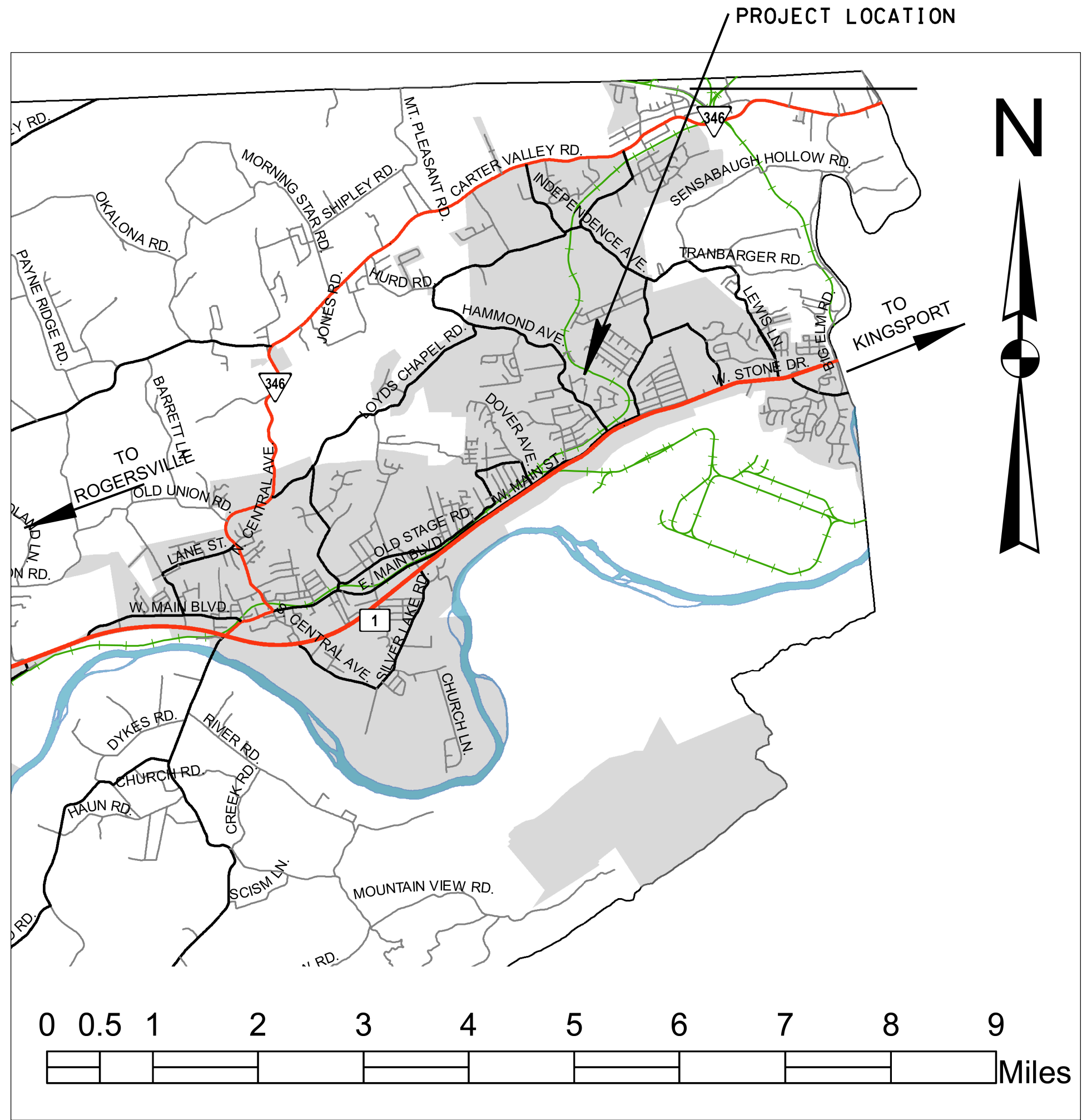


MOUNT CARMEL, TENNESSEE WASTE WATER TREATMENT PLANT IMPROVEMENTS PHASE 1B

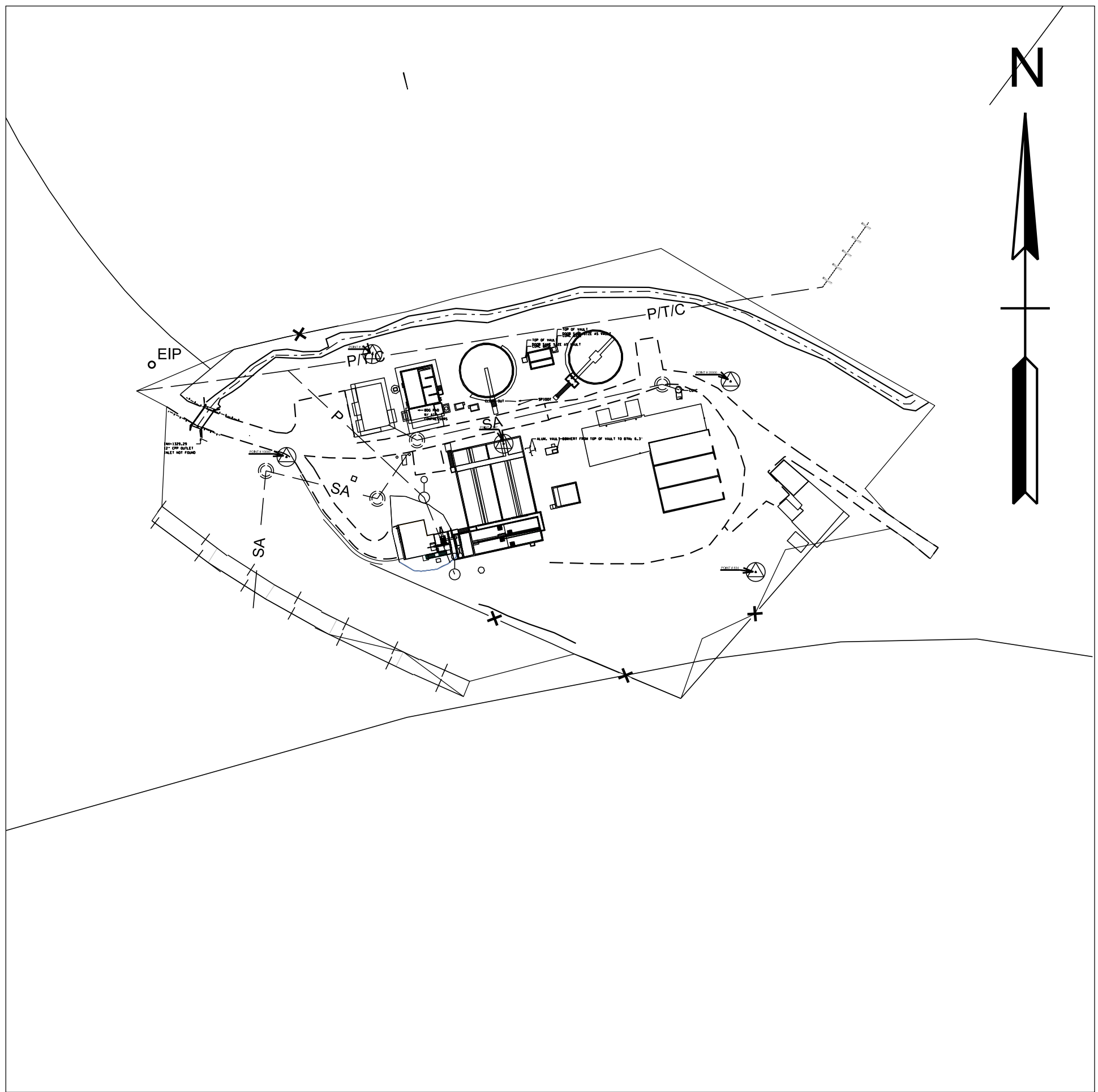
FUNDING PROVIDED BY:



CONSTRUCTION PLANS



LOCATION MAP
SCALE 1" = 1 MILE



SITE MAP
SCALE 1" = 100'

BOARD OF MAYOR & ALDERMAN

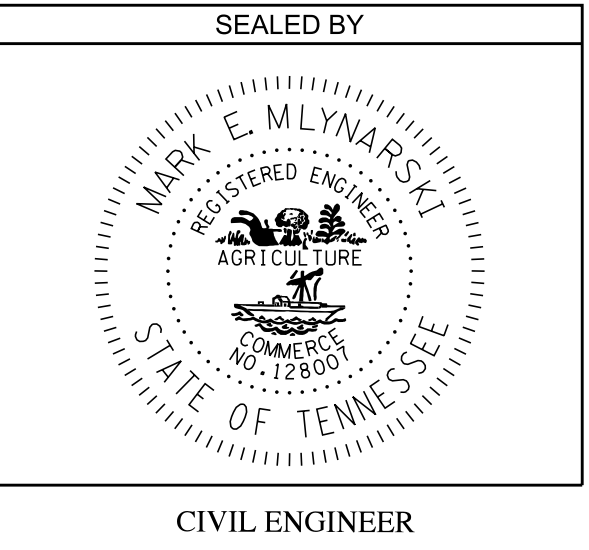
JOHN GIBSON	MAYOR
JIM BARE	VICE MAYOR
PHILIP BINSTOCK	ALDERMAN
JAMES CROSS	ALDERMAN
JAMES GILLIAM	ALDERMAN
DARBY PATRICK	ALDERMAN
MINDY SHUGART	ALDERMAN

CITY STAFF

JIM STABLES	CITY ADMINISTRATOR/RECORDER
-------------	-----------------------------

WWTP STAFF

MATTHEW MALONE	WWTP SUPERINTENDENT
----------------	---------------------



HAWKINS COUNTY, TENNESSEE
JMT PROJECT NO: 22-V055016-002
PROJECT DATE: SEPTEMBER, 2025

DRAWING NUMBER:

G1.0

LIST OF DRAWINGS

GENERAL NOTES

<u>SHEET NO</u>	<u>SHEET NAME</u>
G1.0	TITLE SHEET
G1.1	LIST OF DRAWINGS AND GENERAL NOTES
G1.2	CONSTRUCTION SEQUENCE NOTES
C1.1	EXISTING SITE PLAN
C1.2	PROPOSED SITE PLAN
C1.3	HYDRAULIC PROFILE
C1.4	EXISTING YARD PIPING PLAN
C1.5	PROPOSED YARD PIPING PLAN
C1.6	PROPOSED SANITARY FM PROFILE
M1.0	EXISTING SECONDARY CLARIFIER PLAN
M1.1	EXISTING SECONDARY CLARIFIER PROFILE
M2.0	DEMO SECONDARY CLARIFIER PLAN
M2.1	DEMO SECONDARY CLARIFIER PROFILE
M3.0	PROPOSED SECONDARY CLARIFIER PLAN
M3.1	PROPOSED SECONDARY CLARIFIER SECTION
M4.0	EXISTING PLANT DRAIN PUMP STATION
M4.1	DEMO EXISTING PUMP STATION
M4.2	PROPOSED PUMP STATION
M5.0	EXISTING BLOWERS PLAN AND DETAILS
M5.1	DEMO EXISTING BLOWERS
M5.2	PROPOSED BLOWERS PLAN AND DETAILS
D1.1-1.4	CONSTRUCTION DETAILS

1. CONTRACTOR TO PROVIDE SIGNS/NAMEPLATES TO IDENTIFY NON-POTHOLE WATER SURVEY AREAS.
2. ALL CONSTRUCTION, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE PROJECT TECHNICAL SPECIFICATIONS.
3. DRAWINGS HAVE BEEN CREATED USING LIMITED SURVEY DATA AND HISTORICAL PLANT INFORMATION. ADDITIONAL UTILITIES OR STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE CONDUCTED DURING THE PREPARATION OF THESE PLANS BEYOND LIMITED GEOTECHNICAL BORINGS FOR FOUNDATION PURPOSES. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS/HER OWN SATISFACTION. EXACT LOCATIONS AND COMPLETENESS IS NOT GUARANTEED.
4. ALL ELEVATIONS AND CONTOURS REFERRED TO ON THE CONTRACT DRAWINGS AND IN THE SPECIFICATIONS ARE BASED UPON THE NAD 83 TENNESSEE STATE PLANE PROJECTION.
5. THE SIZES OF WATER MAIN PIPES, AND OTHER UTILITIES ON THE PLANS ARE EXAGGERATED FOR ILLUSTRATIVE PURPOSES, PIPE LENGTHS ARE APPROXIMATE.
6. ALL DISTANCES MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND ARE THE RESPONSIBILITY OF THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING TENNESSEE 811 AT 811 OR 800-351-1111, PRIOR TO ANY EXCAVATION WORK.
8. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATION AND ACTIVITIES OF HIS/HER FORCES WITH THE OWNER, AND ABUTTING PROPERTY OWNERS TO MINIMIZE INTERFERENCE WITH EXISTING UTILITIES, PEDESTRIAN TRAFFIC AND PROPERTY ACCESS. PEDESTRIAN AND VEHICLE ACCESS SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE TOWN OF MOUNT CARMEL CITY MANAGER, JIM STABLES, AT 423-357-7311, TWO (2) WEEKS IN ADVANCE AND 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
9. THE CONTRACTOR IS NOT RESPONSIBLE FOR NOTIFYING THE OWNER OF IMPACTED PROPERTIES. THE CITY SHALL NOTIFY THE OWNER OF IMPACTED PROPERTIES AT LEAST ONE (1) WEEK IN ADVANCE AND AGAIN 24 HOURS PRIOR TO STARTING WORK SHOWN ON THESE PLANS.
10. THE CONTRACTOR SHALL SUBMIT AS-BUILT PLANS OF ALL INSTALLED ITEMS. THE AS-BUILT PLANS SHALL CONTAIN THE LOCATION OF THE SECONDARY CLARIFIER, BLOWERS, PLANT DRAINAGE PUMP STATION, AND PERTINENT EQUIPMENT LOCATED WITHIN THE PROJECT LIMITS.
11. THE PLANS AND SPECIFICATIONS DO NOT INCLUDE PROVISIONS FOR CONSTRUCTION SAFETY. A HEALTH AND SAFETY PLAN MUST BE SUBMITTED BY THE CONTRACTOR PRIOR TO STARTING WORK.
12. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING UTILITIES, CURBS, SIDEWALK, PAVING, SHRUBS, FENCING, ETC. ANY AND ALL DAMAGE DONE TO SAME SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACR'S EXPENSE.
13. THE CONTRACTOR SHALL ACQUIRE A BUILDING PERMIT PRIOR TO STARTING CONSTRUCTION AT NO COST TO THE TOWN OF MOUNT CARMEL.
14. METHODS, PROCEDURES AND THE SEQUENCES (OTHER THAN THAT NOTED ON THE DRAWINGS) OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR.
15. ROADWAYS SHALL BE KEPT CLEAN AT ALL TIMES. ALL SOIL SPILLED, DROPPED, WASHED OR TRACKED ONTO ROADWAYS OR OTHER IMPERVIOUS SURFACES MUST BE REMOVED IMMEDIATELY.
16. ALL WORK SHALL BE CONDUCTED WITHIN THE PROPERTY LIMITS, PUBLIC RIGHT OF WAY OR WITHIN EXISTING UTILITY EASEMENTS. IF THE CONTRACTOR DESIRES TO WORK OUTSIDE OF THE PROPERTY LIMITS, PUBLIC RIGHT OF WAY OR EXISTING UTILITY EASEMENTS, THEY SHALL BEAR ALL COSTS FOR OBTAINING TEMPORARY CONSTRUCTION EASEMENTS TO PERFORM THE WORK.
17. THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL UTILITIES WITHIN AND ADJACENT TO THE AREA OF WORK. ANY DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR.
18. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD OR UNDERGROUND ELECTRIC AND STREET LIGHTING CABLING.
19. CONTRACTOR IS RESPONSIBLE FOR SECURING STORAGE AND STAGING AREAS AT HIS OR HER OWN EXPENSE.
20. THE CONTRACTOR SHALL PROVIDE ALL LABOR, TOOLS, EQUIPMENT, SUPERVISION, INSURANCE, PERMITS AND ANYTHING ELSE NECESSARY FOR OR INCIDENTAL TO THE WORK SHOWN ON THESE PLANS OR DESCRIBED HERETO, OR ELSEWHERE IN THE SPECIFICATIONS.
21. PROVIDE A GENERAL SEQUENCE OF CONSTRUCTION FOR THE SECONDARY CLARIFIER, BLOWERS, PLANT DRAINAGE PUMP STATION, INCLUDING TEMPORARY BYPASS PUMPING, DEMOLITION WORK INSPECTIONS AND NEW WORK AND FACILITIES AS DESCRIBED IN THE CONTRACT DOCUMENTS. ALSO OUTLINE PERMITTING PHASED CONSTRUCTION AND STARTUP AND COMISSIONING ACTIVITIES TO DEFINE MINIMUM SEQUENCE REQUIREMENTS.

UTILITY OWNERS

CATV:

CHARTER COMMUNICATIONS
TRI-CITIES ENGINEERING DEPT.
10417 Wallace Alley St.
Kingsport, TN 37663
Contact: Mark Taylor
Phone: (423) 212-2349
Cell: (423) 946-0891
Email: mark.taylor2@charter.com

ELECTRIC:

AEP - KINGSPORT POWER COMPANY
420 Riverport Rd,
Kingsport, TN 37660
Contact: Tom Hensley
Phone: (423) 578-2249
Email: tdhensley@aep.com

GAS:

HAWKINS COUNTY GAS UTILITY
202 Park Blvd.
Rogersville, TN 37857
Contact: Patrick Lund
Phone: (423) 272-8841
Cell (423) 358-0339
Fax: (423) 272-4645
Email: plund@hcgas.com

TELEPHONE:

CENTURYLINK
101 North Roan Street
Johnson City, TN 37601
Contact: Andrew Ice
Phone: (423) 461-7724
Cell (423) 470-5636
Fax: (423) 461-4458
Email: Andrew.F.Ice@centurylink.com

WATER:

FIRST UTILITY DISTRICT OF HAWKINS COUNTY
P.O. Box 8, 523 W. Main Blvd.
Church Hill, TN 37642
Contact: Jermy Jones
Phone: (423) 357-7511 Emergency (423) 357-7151
Cell: (423) 384-0604
Fax: (423) 357-6668
Email: jjones@fudhc.com

SEWER:

TOWN OF MOUNT CARMEL
P.O. Box 1421, 100 Main Street E,
Mount Carmel, TN 37645
Contact: Matthew Malone
Phone: (423) 357-7311
Email: wastewatmountcarmelton@outlook.com



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SEAL:



PREPARED FOR

**TOWN OF MOUNT
CARMEL**
100 MAIN ST E
MT. CARMEL, TENNESSEE 37645
PHONE: (423) 357-7311

REVISIONS

[illegible]

PROJECT:

WASTE WATER
TREATMENT
PLANT
IMPROVEMENTS
PHASE 1B

PROJECT LOCATION:
MT. CARMEL WWTP
116 SEMINOLE DR.
MT. CARMEL, TN 37645

PROJECT NUMBER:
22-V055016-002

DATE:

MAY 2025

SCALE:
N.T.S.

PLAN SET

FINAL PLANS

DRAWING TITLE:

LIST OF DRAWINGS AND GENERAL NOTES

DRAWING NUMBER

G1.1

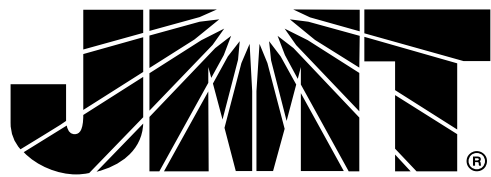
SUGGESTED SEQUENCE OF CONSTRUCTION NOTES

THE FOLLOWING IS THE SUGGESTED SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL DEVELOP HIS OR HER OWN CONSTRUCTION SEQUENCE FOR APPROVAL BY ENGINEER. THIS SEQUENCE IS NOT CONSIDERED TO BE COMPREHENSIVE. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION IN ACCORDANCE WITH THE PLANS AND TECHNICAL SPECIFICATIONS.

1. THE TOWN OF MOUNT CARMEL SHALL BE NOTIFIED IN ADVANCED WHEN THE WORK IS TO COMMENCE. ANY PERMITS WILL BE OBTAINED PRIOR TO CONSTRUCTION ACTIVITIES BEGIN.
2. INSTALL EROSION CONTROLL AND SEDIMENT DEVICES IN ACCORDANCE WITH THE PLANS.
3. CONFIRM LOCATION AND DEPTH OF ALL EXISTING UTILITIES WITHIN THE PROJECT LIMITS.
4. PERFORM SITE DEMOLITION IN ACCORDANCE WITH CONSTRUCTION DOCUMENTS.
5. MAKE NECESSARY REPAIRS TO THE CONCRETE SECONDARY CLARIFIER BASIN IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
6. INSTALL NEW INFLUENT LINE, WETWELL AND EFFLUENT LAUNDER AND SUPPORTS IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
7. CONSTRUCT NEW DRIVE SHAFT, RAKE ARM WITH BLADES, RAKE ARM SUPPORTS, SKIMMER ARM WITH BLADES, WEIR AND BAFFLE AS SPRECIIFIED IN THE PLANS.
8. INSTALL DRIVER MOTOR, ALL NECESSARY WIRING, AND SECONDARY CLARIFIER CONTROL PANEL.
9. INSTALL A NEW CATWALK AND RAILING AT THE SECONDRY CLARIFIER, AND, AS NECESSARY, REPAIR THE STEPS, SUPPORTS, CONNECTIONS, ETC.
10. CONTACT THE MANUFACTURER, SUPPLIER AND ENGINEER OF WHEN EQUIPMENT IS READY FOR START UP. START UP SHALL BE PERFORMED BY CERTIFIED INDIVIDUALS AS DESCRIBED IN THE PROJECT TECHNICAL SPECIFICATIONS AND/ OR MANUFACTURER'S INSTRUCTIONS FOR START UP.
11. RELOCATE ANY EXISTING UTILITIES THAT MAY BE AFFECTED BY GRADING OPERATIONS. ENSURE EXISTING INFLUENT LINES STAY IN OPERATION DURING CONSTRUCTION OF PLANT DRAINAGE PUMP STATION.
12. INSTALL NEW PUMPS, PIPING AND PUMP CONTROLS AS OUTLINED IN THE PLANS AND SPEIFICATIONS. CONNECT THE WIRING AND PERFORM ANY NECESSARY TESTS AND START UP IN ACCORDANCE WITH THE MANUFACTURER'S GUIDLINES.
13. INSTALL NEW BLOWERS, PIPING, CONNECTIONS AND BLOWER CONTROLS AS OUTLINED IN THE PLANS AND SPEIFICATIONS. CONNECT THE WIRING AND PERFORM ANY NECESSARY TESTS AND START UP IN ACCORDANCE WITH THE MANUFACTURER'S GUIDLINES.
14. IF NECESSARY CLEAR THE AIR LINES FROM DIRT AND DEBRIS TO ENSURE NO PIPELINE IS CLOGGED.
15. SCHEDULE WALK THROUGH WITH PROJECT OWNERS, OWNER'S REPRESENTATIVES AND THE ENGINEER OF RECORD.
16. COMPLETE ANY PUNCH LIST ITEMS AS REQUIRED BY THE OWNER OR ENGINEER OF RECORD.
17. STABILIZE THE SITE AND REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES.
18. NOTIFY OWNER AND ENGINEER OF RECORD THAT WORK IS COMPLETE.

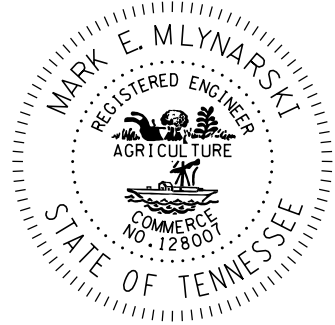
EXISTING AND PROPOSED UTILITES LEGEND

EXISTING		PROPOSED
	MINOR INTERVAL CONTOUR	
	MAJOR INTERVAL CONTOUR	
	SANITARY SEWER & MANHOLE	
	POTABLE WATER	
	NATURAL GAS	
	OVERHEAD ELECTRIC	
	OVERHEAD TELEPHONE	
	UNDERGROUND ELECTRIC	
	UNDERGROUND TELEPHONE	
	UNDERGROUND CABLE	
	STORM LINE	
	RIGHT OF WAY	
	FENCE LINE	
	SANITARY FORCEMAIN	
	PROPERTY LINE	
	EDGE OF ASPHALT	
	FIRE HYDRANT	
	WATER METER	
	VALVE	
	TELEPHONE/UTILITY POLE	
	GUY WIRE	
	CATCH BASIN	
	STORM MANHOLE	
	TELEPHONE PEDESTAL	
	PROPERTY CORNER	
	RIGHT OF WAY MARKER	
	CONTROL POINT	
	LIGHT POLE	
	CLEAN OUT	
	THRUST BLOCK	



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SEAL:



PREPARED FOR:

TOWN OF MOUNT CARMEL
100 MAIN ST E
MT. CARMEL, TENNESSEE 37645
PHONE: (423) 357-7311

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT:

WASTE WATER TREATMENT PLANT IMPROVEMENTS PHASE 1B

PROJECT LOCATION:
MT. CARMEL WWTP
116 SEMINOLE DR.
MT. CARMEL, TN 37645

PROJECT NUMBER:
22-V055016-002

DATE:
MAY 2025

SCALE:
N.T.S.

PLAN SET:

FINAL PLANS

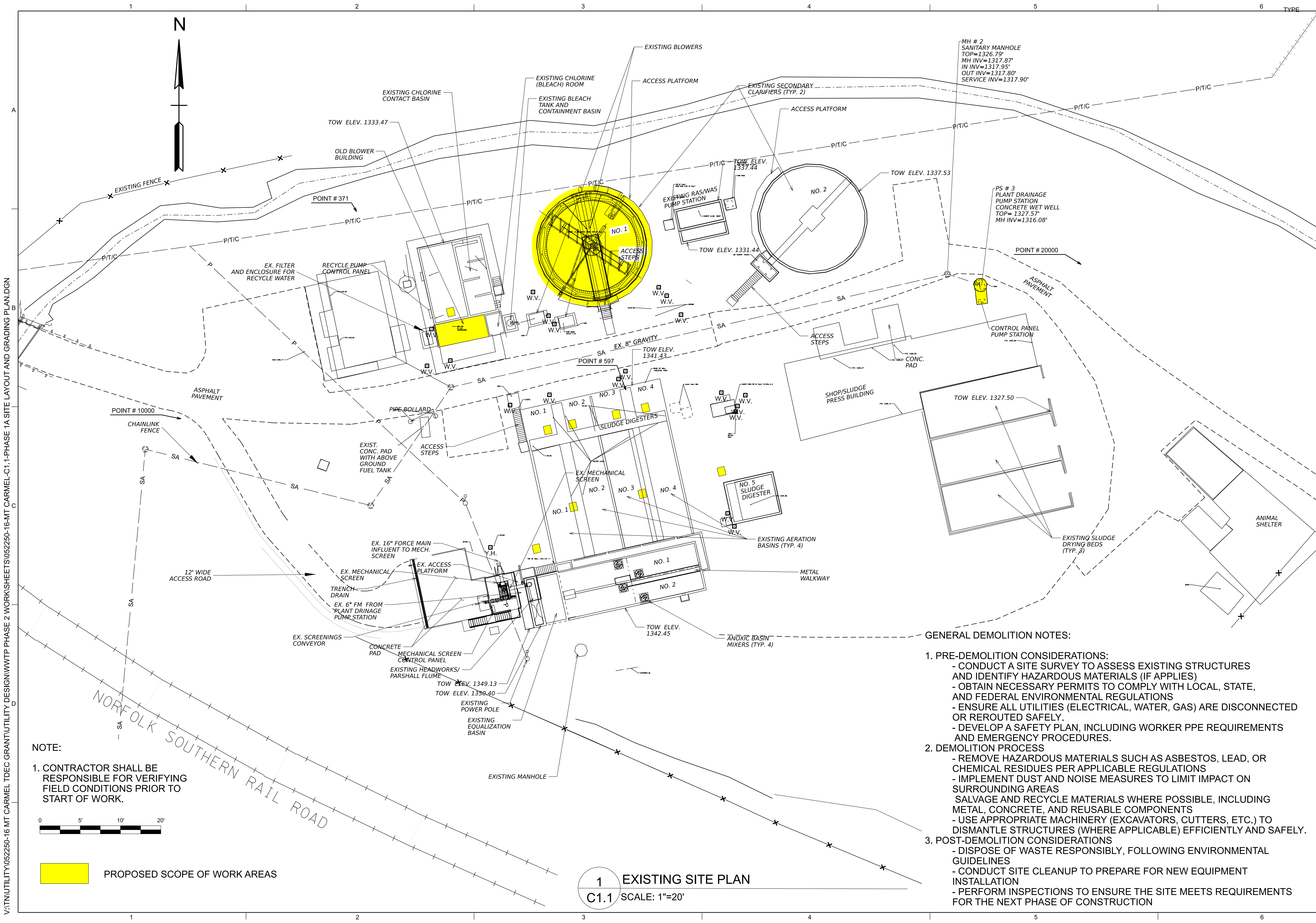
DRAWING TITLE:

CONSTRUCTION SEQUENCE NOTES

DRAWING NUMBER:

G1.2

V:\TNUILITY\05250-16 MT CARMEL TDEC GRANT\UTILITY DESIGN\WWTP PHASE 2 WORKS\05250-16-MT CARMEL-C1.1-PHASE 1A SITE LAYOUT AND GRADING PLAN.DGN



NOTE:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO START OF WORK.



PROPOSED SCOPE OF WORK AREAS

1 EXISTING SITE PLAN
C1.1 SCALE: 1"=20'

GENERAL DEMOLITION NOTES:

1. PRE-DEMOLITION CONSIDERATIONS:
 - CONDUCT A SITE SURVEY TO ASSESS EXISTING STRUCTURES AND IDENTIFY HAZARDOUS MATERIALS (IF APPLIES)
 - OBTAIN NECESSARY PERMITS TO COMPLY WITH LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS
 - ENSURE ALL UTILITIES (ELECTRICAL, WATER, GAS) ARE DISCONNECTED OR REROUTED SAFELY.
 - DEVELOP A SAFETY PLAN, INCLUDING WORKER PPE REQUIREMENTS AND EMERGENCY PROCEDURES.
2. DEMOLITION PROCESS
 - REMOVE HAZARDOUS MATERIALS SUCH AS ASBESTOS, LEAD, OR CHEMICAL RESIDUES PER APPLICABLE REGULATIONS
 - IMPLEMENT DUST AND NOISE MEASURES TO LIMIT IMPACT ON SURROUNDING AREAS
 - SALVAGE AND RECYCLE MATERIALS WHERE POSSIBLE, INCLUDING METAL, CONCRETE, AND REUSABLE COMPONENTS
 - USE APPROPRIATE MACHINERY (EXCAVATORS, CUTTERS, ETC.) TO DISMANTLE STRUCTURES (WHERE APPLICABLE) EFFICIENTLY AND SAFELY.
3. POST-DEMOLITION CONSIDERATIONS
 - DISPOSE OF WASTE RESPONSIBLY, FOLLOWING ENVIRONMENTAL GUIDELINES
 - CONDUCT SITE CLEANUP TO PREPARE FOR NEW EQUIPMENT INSTALLATION
 - PERFORM INSPECTIONS TO ENSURE THE SITE MEETS REQUIREMENTS FOR THE NEXT PHASE OF CONSTRUCTION

PROJECT NO.
C1.2

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TOWN OF MOUNT CARMEL
100 MAIN ST E
MT. CARMEL, TENNESSEE 37645
PHONE: (423) 357-7311

NO.	DATE	DESCRIPTION

PROJECT:
WASTE WATER TREATMENT PLANT IMPROVEMENTS PHASE 1B

PROJECT LOCATION:
MT. CARMEL WWTP
116 SEMINOLE DR.
MT. CARMEL, TN 37645
PROJECT NUMBER:
22-V055016-002

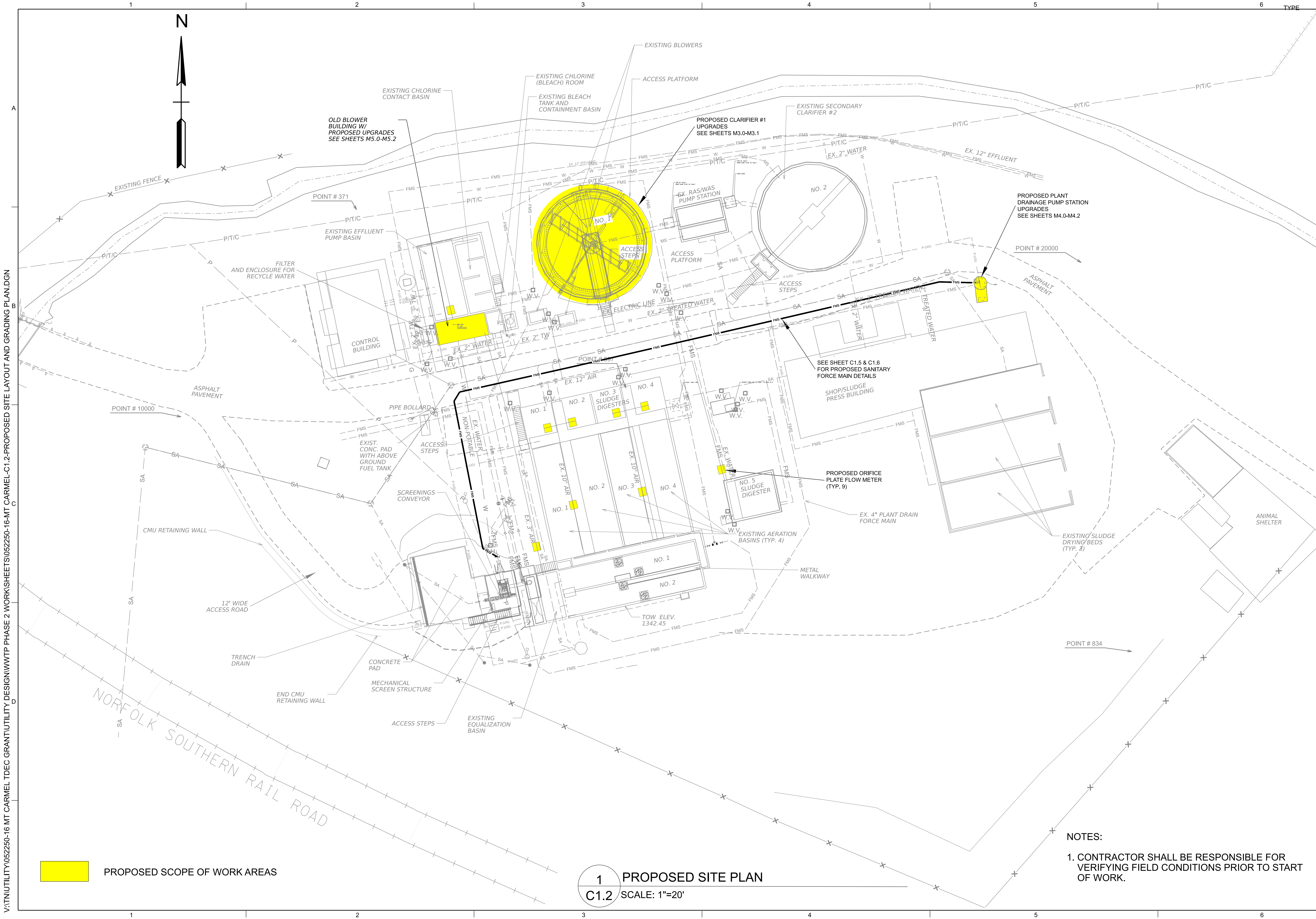
DATE:
MAY 2025
SCALE:
1" = 20'

PLAN SET:
FINAL PLANS

DRAWING TITLE:
EXISTING SITE PLAN

DRAWING NUMBER:
C1.1

V:\TNUILITY\052250-16 MT CARMEL TDEC GRANT\UTILITY DESIGN\WWTP PHASE 2 WORKSHEETS\052250-16-MT CARMEL-C1.2-PROPOSED SITE LAYOUT AND GRADING PLAN.DGN



PROPOSED SCOPE OF WORK AREAS

1 PROPOSED SITE PLAN
C1.2 SCALE: 1"=20'

NOTES:
1. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO START OF WORK.

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SEAL:

PREPARED FOR:
TOWN OF MOUNT CARMEL
100 MAIN ST E
MT. CARMEL, TENNESSEE 37645
PHONE: (423) 357-7311

NO.	DATE	DESCRIPTION

PROJECT:
WASTE WATER TREATMENT PLANT IMPROVEMENTS PHASE 1B

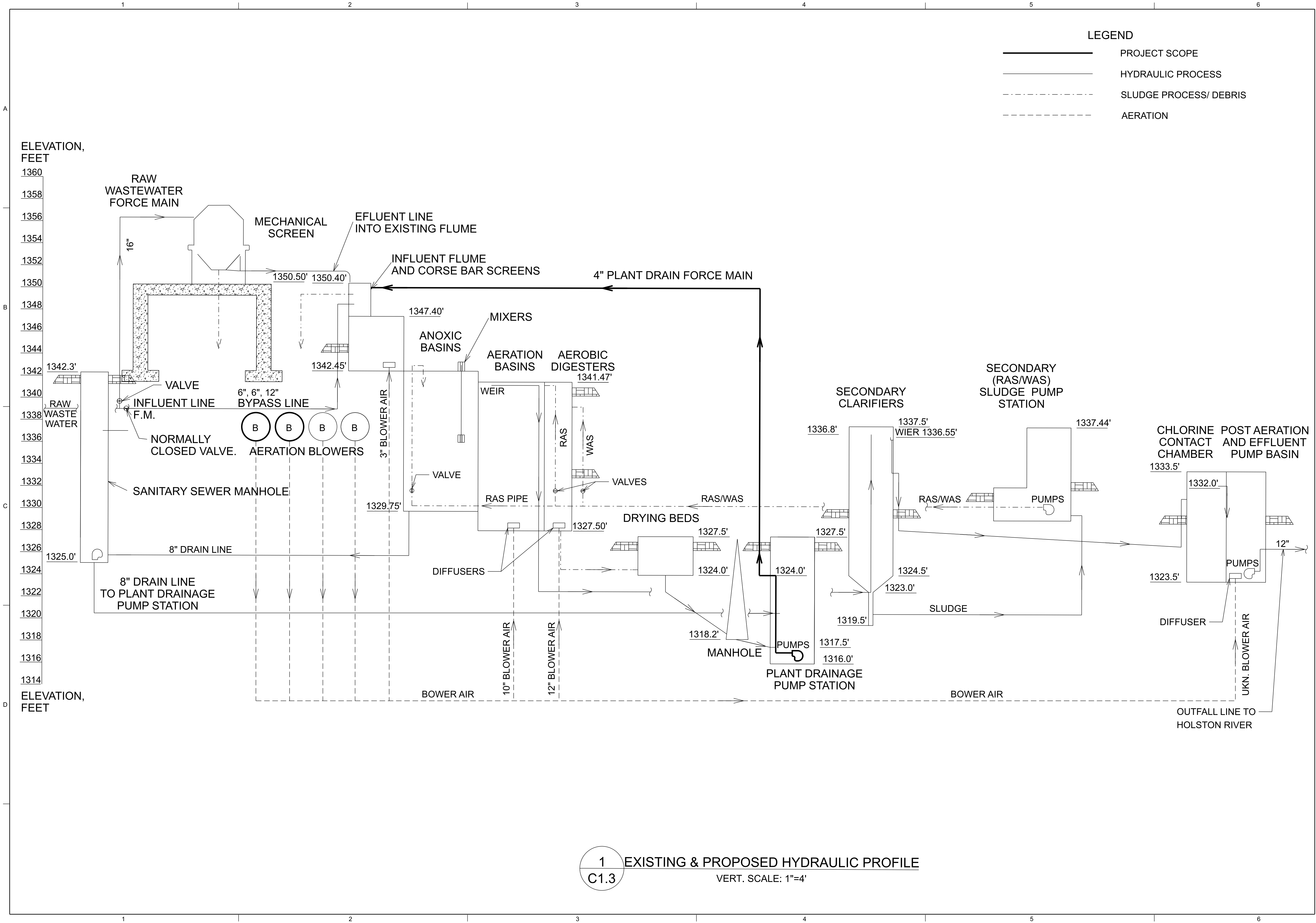
PROJECT LOCATION:
MT. CARMEL WWTP
116 SEMINOLE DR.
MT. CARMEL, TN 37645
PROJECT NUMBER:
22-V055016-002

DATE: MAY 2025
SCALE: 1" = 20'

PLAN SET:
FINAL PLANS

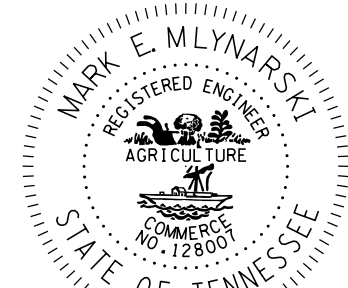
DRAWING TITLE:
PROPOSED SITE PLAN

DRAWING NUMBER:
C1.2



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SEAL:



PREPARED FOR:

TOWN OF MOUNT CARMEL
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MT. CARMEL, TENNESSEE 37645
PHONE: (423) 357-7311

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT:

WASTE WATER TREATMENT PLANT IMPROVEMENTS PHASE 1B

PROJECT LOCATION:
MT. CARMEL WWTP
116 SEMINOLE DR.
MT. CARMEL, TN 37645
PROJECT NUMBER:
22-V055016-002

DATE:
MAY 2025

SCALE: (VERT.)
1"=4'

PLAN SET:

FINAL PLANS

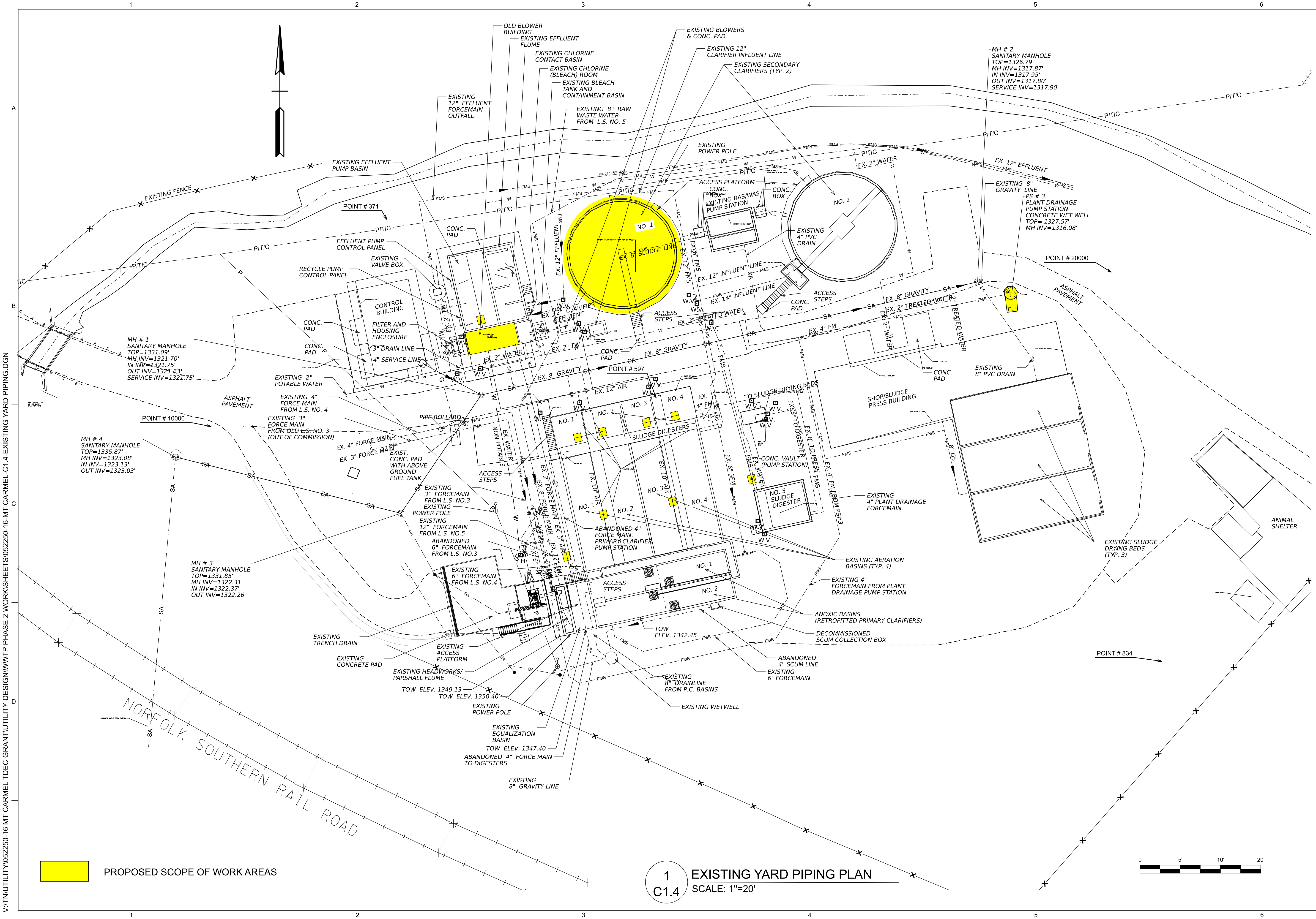
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HYDRAULIC PROFILE

DRAWING NUMBER:

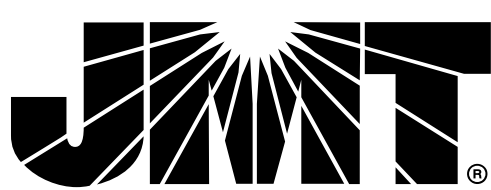
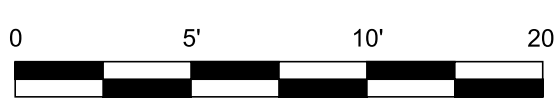
C1.3

V:\TNUILITY\05250-16 MT CARMEL TDEC GRANT\UTILITY DESIGN\WWTP PHASE 2 WORKSHEETS\05250-16-MT CARMEL-C1.4-EXISTING YARD PIPING.DGN



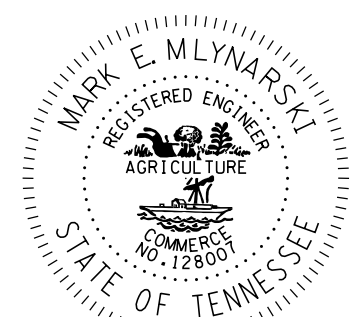
PROPOSED SCOPE OF WORK AREAS

1 EXISTING YARD PIPING PLAN
C1.4 SCALE: 1"=20'



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MT. CARMEL, TENNESSEE 37645
PHONE: (423) 357-7311

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT:

WASTE WATER TREATMENT PLANT IMPROVEMENTS PHASE 1B

PROJECT LOCATION:

MT. CARMEL WWTP
116 SEMINOLE DR.
MT. CARMEL, TN 37645

PROJECT NUMBER:

22-V055016-002

DATE:

MAY 2025

SCALE:

1" = 20'

PLAN SET:

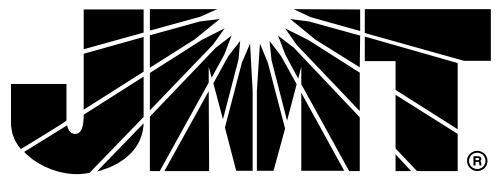
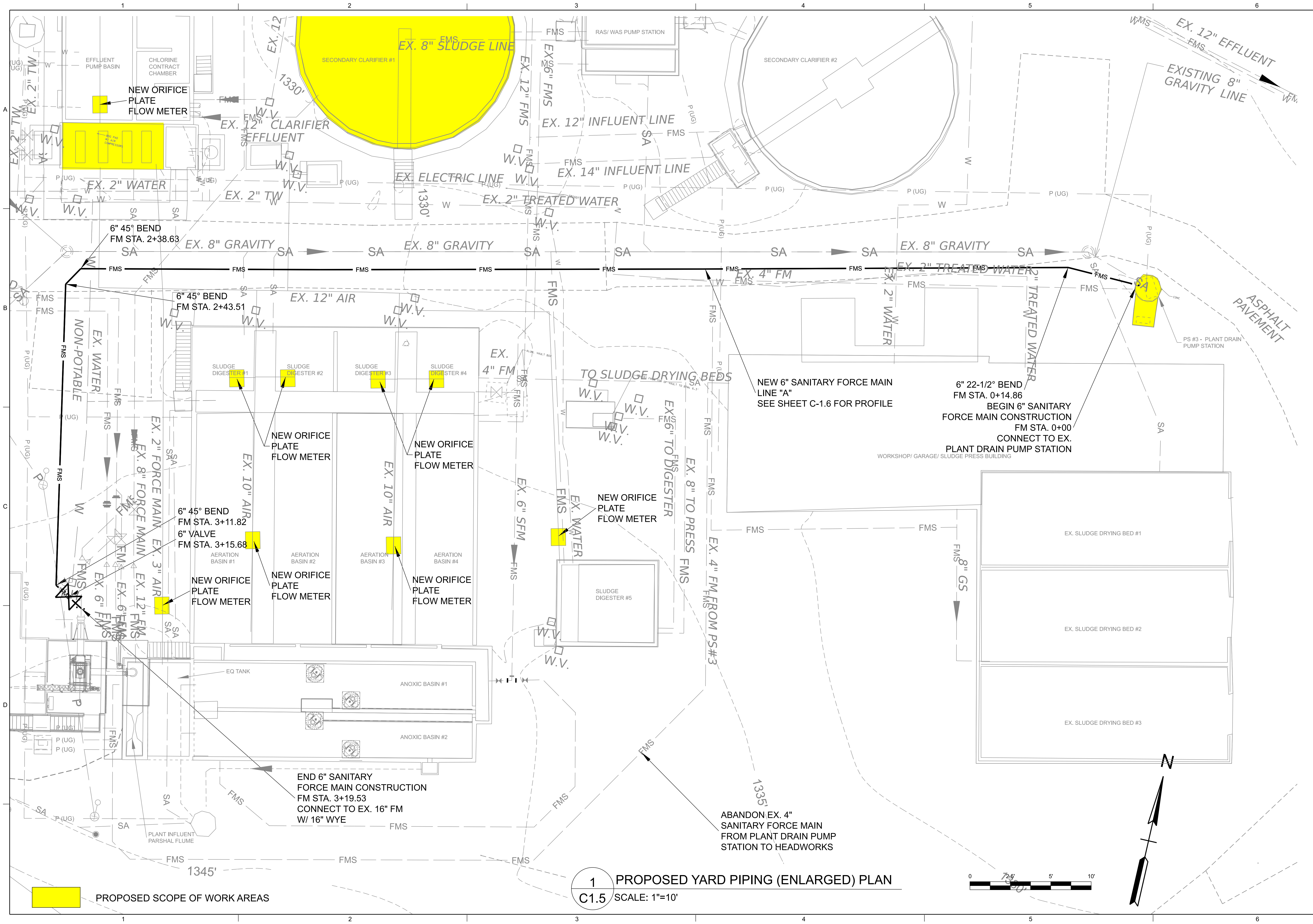
FINAL PLANS

DRAWING TITLE:

EXISTING YARD PIPING PLAN

DRAWING NUMBER:

C1.4



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SEAL:



PREPARED FOR:

TOWN OF MOUNT CARMEL
100 MAIN ST E
MT. CARMEL, TENNESSEE 37645
PHONE: (423) 357-7311

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT:

WASTE WATER TREATMENT PLANT IMPROVEMENTS PHASE 1B

PROJECT LOCATION:

MT. CARMEL WWTP
116 SEMINOLE DR.
MT. CARMEL, TN 37645

PROJECT NUMBER:

22-V055016-002

DATE:

MAY 2025

SCALE:

1" = 10'

PLAN SET:

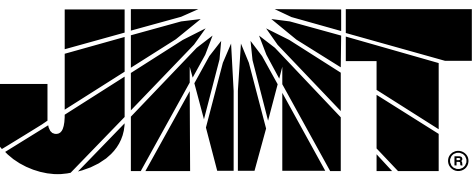
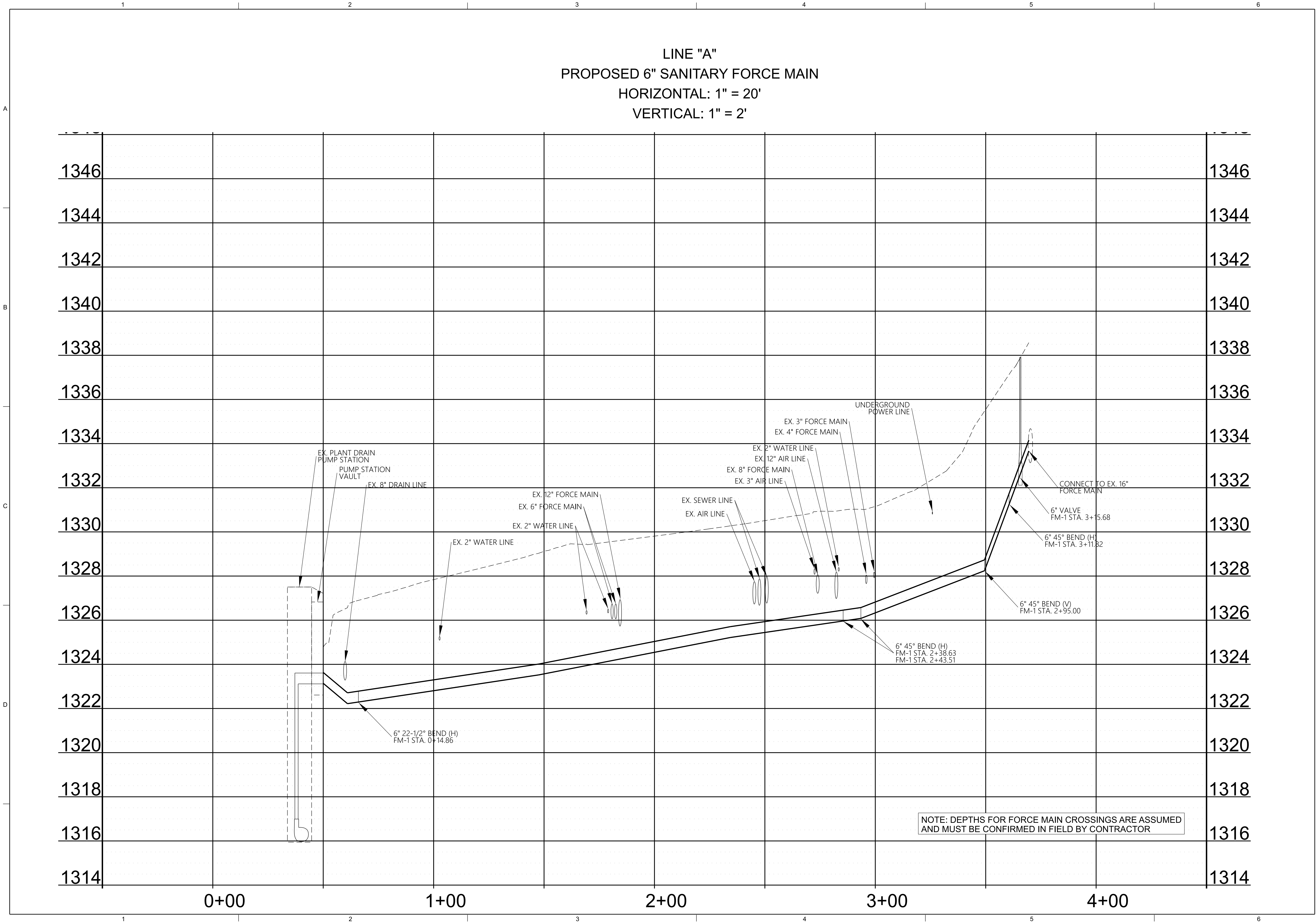
FINAL PLANS

DRAWING TITLE:

PROPOSED YARD PIPING PLAN

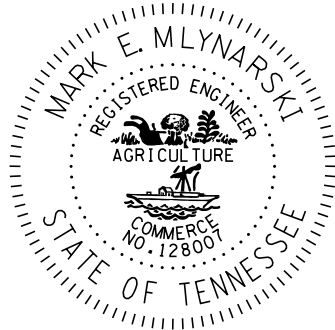
DRAWING NUMBER:

C1.5



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SEAL:



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TOWN OF MOUNT CARMEL
100 MAIN ST E
MT. CARMEL, TENNESSEE 37645
PHONE: (423) 357-7311

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT:

WASTE WATER TREATMENT PLANT IMPROVEMENTS PHASE 1B

PROJECT LOCATION:

MT. CARMEL WWTP
116 SEMINOLE DR.
MT. CARMEL, TN 37645

PROJECT NUMBER:

22-V055016-002

DATE:

MAY 2025

SCALE:

1" = 20'

PLAN SET:

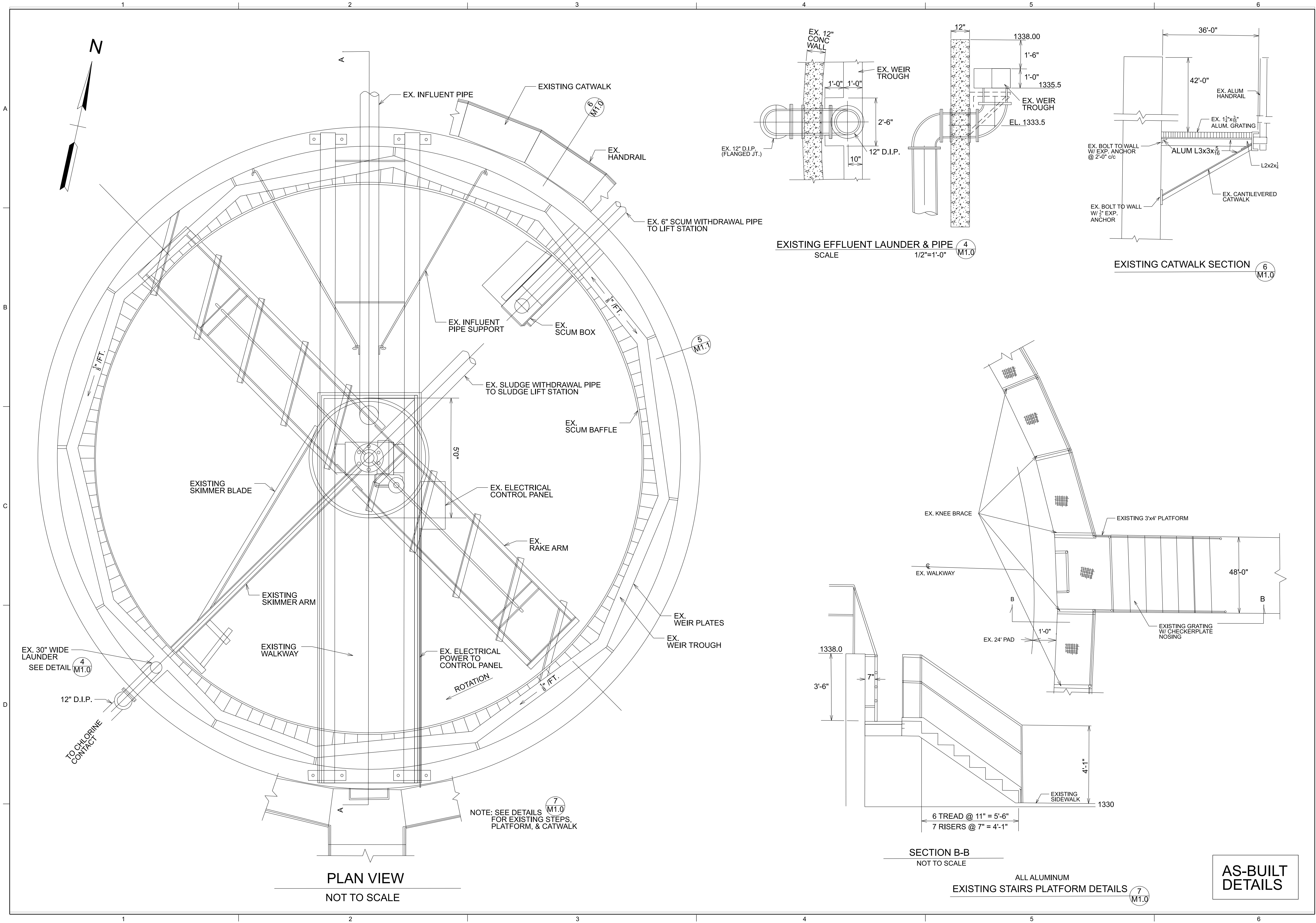
FINAL PLANS

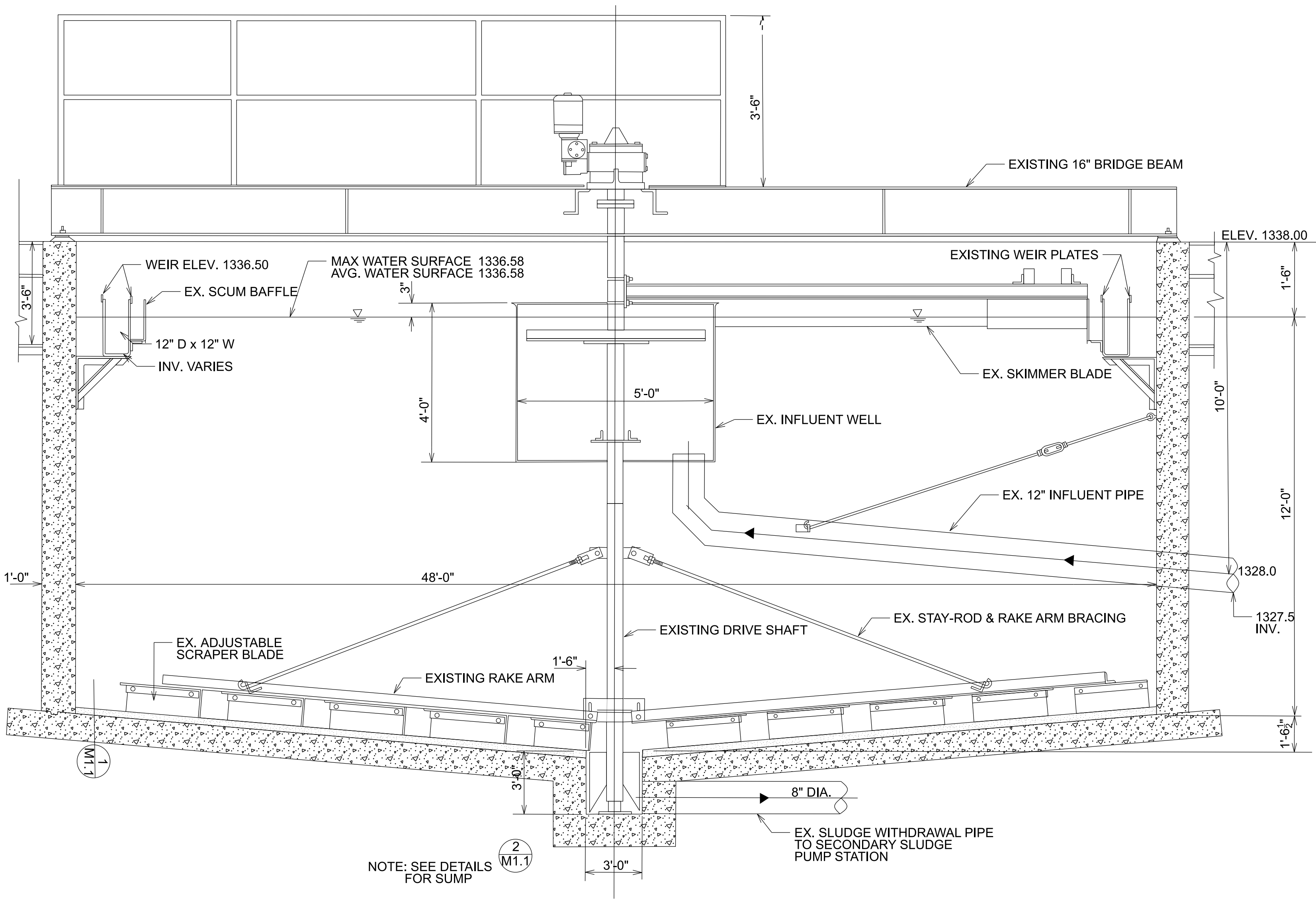
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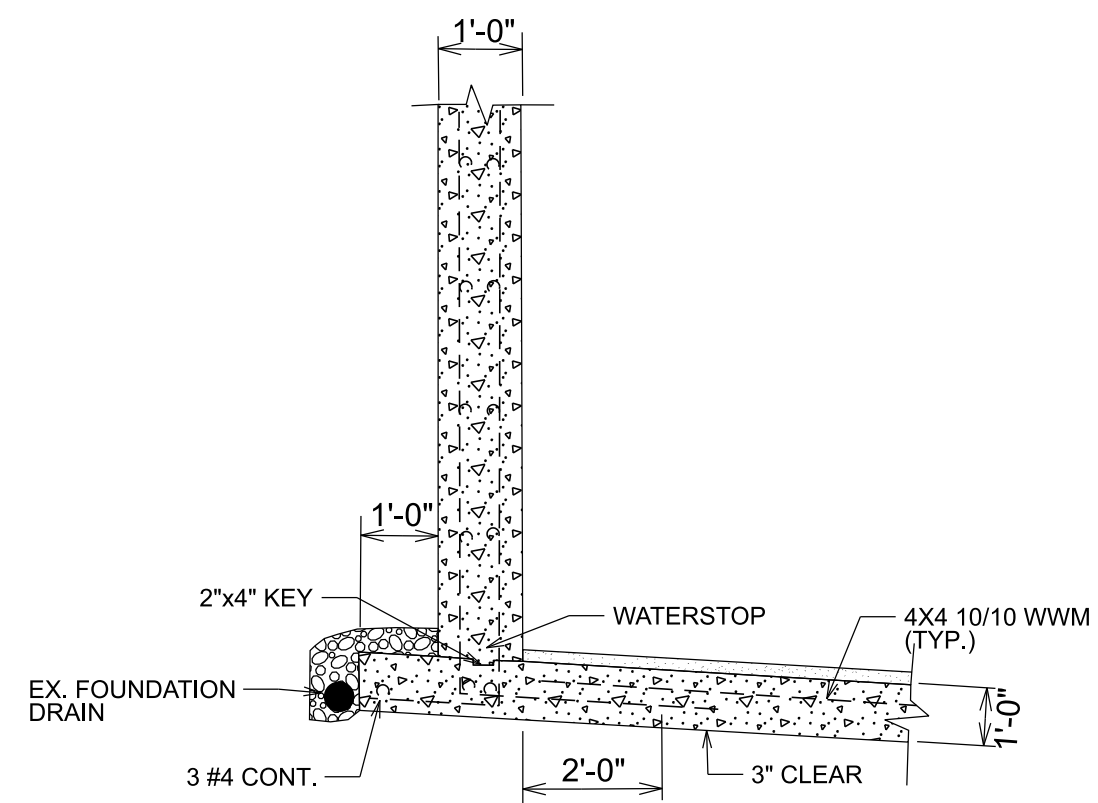
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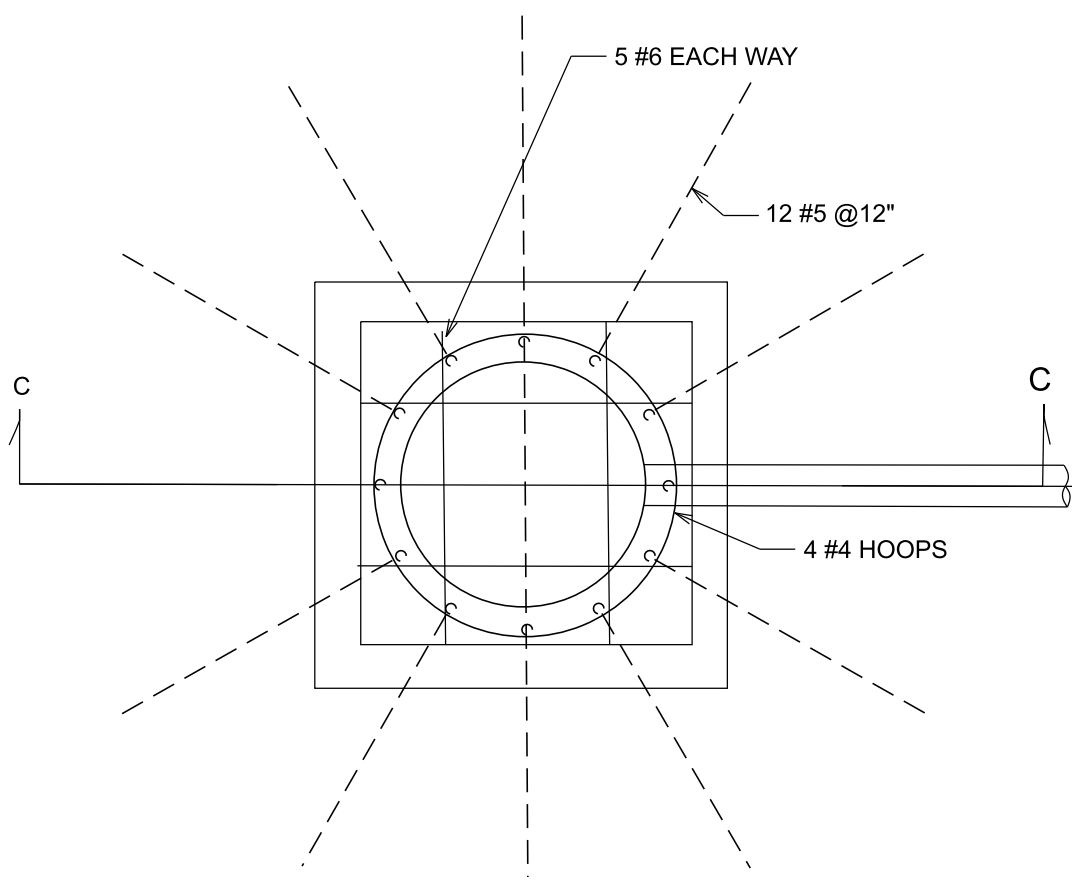




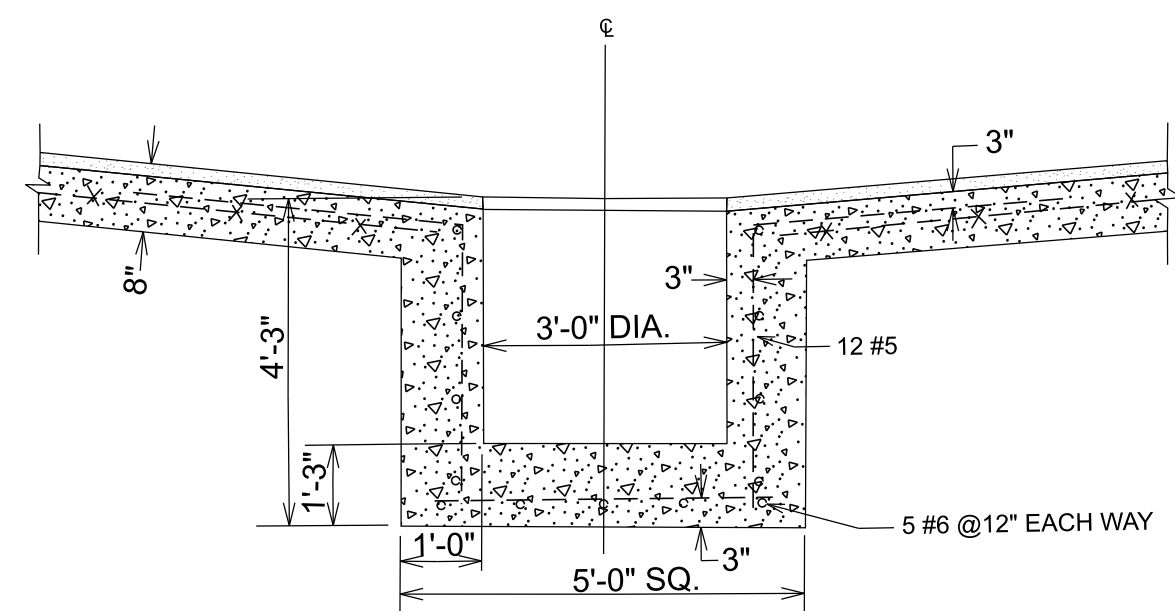
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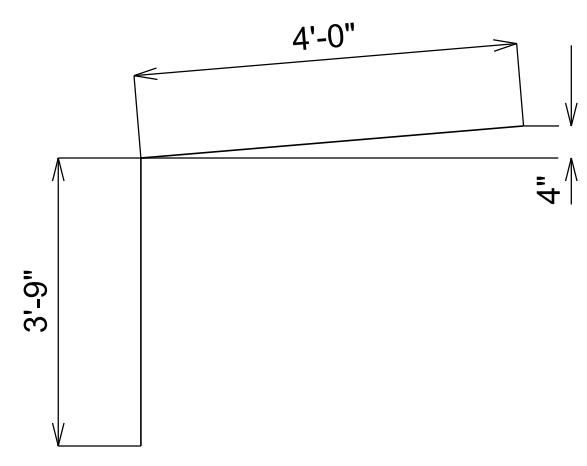
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FOUNDATION DETAIL



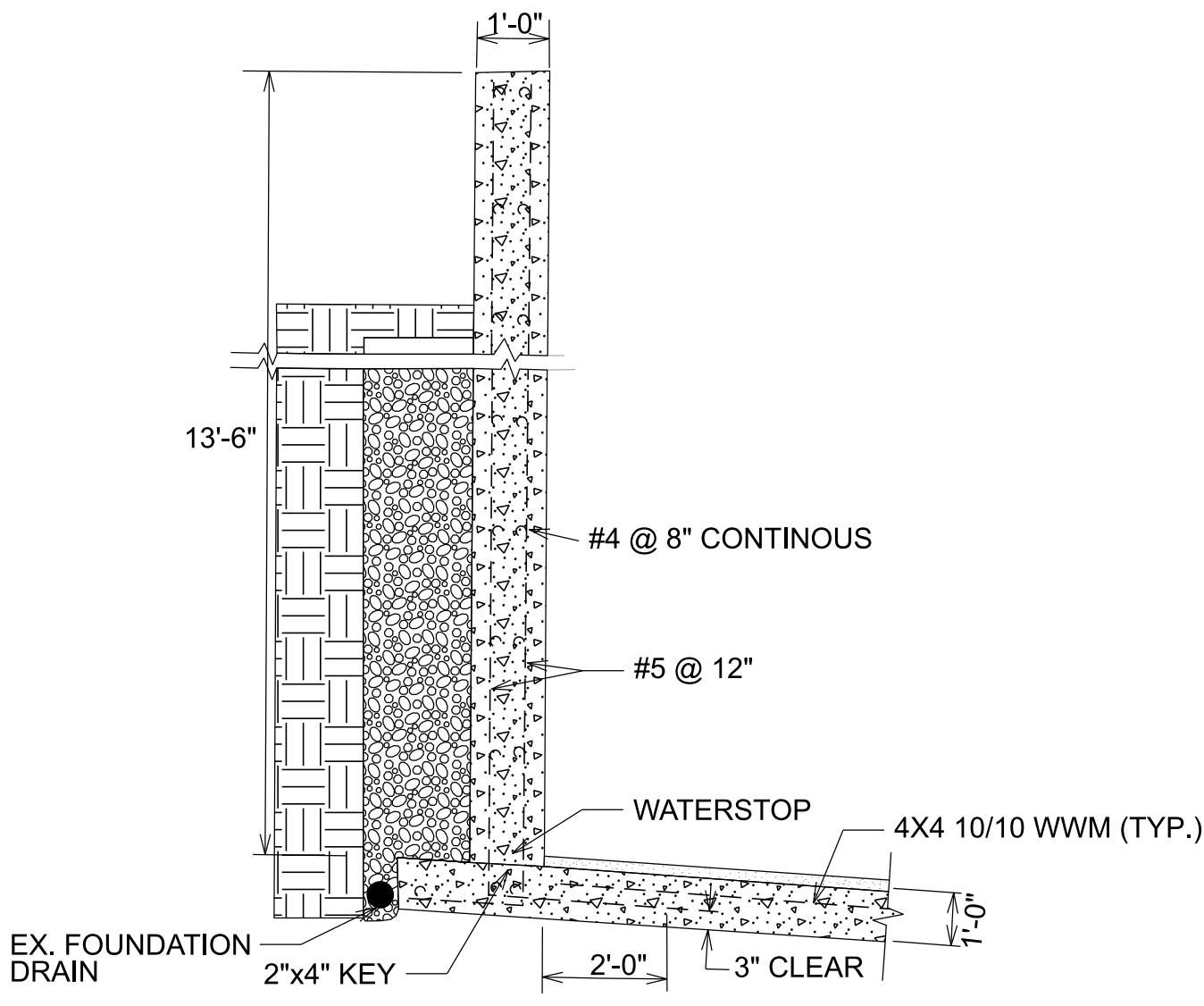
PLAN VIEW
EX. SUMP



SECTION C-C
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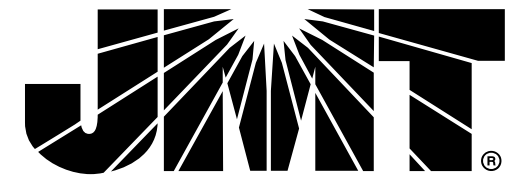
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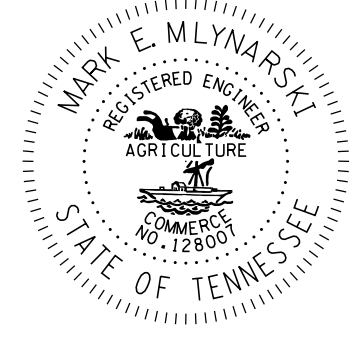
EXISTING SUMP
DETAILS
NOT TO SCALE

AS-BUILT
DETAILS



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PREPARED FOR:

TOWN OF MOUNT CARMEL
100 MAIN ST E
MT. CARMEL, TENNESSEE 37645
PHONE: (423) 357-7311

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT:

WASTE WATER TREATMENT PLANT IMPROVEMENTS PHASE 1B

PROJECT LOCATION:
MT. CARMEL WWTP
116 SEMINOLE DR.
MT. CARMEL, TN 37645
PROJECT NUMBER:
22-V055016-002

DATE: **MAY 2025** SCALE: **N.T.S.**

PLAN SET:

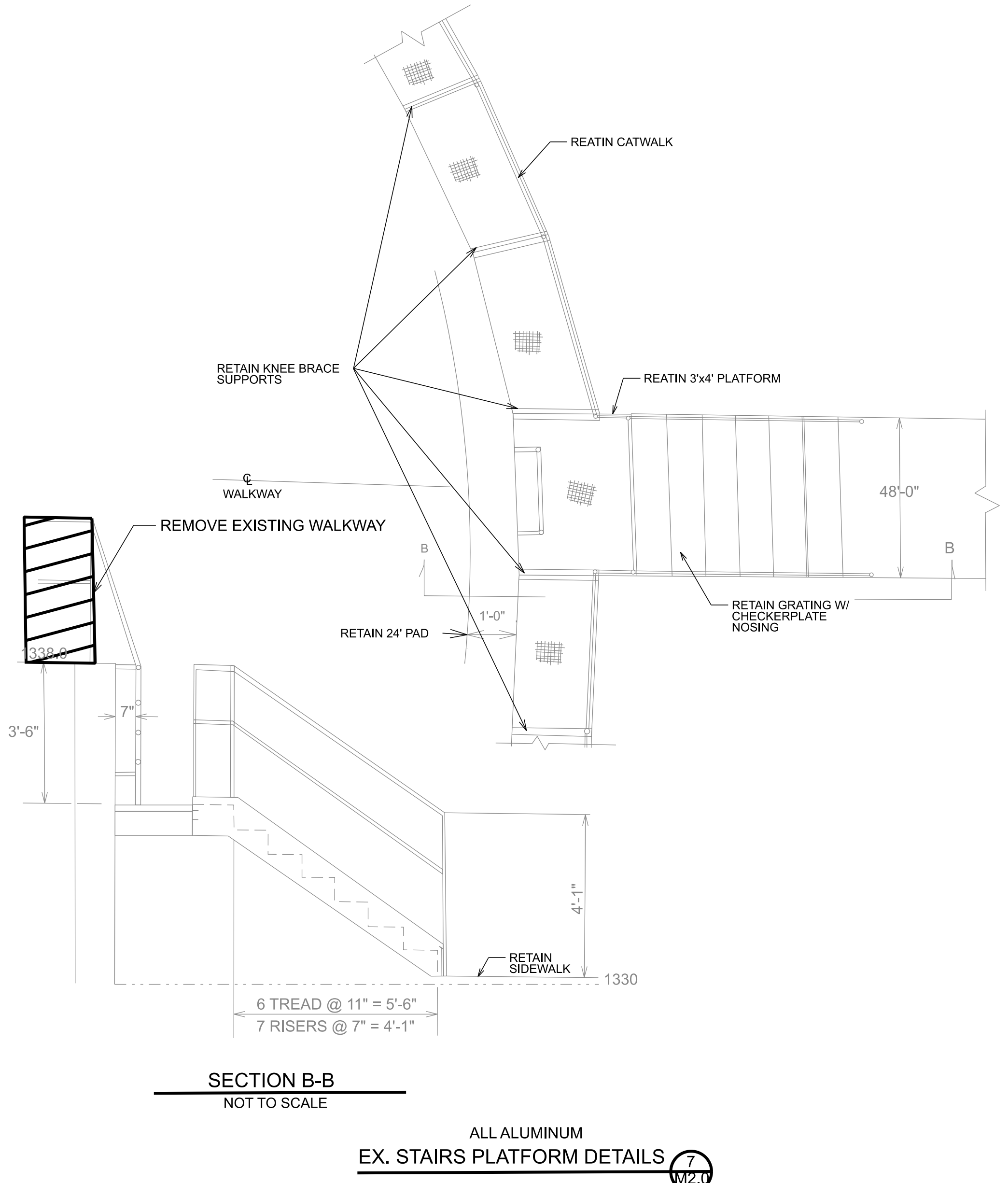
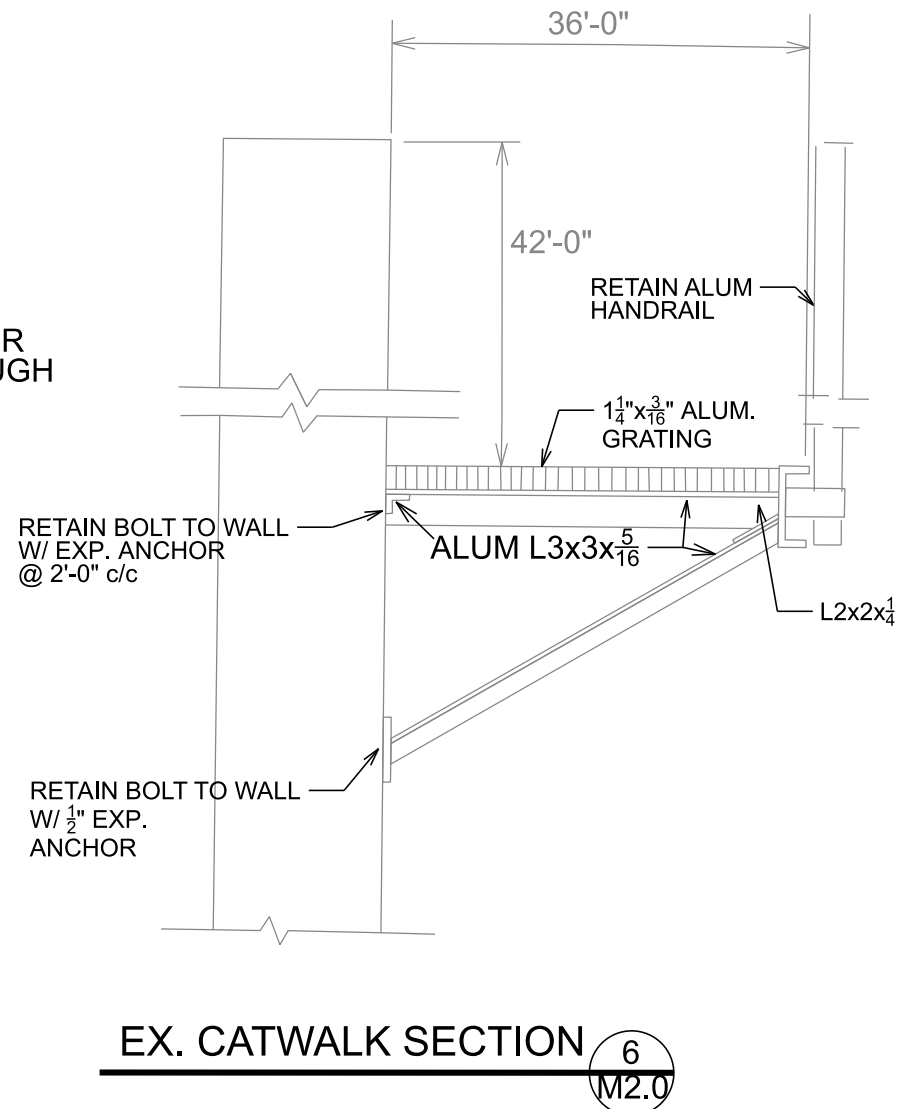
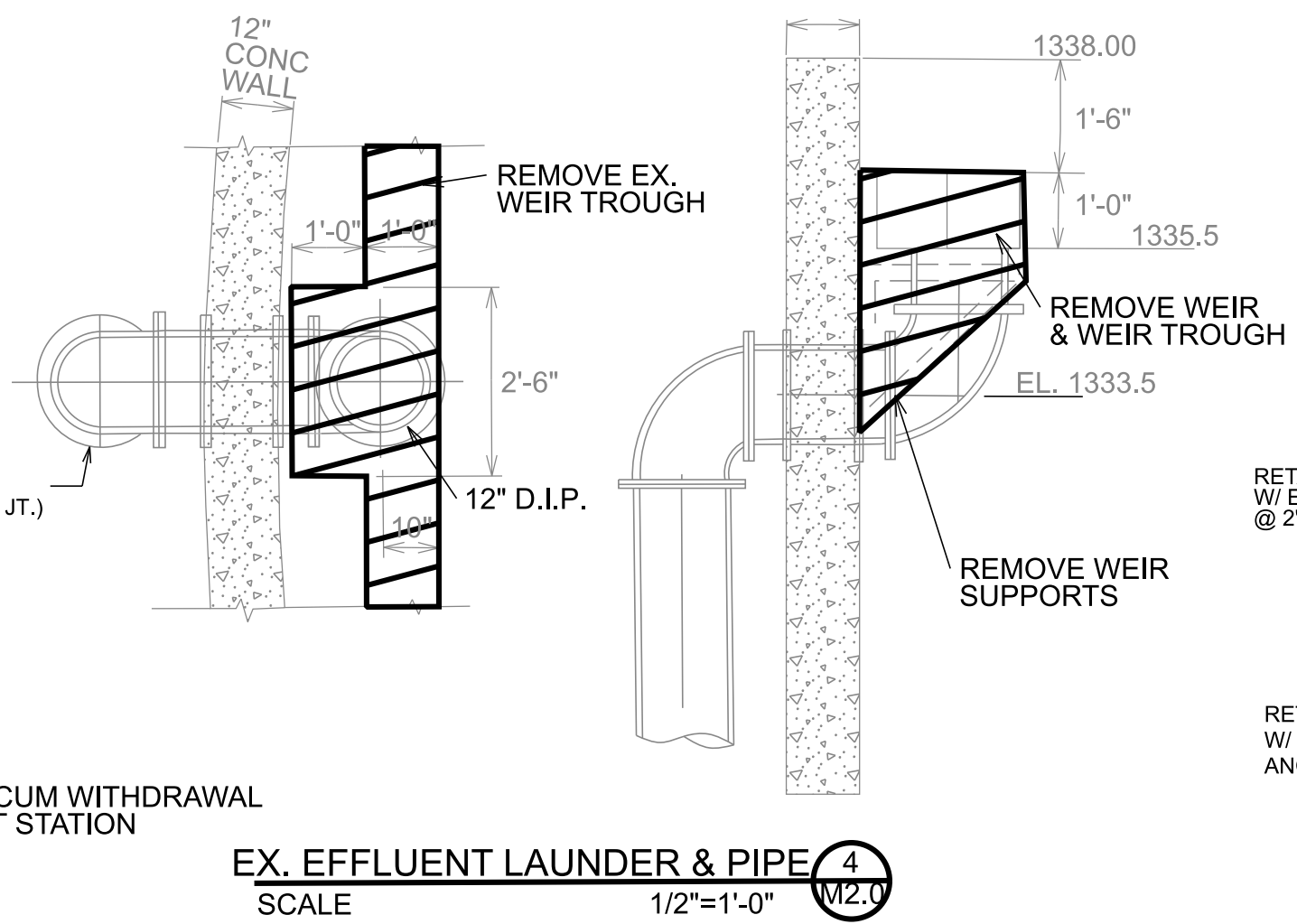
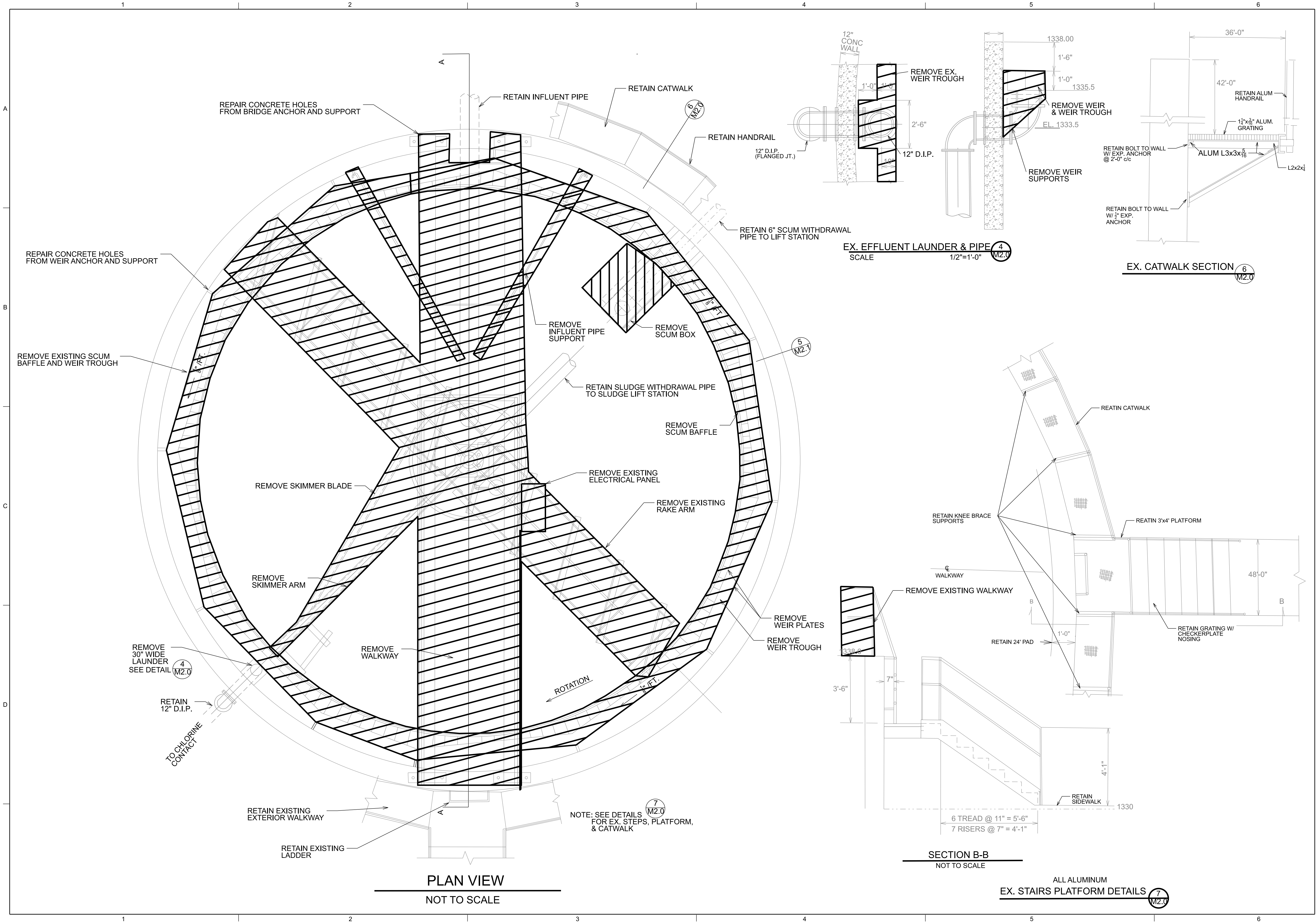
FINAL PLANS

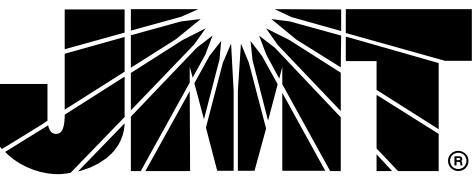
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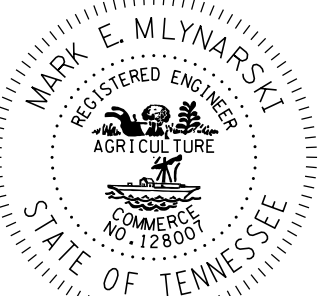
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DATE:	SCALE:
MAY 2025	N.T.S.

PLAN SET:

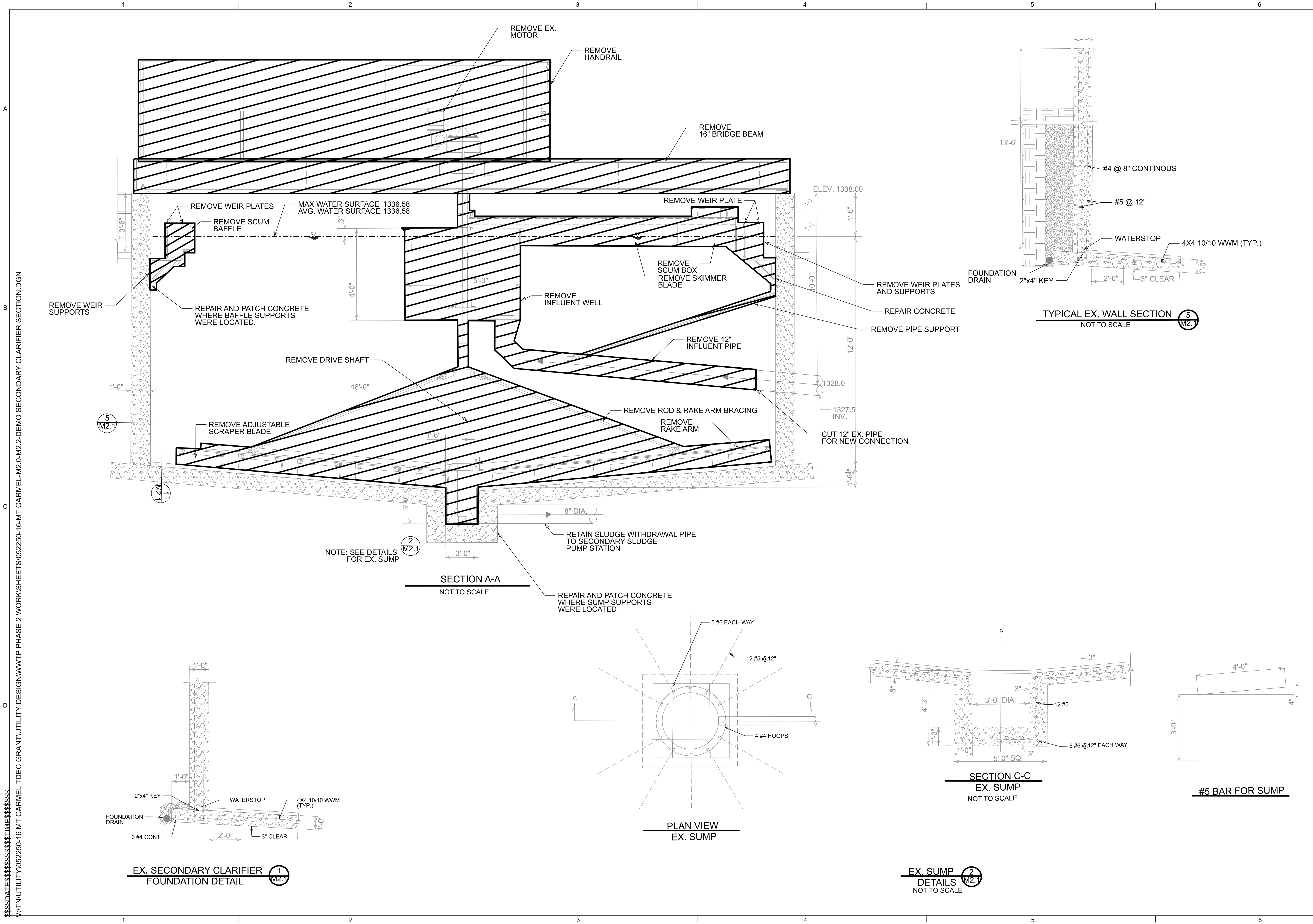
FINAL PLANS

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DEMO SECONDARY CLARIFIER PLAN

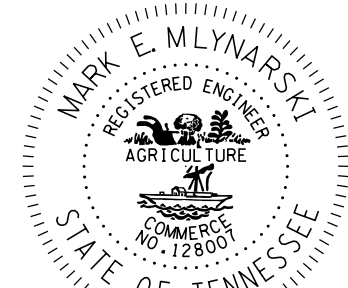
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M2.0



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MAY 2025

SCALE:
N.T.S.

PLAN SET:

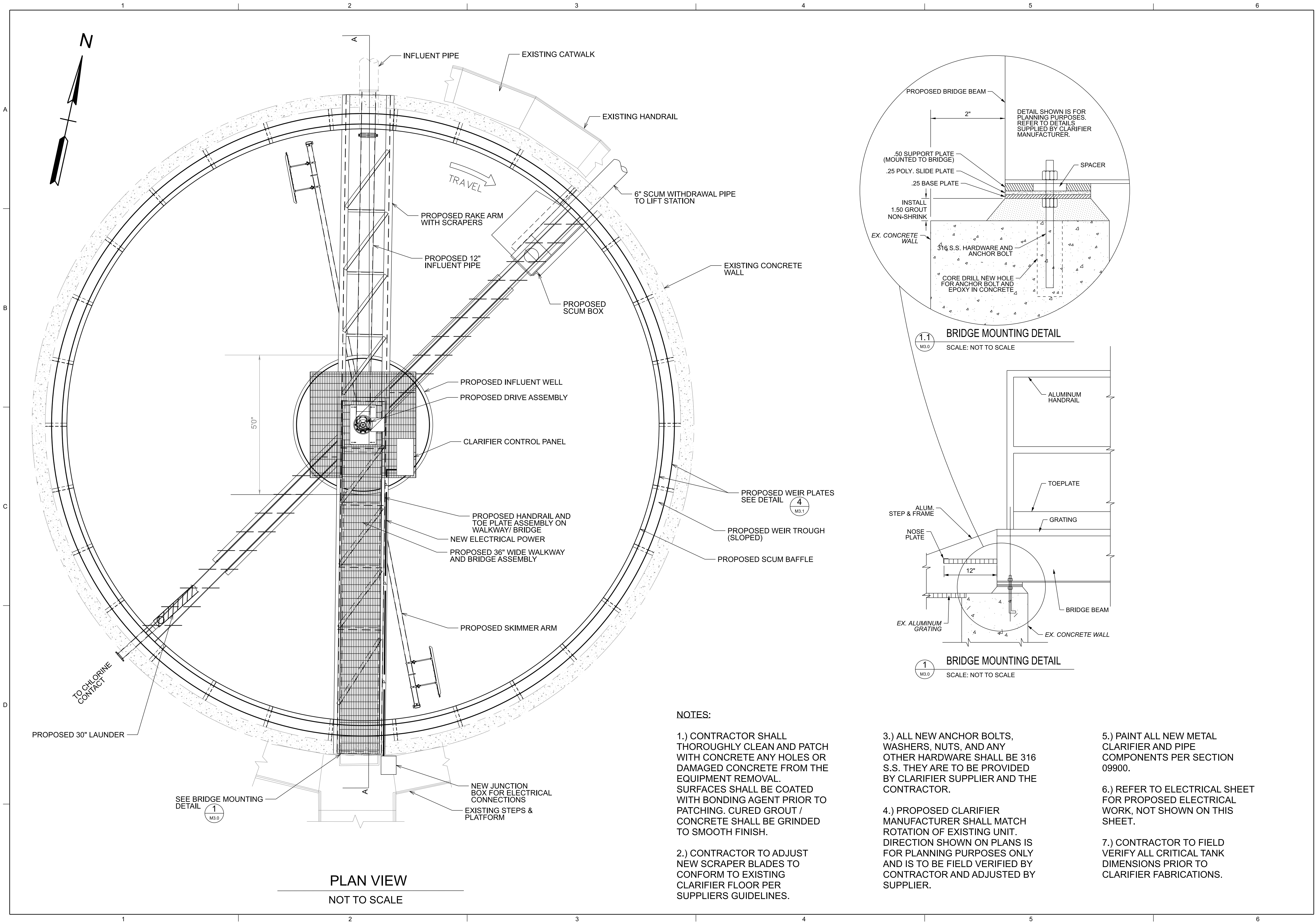
FINAL PLANS

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DRAWING NUMBER:

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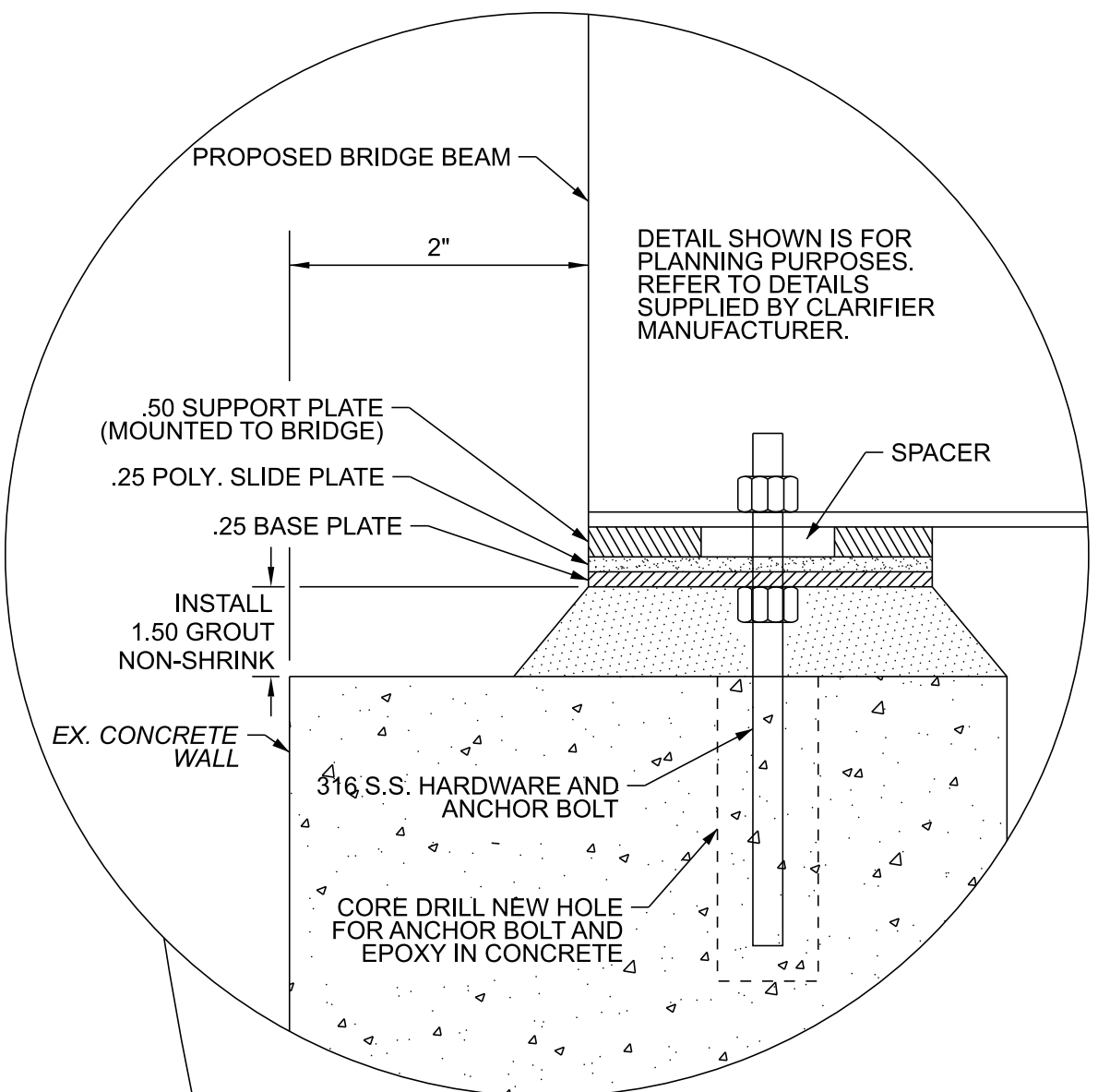


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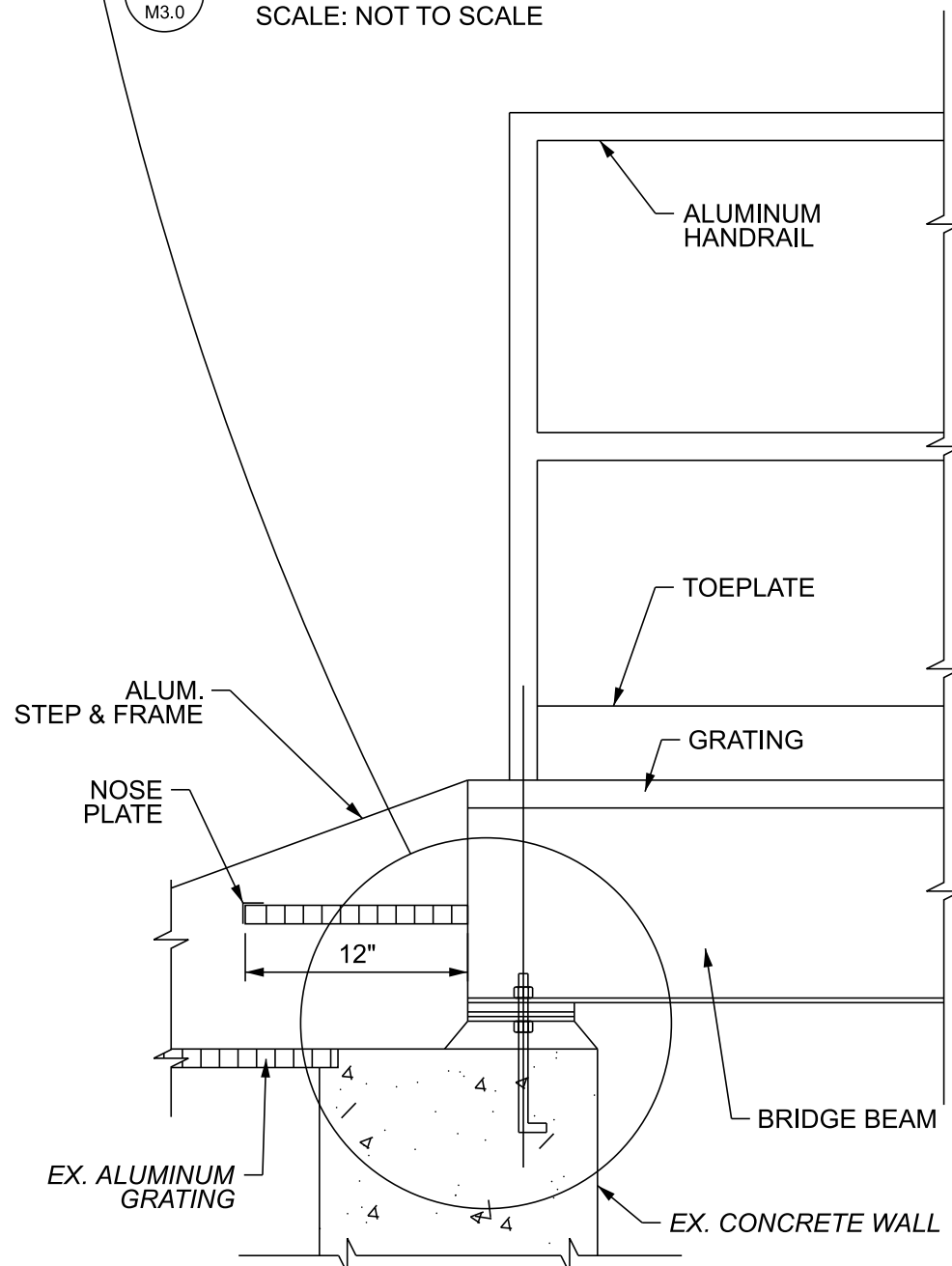
- 1.) CONTRACTOR SHALL THOROUGHLY CLEAN AND PATCH WITH CONCRETE ANY HOLES OR DAMAGED CONCRETE FROM THE EQUIPMENT REMOVAL. SURFACES SHALL BE COATED WITH BONDING AGENT PRIOR TO PATCHING. CURED GROUT / CONCRETE SHALL BE GRINDED TO SMOOTH FINISH.
- 2.) CONTRACTOR TO ADJUST NEW SCRAPER BLADES TO CONFORM TO EXISTING CLARIFIER FLOOR PER SUPPLIERS GUIDELINES.

- 3.) ALL NEW ANCHOR BOLTS, WASHERS, NUTS, AND ANY OTHER HARDWARE SHALL BE 316 S.S. THEY ARE TO BE PROVIDED BY CLARIFIER SUPPLIER AND THE CONTRACTOR.
- 4.) PROPOSED CLARIFIER MANUFACTURER SHALL MATCH ROTATION OF EXISTING UNIT. DIRECTION SHOWN ON PLANS IS FOR PLANNING PURPOSES ONLY AND IS TO BE FIELD VERIFIED BY CONTRACTOR AND ADJUSTED BY SUPPLIER.

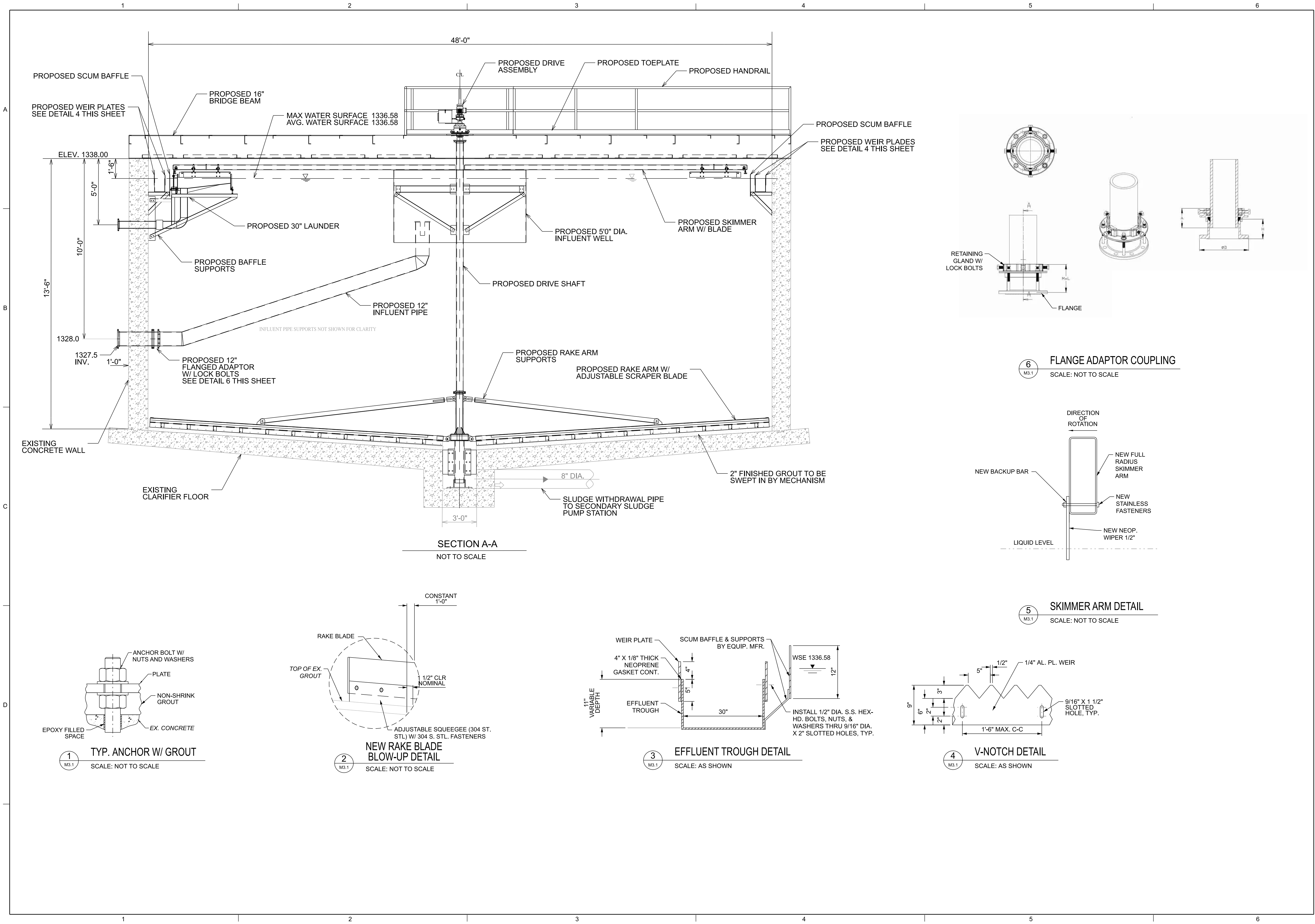
- 5.) PAINT ALL NEW METAL CLARIFIER AND PIPE COMPONENTS PER SECTION 09900.
- 6.) REFER TO ELECTRICAL SHEET FOR PROPOSED ELECTRICAL WORK, NOT SHOWN ON THIS SHEET.
- 7.) CONTRACTOR TO FIELD VERIFY ALL CRITICAL TANK DIMENSIONS PRIOR TO CLARIFIER FABRICATIONS.



1.1
M3.0
BRIDGE MOUNTING DETAIL
SCALE: NOT TO SCALE

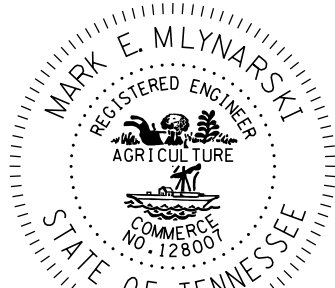


1
M3.0
BRIDGE MOUNTING DETAIL
SCALE: NOT TO SCALE



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DATE:

MAY 2025

SCALE:

N.T.S.

PLAN SET:

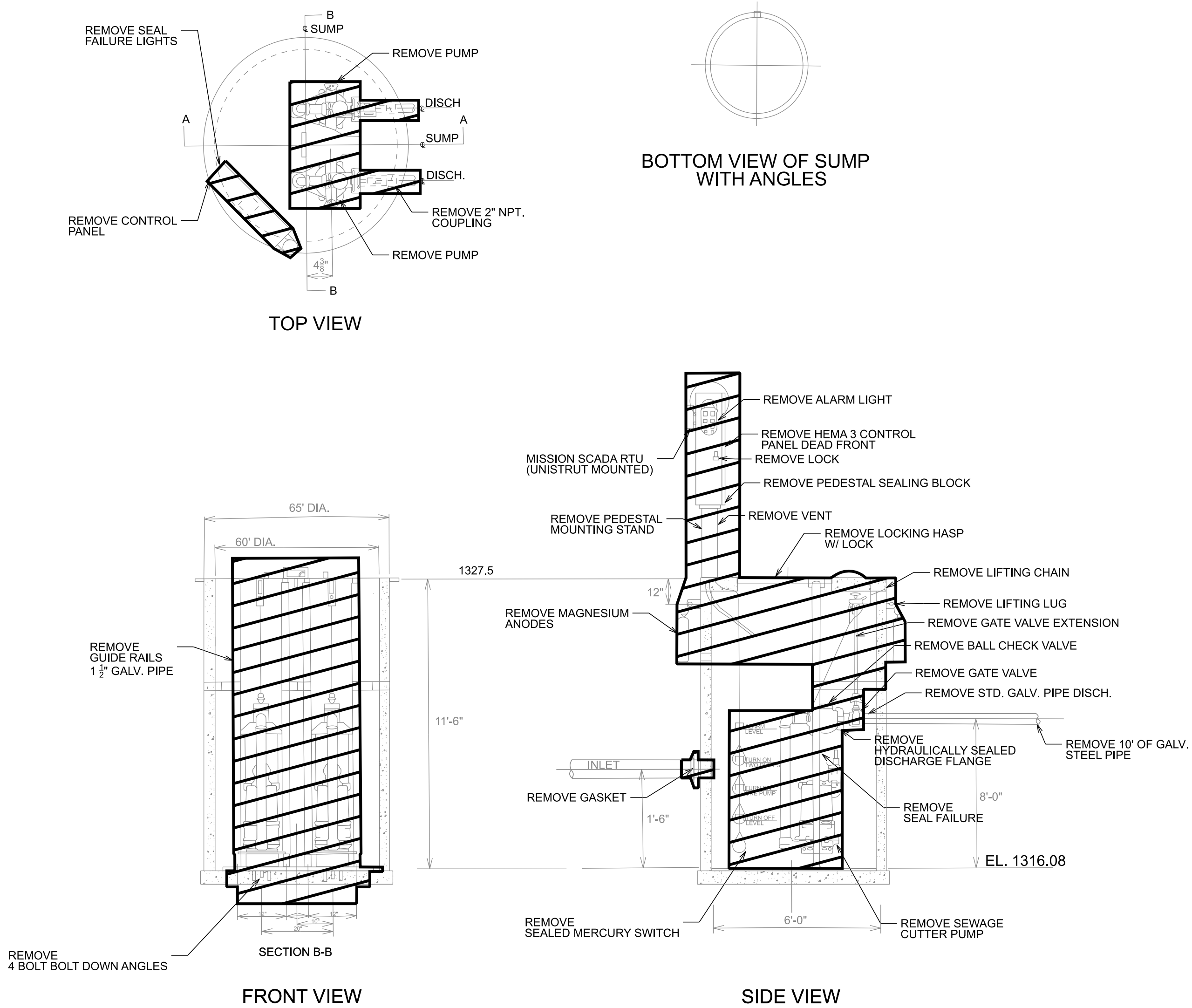
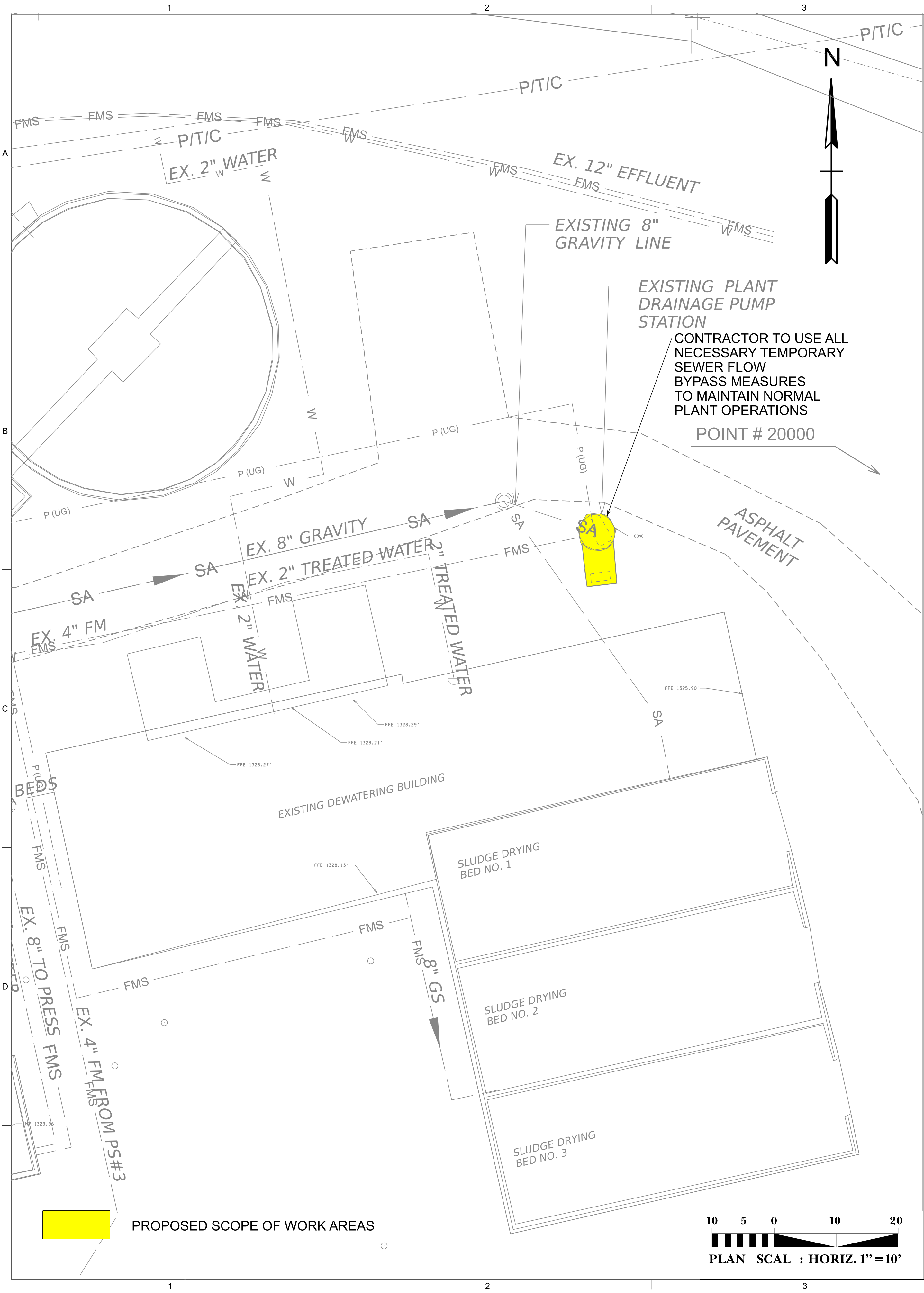
FINAL PLANS

DRAWING TITLE:

PROPOSED SECONDARY CLARIFIER SECTION

DRAWING NUMBER:

M3.1

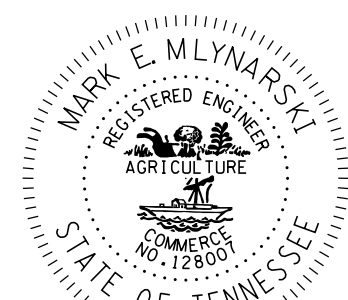


SUPERNATANT PUMP STATION
NOT TO SCALE



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DATE: MAY 2025 SCALE: N.T.S.

PLAN SET:

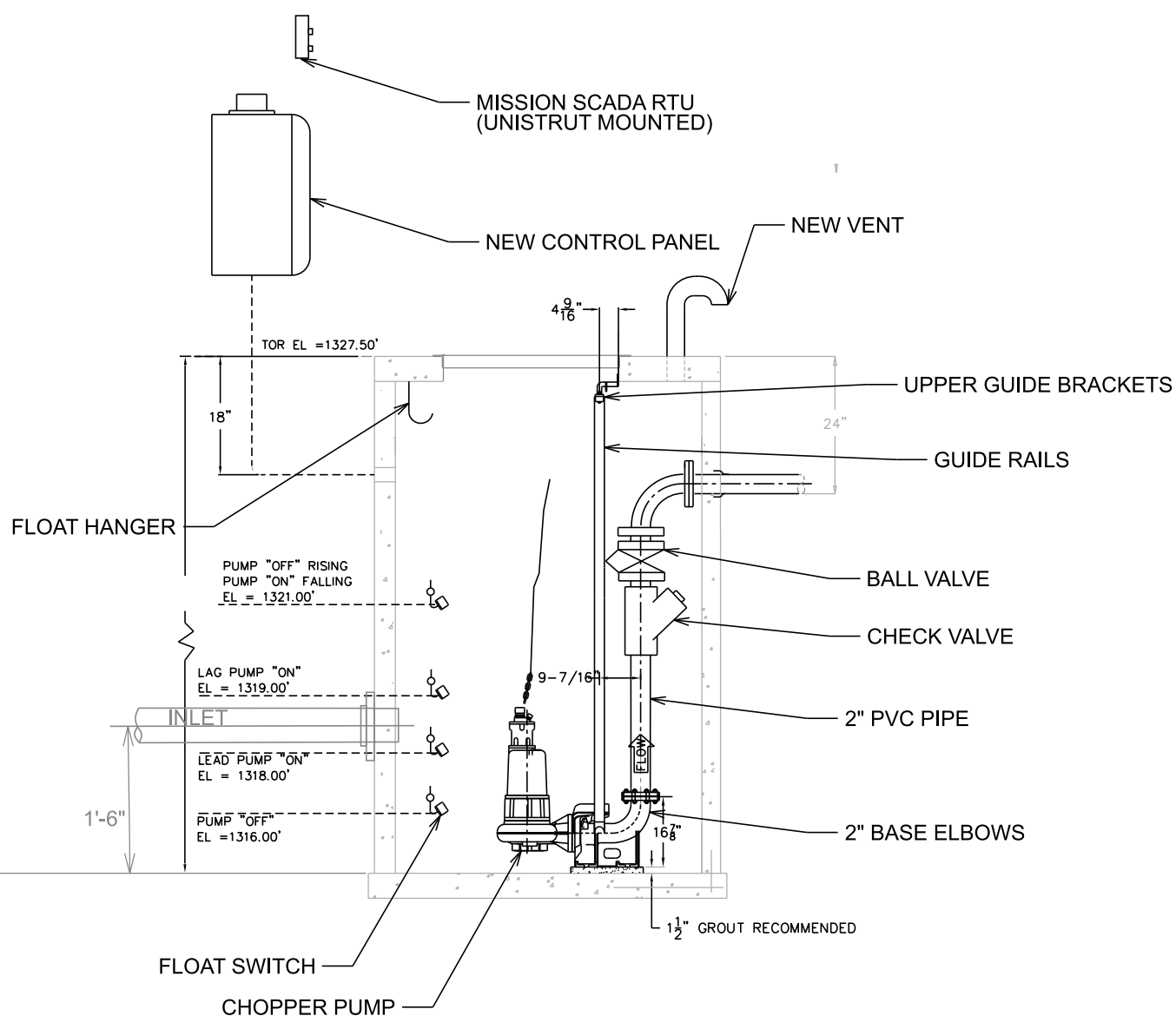
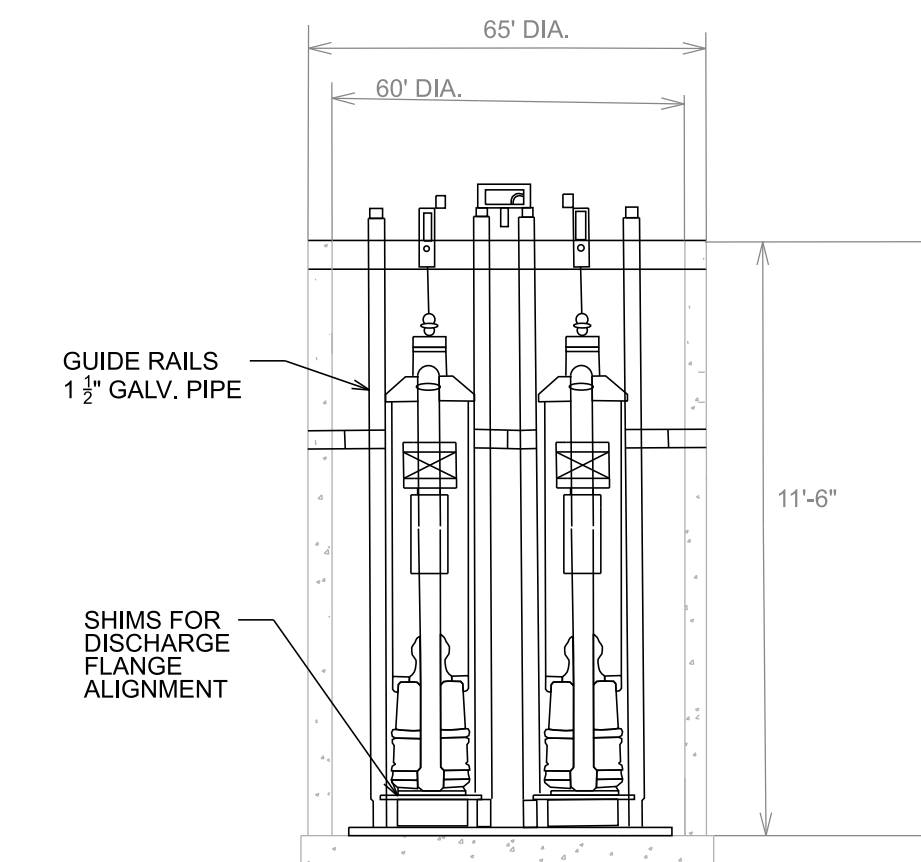
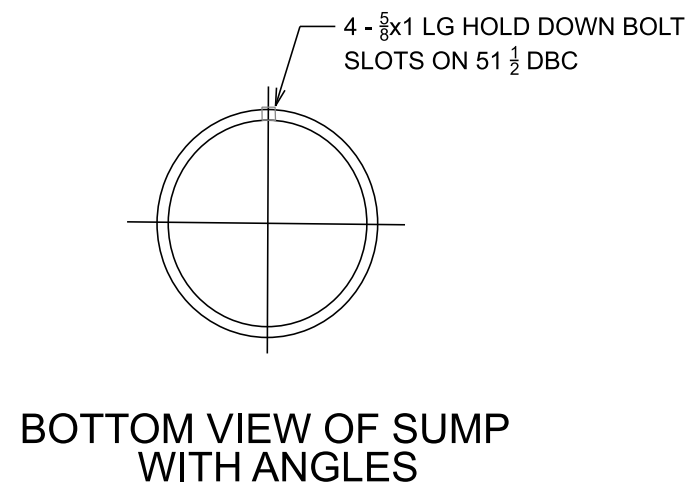
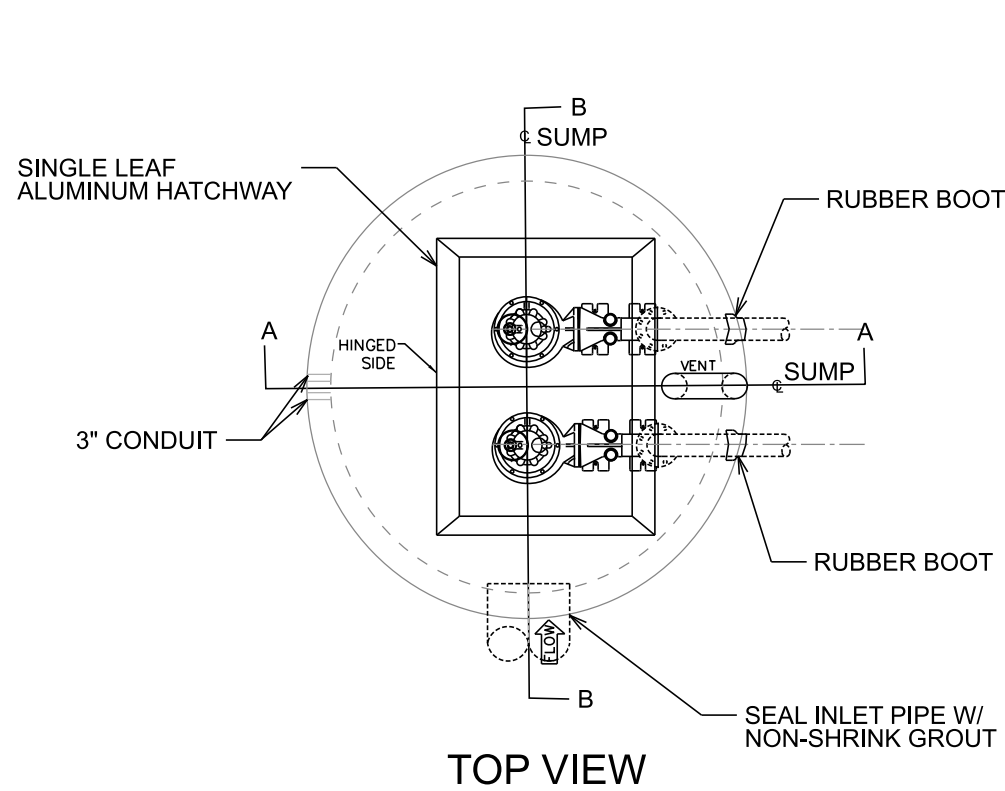
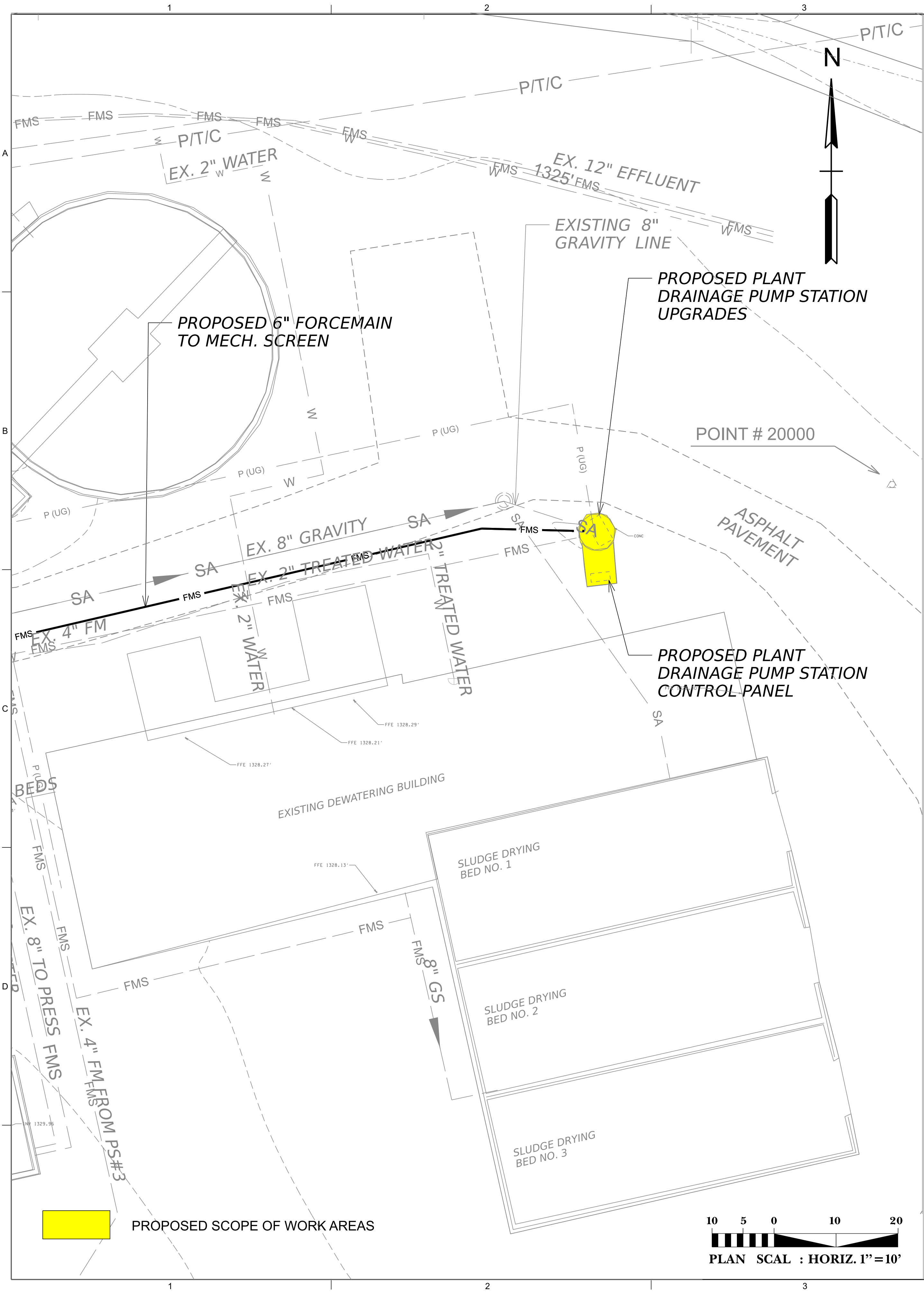
FINAL PLANS

DRAWING TITLE:

DEMO PLANT DRAINAGE PUMP STATION

DRAWING NUMBER:

M4.1



FRONT VIEW

SIDE VIEW

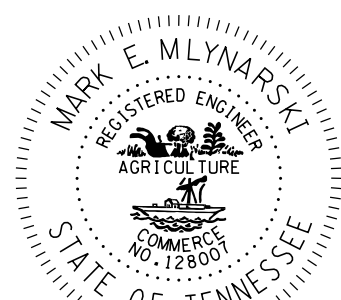
SUPERNATANT PUMP STATION
NOT TO SCALE

PROPOSED CAPACITY:
550 GPM @ 50' TH
3 PHASE 460 VOLTS



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PLAN SET:

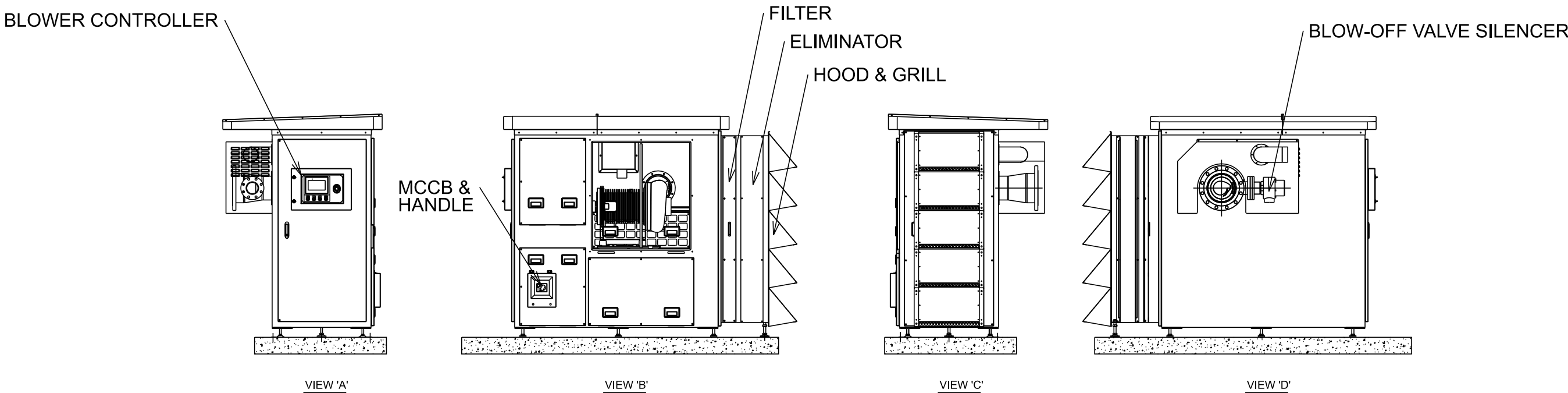
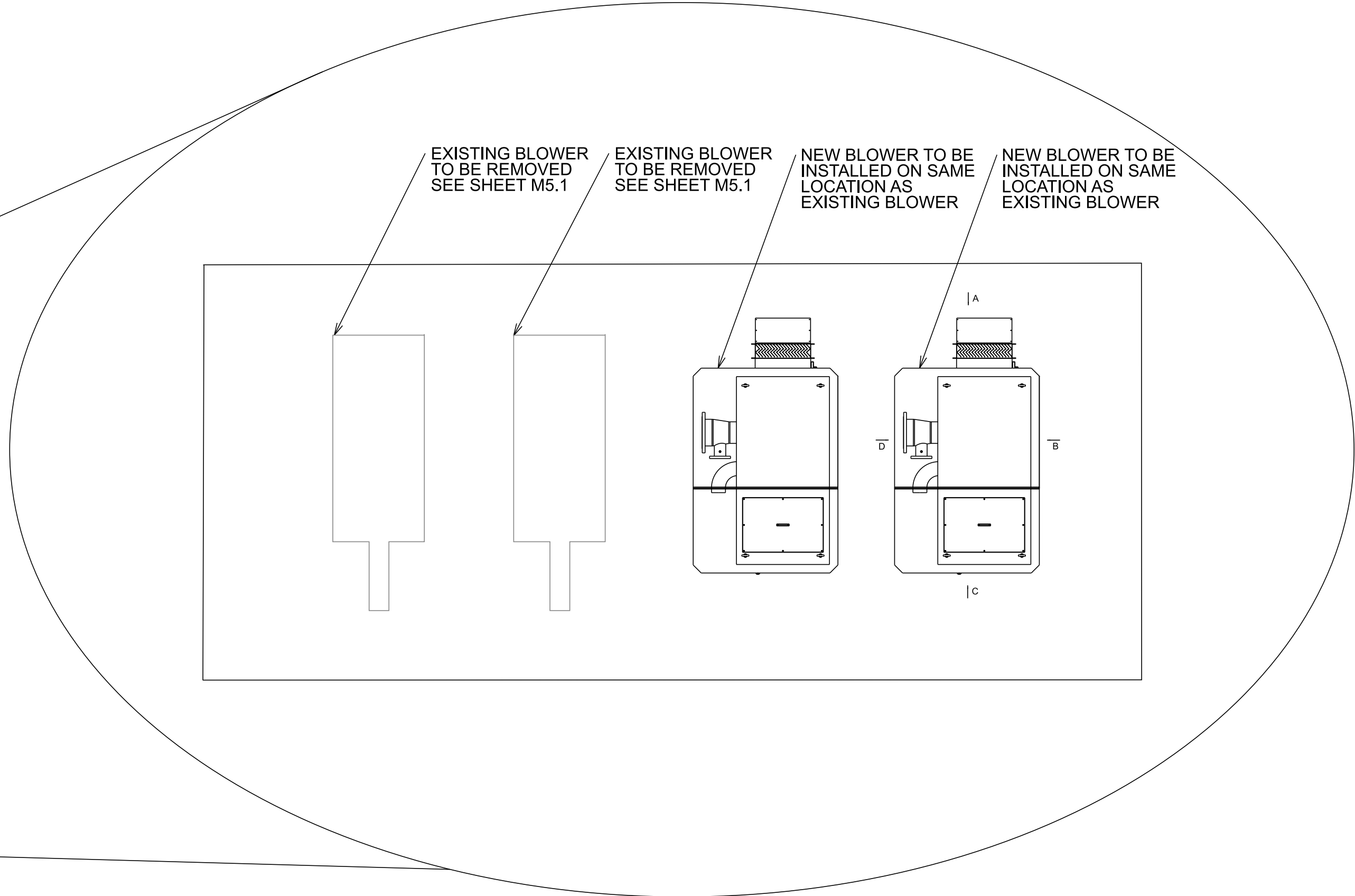
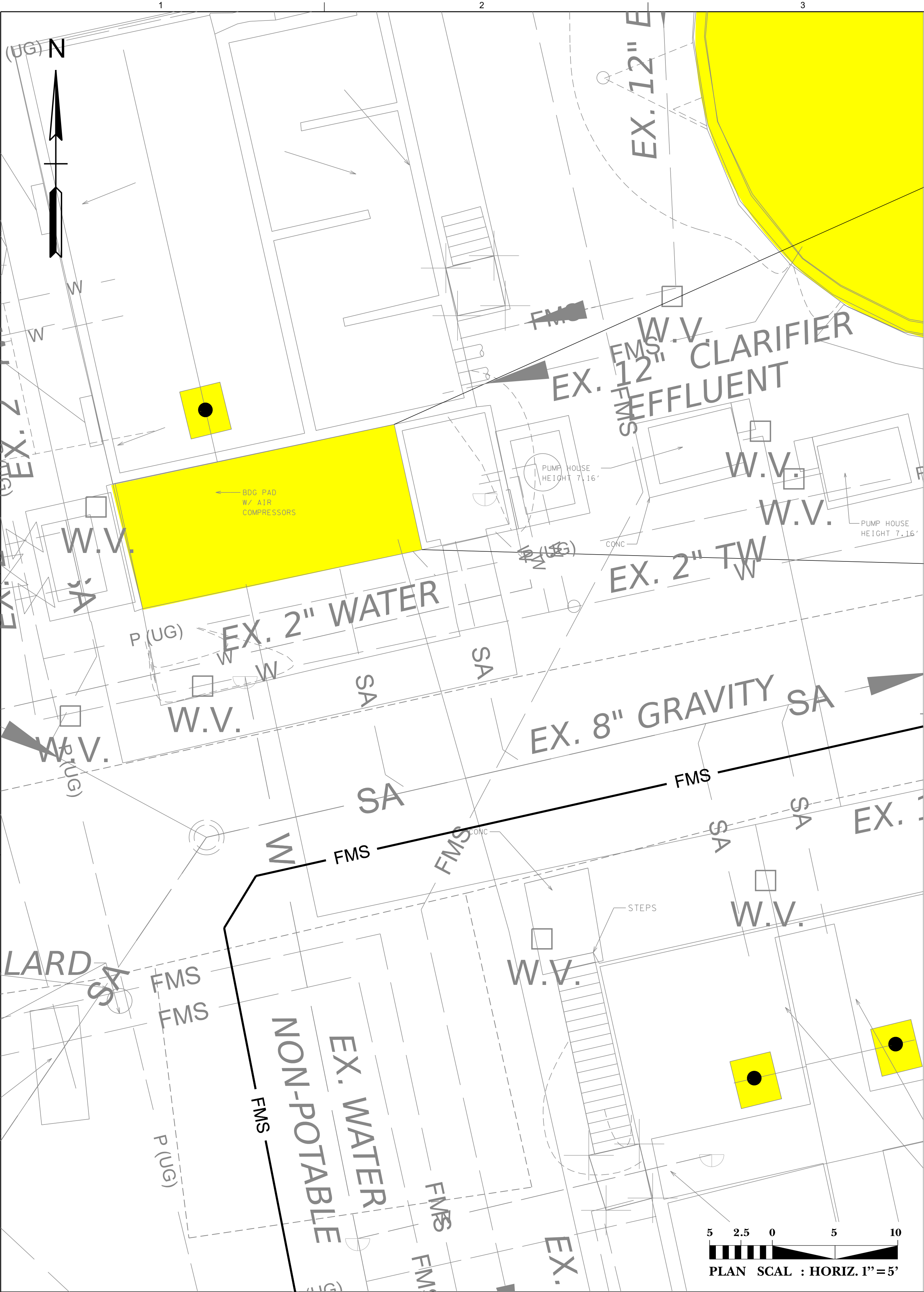
FINAL PLANS

DRAWING TITLE:

PROPOSED PLANT DRAINAGE PUMP STATION

DRAWING NUMBER:

M4.2



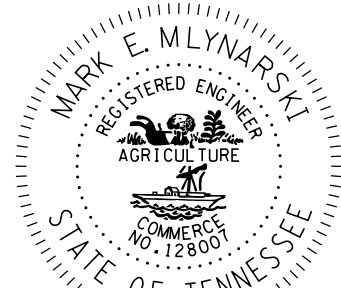
- CONSTRUCTION SEQUENCE FOR BLOWER REPLACEMENT
- NEW BLOWER SPECIFICATIONS:
- TWO (2) NEW POSITIVE DISPLACEMENT BLOWERS, EACH RATED FOR A MINIMUM OF 2400 SCFM AT THE REQUIRED OPERATING PRESSURE. BLOWERS SHALL BE INSTALLED IN THE EXISTING BLOWER BUILDING AND SHALL BE COMPLETE WITH INTEGRATED MOTORS, VFDs (IF REQUIRED), CONTROL PANELS, AND ALL ASSOCIATED ELECTRICAL AND CONTROL CONNECTIONS AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- PRE-CONSTRUCTION PREPARATION
- a. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER TO MAINTAIN UNINTERRUPTED PLANT OPERATIONS.
- b. SUBMIT BLOWER SHOP DRAWINGS, ELECTRICAL SUBMITTALS, AND TESTING PLAN FOR APPROVAL.
- c. VERIFY EXISTING CONDITIONS, UTILITIES, AND SPACE CONSTRAINTS WITHIN THE BLOWER BUILDING.
- DEMOLITION AND SITE READINESS
- a. ISOLATE AND DE-ENERGIZE ONE EXISTING BLOWER (AS DIRECTED BY THE OWNER).
- b. REMOVE EXISTING BLOWER, ASSOCIATED WIRING, AND EQUIPMENT IN THE DESIGNATED FOOTPRINT OF THE NEW BLOWER.
- c. PREPARE FOUNDATION OR HOUSEKEEPING PAD, IF REQUIRED, FOR NEW BLOWER INSTALLATION.
- BLOWER INSTALLATION – PHASE 1
- a. INSTALL FIRST NEW BLOWER IN THE CLEARED SPACE WITHIN THE EXISTING BUILDING.
- b. COMPLETE ELECTRICAL AND CONTROL WIRING TO THE NEW UNIT.
- c. PERFORM STARTUP, TESTING, AND VERIFICATION IN ACCORDANCE WITH THE APPROVED TESTING PLAN.
- d. UPON SUCCESSFUL TESTING AND ACCEPTANCE BY THE OWNER, PLACE THE NEW BLOWER INTO STANDBY OPERATION.
- BLOWER INSTALLATION – PHASE 2
- a. DE-ENERGIZE AND REMOVE SECOND EXISTING BLOWER AS DIRECTED.
- b. REPEAT INSTALLATION STEPS FOR THE SECOND NEW BLOWER.
- c. PERFORM STARTUP, TESTING, AND VERIFICATION.
- d. CONFIRM BOTH NEW BLOWERS ARE FULLY FUNCTIONAL AND MEET PERFORMANCE SPECIFICATIONS.
- COMMISSIONING AND CLOSEOUT
- a. PROVIDE TRAINING FOR OWNER STAFF, AS SPECIFIED.
- b. SUBMIT O&M MANUALS, TEST RESULTS, AND WARRANTY DOCUMENTS.
- c. UPON FINAL ACCEPTANCE, REMOVE REMAINING TWO OLD BLOWERS (IF DIRECTED BY OWNER).
- GENERAL REQUIREMENTS
- a. AT ALL TIMES, MAINTAIN MINIMUM REQUIRED AERATION CAPACITY USING EXISTING BLOWERS.
- b. CONTRACTOR SHALL PROVIDE TEMPORARY CONTROLS OR ELECTRICAL MODIFICATIONS AS NEEDED TO SUPPORT PHASED WORK.
- c. ALL WORK SHALL COMPLY WITH LOCAL CODES, PROJECT SPECIFICATIONS, AND APPLICABLE SAFETY STANDARDS.

 PROPOSED SCOPE OF WORK AREAS



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REVISIONS

NO.	DATE	DESCRIPTION

PROJECT:

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PROJECT LOCATION:

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116 SEMINOLE DR.
MT. CARMEL, TN 37645

PROJECT NUMBER:

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DATE:

MAY 2025

SCALE:

N.T.S.

PLAN SET:

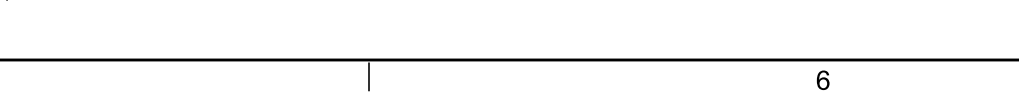
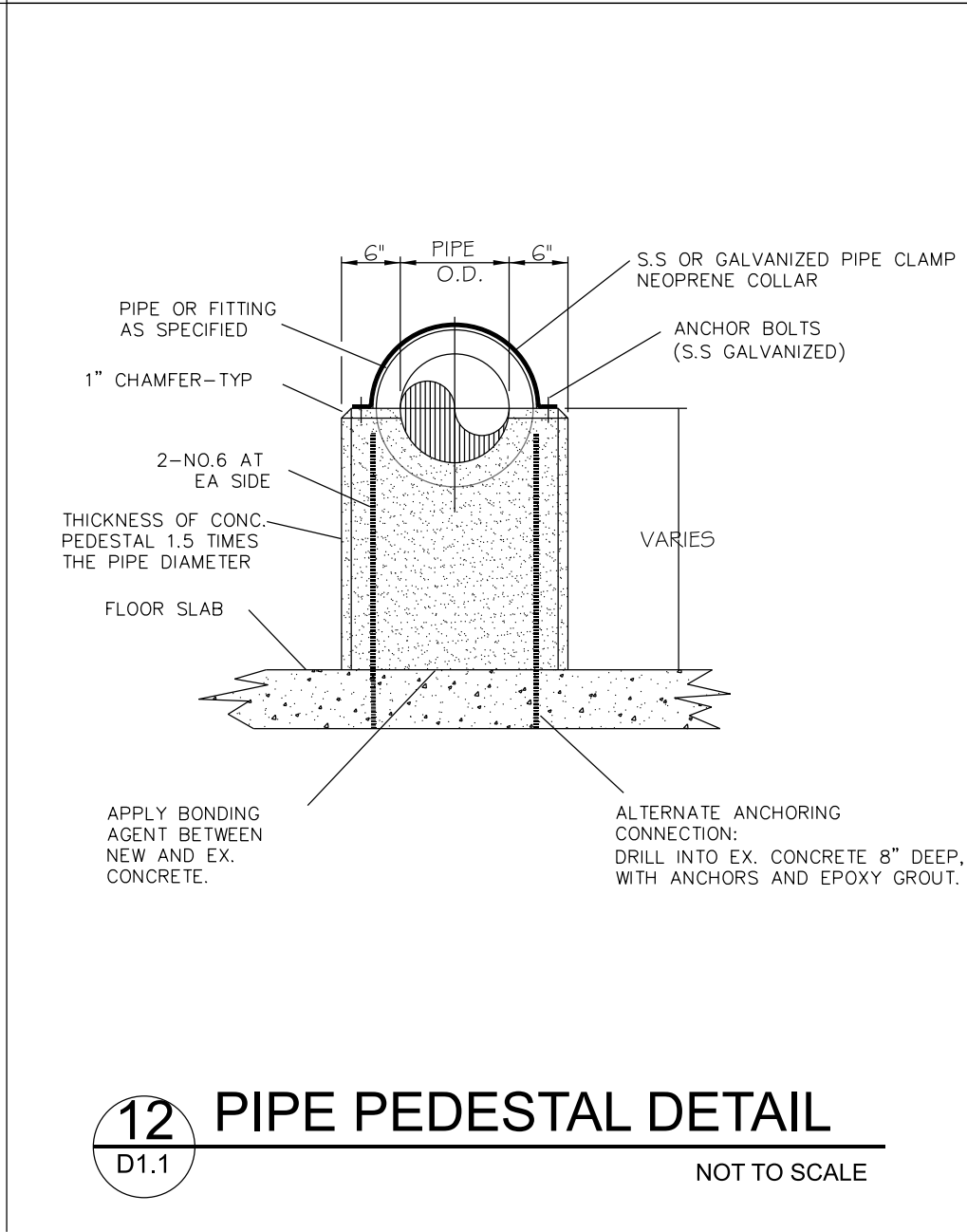
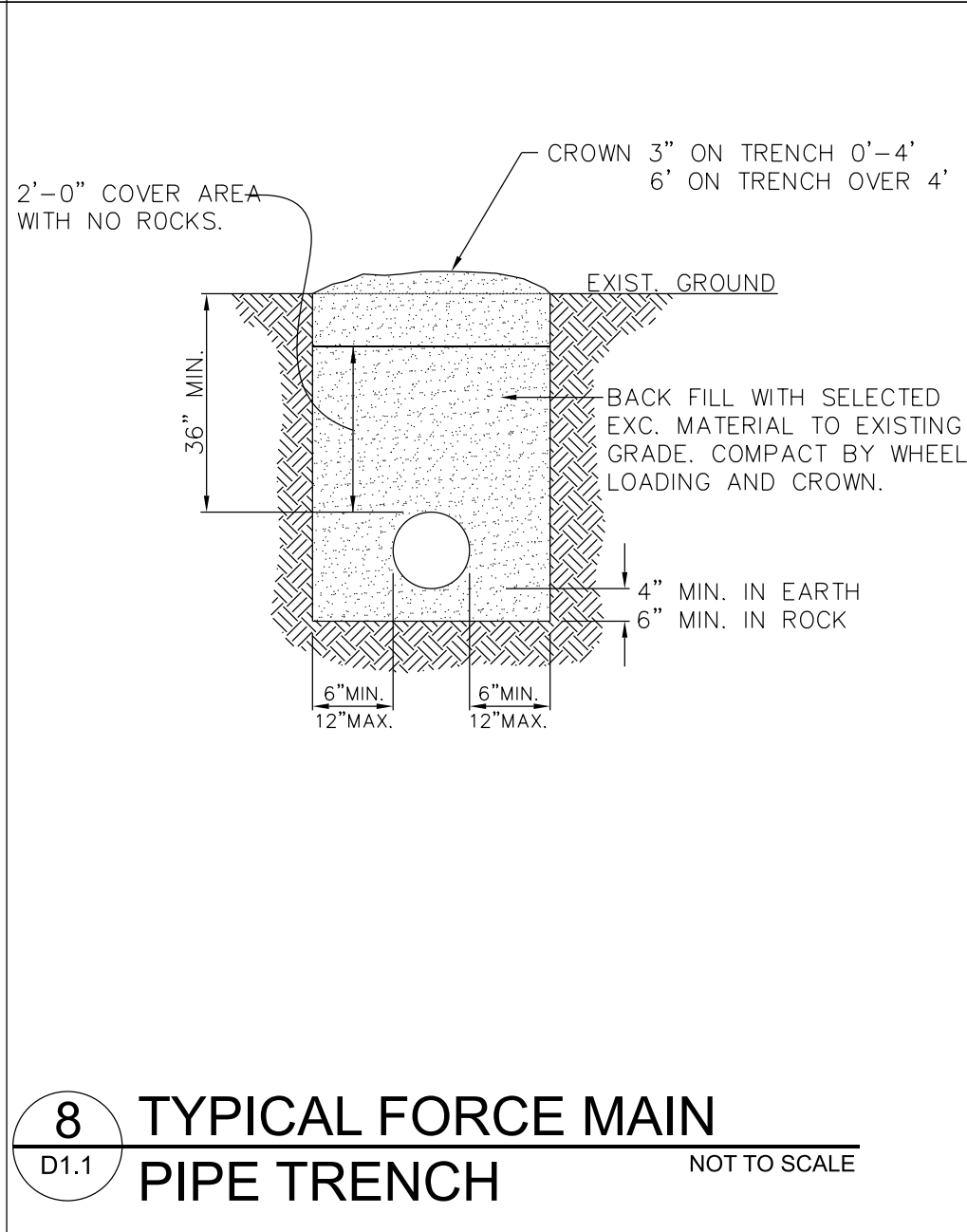
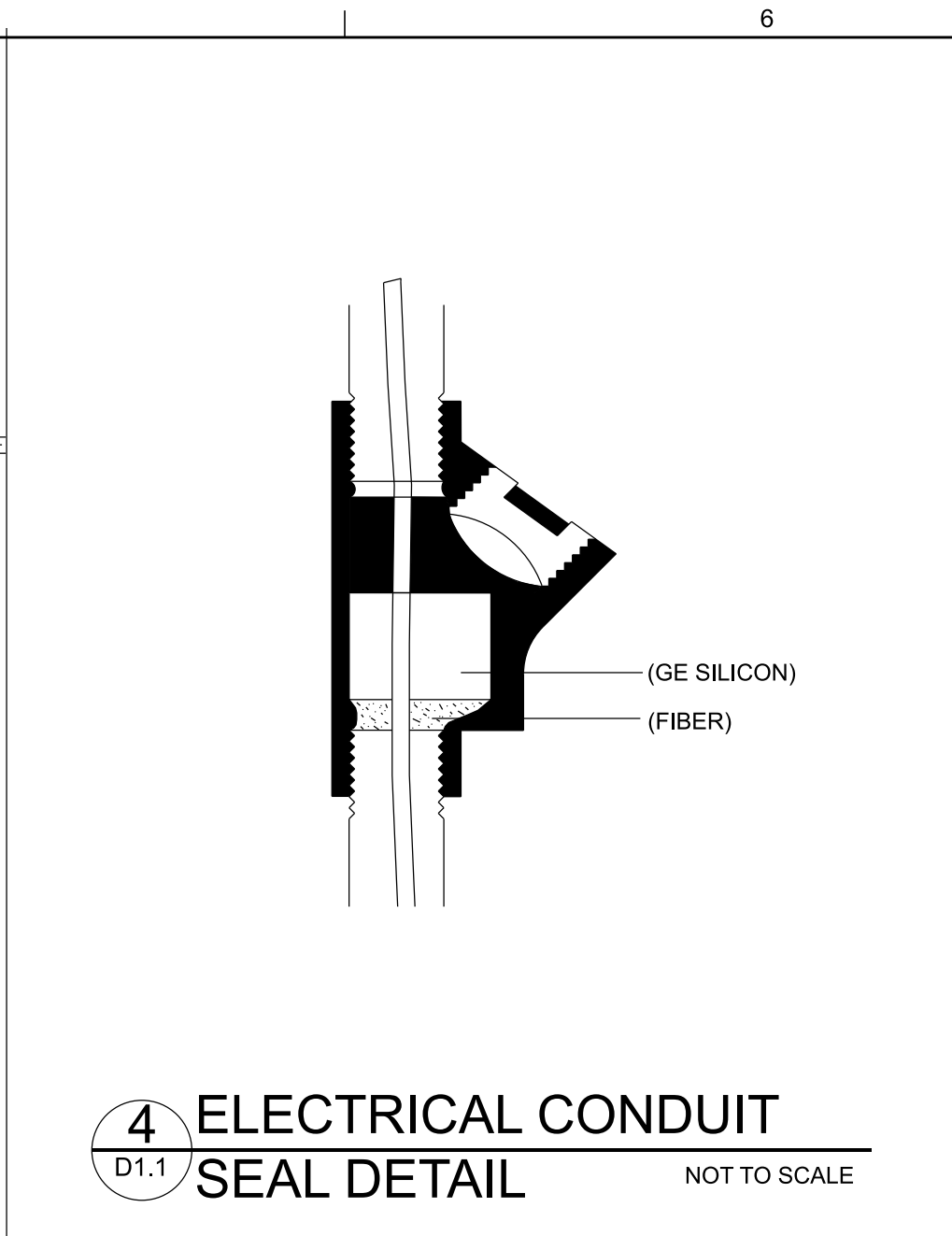
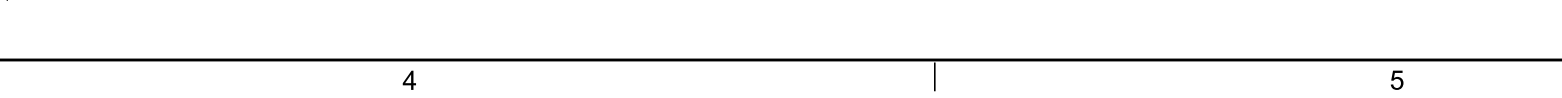
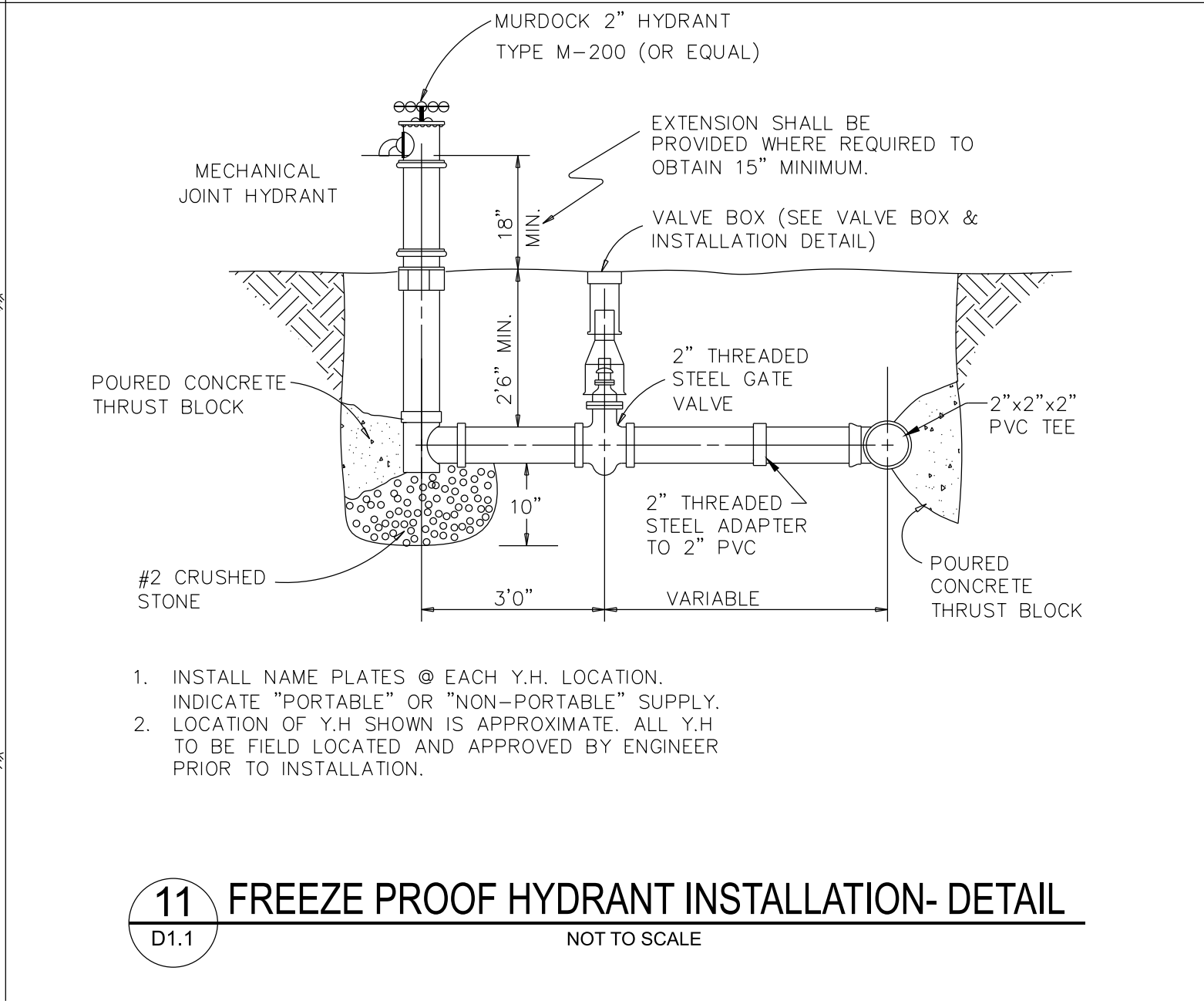
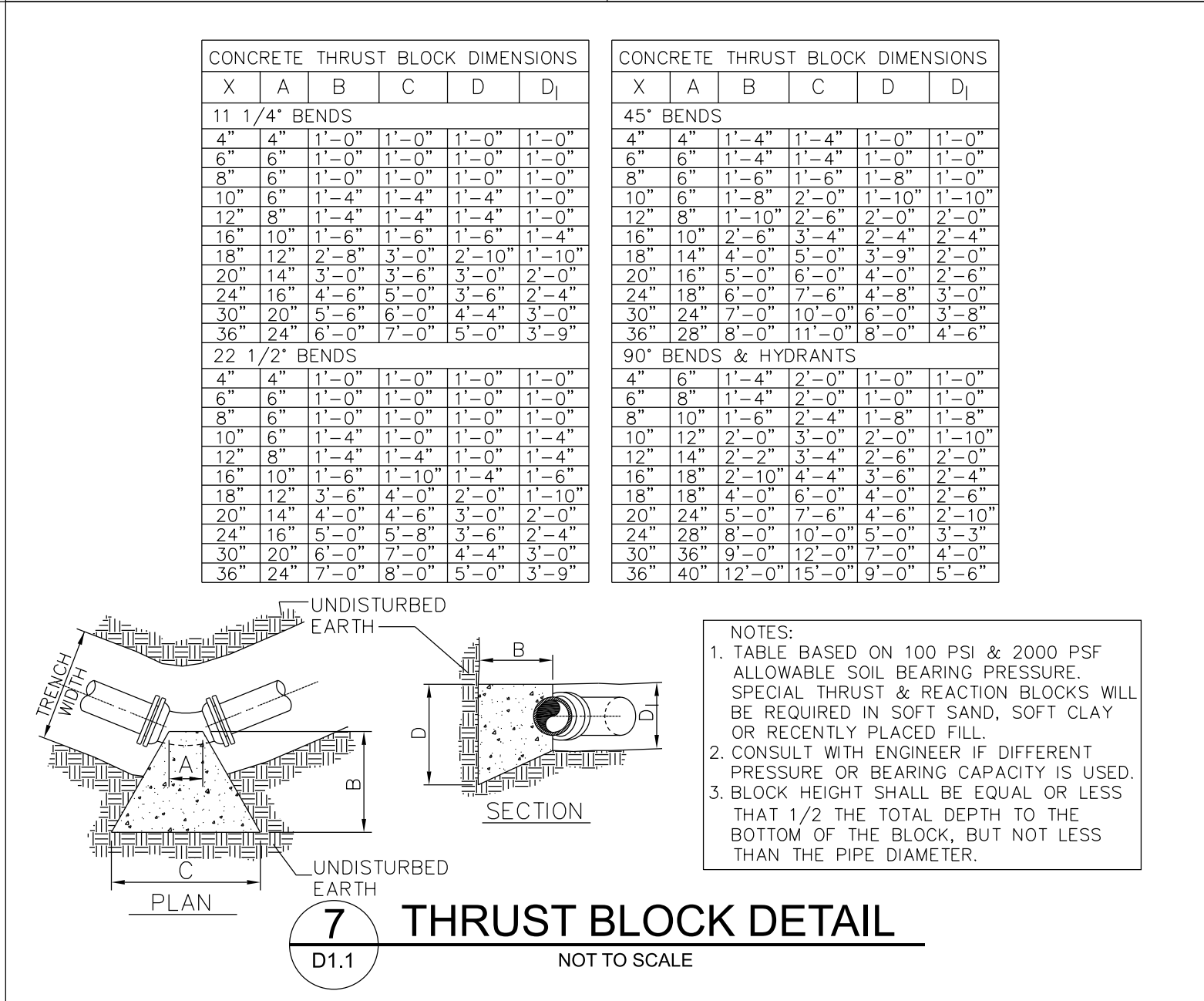
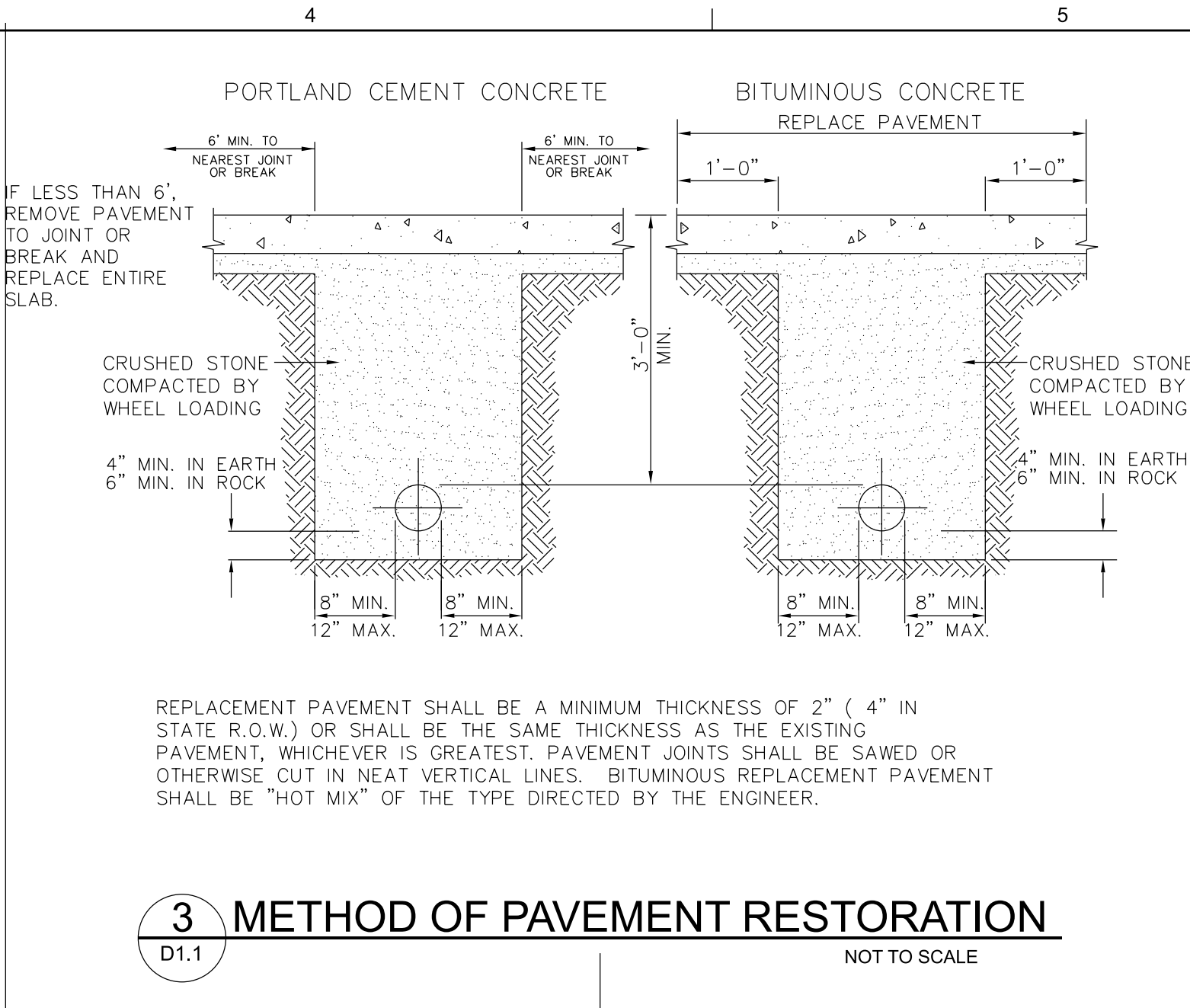
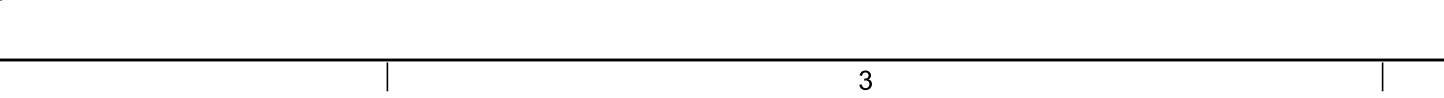
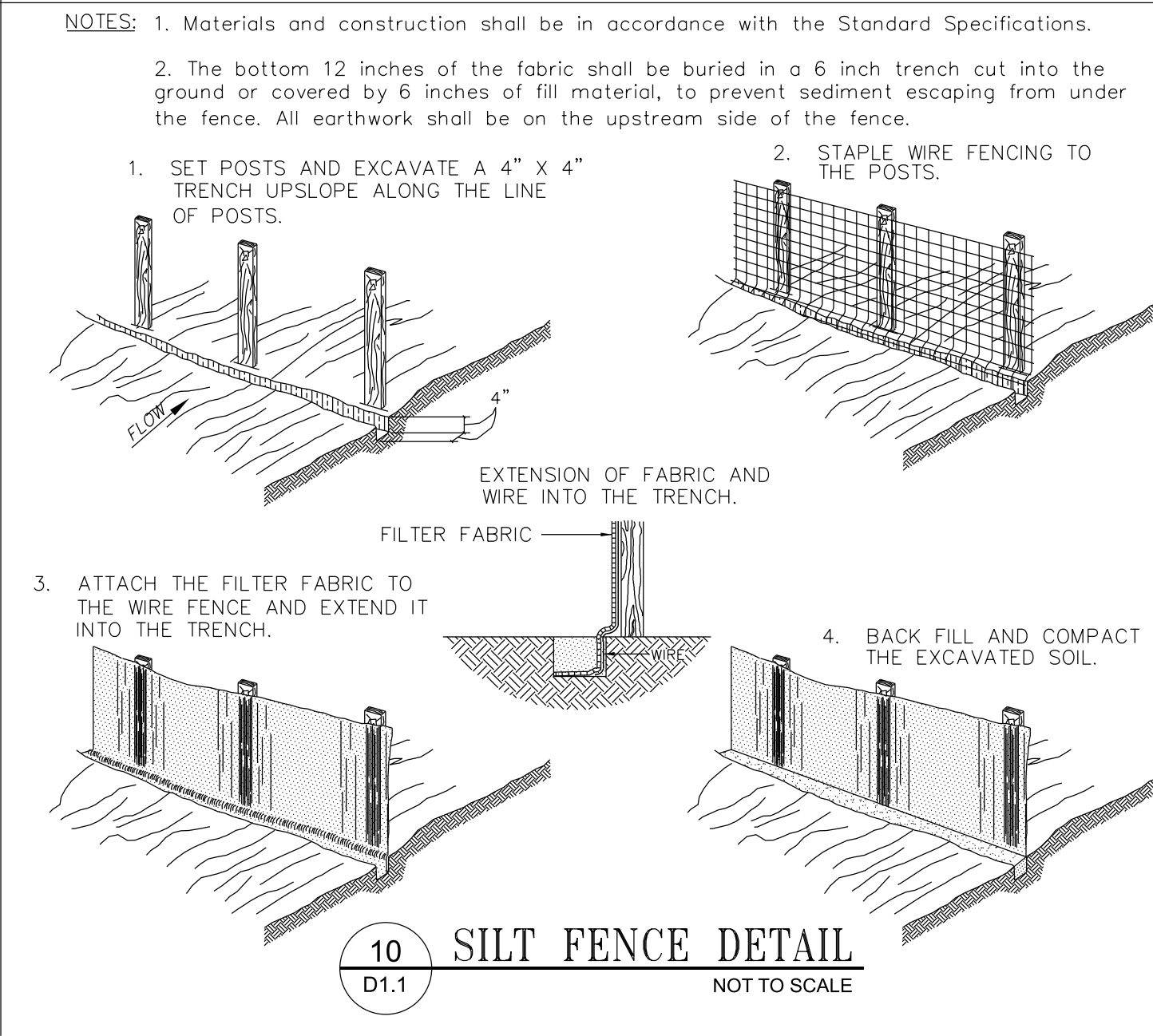
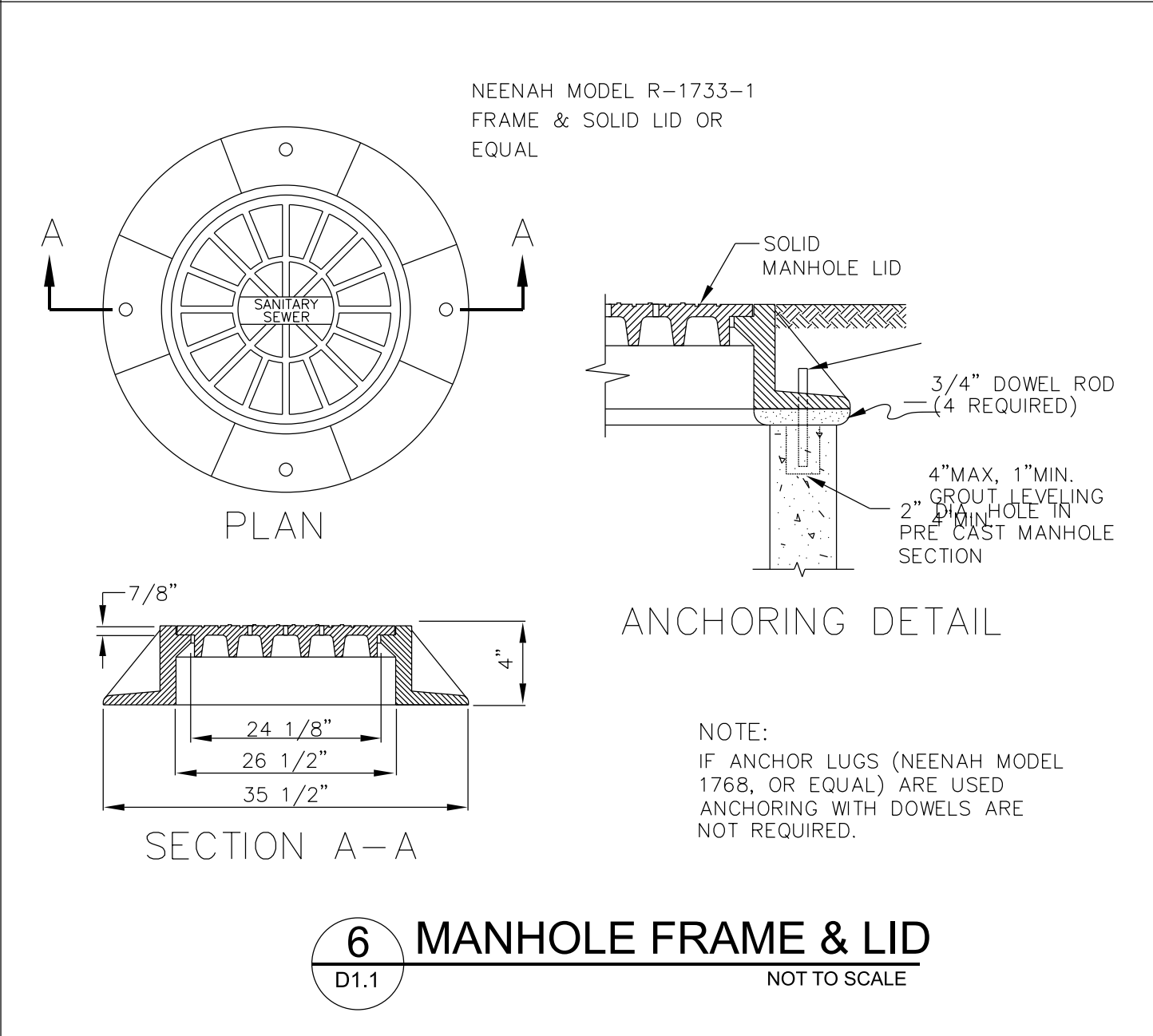
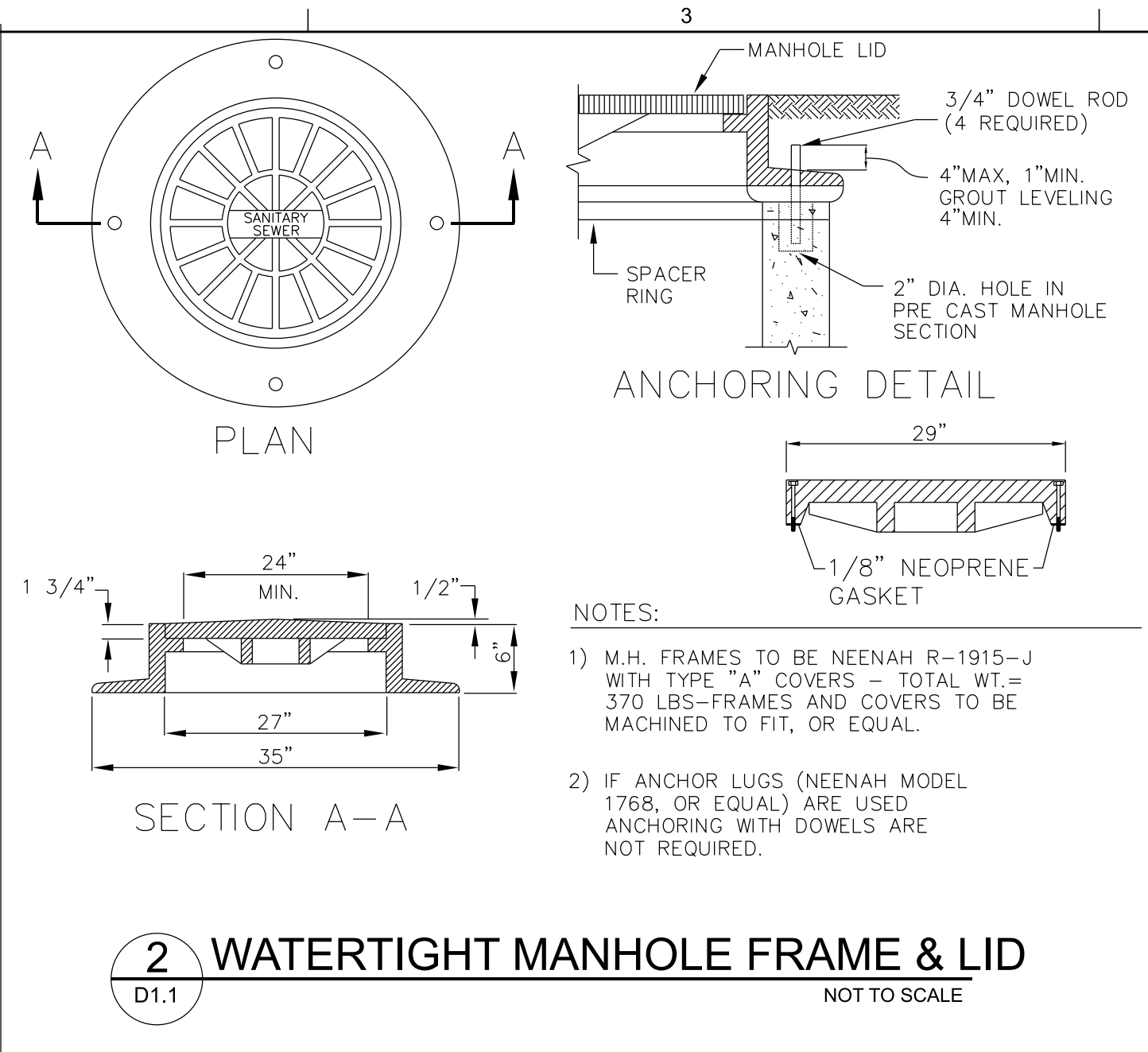
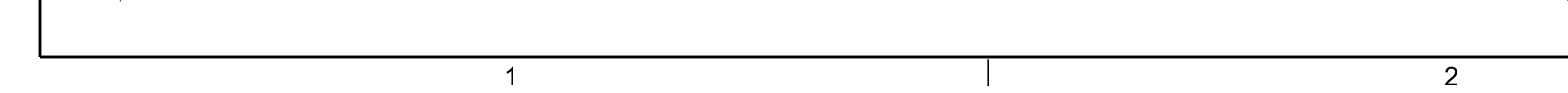
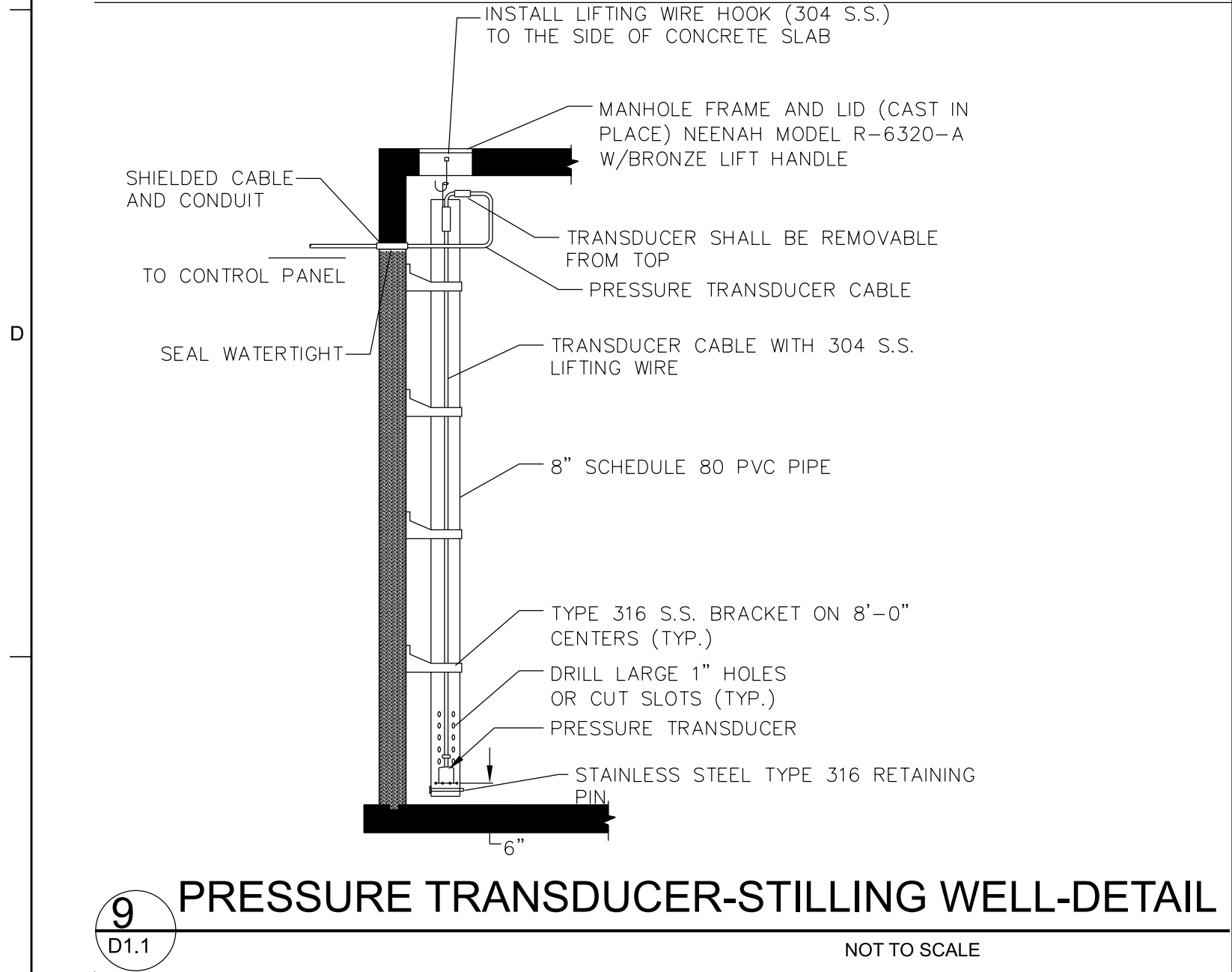
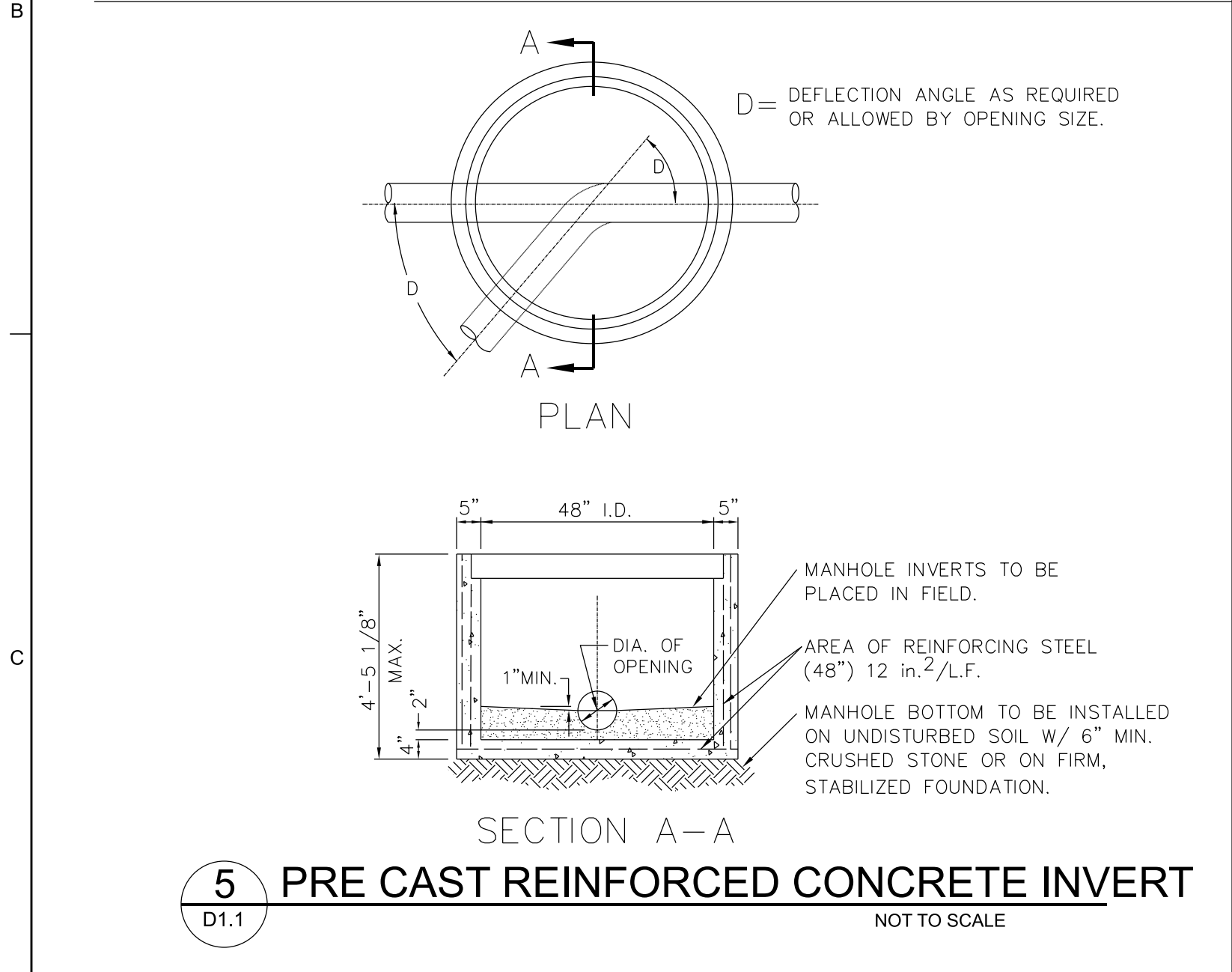
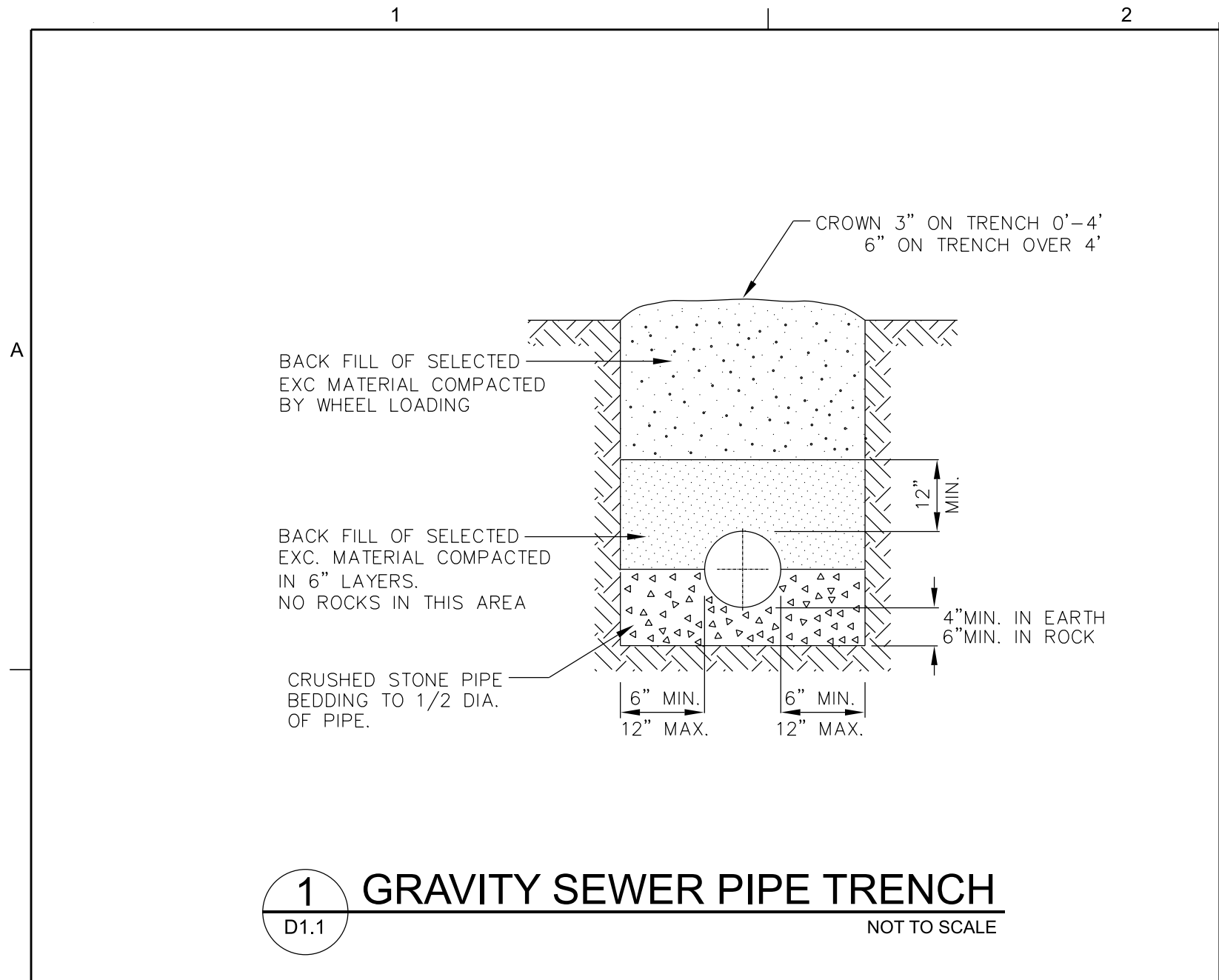
FINAL PLANS

DRAWING TITLE:

PROPOSED BLOWERS PLAN & DETAILS

DRAWING NUMBER:

M5.2



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PROJECT NUMBER:

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DATE:

MAY 2025

SCALE:

NTS

PLAN SET:

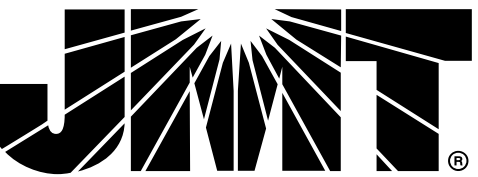
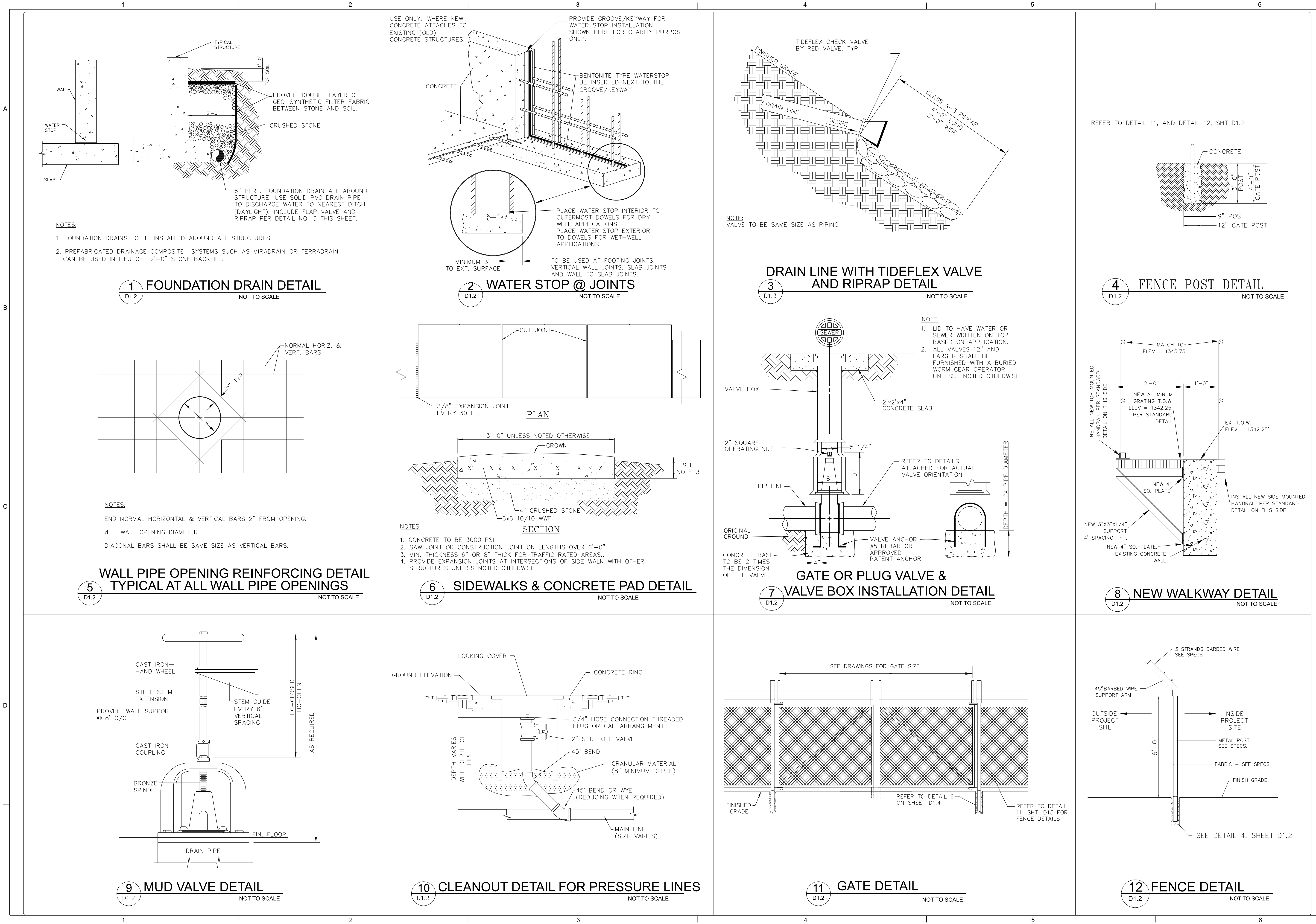
FINAL PLANS

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CONSTRUCTION DETAILS

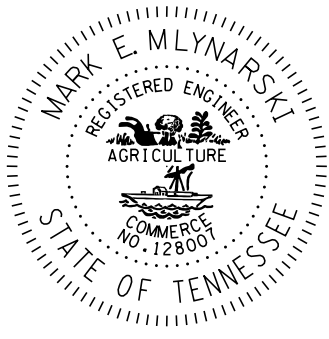
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PROJECT NUMBER:
22-V055016-002

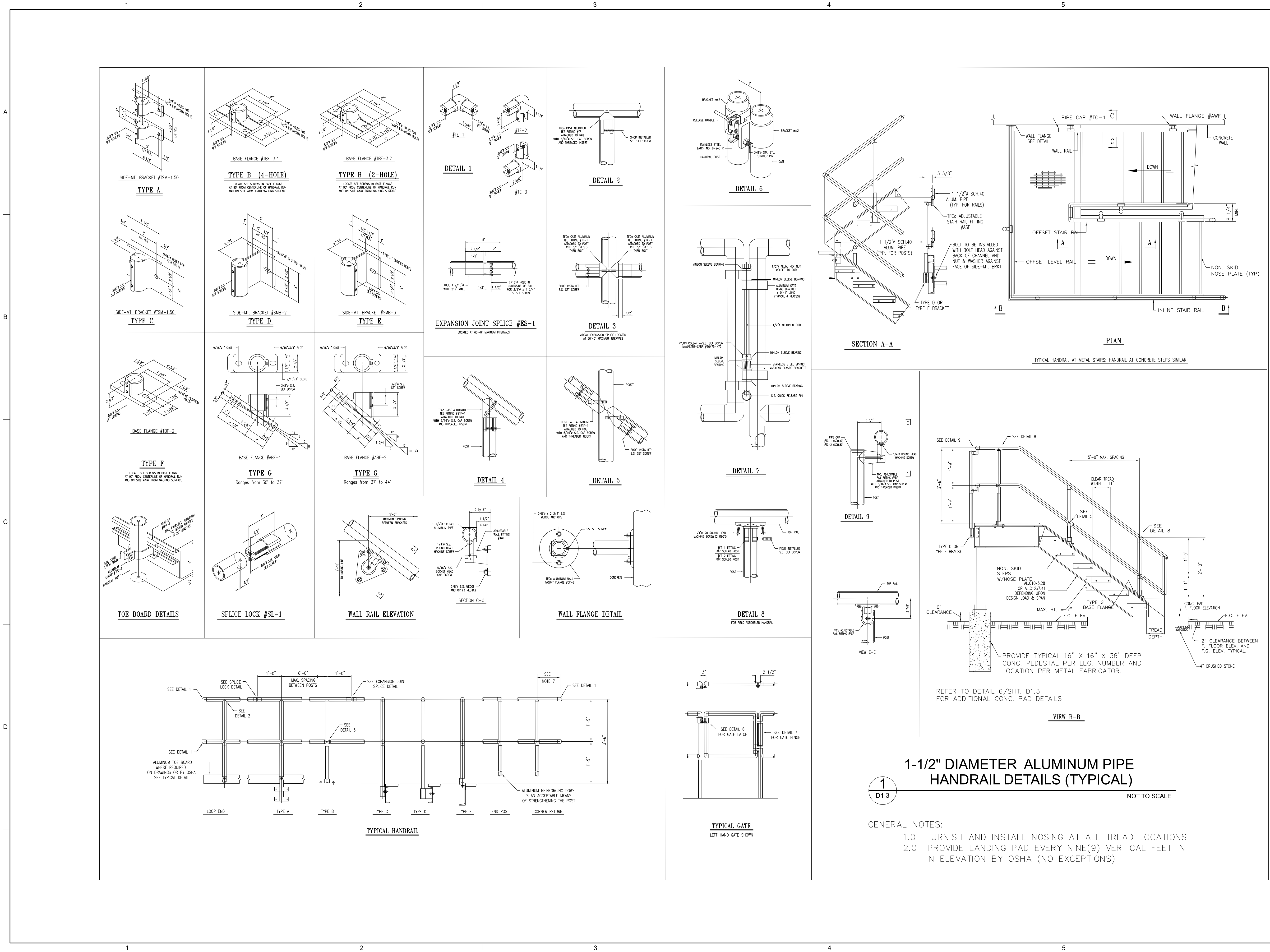
DATE: **MAY 2025** SCALE: **NTS**

PLAN SET:
FINAL PLANS

DRAWING TITLE:
CONSTRUCTION DETAILS

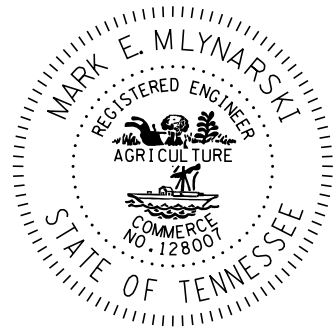
DRAWING NUMBER:

D-1.2



1909 AILOR AVENUE | KNOXVILLE, TN 37921
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SEAL:



PREPARED FOR:

TOWN OF MOUNT CARMEL
100 MAIN ST E
MT. CARMEL, TENNESSEE 37645
PHONE: (423) 357-7311

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT:

WASTE WATER TREATMENT PLANT IMPROVEMENTS PHASE 1B

PROJECT LOCATION:
MT. CARMEL WWTP
116 SEMINOLE DR.
MT. CARMEL, TN 37645
PROJECT NUMBER:
22-V055016-002

DATE:

MAY 2025

SCALE:

NTS

PLAN SET:

FINAL PLANS

DRAWING TITLE:

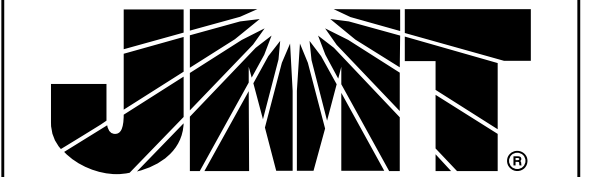
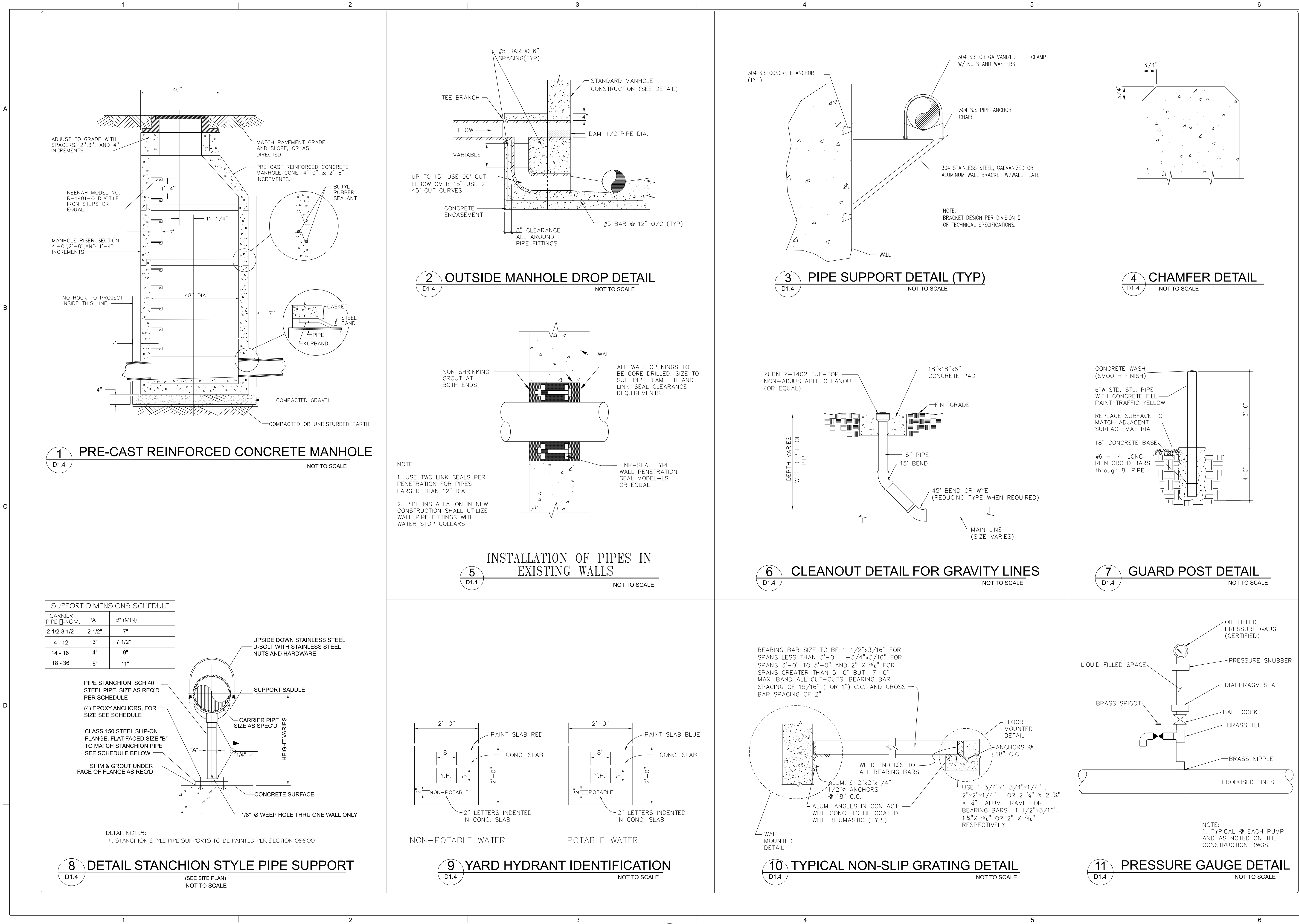
CONSTRUCTION DETAILS

DRAWING NUMBER:

D-1.3

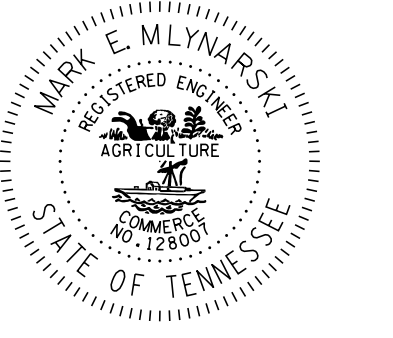
1-1/2" DIAMETER ALUMINUM PIPE HANDRAIL DETAILS (TYPICAL)
NOT TO SCALE

- GENERAL NOTES:
- FURNISH AND INSTALL NOSING AT ALL TREAD LOCATIONS
 - PROVIDE LANDING PAD EVERY NINE(9) VERTICAL FEET IN IN ELEVATION BY OSHA (NO EXCEPTIONS)



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REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT:
WASTE WATER TREATMENT PLANT IMPROVEMENTS PHASE 1B

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MT. CARMEL WWTP
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PROJECT NUMBER:
22-V055016-002

DATE: **MAY 2025** SCALE: **NTS**

PLAN SET:
FINAL PLANS

DRAWING TITLE:
CONSTRUCTION DETAILS

DRAWING NUMBER:
D-1.4