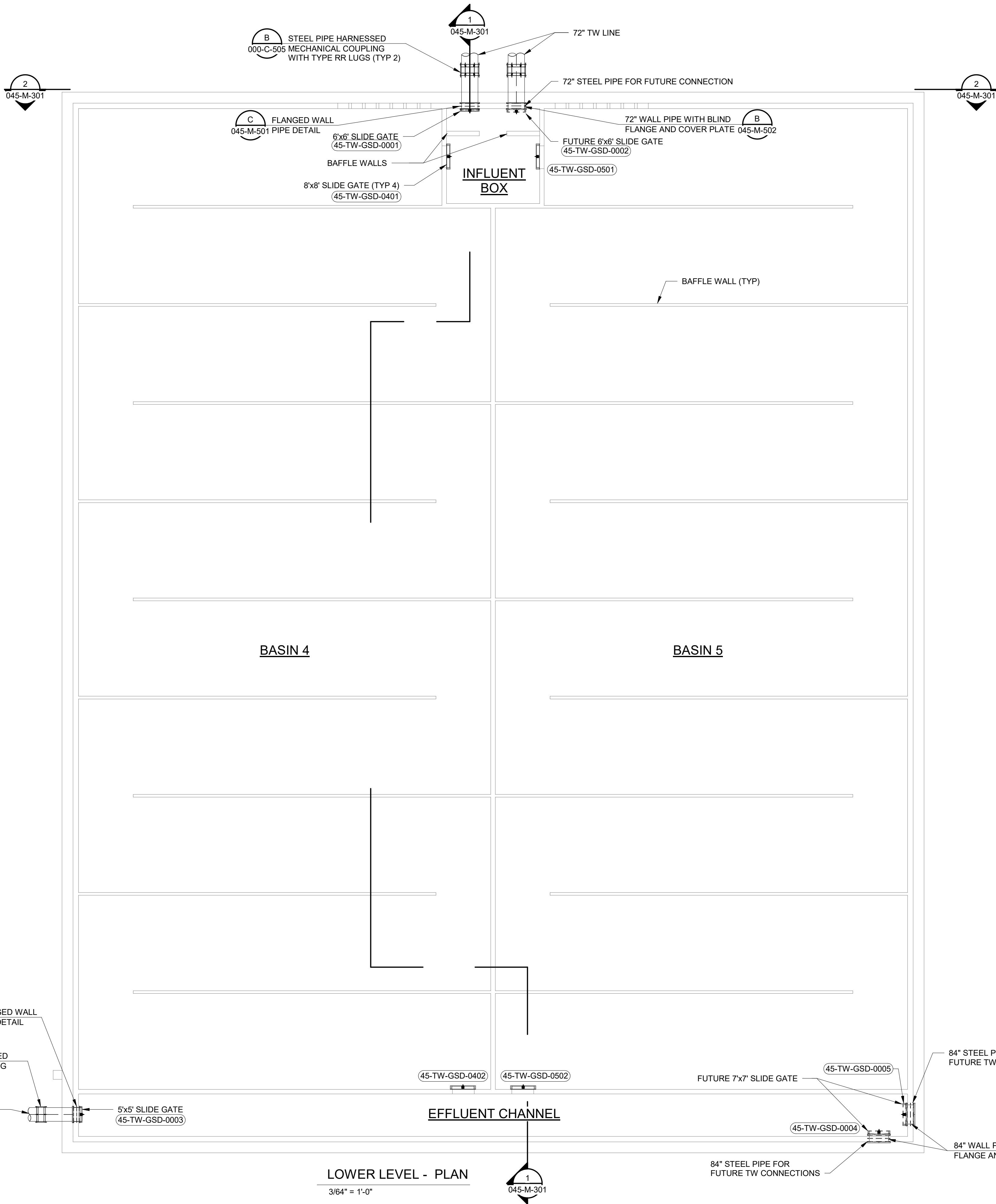




GENERAL SHEET NOTES

1. YARD PIPING OMITTED FOR CLARITY. SEE SHEET 000-C-300 FOR CONTINUATION OF YARD PIPING.



Black & Veatch Corporation
Kansas City, Missouri

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SEALED ON DECEMBER 2, 2024
BY ANDREW J. HANSEN, A
LICENSED PROFESSIONAL
ENGINEER IN THE
STATE OF ARKANSAS,
E-14664



PLANT EXPANSION
PROGRAM
CONTRACT 23-3
16 MG CLEARWELL

Conformed To Bid

REVISIONS AND RECORD OF ISSUE	
DESIGNED:	CS
DETAILED:	KMR
CHECKED:	SHZ
APPROVED:	AJH
DATE:	DECEMBER 2024
PROJECT NO.:	417134

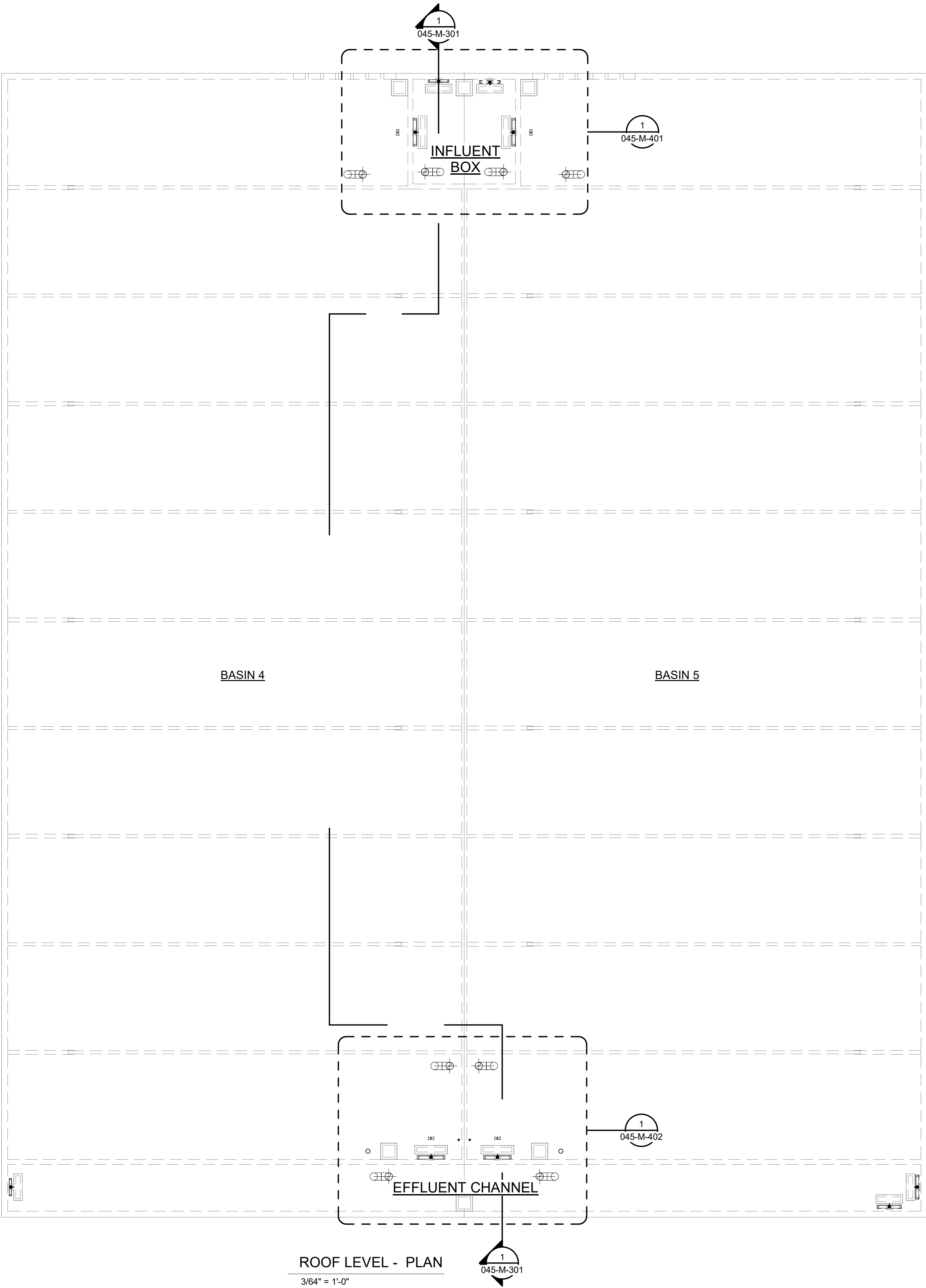
16 MG CLEARWELL

PROCESS MECHANICAL

OVERALL LOWER
FLOOR PLAN

045-M-101

67
OF
82



GENERAL SHEET NOTES

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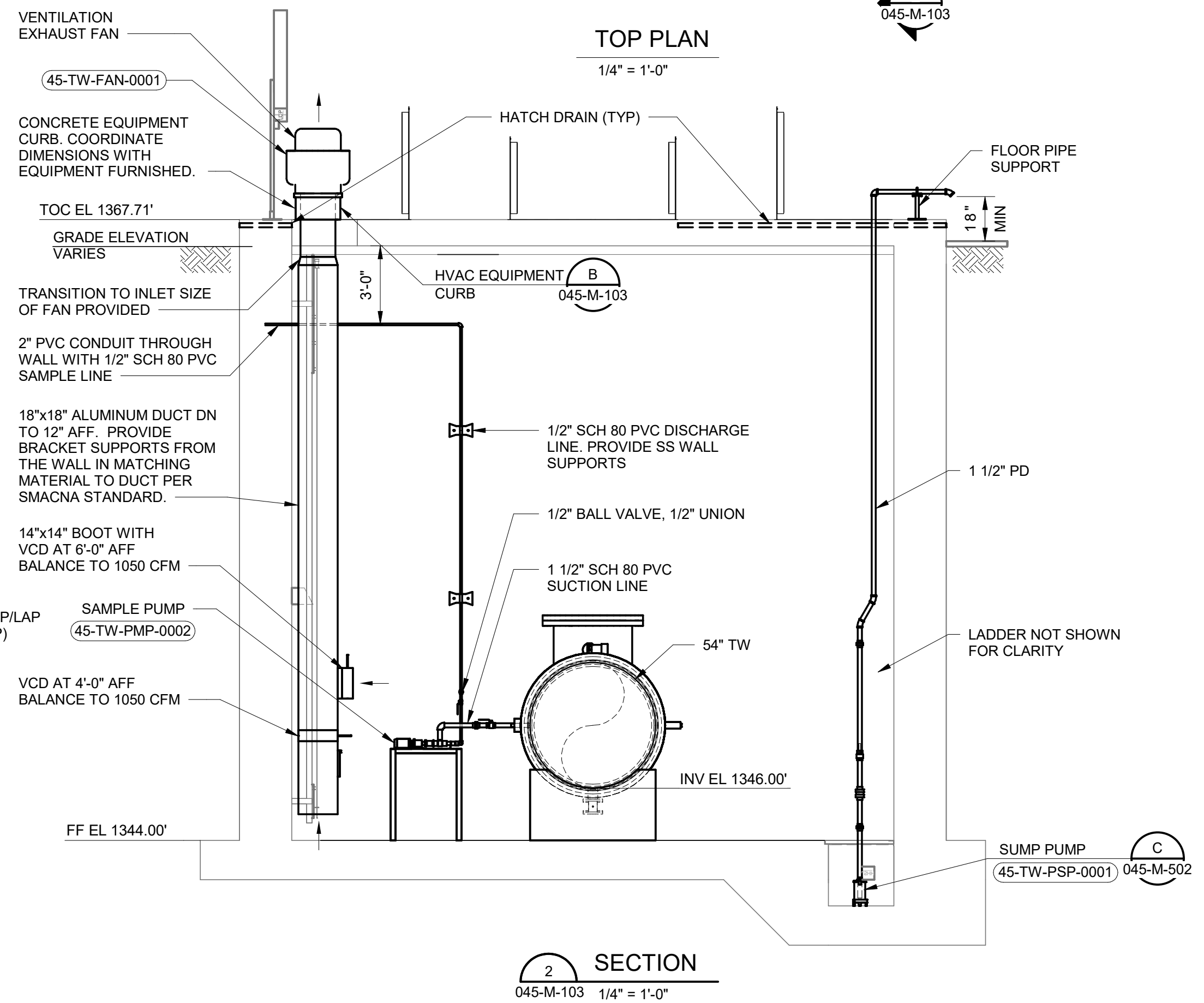
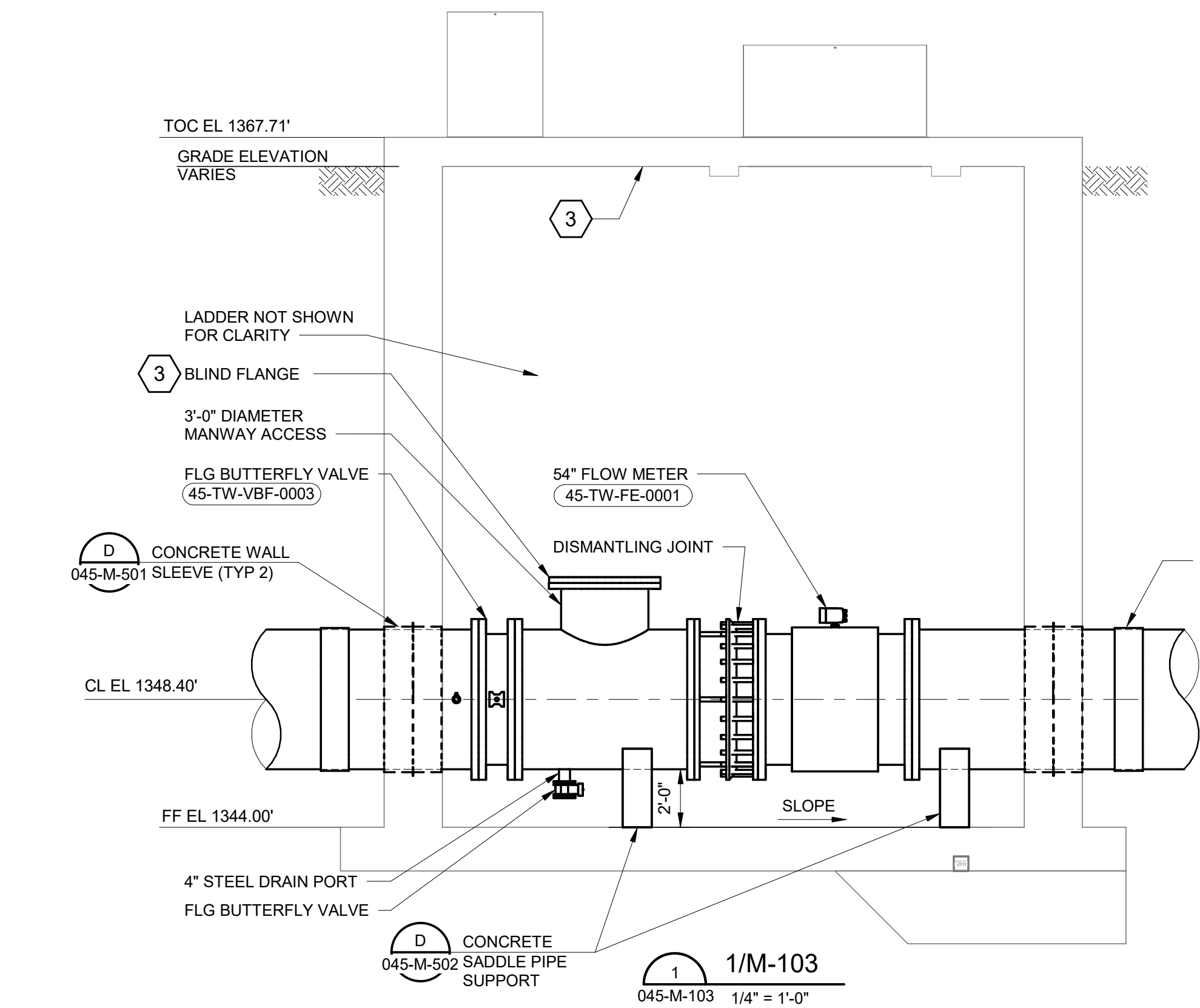
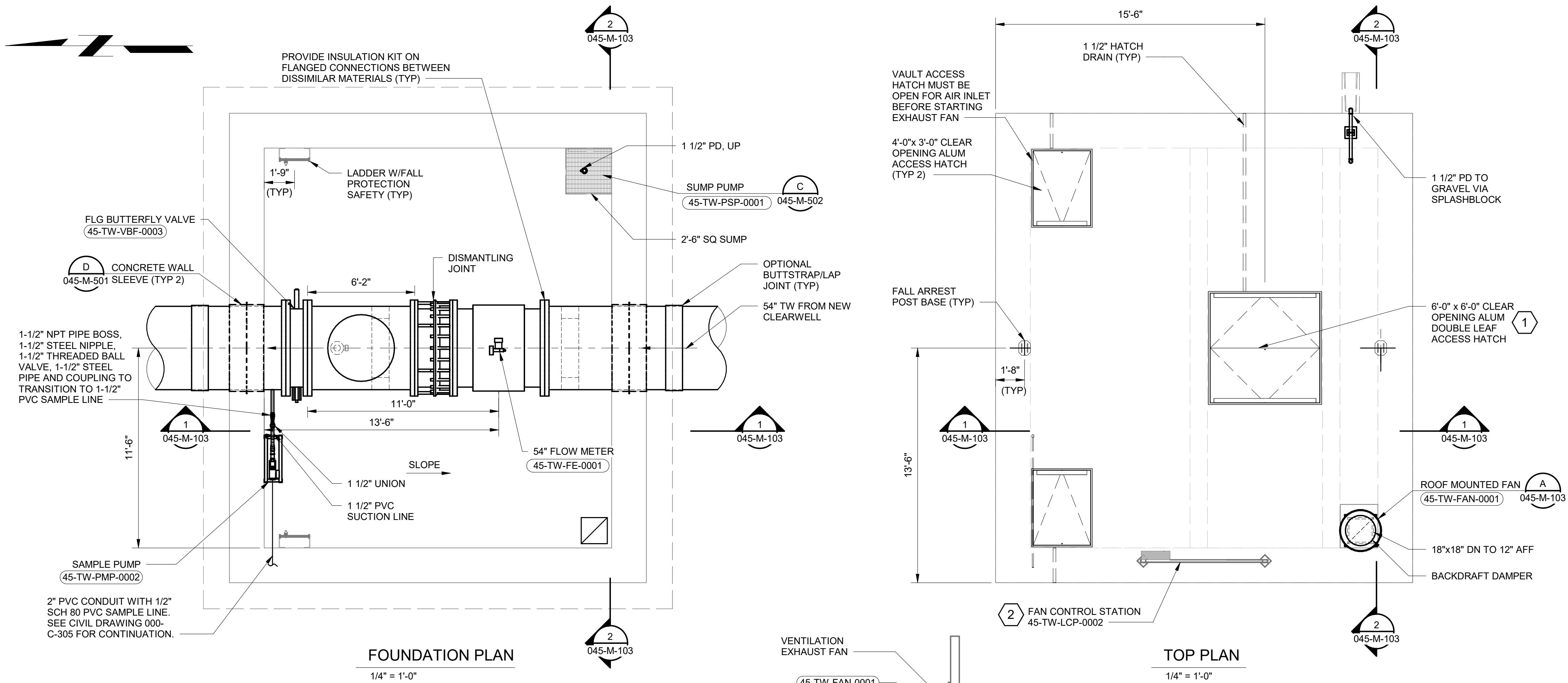
PROCESS MECHANICAL

OVERALL ROOF PLAN

045-M-102

68
OF
82

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REVIT VERSION: 2023
011000

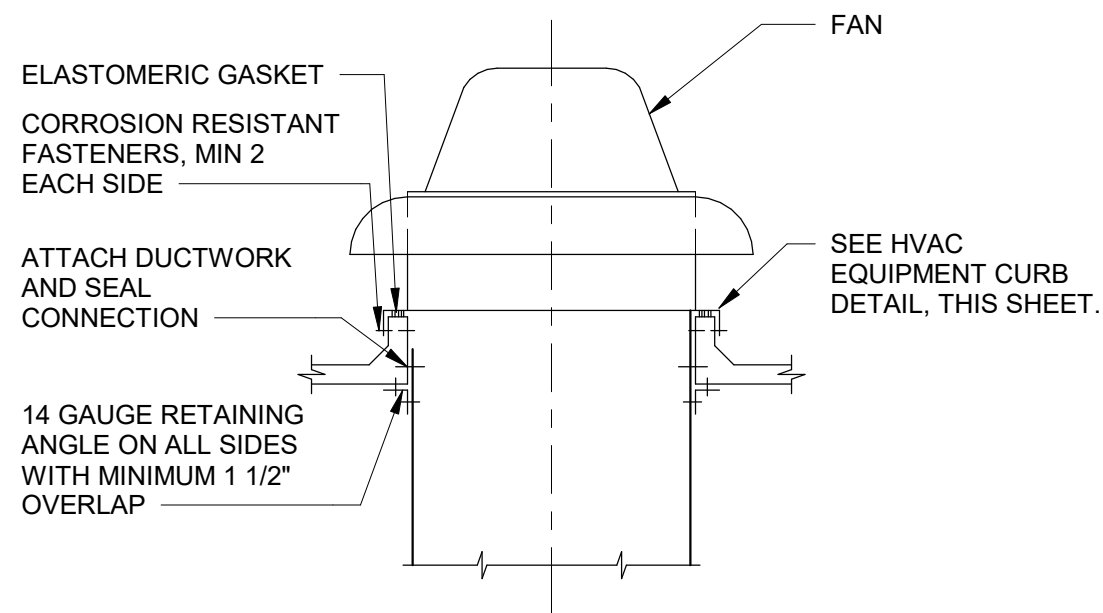


SHEET KEYNOTES

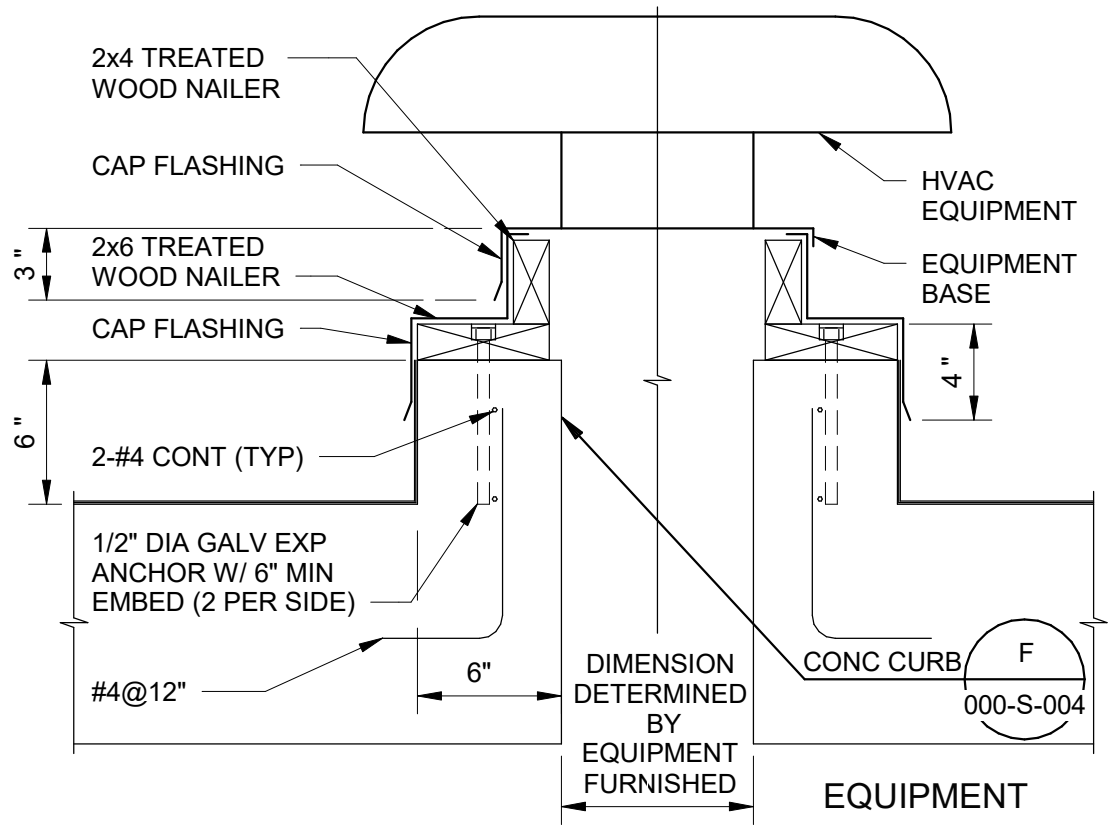
- THE 6'-0"x 6'-0" ACCESS HATCH WILL BE CENTERED ABOVE THE INSTALLED FLOW METER. CONTRACTOR SHALL CONFIRM HATCH CLEAR OPENING PERMITS REMOVAL OF FLOW METER THROUGH THE HATCH.
- EXHAUST FAN SHALL BE CONTROLLED BY A WEATHER-PROOF ON-OFF SELECTOR SWITCH LOCATED ON LOCAL CONTROL PANEL 045-TW-LCP-0002. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL FOR WIRING. PROVIDE A PAINTED AND ENGRAVED STAINLESS STEEL WARNING SIGN ON THE CONTROL PANEL STATING: "WARNING - OPEN NORTHEAST ACCESS HATCH BEFORE STARTING VENTILATION FAN. OPERATE FAN FOR 5 MINUTES BEFORE ENTERING THE VAULT."
- BLIND FLANGE FOR ACCESS MANWAY SHALL BE PROVIDED WITH WELDED ON EYELET TO LIFT FLANGE. CONTRACTOR SHALL CAST IN HOT DIP GALVANIZED EYELET RATED FOR PICKING THE BLIND FLANGE DIRECTLY ABOVE THE BLIND FLANGE.

SCHEDULE NOTES

FAN SCHEDULE:
FAN TYPE ABBREVIATIONS:
PRV - POWER ROOF VENTILATOR
WHEEL TYPE ABBREVIATIONS:
C - CENTRIFUGAL



ROOF MOUNTED FAN
NO SCALE



HVAC EQUIPMENT CURB
NO SCALE

FAN SCHEDULE - M-103																		
UNIT NUMBER	LOCATION	MANUFACTURER	MODEL	FAN TYPE	AIRFLOW (CFM)	ESP (IN WC)	BRAKE HP	MOTOR HP	POWER SUPPLY VOLTS	PHASE	MINIMUM WHEEL DIAMETER (IN)	WHEEL TYPE	DRIVE	FILTER DATA		VIBRATION ISOLATION	APPROX WEIGHT (LBS)	NOTES
														TYPE	THICKNESS (IN)			
45-TW-FAN-0001	FLOW METER VAULT	GREENHECK	CUE-160B	PRV	2100	0.625	0.56	3/4	240	1	16	C	DIRECT	---	---	INTERNAL	100	---

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PLANT EXPANSION
PROGRAM
CONTRACT 23-3
16 MG CLEARWELL

Conformed To Bid

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PROJECT NO.: 417134

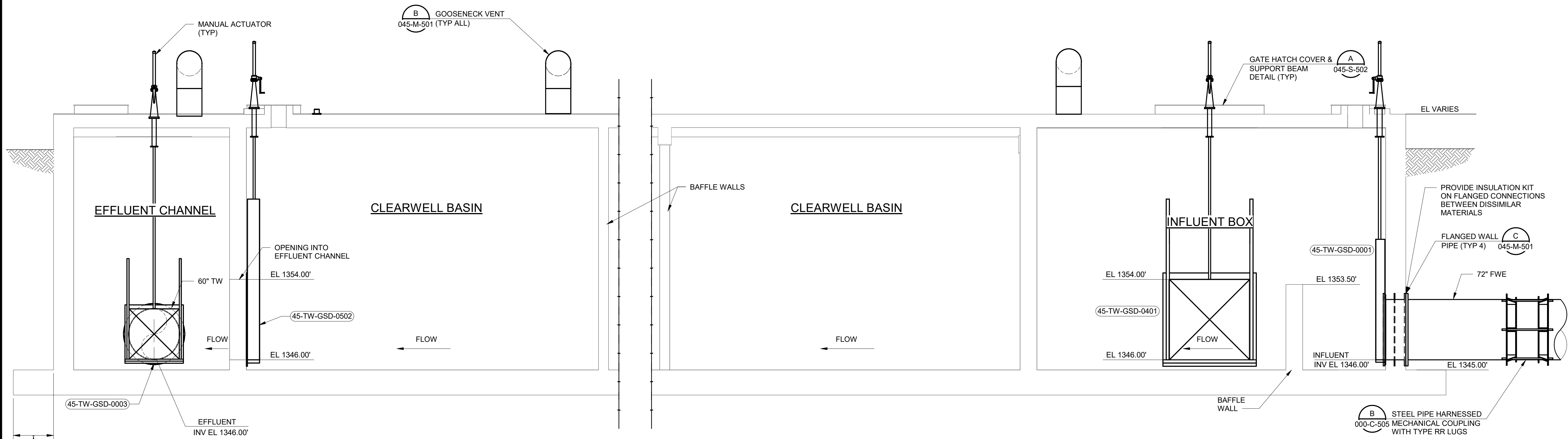
16 MG CLEARWELL

PROCESS MECHANICAL

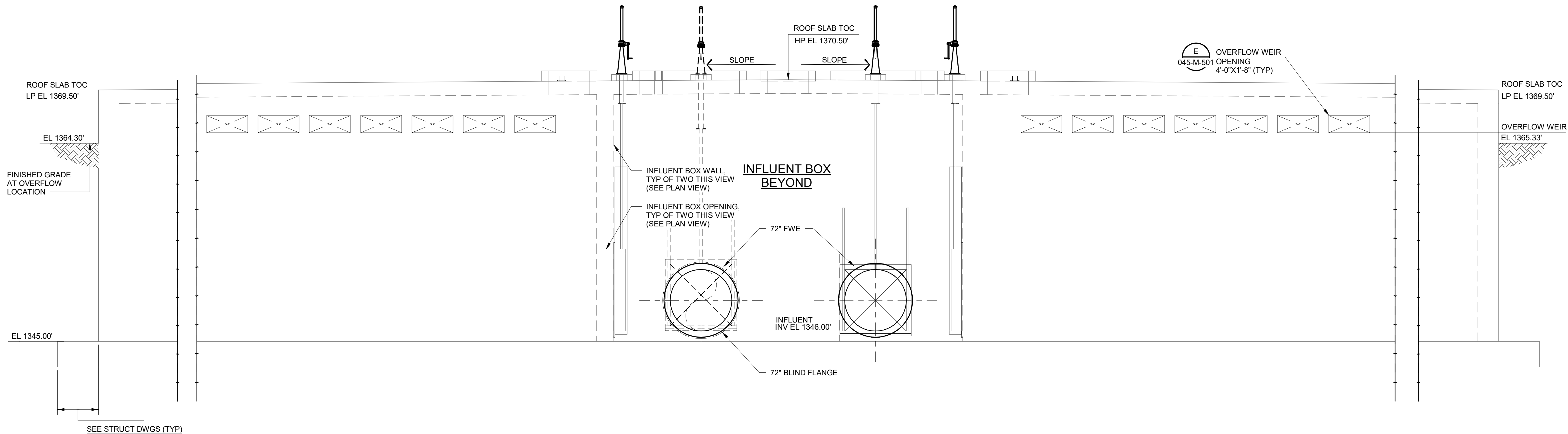
SECTIONS

045-M-301

70
OF
82



1 CLEARWELL SECTION - NORTH SIDE
045-M-101 3/16" = 1'-0"



2 CLEARWELL SECTION - EAST SIDE
045-M-101 3/16" = 1'-0"



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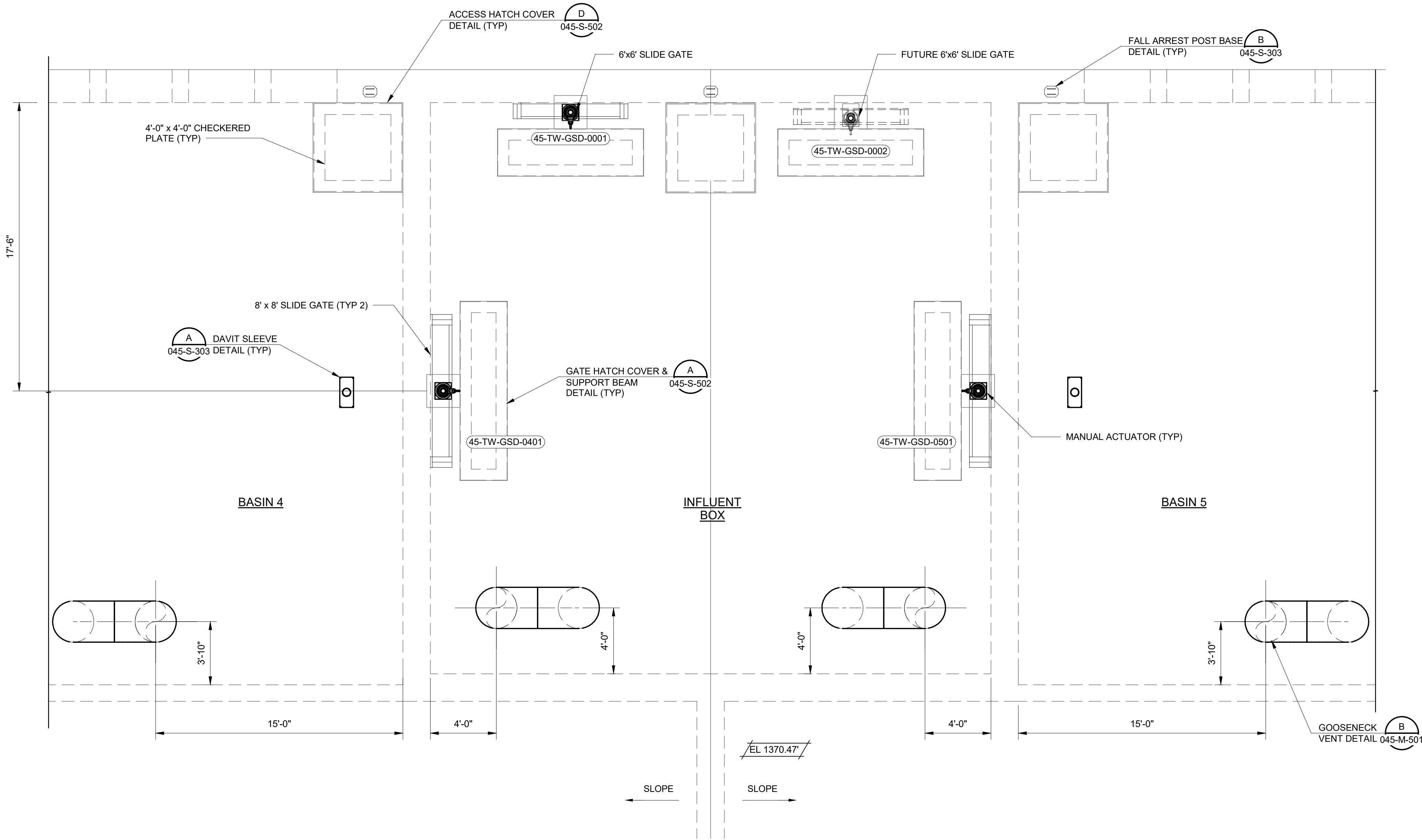
16 MG CLEARWELL

PROCESS MECHANICAL

ENLARGED ROOF PLAN
- INFLUENT BOX

045-M-401

71
OF
82



1 ENLARGED INFLUENT BOX PLAN
045-M-102 1/4" = 1'-0"



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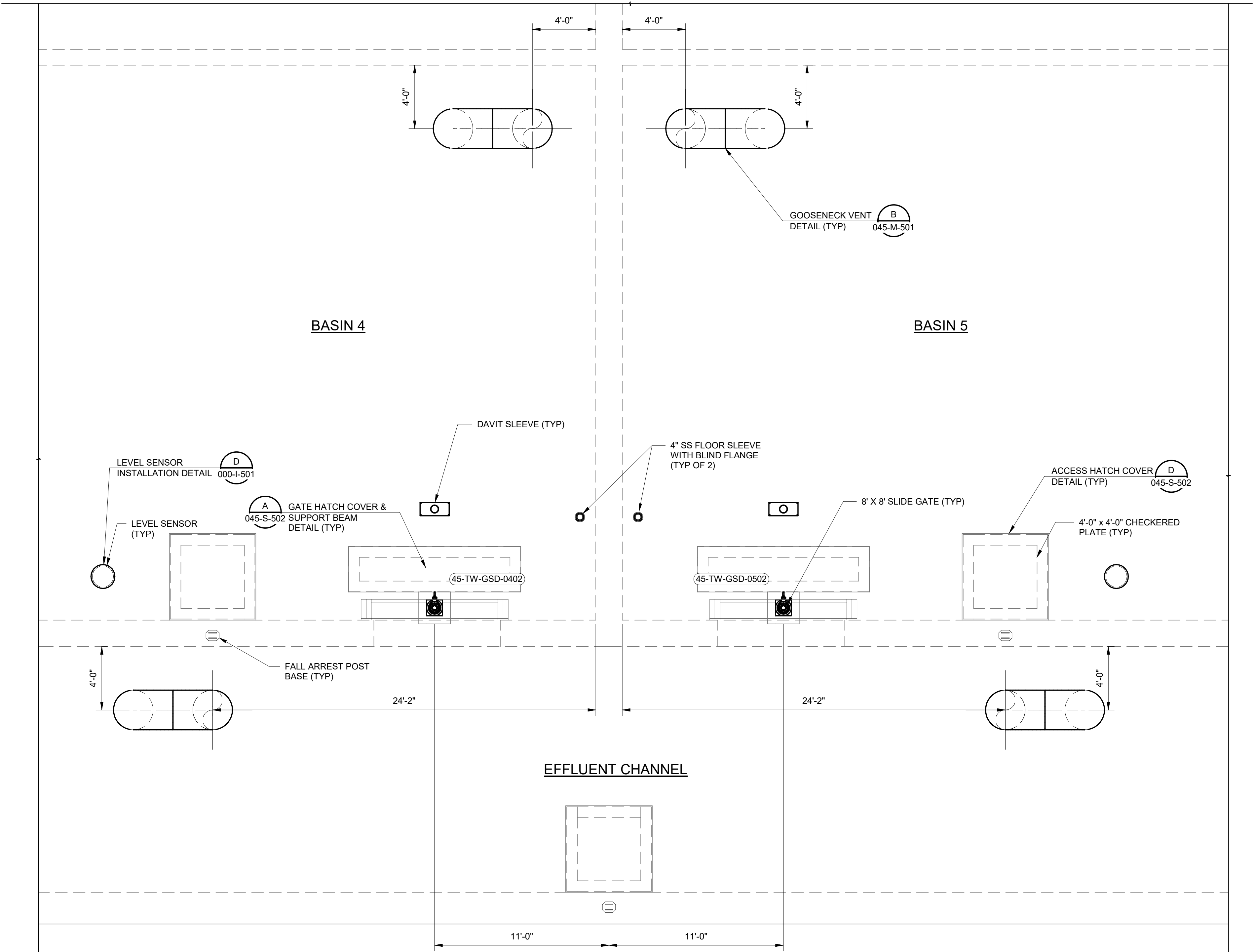
16 MG CLEARWELL

PROCESS MECHANICAL

ENLARGED ROOF PLAN
- EFFLUENT CHANNEL

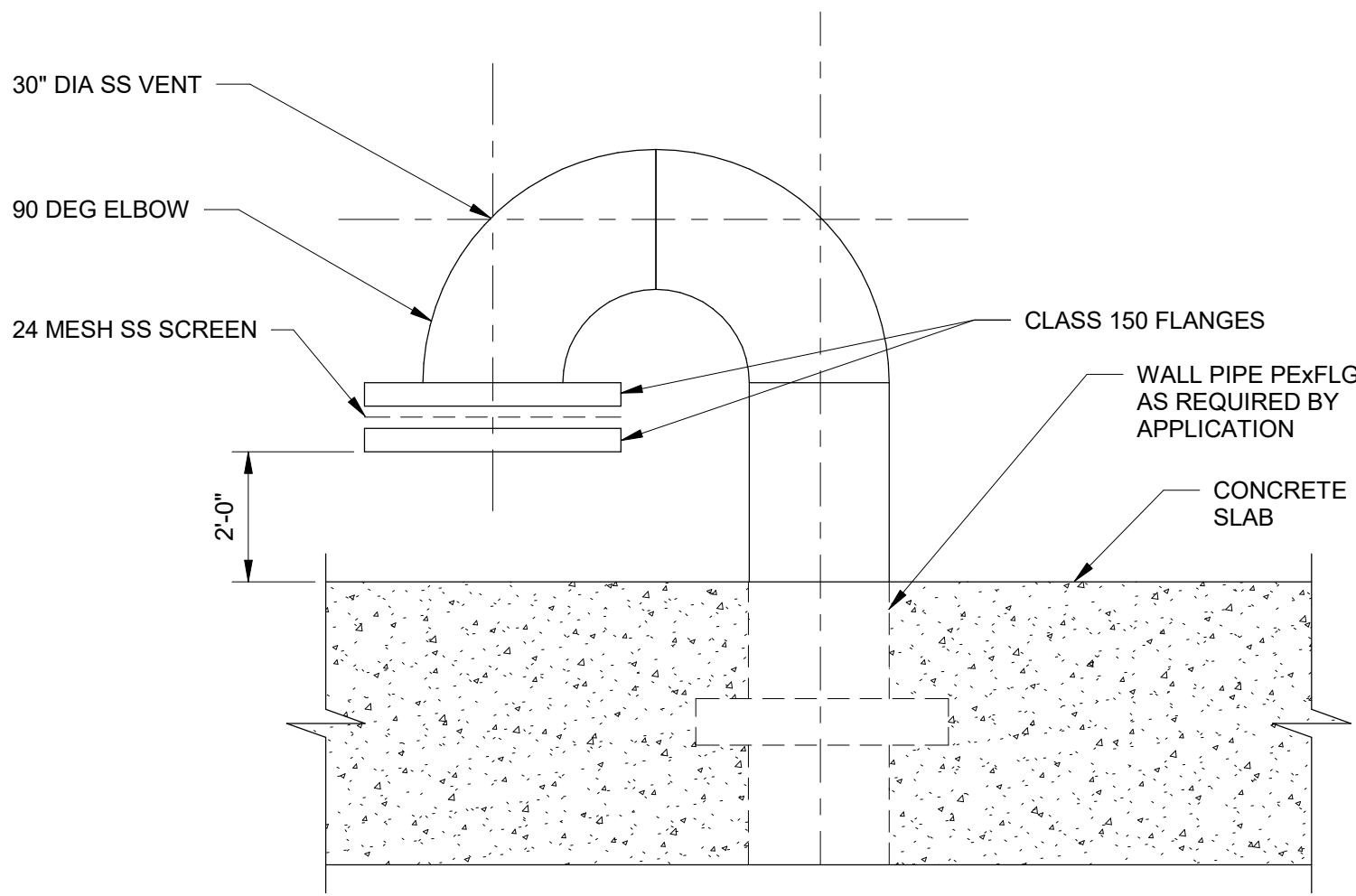
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72
OF
82

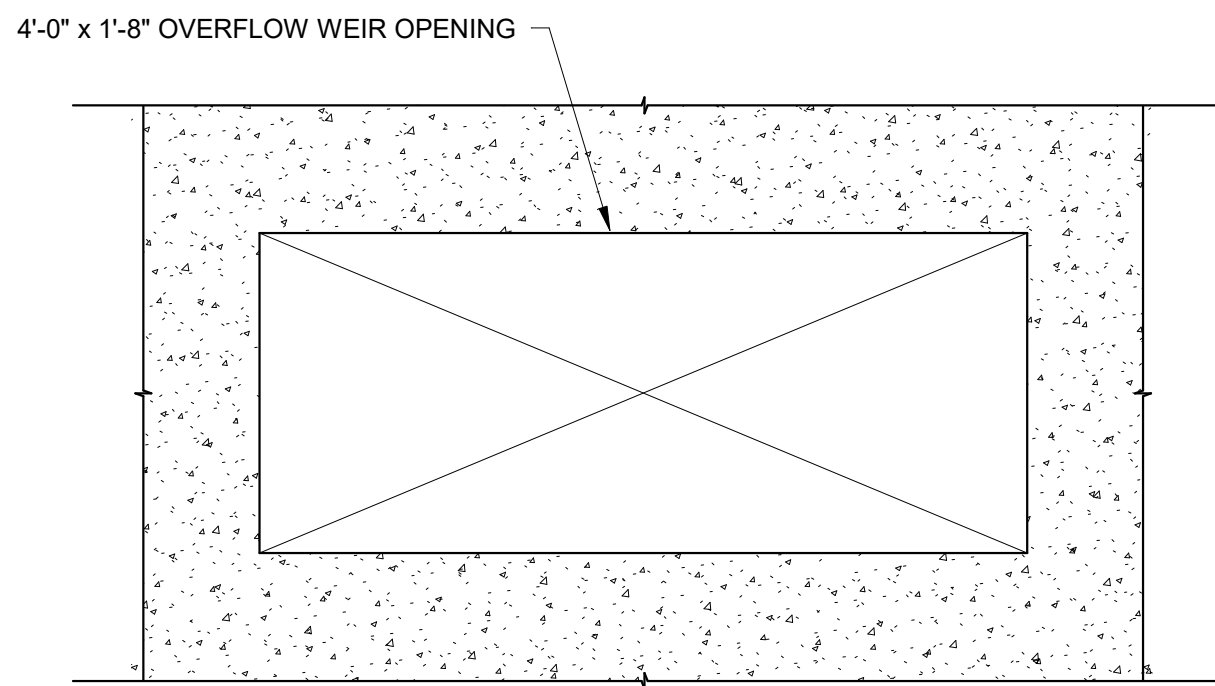


1 ENLARGED EFFLUENT CHANNEL PLAN
045-M-102 1/4" = 1'-0"

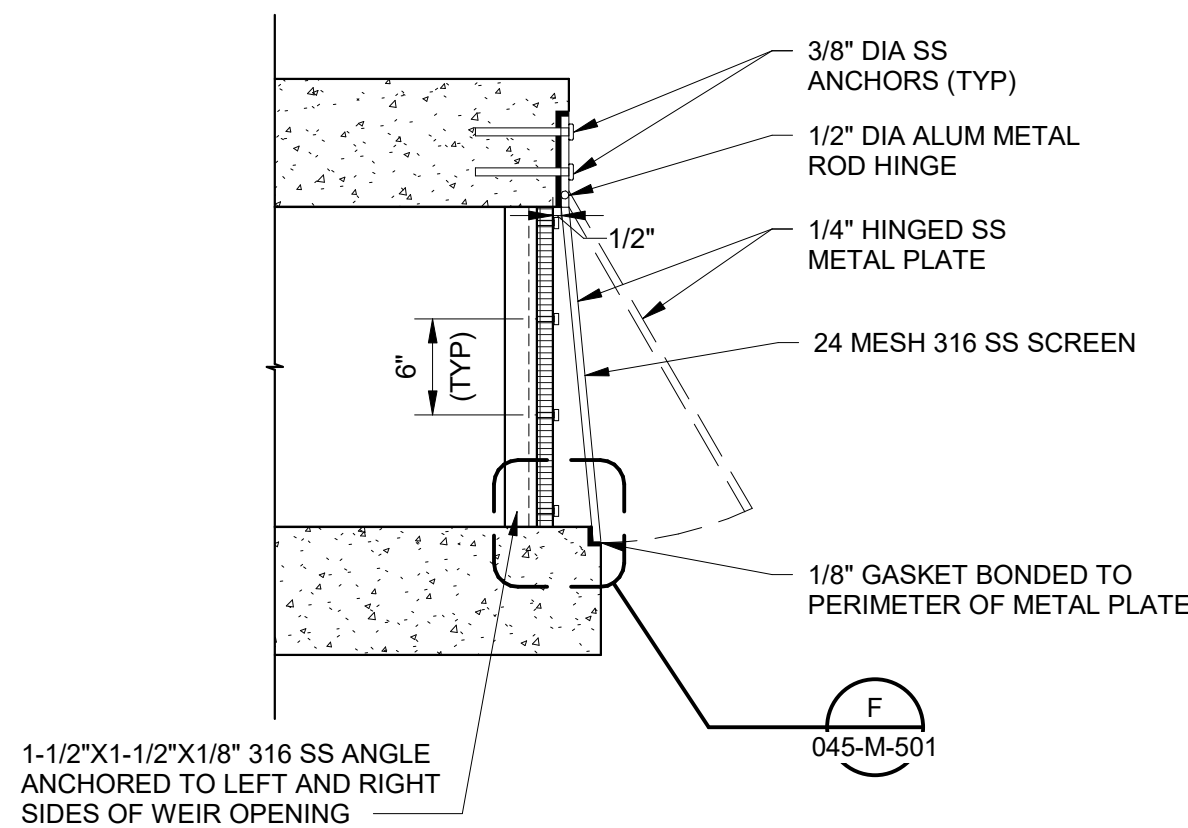
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REVIT VERSION: 2021
011000



B GOOSENECK VENT
3/8" = 1'-0"

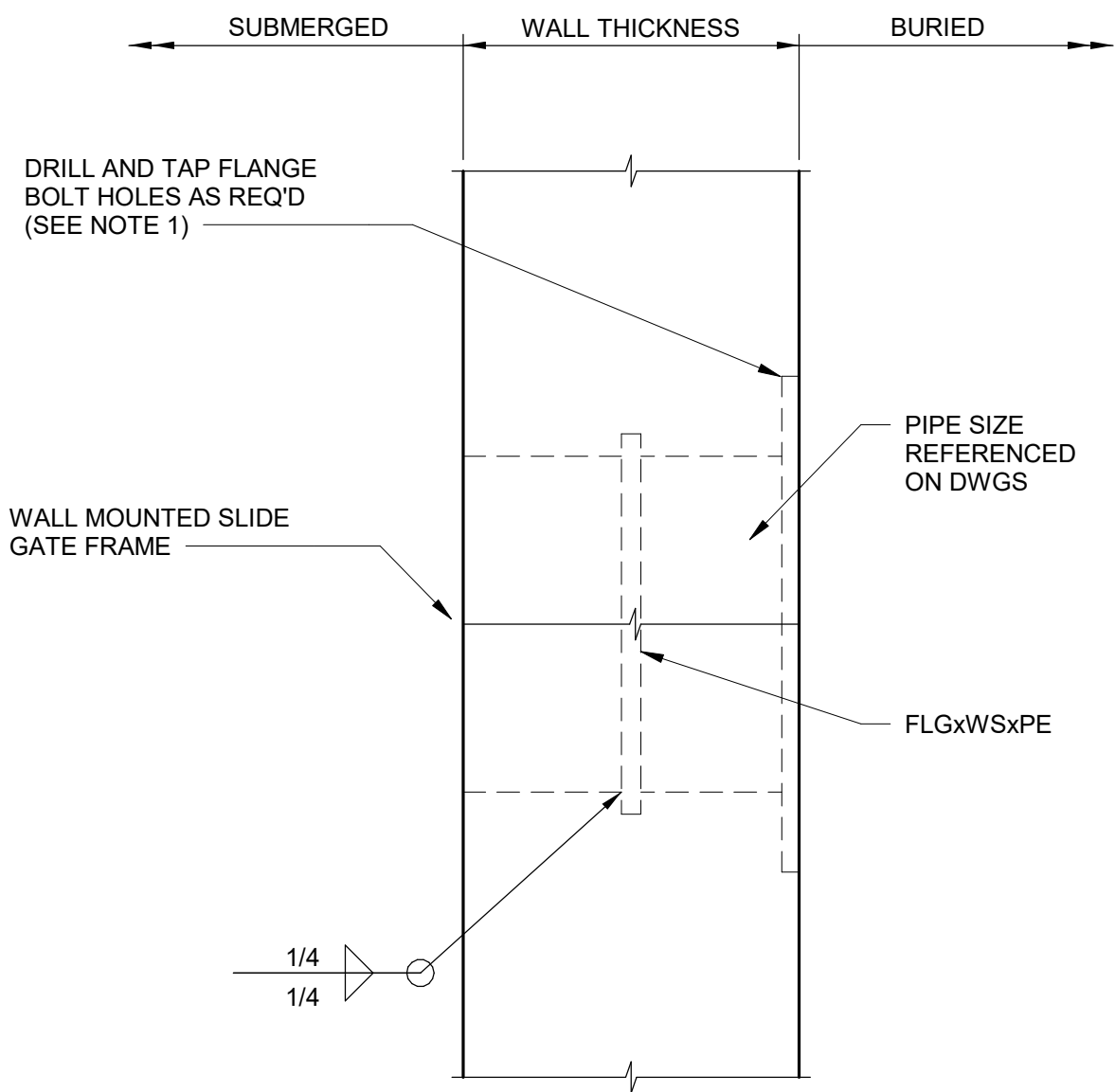


C WEIR OPENING ELEVATION



E WEIR OPENING SECTION

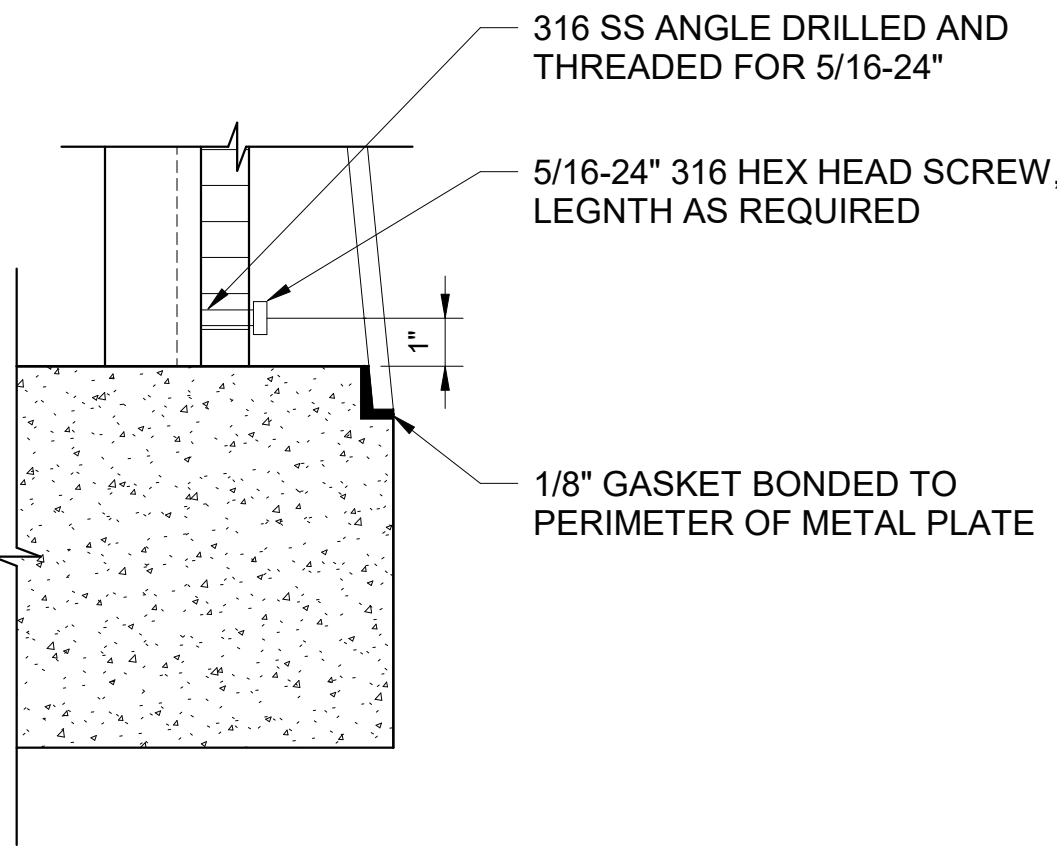
E OVERFLOW WEIR
1" = 1'-0"



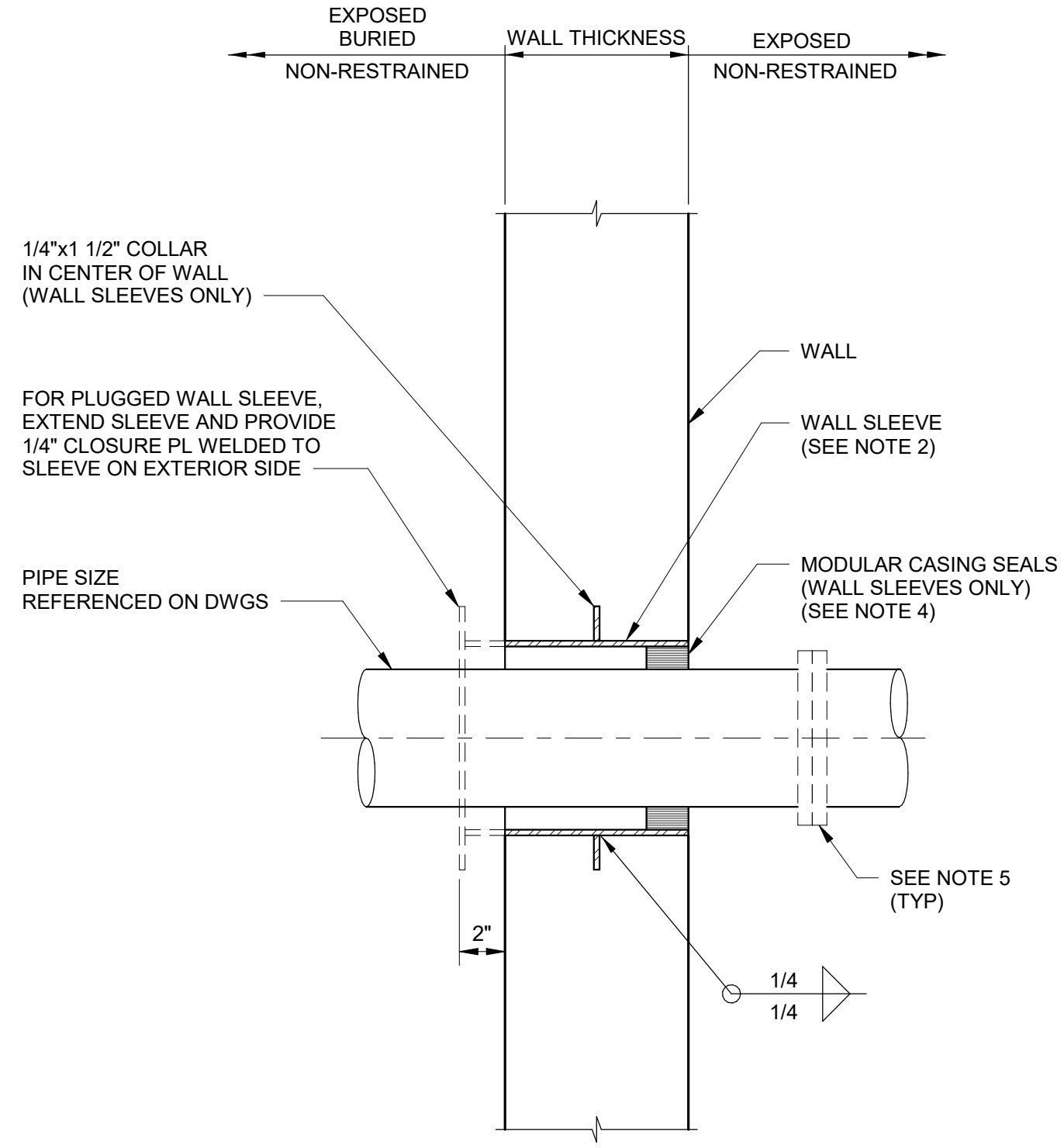
C FLANGED WALL PIPE
12" = 1'-0"

NOTES:

1. WALL PIPE MATERIAL SHALL BE STEEL. STEEL PIPE SHALL BE 3/8" FOR PIPE LARGER THAN 20", AND COATINGS SAME AS CONNECTING PIPE.
2. IF CONNECTING STEEL PIPE THICKNESS IS GREATER THAN 3/8", STEEL WALL PIPE THICKNESS SHALL BE INCREASED TO MATCH CONNECTING PIPE.
3. ANNULAR COLLAR SHALL BE SAME MATERIAL AS PIPE, 1/4" X 2" FOR PIPE 20" AND SMALLER, AND 3/8" X 3" FOR PIPE LARGER THAN 20".
4. WALL PIPE MAY BE FLUSH WITH FACE OF WALL OR EXTENDED WITH END AS REQUIRED OR INDICATED ON DRAWINGS.
5. WALL PIPE SHALL BE ORIENTED SO THAT THE BOLT HOLES STRADDLE THE TOP CENTERLINE.



F OVERFLOW WEIR ENLARGED DETAIL
3" = 1'-0"



D CONCRETE WALL SLEEVE
12" = 1'-0"

NOTES:

1. SCHEDULE 40 GALV STEEL PIPE SLEEVE. SIZE TO PROVIDE 3/4" ANNULAR SPACE AROUND PIPE FOR ALL BEAM SLEEVES AND FOR WALL SLEEVES FOR PIPES SMALLER THAN 1 1/2" DIAMETER. FOR PIPE SMALLER THAN 6" DIAMETER, COORDINATE WALL SLEEVE DIAMETER WITH MODULAR CASING SEAL MANUFACTURER.
2. WALL SLEEVE, SCHEDULE 40 STEEL PIPE FOR 12" AND SMALLER SLEEVES, 1/4" STEEL PIPE FOR SLEEVES LARGER THAN 12", AND HOT DIP GALVANIZED AFTER FABRICATION, 304 SS, OR OTHER MATERIAL AS SPECIFIED OR INDICATED ON DRAWINGS. COORDINATE WALL SLEEVE DIAMETER WITH MODULAR CASING SEAL MANUFACTURER.
3. FIRESAFING TO BE PROVIDED AT ALL RATED WALLS INDICATED ON THE DRAWINGS AND INSTALLED PER ACCEPTED UL RATED SYSTEM.
4. WHERE SOIL MAY BE PRESENT, USE TWO SETS OF CASING SEALS. ONE AT EACH FACE OF WALL.
5. TO MINIMIZE SLEEVE SIZE, PROVIDE A SCREW-ON FLANGE, GROOVED COUPLING, OR MECHANICAL COUPLING WITH ANCHOR STUDS ON ONE SIDE OF OPENING.
6. FOR BURIED PIPING, CONTRACTOR SHALL PROVIDE AN ADDITIONAL FIELD JOINT AS CLOSE AS PRACTICAL TO FACE OF WALL, BUT NO MORE THAN 5 FEET.
7. USE WAX TAPE TO PROTECT ALL BURIED FERROUS SURFACES INCLUDING PAINTED SURFACES. FOR PROTECTION OF ADJACENT PIPE BARREL SURFACES, SHRINK WRAP MAY BE USED IN LIEU OF WAX TAPE. SEE SPECIFICATIONS.

D CONCRETE WALL SLEEVE
12" = 1'-0"

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PLANT EXPANSION
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CONTRACT 23-3
16 MG CLEARWELL

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1	01/08/25	ISSUED PER ADDENDUM NO. 1

REVISIONS AND RECORD OF ISSUE

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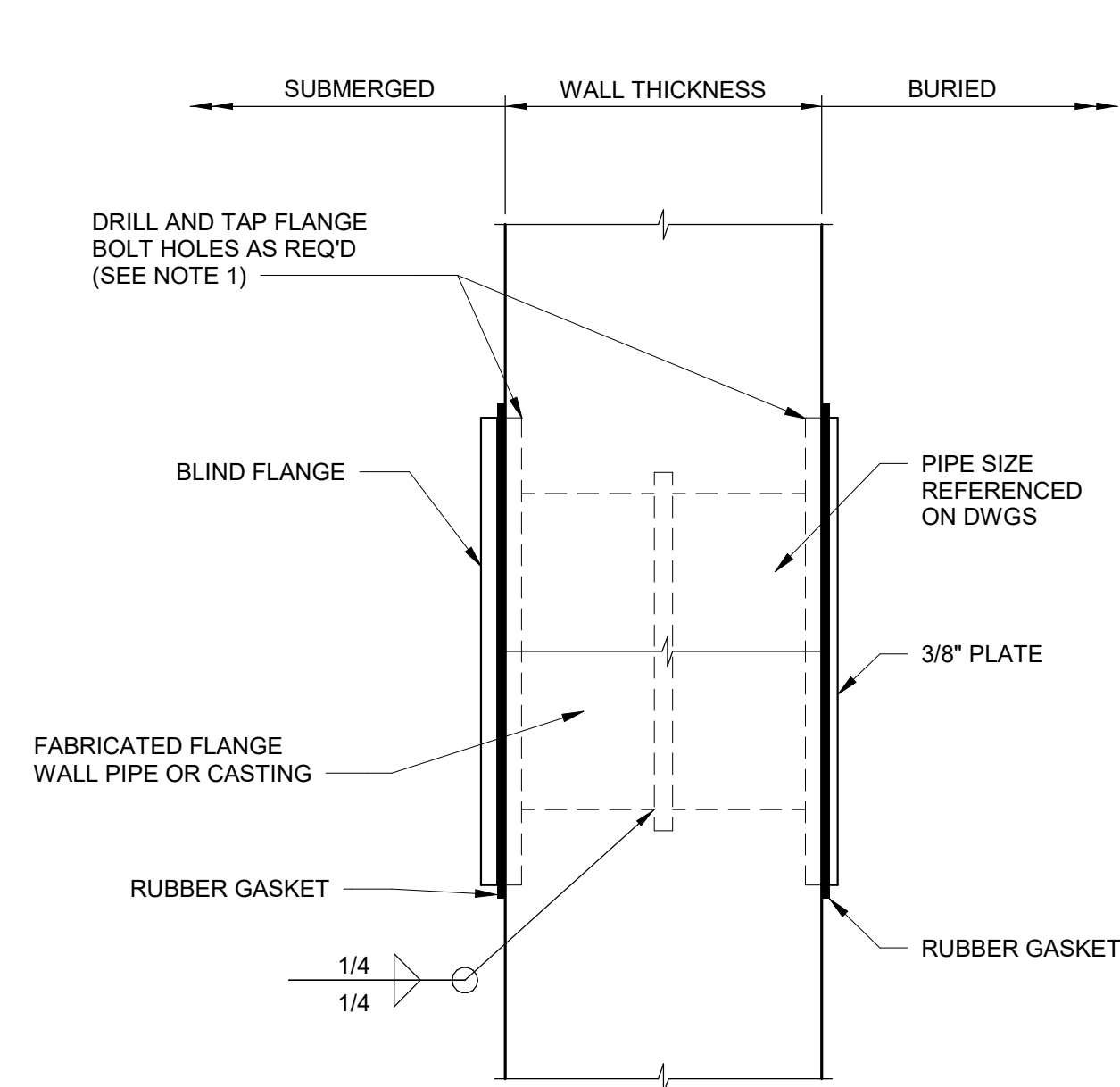
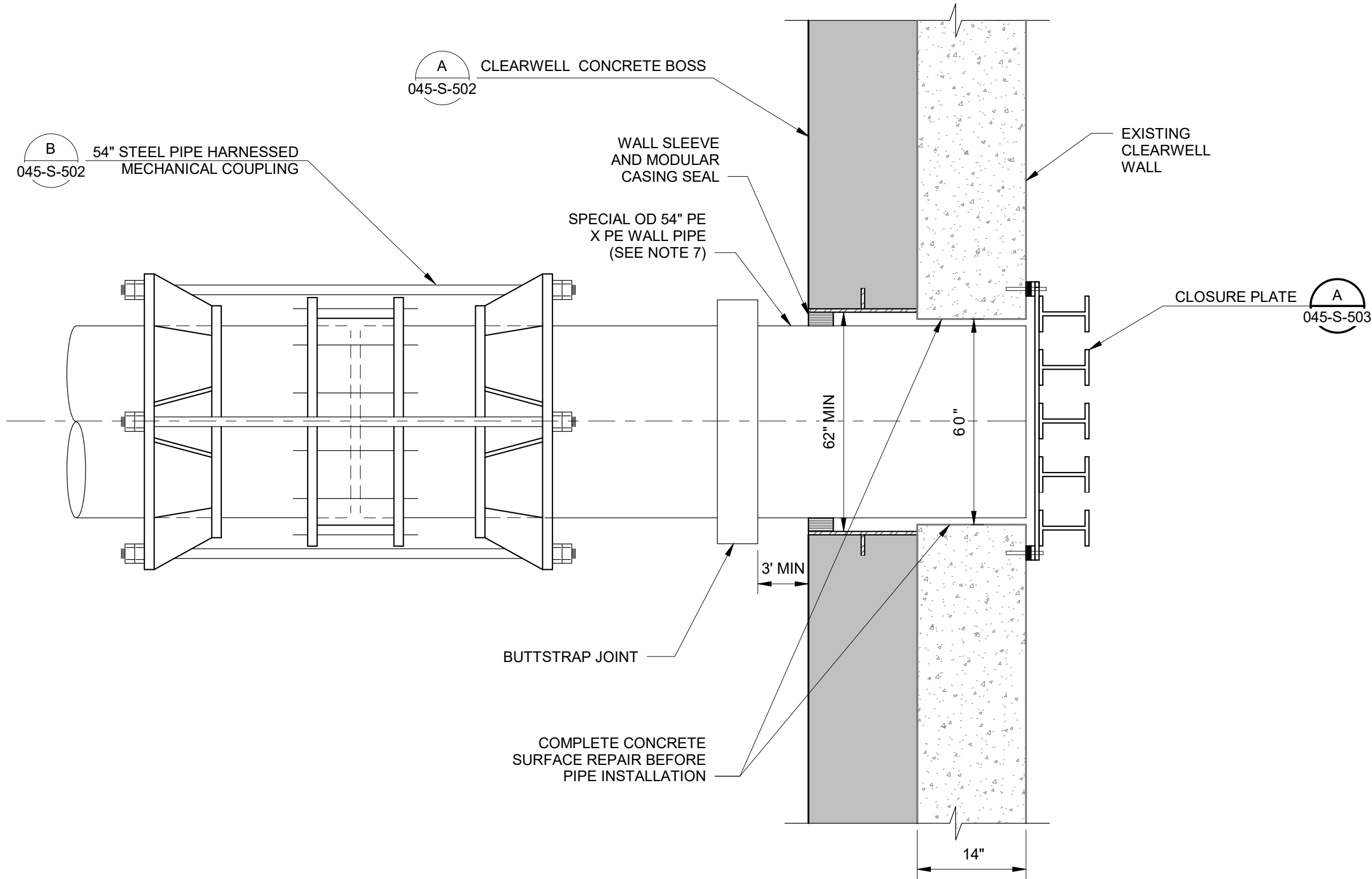
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DETAILS I

045-M-501

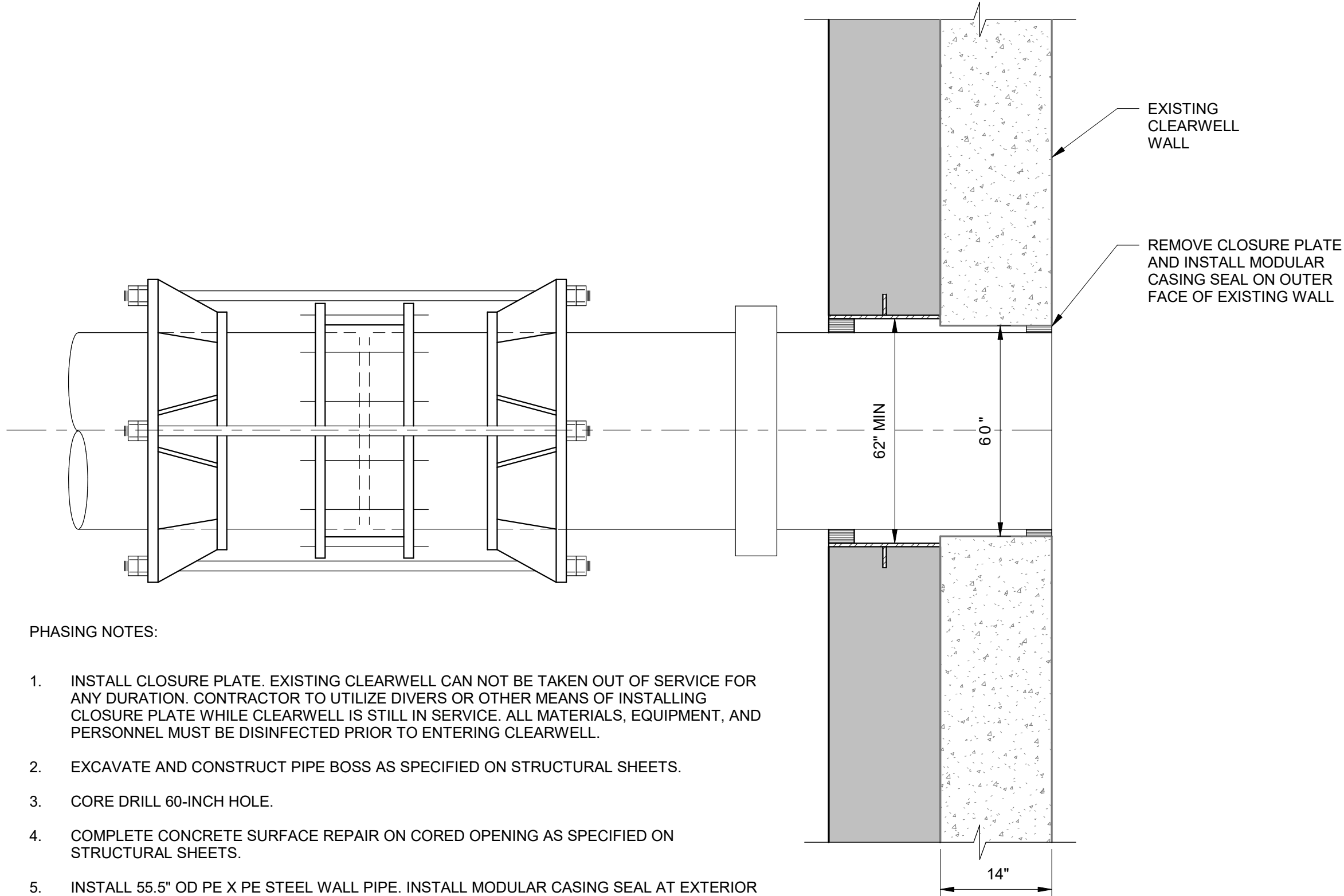
73
OF
82

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REVIT VERSION: 2021
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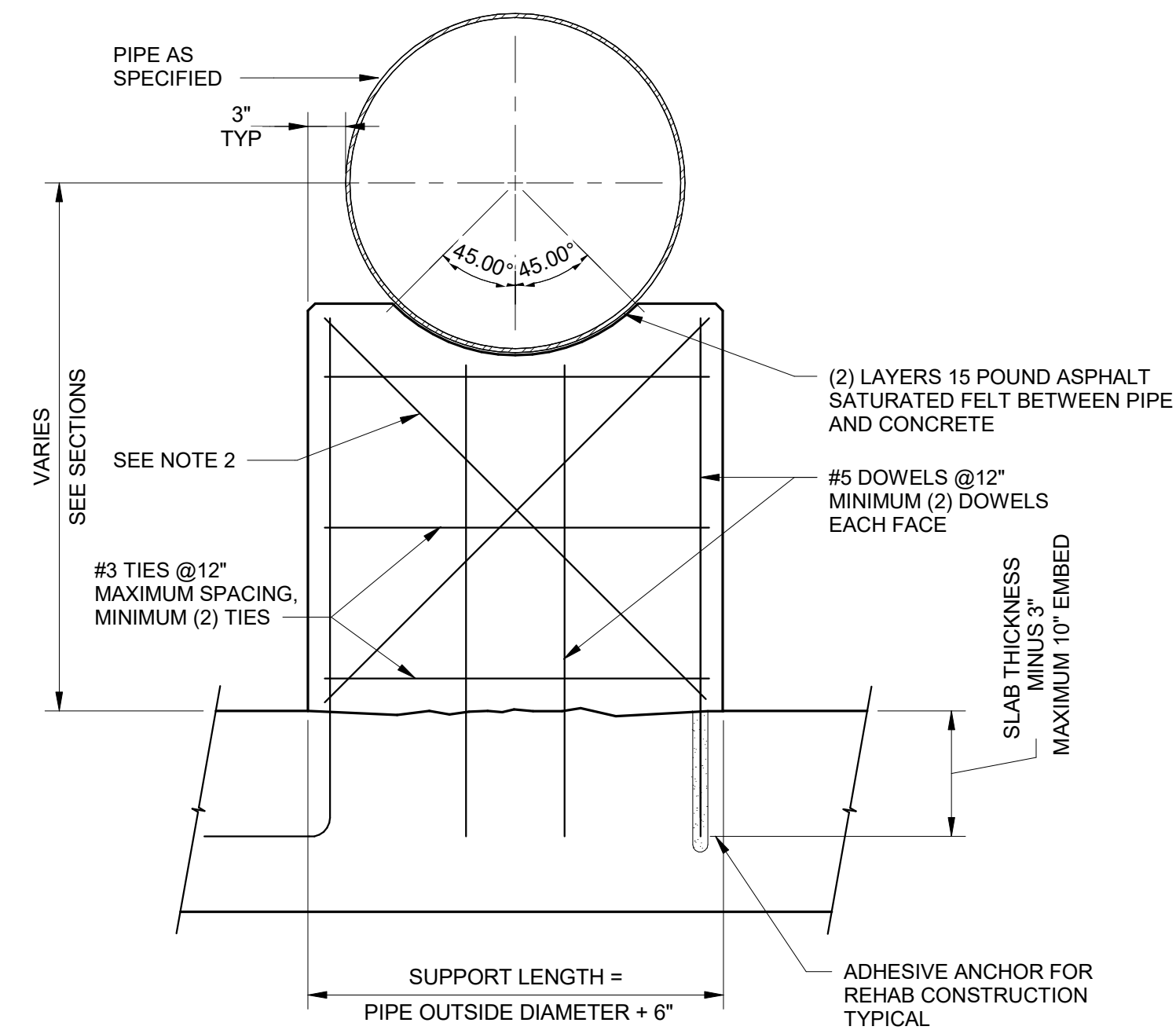


- NOTES :
- WALL PIPE MATERIAL SHALL BE STEEL OR AS INDICATED ON THE DRAWINGS. STEEL PIPE SHALL BE FOR PIPE LARGER THAN 20".
 - COATING FOR THE BLIND FLANGE, WALL PIPE, AND COVER PLATE SHALL MATCH COATING USED TYPICALLY FOR THE CONNECTING PIPE. SEE SPECIFICATION FOR MORE DETAIL.

B WALL PIPE WITH BLIND FLANGE AND COVER PLATE DETAIL
12" = 1'-0"



C SIMPLEX SUBMERSIBLE SUMP PUMP
NO SCALE



- NOTES:
- SUPPORT WIDTH = 12"
 - #5 EACH FACE WITH STANDARD HOOK, ONLY REQUIRED FOR PIPE DIAMETER 48" AND LARGER.

D CONCRETE SADDLE PIPE SUPPORT
1" = 1'-0"

A EXISTING CLEARWELL PIPE CONNECTION DETAIL
12" = 1'-0"

- PHASING NOTES:
- INSTALL CLOSURE PLATE. EXISTING CLEARWELL CAN NOT BE TAKEN OUT OF SERVICE FOR ANY DURATION. CONTRACTOR TO UTILIZE DIVERS OR OTHER MEANS OF INSTALLING CLOSURE PLATE WHILE CLEARWELL IS STILL IN SERVICE. ALL MATERIALS, EQUIPMENT, AND PERSONNEL MUST BE DISINFECTED PRIOR TO ENTERING CLEARWELL.
 - EXCAVATE AND CONSTRUCT PIPE BOSS AS SPECIFIED ON STRUCTURAL SHEETS.
 - CORE DRILL 60-INCH HOLE.
 - COMPLETE CONCRETE SURFACE REPAIR ON CORED OPENING AS SPECIFIED ON STRUCTURAL SHEETS.
 - INSTALL 55.5" OD PE X PE STEEL WALL PIPE. INSTALL MODULAR CASING SEAL AT EXTERIOR FACE OF REINFORCED CLEARWELL WALL.
 - COMPLETE PIPE TIE-IN WITH TW INTERCONNECT FLOW METER VAULT. CLEAN AND DISINFECT PIPING. AND CLOSE THE NEW BUTTERFLY VALVE INSIDE THE FLOW METER VAULT.
 - REMOVE CLOSURE PLATE WITH SAME PROTOCOL USED FOR INSTALLATION. INSTALL MODULAR CASING SEAL ON OUTER FACE OF WALL.
 - INSTALL MODULAR CASING SEAL ON INNER FACE OF EXISTING CLEARWELL WALL.
 - OPEN BUTTERFLY VALVE INSIDE TW INTERCONNECT FLOW METER VAULT.