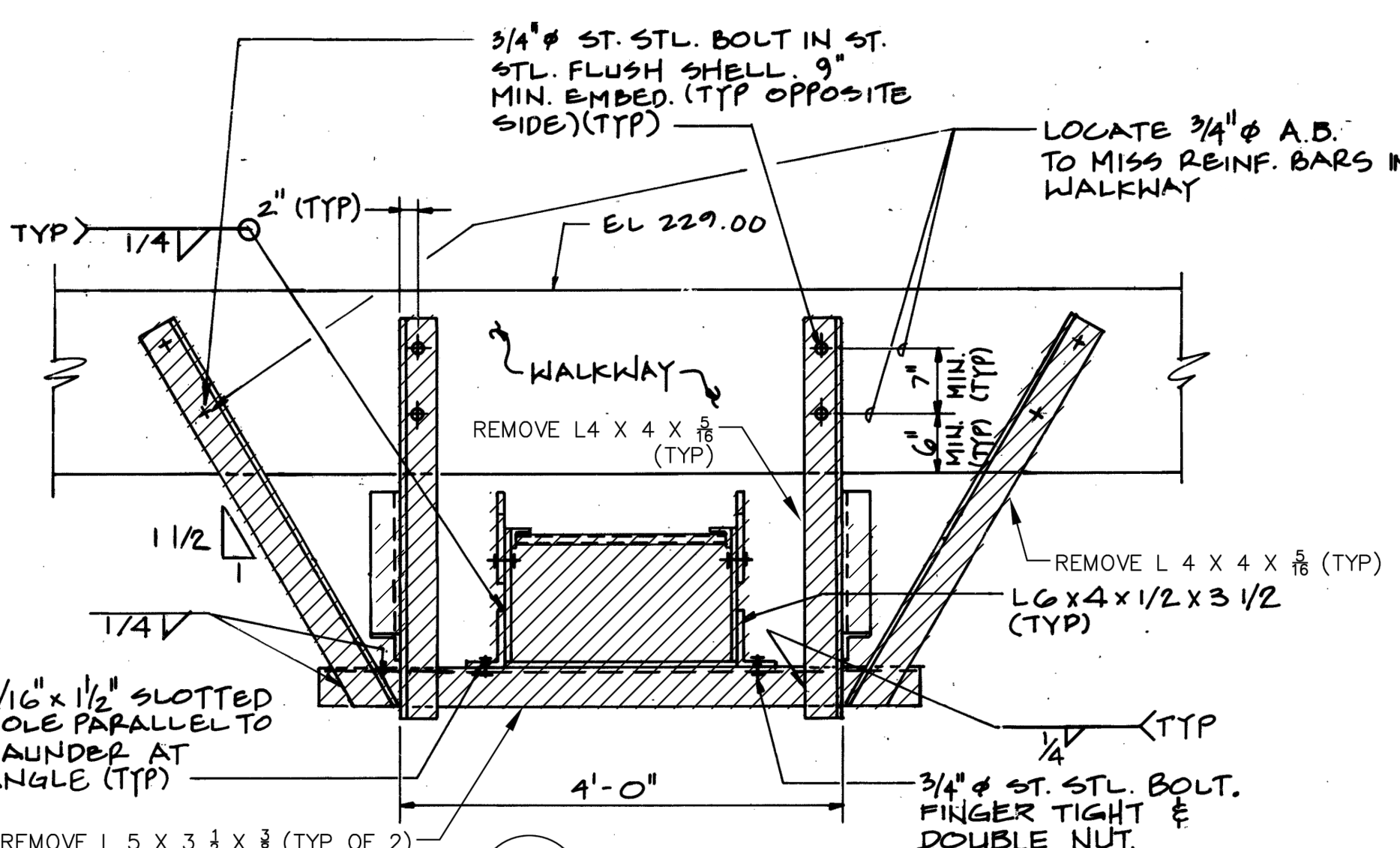
2 - DETAIL
 NTS



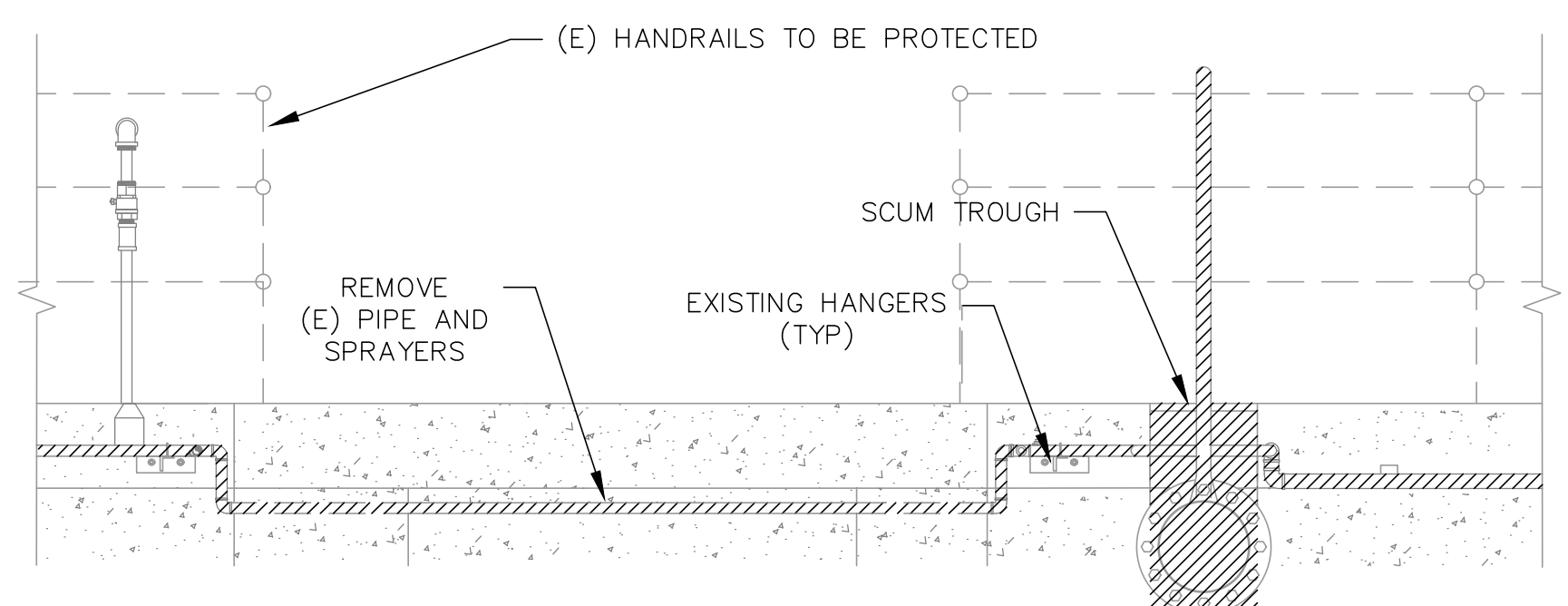
5 - DETAIL
 NTS



3 - DETAIL
 NTS



4 - DETAIL
 NTS



6 - DETAIL - 2\"/>
 NTS

BASIN NOTES:

1. LOCATIONS FOR BASIN 8 ARE MIRROR LOCATIONS OF BASIN 1.

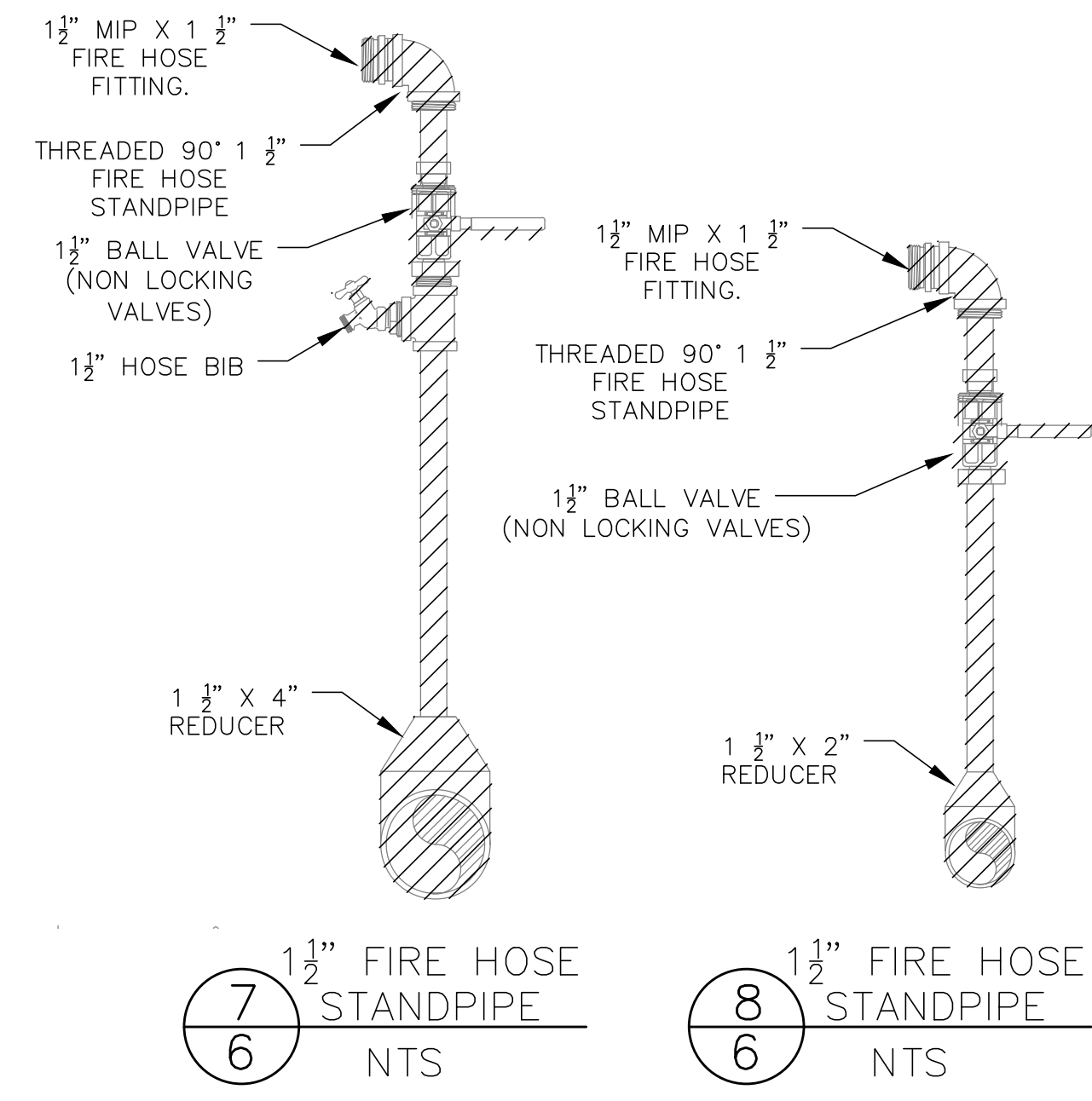
DEMO NOTES:

1. ALL MATERIAL AND EQUIPMENT REMOVED SHALL BE DISPOSED BY THE CONTRACTOR, RECYCLE IF APPLICABLE.
2. ALL PIPE SUPPORTS TO REMAIN, REPLACE U-BOLTS (SS 316).
3. REMOVE AND REPLACE ALL PIPING IN BASIN 1. EXISTING SS PIPING IN BASIN 8 IS TO REMAIN; REPLACE ONLY THROUGH WALL PIPING AND MAKE CONNECTION TO EXISTING SS PIPING IN THE BASINS.

LEGEND:

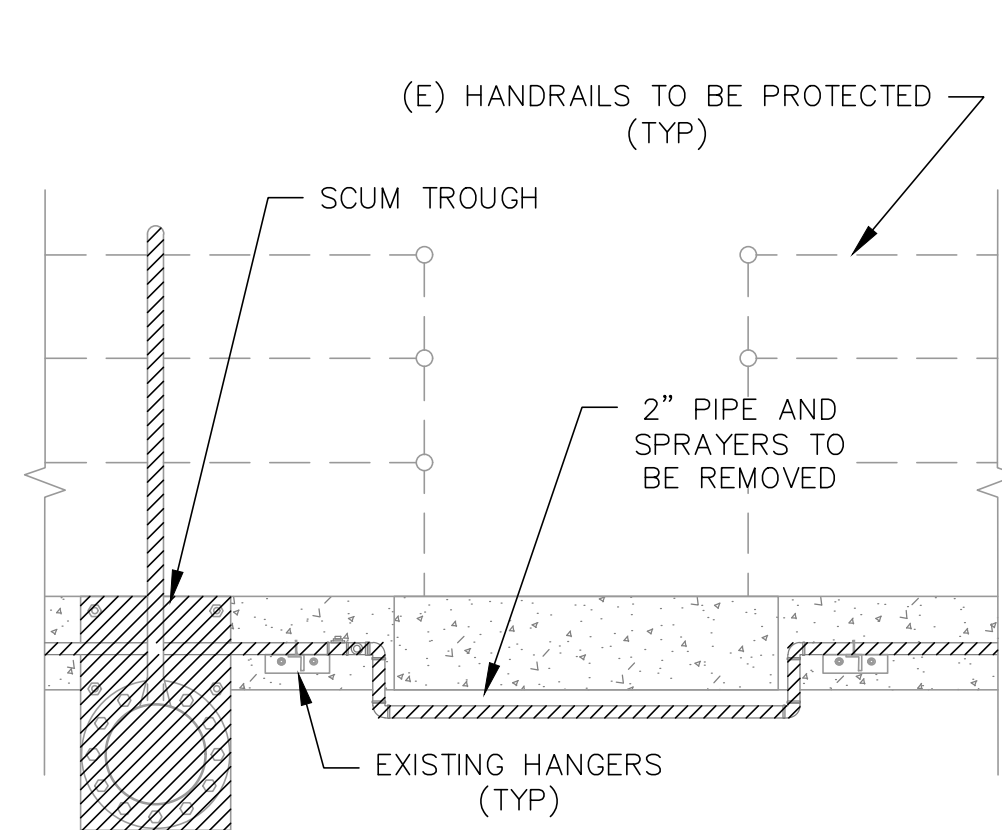


INIT.	
REVISION	
MARK	
DATE	
CITY OF VALLEJO	
WATER DEPARTMENT	
APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER	
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093	
DEMO PLAN - BASIN 1 & 8	
CITY PROJECT #	WT 7093
DESIGN BY	J JACKSON
DRAWN BY	R. ZAMBRANA
CHECKED BY	M. SOKOLI R. WILSON
DATE	02/12/18
SCALE	AS SHOWN
SHEET	6
OF 21 SHEETS	
DRAWING FILE #	WT 7093

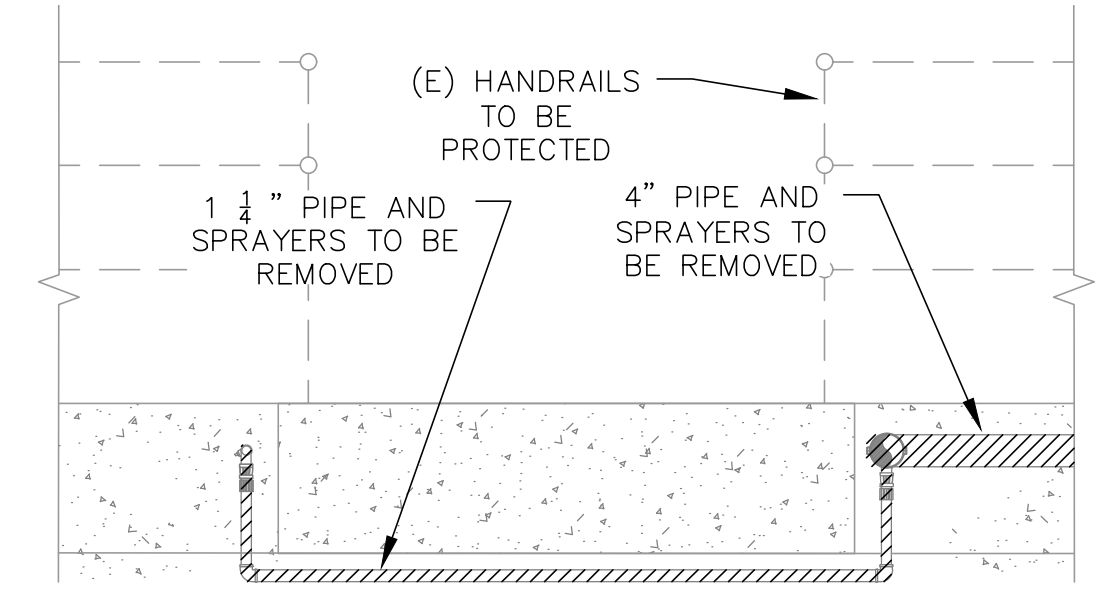


7
6
1 1/2" FIRE HOSE STANDPIPE
NTS

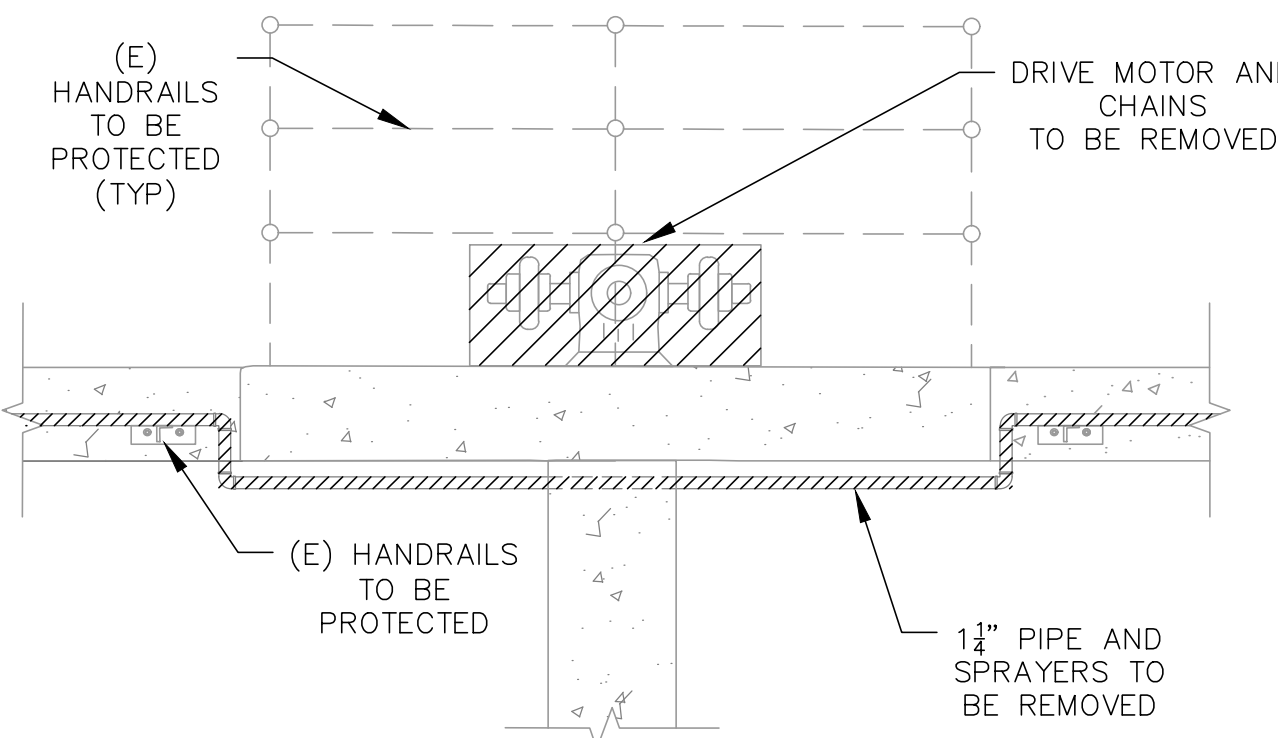
8
6
1 1/2" FIRE HOSE STANDPIPE
NTS



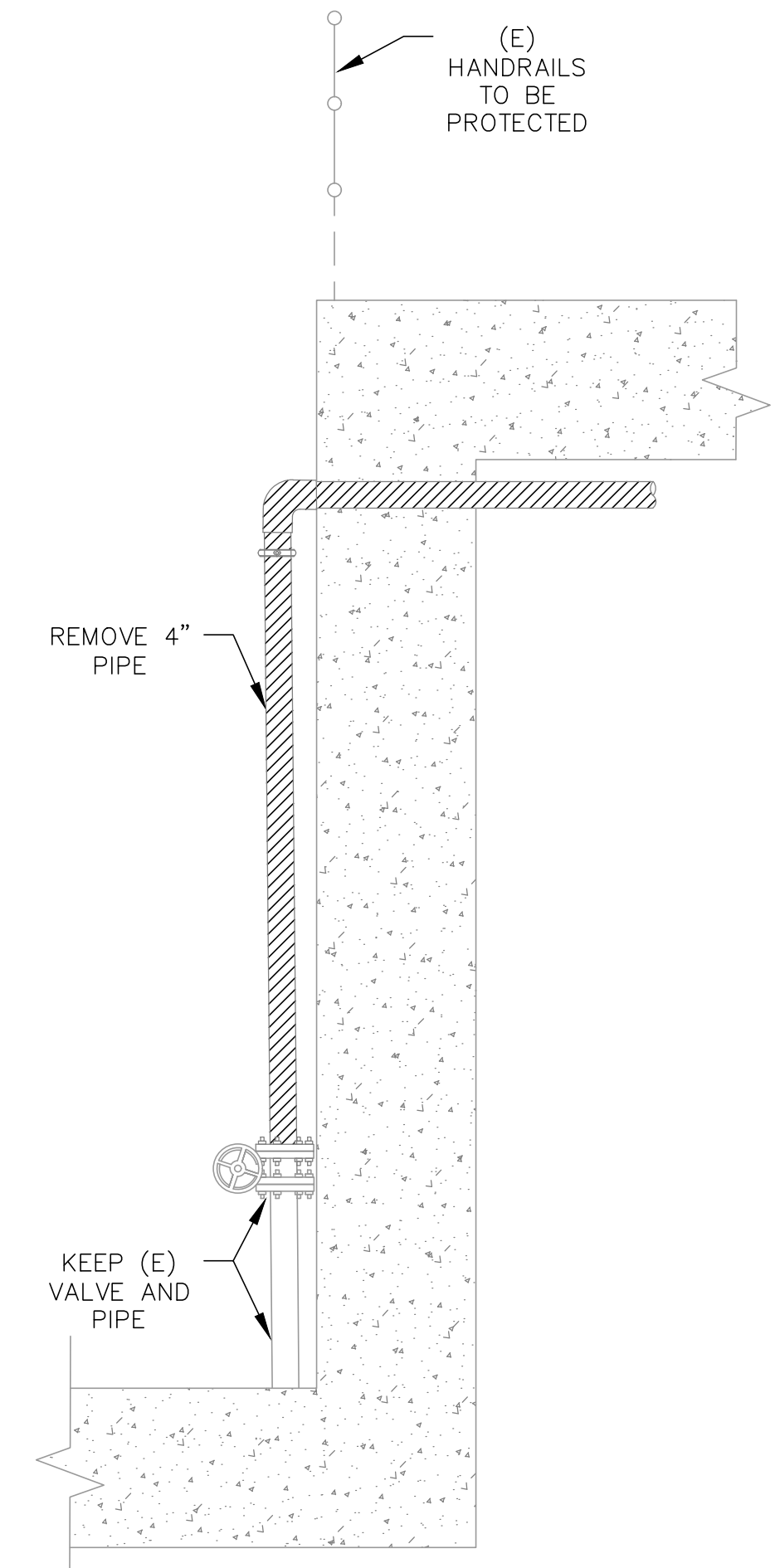
9
6
DETAIL - 2" PIPE UNDER WALKWAY
NTS



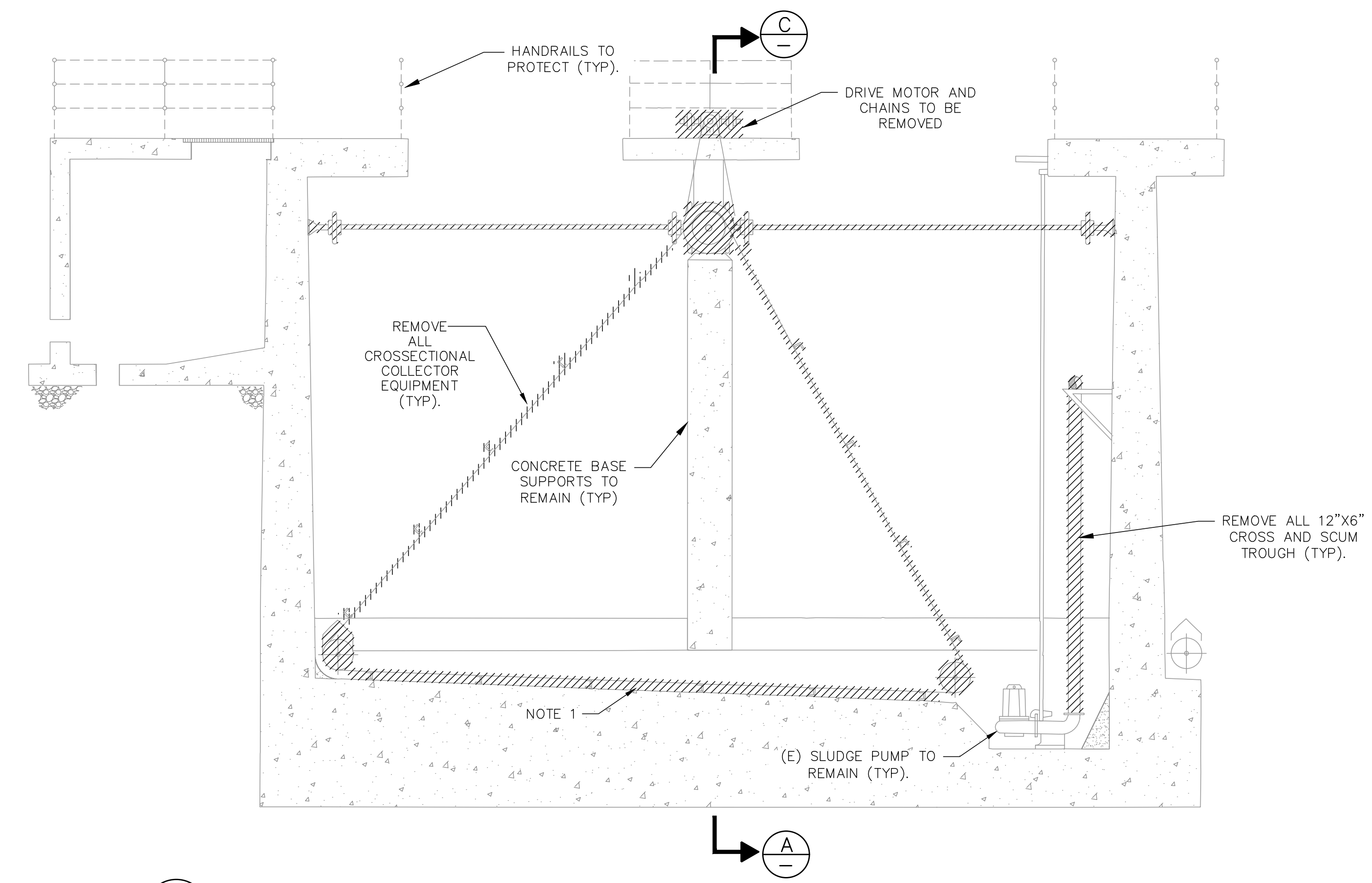
10
6
DETAIL - 1 1/4" PIPE UNDER WALKWAY
NTS



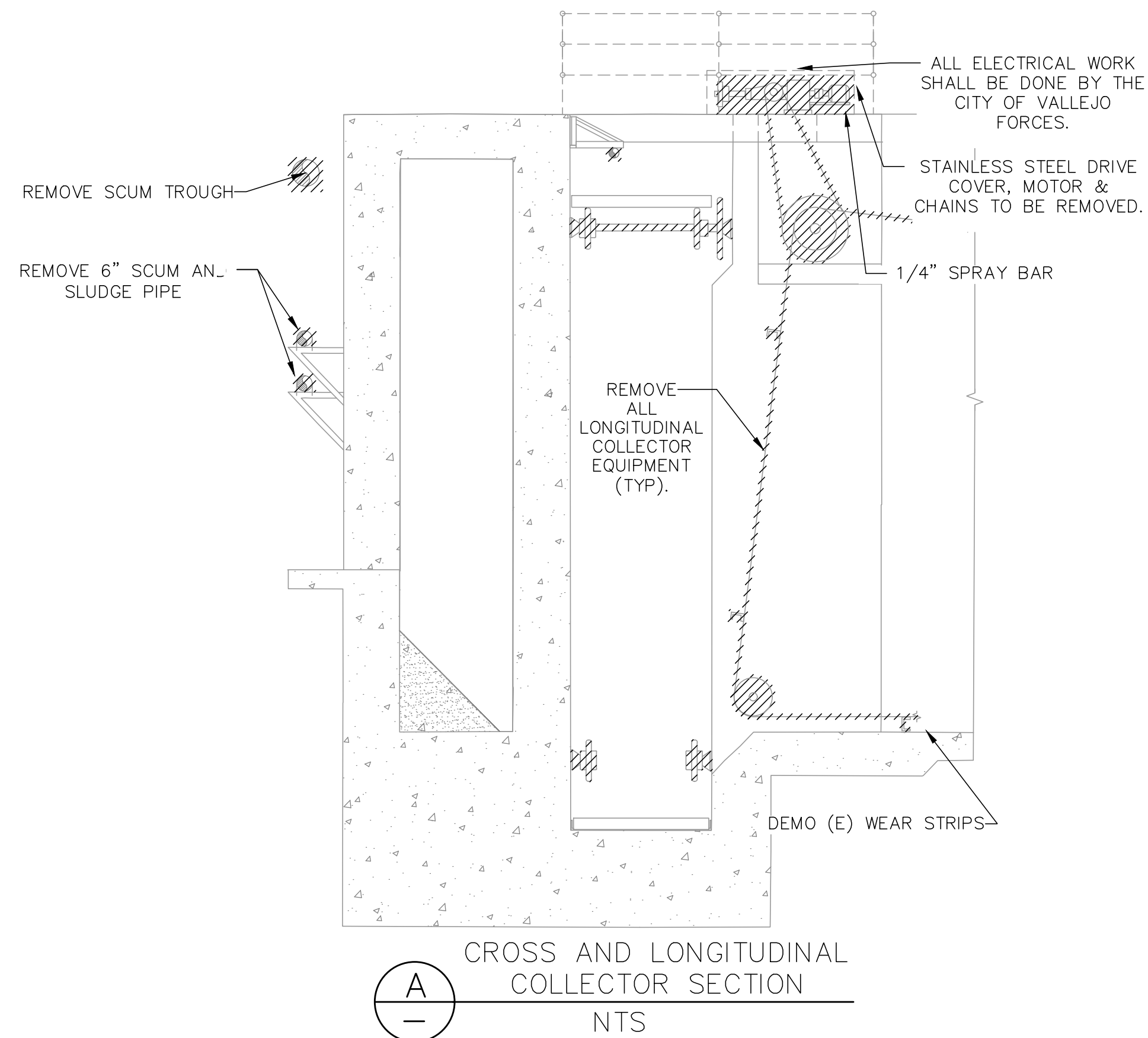
11
6
DETAIL - 1 1/4" PIPE UNDER WALKWAY
NTS



12
6
DETAIL - 4" PIPE
NTS



13
6
SLUDGE WITHDRAWAL AND CROSS COLLECTOR SECTION BASIN 1
NTS



A
-
CROSS AND LONGITUDINAL COLLECTOR SECTION
NTS

BASIN NOTES:

1. LOCATIONS FOR BASIN 8 ARE MIRROR LOCATIONS OF BASIN 1.

DEMO NOTES:

1. ALL MATERIAL AND EQUIPMENT REMOVED SHALL BE DISPOSED BY THE CONTRACTOR, RECYCLE IF APPLICABLE.
2. ALL PIPE SUPPORTS TO REMAIN. REPLACE U-BOLTS (SS 316).
3. REMOVE AND REPLACE ALL PIPING IN BASIN 1. EXISTING SS PIPING IN BASIN 8 IS TO REMAIN; REPLACE ONLY THROUGH WALL PIPING AND MAKE CONNECTION TO EXISTING SS PIPING IN THE BASINS.

CHAIN AND FLIGHT DEMO NOTES:

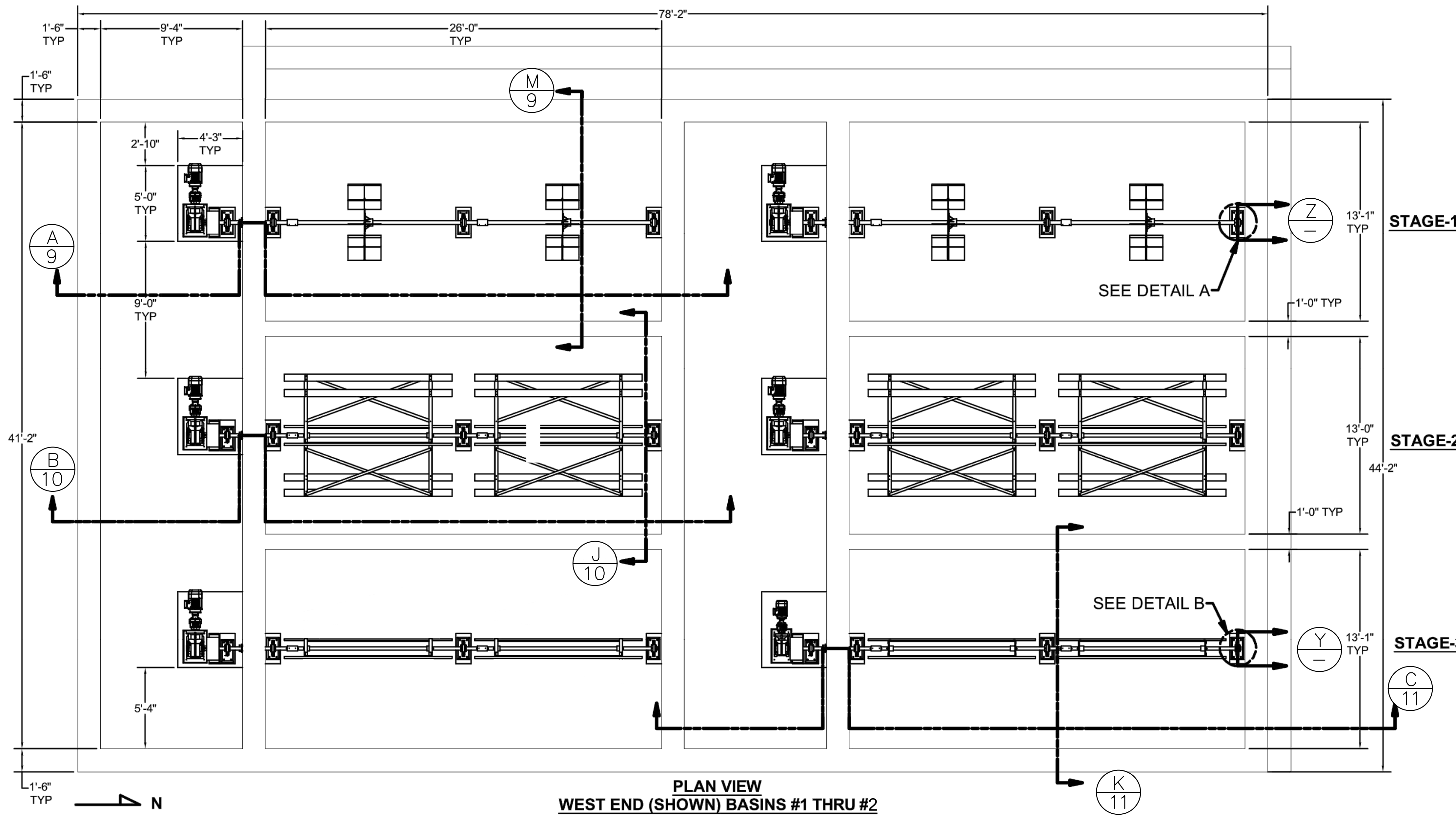
1. LONGITUDINAL STAINLESS STEEL RETURN RAILS ARE TO REMAIN.
2. ALL LONGITUDINAL AND CROSS COLLECTOR EQUIPMENT TO BE REMOVED.
3. ALL MATERIALS AND EQUIPMENT REMOVED SHALL BE DISPOSED BY THE CONTRACTOR, RECYCLE IF APPLICABLE.

LEGEND:

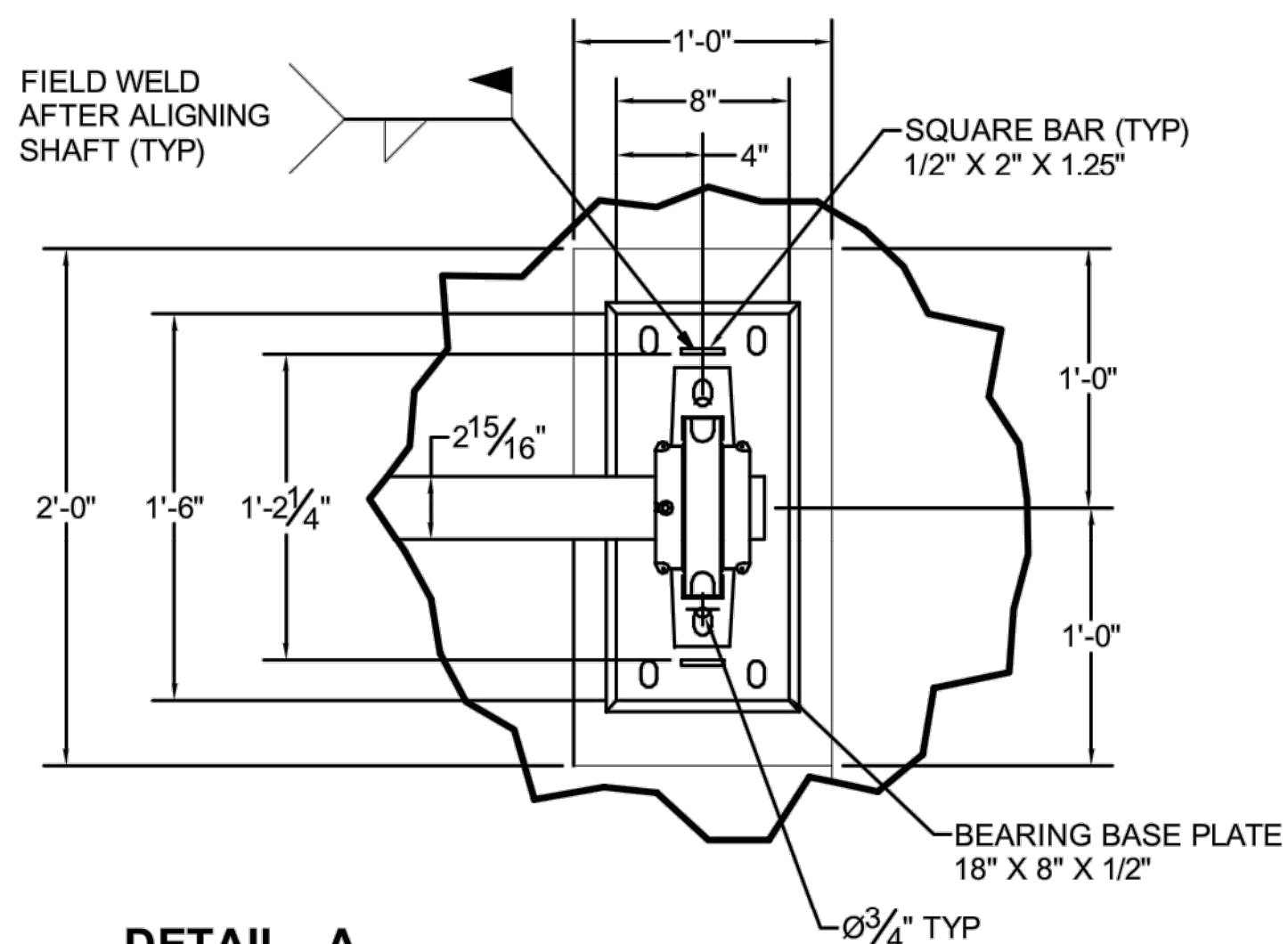


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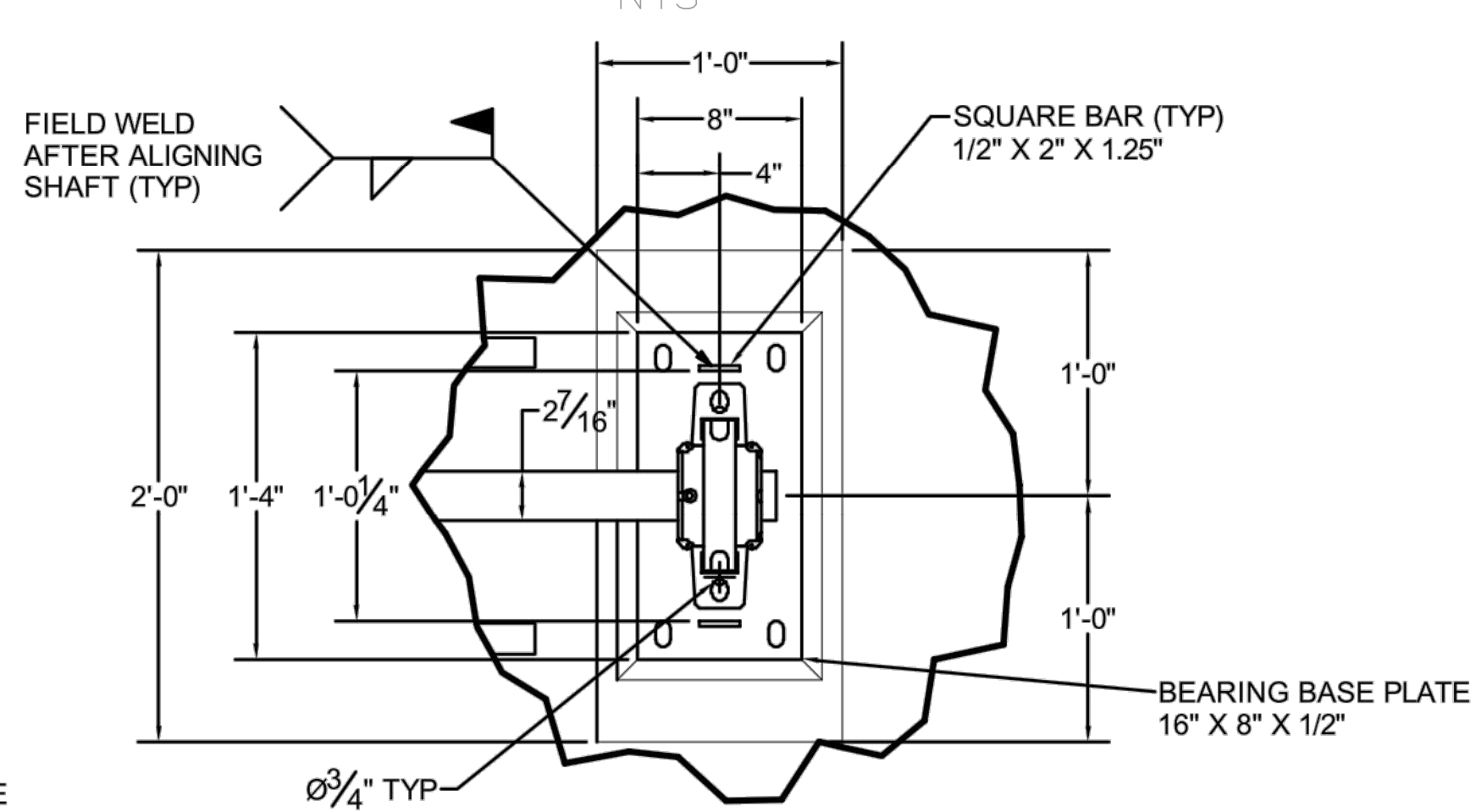
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REVISION	
MARK	
DATE	
CITY OF VALLEJO WATER DEPARTMENT	
APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER	
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 DEMO PLAN - BASIN 1 & 8 FLOCCULATION AND CHAIN & FLIGHT EQUIPMENT	
CITY PROJECT #	WT 7093
DESIGN BY	J JACKSON
DRAWN BY	R. ZAMBRANA
CHECKED BY	M. SOKOL R. WILSON
DATE	02/12/18
SCALE	AS SHOWN
SHEET	7
OF 21 SHEETS	
DRAWING FILE #	WT 7093



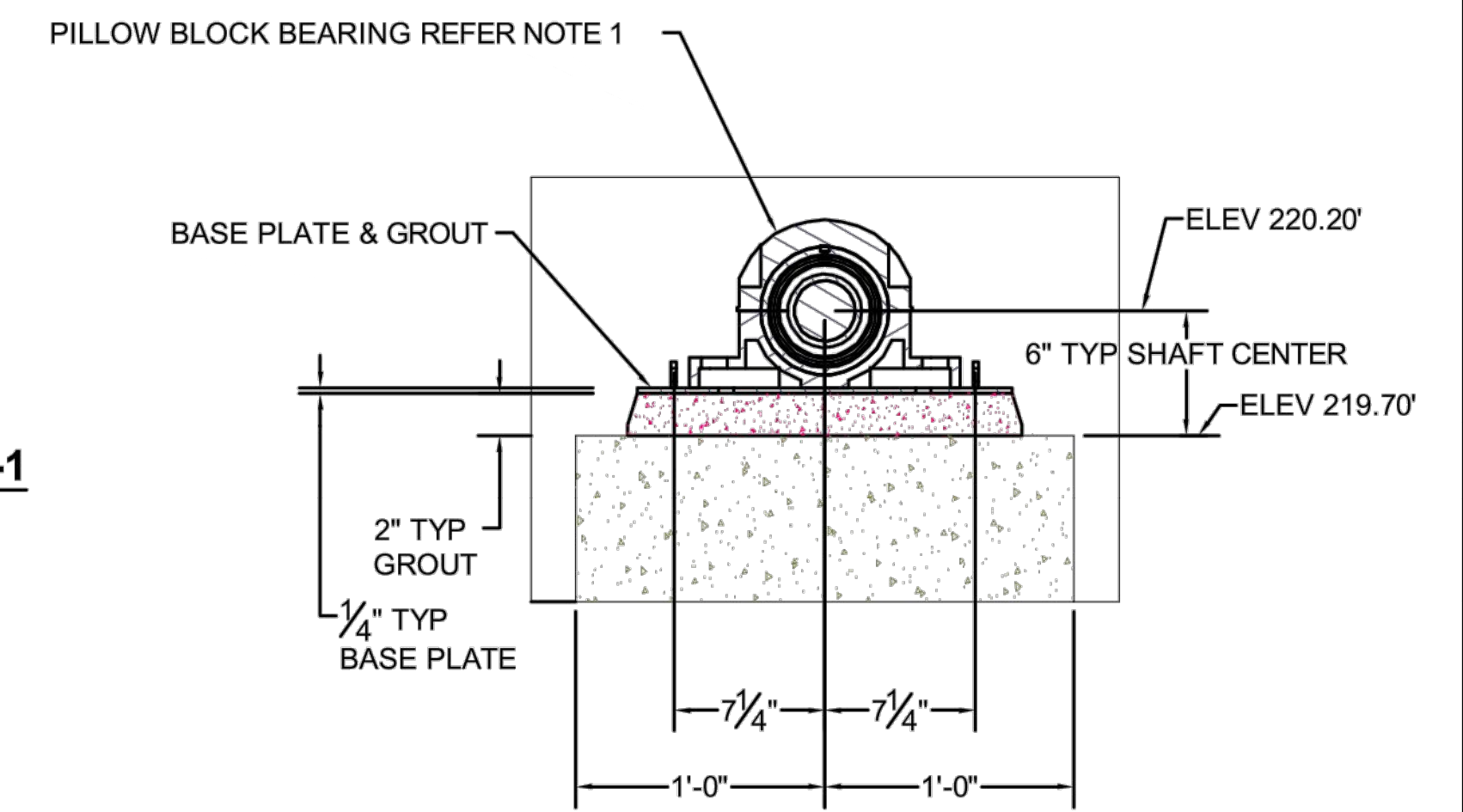
PLAN VIEW
WEST END (SHOWN) BASINS #1 THRU #2
EAST END (SYMMETRICAL) BASINS #7 THRU #8
 NTS



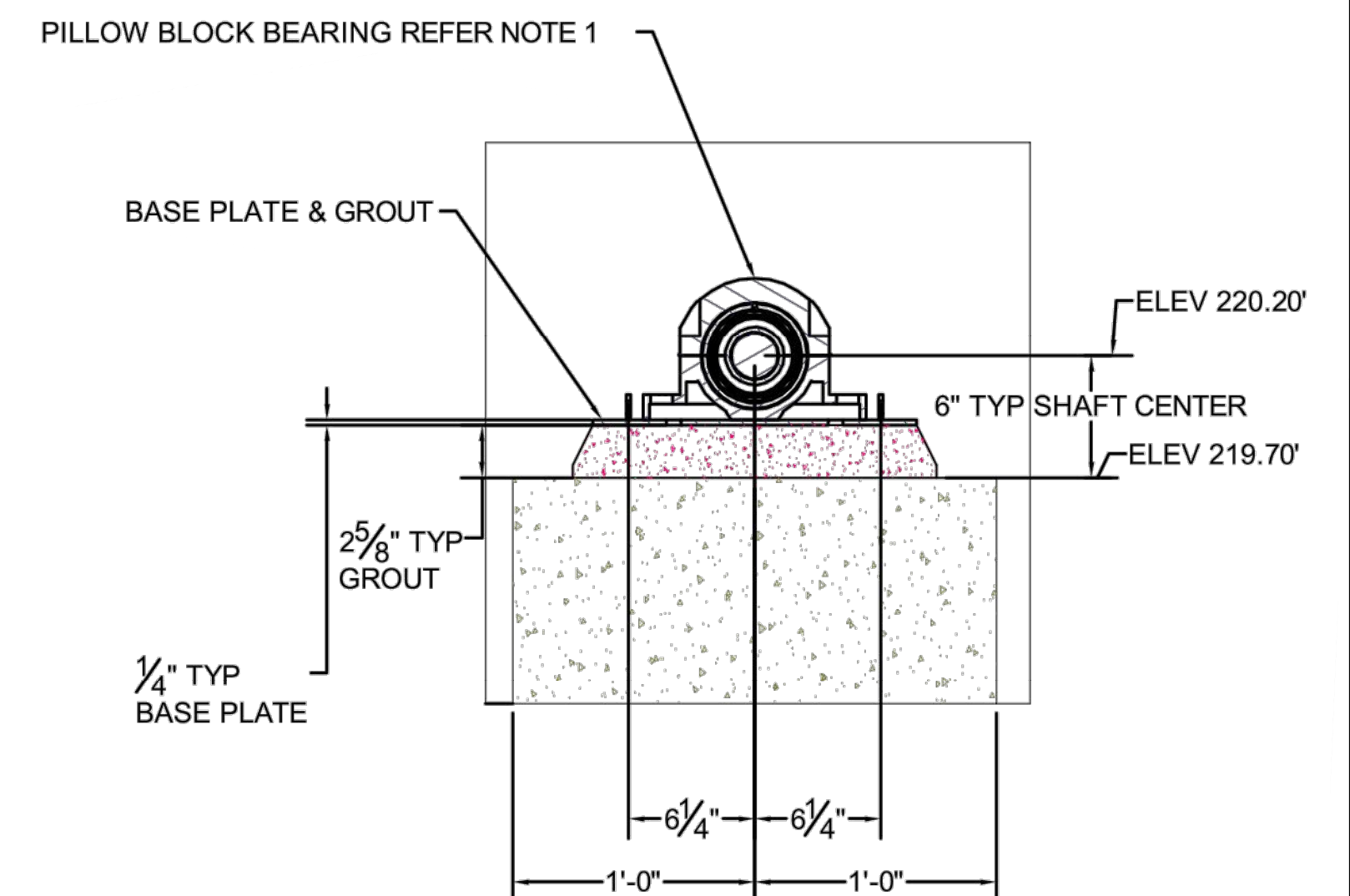
DETAIL - A
TYP STAGE -1
PILLOW BLOCK BEARING BASE PLATE



DETAIL - B
TYP STAGE -2 & 3
PILLOW BLOCK BEARING BASE PLATE



Z
TYP DETAILS OF STAGE-1
PEDESTAL BEARING ALIGNMENT



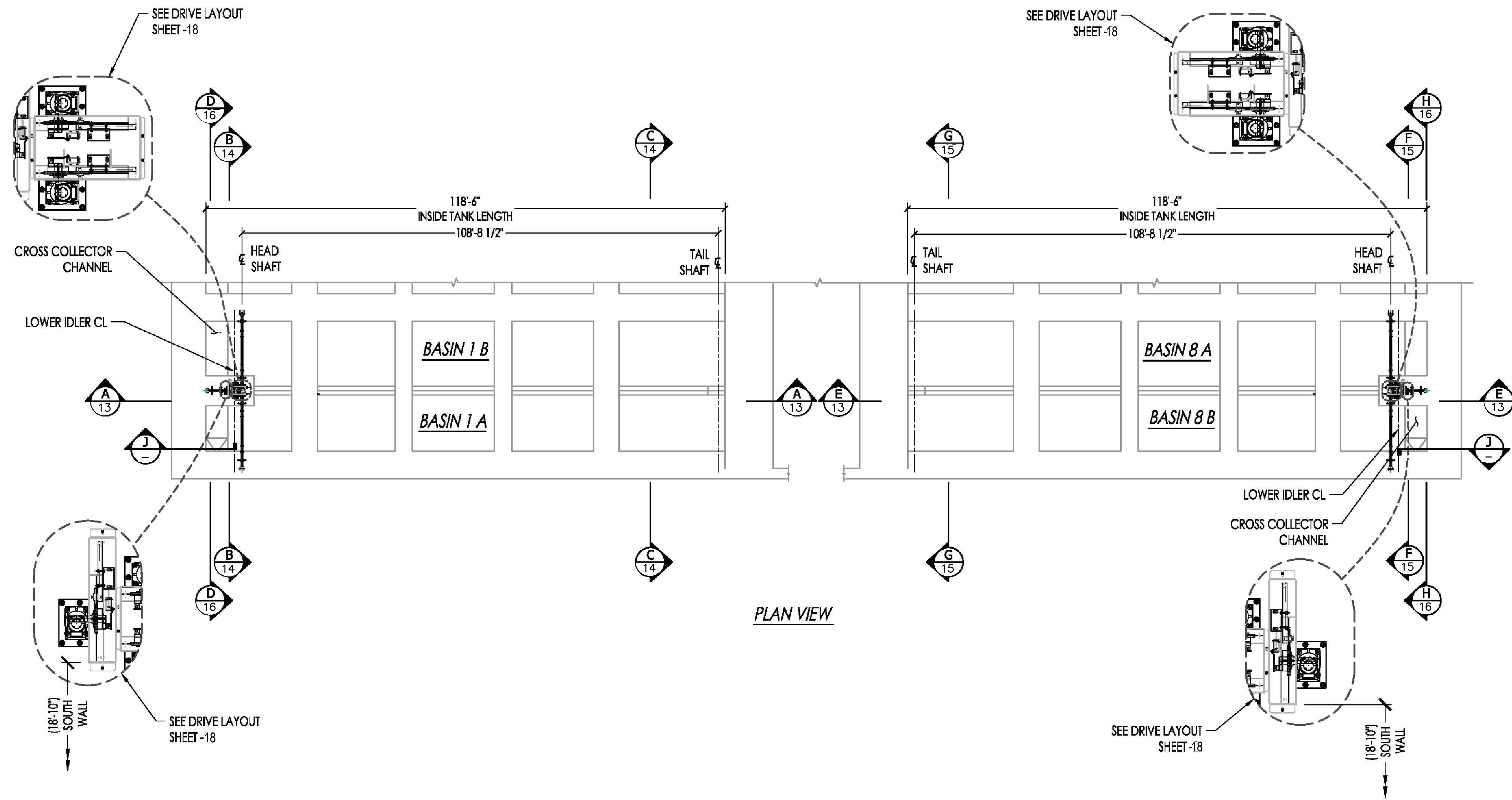
Y
TYP DETAILS OF STAGE-2 & 3
PEDESTAL BEARING ALIGNMENT

NOTES
 1. SEE SHEET 4 FOR PART'S LIST.

10/3/2018 9:11 PM V:\WATER\7093 - FH\WTP SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\7093 - FH\WTP-BASINS 1 AND 8 REVISED.DWG

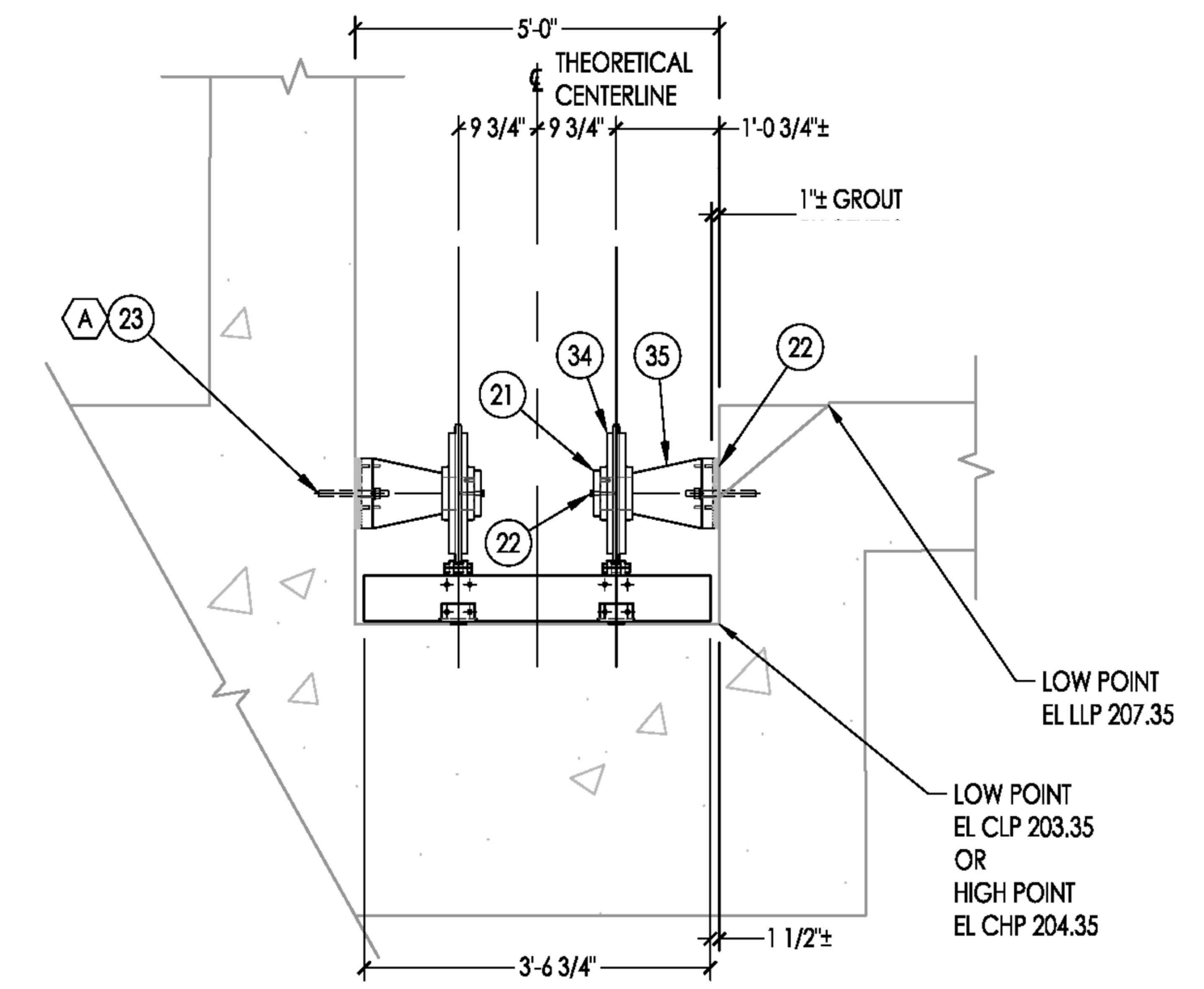
INIT.	
REVISION	
MARK	
DATE	
CITY OF VALLEJO WATER DEPARTMENT	
APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER	
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 FLOCCULATION BASINS 1 & 8 PLAN VIEW & ROLLER BEARING VIEWS	
CITY PROJECT #	WT 7093
DESIGN BY	J JACKSON
DRAWN BY	R. ZAMBRANA
CHECKED BY	M. SOKOL R. WILSON
DATE	02/12/18
SCALE	AS SHOWN
SHEET	8
OF 21 SHEETS	
DRAWING FILE #	WT 7093

V:\WATER\7093 - FH\TP SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\CAD\7093 - FH\TP-BASINS 1 AND 8 REVISED.DWG



PLAN VIEW

FLAG NOTES:
 1. NOT ALL STRUCTURE SHOWN FOR CLARITY. TOP OF DECK SHOWN AROUND DRIVE EQUIPMENT ONLY.



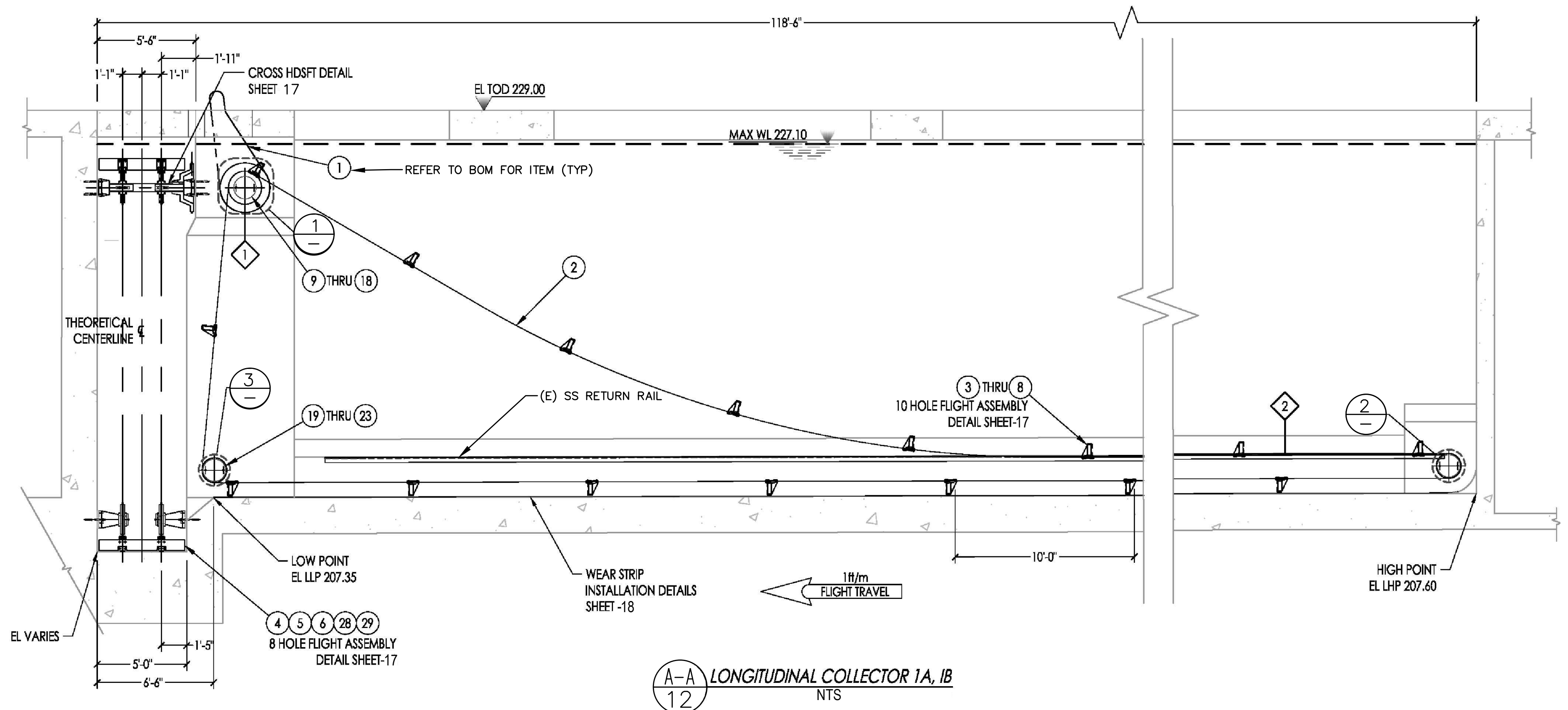
J
 —
 CROSS COLLECTOR LOW IDLER
 NTS
 *TLSFT SIMILAR

NOTE

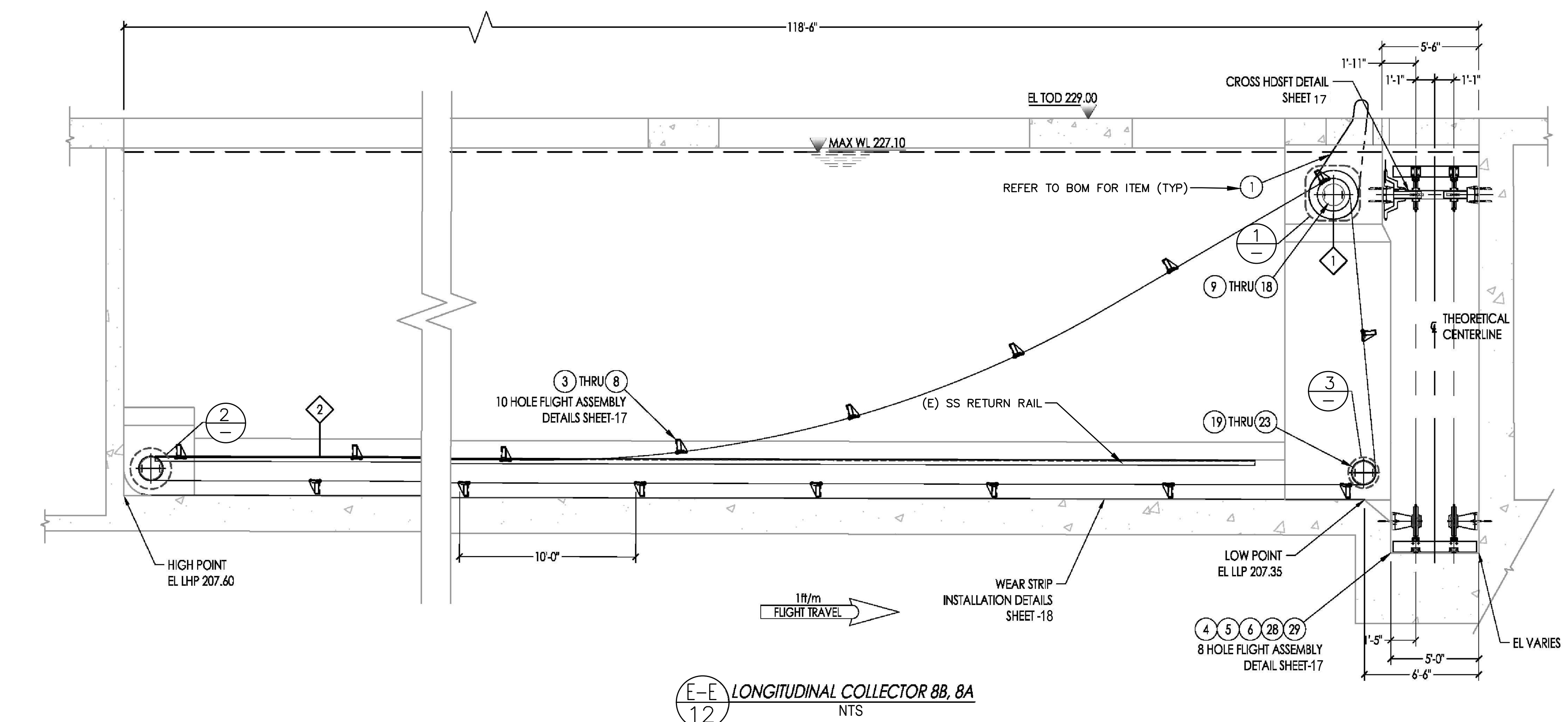
1. SEE SHEET 3 FOR PART'S LIST.

INIT.	
REVISION	
MARK	
DATE	
 CITY OF VALLEJO	
WATER DEPARTMENT	
APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER	
CITY PROJECT # WT 7093 FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 SEDIMENTATION BASINS 1 & 8 INSTALLATION AND LAYOUT PLAN VIEW	
DESIGN BY	J JACKSON
DRAWN BY	R. ZAMBRANA
CHECKED BY	M. SOKOL/R. WILSON
DATE	02/12/18
SCALE	AS SHOWN
SHEET	12
OF 21 SHEETS	
DRAWING FILE #	WT 7093

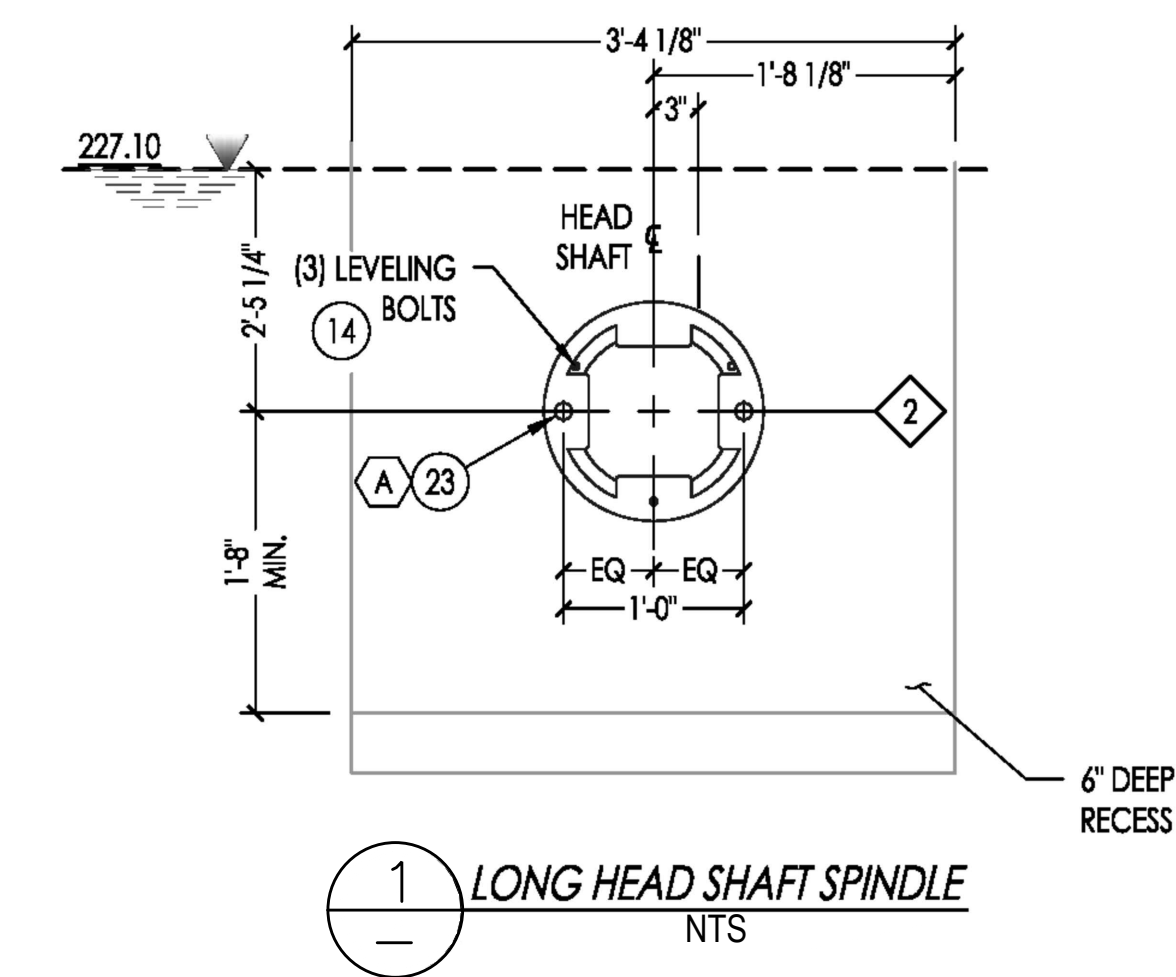
10/3/2018 9:16 PM V:\WATER\7093 - FHMP\SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\7093 - FHMP-BASINS 1 AND 8 REVISED.DWG



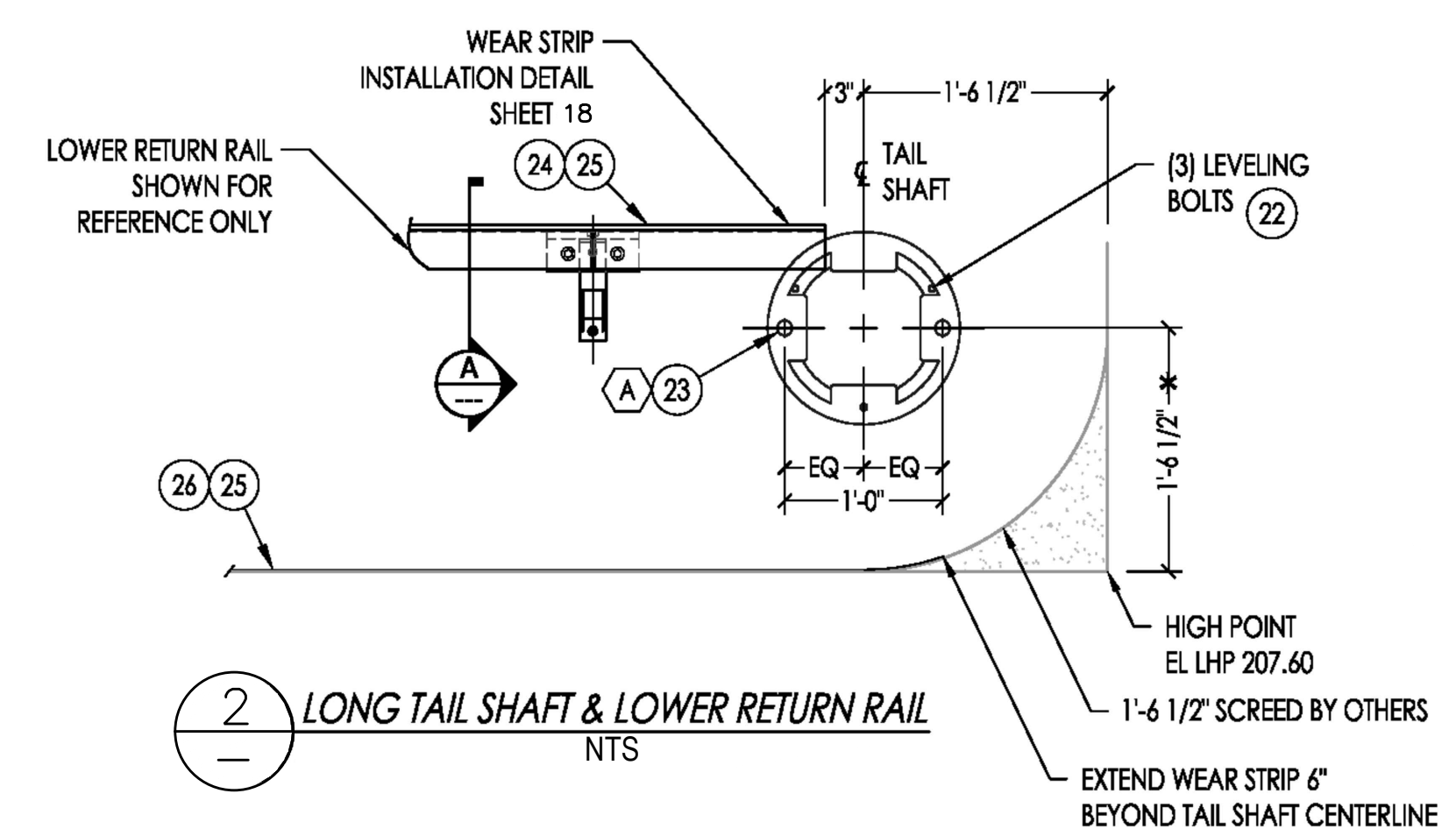
A-A LONGITUDINAL COLLECTOR 1A, 1B
NTS



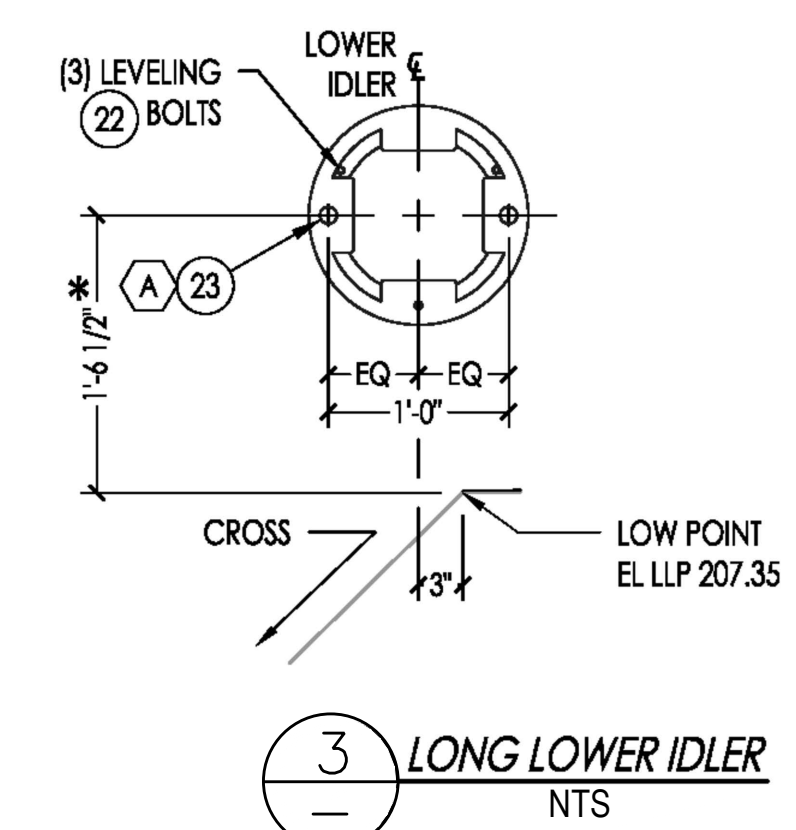
E-E LONGITUDINAL COLLECTOR 8B, 8A
NTS



1 LONG HEAD SHAFT SPINDLE
NTS

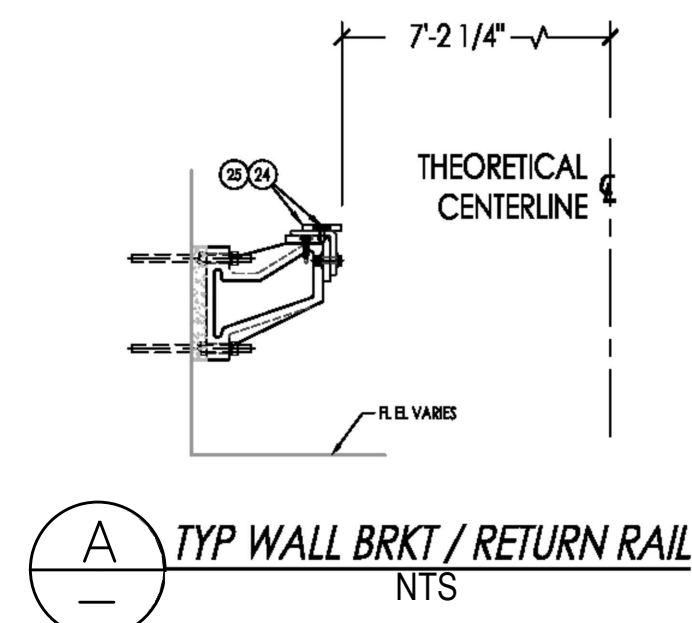


2 LONG TAIL SHAFT & LOWER RETURN RAIL
NTS



3 LONG LOWER IDLER
NTS

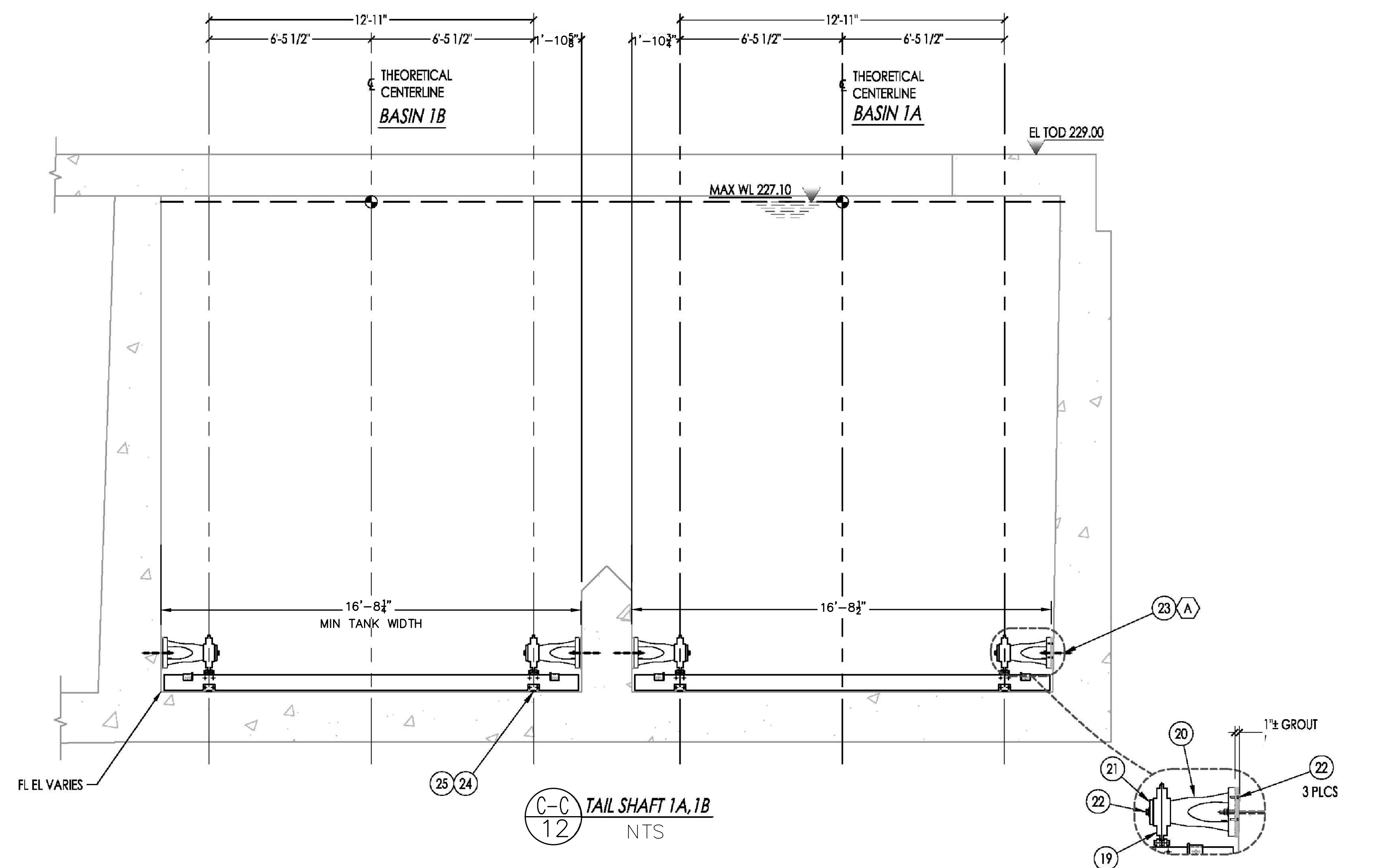
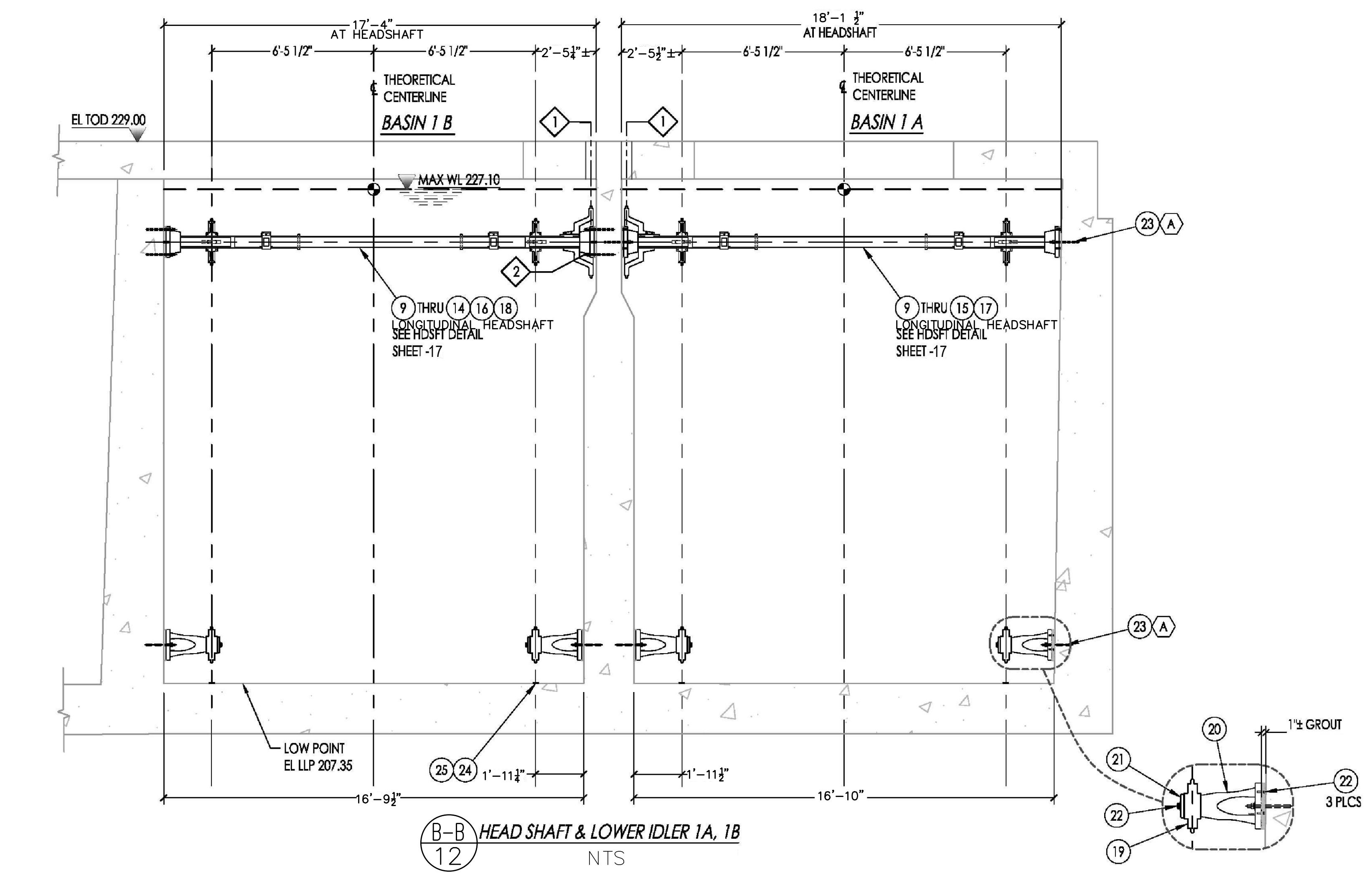
- FLAG NOTES:**
1. ROTATE ANCHORS 90° OPPOSITE SIDE TO AVOID INTERFERENCE
 2. RETURN RAIL SHOWN FOR REFERENCE ONLY
 3. SEE WEAR STRIP INSTALLATION DETAILS FOR REQUIRED INSTALLATION GAPS. WEAR STRIP GAPS SHALL NOT OCCUR OVER THE SPLICE SHOE AREA.
 4. ROTATE OPPOSITE SIDE 90°
 5. SEE SHEET 3 FOR PART'S LIST.




A TYP WALL BRKT / RETURN RAIL
NTS

INIT.	
REVISION	
MARK	
DATE	
CITY OF VALLEJO	
WATER DEPARTMENT	ON
APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER	
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 SEDIMENTATION BASINS 1 & 8 INSTALLATION AND LAYOUT LONGITUDINAL COLLECTOR	
CITY PROJECT #	WT 7093
DESIGN BY	J JACKSON
DRAWN BY	R. ZAMBRANA
CHECKED BY	M. SOKOLI R. WILSON
DATE	02/12/18
SCALE	AS SHOWN
SHEET	13
OF 21 SHEETS	
DRAWING FILE #	WT 7093

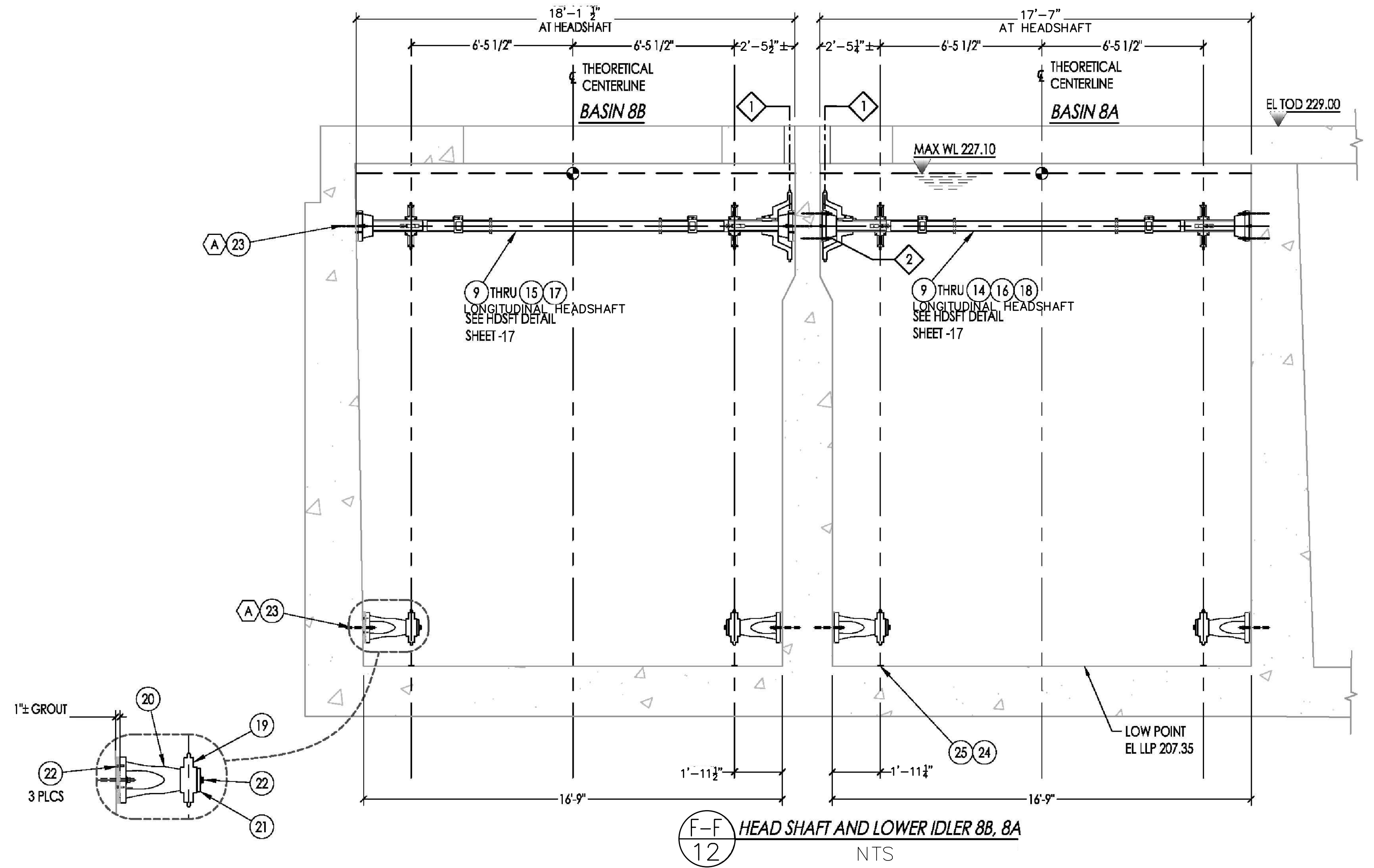
- FLAG NOTES:
 1. DRIVES NOT SHOWN FOR CLARITY
 2. ROTATE ANCHORS 90° THIS SIDE TO AVOID INTERFERENCE
 3. SEE SHEET 3 FOR PART'S LIST.



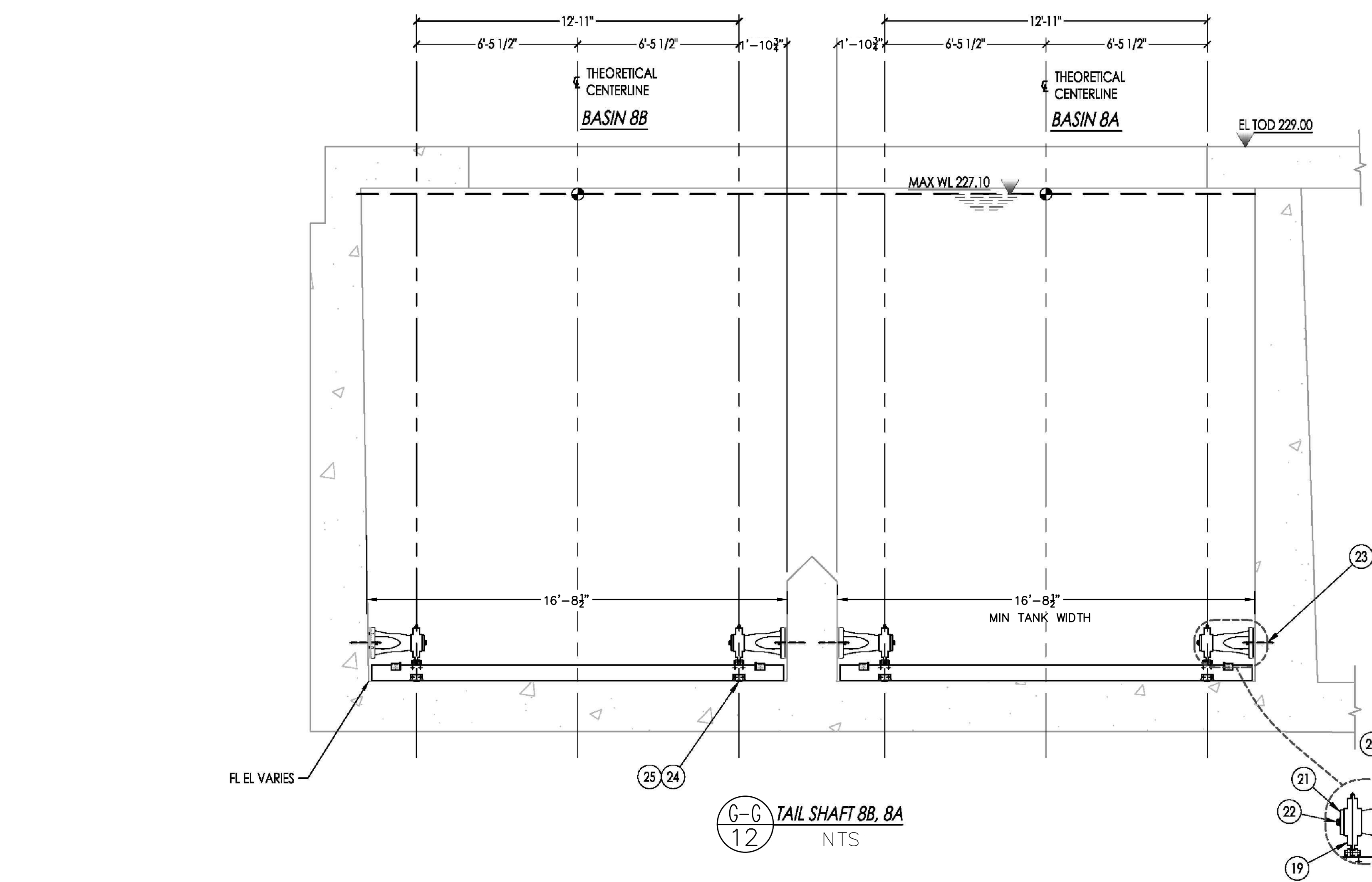
10/3/2018 9:16 PM V:\WATER\7093 - FHMT\SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\CAD\7093 - FHMT-BASINS 1 AND 8 REVISED.DWG

INIT.	
REVISION	
MARK	
DATE	
 CITY OF VALLEJO	
WATER DEPARTMENT APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER	
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 SEDIMENTATION BASINS 1 INSTALLATION AND LAYOUT HEAD AND TAIL SHAFT	
CITY PROJECT #	WT 7093
DESIGN BY	J JACKSON
DRAWN BY	R. ZAMBRANA
CHECKED BY	M. SOKOLI R. WILSON
DATE	02/12/18
SCALE	AS SHOWN
SHEET	14
OF 21 SHEETS	
DRAWING FILE #	WT 7093

- FLAG NOTES:
 1. DRIVES NOT SHOWN FOR CLARITY
 2. ROTATE ANCHORS 90° THIS SIDE TO AVOID INTERFERENCE
 3. SEE SHEET 3 FOR PART'S LIST.




(F-F) HEAD SHAFT AND LOWER IDLER 8B, 8A
 12 NTS

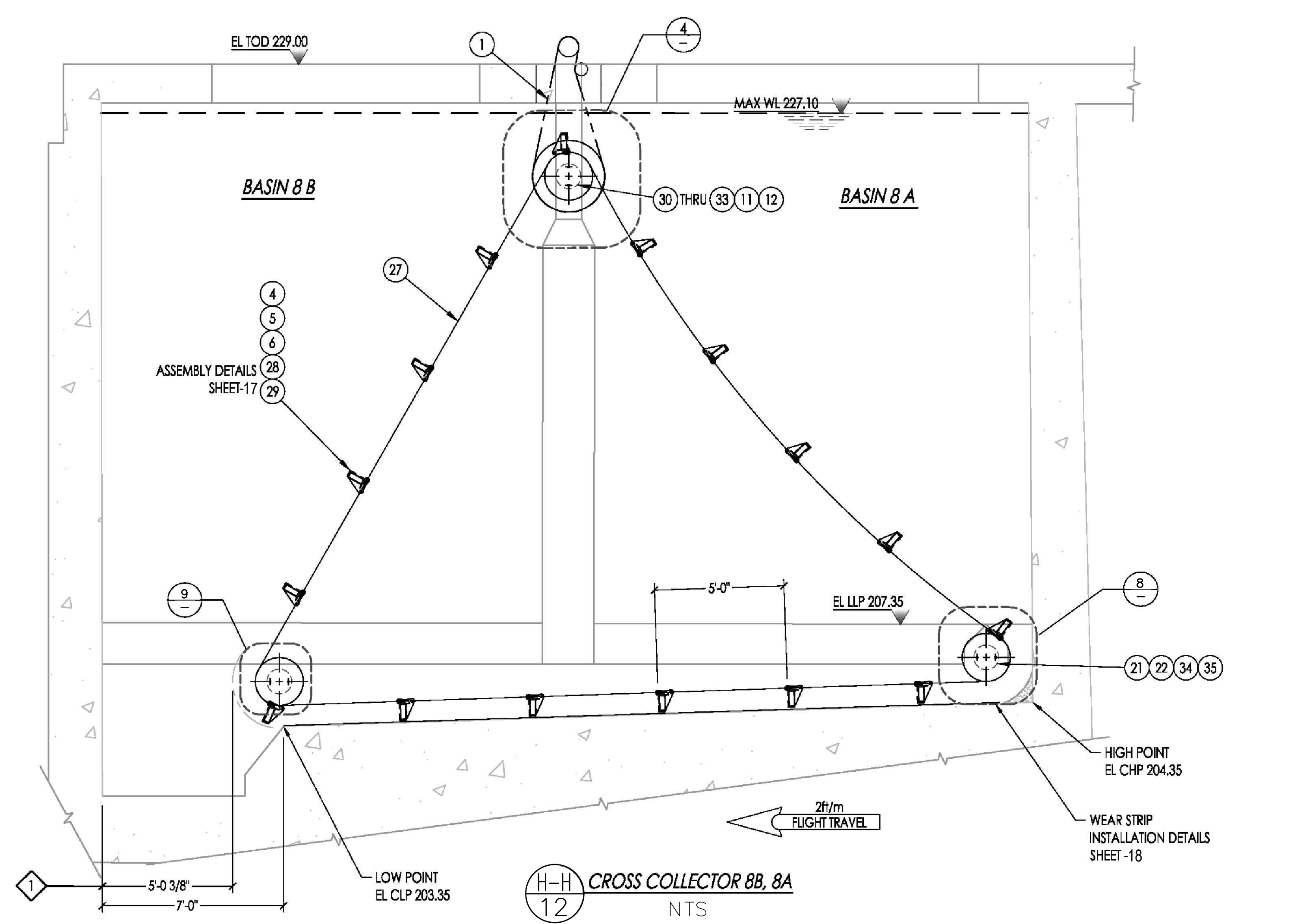
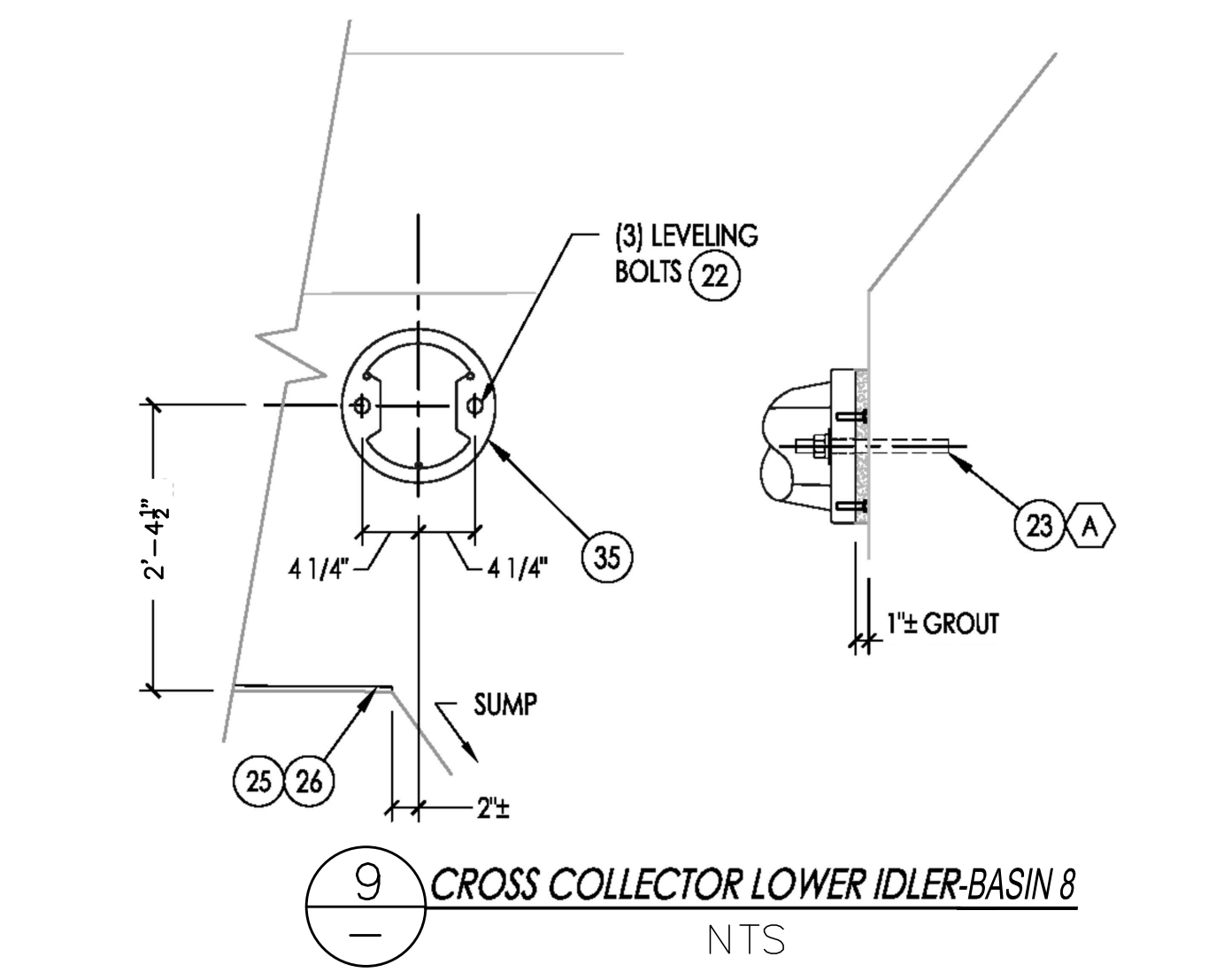
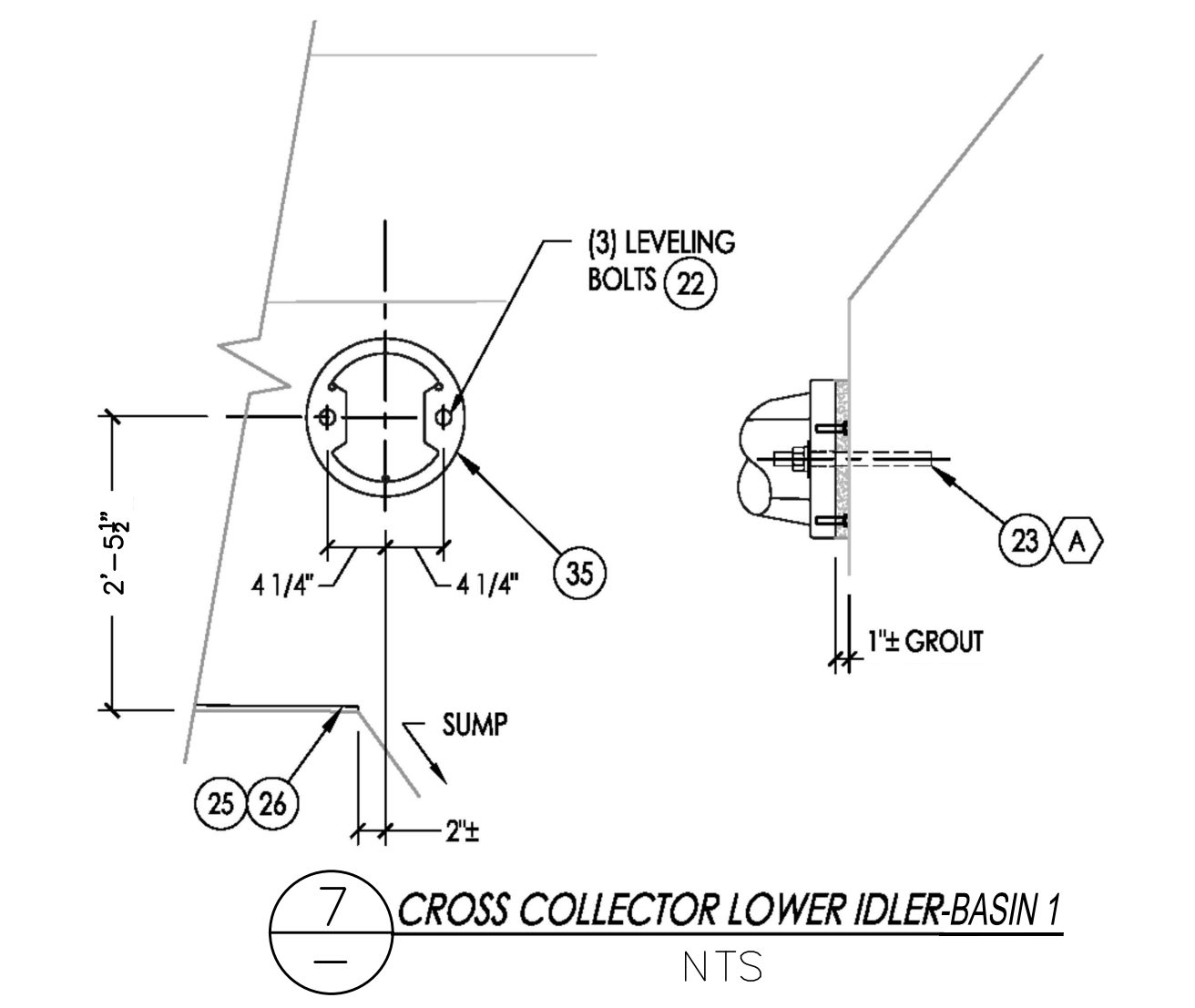
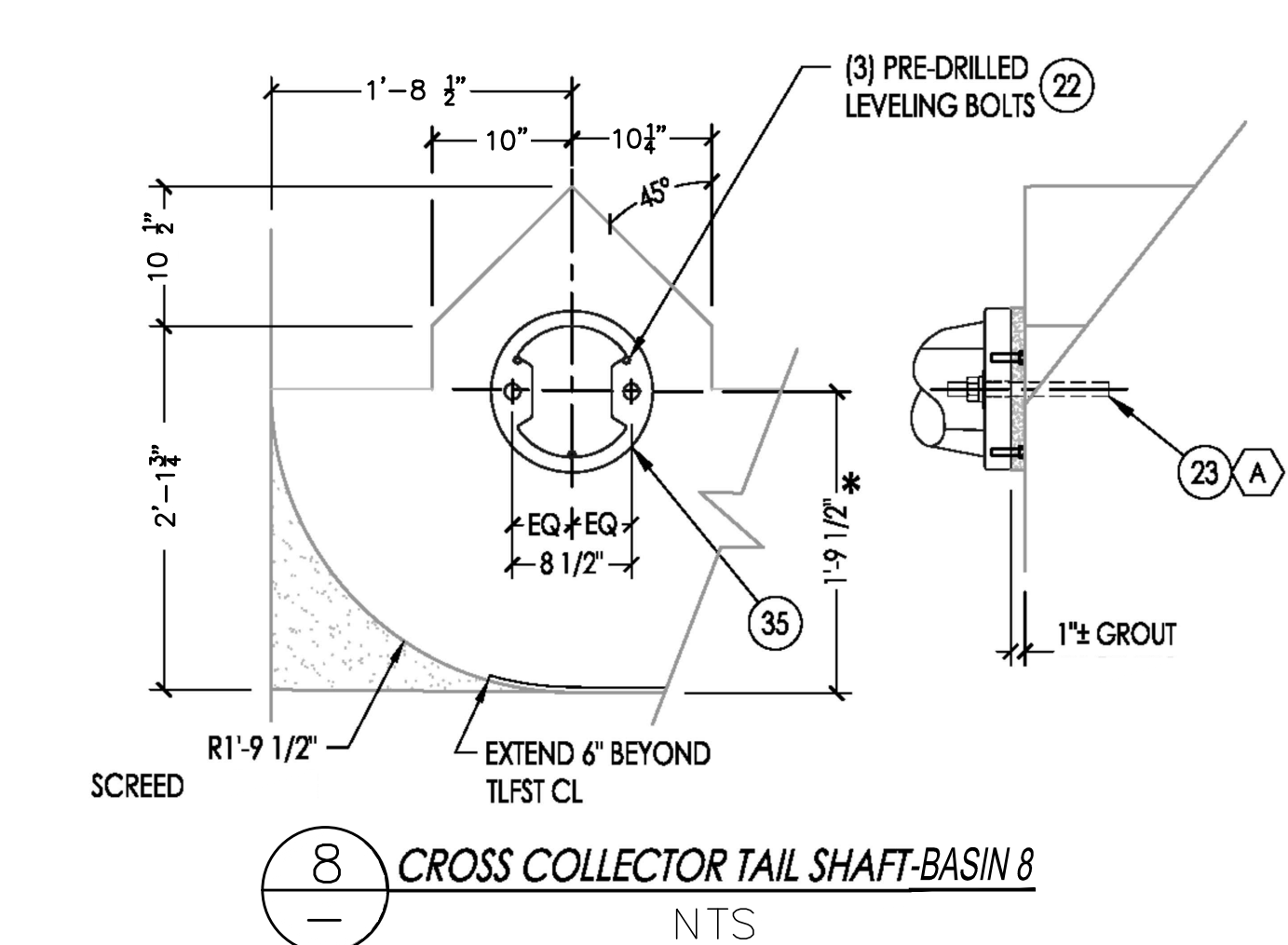
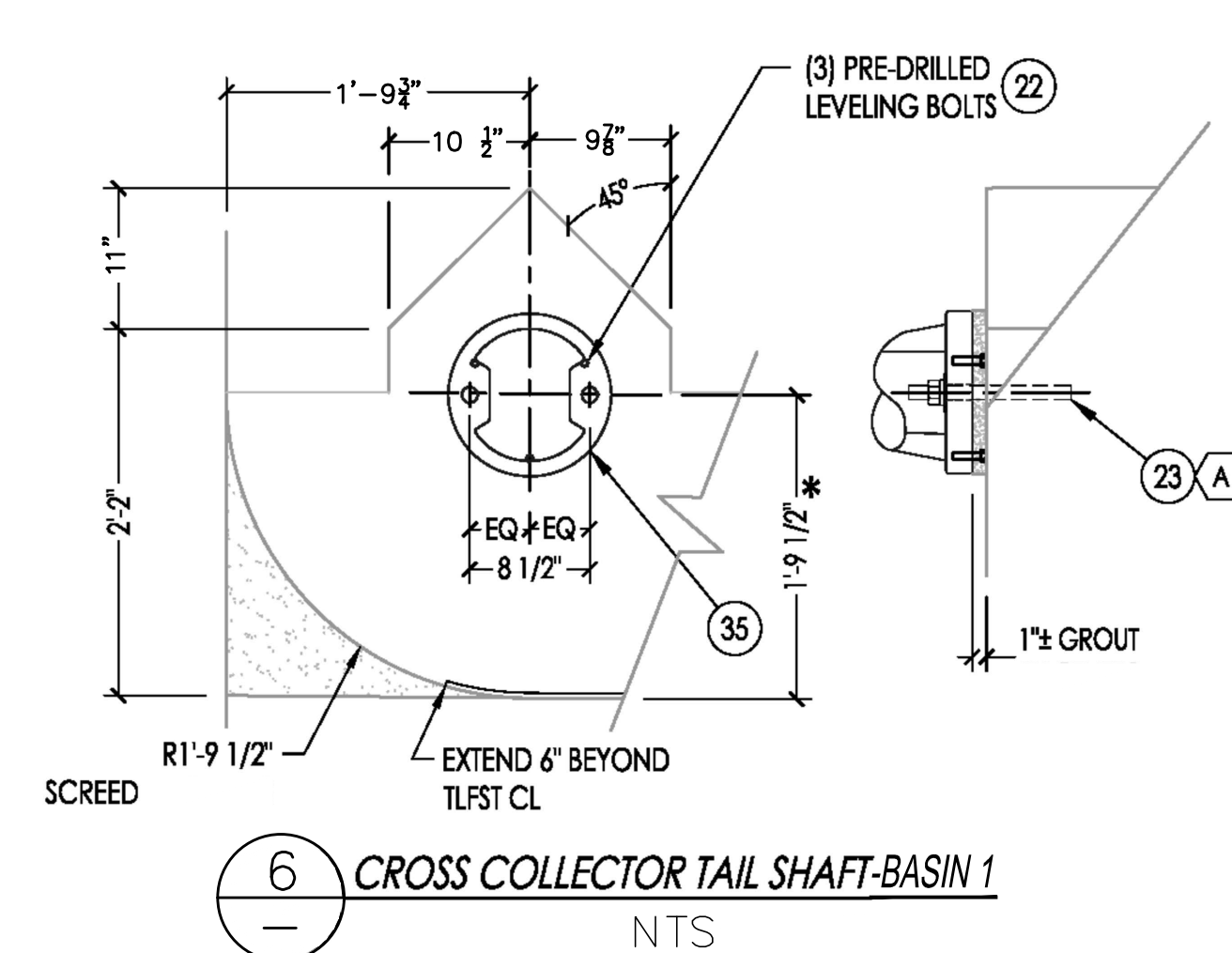
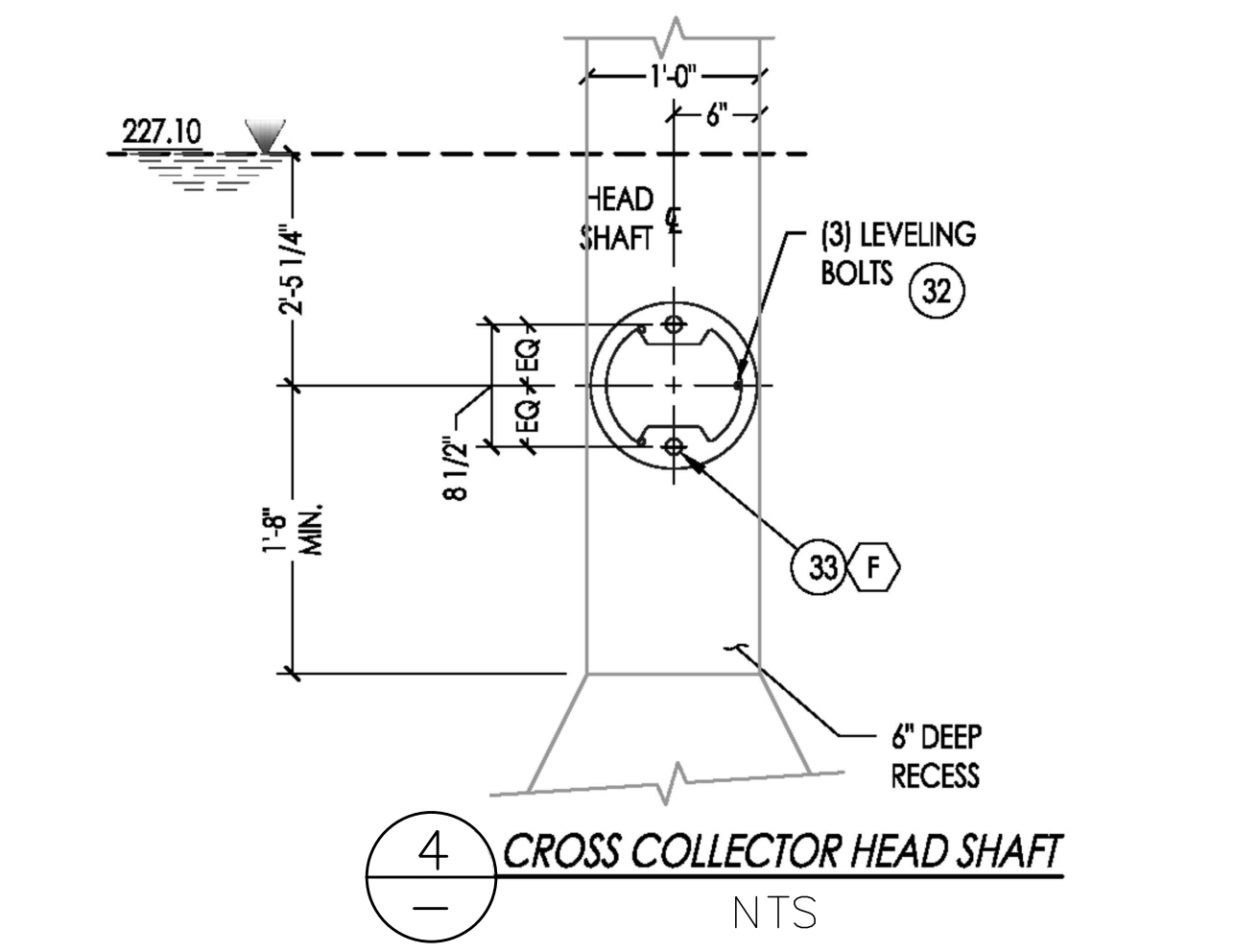
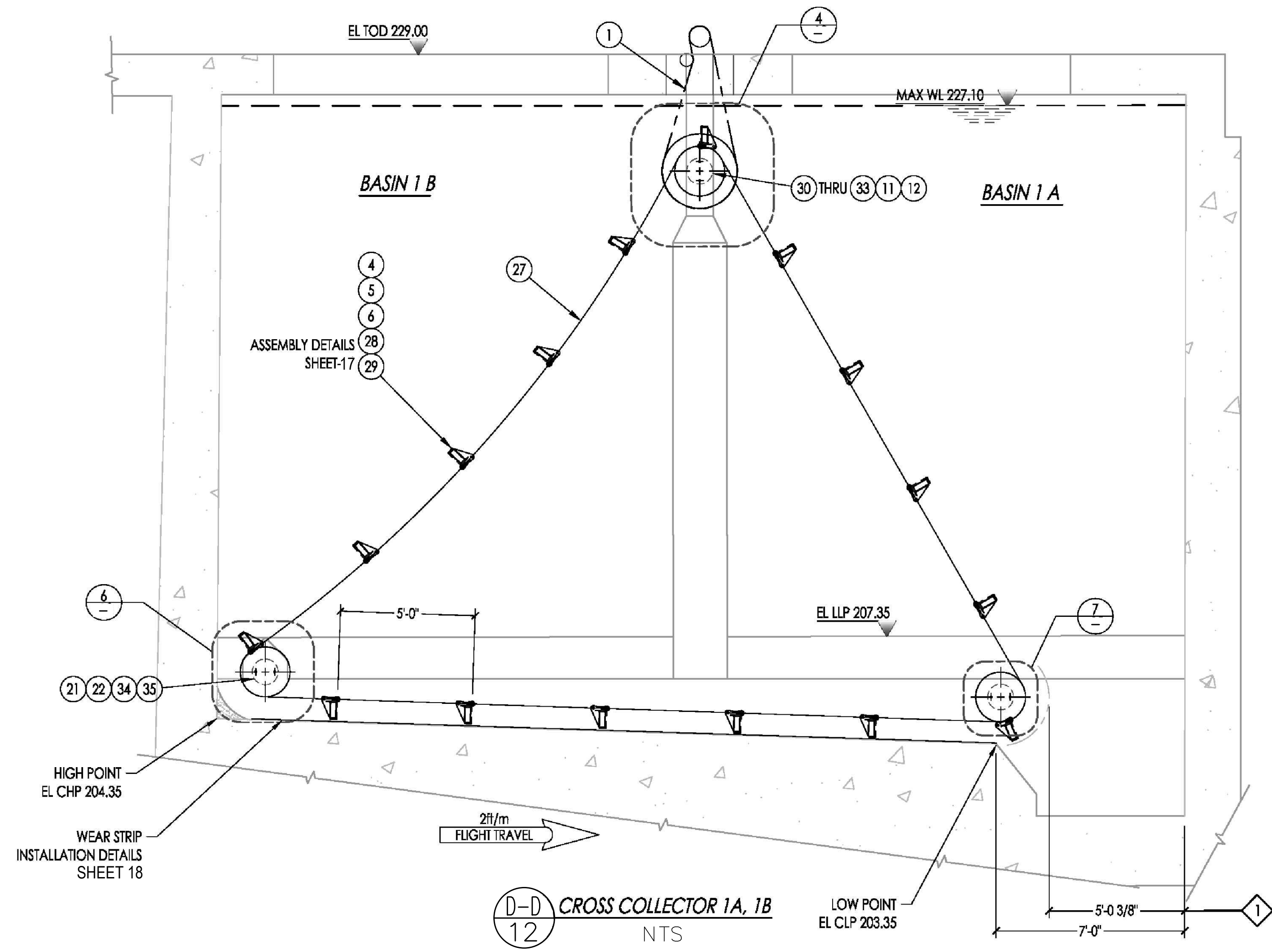


(G-G) TAIL SHAFT 8B, 8A
 12 NTS

10/3/2018 9:16 PM V:\WATER\7093 - FHMT\SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\CAD\7093 - FHMT-BASINS 1 AND 8 REVISED.DWG

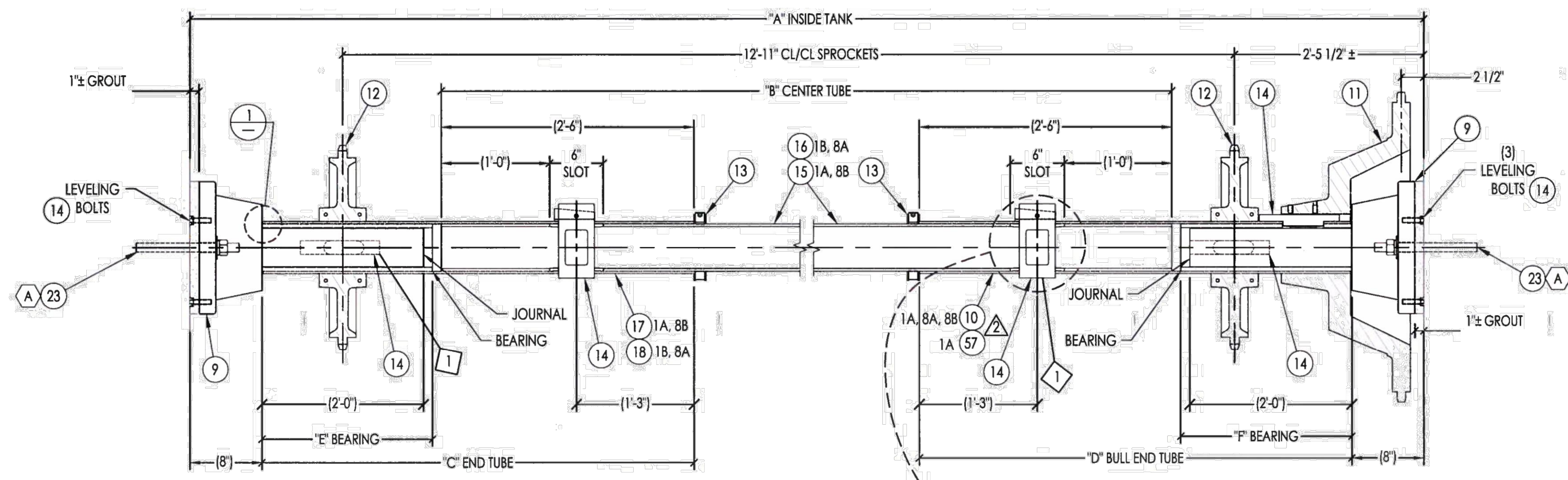
INIT.	
REVISION	
MARK	
DATE	
 CITY OF VALLEJO	
WATER DEPARTMENT CITY OF VALLEJO APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER ON	
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 SEDIMENTATION BASINS 8 INSTALLATION AND LAYOUT HEAD AND TAIL SHAFT	
CITY PROJECT #	WT 7093
DESIGN BY	J JACKSON
DRAWN BY	R. ZAMBRANA
CHECKED BY	M. SOKOL R. WILSON
DATE	02/12/18
SCALE	AS SHOWN
SHEET	15
OF 21 SHEETS	
DRAWING FILE #	WT 7093

10/3/2018 9:16 PM V:\WATER\7093 - FHWP\SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\7093 - FHWP-BASINS 1 AND 8 REVISED.DWG



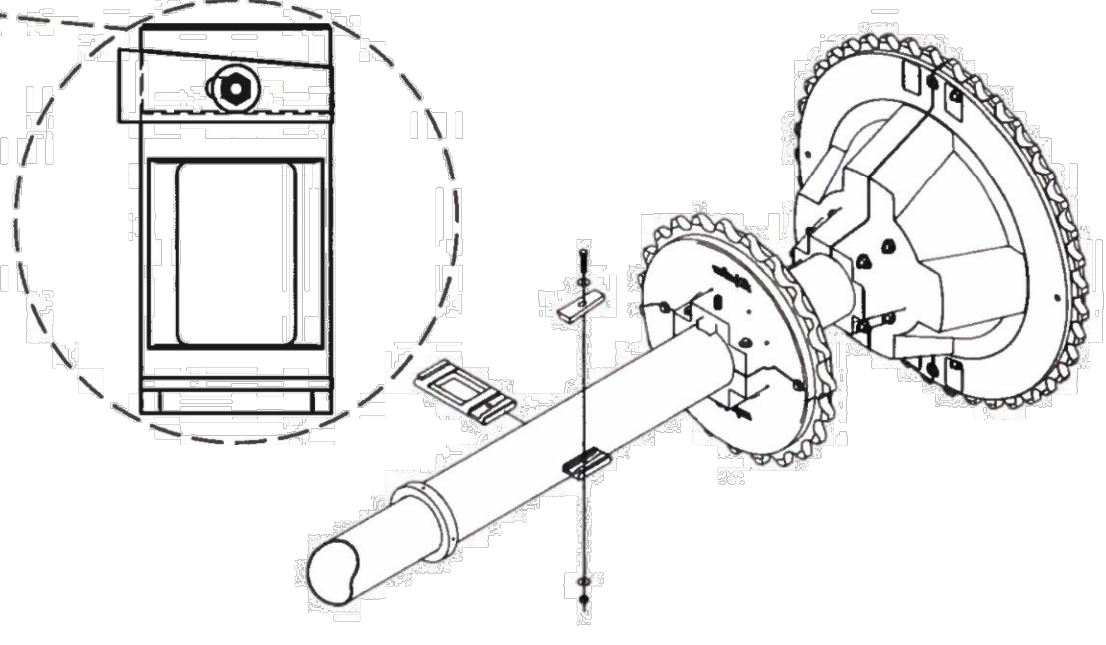
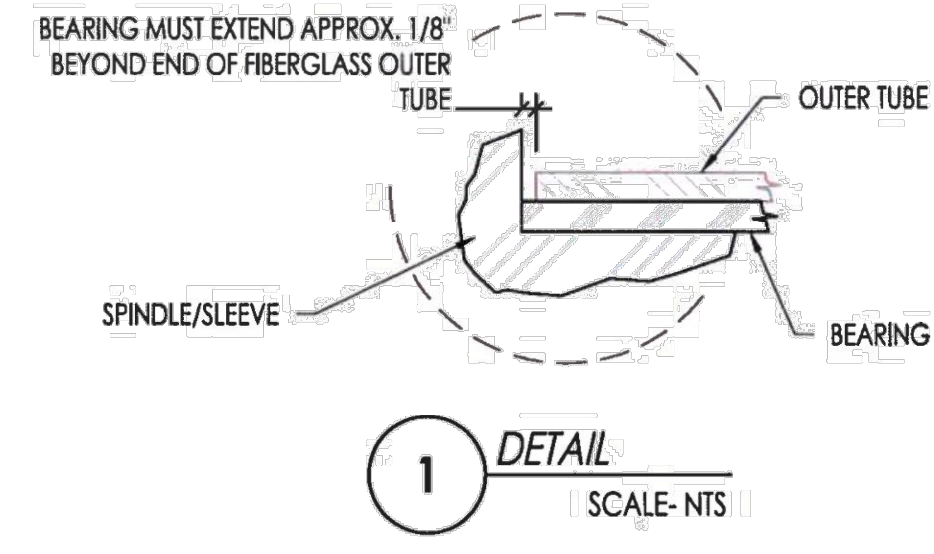
FLAG NOTES:
1. ANY NON-CHAIN & FLT EQMNT PAST THIS POINT WILL DAMAGE SYSTEM.
2. SEE SHEET 3 FOR PARTS LIST.

INIT.	
REVISION	
MARK	
DATE	
CITY OF VALLEJO WATER DEPARTMENT APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER ON	
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 SEDIMENTATION BASINS 1 & 8 INSTALLATION AND LAYOUT CROSS COLLECTOR	
CITY PROJECT # WT 7093 DESIGN BY J JACKSON DRAWN BY R. ZAMBRANA CHECKED BY M. SOKOLI R. WILSON DATE 02/12/18 SCALE AS SHOWN SHEET	
16 OF 21 SHEETS DRAWING FILE # WT 7093	

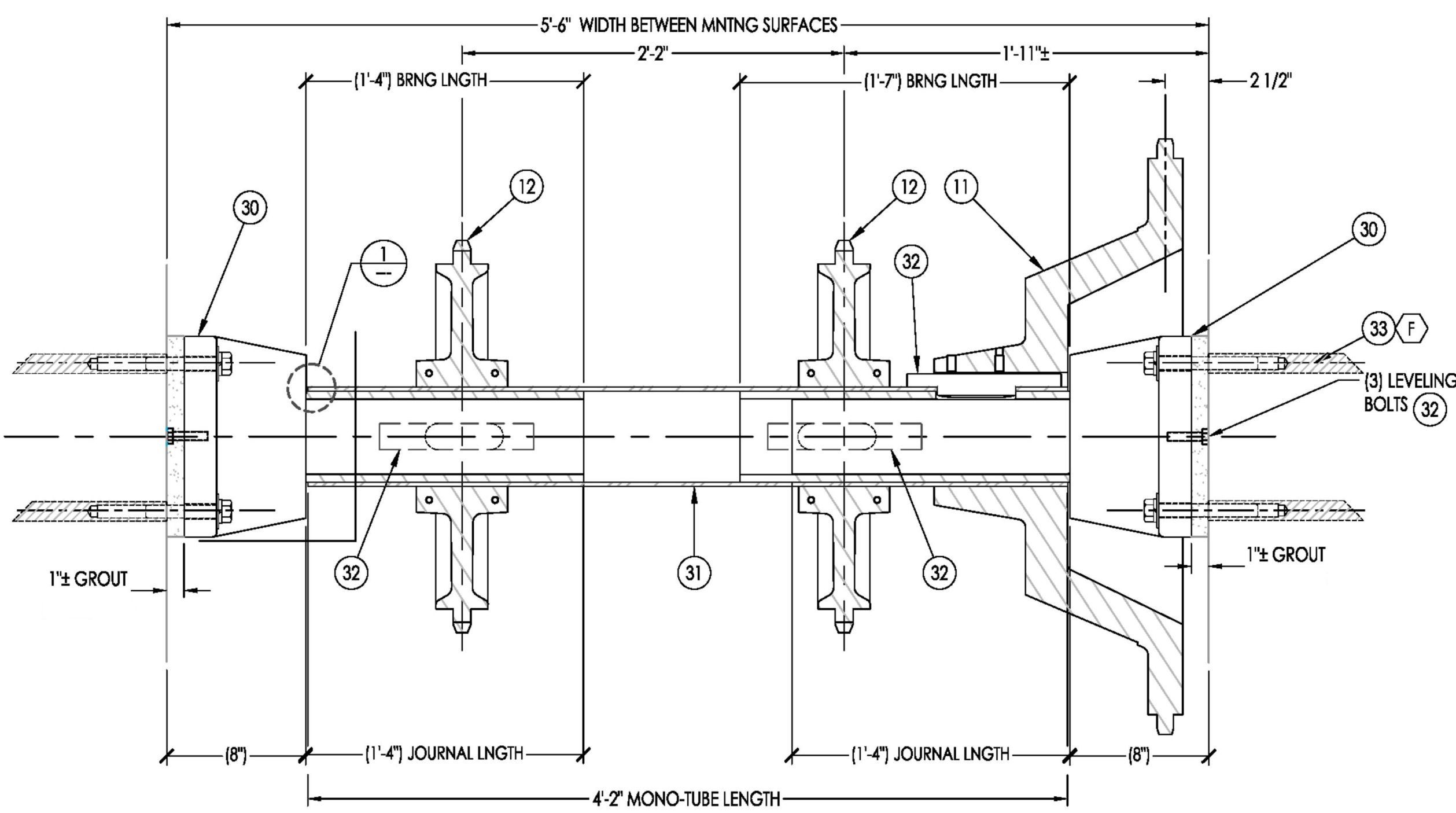


DETAIL SHEET: LONGITUDINAL HEAD SHAFT
SCALE: NTS

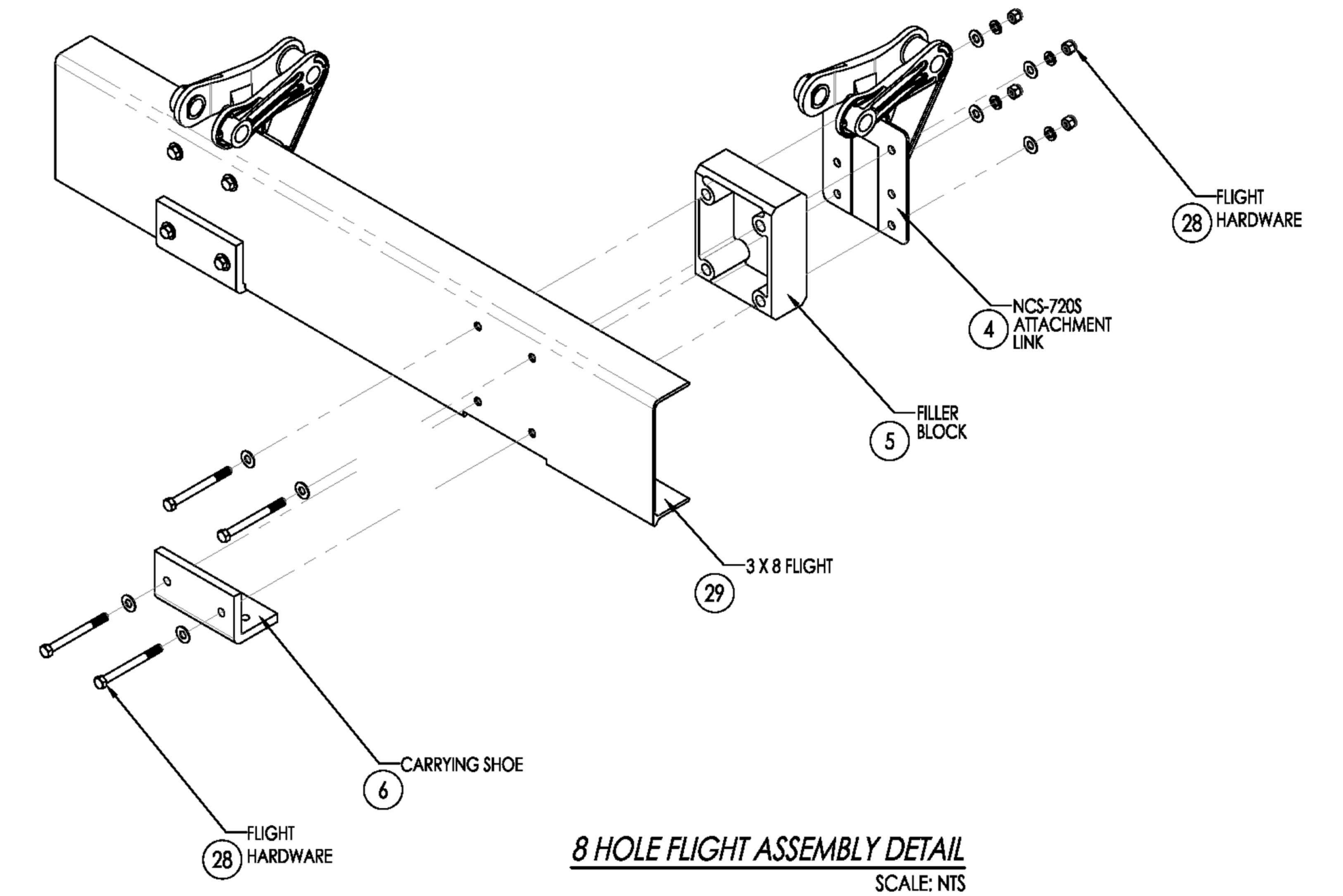
	TANK 1A	TANK 1B	TANK 8A	TANK 8B
A	18'-1 1/4"	17'-4"	17'-7"	18'-1 1/2"
B	12'-0"	11'-8"	11'-11"	12'-0"
C	5'-1"	4'-8"	4'-8"	5'-2"
D	4'-9"	4'-8"	4'-8"	4'-8"
E	2'-5"	2'-0"	2'-0"	2'-6"
F	2'-1"	2'-0"	2'-0"	2'-0"



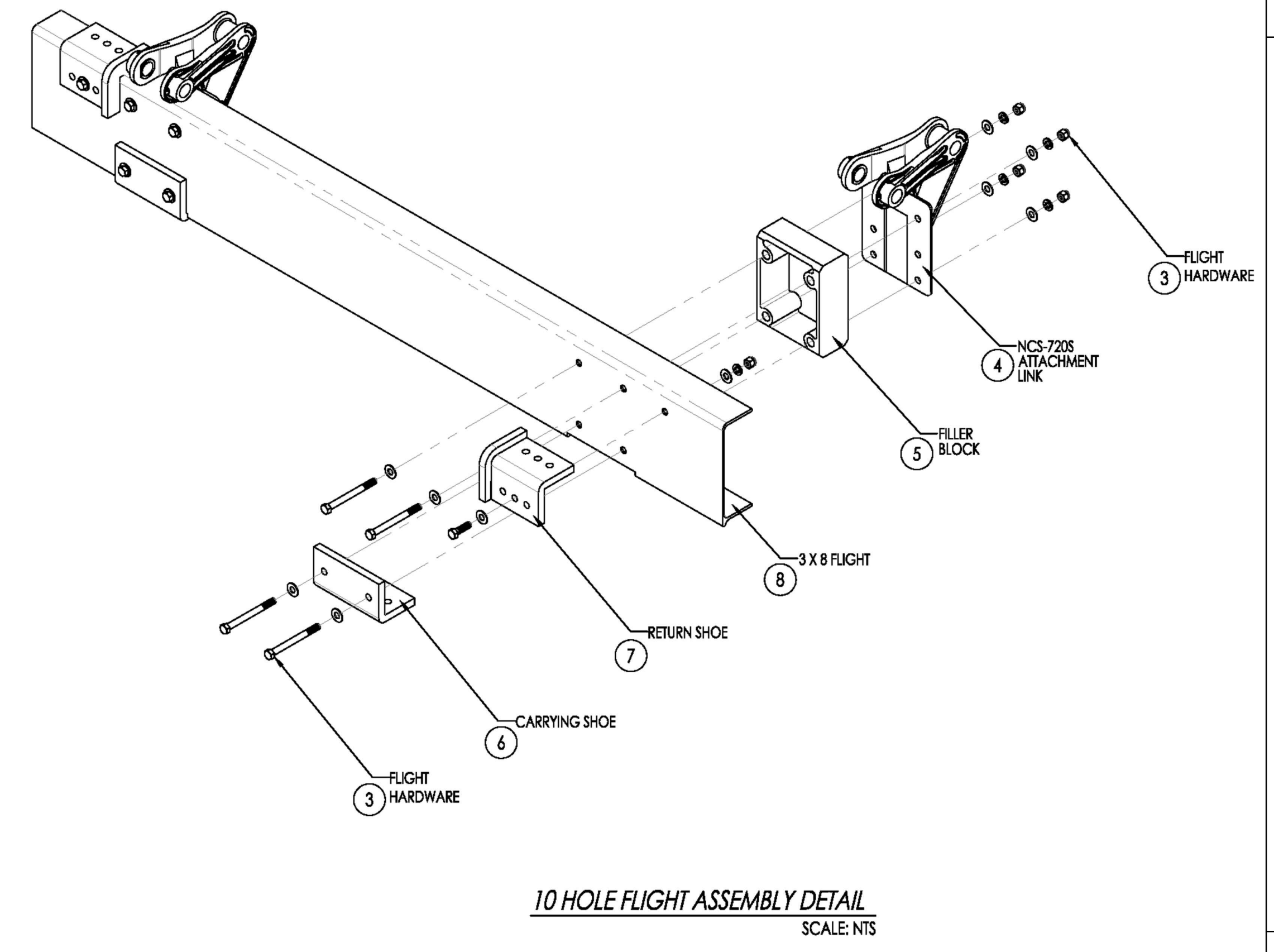
- FLAG NOTES:**
- ASSEMBLE SHAFT WITH THE END TUBE KEY AND THE BULL END TUBE KEY ON THE SAME SIDE OF SHAFT.
 - SEE SHEET 3 FOR PARTS LIST.



DETAIL SHEET: CROSS COLLECTOR HEAD SHAFT
NTS



8 HOLE FLIGHT ASSEMBLY DETAIL
SCALE: NTS



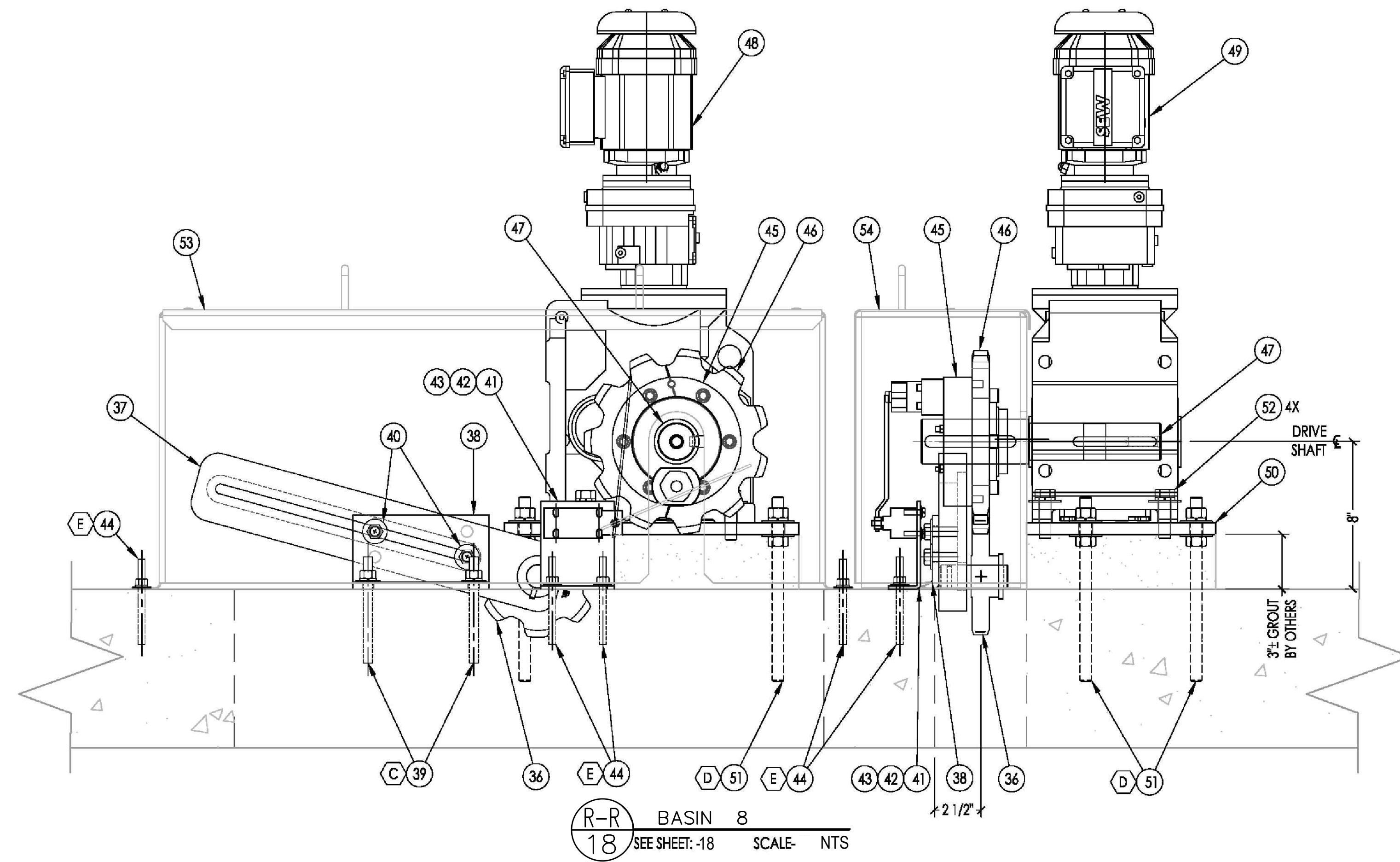
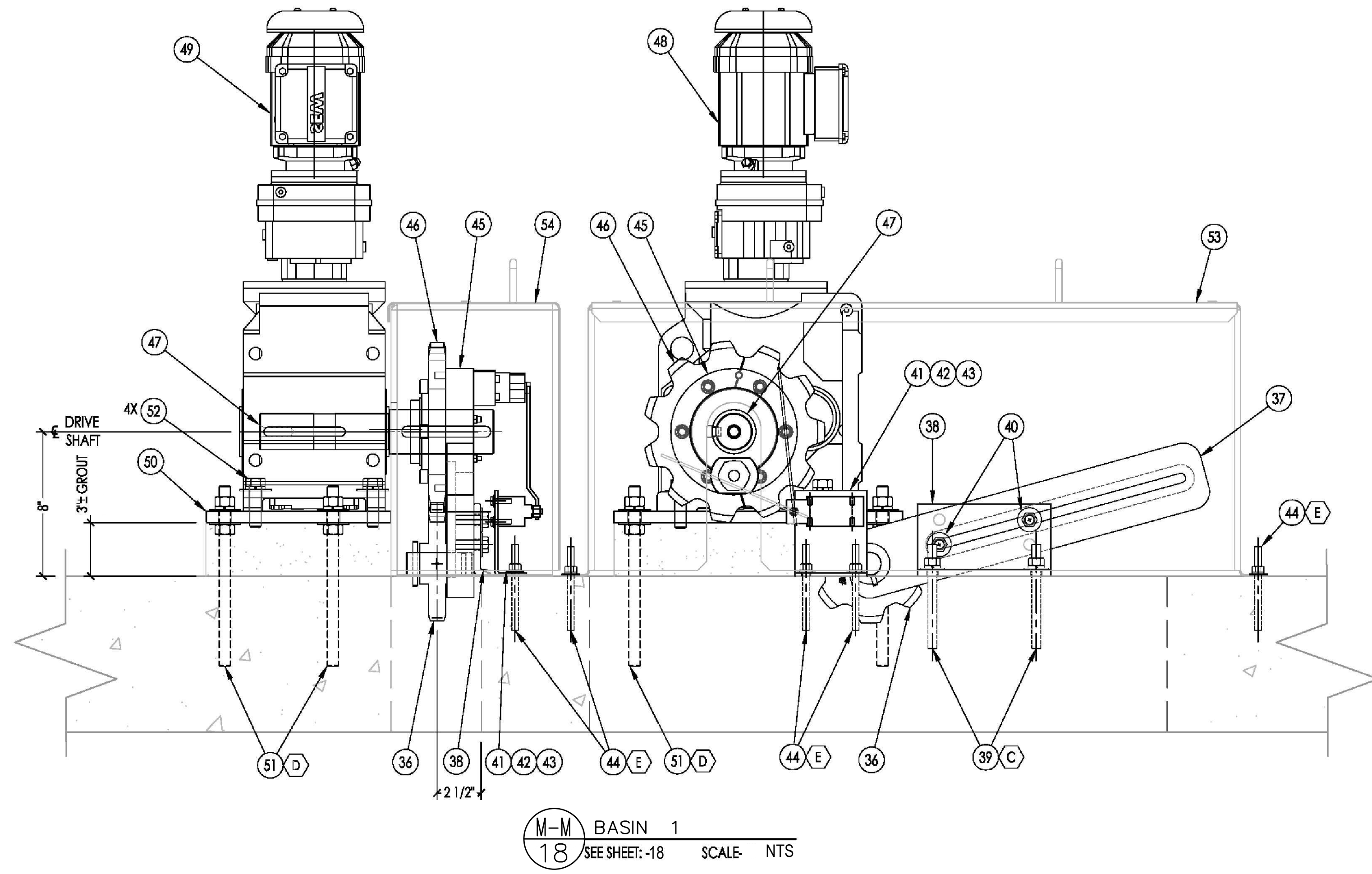
10 HOLE FLIGHT ASSEMBLY DETAIL
SCALE: NTS

V:\00WATER\7093 - FHMT-P SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\CAD\7093 - FHMT-P-BASINS 1 AND 8 REVISED.DWG 10/3/2018 9:16 PM

INIT.									
REVISION									
MARK									
DATE									
CITY OF VALLEJO					WATER DEPARTMENT APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER				
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 SEDIMENTATION BASINS 1 & 8 DETAIL SHEET CROSS COLLECTOR AND LONGITUDINAL HEAD SHAFT									
CITY PROJECT # WT 7093 DESIGN BY J JACKSON DRAWN BY R. ZAMBRANA CHECKED BY M. SOKOLU R. WILSON DATE 02/12/18 SCALE AS SHOWN 17 OF 21 SHEETS DRAWING FILE # WT 7093									

INSTALLATION NOTES

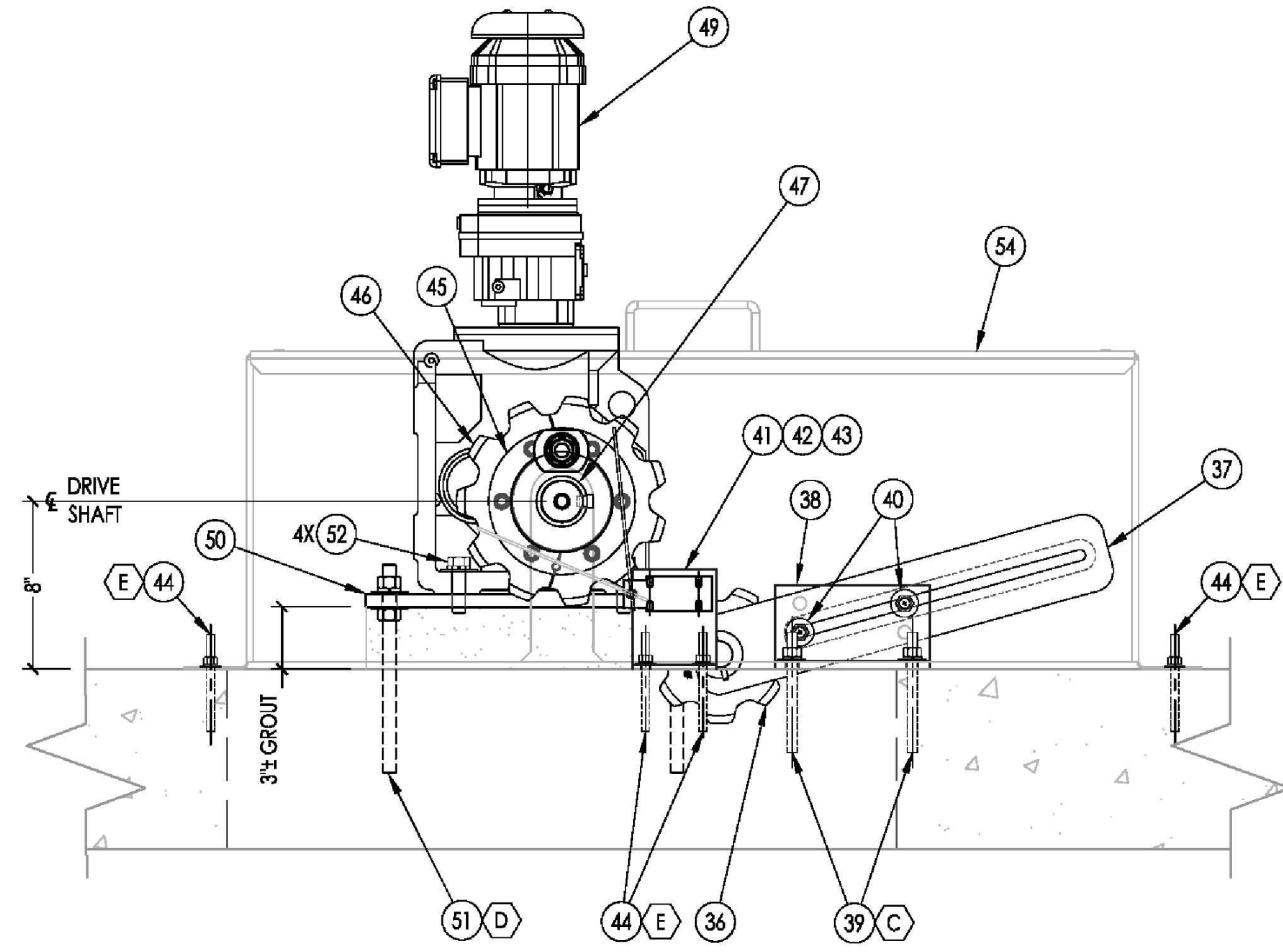
1. LUBRICATE BEARING SLEEVE PRIOR TO SHAFT INSTALLATION.
2. COAT INPUT OF SHAFT AT DRIVE UNIT AS WELL AS ALL CONTACT SPOTS WITH TORQUE LIMITERS WITH ANTI-SEIZE PRIOR TO INSTALLATION.
3. SEE SHEET 3 FOR PARTS LIST.



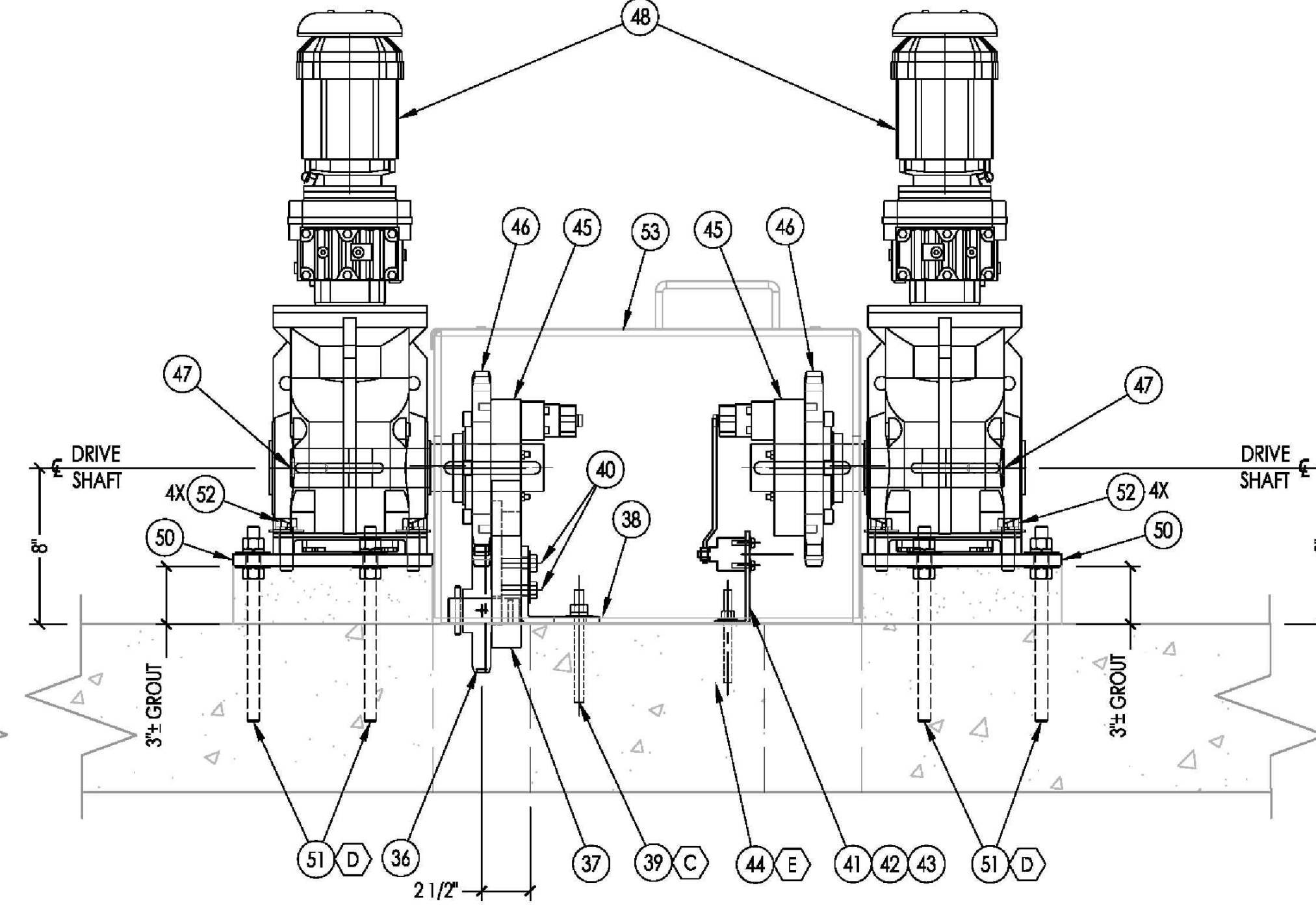
10/3/2018 9:16 PM V:\WATER\7093 - FHMT\SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\CAD\7093 - FHMT-BASINS 1 AND 8 REVISED.DWG

INIT.					
REVISION					
MARK					
DATE					
CITY OF VALLEJO WATER DEPARTMENT					
APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER					
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 SEDIMENTATION BASINS 1 & 8 INSTALLATION AND LAYOUT DRIVE UNIT LAYOUT					
CITY PROJECT # WT 7093 DESIGN BY J JACKSON DRAWN BY R. ZAMBRANA CHECKED BY M. SOKOL R. WILSON DATE 02/12/18 SCALE AS SHOWN SHEET					
19 OF 21 SHEETS DRAWING FILE # WT 7093					

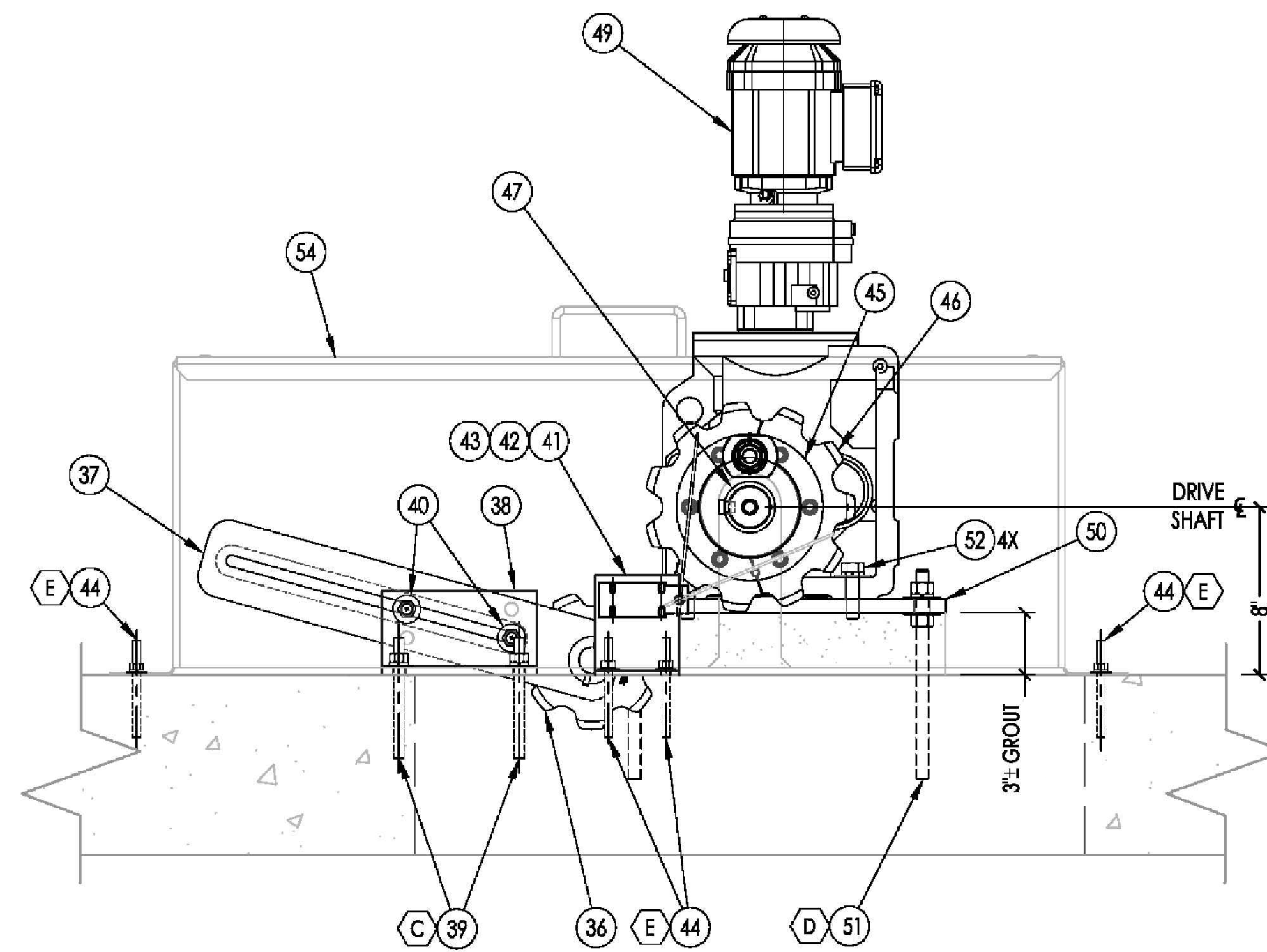
INSTALLATION NOTES
 1. LUBRICATE BEARING SLEEVE PRIOR TO SHAFT INSTALLATION.
 2. COAT INPUT OF SHAFT AT DRIVE UNIT AS WELL AS ALL CONTACT SPOTS WITH TORQUE LIMITERS WITH ANTI-SEIZE PRIOR TO INSTALLATION.
 3. SEE SHEET 3 FOR PART'S LIST.



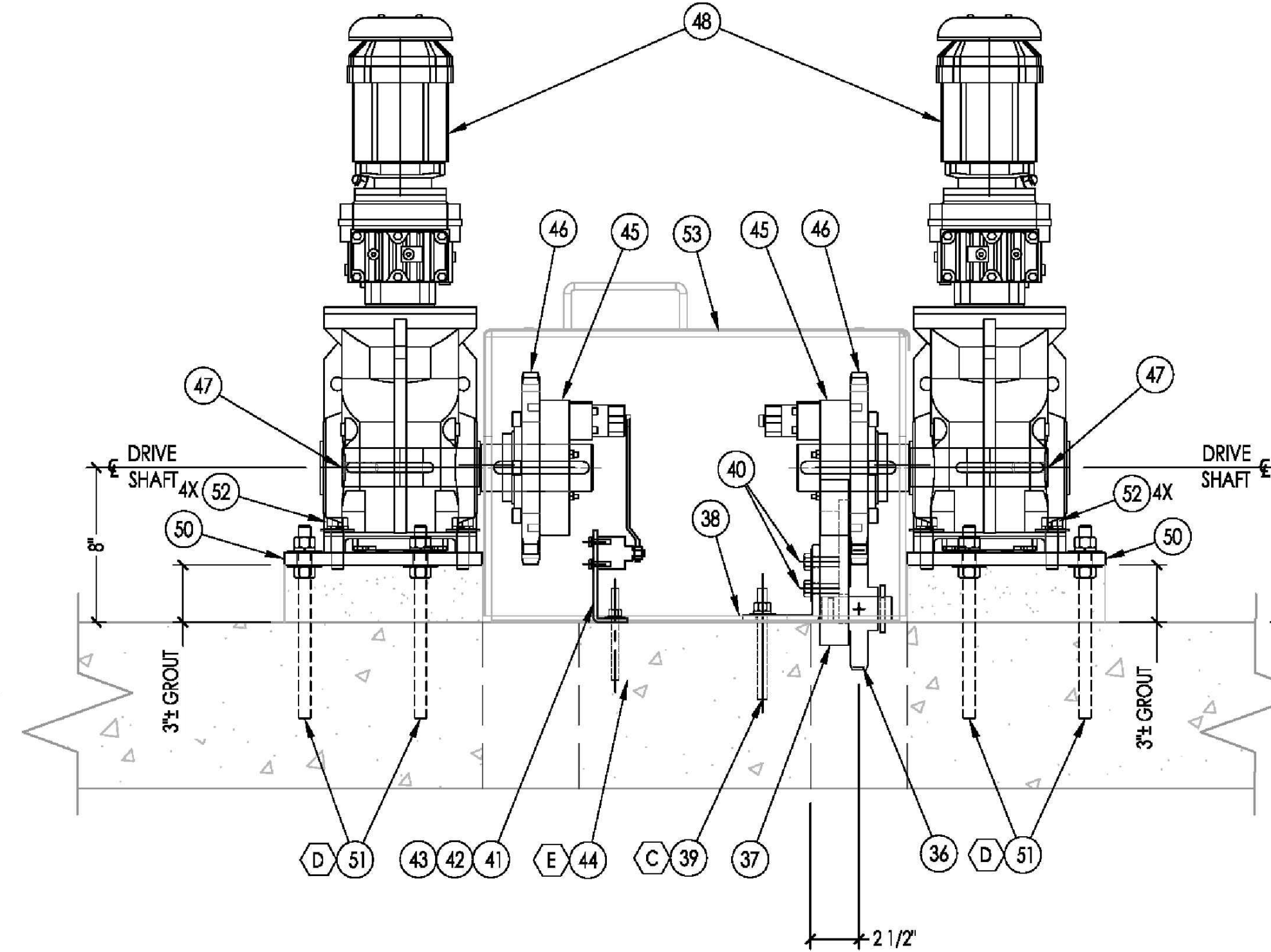
N-N BASIN 1
 18 SEE SHEET: -18 SCALE: NTS



P-P BASIN 1
 18 SEE SHEET: -18 SCALE: NTS



S-S BASIN 8
 18 SEE SHEET: -18 SCALE: NTS

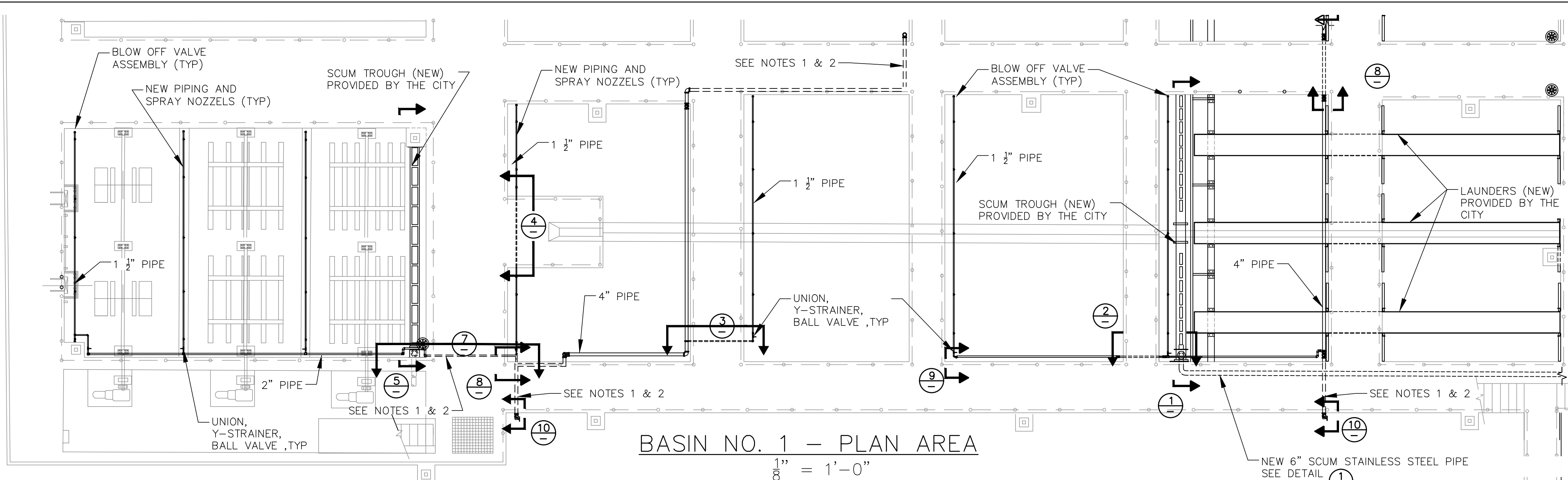


T-T BASIN 8
 18 SEE SHEET: -18 SCALE: NTS

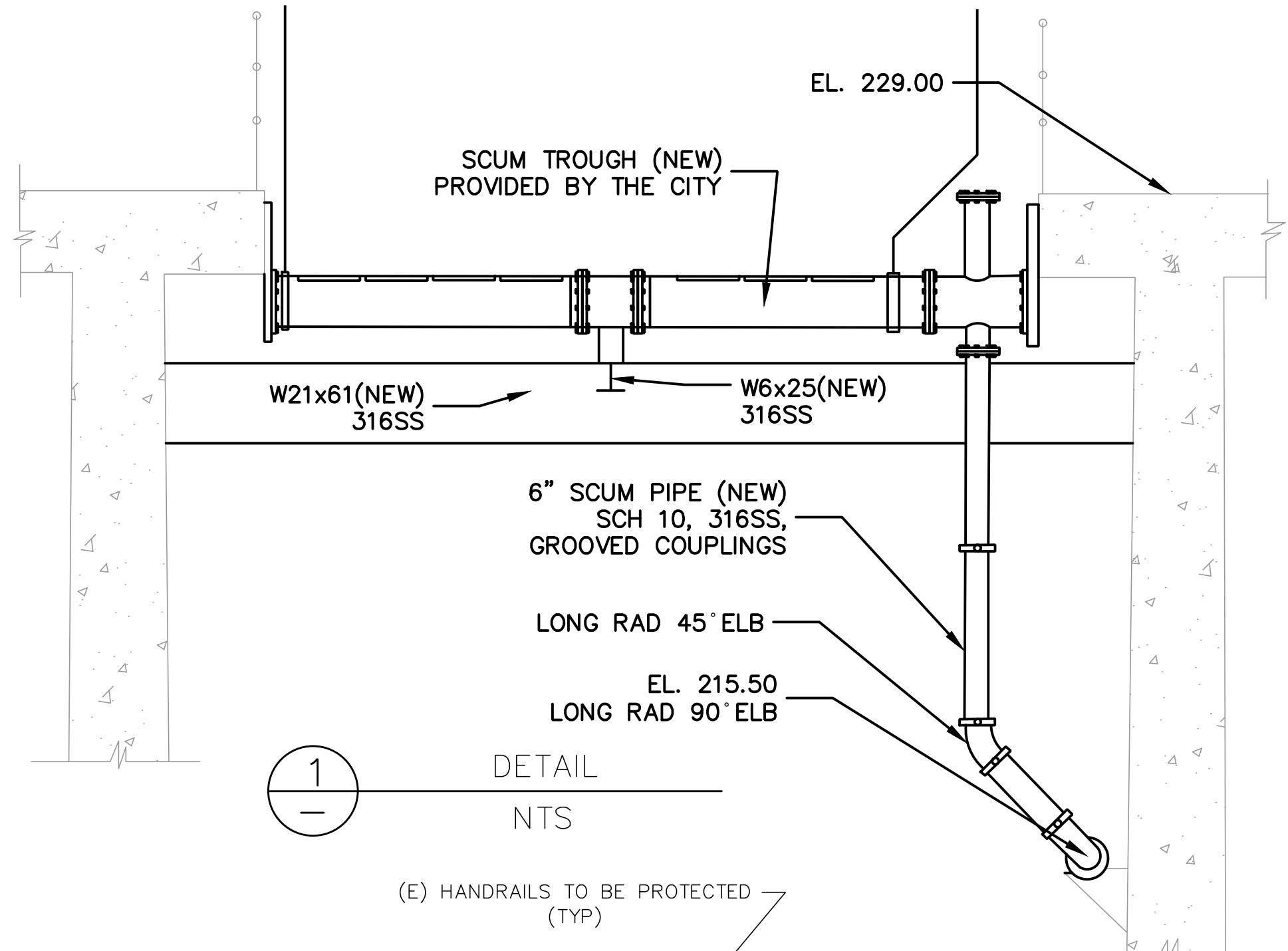
10/3/2018 9:16 PM V:\WATER\7093 - FHWP\SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\CAD\7093 - FHWP-BASINS 1 AND 8 REVISED.DWG

INIT.	
REVISION	
MARK	
DATE	
CITY OF VALLEJO WATER DEPARTMENT	
APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER	
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 SEDIMENTATION BASINS 1 & 8 INSTALLATION AND LAYOUT DRIVE UNIT LAYOUT - BASINS 1 & 8	
CITY PROJECT #	WT 7093
DESIGN BY	J JACKSON
DRAWN BY	R. ZAMBRANA
CHECKED BY	M. SOKOL R. WILSON
DATE	02/12/18
SCALE	AS SHOWN
SHEET	20
OF 21 SHEETS	
DRAWING FILE #	WT 7093

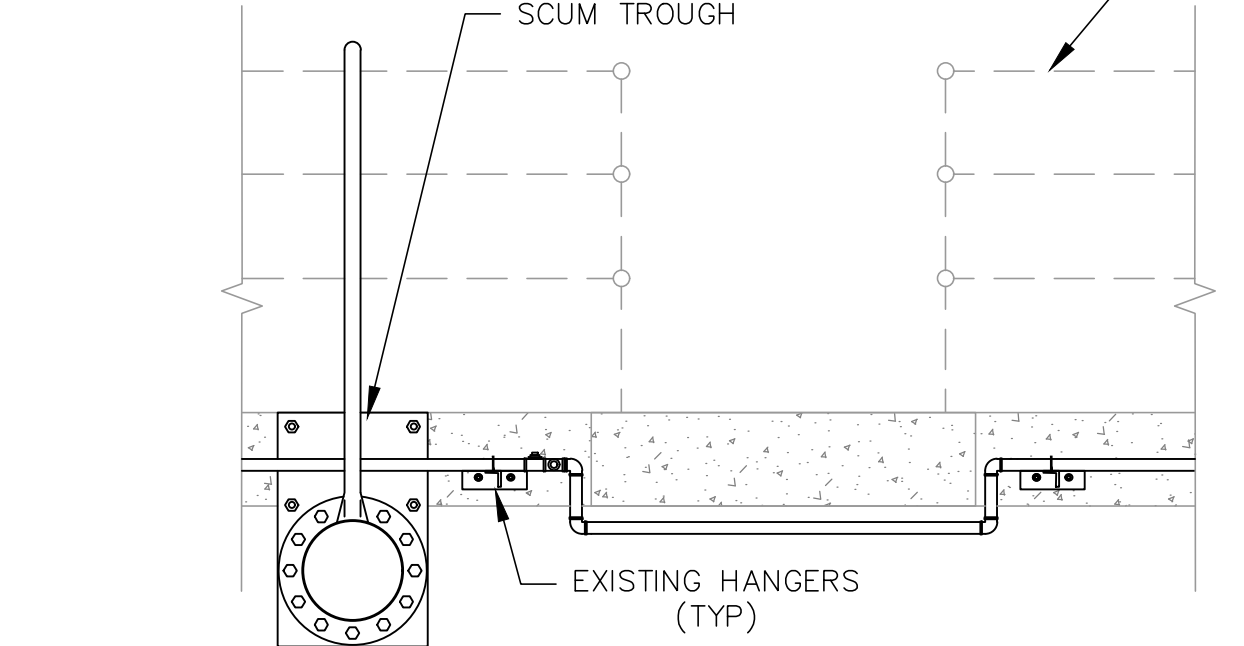
10/3/2018 9:19 PM V:\WATER\7093 - FHMTD SED & FLOC CHAMBER EQUIPMENT UPGRADE\DWG\7093 - FHMTD-BASINS 1 AND 8 REVISED.DWG



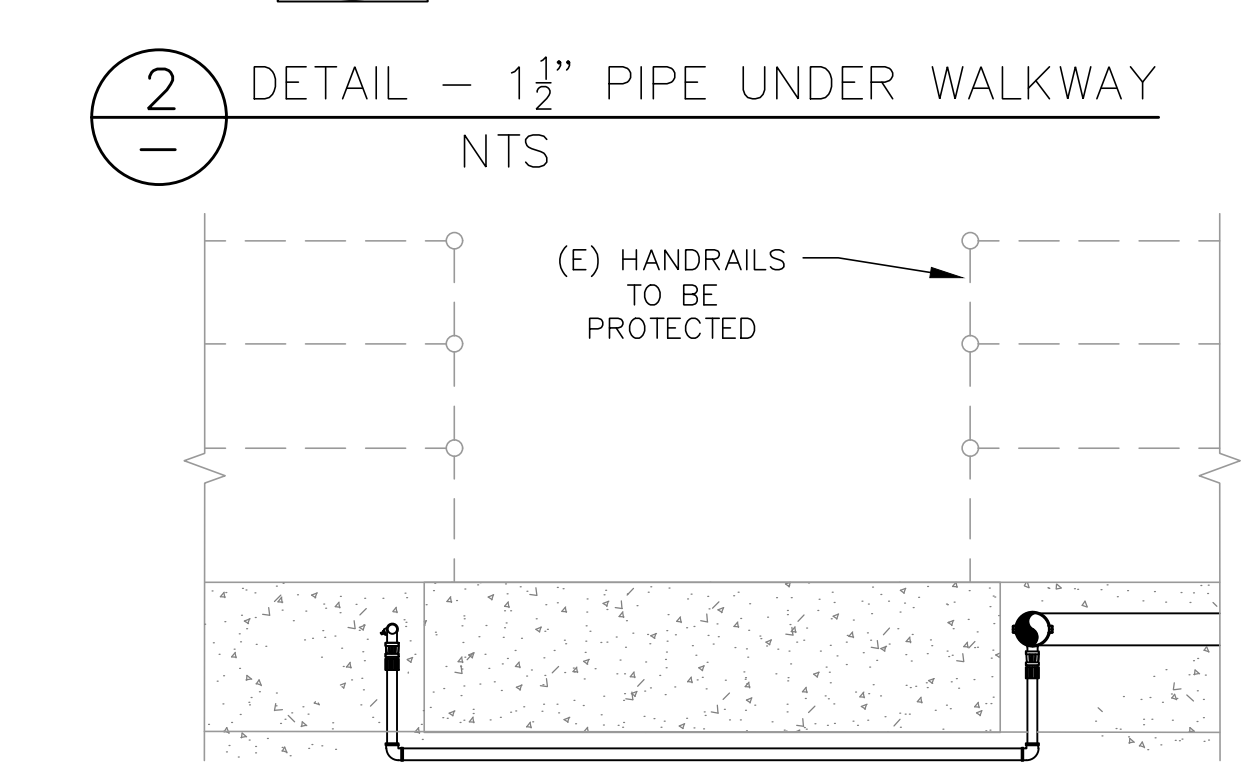
BASIN NO. 1 - PLAN AREA
1/8" = 1'-0"



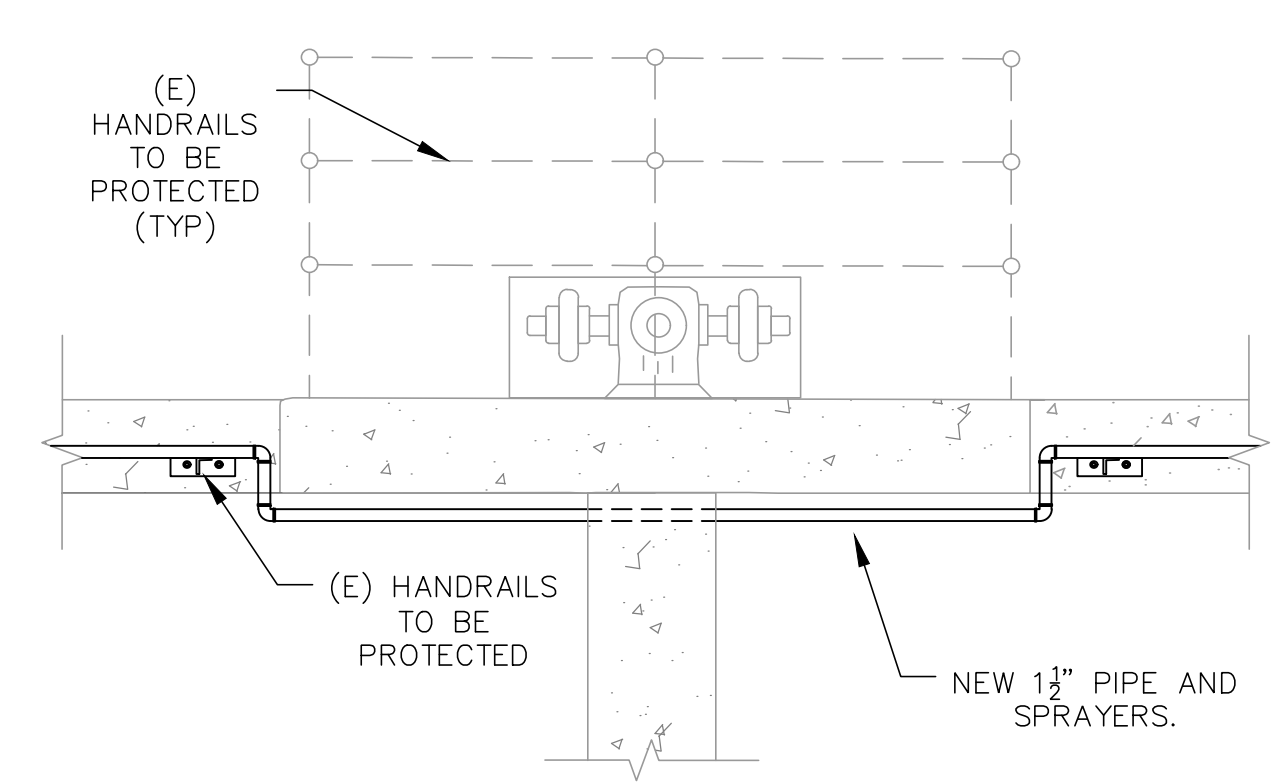
1
DETAIL
NTS



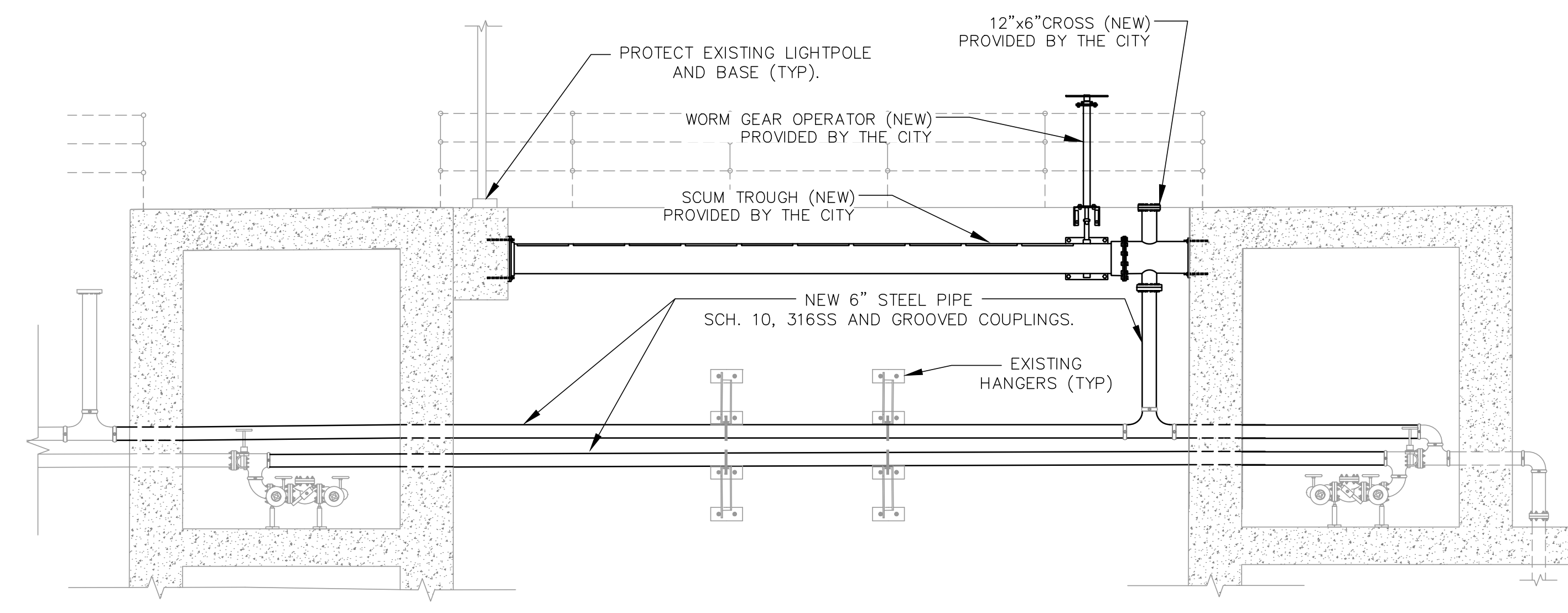
2
DETAIL - 1 1/2\"/>



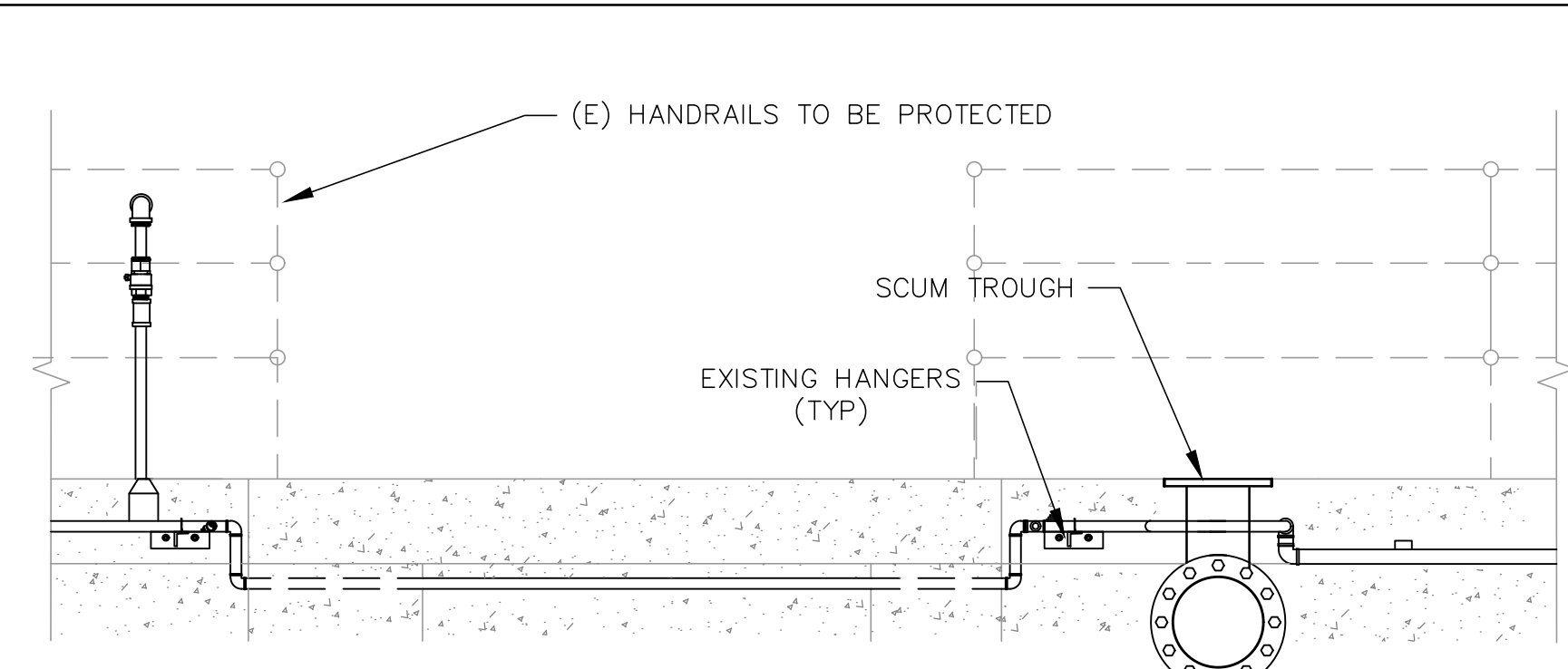
3
DETAIL - 1 1/2\"/>



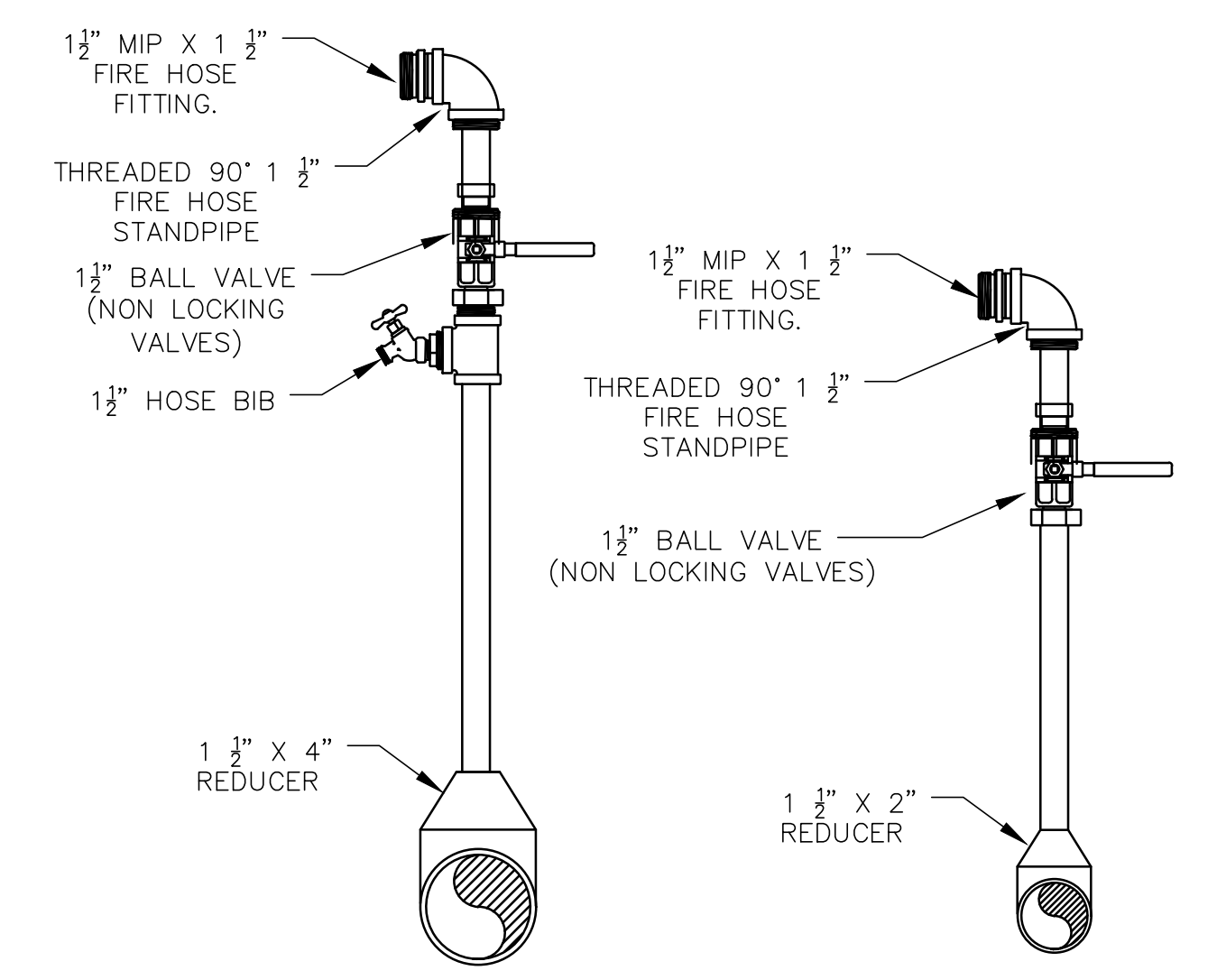
4
DETAIL - 1 1/2\"/>



5
DETAIL
NTS

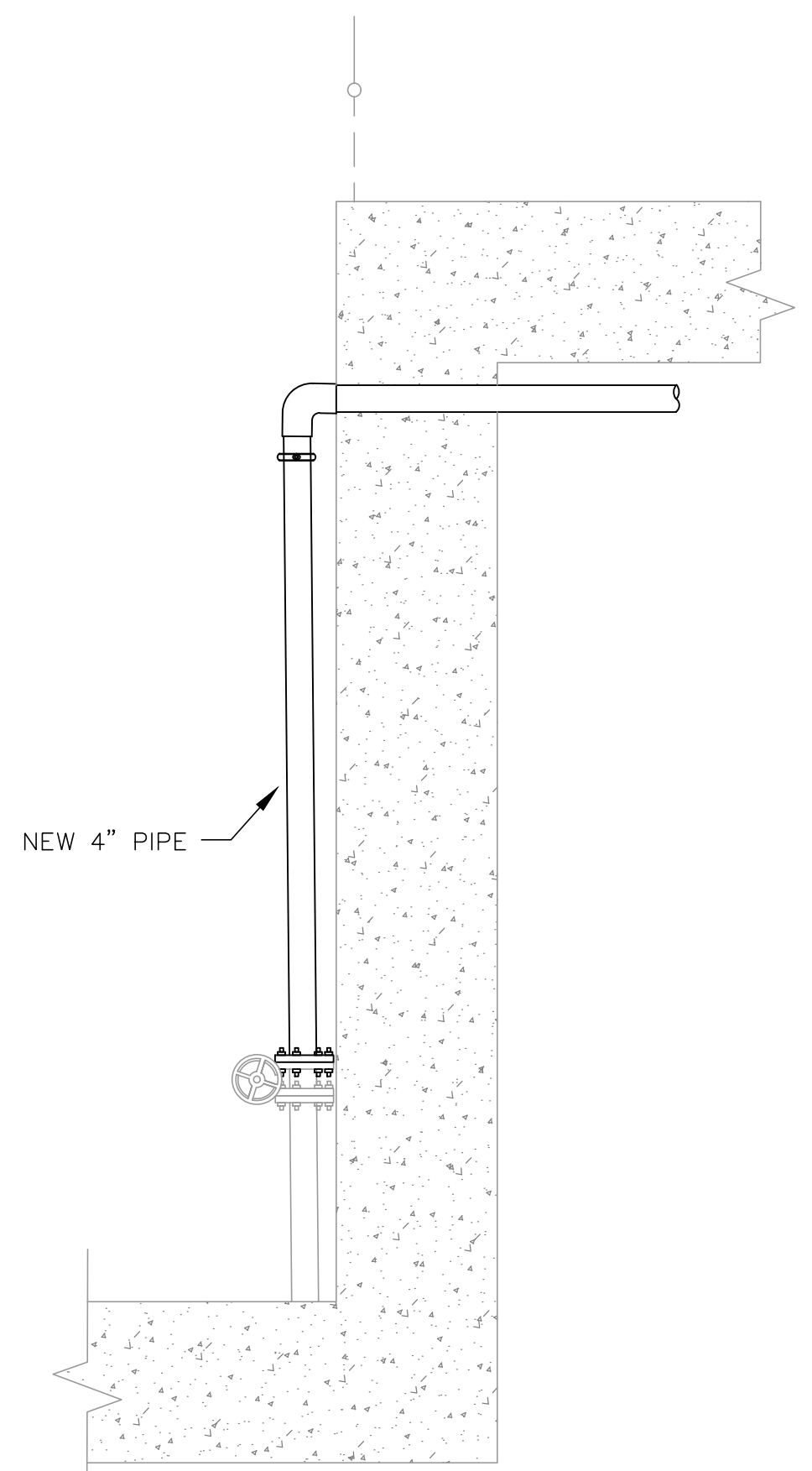


7
DETAIL - 1 1/2\"/>




8
NEW 1 1/2\"/>

9
NEW 1 1/2\"/>



10
DETAIL - 4\"/>

- NOTES:**
1. BASIN 8 REQUIRES ONLY THROUGH THE WALL PIPES TO BE INSTALLED AND CONNECTED TO EXISTING PIPING.
 2. ALL THROUGH WALL PIPE PENETRATIONS SHALL BE SEALED USING "LINK SEAL" PER MANUFACTURER SPECIFICATIONS.

INIT.	
REVISION	
MARK	
DATE	
	
CITY OF VALLEJO WATER DEPARTMENT	
APPROVED: RICHARD WILSON, PE. - ENGINEERING MANAGER	
FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 - EQUIPMENT UPGRADE PROJECT WT 7093 BASINS 1 & 8 INSTALLATION AND LAYOUT PIPING, SCUM TROUGHS AND OTHER MISCELLANEOUS EQUIPMENT	
CITY PROJECT # WT 7093	
DESIGN BY J JACKSON	
DRAWN BY R. ZAMBRANA	
CHECKED BY M. SOKOL/R. WILSON	
DATE 02/12/18	
SCALE AS SHOWN	
SHEET 21 OF 21 SHEETS DRAWING FILE # WT 7093	