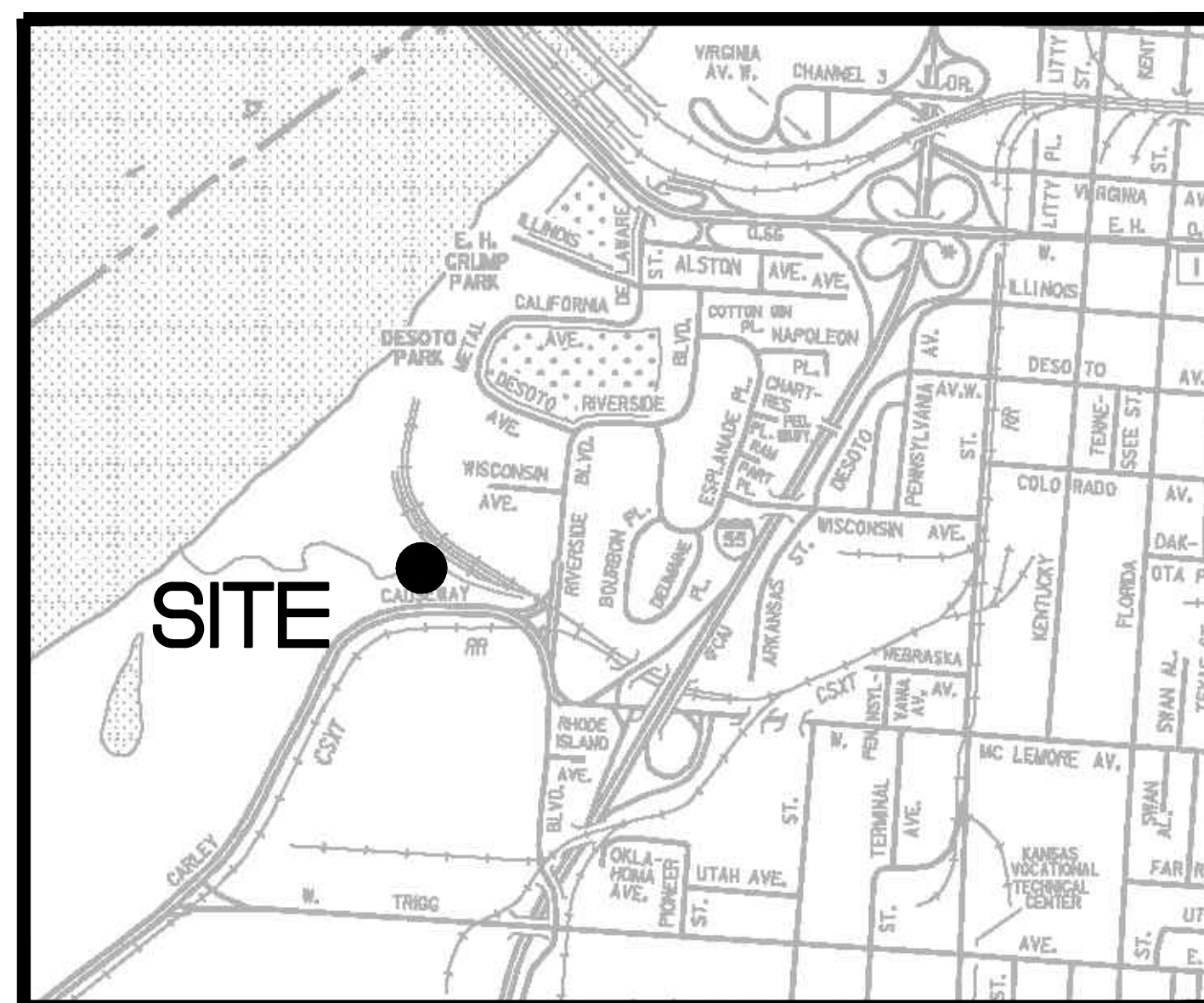


JULY, 2021
 CONSTRUCTION PLANS
 REVISED JANUARY, 2022

LIFT STATION REHAB DESIGN
 SARP10

450 JACK CARLEY CAUSEWAY

SCHEDULE OF DRAWINGS	
SH.	TITLE
1	COVER
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	PUMP STATION SITE AND FORCE MAIN ROUTING
4	SITE PLAN
5	PUMP DETAILS
6	PUMP STATION DETAILS
7	DETAILS

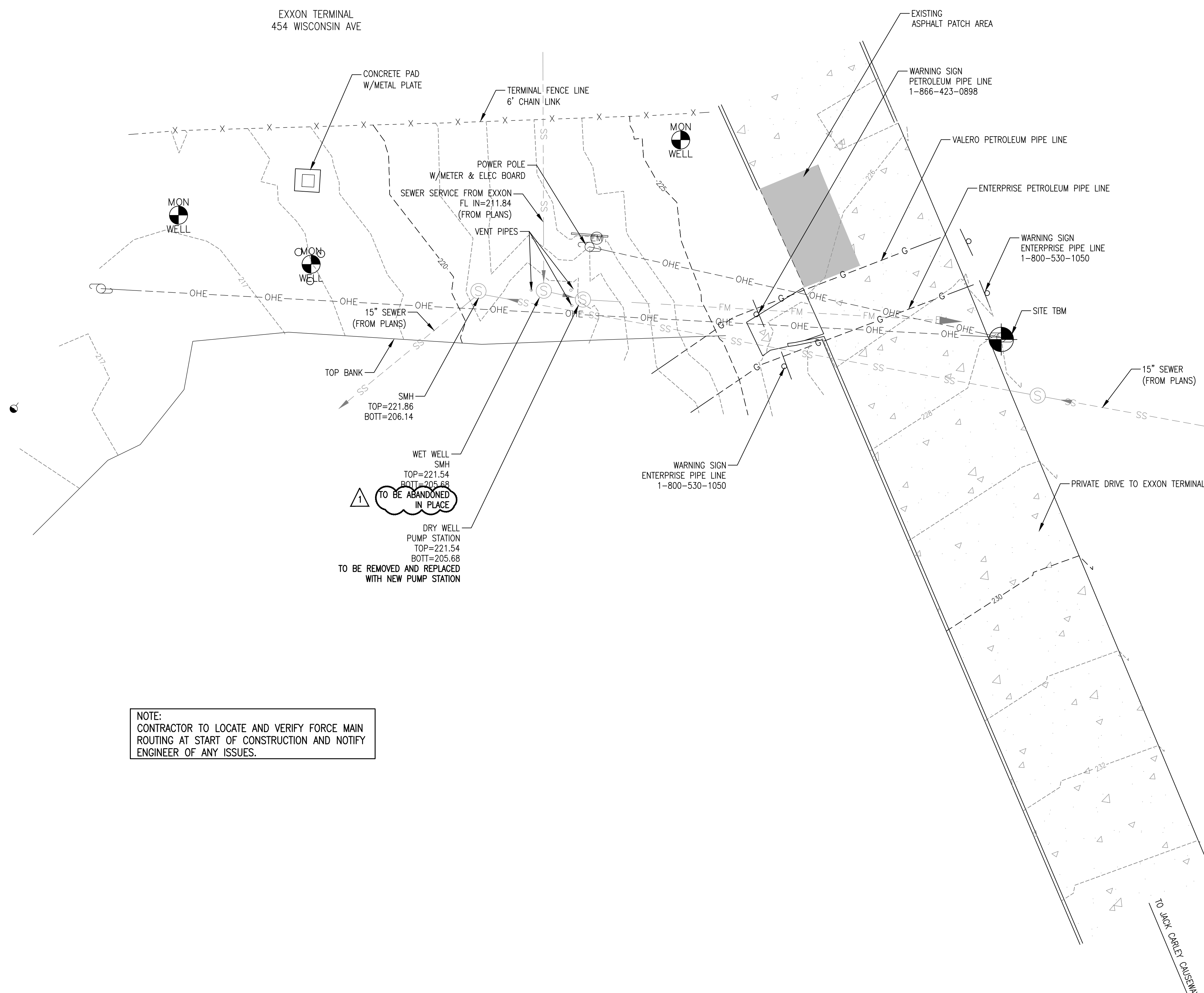
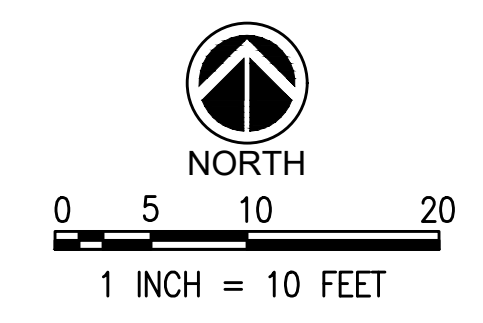


VICINITY MAP
 N.T.S.



Pickering Firm, Inc.
 Facility Design • Civil Engineering • Surveying •
 Transportation • Natural / Water Resources
 6363 Poplar Avenue, Suite 300
 Memphis, TN 38119
 901.726.0810

THE PLANS, IDEAS AND DESIGNS SHOWN ON THIS DRAWING ARE THE PROPERTY OF THE ENGINEER. DESIGNED SOLELY FOR THIS CONTRACT. THIS PLAN SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH IT WAS NOT INTENDED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.



NOTE:
CONTRACTOR TO LOCATE AND VERIFY FORCE MAIN ROUTING AT START OF CONSTRUCTION AND NOTIFY ENGINEER OF ANY ISSUES.

PICKERING FIRM INCORPORATED UNDERGROUND UTILITIES DISCLAIMER:
INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE ENGINEER IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

FLOOD NOTE:
THIS IS TO CERTIFY THAT BY GRAPHIC DETERMINATION THE ABOVE PLATTED PROPERTY IS IN A SPECIAL FLOOD HAZARD AREA (SFHA) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD. THE SUBJECT PROPERTY IS SHOWN IN A "ZONE AE". BASE FLOOD ELEVATIONS DETERMINED (EXACT TO BE DETERMINED BY AN ENGINEER) ACCORDING TO THE FEMA/FIRM MAP NUMBER 47157C0405F WITH AN EFFECTIVE DATE OF 9/28/2007.
NEAREST BASE FLOOD ELEVATION = 225.

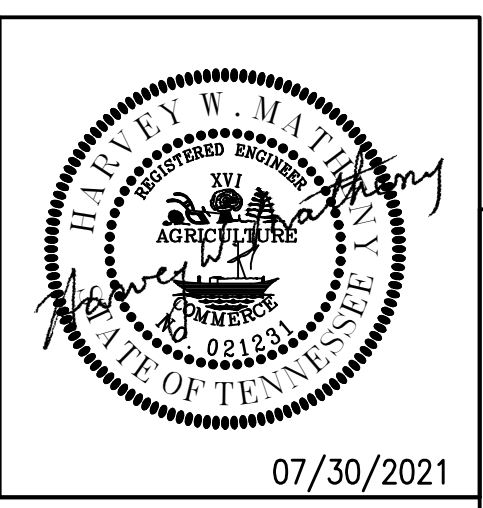
PROJECT BENCHMARKS
CITY BENCHMARK:
#1902 IS LOCATED AT RIVERSIDE DRIVE AND METAL MUSEUM DRIVE
CITY MONUMENT IS LOCATED ON THE EAST SIDE OF RIVERSIDE DRIVE AT THE BACK OF CURB, 9' NORTH OF CENTERLINE PROJECTION OF METAL MUSEUM DRIVE, AT THE NORTH SIDE OF A #12 INLET, 9' NORTH OF A STREET SIGN.
ELEVATION: 273.14
SITE TBM #1
NAIL SET IN WEST SIDE OF POWER POLE AS SHOWN.
ELEVATION: 228.11
NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

LEGEND			
	EXISTING FIRE HYDRANT		EXISTING UNDERGROUND ELECTRIC
	EXISTING POWER POLE		EXISTING OVERHEAD ELECTRIC
	EXISTING GUY POLE		EXISTING UNDERGROUND FIBER OPTIC
	EXISTING MAILBOX		EXISTING UNDERGROUND GAS LINE
	EXISTING SIGN		EXISTING WATER LINE
	EXISTING GAS VALVE		EXISTING DRAIN LINE
	EXISTING WATER VALVE		EXISTING TELEPHONE LINE
	EXISTING WATER METER		EXISTING UNDERGROUND OIL LINE
	EXISTING ROW MARKER		FORCE MAIN
	EXISTING ELECTRIC TRANSFORMER		SANITARY SEWER
	EXISTING TELEPHONE PEDESTAL		SEWER MANHOLE

- DEMOLITION NOTES:**
1. THE CONTRACTOR SHALL REMOVE ALL UNDERGROUND UTILITIES AND ANY OTHER ITEMS IN ACCORDANCE WITH THE TDEC AND THE TECHNICAL SPECIFICATIONS. THE CONTRACTOR SHALL STRICTLY FOLLOW ALL CITY, STATE, AND FEDERAL GUIDELINES FOR REMOVAL AND DISPOSAL OF THESE FACILITIES.
 2. ALL BUILDING, CONCRETE, ASPHALT PAVEMENT, AND GRANULAR SUBBASE SHALL BE REMOVED FULL DEPTH PER THE DIRECTION OF THE GEOTECHNICAL ENGINEER. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE AND FEDERAL REGULATIONS.
 3. CONTRACTOR SHALL REMOVE & REPAIR PAVEMENT AS REQUIRED FOR UTILITY CONSTRUCTION INCLUDING BUT NOT LIMITED TO: IRRIGATION SLEEVES, SITE LIGHTING CONDUITS, WATER LINES, SANITARY SEWER LINES, STORM DRAINAGE LINES, ETC. CONTRACTOR HAS OPTION TO BORE CONDUITS.
 4. PRIOR TO COMMENCING ANY UTILITY WORK, CONTRACTOR SHALL NOTIFY ANY SURROUNDING PROPERTY OWNERS WHO MAY EXPERIENCE A DISRUPTION IN SERVICE.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MODIFYING ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE PARTS OF THAT EXISTING SYSTEM THAT ARE REMOVED, ABANDONED OR DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO MODIFY ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE NEW AREAS OF LANDSCAPING. ANY IRRIGATION SLEEVES SHALL BE INSTALLED PRIOR TO PAVING AND BACKFILLED PROPERLY BY THE SITE CONTRACTOR.
 6. THE CONTRACTOR SHALL ENSURE ADEQUATE ACCESS IS PROVIDED DURING ALL PHASES OF CONSTRUCTION. COORDINATE WITH THE PROJECT MANAGER.
 7. WHEN REMOVING UTILITIES, CONTRACTOR SHALL GROUT AND SEAL ANY STRUCTURES THAT ARE TO REMAIN PER LOCAL REGULATIONS.
 8. UTILITIES SHOWN ARE LOCATED BY FIELD SURVEY AND RECORD DRAWINGS. ADDITIONAL UNDERGROUND UTILITIES WILL BE ENCOUNTERED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY INACTIVE STRUCTURES & ALERT THE ENGINEER OF ANY ACTIVE, UNMAPPED STRUCTURES.
 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION OF UTILITY DEMOLITION & RELOCATION.
 10. CONTRACTOR SHALL NOT INTERRUPT DRAINAGE FROM ADJACENT PROPERTIES AND PUBLIC RIGHT-OF-WAYS.

- GENERAL NOTES:**
1. AT ALL CROSSINGS OF EXISTING UTILITIES, THE CONTRACTOR SHALL FIELD LOCATE BY POST-HOLING OR OTHER APPROPRIATE METHODS, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
 2. ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
 3. ALL DISTURBED AREAS SHALL BE SEED (WITH A SEASONAL MIX) AND COVERED WITH STRAW AT THE END OF EACH WEEK (AT A MINIMUM) OR MORE FREQUENTLY, AS CONDITIONS DICTATE, IN ADDITION TO EROSION CONTROLS REFERENCED ON PLANS.
 4. ALL DISTURBED LAWN AREAS SHALL BE SODDED. MATCH EXISTING SOD TYPE.
 5. CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES, AND PUBLIC/PRIVATE INFRASTRUCTURE AND PROPERTY.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022



SHEET 1 OF 1
DIVISION OF ENGINEERING
EXISTING CONDITIONS & DEMOLITION PLAN
450 Jack Carley Causeway
MEMPHIS, TENNESSEE
SURVEY: PFI DATE: JUNE, 2020 PROJECT NO.: 24699.05
DESIGN BY: PFI DATE: AUG, 2020 BOOK: 1676
DRAWN BY: PFI DATE: AUG, 2020 SCALE: 1" = 10'
REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.



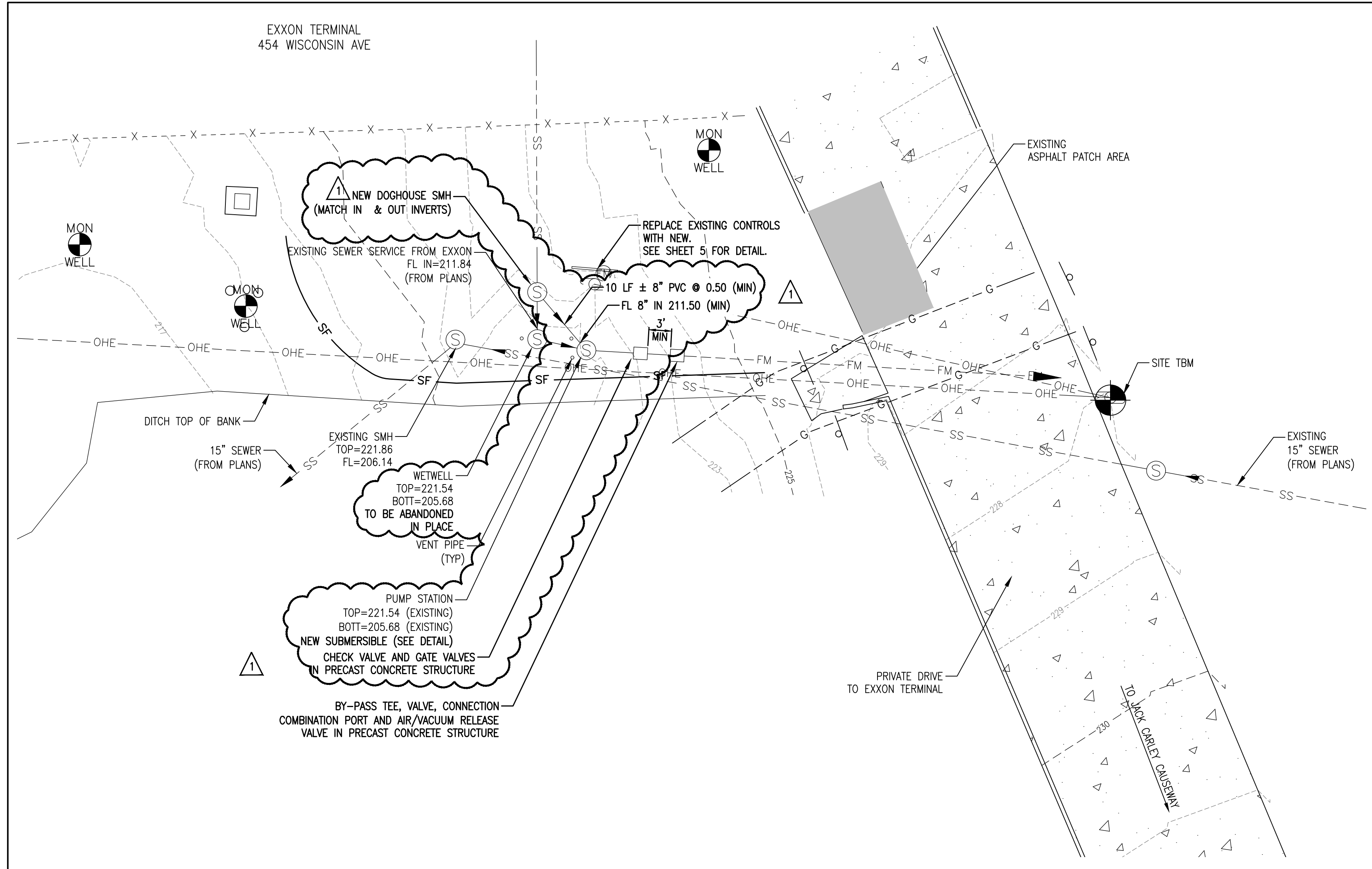
PI02

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

FOR REFERENCE ONLY

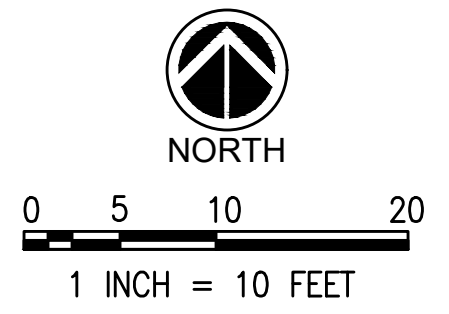
SHEET 1 OF 1
 DIVISION OF ENGINEERING
PUMP STATION SITE AND FORCE MAIN ROUTING
450 Jack Carley Causeway
 MEMPHIS, TENNESSEE
 SURVEY: PFI PROJECT NO.: 24699.05
 DESIGN BY: PFI DATE: JUNE, 2020 BOOK: 1676
 DRAWN BY: PFI DATE: AUG, 2020 SCALE: N.T.S.
 REVIEWED

LIFT STATION REHAB DESIGN
 DEVELOPER: SARP10
 ENGINEER: PICKERING FIRM, INC.

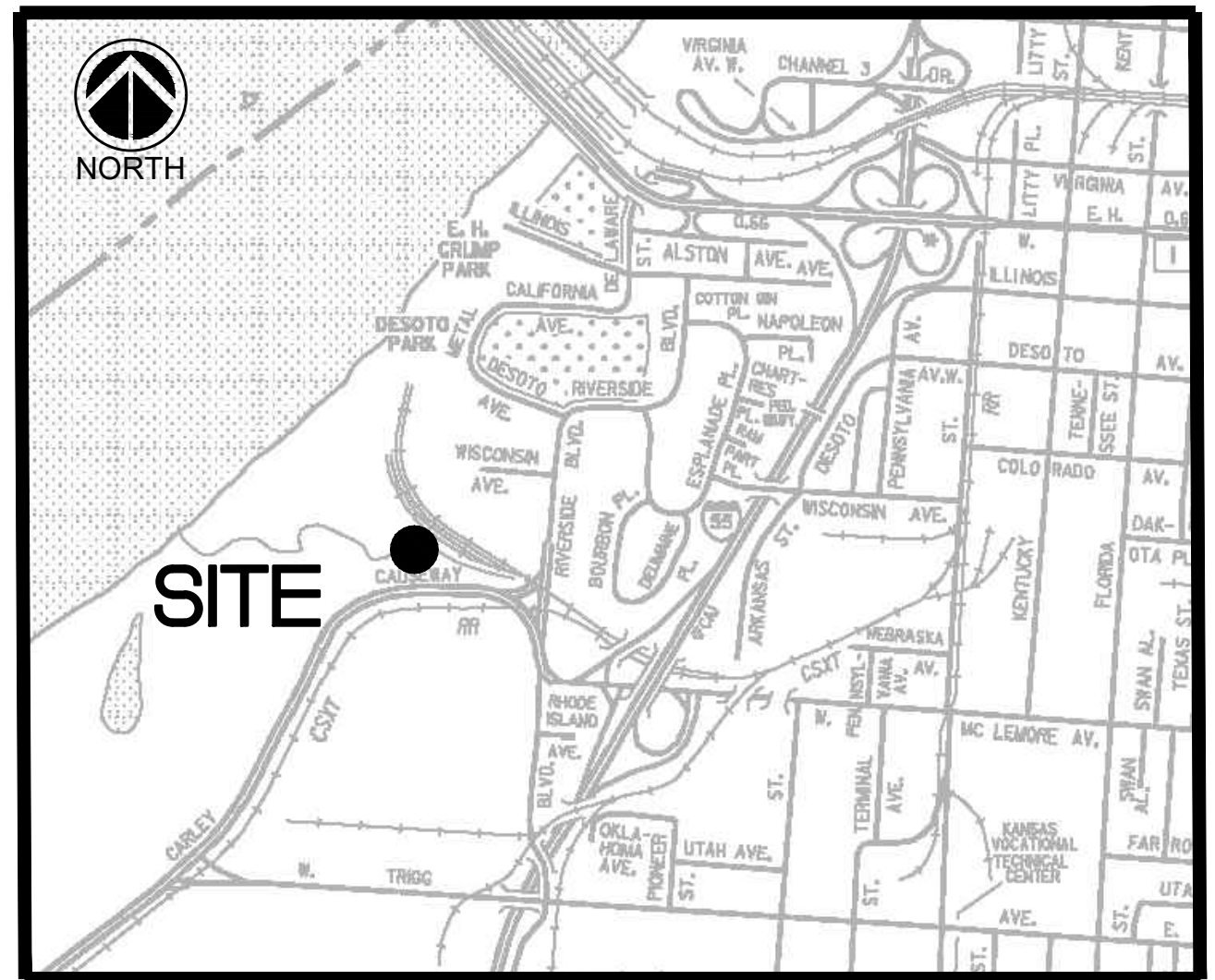


LEGEND	
	SILT FENCE BARRIER

NOTE:
SEE SHEET 5 FOR EROSION CONTROL DETAILS.



- CITY OF MEMPHIS SANITARY SEWER CONSTRUCTION NOTES**
1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT NECESSARILY ALL OF SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY COMPANY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND/OR UNDERGROUND STRUCTURES PRIOR TO THE INITIATION OF ANY CONSTRUCTION. CONTRACTOR SHALL ALSO ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN THE CONSTRUCTION PERIMETERS. THE SITE LOCATION FOR EXISTING UTILITIES INVOLVING ML&W, SOUTH CENTRAL BELL, TEXAS GAS COMPANY, AND/OR SEWER LOCATION CALL 811.
 2. CONTRACTOR SHALL ENSURE UNINTERRUPTED SEWER SERVICE ON EXISTING SEWER AND SERVICE CONNECTIONS BY PROVIDING AMPLE TEMPORARY WASTEWATER PUMPING AND/OR BYPASSING.
 3. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES.
 4. CONTRACTOR SHALL NOTIFY THE SARP10 CONSTRUCTION MANAGER A MINIMUM OF 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
 5. ALL AREAS IN CUT OR FILL WHERE VEGETATION HAS BEEN REMOVED SHALL BE SEEDED, MULCHED, FERTILIZED, AND/OR SODDED TO PREVENT EROSION.
 6. THE CONTRACTOR SHALL VERIFY EXISTING DATA AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ENGINEER.
 7. ALL SANITARY SEWER TO BE CONSTRUCTED AS PER CITY OF MEMPHIS STANDARD CONSTRUCTION SPECIFICATIONS. SANITARY SEWER SERVICE CONNECTIONS TO BE INSTALLED AS PER CITY OF MEMPHIS STANDARD SST-16.
 8. ALL SEWER MANHOLE LIDS IN OPEN AREAS ARE TO BE CONSTRUCTED 1.5' ABOVE PROPOSED GRADE. IN BACKYARDS, MANHOLE LIDS ARE TO BE 1.5' ABOVE INITIAL GRADE, 0.5' ABOVE FINISHED GRADE.
 9. ALL SANITARY SEWER, INCLUDING SEWER CONNECTIONS, WHICH HAS LESS THAN 1.5' CLEARANCE (OUTSIDE OF PIPES) WITH DRAINAGE OR IN FILLED AREAS SHALL BE CLASS 50 D.I.P. OR CONCRETE ENCASED, 10' MINIMUM BOTH SIDES OF CROSSING. ALL DUCTILE IRON PIPE (D.I.P.) SHALL BE POLYETHYLENE LINED OR SHALL BE TREATED WITH PROTECTO 401 OR APPROVED EQUIVALENT.
 10. THE CITY OF MEMPHIS SHALL HAVE INGRESS/EGRESS RIGHTS TO USE PRIVATE DRIVES AND YARDS FOR THE PURPOSE OF MAINTAINING ALL PUBLIC SEWER LINES AND SHALL BEAR NO RESPONSIBILITY FOR THE MAINTENANCE OF SAID PRIVATE DRIVES AND YARDS.
 11. NO TREES, SHRUBS, PERMANENT STRUCTURES, OR OTHER UTILITIES (EXCEPT FOR CROSSINGS) WILL BE ALLOWED WITHIN THE SANITARY SEWER EASEMENT. NO OTHER UTILITIES OR SERVICES MAY OCCUPY SANITARY SEWER EASEMENTS IN PRIVATE DRIVES AND YARDS EXCEPT FOR CROSSINGS.
 12. ALL SANITARY SEWER MANHOLES IN REVERSE CROWN STREETS, ALLEYS, OR DRIVES (PUBLIC OR PRIVATE) SHALL BE PROVIDED WITH GASKETS AND PLUGS FOR PICK HOLES TO PREVENT DRAINAGE INFLOW INTO THE SEWER SYSTEM.
 13. THE CONTRACTOR SHALL PROVIDE ADEQUATE AND EFFECTIVE EROSION CONTROL AS NECESSARY TO PREVENT ANY SILTATION INTO THE EXISTING DRAINAGE SYSTEM AND/OR ADJACENT PROPERTIES.



VICINITY MAP (NTS)

LEGEND			
	EXISTING FIRE HYDRANT		EXISTING UNDERGROUND ELECTRIC
	EXISTING POWER POLE		EXISTING OVERHEAD ELECTRIC
	EXISTING GUY POLE		EXISTING UNDERGROUND FIBER OPTIC
	EXISTING MAILBOX		EXISTING UNDERGROUND GAS LINE
	EXISTING SIGN		EXISTING WATER LINE
	EXISTING GAS VALVE		EXISTING DRAIN LINE
	EXISTING WATER VALVE		EXISTING TELEPHONE LINE
	EXISTING WATER METER		EXISTING UNDERGROUND OIL LINE
	EXISTING ROW MARKER		FORCE MAIN
	EXISTING ELECTRIC TRANSFORMER		SANITARY SEWER
	EXISTING TELEPHONE PEDESTAL		SEWER MANHOLE

- EROSION AND SEDIMENTATION CONTROL NOTES:**
1. ALL NEWLY CUT AND/OR FILLED AREAS LACKING ADEQUATE VEGETATION SHALL BE SEEDED AS REQUIRED TO EFFECTIVELY PREVENT SOIL EROSION.
 2. SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES SHALL BE USED AS SHOWN AND AS DIRECTED BY THE ENGINEER TO CONTROL SOIL EROSION.
 3. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTROLS SHOWN ON THE PLAN ARE THE MINIMUM REQUIRED AND THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
 4. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT FOR ALL EROSION CONTROL DURING CONSTRUCTION ACTIVITIES.
 5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES AND REPORTING ANY MAINTENANCE AS REQUIRED BY THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT DURING CONSTRUCTION ACTIVITIES.
 6. PROVISIONS SHALL BE MADE TO PROTECT DOWNSTREAM WATERCOURSES (I.E., STORM SEWER SYSTEMS, DITCHES, WETLANDS, ETC.) FROM SEDIMENT RUNOFF DEVELOPED FROM THE CONSTRUCTION PROCESS. PROVISIONS INCLUDE, BUT ARE NOT LIMITED TO, STRUCTURAL CONTROLS SUCH AS SILT FENCING, GEOTEXTILE FABRIC PROTECTION OF STORM SEWERS, HAY BALES, DIKES AND SANDBAG BERMS; AND/OR VEGETATION CONTROLS SUCH AS SEEDING OR EXISTING VEGETATIVE BUFFER STRIPS (MINIMUM 25 FEET WIDE).
 7. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL INSTALL EROSION AND SEDIMENTATION CONTROLS AT LOCATIONS SHOWN ON PLANS.
 8. CONTRACTOR SHALL PERFORM STREET CLEANING ON ROADS AND STREETS ADJACENT TO THE PROJECT WHICH ARE USED AS ACCESS ROUTES FOR CONSTRUCTION TRAFFIC IF NECESSARY. WASHING OF STREETS IS PROHIBITED.
 9. LOCATE FUEL/MATERIAL STORAGE AREAS AWAY FROM STORM WATER CONVEYANCE SYSTEMS. USE A MINIMUM 60 MIL POLYETHYLENE LINER UNDER ABOVE GROUND STORAGE TANKS. USE 2 FOOT HIGH BERMS AROUND FUEL STORAGE AREAS.
 10. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL ENVIRONMENTAL LAWS.
 11. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF FUELS, MATERIALS AND CONTAMINATED EXCAVATIONS IN A LEGALLY APPROVED MANNER.
 12. AT A MINIMUM, STRUCTURAL CONTROLS SHOULD BE INSPECTED TWICE EVERY CALENDAR WEEK AT LEAST 72 HOURS APART. THE INSPECTOR, APPROVED BY THE OWNER, SHALL HAVE AN ACTIVE CERTIFICATION BY COMPLETING THE "FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL LEVEL 1" COURSE. A COPY OF THE CERTIFICATION SHALL BE KEPT ONSITE. SHOULD CONTROLS BECOME INEFFECTIVE, NECESSARY REPAIRS SHALL BE PERFORMED TO RETURN THE INTEGRITY OF THE STRUCTURAL CONTROLS.
 13. EQUIPMENT STAGING AREA TO BE DESIGNATED BY CONTRACTOR AND APPROVED BY OWNER PRIOR TO CONSTRUCTION.
 14. SEDIMENT WILL BE REMOVED FROM THE UPSTREAM FACE OF THE SILT FENCE WHEN IT REACHES A MAXIMUM DEPTH OF 50% OF THE FENCE'S CAPACITY. THE FENCE WILL BE REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
 15. TEMPORARY SEEDING MAY BE REQUIRED IN ADDITION TO PERMANENT SEEDING TO ASSIST IN COMPLYING WITH THE CONSTRUCTION GENERAL PERMIT.

- CONSTRUCTION NOTES:**
1. REMOVE EXISTING DRY WELL AND REPLACE WITH NEW SUBMERSIBLE PUMP STATION. EXISTING WET WELL TO REMAIN.
 2. REPLACE AND RELOCATE ALL ELECTRICAL CONTROL BREAKERS, ETC. TO NEW CONTROL PANEL STAND.
 3. ABANDON EXISTING WET WELL PER STANDARD DETAIL.

- GENERAL NOTES:**
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 2. ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
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 4. ALL DISTURBED LAWN AREAS SHALL BE SODDED. MATCH EXISTING SOD TYPE.
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PROJECT BENCHMARKS

CITY BENCHMARK:
#1902 IS LOCATED AT RIVERSIDE DRIVE AND METAL MUSEUM DRIVE. CITY MONUMENT IS LOCATED ON THE EAST SIDE OF RIVERSIDE DRIVE AT THE BACK OF CURB, 9' NORTH OF CENTERLINE PROJECTION OF METAL MUSEUM DRIVE, AT THE NORTH SIDE OF A #12 INLET, 9' NORTH OF A STREET SIGN. ELEVATION: 273.14

SITE TBM #1:
NAIL SET IN WEST SIDE OF POWER POLE AS SHOWN. ELEVATION: 228.11

NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

NOTE:

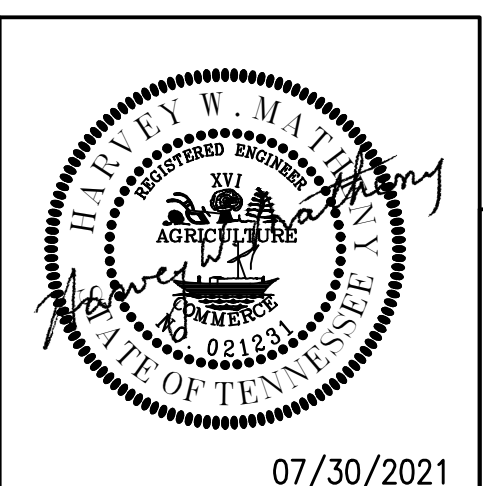
BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE AND VERIFY FORCE MAIN ROUTING AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

APPROVED FOR CONSTRUCTION

THE DOCUMENT BEARING THIS STAMP HAS BEEN RECEIVED AND REVIEWED BY THE CITY OF MEMPHIS DIVISION OF ENGINEERING UNDER AUTHORITY DELEGATED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION DIVISION OF WATER POLLUTION CONTROL. IT IS HEREBY APPROVED FOR CONSTRUCTION BY THE CITY ENGINEER AS EVIDENCE BY HIS SIGNATURE IN THE TITLE BLOCK BELOW.

APPROVAL EXPIRES 1 YEAR FROM APPROVAL DATE BELOW. THIS APPROVAL SHALL NOT BE CONSTRUED AS CREATING A PRESUMPTION OF CORRECT OPERATION OR AS WARRANTING BY THE CITY ENGINEER THAT THE APPROVED FACILITIES WILL REACH THE DESIRED GOALS.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022



SEWER BASIN: PI-01
SHEET 1 OF 1
DIVISION OF ENGINEERING

SEWER PLAN
450 Jack Carley Causeway
MEMPHIS, TENNESSEE

MEMPHIS, TENNESSEE
DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020

PROJECT NO.: 24699.05
BOOK: 1676
SCALE: 1" = 10'

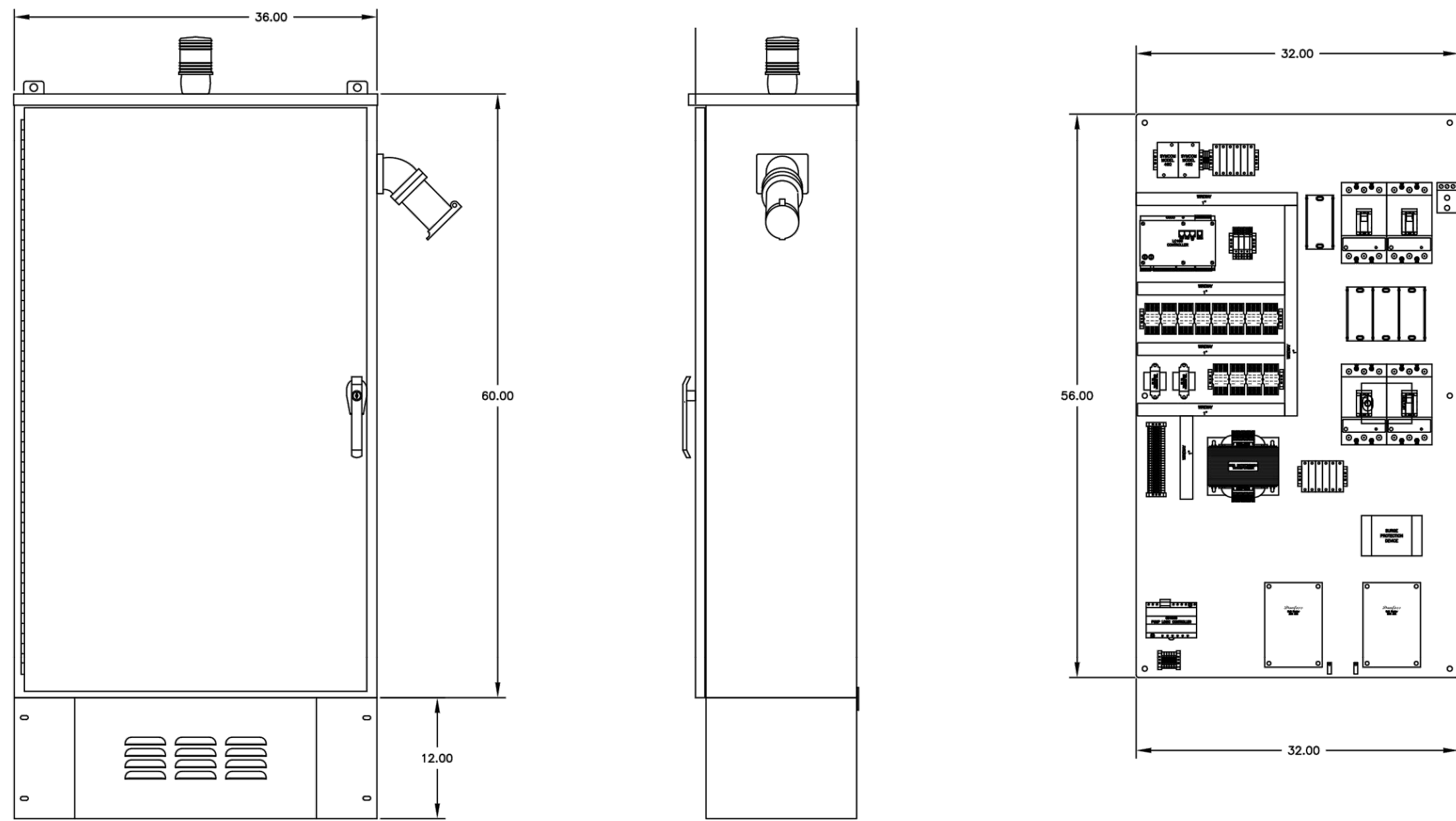
REVIEWED

LIFT STATION REHAB DESIGN

DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

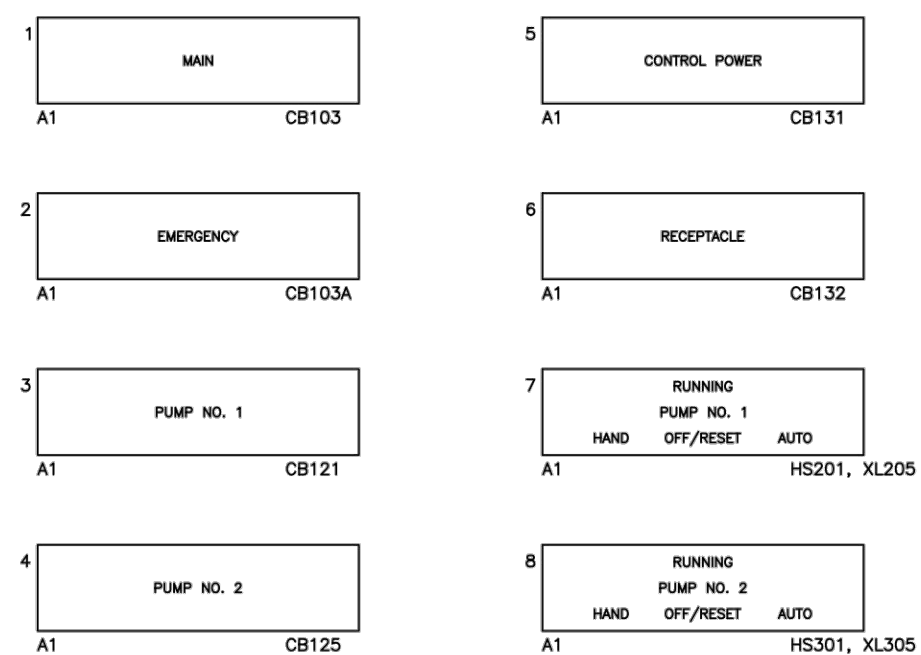
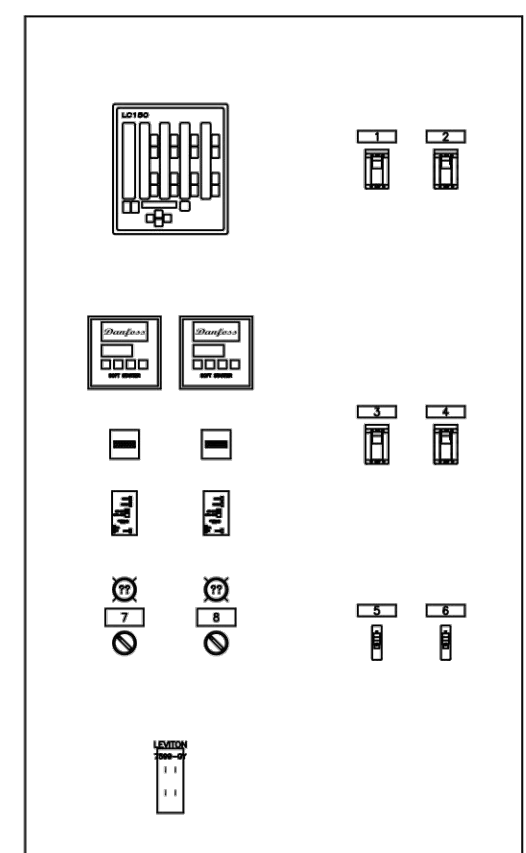
1. TYPICAL FOR PANEL QUANTITY: ONE
2. UI: YES NO
3. PANEL INSULATION: NONE 1/2" FOAM 1/2" FOIL BACK
4. NAMEPLATES: WHITE LETTERS ON BLACK BACKGROUND BLACK LETTERS ON WHITE BACKGROUND REVERSED ENGRAVED
5. DOOR PROP REQUIRED: YES NO
6. NAMEPLATE MOUNTING: ADHESIVE FASTENED WITH SCREWS
7. TERMINAL MARKERS FOR: NONE AB-SM 5x9 AB-SM 6x12 UKSN AB-SM 5x12 AB-SM 6x6
8. FUSE LABELS: LABEL (PANOUT ITCBY-10) ENGRAVED SEE NOTES
9. DEVICE MARKERS: LABEL (PANOUT ITCBY-10) ENGRAVED KEYS
10. WIRE MARKERS: SELF-LAMINATING HEAT SHRINK
11. SPECIAL REQUIREMENTS: NONE SEE NOTES
12. TERMINAL AND WIRING SYMBOLOLOGY: REFER TO ELECTRICAL LEGEND SHEET
13. WIRE COLORS: REFER TO ELECTRICAL LEGEND SHEET

BACK PANEL SPECIFICATIONS		ENCLOSURE SPECIFICATIONS	
MANUFACTURER	LEHMAN	MANUFACTURER	LEHMAN
SIZE	57.00 X 32.00	PART NUMBER	SR11304X60361612MU
FINISH	WHITE	SIZE	60.00 X 36.00 X 16.00
		CONSTRUCTION	16 OR 14 GAUGE GALVANIZED STEEL
		TYPE	NEMA 3R
		HINGED	LEFT
		FINISH	ANSI 61 GRAY



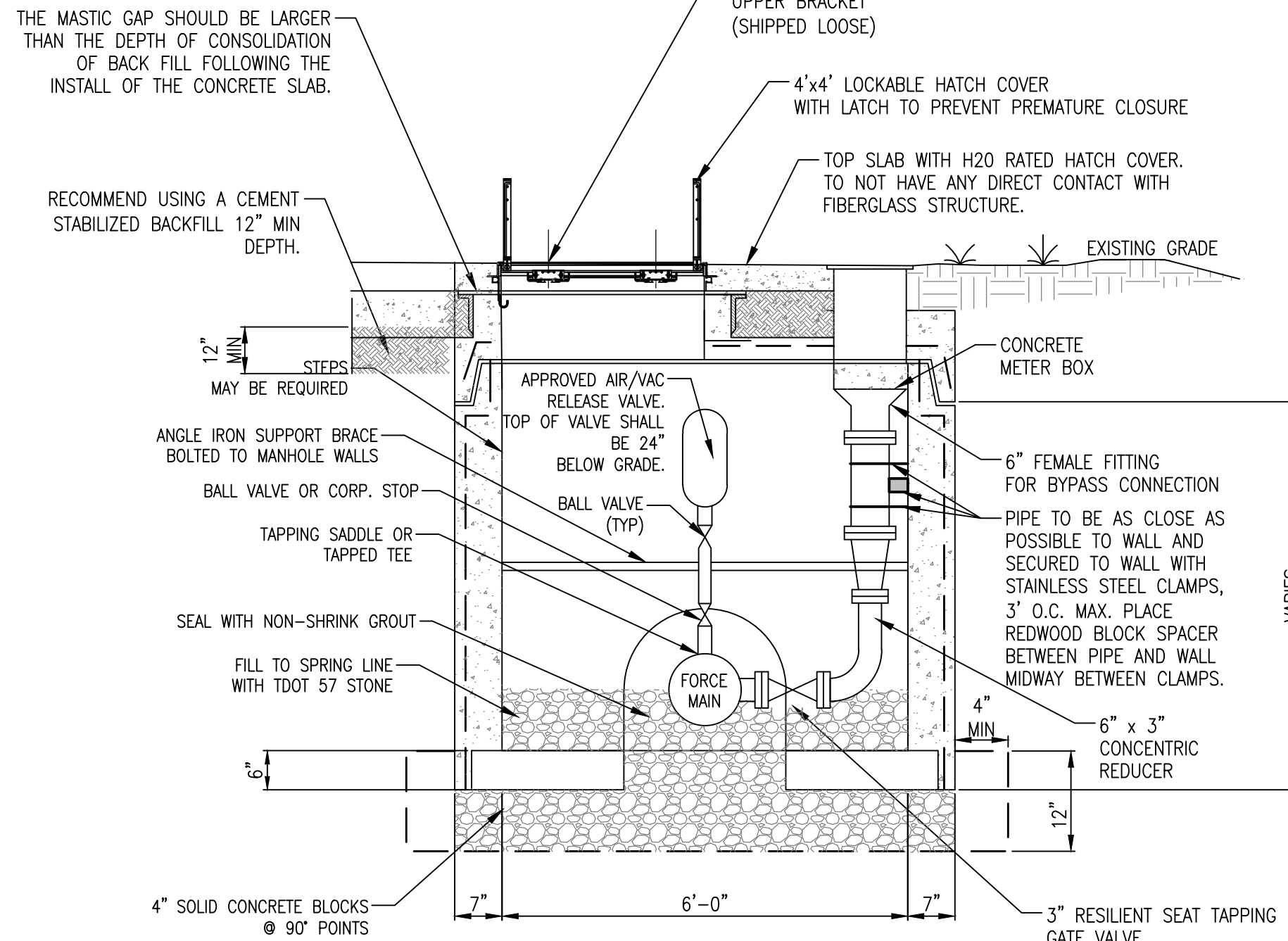
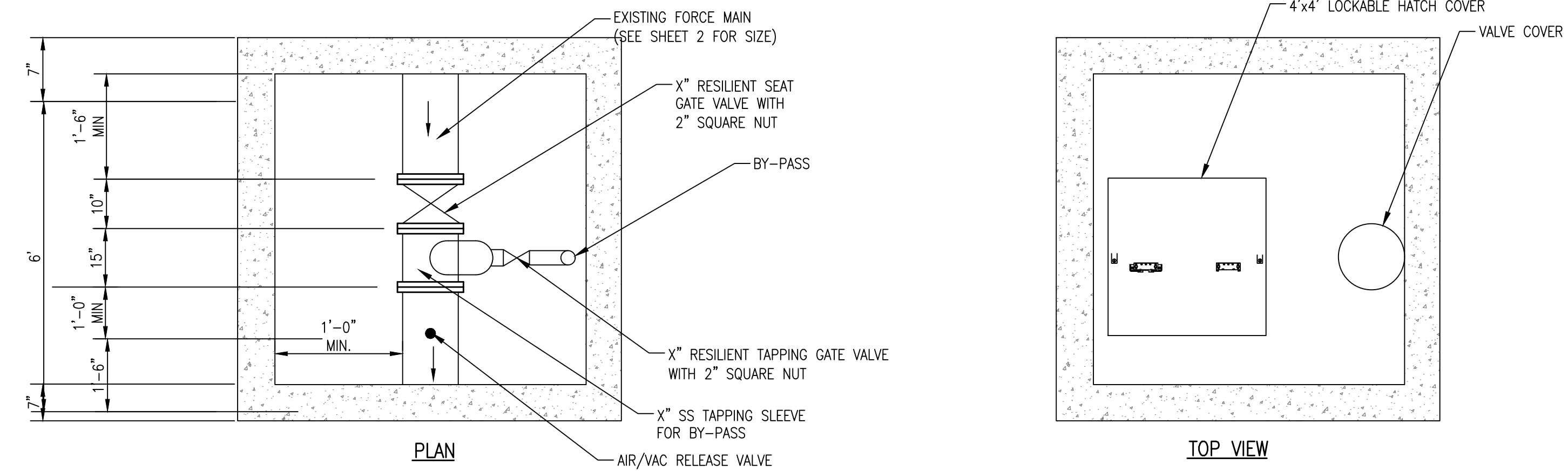
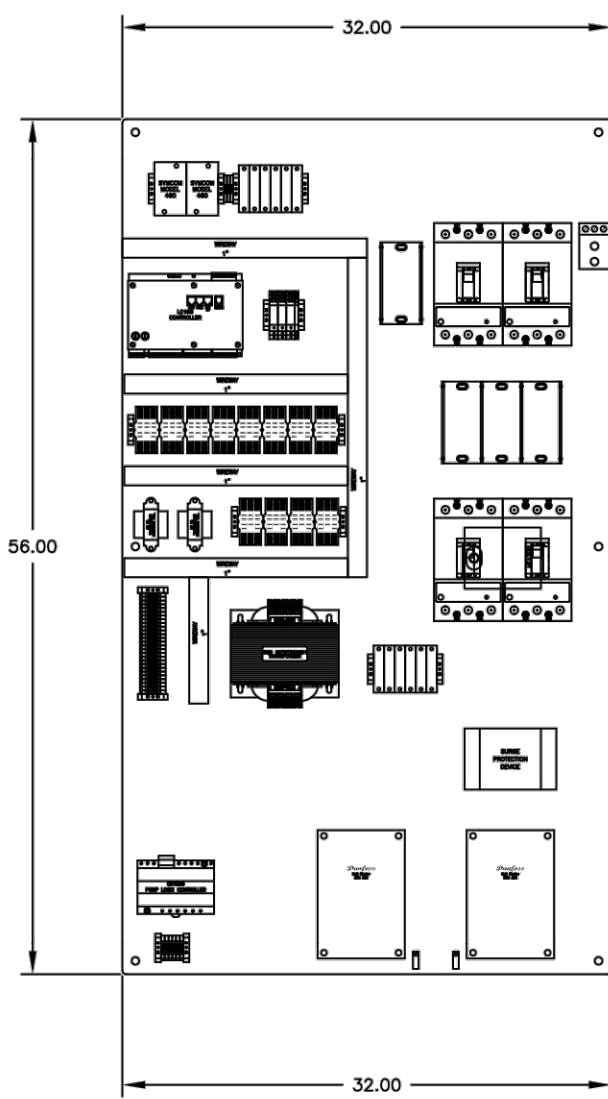
1. TYPICAL FOR PANEL QUANTITY: ONE
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12. TERMINAL AND WIRING SYMBOLOLOGY: REFER TO ELECTRICAL LEGEND SHEET
13. WIRE COLORS: REFER TO ELECTRICAL LEGEND SHEET

INNERDOOR SPECIFICATIONS	
MANUFACTURER	LEHMAN
SIZE	55.00 X 32.25
CONSTRUCTION	ALUMINUM
HINGED	LEFT



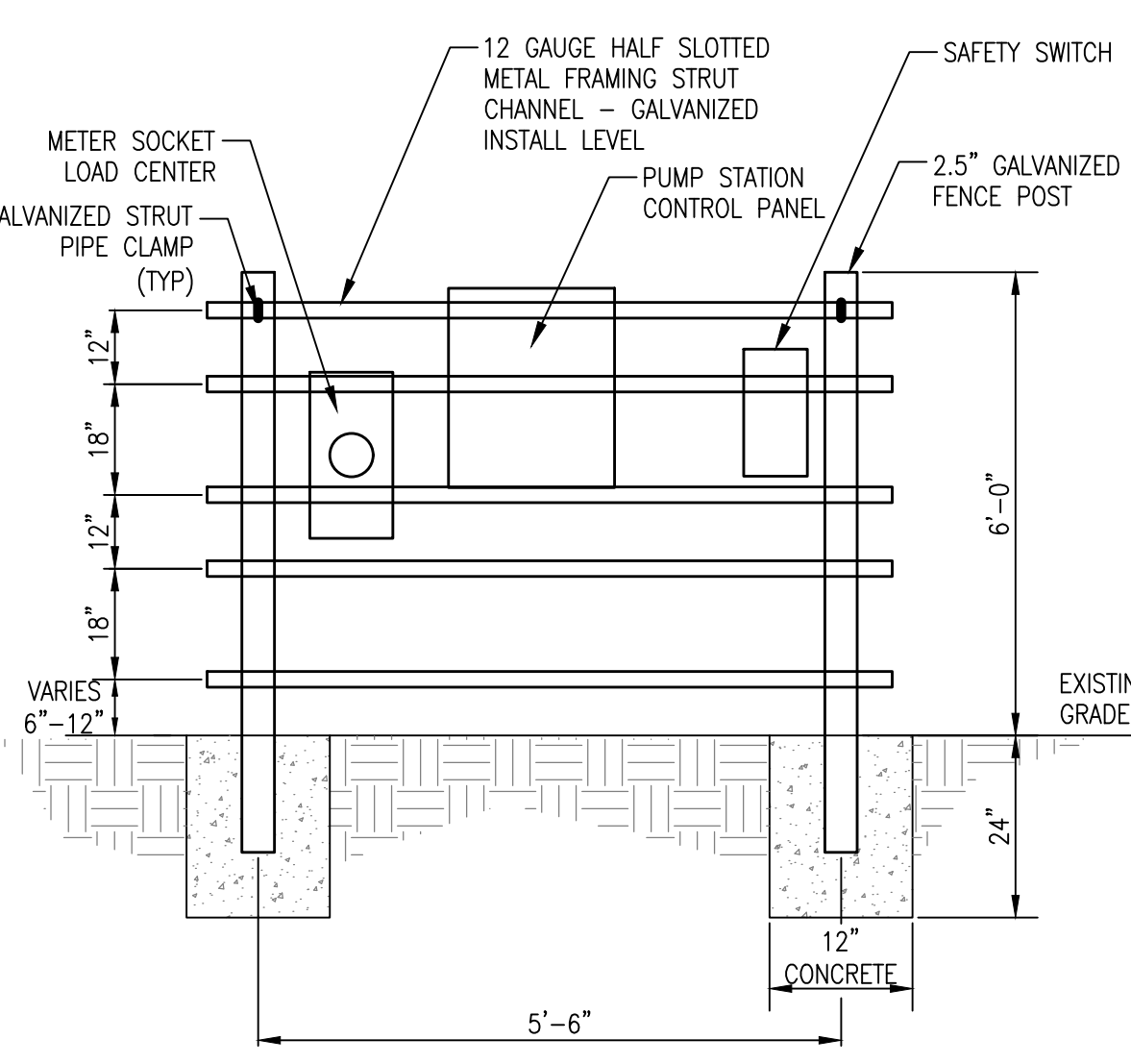
- NOTE:
- STATION CONTROL AND CIRCUITS SHOWN FOR REFERENCE. FINAL DESIGN BY PUMP SUPPLIER.
 - SITE VOLTAGE TO BE VERIFIED BY THE BIDDING CONTRACTOR. THE RESPONSIBILITY TO PROVIDE ANCILLARY EQUIPMENT TO ALLOW CONNECTION OF THE PROPOSED PUMPING EQUIPMENT WITH THE AVAILABLE SITE VOLTAGE SHALL BE BORNE BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE THE SITE VOLTAGE WITH THE PUMPING SYSTEM SUPPLIER AND SHALL BE VERIFIED PRIOR TO RELEASING THE EQUIPMENT TO MANUFACTURER.

CONTROL PANEL
NOT TO SCALE



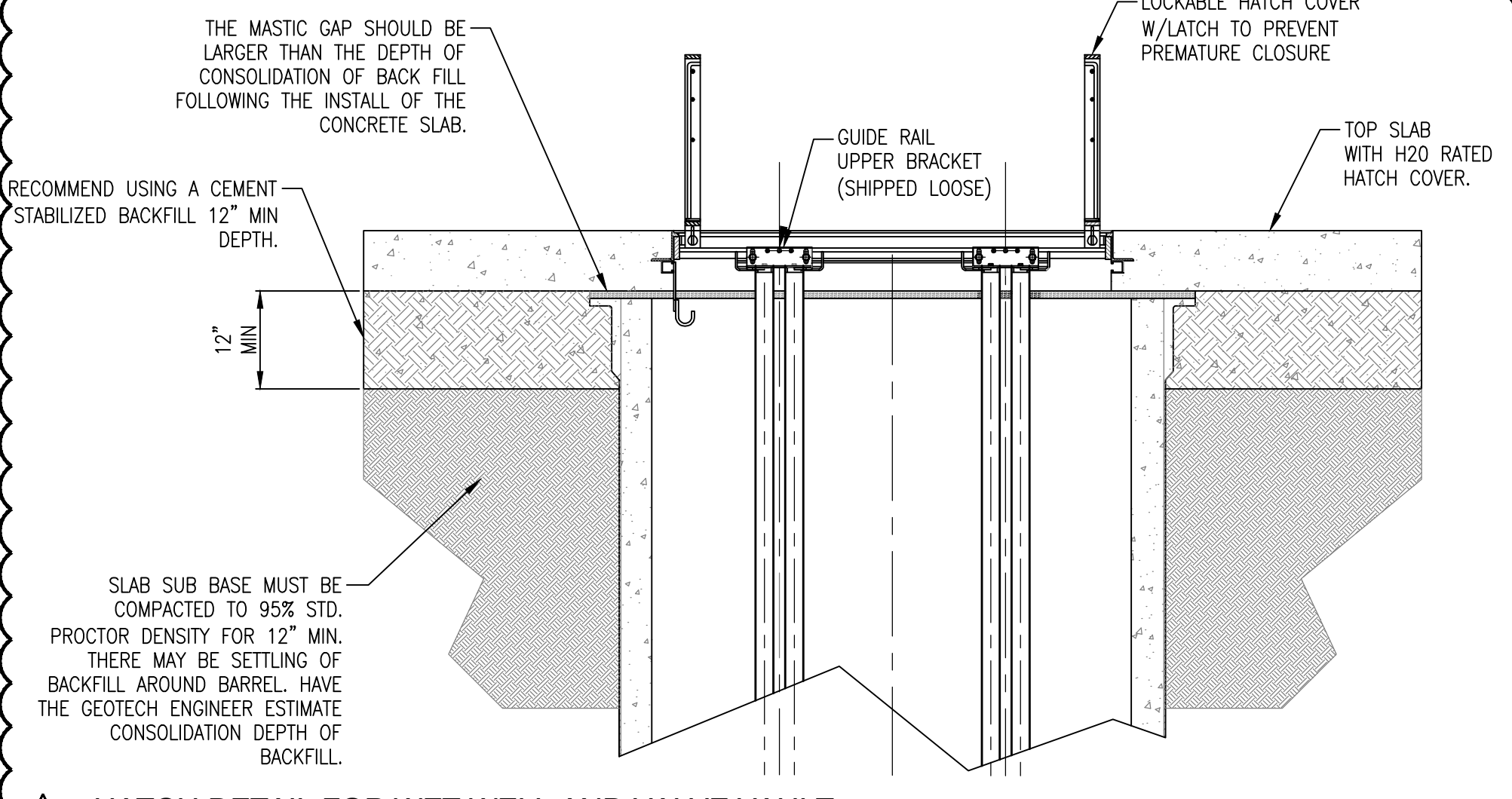
BY-PASS TEE AND AIR/VAC STRUCTURE
NOT TO SCALE

- NOTES:
- CONCRETE SHALL BE 4,000 PSI COMPRESSIVE STRENGTH, MIN.
 - ALL REINFORCING SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
 - MANHOLE SECTIONS SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
 - TAPERED JOINT WITH O-RING GASKET SHALL MEET THE REQUIREMENTS OF ASTM SPECS C-361 AND C-443.
 - CAST MANHOLE SECTION INTO BASE 6" OR DEPTH OF JOINT, WHICHEVER IS DEEPER.
 - JOINT CONFIGURATION MAY BE CAST BELL-UP OR SPIGOT UP.
 - SIZE DOGHOUSE OPENINGS 4" MIN. AND 8" MAX. LARGER THAN PIPE O.D.
 - ALL AIR RELEASE PIPING SHALL BE STAINLESS STEEL.
 - FOR FORCE MAIN SMALLER THAN 6", EXCEPT THE DUCTILE IRON, CLAMP THE AIR/VACUUM RELEASE VALVE TO THE ANGLE IRON SUPPORT BRACE.
 - CAST BASE ON FIRM, UNDISTURBED SOIL.
 - STANDARD PRECAST BASE SECTION MAY BE USED FOR NEW FORCE MAIN CONSTRUCTION. BED STANDARD BASE ON MIN. 6" TDOT No. 21A CORE HOLES FOR PIPE MIN. 4" LARGER THAN PIPE O.D.. CONFORM TO THIS DETAIL FOR ALL OTHER REFERENCES.



NOTE: STATION CONTROL AND CIRCUITS TO BE DESIGNED BY PUMP SUPPLIER.

CONTROL PANEL STAND
NOT TO SCALE



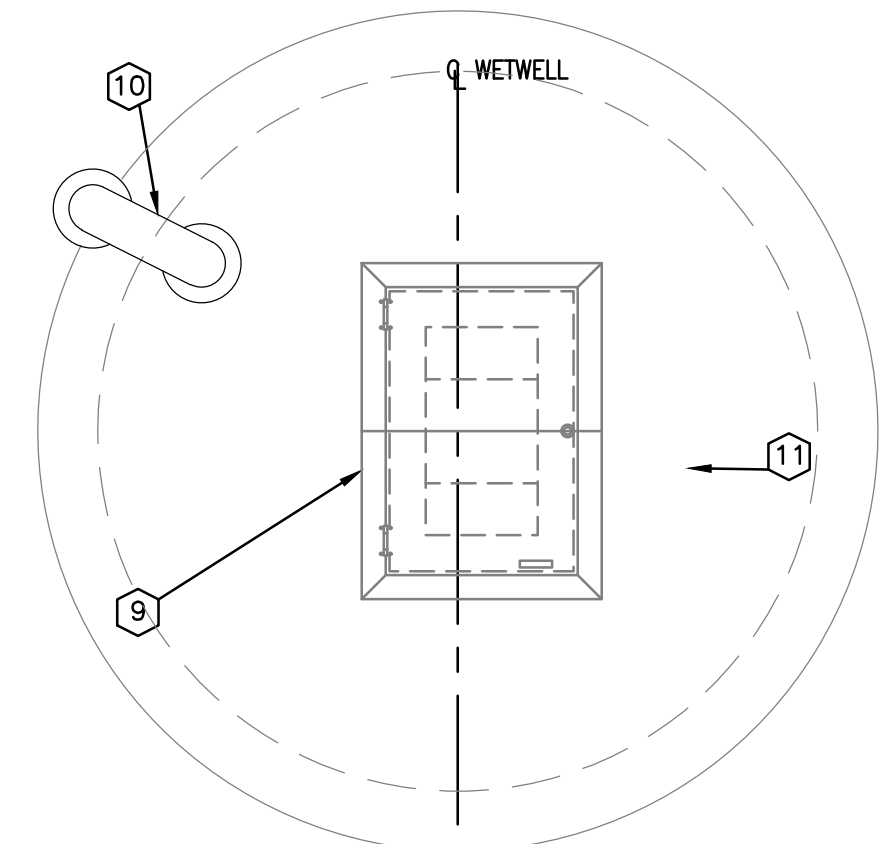
HATCH DETAIL FOR WET WELL AND VALVE VAULT
NOT TO SCALE

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022

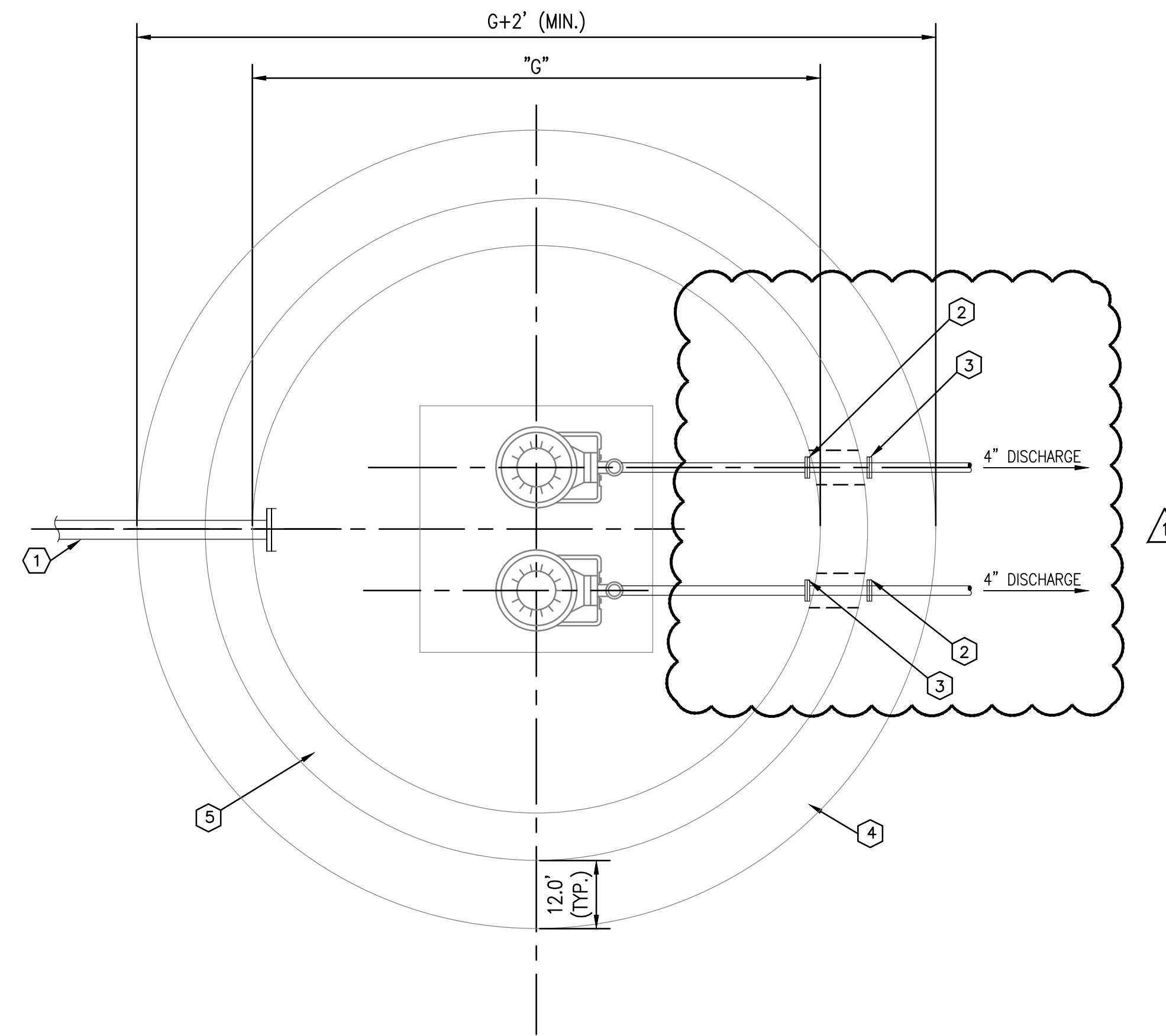


SHEET 1 OF 1
DIVISION OF ENGINEERING
PUMP DETAILS
450 Jack Carley Causeway
MEMPHIS, TENNESSEE
DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020
PROJECT NO.: 24699.05
BOOK: 1688
SCALE: N.T.S.
REVIEWED

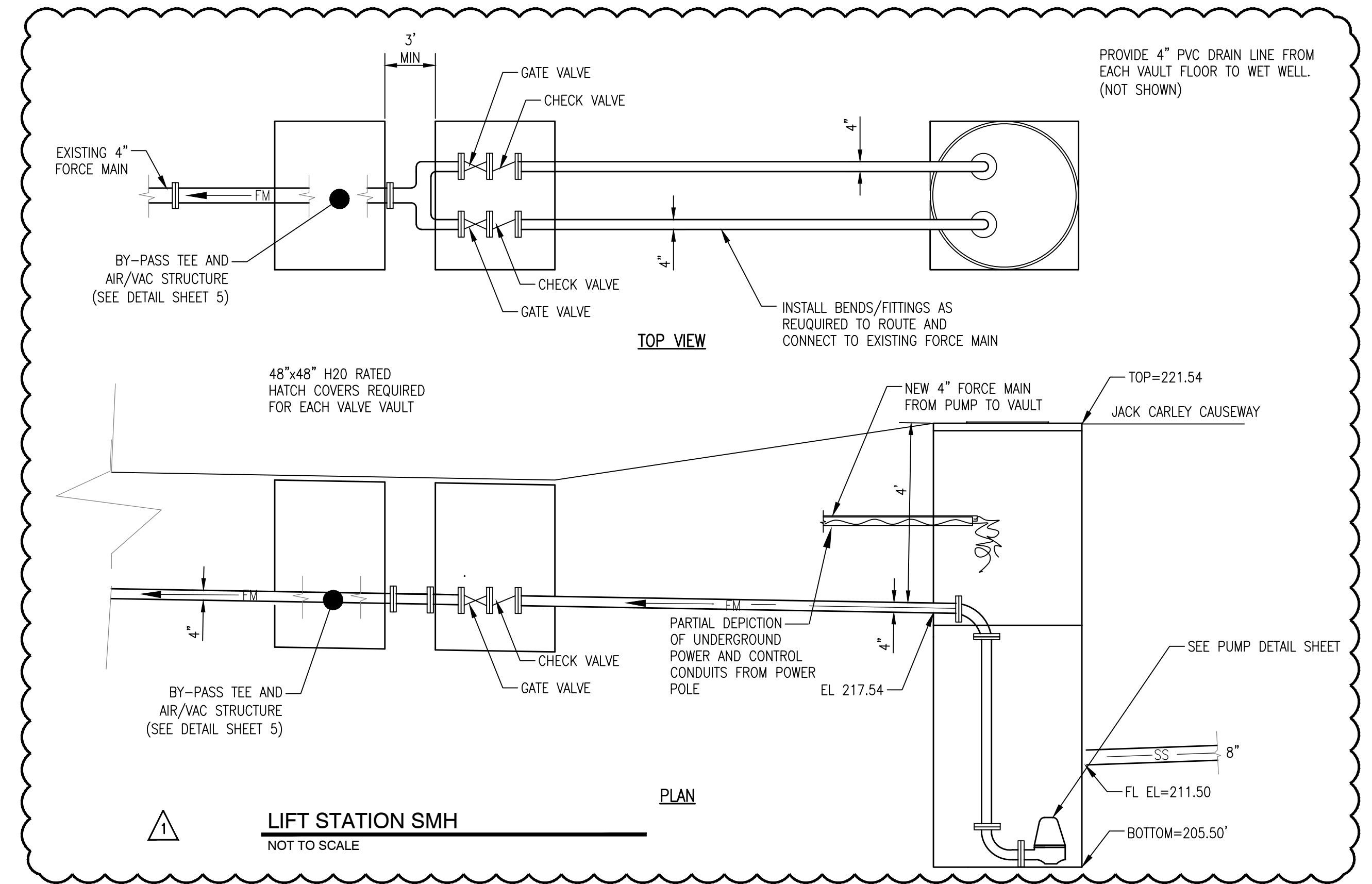
LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.



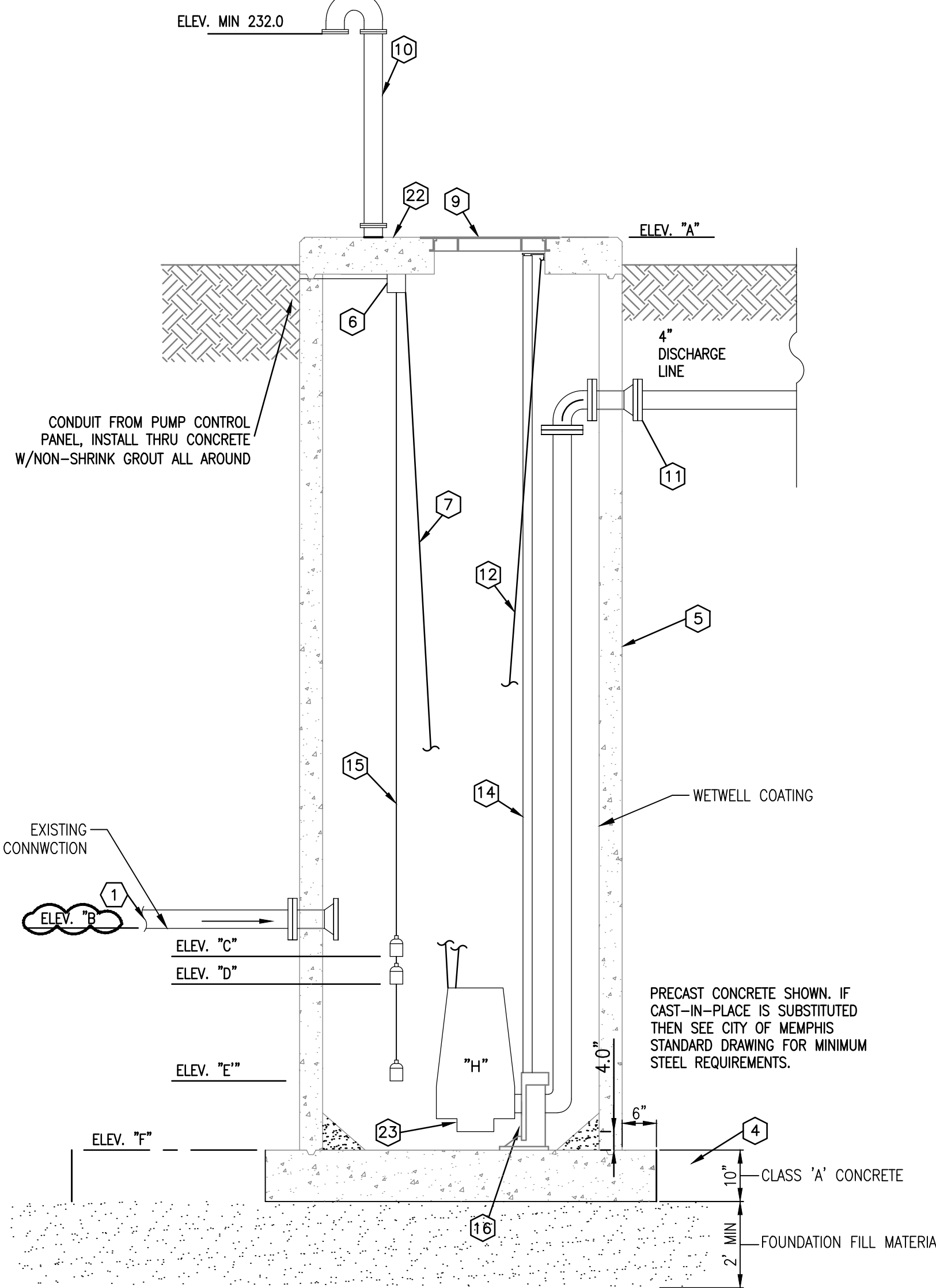
WETWELL AND VALVE VAULT TOP PLAN
NOT TO SCALE



WETWELL PLAN
NOT TO SCALE



LIFT STATION SMH
NOT TO SCALE



ELEVATION
NOT TO SCALE

MATERIAL AND EQUIPMENT SCHEDULE

- 1 INCOMING GRAVITY SEWER PIPE, LOCATIONS MAY VARY.
- 2 NEOPRENE PIPE GASKET.
- 3 NON-SHRINK GROUT ALL AROUND PIPE.
- 4 10" THICK, 4000 PSI PRECAST CONCRETE BASE SECTION WITH MONOLITHIC PRECAST CONCRETE RISER. PRECAST CONCRETE AND REINFORCING SHALL CONFORM TO ASTM C-478 AND CITY OF MEMPHIS STANDARDS.
- 5 6" WETWELL W/8" THICK, 4000 PSI PRECAST CONCRETE RISER SECTION CONFORMING TO ASTM C-478. JOINTS SHALL BE COMPLETELY SEALED TO PREVENT LEAKING. INSIDE AND OUTSIDE OF CONCRETE WET WELL RISER WALLS SHALL BE COATED WITH 2 COATS OF COAL TAR EPOXY.
- 6 JUNCTION BOX FOR LEVEL CONTROLS AND POWER CABLE.
- 7 PUMP POWER CABLE.
- 8 NOT USED.
- 9 30"x48" MINIMUM CLEAR OPENING WITH SINGLE LEAF, GASKETED, SERRATED, ALUMINUM ACCESS COVER. COVER SHALL BE PROVIDED WITH LOCKABLE LEAF, CONTROL CABLE HOLDER AND LEAF LOCKING OPEN ARM. CONTRACTOR SHALL VERIFY OPENING SIZE AND LOCATION REQUIREMENTS WITH PUMP MANUFACTURER. 300 PSF RATING WITH SAFETY GRATE.
- 10 4" DIA. DUCTILE IRON WITH FLANGED FLOOR PIPE, 2-90° FLANGED BENDS WITH A #24 ALUMINUM BIRD AND INSECT SCREEN BETWEEN FLANGES.
- 11 FLG.-FLG.-M.J. WALL PIPE WITH LEAK PROOF, NON-SHRINK GROUT ALL AROUND.
- 12 STAINLESS STEEL LIFTING CABLE OR CHAIN.
- 13 NOT USED.
- 14 S.S. GUIDE RAILS AS PER PUMP MANUFACTURER. (2 RAILS PER PUMP REQUIRED). INTERMEDIATE WALL BRACKET REQUIRED.
- 15 MERCURY LEVEL CONTROL SWITCHES, SEE SPECIFICATION.
- 16 AUTOMATIC DISCHARGE CONNECTION.
- 17 HEAVY DUTY S.S. ANCHOR BOLTS WITH VIBRATION DAMPERS. (TYPICAL EACH PUMP). 3/4" OR 1/2" AS REQUIRED BY MANUFACTURER.
- 18 NOT USED.
- 19 NOT USED.
- 20 NOT USED.
- 21 NOT USED.
- 22 8" PRECAST TOP SLAB CONFORMING TO ASTM 478.
- 23 SEE PUMP NOTES.

PUMPING STATION DATA

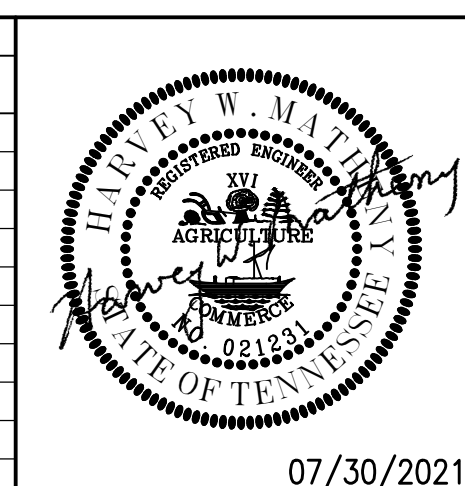
DESCRIPTION	ELEVATION
"A" TOP OF PUMP STATION	221.54
"B" INVERT INCOMING PIPE	211.50
"C" HIGH ALARM/LAG PUMP ON	TBD
"D" PUMP "ON"	TBD
"E" PUMP OFF	207.50
"F" BOTTOM	205.50
"G" WETWELL DIA	6.0'
"H" NON-CLOG SUBMER. PUMPS	5.5 HP (2 REQ'D)

PUMP STATION
NOT TO SCALE

LIFT STATION REPLACEMENT NOTES:

- EXISTING PRECAST CONCRETE DRY WELL, PUMPS, AND APPURTENANCES TO BE REMOVED AND REPLACED WITH DUPLEX SUBMERSIBLE PIMPS IN PRECAST CONCRETE WET WELL.
- ALL PIPES TO BE D.I.P.
- CLEAN AND COAT WETWELL WITH A 2-COAT EPOXY-MODIFIED-MORTAR LINING AND HYBRID EPOXY COATING PER MANUFACTURER'S RECOMMENDATIONS. COVER EXPOSED REBAR WITH COMPATIBLE PRIMER AND MORTAR AND SEAL ANY LEAKS WITH HYDRAULIC CEMENT.
- PUMPS:
 - 5.5 HP @ 1200 RPM
 - 80 GPM
 - TDH = 45 FT
 - 4" DIP FORCE MAIN @ 1215 LF

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022



07/30/2021

SHEET 1 OF 1
DIVISION OF ENGINEERING

PUMP STATION DETAILS
450 Jack Carley Causeway

MEMPHIS, TENNESSEE

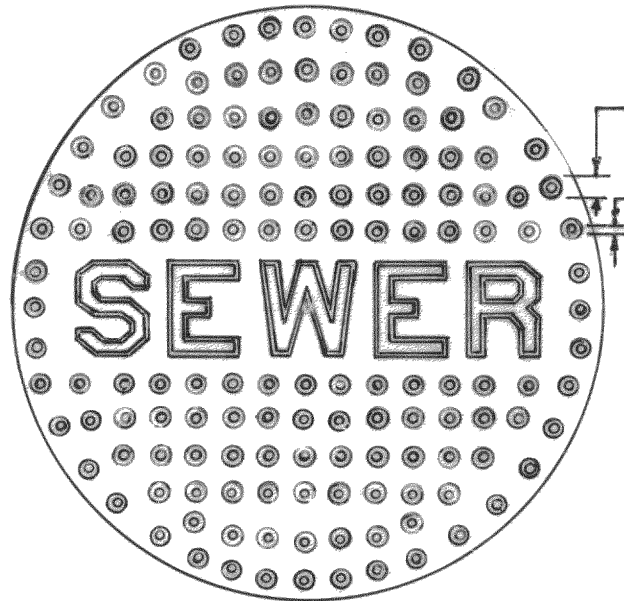
SURVEY: PFI DATE: JUNE, 2020 PROJECT NO.: 24699.05
DESIGN BY: PFI DATE: AUG, 2020 BOOK: 1676
DRAWN BY: PFI DATE: AUG, 2020 SCALE: N.T.S.

REVIEWED

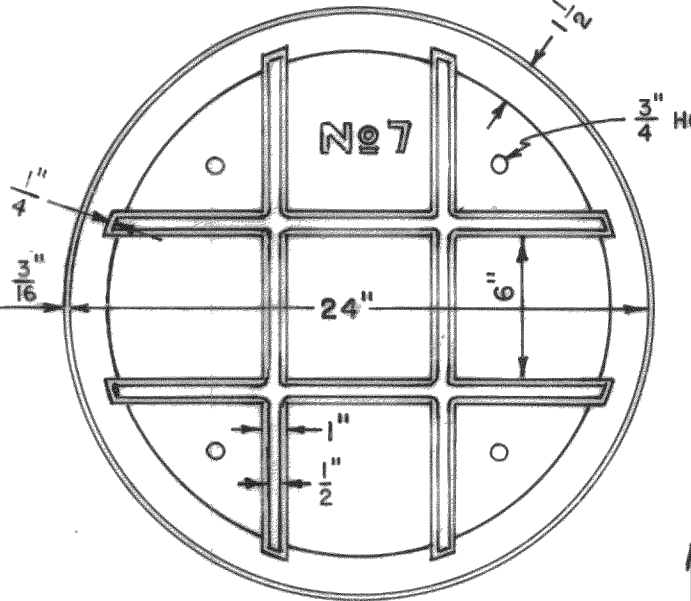
LIFT STATION REHAB DESIGN

DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

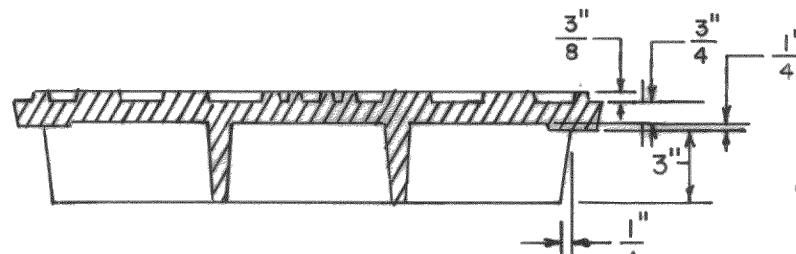
DIVISION OF PUBLIC WORKS BUREAU ENGINEER ASUR DRAFTSMAN DATE 11-77 SCALE 1/4"=1'-0"



TOP PLAN



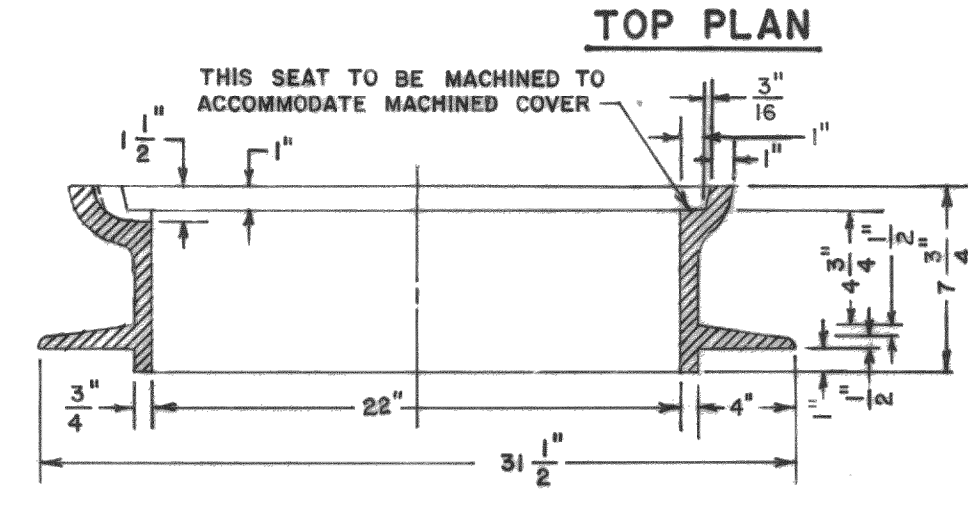
BOTTOM PLAN



SECTION

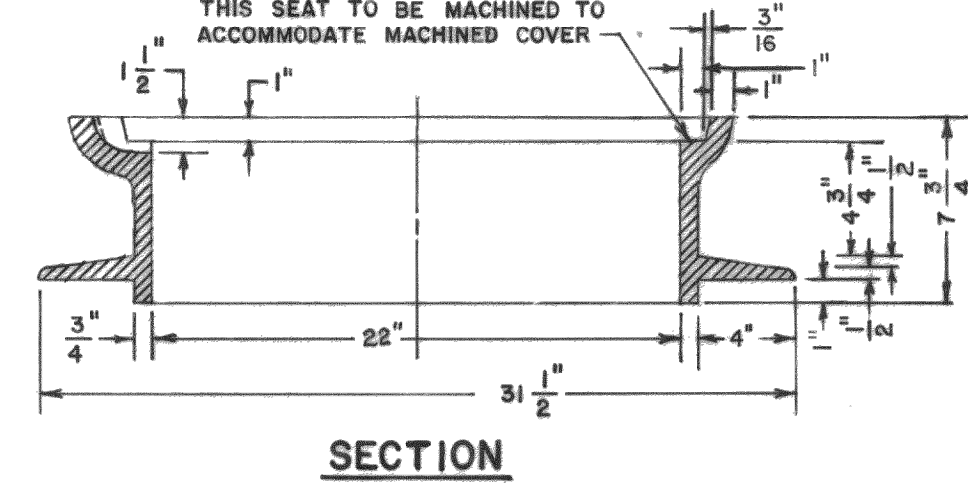
MANHOLE COVER NO. 7

NOTE: IF BOLTED-DOWN RIM & COVER ARE REQUIRED, SEE CITY OF MEMPHIS DESIGN STANDARD SST-8.



TOP PLAN

MANHOLE RIM NO. 7



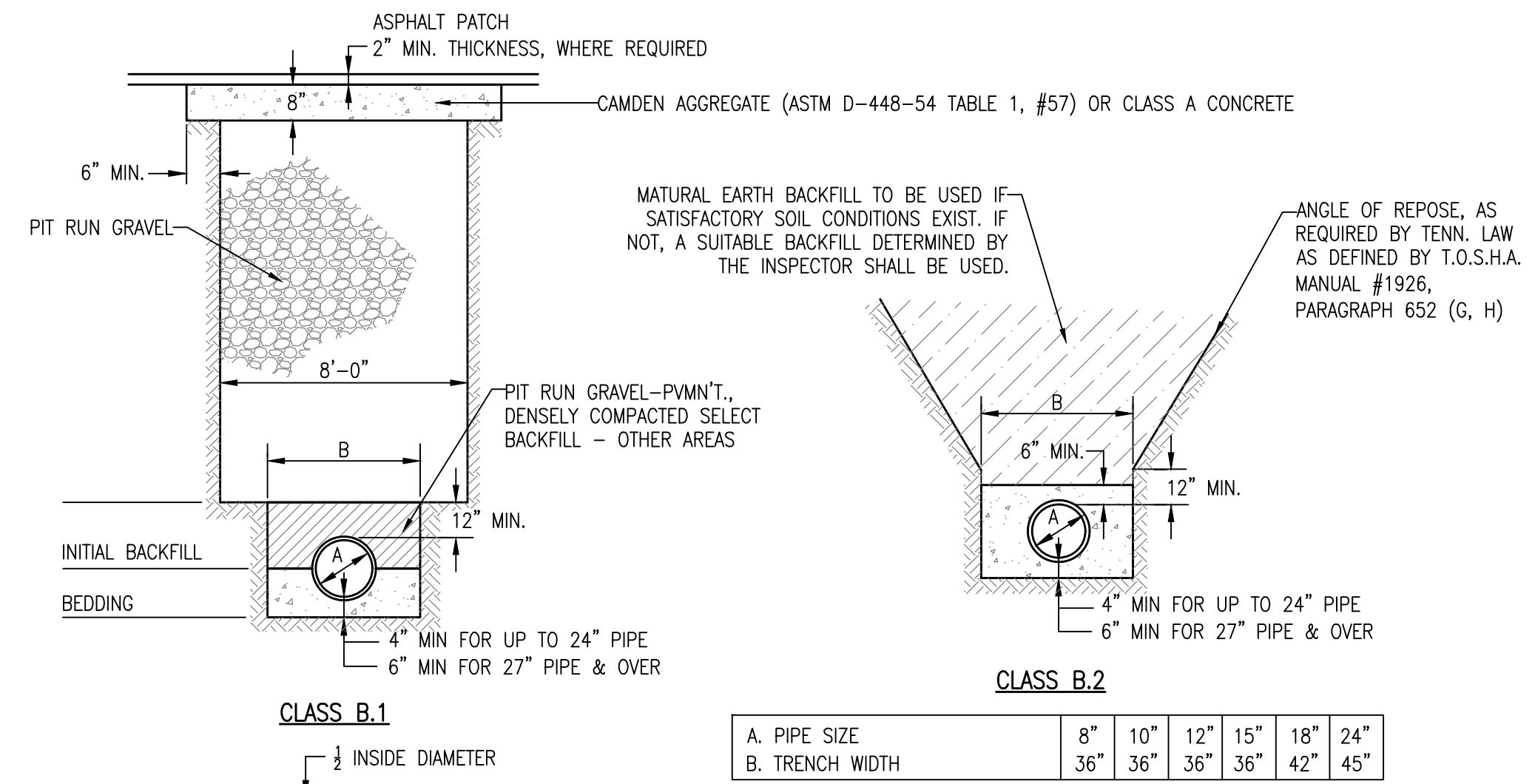
SECTION

REVISIONS table with columns for NO., DATE, BY, and REMARKS.

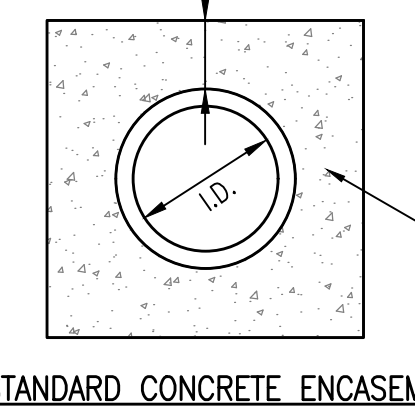
CONVERSIONS table with columns for ENGLISH and METRIC.

City of Memphis Division of Public Works Design Standard for No. 7 Manhole Rim and Cover. Includes signature of Ray Mason and date 10-29-77.

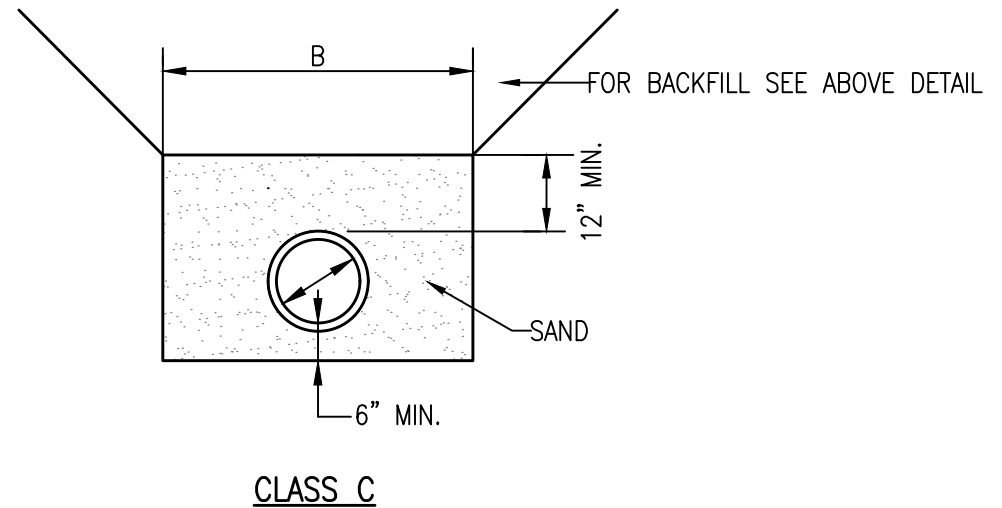
MANHOLE RIM & COVER NOT TO SCALE



STANDARD BEDDING FOR SEWER PIPE NOT TO SCALE (SMALL DIAMETERS: 8"-24")



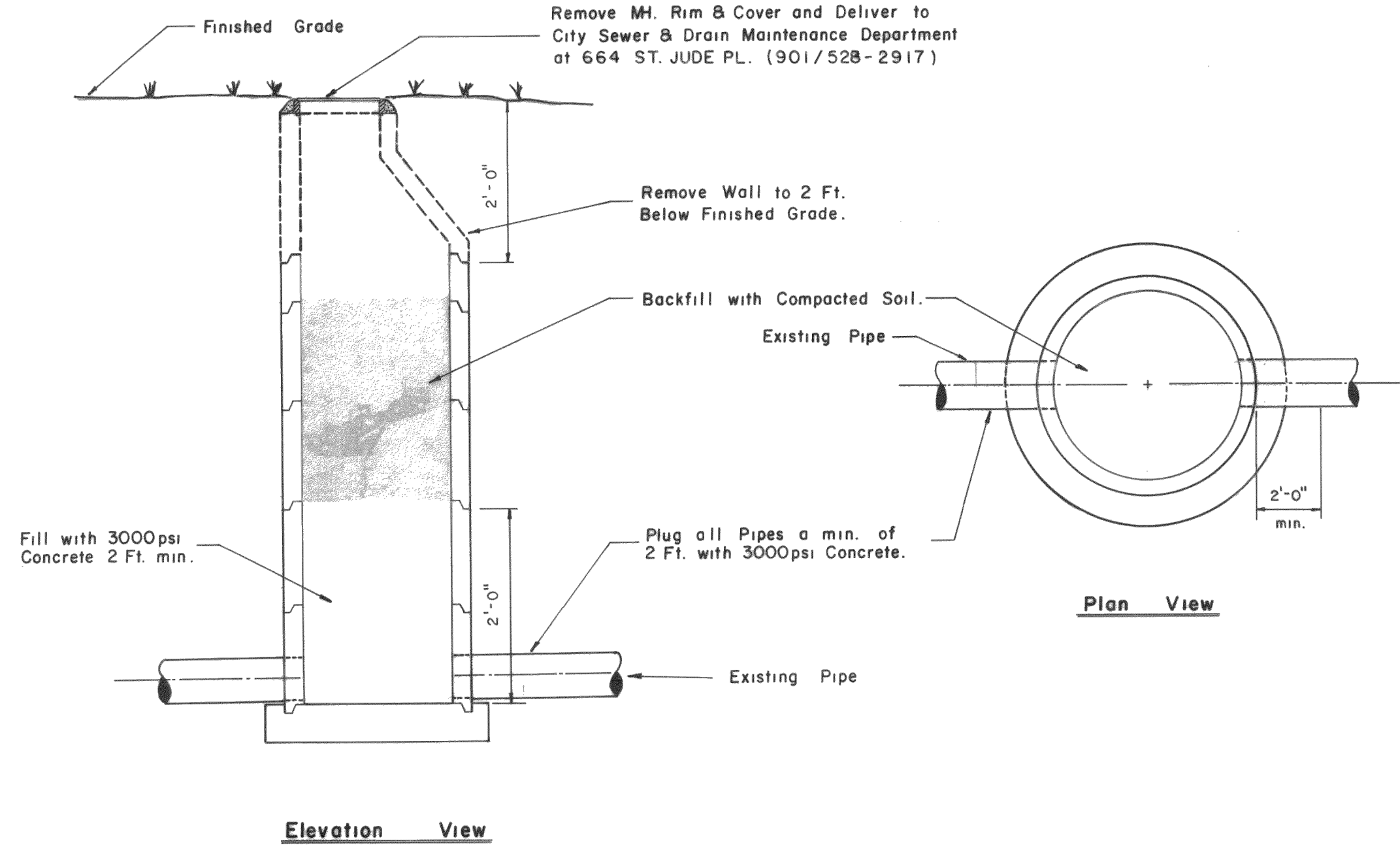
STANDARD CONCRETE ENCASEMENT



CLASS C

Table with columns for PIPE SIZE and TRENCH WIDTH, showing dimensions for Class B.1 and B.2.

DIVISION OF PUBLIC WORKS BUREAU ENGINEER ASUR DRAFTSMAN DATE 12-77 SCALE 1/4"=1'-0"

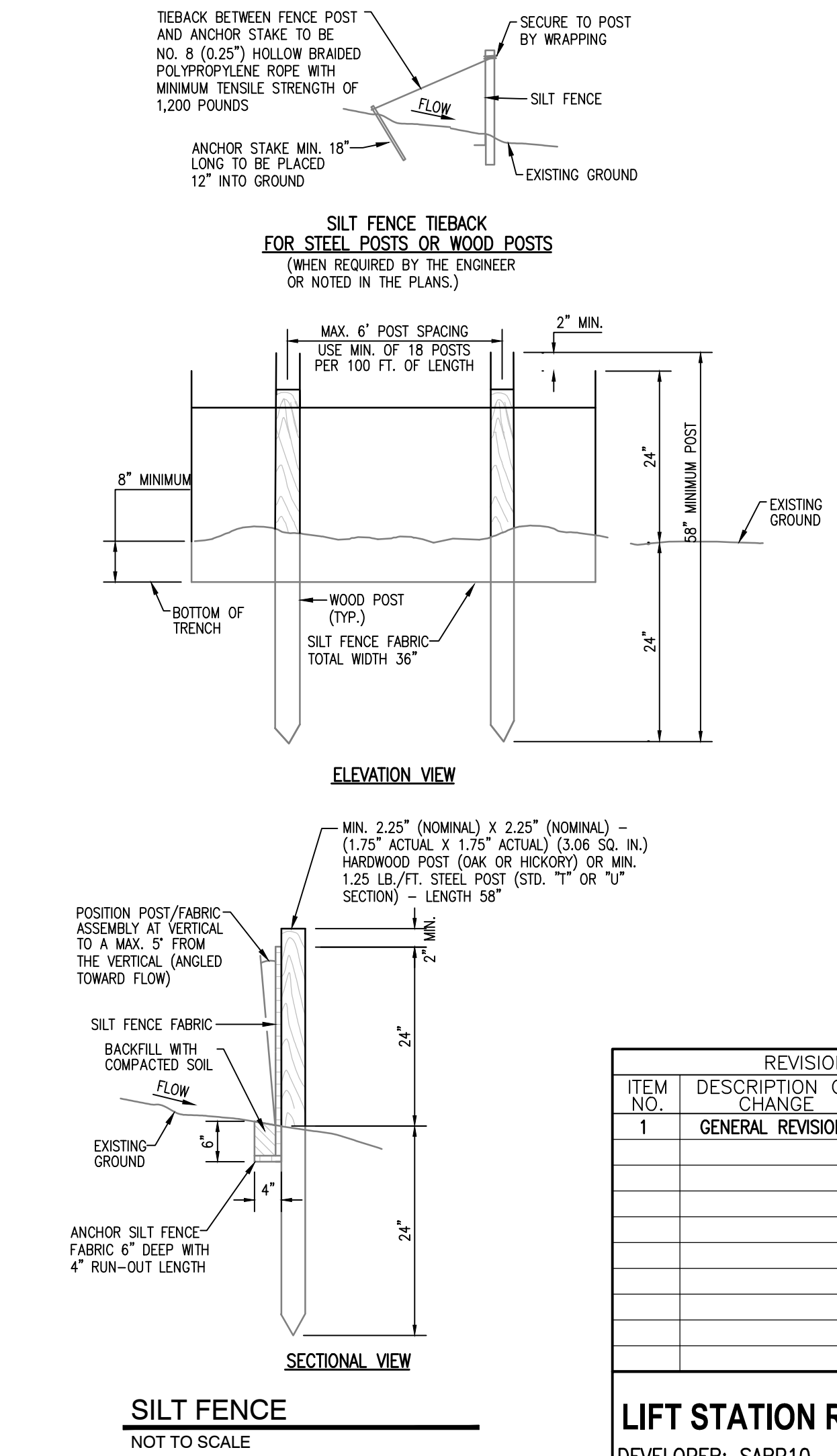


ABANDONED MANHOLE NOT TO SCALE

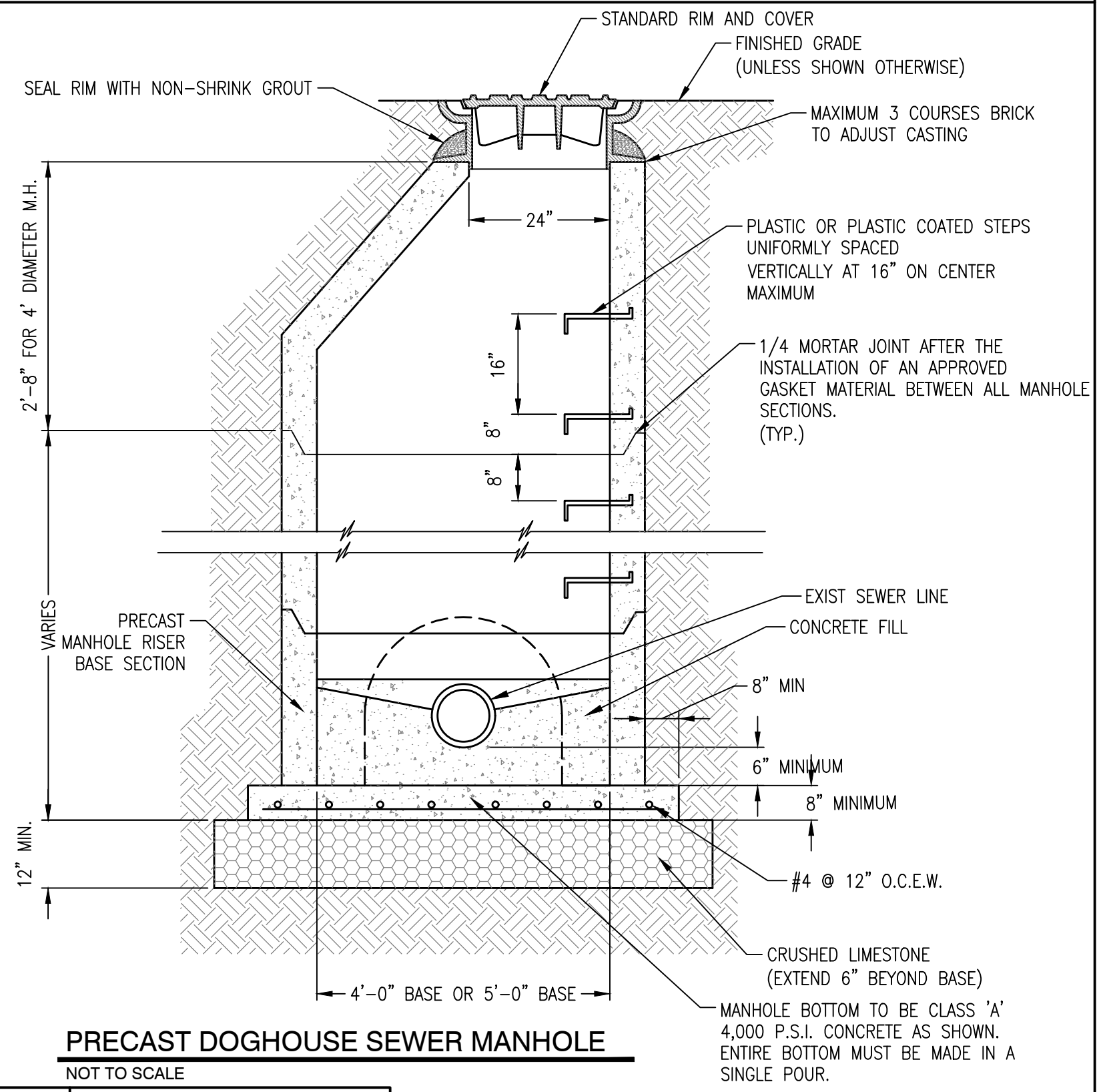
REVISIONS table with columns for NO., DATE, BY, and REMARKS.

CONVERSIONS table with columns for ENGLISH and METRIC.

City of Memphis Division of Public Works Design Standard for Abandoned Manholes. Includes signature of Bryant Anderson and date 12/1/02.



SILT FENCE NOT TO SCALE



PRECAST DOGHOUSE SEWER MANHOLE NOT TO SCALE

REVISION table with columns for ITEM NO., DESCRIPTION OF CHANGE, APPROVAL DATE, and DATE.



ADDED SHEET

SHEET 1 OF 1 DIVISION OF ENGINEERING

DETAILS

450 Jack Carley Causeway MEMPHIS, TENNESSEE

MEMPHIS, TENNESSEE SURVEY: PFI DATE: JUNE, 2020 DESIGN BY: PFI DATE: AUG, 2020 DRAWN BY: PFI DATE: AUG, 2020 PROJECT NO.: 24699.05 BOOK: 1688 SCALE: N.T.S.

REVIEWED

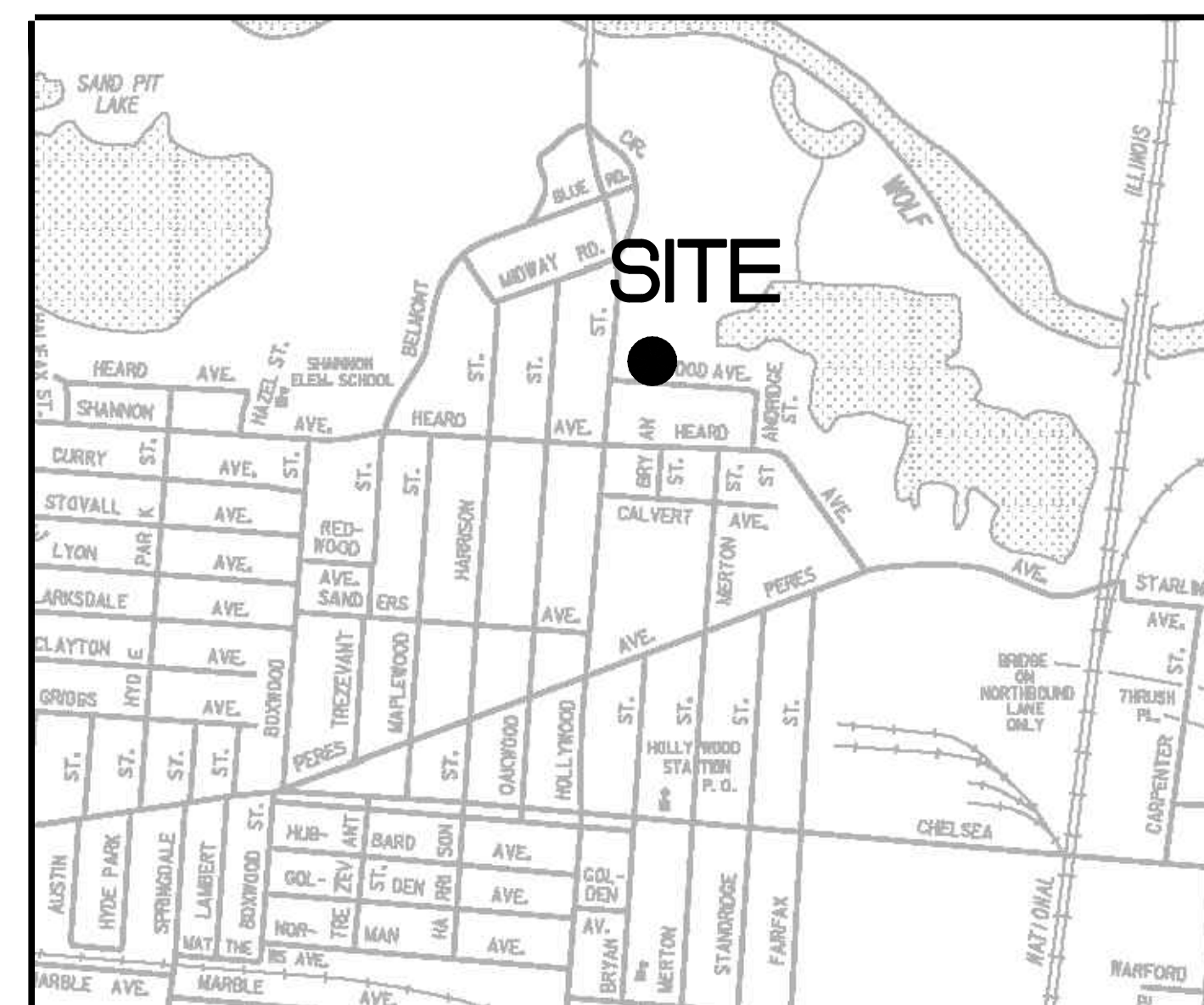
LIFT STATION REHAB DESIGN

DEVELOPER: SARP10 ENGINEER: PICKERING FIRM, INC.

JULY, 2021
 CONSTRUCTION PLANS
 REVISED JANUARY, 2022
 LIFT STATION REHAB DESIGN
 SARP10

2497 HANWOOD AVENUE

SCHEDULE OF DRAWINGS	
SH.	TITLE
1	COVER
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	PUMP STATION SITE AND FORCE MAIN ROUTING
4	SEWER PLAN
5	TRAFFIC CONTROL PLAN
6	PUMP DETAILS
7	PUMP STATION DETAILS
8	DETAILS



VICINITY MAP
 N.T.S.

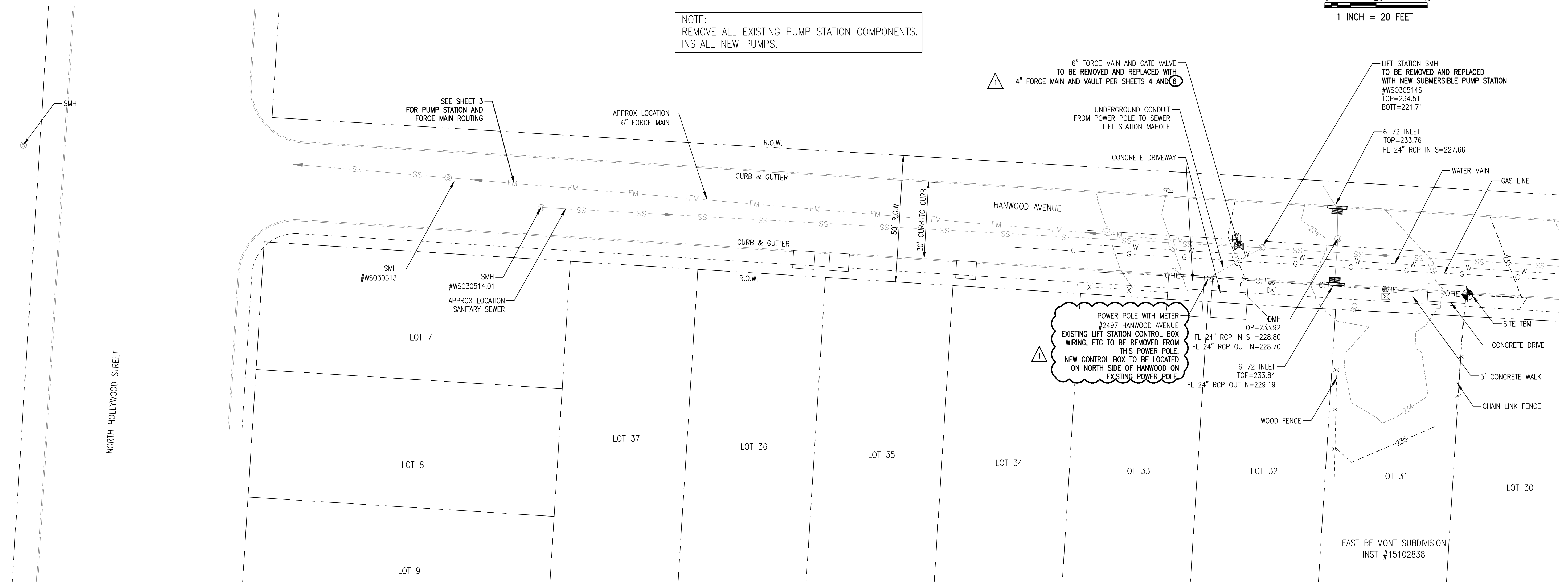
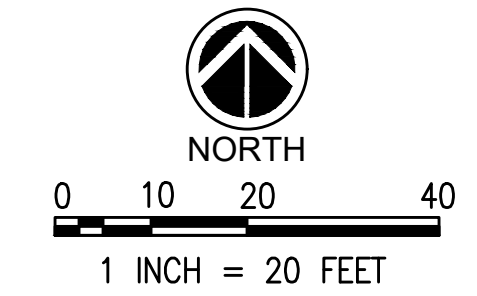


Pickering Firm, Inc.
 Facility Design • Civil Engineering • Surveying •
 Transportation • Natural / Water Resources
 6363 Poplar Avenue, Suite 300
 Memphis, TN 38119
 901.726.0810

THE PLANS, IDEAS AND DESIGNS SHOWN ON THIS DRAWING ARE THE PROPERTY OF THE ENGINEER, DESIGNED SOLELY FOR THIS CONTRACT. THIS PLAN SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH IT WAS NOT INTENDED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.

NOTE:
CONTRACTOR TO LOCATE AND VERIFY FORCE MAIN
ROUTING AT START OF CONSTRUCTION AND NOTIFY
ENGINEER OF ANY ISSUES.

NOTE:
REMOVE ALL EXISTING PUMP STATION COMPONENTS.
INSTALL NEW PUMPS.



LEGEND			
	EXISTING FIRE HYDRANT		EXISTING UNDERGROUND ELECTRIC
	EXISTING POWER POLE		EXISTING OVERHEAD ELECTRIC
	EXISTING GUY POLE		EXISTING UNDERGROUND FIBER OPTIC
	EXISTING MAILBOX		EXISTING UNDERGROUND GAS LINE
	EXISTING SIGN		EXISTING WATER LINE
	EXISTING GAS VALVE		EXISTING DRAIN LINE
	EXISTING WATER VALVE		EXISTING TELEPHONE LINE
	EXISTING WATER METER		EXISTING UNDERGROUND OIL LINE
	EXISTING ROW MARKER		FORCE MAIN
	EXISTING ELECTRIC TRANSFORMER		SANITARY SEWER
	EXISTING TELEPHONE PEDESTAL		SEWER MANHOLE

- DEMOLITION NOTES:**
- THE CONTRACTOR SHALL REMOVE ALL UNDERGROUND UTILITIES AND ANY OTHER ITEMS IN ACCORDANCE WITH THE TDEC AND THE TECHNICAL SPECIFICATIONS. THE CONTRACTOR SHALL STRICTLY FOLLOW ALL CITY, STATE, AND FEDERAL GUIDELINES FOR REMOVAL AND DISPOSAL OF THESE FACILITIES.
 - ALL BUILDING, CONCRETE, ASPHALT PAVEMENT, AND GRANULAR SUBBASE SHALL BE REMOVED FULL DEPTH PER THE DIRECTION OF THE GEOTECHNICAL ENGINEER. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE AND FEDERAL REGULATIONS.
 - CONTRACTOR SHALL REMOVE & REPAIR PAVEMENT AS REQUIRED FOR UTILITY CONSTRUCTION INCLUDING BUT NOT LIMITED TO: IRRIGATION SLEEVES, SITE LIGHTING CONDUITS, WATER LINES, SANITARY SEWER LINES, STORM DRAINAGE LINES, ETC. CONTRACTOR HAS OPTION TO BORE CONDUITS.
 - PRIOR TO COMMENCING ANY UTILITY WORK, CONTRACTOR SHALL NOTIFY ANY SURROUNDING PROPERTY OWNERS WHO MAY EXPERIENCE A DISRUPTION IN SERVICE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MODIFYING ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE PARTS OF THAT EXISTING SYSTEM THAT ARE REMOVED, ABANDONED OR DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO MODIFY ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE NEW AREAS OF LANDSCAPING. ANY IRRIGATION SLEEVES SHALL BE INSTALLED PRIOR TO PAVING AND BACKFILLED PROPERLY BY THE SITE CONTRACTOR.
 - THE CONTRACTOR SHALL ENSURE ADEQUATE ACCESS IS PROVIDED DURING ALL PHASES OF CONSTRUCTION. COORDINATE WITH THE PROJECT MANAGER.
 - WHEN REMOVING UTILITIES, CONTRACTOR SHALL GROUT AND SEAL ANY STRUCTURES THAT ARE TO REMAIN PER LOCAL REGULATIONS.
 - UTILITIES SHOWN ARE LOCATED BY FIELD SURVEY AND RECORD DRAWINGS. ADDITIONAL UNDERGROUND UTILITIES WILL BE ENCOUNTERED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY INACTIVE STRUCTURES & ALERT THE ENGINEER OF ANY ACTIVE, UNMAPPED STRUCTURES.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION OF UTILITY DEMOLITION & RELOCATION.
 - CONTRACTOR SHALL NOT INTERRUPT DRAINAGE FROM ADJACENT PROPERTIES AND PUBLIC RIGHT-OF-WAYS.

PICKERING FIRM INCORPORATED UNDERGROUND UTILITIES DISCLAIMER:

INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE ENGINEER IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

- GENERAL NOTES:**
- AT ALL CROSSINGS OF EXISTING UTILITIES, THE CONTRACTOR SHALL FIELD LOCATE BY POST HOLE OR OTHER APPROPRIATE METHODS, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
 - ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
 - ALL DISTURBED AREAS SHALL BE SEEDED (WITH A SEASONAL MIX) AND COVERED WITH STRAW AT THE END OF EACH WEEK (AT A MINIMUM) OR MORE FREQUENTLY, AS CONDITIONS DICTATE, IN ADDITION TO EROSION CONTROLS REFERENCED ON PLANS.
 - ALL DISTURBED LAWN AREAS SHALL BE SODDED. MATCH EXISTING SOD TYPE.
 - CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES, AND PUBLIC/Private INFRASTRUCTURE AND PROPERTY.

FLOOD NOTE:

THIS IS TO CERTIFY THAT BY GRAPHIC DETERMINATION THE ABOVE PLATTED PROPERTY IS IN A "ZONE X" NO SHADING (AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD ACCORDING TO THE FEMA/FIRM MAP NUMBER 47157C0290F WITH AN EFFECTIVE DATE OF SEPTEMBER 28, 2007. NEAREST BASE FLOOD ELEVATION = 233.

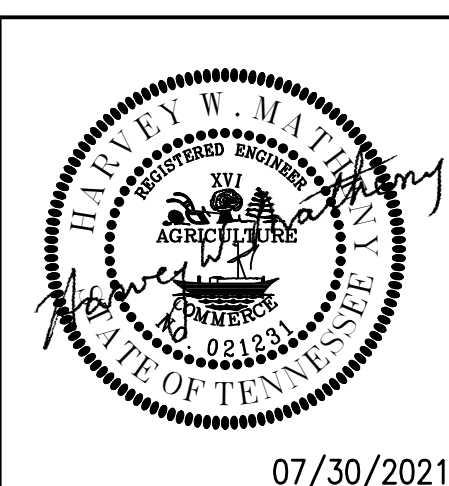
PROJECT BENCHMARKS

CITY BENCHMARK:
#314 IS LOCATED AT HOLLYWOOD STREET AND HEARD AVENUE
CITY MONUMENT IS LOCATED ON THE NORTHEAST CORNER AT BACK OF CURB AT ER ON HEARD AVENUE SIDE.
ELEVATION: 245.35

SITE TBM #1
NAIL SET IN NORTH SIDE OF POWER POLE AS SHOWN.
ELEVATION: 234.86

NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022



SHEET 1 OF 1
DIVISION OF ENGINEERING

EXISTING CONDITIONS & DEMOLITION PLAN

2497 Hanwood Avenue
MEMPHIS, TENNESSEE

SURVEY: PFI PROJECT NO.: 24699.05
DESIGN BY: PFI DATE: JUNE, 2020 BOOK: 1676
DRAWN BY: PFI DATE: AUG, 2020 SCALE: 1" = 20'
REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

K:\WORK\DWG\DWG\ENGINE CONDITIONS & DEMOLITION PLAN.DWG - January 27, 2022



WS030489

N Hollywood St

WS030490

2401

WS030513

Hanwood Ave

WS03-1
CES

1670

WS030491

Gravity Main

Facility ID: WS030514S
 Diameter: 8"
 Material: CP
 Modeled: No
 US Elevation:
 DS Elevation:
 Length (ft): 222
 Status: Field Verified
 Comments:
 CCTV Video: [More info](#)
 Link to Report: [More info](#)
 Reverse CCTV Video:
 Link to Reverse Report:
 Zoom to

WS030514

WS030515

1599

Stoddridge St

WS 030516

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

FOR REFERENCE ONLY

SHEET 1 OF 1
DIVISION OF ENGINEERING

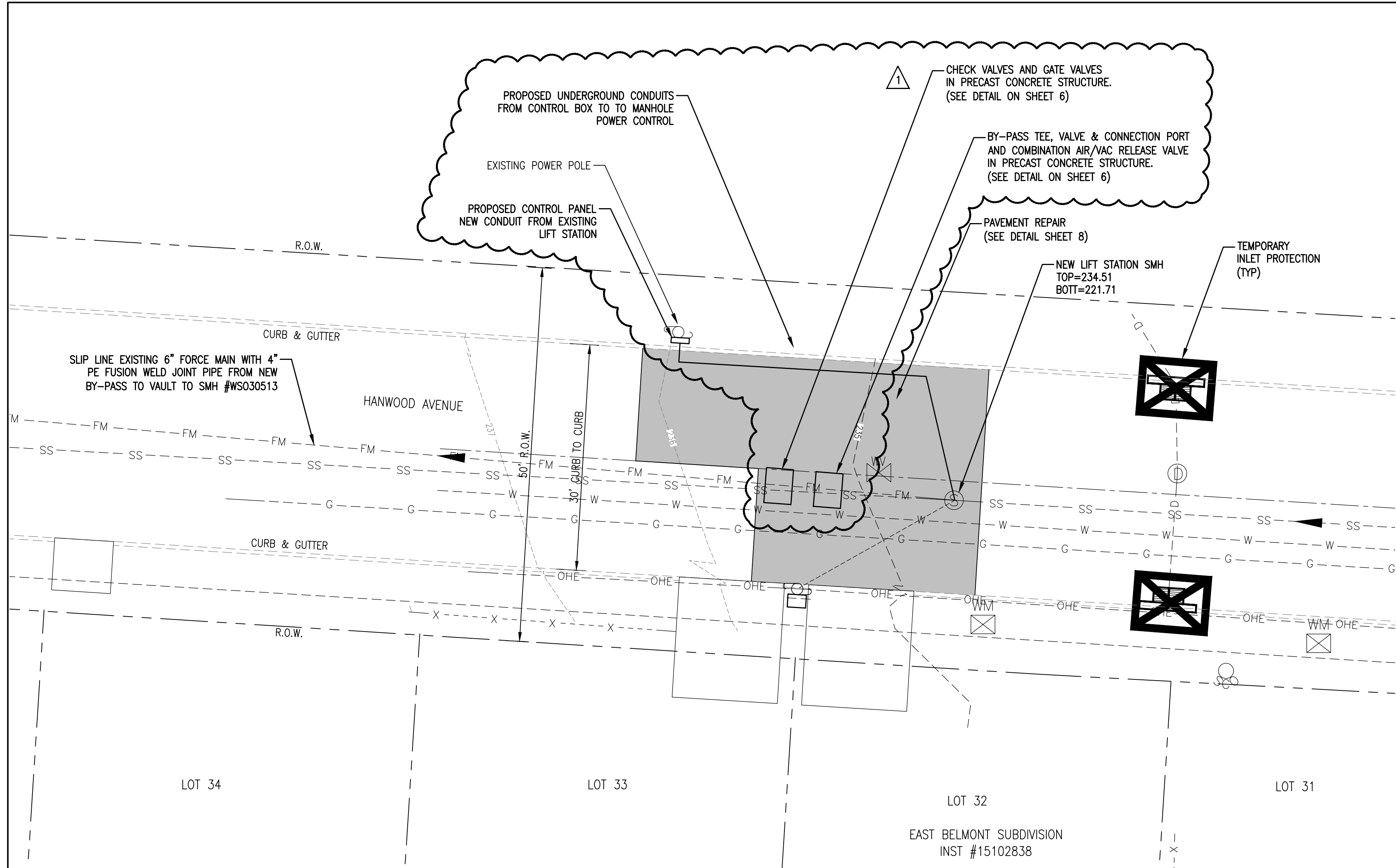
PUMP STATION SITE AND FORCE MAIN ROUTING
2497 Hanwood Avenue

MEMPHIS, TENNESSEE

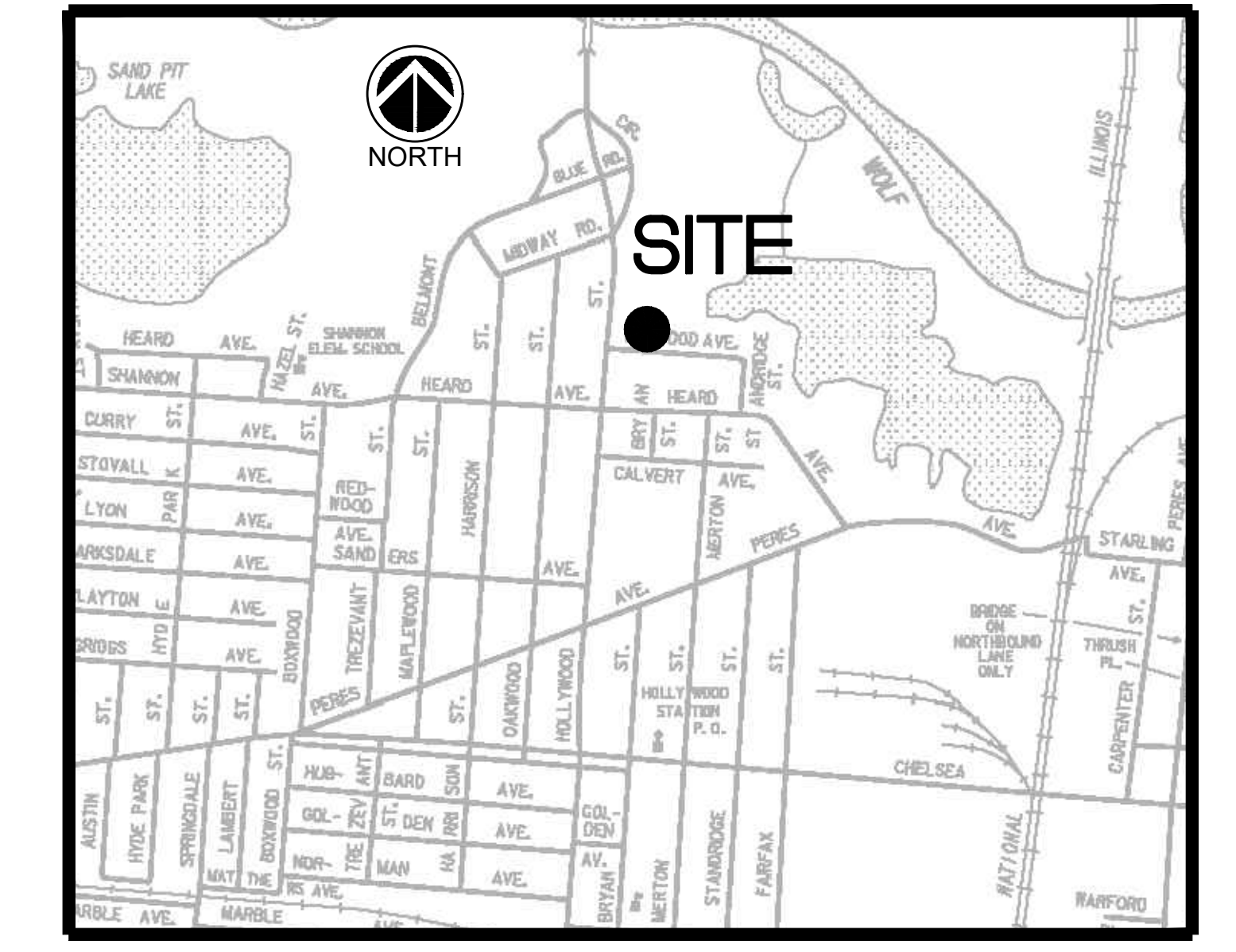
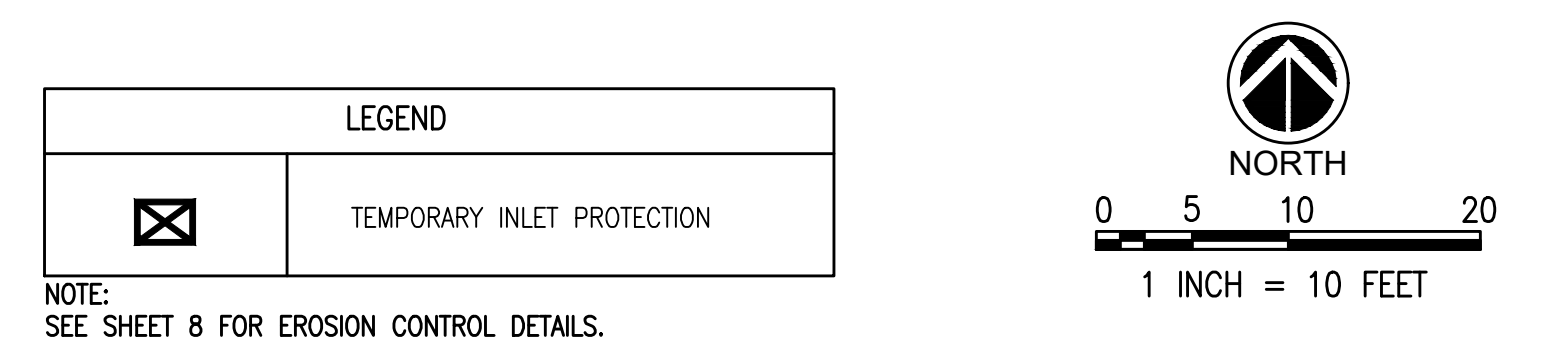
SURVEY: PFI
DESIGN BY: PFI
DRAWN BY: PFI
DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020
PROJECT NO.: 24699.05
BOOK: 1676
SCALE: N.T.S.

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

REVIEWED



- EROSION AND SEDIMENTATION CONTROL NOTES:**
- ALL NEWLY CUT AND/OR FILLED AREAS LACKING ADEQUATE VEGETATION SHALL BE SEEDED AS REQUIRED TO EFFECTIVELY PREVENT SOIL EROSION.
 - SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES SHALL BE USED AS SHOWN AND AS DIRECTED BY THE ENGINEER TO CONTROL SOIL EROSION.
 - THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTROLS SHOWN ON THE PLAN ARE THE MINIMUM REQUIRED AND THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
 - THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT FOR ALL EROSION CONTROL DURING CONSTRUCTION ACTIVITIES.
 - THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES AND REPORTING ANY MAINTENANCE AS REQUIRED BY THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT DURING CONSTRUCTION ACTIVITIES.
 - PROVISIONS SHALL BE MADE TO PROTECT DOWNSTREAM WATERCOURSES (I.E., STORM SEWER SYSTEMS, DITCHES, WETLANDS, ETC.) FROM SEDIMENT RUNOFF DEVELOPED FROM THE CONSTRUCTION PROCESS. PROVISIONS INCLUDE, BUT ARE NOT LIMITED TO, STRUCTURAL CONTROLS SUCH AS SILT FENCING, GEOTEXTILE FABRIC PROTECTION OF STORM SEWERS, HAY BALES, DIKES AND SANDBAG BERMS; AND/OR VEGETATION CONTROLS SUCH AS SEEDING OR EXISTING VEGETATIVE BUFFER STRIPS (MINIMUM 25 FEET WIDE).
 - PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL INSTALL EROSION AND SEDIMENTATION CONTROLS AT LOCATIONS SHOWN ON PLANS.
 - CONTRACTOR SHALL PERFORM STREET CLEANING ON ROADS AND STREETS ADJACENT TO THE PROJECT WHICH ARE USED AS ACCESS ROUTES FOR CONSTRUCTION TRAFFIC IF NECESSARY. WASHING OF STREETS IS PROHIBITED.
 - LOCATE FUEL/MATERIAL STORAGE AREAS AWAY FROM STORM WATER CONVEYANCE SYSTEMS. USE A MINIMUM 60 MIL POLYETHYLENE LINER UNDER ABOVE GROUND STORAGE TANKS. USE 2 FOOT HIGH BERMS AROUND FUEL STORAGE AREAS.
 - CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL ENVIRONMENTAL LAWS.
 - CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF FUELS, MATERIALS AND CONTAMINATED EXCAVATIONS IN A LEGALLY APPROVED MANNER.
 - AT A MINIMUM, STRUCTURAL CONTROLS SHOULD BE INSPECTED TWICE EVERY CALENDAR WEEK AT LEAST 72 HOURS APART. THE INSPECTOR, APPROVED BY THE OWNER, SHALL HAVE AN ACTIVE CERTIFICATION BY COMPLETING THE "FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL LEVEL 1" COURSE. A COPY OF THE CERTIFICATION SHALL BE KEPT ONSITE, SHOULD CONTROLS BECOME INEFFECTIVE, NECESSARY REPAIRS SHALL BE PERFORMED TO RETURN THE INTEGRITY OF THE STRUCTURAL CONTROLS.
 - EQUIPMENT STAGING AREA TO BE DESIGNATED BY CONTRACTOR AND APPROVED BY OWNER PRIOR TO CONSTRUCTION.
 - SEDIMENT WILL BE REMOVED FROM THE UPSTREAM FACE OF THE SILT FENCE WHEN IT REACHES A MAXIMUM DEPTH OF 50% OF THE FENCE'S CAPACITY. THE FENCE WILL BE REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
 - TEMPORARY SEEDING MAY BE REQUIRED IN ADDITION TO PERMANENT SEEDING TO ASSIST IN COMPLYING WITH THE CONSTRUCTION GENERAL PERMIT.



VICINITY MAP (NTS)

LEGEND			
	EXISTING FIRE HYDRANT		EXISTING UNDERGROUND ELECTRIC
	EXISTING POWER POLE		EXISTING OVERHEAD ELECTRIC
	EXISTING GUY POLE		EXISTING UNDERGROUND FIBER OPTIC
	EXISTING MAILBOX		EXISTING UNDERGROUND GAS LINE
	EXISTING SIGN		EXISTING WATER LINE
	EXISTING GAS VALVE		EXISTING DRAIN LINE
	EXISTING WATER VALVE		EXISTING TELEPHONE LINE
	EXISTING WATER METER		EXISTING UNDERGROUND OIL LINE
	EXISTING ROW MARKER		FORCE MAIN
	EXISTING ELECTRIC TRANSFORMER		SANITARY SEWER
	EXISTING TELEPHONE PEDESTAL		SEWER MANHOLE

- CITY OF MEMPHIS SANITARY SEWER CONSTRUCTION NOTES**
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT NECESSARILY ALL OF SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY COMPANY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND/OR UNDERGROUND STRUCTURES PRIOR TO THE INITIATION OF ANY CONSTRUCTION. CONTRACTOR SHALL ALSO ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN THE CONSTRUCTION PERIMETERS. THE SITE LOCATION FOR EXISTING UTILITIES INVOLVING MLG&W, SOUTH CENTRAL BELL, TEXAS GAS COMPANY, AND/OR SEWER LOCATION CALL 811.
 - CONTRACTOR SHALL ENSURE UNINTERRUPTED SEWER SERVICE ON EXISTING SEWER AND SERVICE CONNECTIONS BY PROVIDING AMPLE TEMPORARY WASTEWATER PUMPING AND/OR BYPASSING.
 - CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES.
 - CONTRACTOR SHALL NOTIFY THE SARP10 CONSTRUCTION MANAGER A MINIMUM OF 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
 - ALL AREAS IN CUT OR FILL WHERE VEGETATION HAS BEEN REMOVED SHALL BE SEEDED, MULCHED, FERTILIZED, AND/OR SODDED TO PREVENT EROSION.
 - THE CONTRACTOR SHALL VERIFY EXISTING DATA AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ENGINEER.
 - ALL SANITARY SEWER TO BE CONSTRUCTED AS PER CITY OF MEMPHIS STANDARD CONSTRUCTION SPECIFICATIONS. SANITARY SEWER SERVICE CONNECTIONS TO BE INSTALLED AS PER CITY OF MEMPHIS STANDARD SST-16.
 - ALL SEWER MANHOLE LIDS IN OPEN AREAS ARE TO BE CONSTRUCTED 1.5' ABOVE PROPOSED GRADE. IN BACKYARDS, MANHOLE LIDS ARE TO BE 1.5' ABOVE INITIAL GRADE, 0.5' ABOVE FINISHED GRADE.
 - ALL SANITARY SEWER, INCLUDING SEWER CONNECTIONS, WHICH HAS LESS THAN 1.5' CLEARANCE (OUTSIDE OF PIPES) WITH DRAINAGE OR IN FILLED AREAS SHALL BE CLASS 50 D.I.P. OR CONCRETE ENCASED, 10' MINIMUM BOTH SIDES OF CROSSING. ALL DUCTILE IRON PIPE (D.I.P.) SHALL BE POLYETHYLENE LINED OR SHALL BE TREATED WITH PROTECTO 401 OR APPROVED EQUIVALENT.
 - THEY CITY OF MEMPHIS SHALL HAVE INGRESS/EGRESS RIGHTS TO USE PRIVATE DRIVES AND YARDS FOR THE PURPOSE OF MAINTAINING ALL PUBLIC SEWER LINES AND SHALL BEAR NO RESPONSIBILITY FOR THE MAINTENANCE OF SAID PRIVATE DRIVES AND YARDS.
 - NO TREES, SHRUBS, PERMANENT STRUCTURES, OR OTHER UTILITIES (EXCEPT FOR CROSSINGS) WILL BE ALLOWED WITHIN THE SANITARY SEWER EASEMENT. NO OTHER UTILITIES OR SERVICES MAY OCCUPY SANITARY SEWER EASEMENTS IN PRIVATE DRIVES AND YARDS EXCEPT FOR CROSSINGS.
 - ALL SANITARY SEWER MANHOLES IN REVERSE CROWN STREETS, ALLEYS, OR DRIVES (PUBLIC OR PRIVATE) SHALL BE PROVIDED WITH GASKETS AND PLUGS FOR PICK HOLES TO PREVENT DRAINAGE INFLOW INTO THE SEWER SYSTEM.
 - THE CONTRACTOR SHALL PROVIDE ADEQUATE AND EFFECTIVE EROSION CONTROL AS NECESSARY TO PREVENT ANY SILTATION INTO THE EXISTING DRAINAGE SYSTEM AND/OR ADJACENT PROPERTIES.

- GENERAL NOTES:**
- AT ALL CROSSINGS OF EXISTING UTILITIES, THE CONTRACTOR SHALL FIELD LOCATE BY POST HOLEING OR OTHER APPROPRIATE METHODS, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
 - ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
 - ALL DISTURBED AREAS SHALL BE SEEDED (WITH A SEASONAL MIX) AND COVERED WITH STRAW AT THE END OF EACH WEEK (AT A MINIMUM) OR MORE FREQUENTLY, AS CONDITIONS DICTATE, IN ADDITION TO EROSION CONTROLS REFERENCED ON PLANS.
 - ALL DISTURBED LAWN AREAS SHALL BE SODDED. MATCH EXISTING SOD TYPE.
 - CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES, AND PUBLIC/PRIVATE INFRASTRUCTURE AND PROPERTY.

NOTE:
BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE AND VERIFY FORCE MAIN ROUTING AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

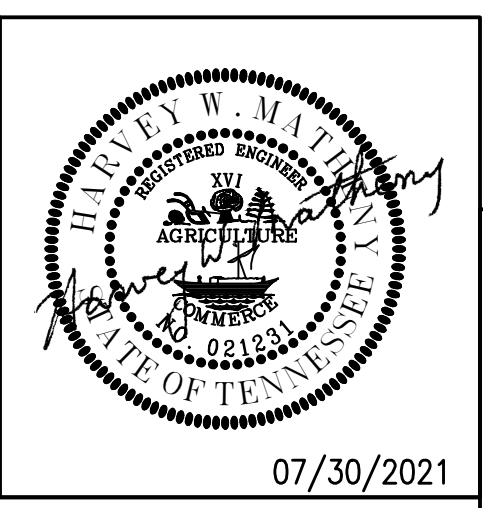
FLOOD NOTE:
THIS IS TO CERTIFY THAT BY GRAPHIC DETERMINATION THE ABOVE PLATTED PROPERTY IS IN A "ZONE X" NO SHADING (AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD ACCORDING TO THE FEMA/FIRM MAP NUMBER 47157C0290F WITH AN EFFECTIVE DATE OF SEPTEMBER 28, 2007. NEAREST BASE FLOOD ELEVATION = 233.

PROJECT BENCHMARKS
CITY BENCHMARK:
 #314 IS LOCATED AT HOLLYWOOD STREET AND HEARD AVENUE
 CITY MONUMENT IS LOCATED ON THE NORTHEAST CORNER AT BACK OF CURB AT ER ON HEARD AVENUE SIDE.
 ELEVATION: 245.35
SITE TBM #1
 NAIL SET IN NORTH SIDE OF POWER POLE AS SHOWN.
 ELEVATION: 234.86
NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

PICKERING FIRM INCORPORATED UNDERGROUND UTILITIES DISCLAIMER:
 INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE ENGINEER IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

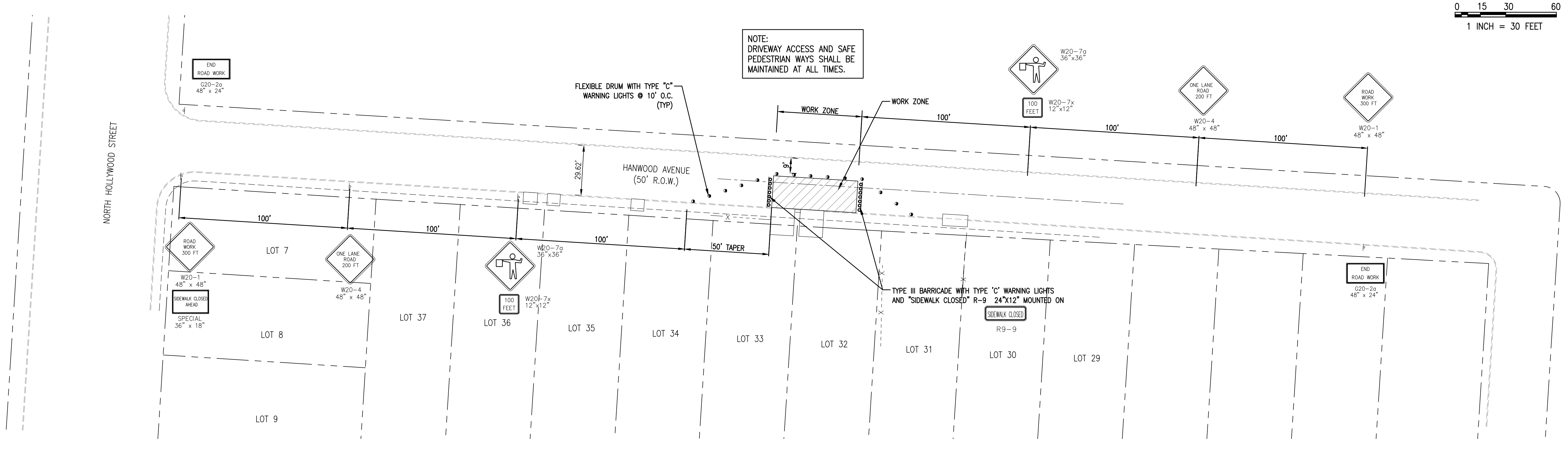
APPROVED FOR CONSTRUCTION
 THE DOCUMENT BEARING THIS STAMP HAS BEEN RECEIVED AND REVIEWED BY THE CITY OF MEMPHIS DIVISION OF ENGINEERING UNDER AUTHORITY DELEGATED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION DIVISION OF WATER POLLUTION CONTROL. IT IS HEREBY APPROVED FOR CONSTRUCTION BY THE CITY ENGINEER AS EVIDENCE BY HIS SIGNATURE IN THE TITLE BLOCK BELOW.
 APPROVAL EXPIRES 1 YEAR FROM APPROVAL DATE BELOW. THIS APPROVAL SHALL NOT BE CONSTRUED AS CREATING A PRESUMPTION OF CORRECT OPERATION OR AS WARRANTING BY THE CITY ENGINEER THAT THE APPROVED FACILITIES WILL REACH THE DESIRED GOALS.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022



SEWER BASIN: WS-03
 SHEET 1 OF 1
 DIVISION OF ENGINEERING
SEWER PLAN
2497 Hanwood Avenue
 MEMPHIS, TENNESSEE
 DATE: JUNE, 2020
 DATE: AUG, 2020
 DATE: AUG, 2020
 PROJECT NO.: 24699.05
 BOOK: 1676
 SCALE: 1" = 10'
 REVIEWED

LIFT STATION REHAB DESIGN
 DEVELOPER: SARP10
 ENGINEER: PICKERING FIRM, INC.

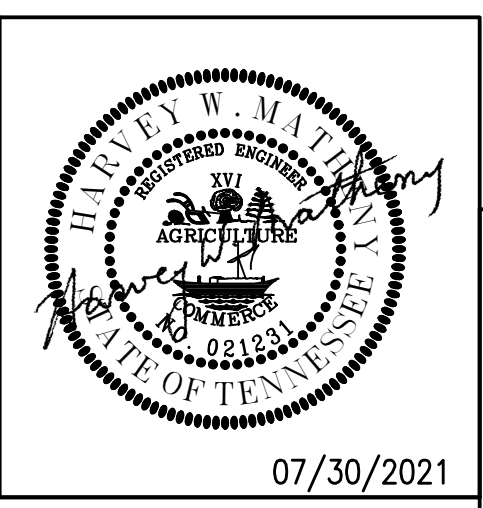


- TRAFFIC CONTROL NOTES:**
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE APPROPRIATE TRAFFIC CONTROL DEVICES IN ACCORDING WITH THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."
 - CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE CITY OF MEMPHIS A MINIMUM OF 24 HOURS PRIOR TO COMMENCING CONSTRUCTION OR IMPLEMENTING A TRAFFIC CONTROL PLAN. ALL TRAFFIC CONTROL DEVICES MUST BE IN PLACE BEFORE CONSTRUCTION ACTIVITY BEGINS.
 - ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
 - SIDE STREET, DRIVEWAY ACCESS, AND SAFE PEDESTRIAN WAYS SHALL BE MAINTAINED AT ALL TIMES.
 - THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THE RIGHT-OF-WAY OR WITHIN TEN (10) FEET OF THE EDGE OF PAVEMENT WHICHEVER IS LESS, WHEN THE LANE IS OPEN TO TRAFFIC, UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO BE PARKED WITHIN THE RIGHT-OF-WAY OR WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE WHICHEVER IS LESS, AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE.
 - CONTRACTOR SHALL USE PLASTIC DRUMS WITH TYPE "C" WARNING LIGHTS TO SEPARATE TRAFFIC FROM THE CONSTRUCTION AREA.
 - DRUMS WITH TYPE "C" WARNING LIGHTS SHALL DELINEATE THE EDGE OF PAVEMENT THROUGH THE ENTIRE CONSTRUCTION AREA. IF THE DRUMS STAY OVERNIGHT, TYPE "A" WARNING LIGHTS ARE REQUIRED.
 - CONTRACTOR SHALL COVER ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SIGNS OR DEVICES DURING CONSTRUCTION AND THEY SHALL REMAIN DURING CONSTRUCTION AND UNTIL SUCH TIME THAT NO CONFLICT EXISTS.
 - CONTRACTOR SHALL INSTALL TEMPORARY NO PARKING SIGNS AS REQUIRED WITHIN THE TRAFFIC CONTROL AREA.
 - TWO-WAY TRAFFIC SHALL BE MAINTAINED ON HANWOOD DRIVE AT ALL TIMES.
 - ONLY ONE PHASE OF THE TRAFFIC CONTROL PLAN SHALL BE ACTIVE AT ANY ONE TIME.
 - ALL TEMPORARY OR PERMANENT TRAVELED SURFACES SHALL BE INSPECTED DAILY BY THE CONTRACTOR (INCLUDING WEEKENDS) AND NECESSARY PATCHING OR REFINISHING PERFORMED.
 - CHANNELIZING DEVICES SHALL BE REMOVED TO THE EDGE OF PAVEMENT AT THE END OF EACH WORK DAY. NO CLOSURE SHALL BE IN EFFECT FROM 4:00 P.M. UNTIL 9:00 A.M.
 - WORK WITHIN THE ROADWAY SHALL BE CONDUCTED BETWEEN 9:00 A.M. AND 4:00 P.M. AND THE ROADWAY SHALL BE COMPLETELY OPEN TO TRAFFIC AT ALL OTHER TIMES AND ALL INAPPROPRIATE SIGNS SHALL BE COVERED OR REMOVED.
 - CONTRACTOR SHALL CONTACT ALL APPROPRIATE AGENCIES BEFORE CLOSING ANY ROADWAYS.
 - AT NO TIME SHALL A ONE WAY SECTION BE LEFT OPEN UNATTENDED, WHERE TWO FLAGGERS ARE REQUIRED AND IN CIRCUMSTANCES WHERE ONLY ONE LANE OF TRAFFIC IS OPEN AND THERE IS NO CLEAR LINE OF SIGHT FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, THE CONTRACTOR SHALL PROVIDE RADIO COMMUNICATION OR OTHER APPROPRIATE MEANS OF ESTABLISHING CONTROL OF TRAFFIC.
 - ANYTIME FLAGGER IS NOT PRESENT TO CONTROL TRAFFIC, TWO TRAFFIC LANES MUST BE OPEN TO MAINTAIN TWO-WAY TRAFFIC AND ALL INAPPROPRIATE SIGNS SHALL BE COVERED OR REMOVED.
 - ALL FLAGGERS SHALL BE EQUIPPED WITH A STOP/SLOW PADDLE.
 - IF CONSTRUCTION ACTIVITIES REQUIRE OVER-NIGHT CLOSURE OF ANY PORTION OF THE ROADWAY, A REVISED TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE CITY.

- NOTE:**
- FLEXIBLE DRUMS AND TYPE III BARRICADES AS SHOWN FOR EASTBOUND AND WESTBOUND TRAFFIC SHALL NOT BE INSTALLED CONCURRENTLY.
 - DRUMS AND BARRICADE INSTALLATION SHALL BE IN CONJUNCTION WITH THE PORTION OF ROADWAY BEING DISRUPTED WITH PIPELINE INSTALLATION.
 - THE TRAFFIC CONTROL SHOWN IS THE MINIMUM REQUIRED. THE CONTRACTOR SHALL INCLUDE ANY ADDITIONAL TRAFFIC CONTROL NECESSARY FOR CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. ADDITIONAL TRAFFIC CONTROL MEASURES SHALL BE APPROVED BY THE CITY OF MEMPHIS AND ENGINEER.

CHANNELIZATION DEVICE LEGEND	
•	FLEXIBLE DRUM W/TYPE "A" WARNING LIGHTS
	SIGN SUPPORT
▬▬▬	TYPE III BARRICADE WITH TYPE "A" WARNING LIGHTS
▨▨▨	WORK ZONE

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



DESIGN SPEED = 25 MPH (ASSUMED)
HANWOOD AVENUE HAS NO STRIPING

SHEET 1 OF 1
DIVISION OF ENGINEERING

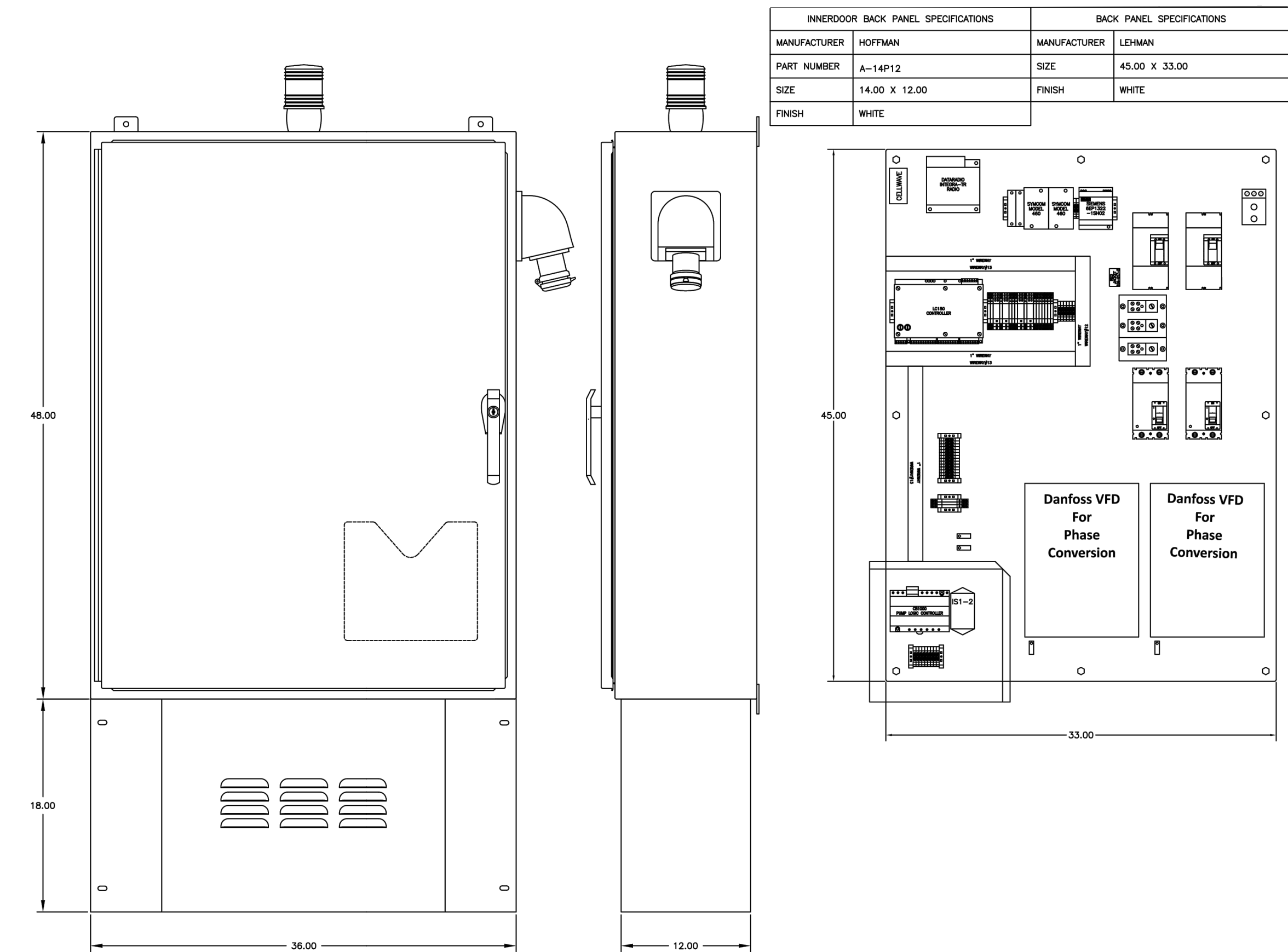
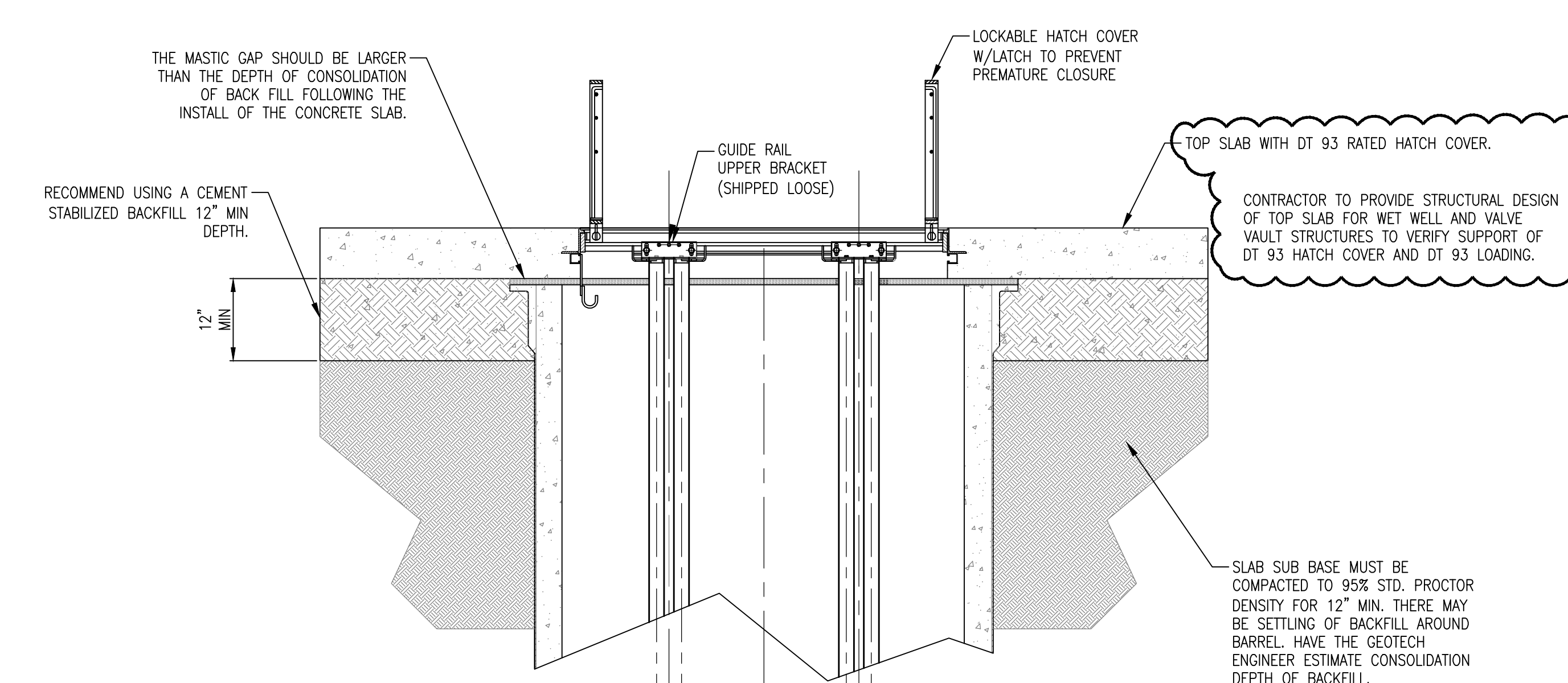
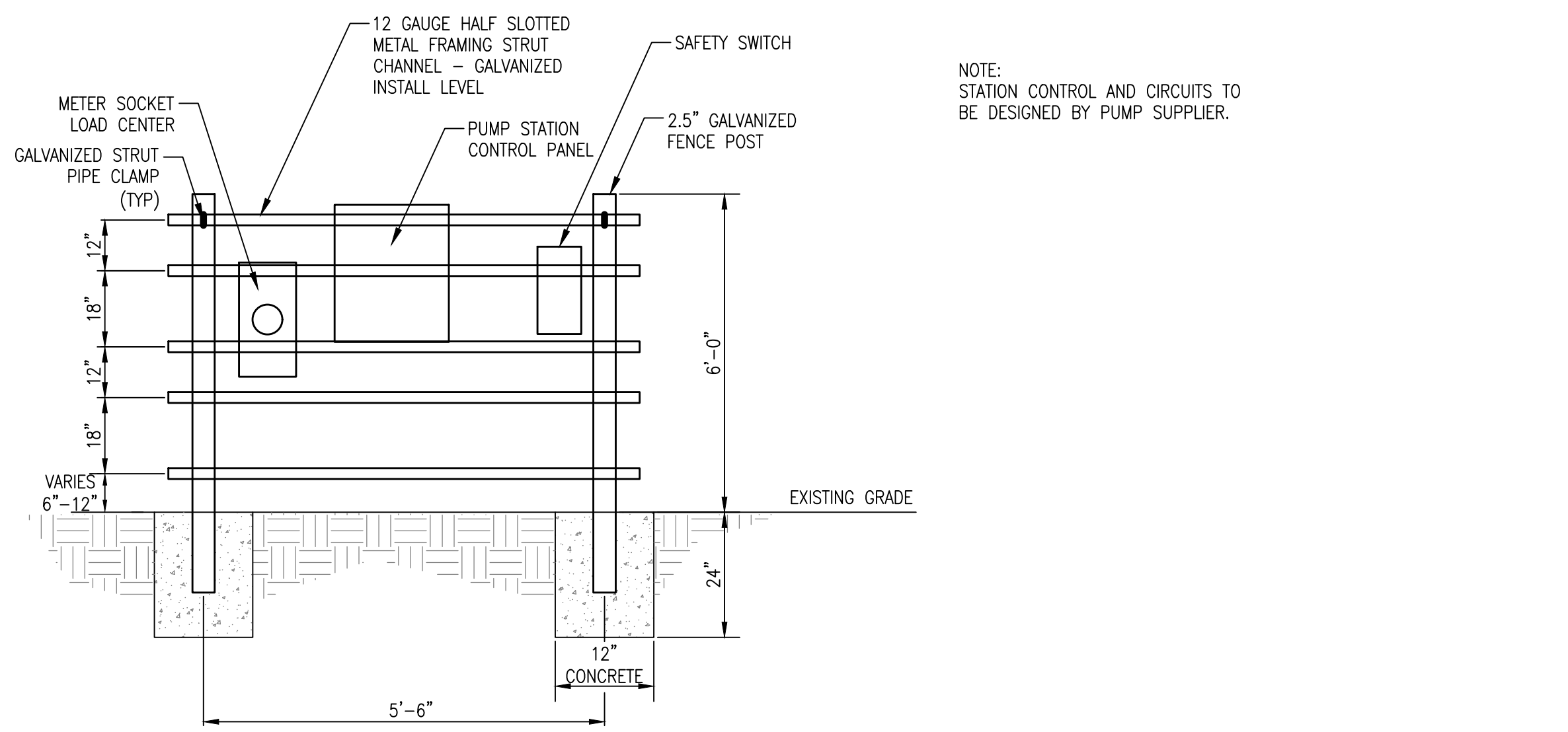
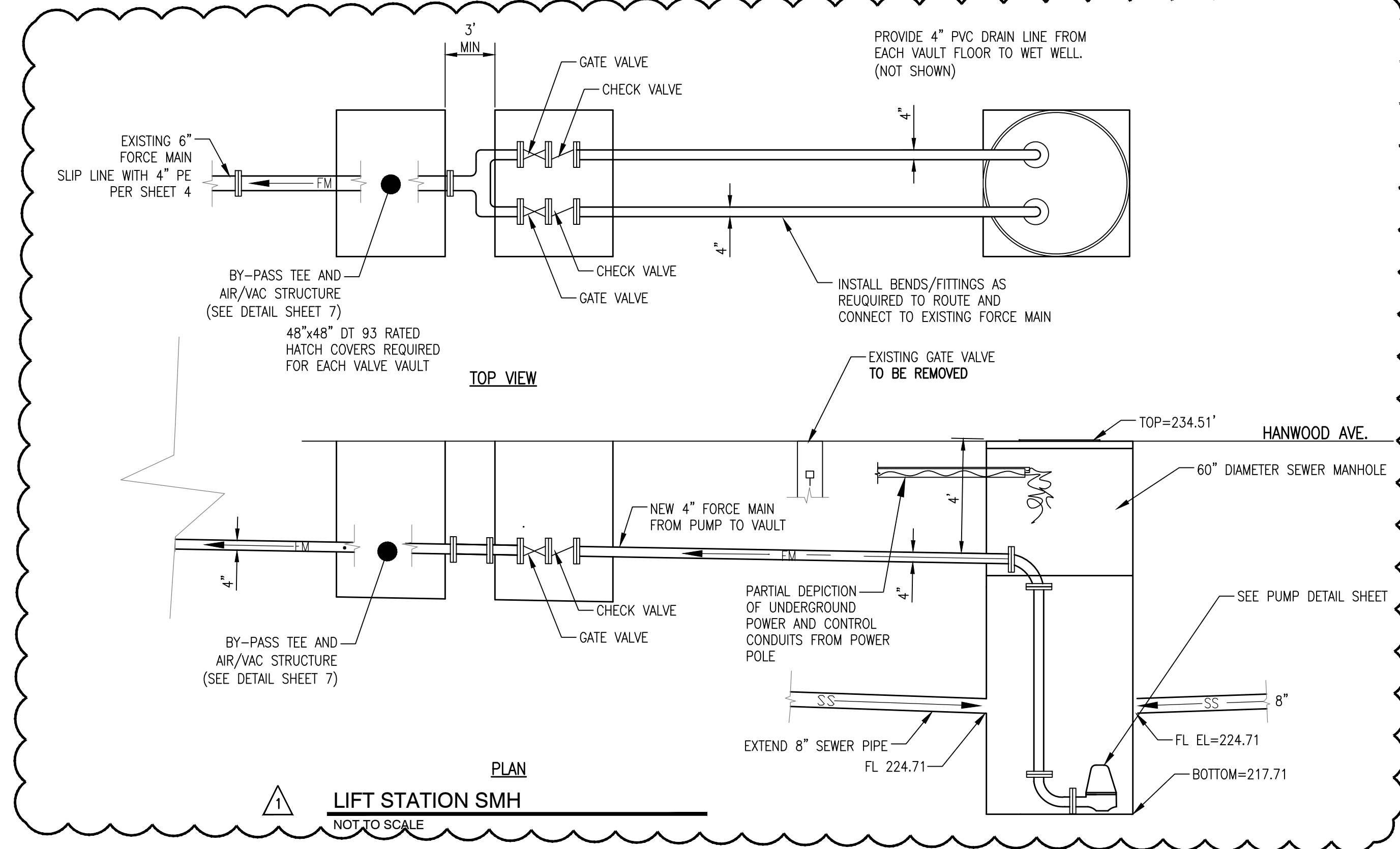
TRAFFIC CONTROL PLAN
2497 Hanwood Avenue

MEMPHIS, TENNESSEE

SURVEY: PFI DATE: JUNE, 2020 PROJECT NO.: 24699.05
 DESIGN BY: PFI DATE: AUG, 2020 BOOK: 1676
 DRAWN BY: PFI DATE: AUG, 2020 SCALE: 1" = 30'

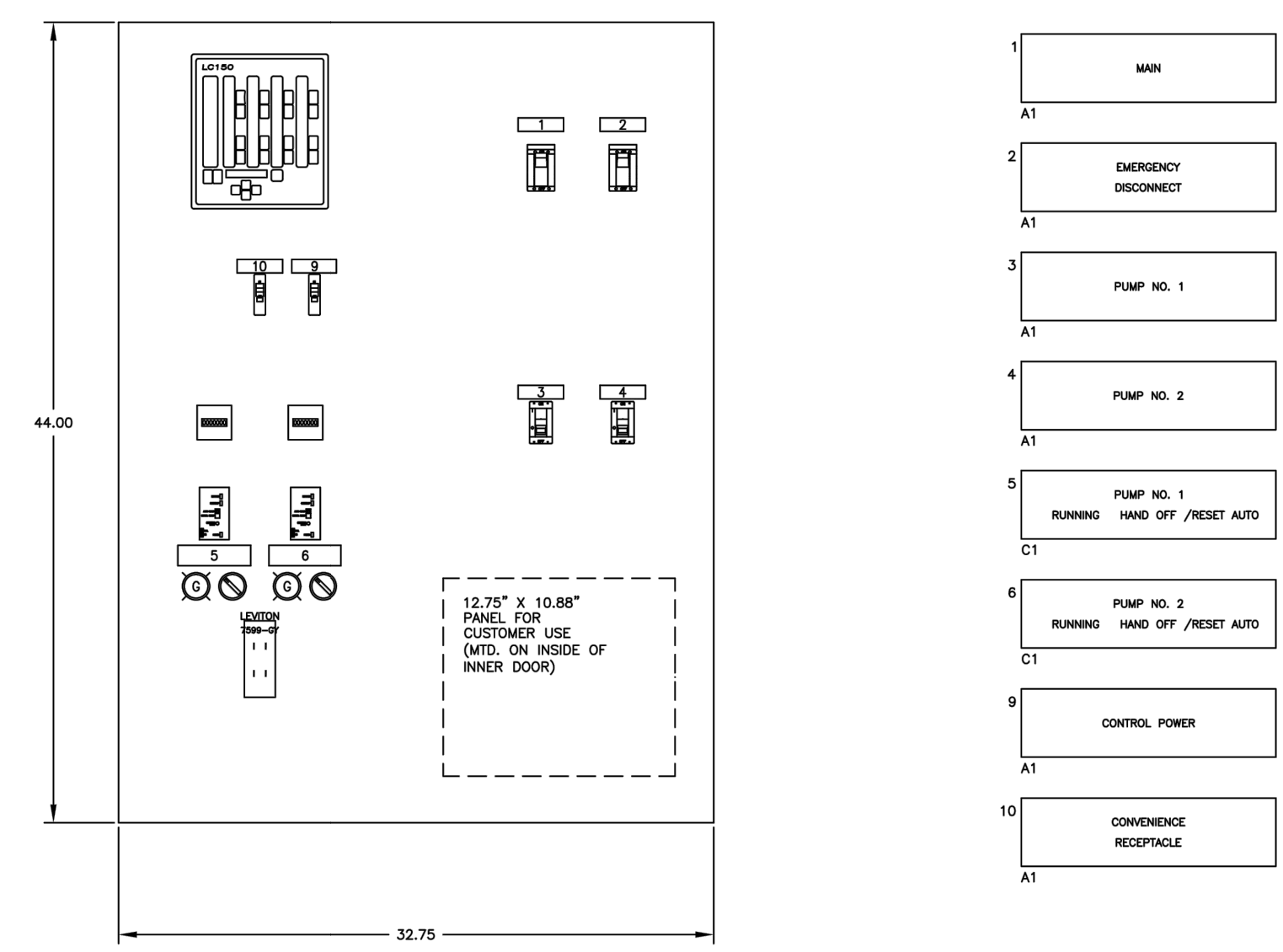
REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.



GENERAL PANEL ASSEMBLY INFORMATION		
1. TYPICAL FOR PANEL QUANTITY: ONE	6. NAMEPLATE MOUNTING	9. DEVICE MARKERS
2. UL <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> ADHESIVE <input type="checkbox"/> FASTENED WITH SCREWS <input type="checkbox"/> SEE NOTES	<input checked="" type="checkbox"/> LABEL (PANELTOP-10) <input type="checkbox"/> ENGRAVED <input type="checkbox"/> SEE NOTES
3. PANEL INSULATION <input type="checkbox"/> NONE <input type="checkbox"/> 1/2" TOM <input type="checkbox"/> 1/2" FOIL BACK <input type="checkbox"/> SEE NOTES	7. TERMINAL MARKERS FOR: <input type="checkbox"/> NONE <input type="checkbox"/> AB-SM 5/8 <input type="checkbox"/> AB-SM 8/12 <input type="checkbox"/> UN3N <input type="checkbox"/> AB-SM 5/12 <input type="checkbox"/> UN3N <input type="checkbox"/> AB-SM 8/8 <input type="checkbox"/> SEE NOTES	10. WIRE MARKERS <input type="checkbox"/> SELF-MARKING <input type="checkbox"/> HEAT SHRINK <input type="checkbox"/> SEE NOTES
4. NAMEPLATES <input type="checkbox"/> WHITE LETTERS ON BLACK BACKGROUND <input type="checkbox"/> BLACK LETTERS ON WHITE BACKGROUND <input type="checkbox"/> REVERSED ENGRAVED <input type="checkbox"/> SEE NOTES	8. FUSE LABELS <input type="checkbox"/> NONE <input type="checkbox"/> 4-3/3 HESI FUSED TERMINALS <input type="checkbox"/> ENGRAVED <input type="checkbox"/> SEE NOTES	11. SPECIAL REQUIREMENTS <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SEE NOTES
5. DOOR PROP REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		12. TERMINAL AND WIRING SYMBOLLOGY: REFER TO ELECTRICAL LEGEND SHEET
		13. WIRE COLORS: REFER TO ELECTRICAL LEGEND SHEET

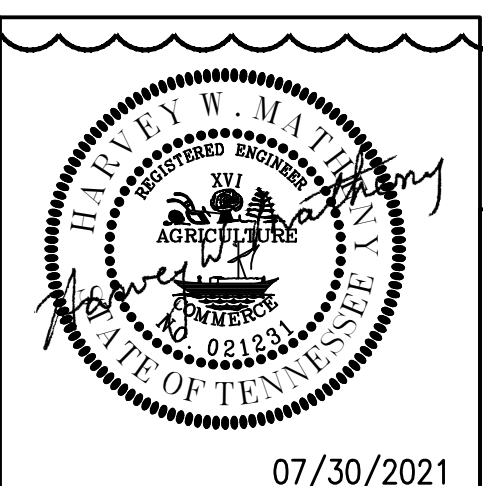
INNERDOOR SPECIFICATIONS	
MANUFACTURER	CONTROL SYSTEMS
SIZE	44.00 X 32.75
CONSTRUCTION	ALUMINUM
HINGED	LEFT



SINGLE TO 3-PHASE CONTROL PANEL

NOT TO SCALE

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022



SHEET 1 OF 1

DIVISION OF ENGINEERING

PUMP DETAILS

2497 Hanwood Avenue

MEMPHIS, TENNESSEE

PROJECT NO.: 24699.05

DATE: JUNE, 2020

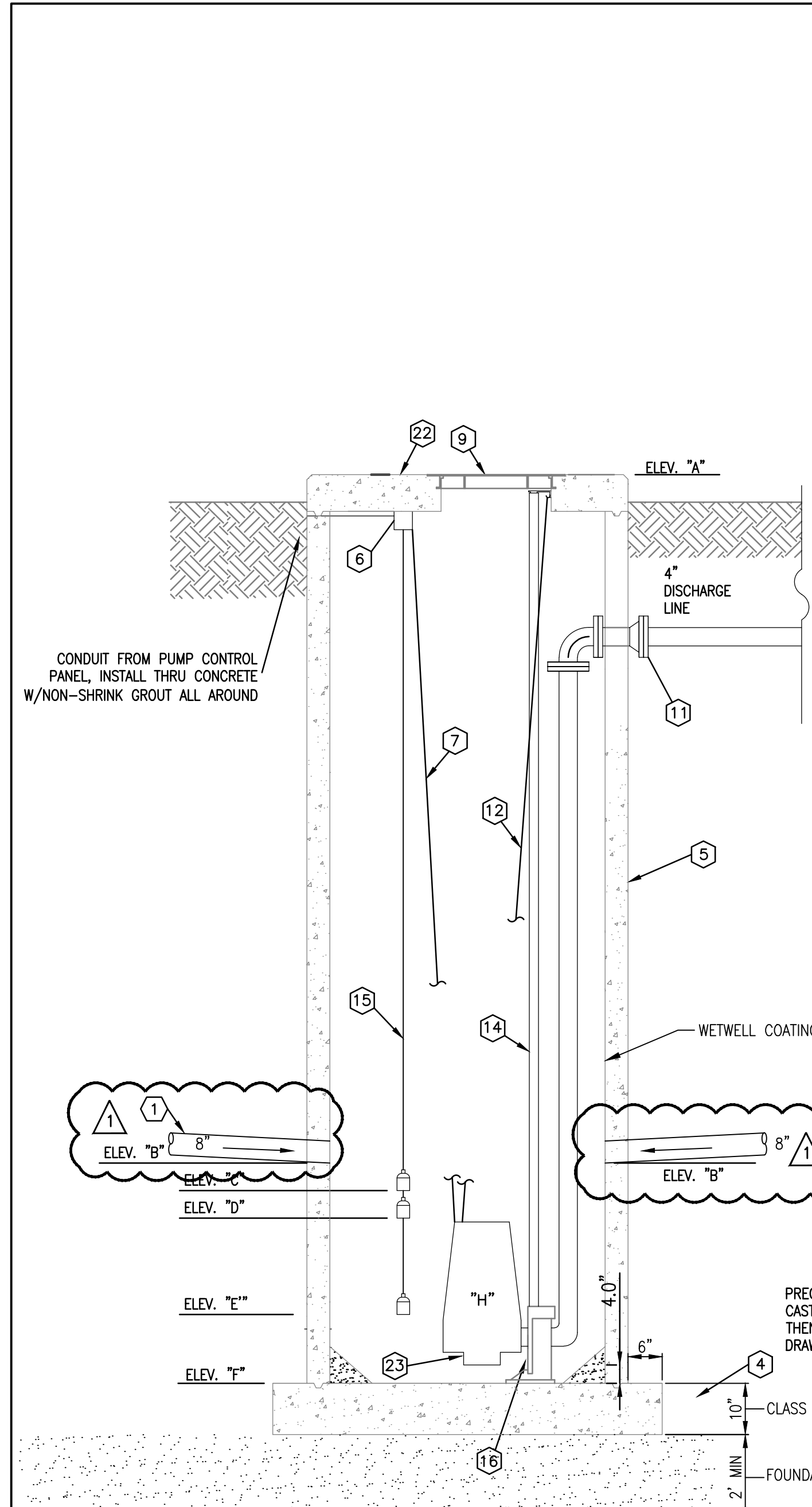
DATE: AUG, 2020

DATE: AUG, 2020

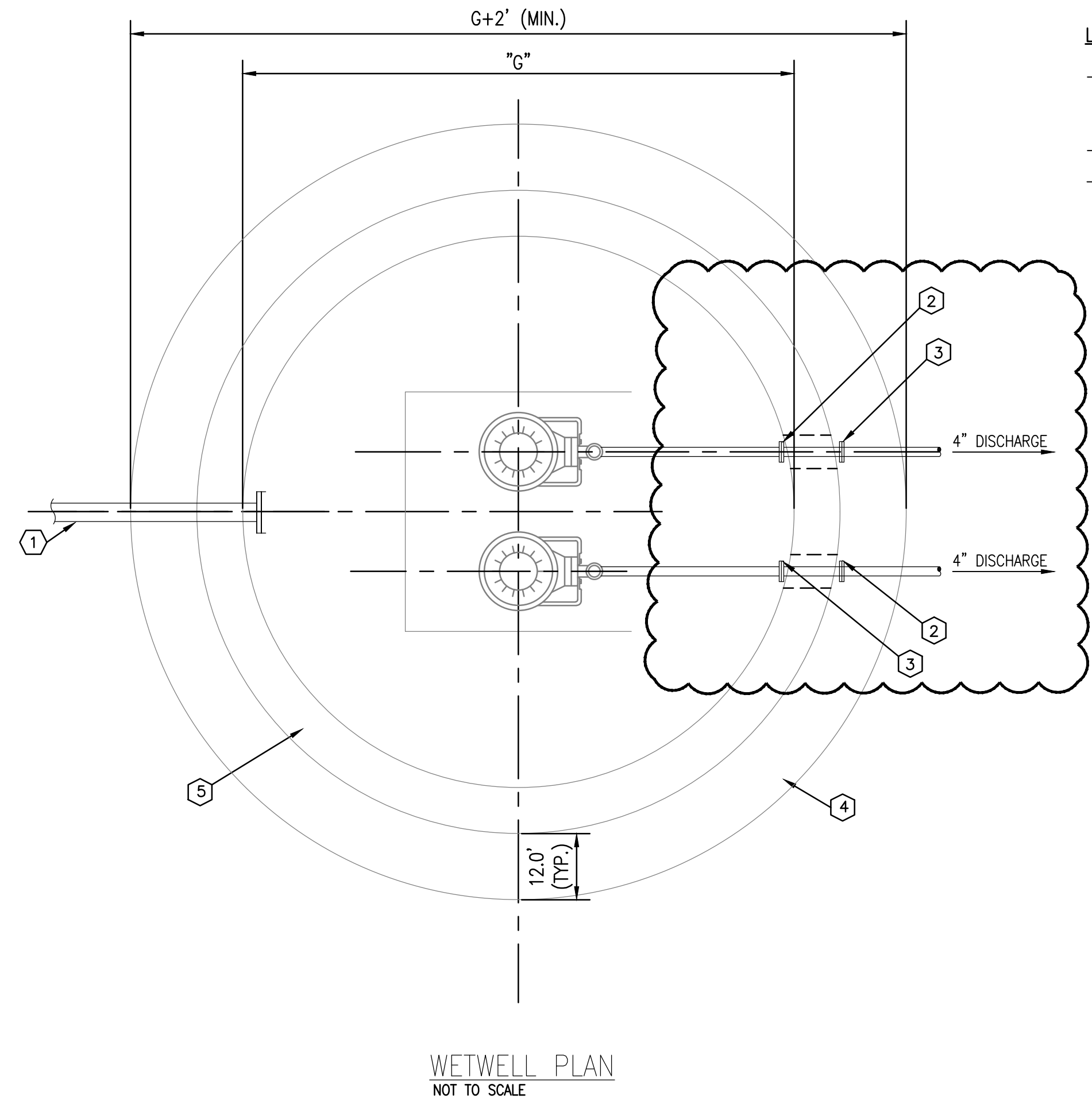
BOOK: 1676

SCALE: N.T.S.

REVIEWED

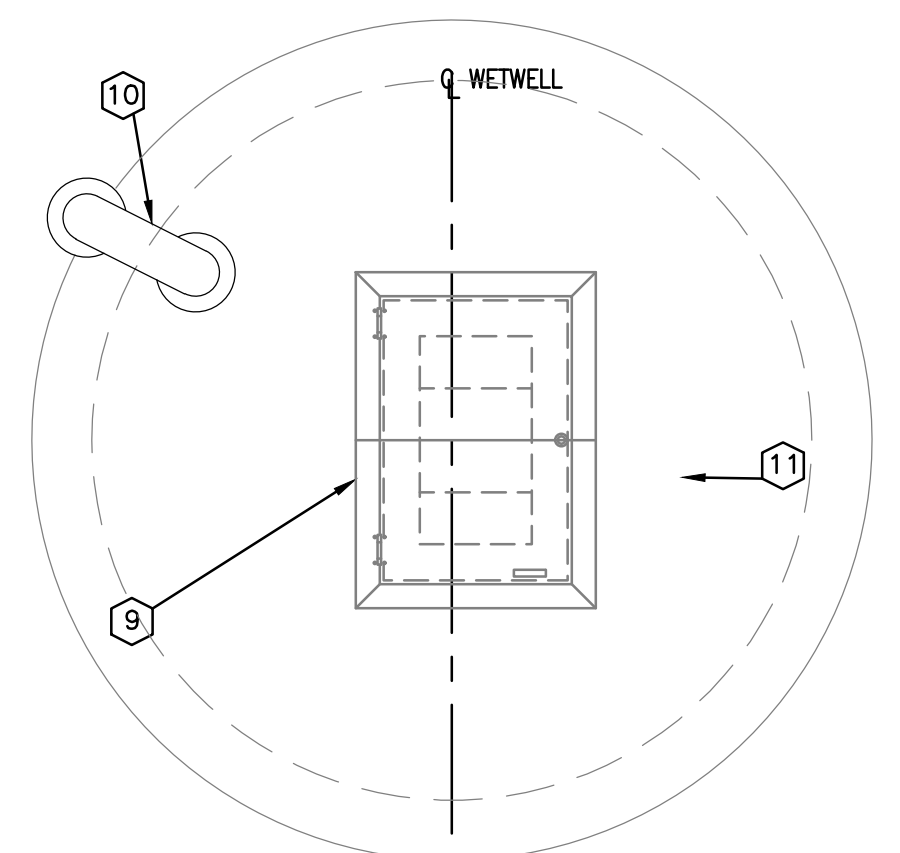


ELEVATION
NOT TO SCALE

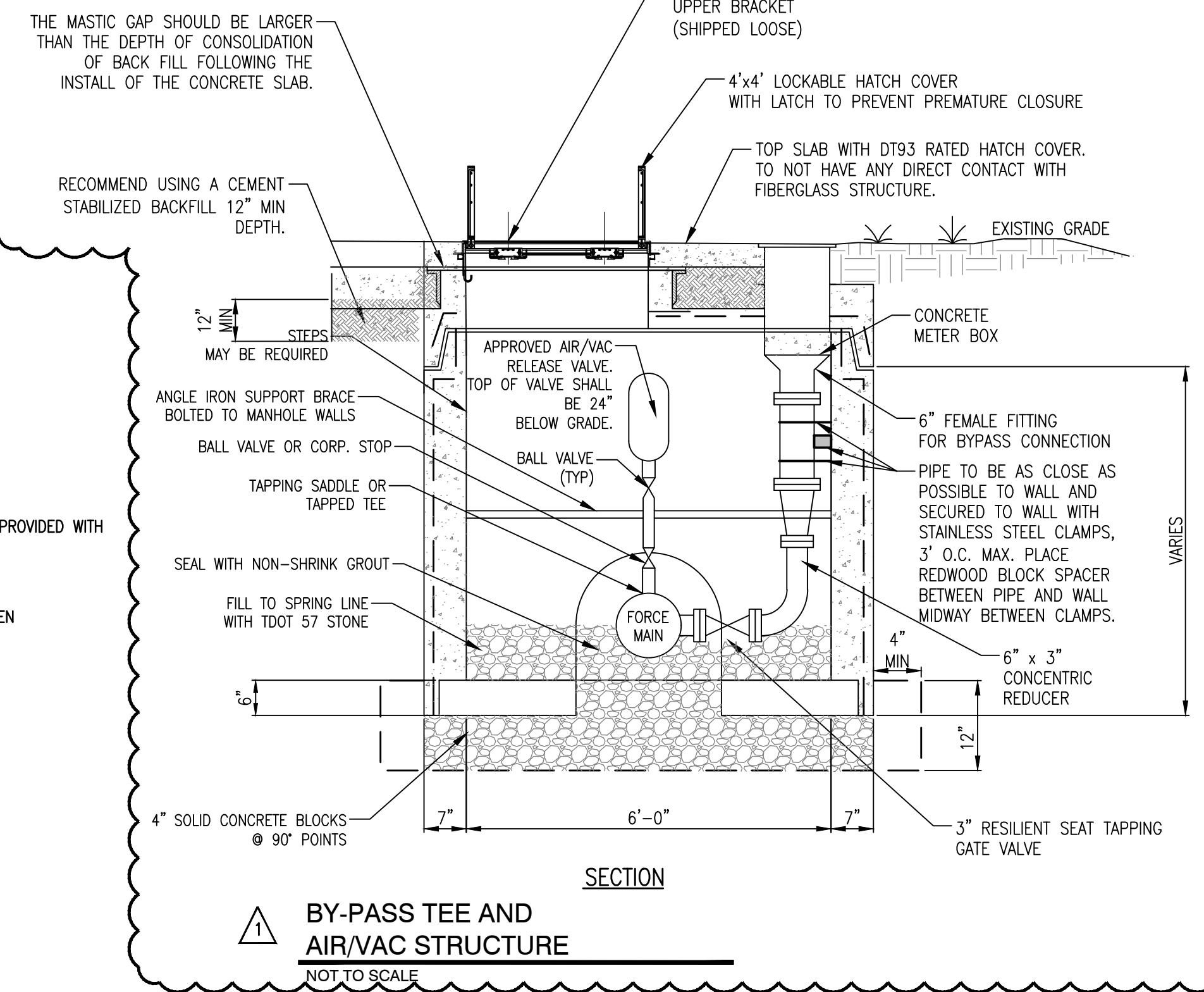
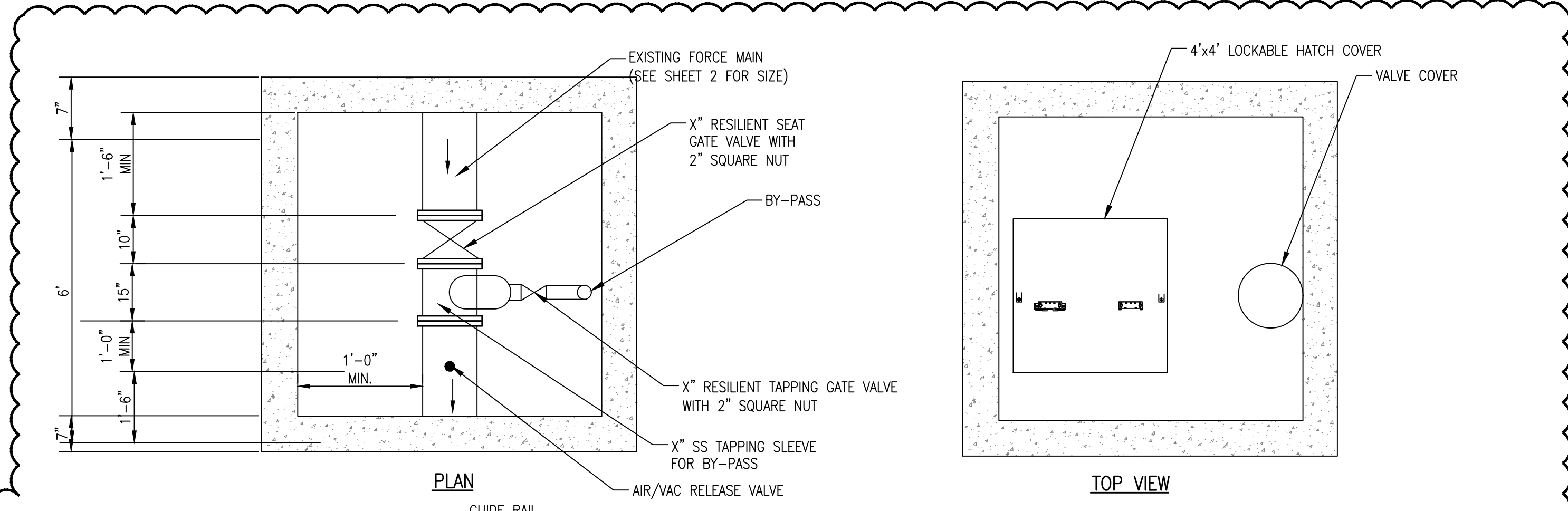


WETWELL PLAN
NOT TO SCALE

- LIFT STATION REPLACEMENT NOTES:**
- EXISTING PRECAST CONCRETE WET WELL, PUMPS, AND APPURTENANCES TO BE REMOVED AND REPLACED WITH DUPLEX SUBMERSIBLE PUMPS IN PRECAST CONCRETE WET WELL.
 - ALL PIPES TO BE D.I.P.
 - CLEAN AND COAT WETWELL WITH A 2-COAT EPOXY-MODIFIED-MORTAR LINING AND HYBRID EPOXY COATING PER MANUFACTURER'S RECOMMENDATIONS. COVER EXPOSED REBAR WITH COMPATIBLE PRIMER AND MORTAR AND SEAL ANY LEAKS WITH HYDRAULIC CEMENT.



WETWELL AND VALVE VAULT TOP PLAN
NOT TO SCALE



BY-PASS TEE AND
AIR/VAC STRUCTURE
NOT TO SCALE

MATERIAL AND EQUIPMENT SCHEDULE

- 1 INCOMING GRAVITY SEWER PIPE, LOCATIONS MAY VARY.
- 2 NEOPRENE PIPE GASKET.
- 3 NON-SHRINK GROUT ALL AROUND PIPE.
- 4 10" THICK, 4000 PSI PRECAST CONCRETE BASE SECTION WITH MONOLITHIC PRECAST CONCRETE RISER. PRECAST CONCRETE AND REINFORCING SHALL CONFORM TO ASTM C-478 AND CITY OF MEMPHIS STANDARDS.
- 5 6" WETWELL W/8" THICK, 4000 PSI PRECAST CONCRETE RISER SECTION CONFORMING TO ASTM C-478. JOINTS SHALL BE COMPLETELY SEALED TO PREVENT LEAKING. INSIDE AND OUTSIDE OF CONCRETE WET WELL RISER WALLS SHALL BE COATED WITH 2 COATS OF COAL TAR EPOXY.
- 6 JUNCTION BOX FOR LEVEL CONTROLS AND POWER CABLE.
- 7 PUMP POWER CABLE.
- 8 NOT USED.
- 9 30"x48" MINIMUM CLEAR OPENING WITH SINGLE LEAF, GASKETED, SERRATED, ALUMINUM ACCESS COVER. COVER SHALL BE PROVIDED WITH LOCKABLE LEAF, CONTROL CABLE HOLDER AND LEAF LOCKING OPEN ARM. CONTRACTOR SHALL VERIFY OPENING SIZE AND LOCATION REQUIREMENTS WITH PUMP MANUFACTURER.
- 10 4" DIA. DUCTILE IRON WITH FLANGED FLOOR PIPE, 2-90° FLANGED BENDS WITH A #24 ALUMINUM BIRD AND INSECT SCREEN BETWEEN FLANGES.
- 11 NOT USED.
- 12 STAINLESS STEEL LIFTING CABLE OR CHAIN.
- 13 NOT USED.
- 14 S.S. GUIDE RAILS AS PER PUMP MANUFACTURER. (2 RAILS PER PUMP REQUIRED).
- 15 MERCURY LEVEL CONTROL SWITCHES, SEE SPECIFICATION.
- 16 AUTOMATIC DISCHARGE CONNECTION.
- 17 NOT USED.
- 18 NOT USED.
- 19 NOT USED.
- 20 NOT USED.
- 21 8" PRECAST TOP SLAB CONFORMING TO ASTM 478.
- 22 8" PRECAST TOP SLAB CONFORMING TO ASTM 478.
- 23 SEE PUMP NOTES

DESCRIPTION	
"A" TOP OF WETWELL	234.51
"B" INVERT INCOMING PIPE	224.71
"C" HIGH ALARM/LAG PUMP ON	TBD
"D" PUMP "ON"	TBD
"E" PUMP OFF	220.71
"F" BOTTOM	217.71
"G" WETWELL DIA	6.0'
"H" NON-CLOG SUBMER. PUMPS	3 HP (2 REQ'D)

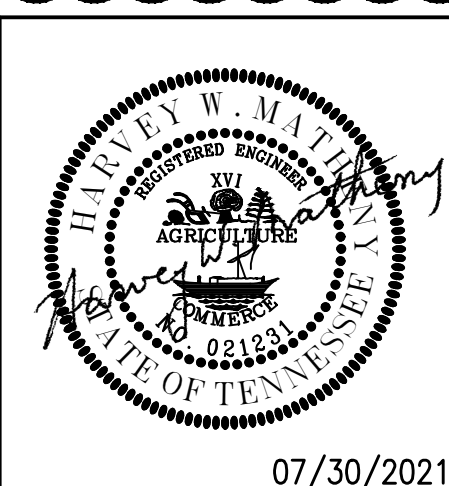
3 Hp ADAPTIVE 462, 80 GPM, 26' TDH

PUMP STATION
NOT TO SCALE

NOTES:

1. CONCRETE SHALL BE 4,000 PSI COMPRESSIVE STRENGTH, MIN.
2. ALL REINFORCING SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
3. MANHOLE SECTIONS SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
4. TAPERED JOINT WITH O-RING GASKET SHALL MEET THE REQUIREMENTS OF ASTM SPECS C-361 AND C-443.
5. CAST MANHOLE SECTION INTO BASE 6" OR DEPTH OF JOINT, WHICHEVER IS DEEPER.
6. JOINT CONFIGURATION MAY BE CAST BELL-UP OR SPIGOT UP.
7. SIZE DOGHOUSE OPENINGS 4" MIN. AND 8" MAX. LARGER THAN PIPE O.D.
8. ALL AIR RELEASE PIPING SHALL BE STAINLESS STEEL.
9. FOR FORCE MAIN SMALLER THAN 6", EXCEPT THE DUCTILE IRON, CLAMP THE AIR/VACUUM RELEASE VALVE TO THE ANGLE IRON SUPPORT BRACE.
10. CAST BASE ON FIRM, UNDISTURBED SOIL.
11. STANDARD PRECAST BASE SECTION MAY BE USED FOR NEW FORCE MAIN CONSTRUCTION. BED STANDARD BASE ON MIN. 6" TDOT No. 21A CORE HOLES FOR PIPE MIN. 4" LARGER THAN PIPE O.D.. CONFORM TO THIS DETAIL FOR ALL OTHER REFERENCES.

REVISION	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022



07/30/2021

SHEET 1 OF 1
DIVISION OF ENGINEERING

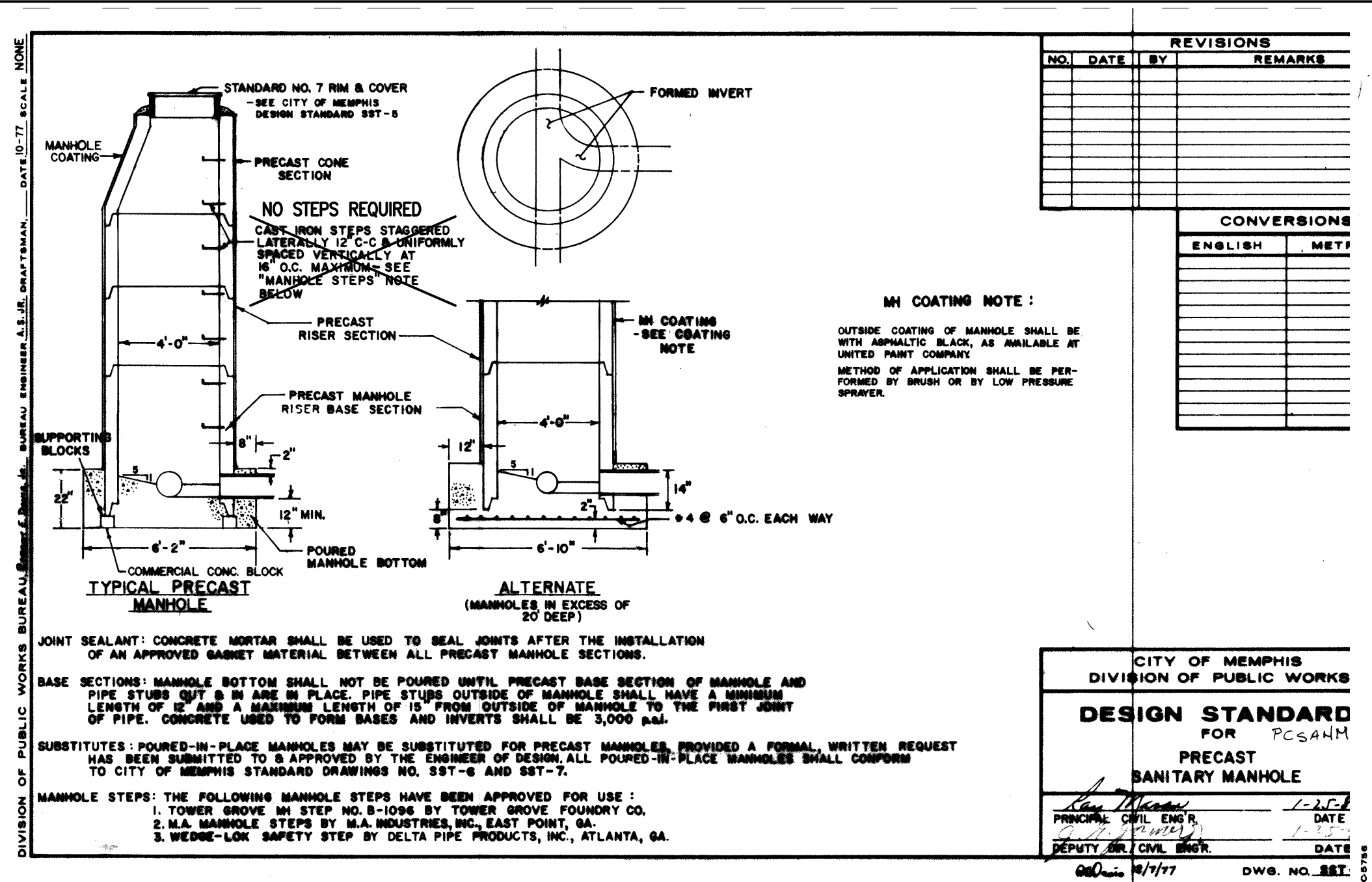
PUMP STATION DETAILS
2497 Hanwood Avenue

MEMPHIS, TENNESSEE

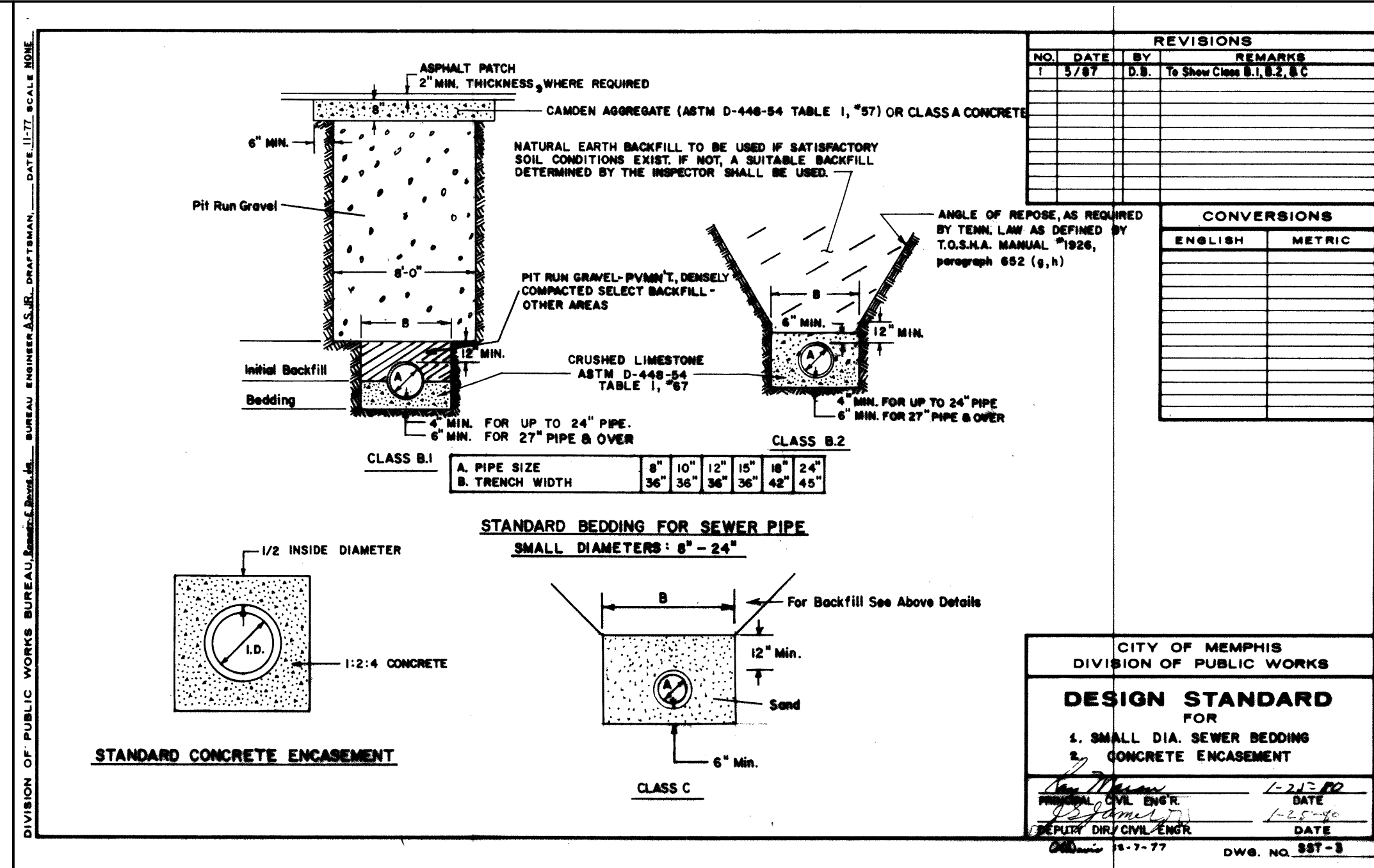
SURVEY: PFI DATE: JUNE, 2020 PROJECT NO.: 24699.05
 DESIGN BY: PFI DATE: AUG, 2020 BOOK: 1676
 DRAWN BY: PFI DATE: AUG, 2020 SCALE: N.T.S.

LIFT STATION REHAB DESIGN
 DEVELOPER: SARP10
 ENGINEER: PICKERING FIRM, INC.

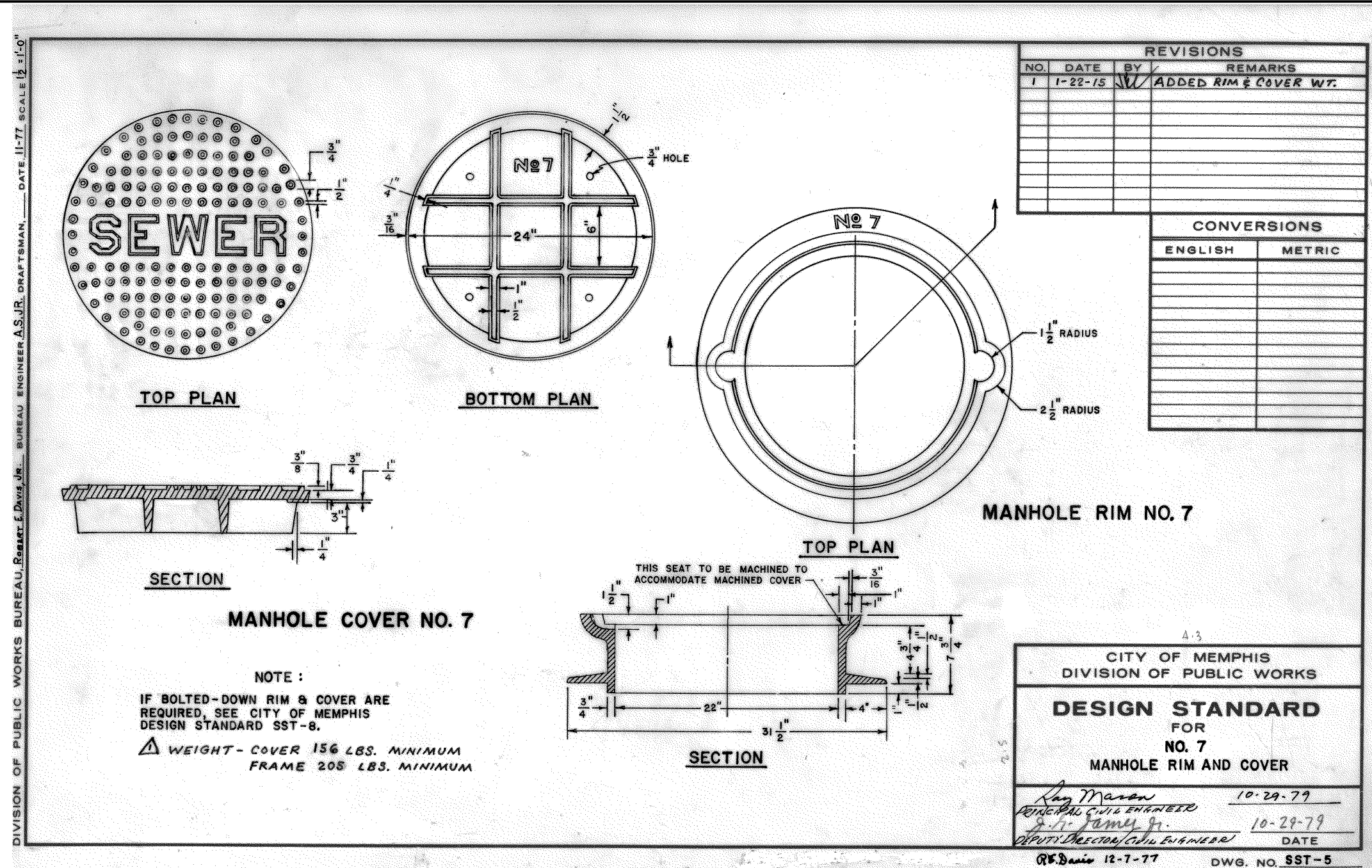
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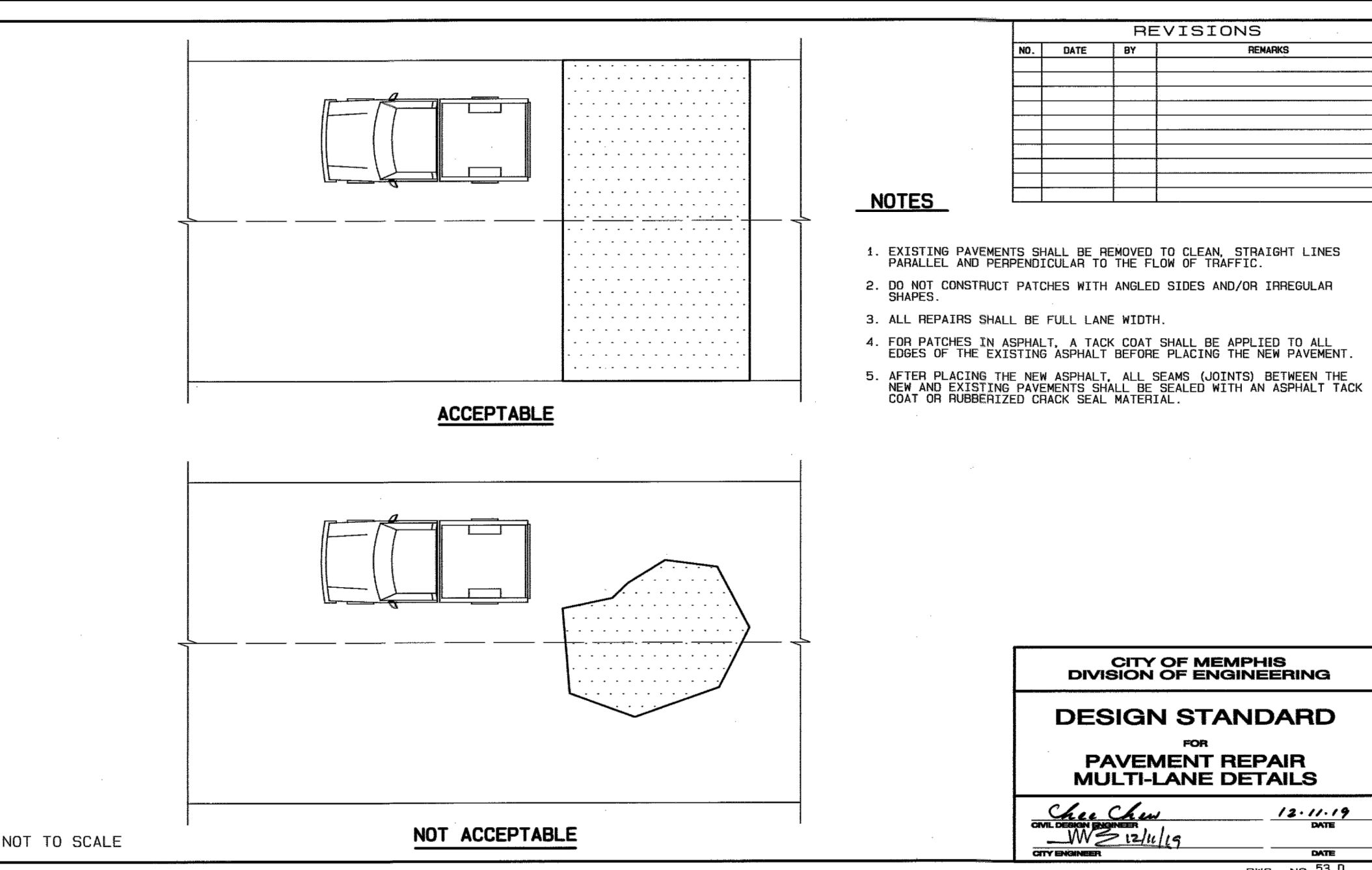
1 PRECAST SANITARY MANHOLE
NOT TO SCALE



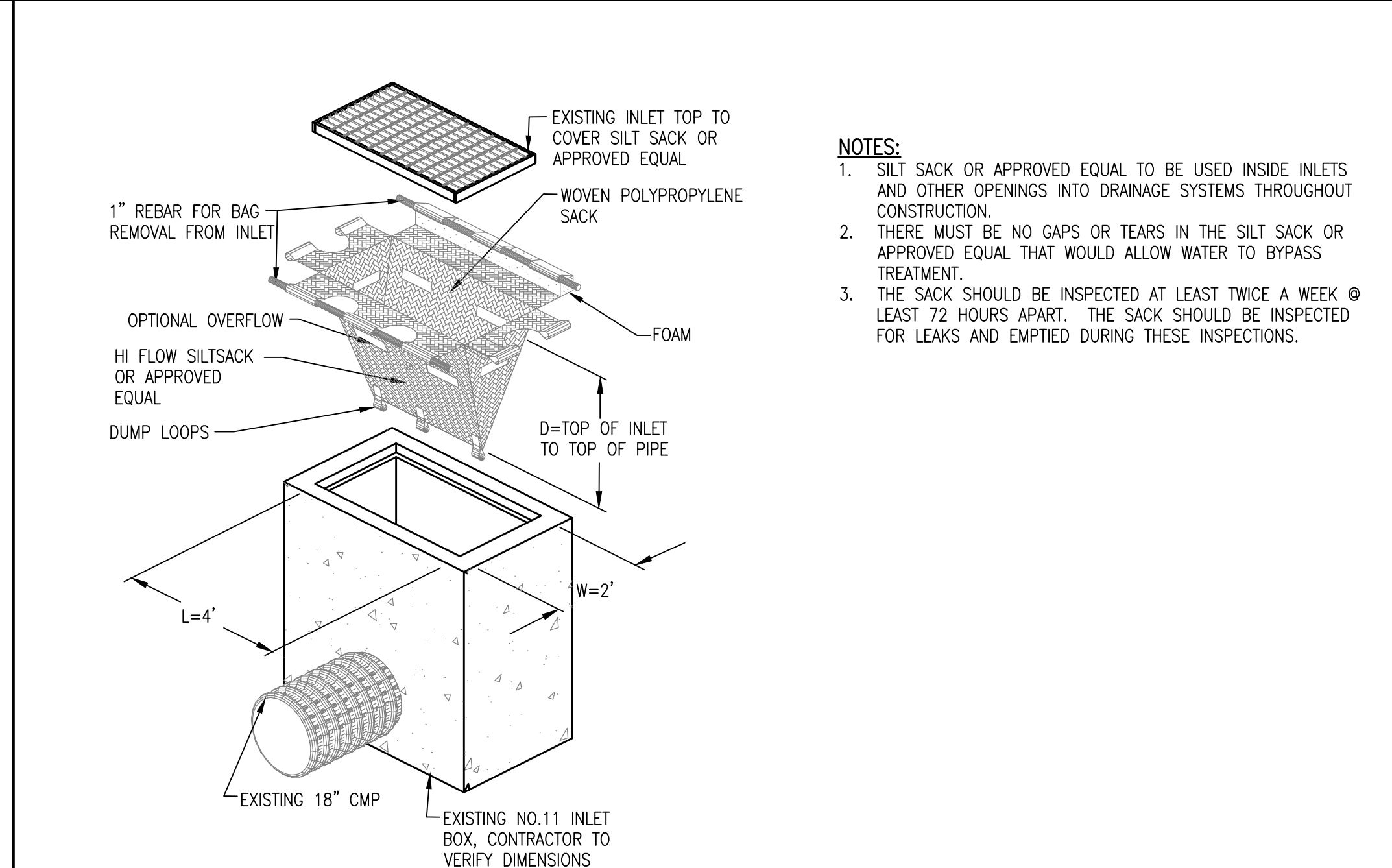
2 SMALL DIA. SEWER BEDDING & CONCRETE ENCASEMENT DETAIL
NOT TO SCALE



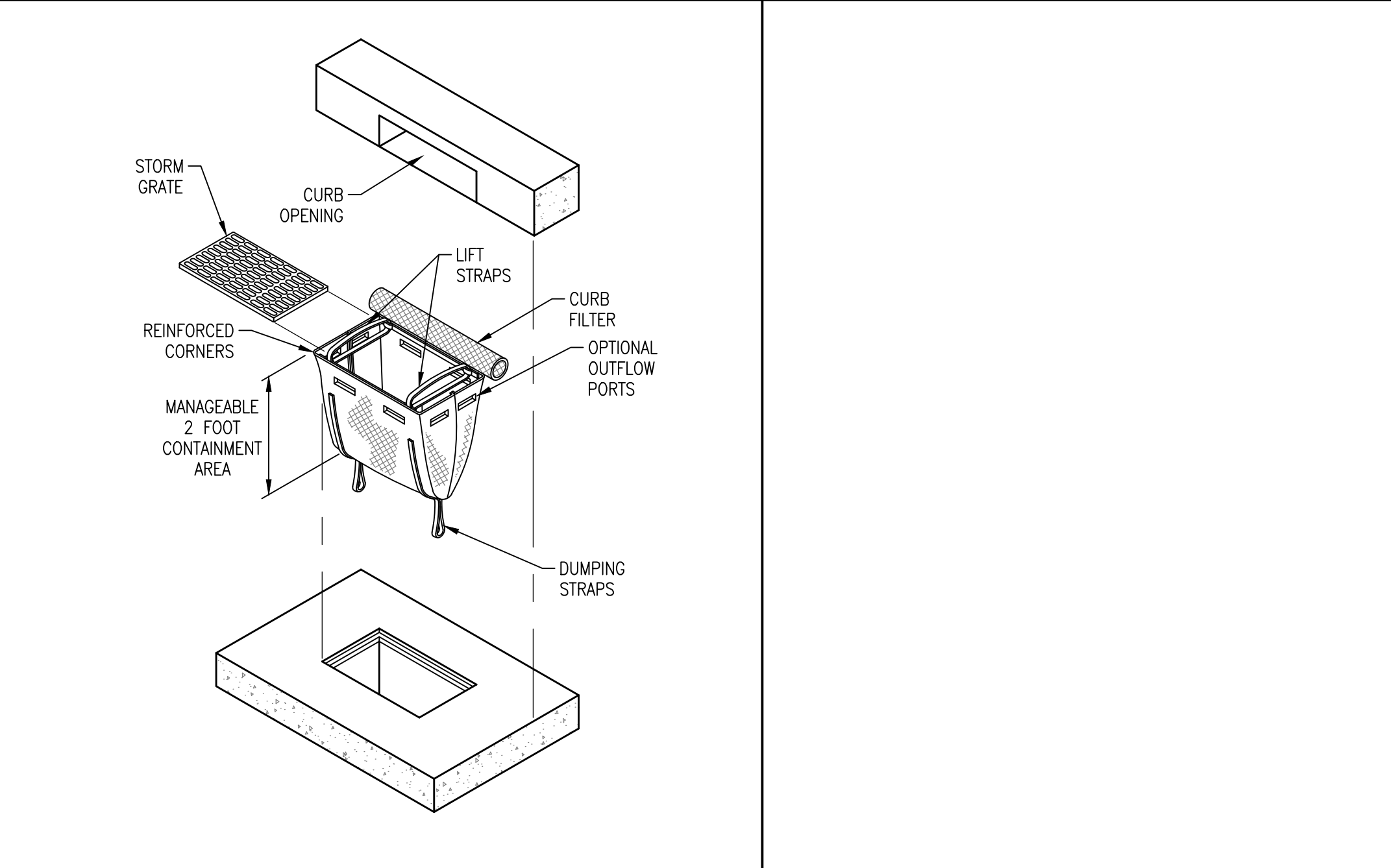
3 No. 7 MANHOLE RIM AND COVER
NOT TO SCALE



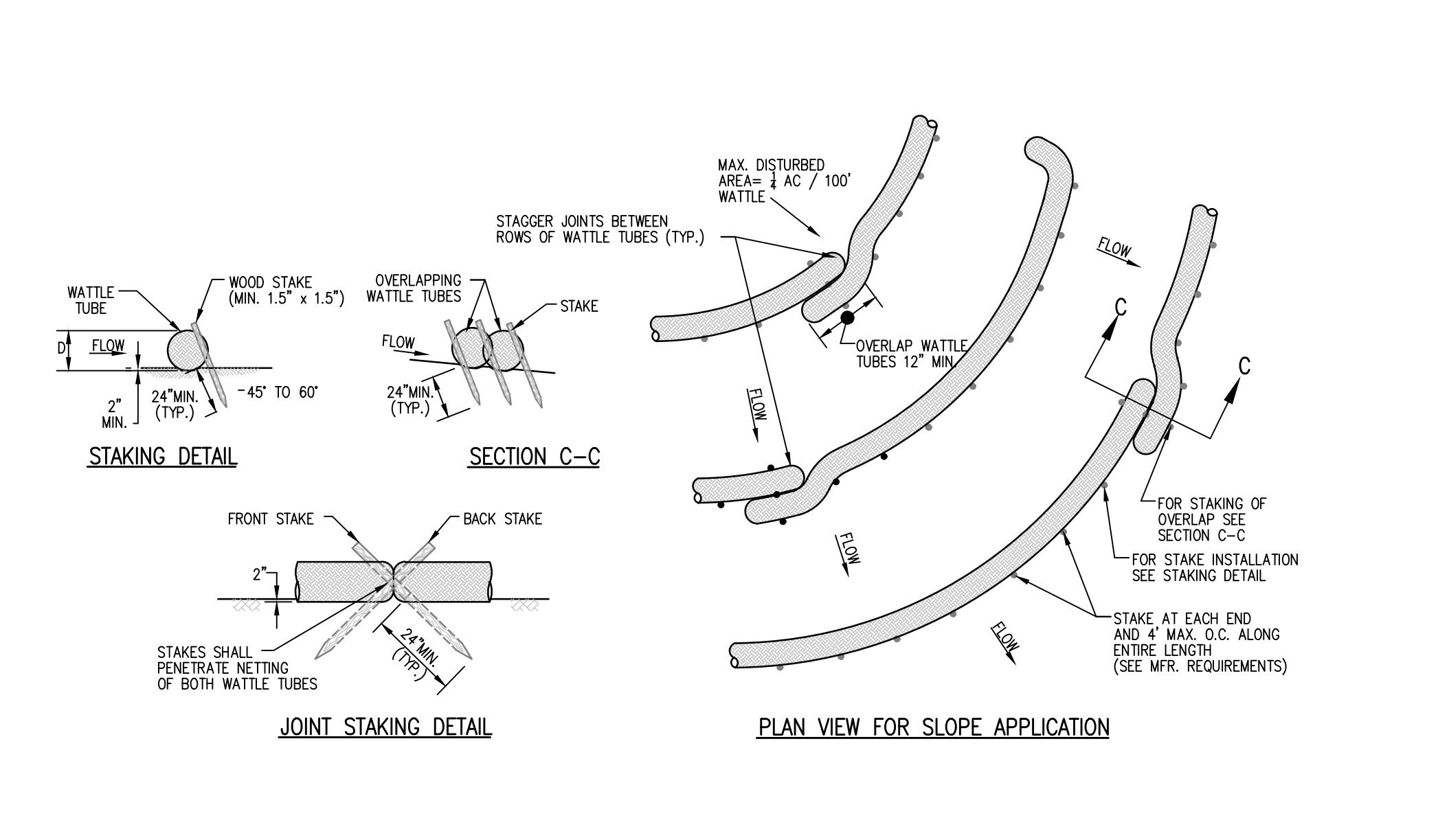
4 TYPICAL ASPHALT PAVEMENT REPLACEMENT
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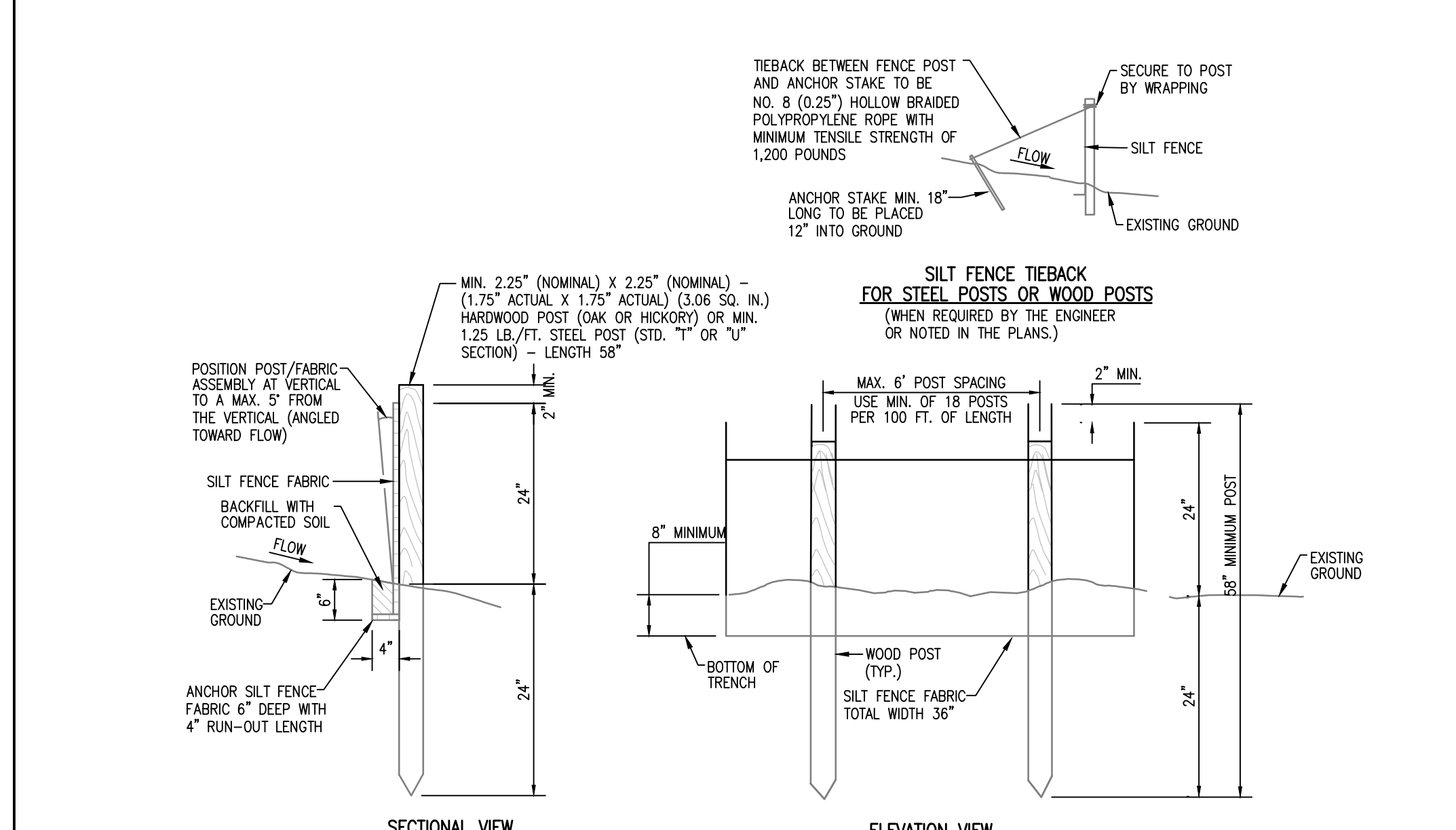
5 INLET PROTECTION-SILT SACK
NOT TO SCALE



6 CURB INLET PROTECTION-SILT SACK
NOT TO SCALE



7 TUBES AND WATTLES
NOT TO SCALE



8 SILT FENCE
NOT TO SCALE

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SHEET 1 OF 1
DIVISION OF ENGINEERING
DETAILS
2497 Hanwood Avenue
MEMPHIS, TENNESSEE
DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

SURVEY: PFI
DESIGN BY: PFI
DRAWN BY: PFI

PROJECT NO.: 24699.05
BOOK: 1676
SCALE: N.T.S.

REVIEWED

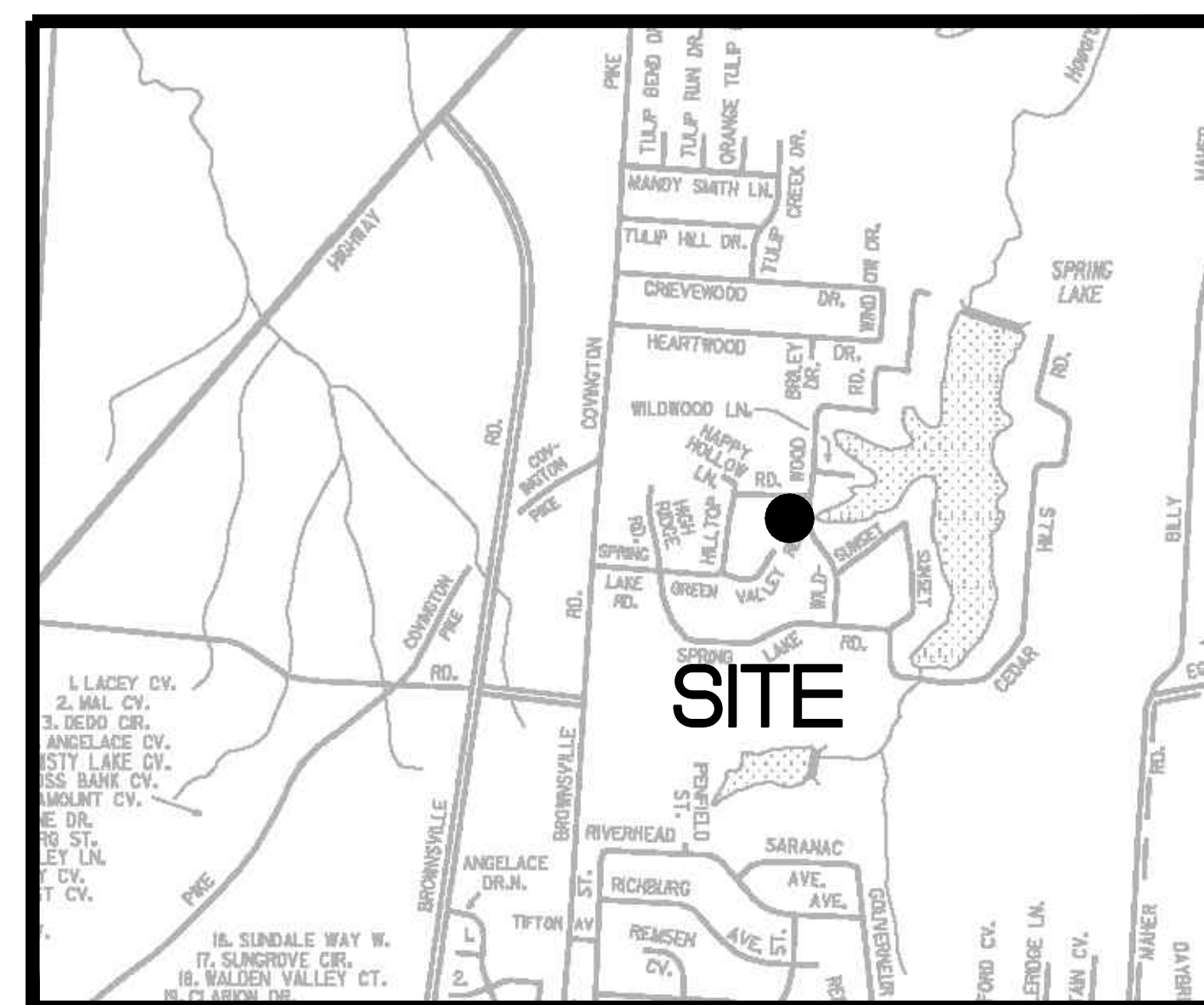
K:\WORK\COMPANY\SEWER DETAILING - January 27, 2022

JULY, 2021
CONSTRUCTION PLANS

LIFT STATION REHAB DESIGN
SARP10

4329 WILDWOOD ROAD

SCHEDULE OF DRAWINGS	
SH.	TITLE
1	COVER
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	PUMP STATION SITE AND FORCE MAIN ROUTING
4	SEWER PLAN
5	PUMP DETAILS
6	PUMP STATION DETAILS
7	DETAILS

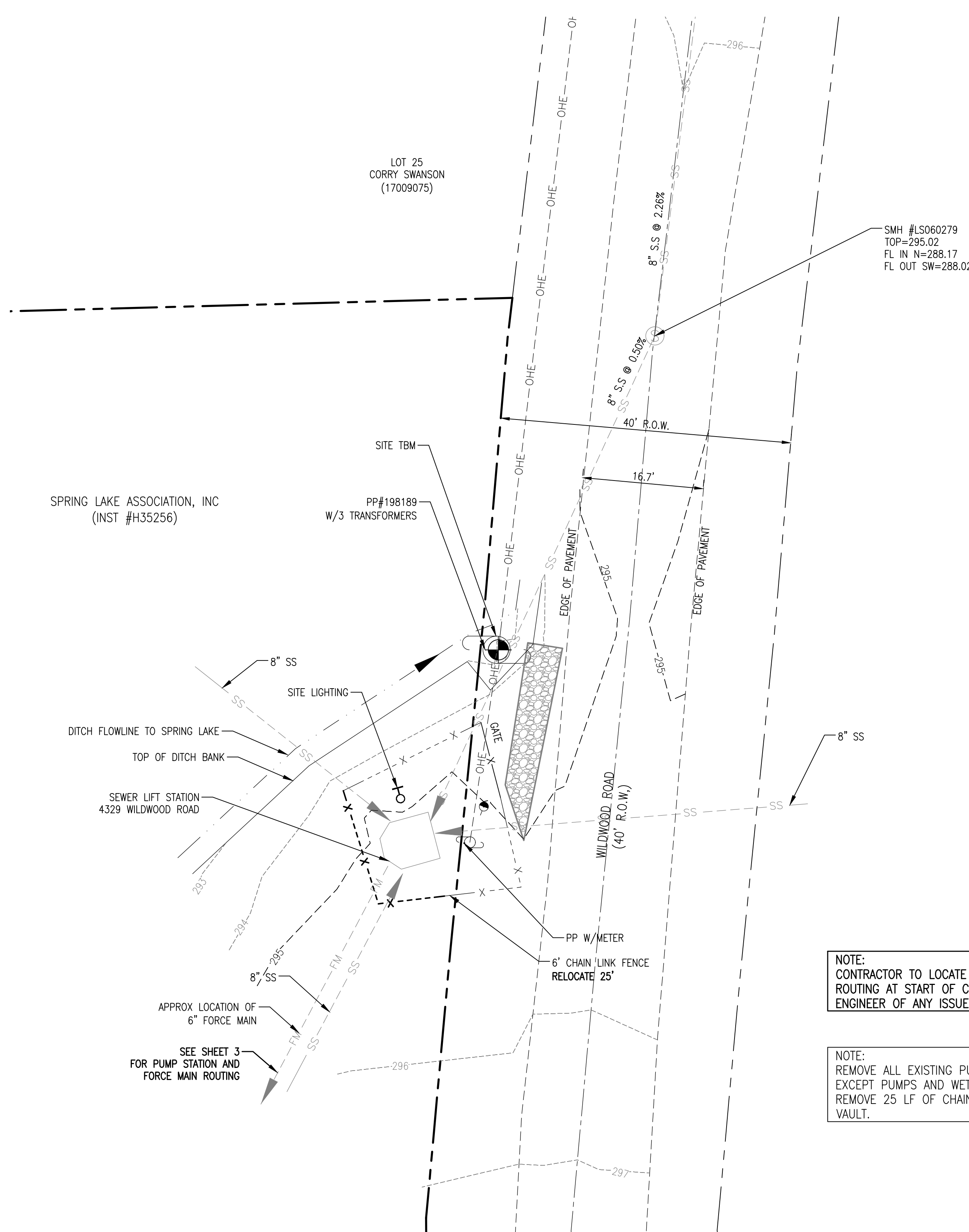
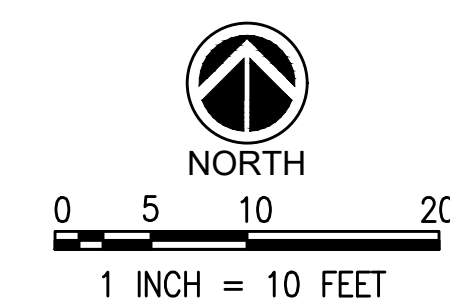


VICINITY MAP
N.T.S.



Pickering Firm, Inc.
Facility Design • Civil Engineering • Surveying •
Transportation • Natural / Water Resources
6363 Poplar Avenue, Suite 300
Memphis, TN 38119
901.726.0810

THE PLANS, IDEAS AND DESIGNS SHOWN ON THIS DRAWING ARE THE PROPERTY OF THE ENGINEER, DESIGNED SOLELY FOR THIS CONTRACT. THIS PLAN SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH IT WAS NOT INTENDED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.



- DEMOLITION NOTES:**
1. THE CONTRACTOR SHALL REMOVE ALL UNDERGROUND UTILITIES AND ANY OTHER ITEMS IN ACCORDANCE WITH THE TDEC AND THE TECHNICAL SPECIFICATIONS. THE CONTRACTOR SHALL STRICTLY FOLLOW ALL CITY, STATE, AND FEDERAL GUIDELINES FOR REMOVAL AND DISPOSAL OF THESE FACILITIES.
 2. ALL BUILDING, CONCRETE, ASPHALT PAVEMENT, AND GRANULAR SUBBASE SHALL BE REMOVED FULL DEPTH PER THE DIRECTION OF THE GEOTECHNICAL ENGINEER. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE AND FEDERAL REGULATIONS.
 3. CONTRACTOR SHALL REMOVE & REPAIR PAVEMENT AS REQUIRED FOR UTILITY LIGHTING CONSTRUCTION INCLUDING BUT NOT LIMITED TO: IRRIGATION SLEEVES, SITE LIGHTING CONDUITS, WATER LINES, SANITARY SEWER LINES, STORM DRAINAGE LINES, ETC. CONTRACTOR HAS OPTION TO BORE CONDUITS.
 4. PRIOR TO COMMENCING ANY UTILITY WORK, CONTRACTOR SHALL NOTIFY ANY SURROUNDING PROPERTY OWNERS WHO MAY EXPERIENCE A DISRUPTION IN SERVICE.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MODIFYING ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE PARTS OF THAT EXISTING SYSTEM THAT ARE REMOVED, ABANDONED OR DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO MODIFY ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE NEW AREAS OF LANDSCAPING. ANY IRRIGATION SLEEVES SHALL BE INSTALLED PRIOR TO PAVING AND BACKFILLED PROPERLY BY THE SITE CONTRACTOR.
 6. THE CONTRACTOR SHALL ENSURE ADEQUATE ACCESS IS PROVIDED DURING ALL PHASES OF CONSTRUCTION. COORDINATE WITH THE PROJECT MANAGER.
 7. WHEN REMOVING UTILITIES, CONTRACTOR SHALL GROUT AND SEAL ANY STRUCTURES THAT ARE TO REMAIN PER LOCAL REGULATIONS.
 8. UTILITIES SHOWN ARE LOCATED BY FIELD SURVEY AND RECORD DRAWINGS. ADDITIONAL UNDERGROUND UTILITIES WILL BE ENCOUNTERED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY INACTIVE STRUCTURES & ALERT THE ENGINEER OF ANY ACTIVE, UNMAPPED STRUCTURES.
 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION OF UTILITY DEMOLITION & RELOCATION.
 10. CONTRACTOR SHALL NOT INTERRUPT DRAINAGE FROM ADJACENT PROPERTIES AND PUBLIC RIGHT-OF-WAYS.

LEGEND

	EXISTING FIRE HYDRANT		EXISTING UNDERGROUND ELECTRIC
	EXISTING POWER POLE		EXISTING OVERHEAD ELECTRIC
	EXISTING GUY POLE		EXISTING UNDERGROUND FIBER OPTIC
	EXISTING MAILBOX		EXISTING UNDERGROUND GAS LINE
	EXISTING SIGN		EXISTING WATER LINE
	EXISTING GAS VALVE		EXISTING DRAIN LINE
	EXISTING WATER VALVE		EXISTING TELEPHONE LINE
	EXISTING WATER METER		EXISTING UNDERGROUND OIL LINE
	EXISTING ROW MARKER		FORCE MAIN
	EXISTING ELECTRIC TRANSFORMER		SANITARY SEWER
	EXISTING TELEPHONE PEDESTAL		SEWER MANHOLE

FLOOD NOTE:

THIS IS TO CERTIFY THAT BY GRAPHIC DETERMINATION THE ABOVE PLATTED PROPERTY IS IN A "ZONE X" NO SHADING (AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD ACCORDING TO THE FEMA/FIRM MAP NUMBER 471570301G WITH AN EFFECTIVE DATE OF FEBRUARY 6, 2013. NEAREST BASE FLOOD ELEVATION = 254.

PROJECT BENCHMARKS

CITY BENCHMARK:
 #32 IS LOCATED AT AUSTIN PEAY HIGHWAY AND NEW BROWNSVILLE ROAD CITY MONUMENT IS AT THE SOUTHEAST CORNER AT BACK OF CURB ON THE SOUTH SIDE OF NEW BROWNSVILLE ROAD, 125 EAST OF AUSTIN PEAY HIGHWAY, 45' SOUTH OF CENTERLINE OF NEW BROWNSVILLE ROAD AT END OF SIDEWALK, 14 EAST OF END OF CURB.
 ELEVATION: 295.13

SITE TBM #1
 NAIL SET IN SOUTH SIDE OF POWER POLE AS SHOWN.
 ELEVATION: 293.86

NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

PICKERING FIRM INCORPORATED UNDERGROUND UTILITIES DISCLAIMER:

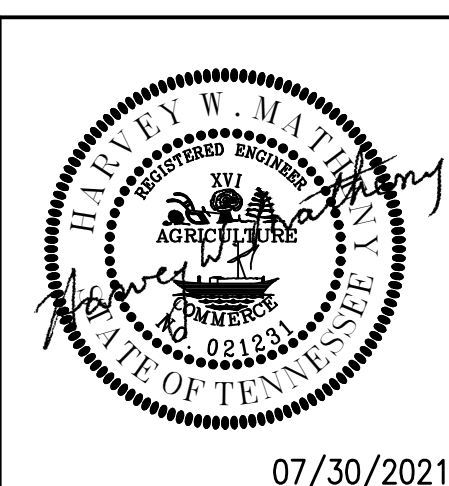
INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE ENGINEER IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

- GENERAL NOTES:**
1. AT ALL CROSSINGS OF EXISTING UTILITIES, THE CONTRACTOR SHALL FIELD LOCATE BY POST HOLEING OR OTHER APPROPRIATE METHODS, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
 2. ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
 3. ALL DISTURBED AREAS SHALL BE SEEDED (WITH A SEASONAL MIX) AND COVERED WITH STRAW AT THE END OF EACH WEEK (AT A MINIMUM) OR MORE FREQUENTLY, AS CONDITIONS DICTATE, IN ADDITION TO EROSION CONTROLS REFERENCED ON PLANS.
 4. ALL DISTURBED LAWN AREAS SHALL BE SODDED. MATCH EXISTING SOD TYPE.
 5. CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES, AND PUBLIC/PRIVATE INFRASTRUCTURE AND PROPERTY.

NOTE:
 CONTRACTOR TO LOCATE AND VERIFY FORCE MAIN ROUTING AT START OF CONSTRUCTION AND NOTIFY ENGINEER OF ANY ISSUES.

NOTE:
 REMOVE ALL EXISTING PUMP STATION COMPONENTS EXCEPT PUMPS AND WET WELL.
 REMOVE 25 LF OF CHAIN LINK FENCE FOR BYPASS VAULT.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



LIFT STATION REHAB DESIGN
 DEVELOPER: SARP10
 ENGINEER: PICKERING FIRM, INC.

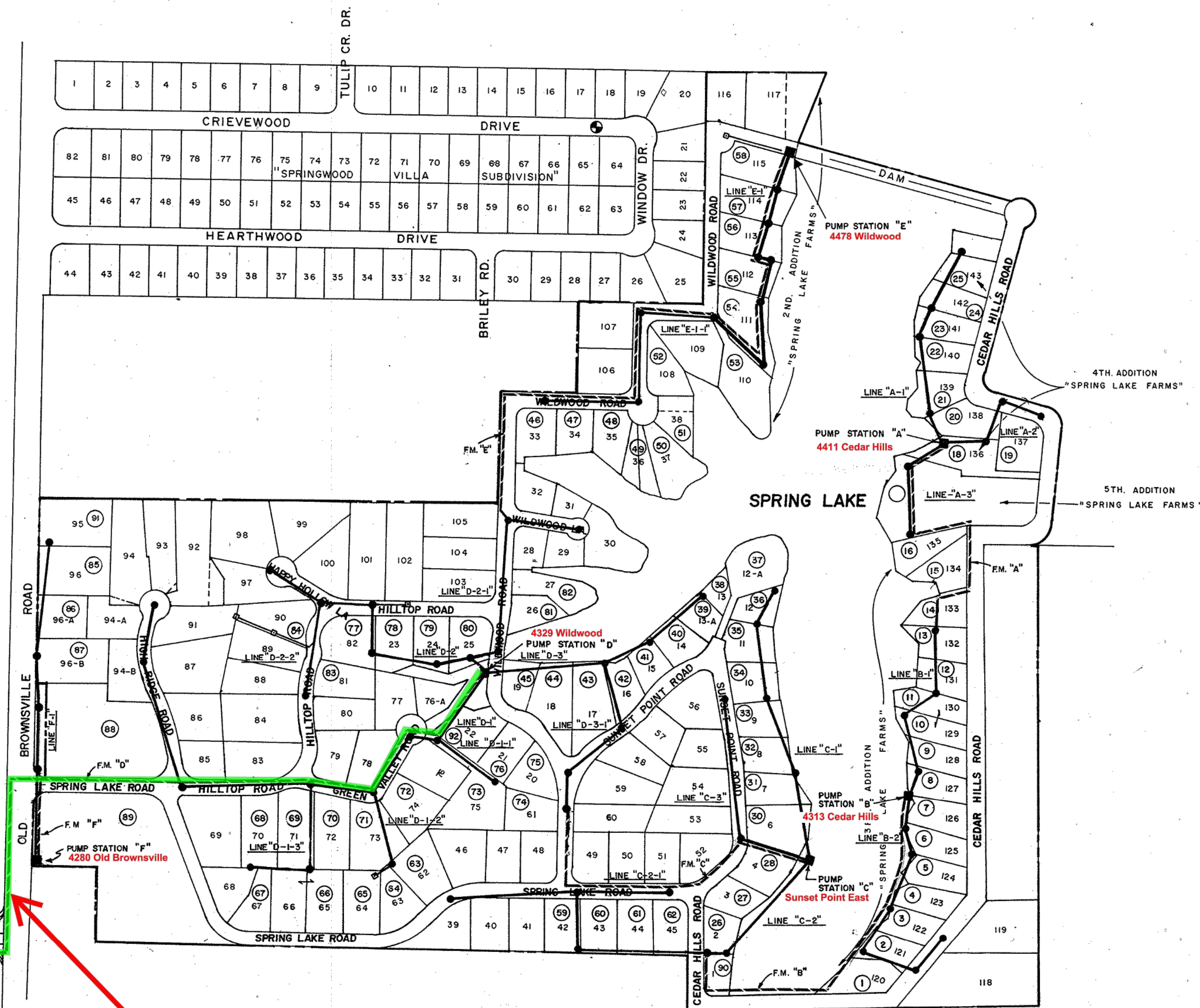
SHEET 1 OF 1
 DIVISION OF ENGINEERING

EXISTING CONDITIONS & DEMOLITION PLAN
4329 Wildwood Road
 MEMPHIS, TENNESSEE

SURVEY: PFI DATE: JUNE, 2020 PROJECT NO.: 24699.05
 DESIGN BY: PFI DATE: AUG, 2020 BOOK: 1676
 DRAWN BY: PFI DATE: AUG, 2020 SCALE: 1" = 10'

REVIEWED

BENCHMARK VP-5, ELEV. 301.57', P.K. NAIL CENTERLINE OF ROAD AT CENTERLINE OF DRIVE EXTENDED (ADDRESS 5772 CRIEVEWOOD DRIVE). ELEVATION ON CITY OF MEMPHIS DATUM.

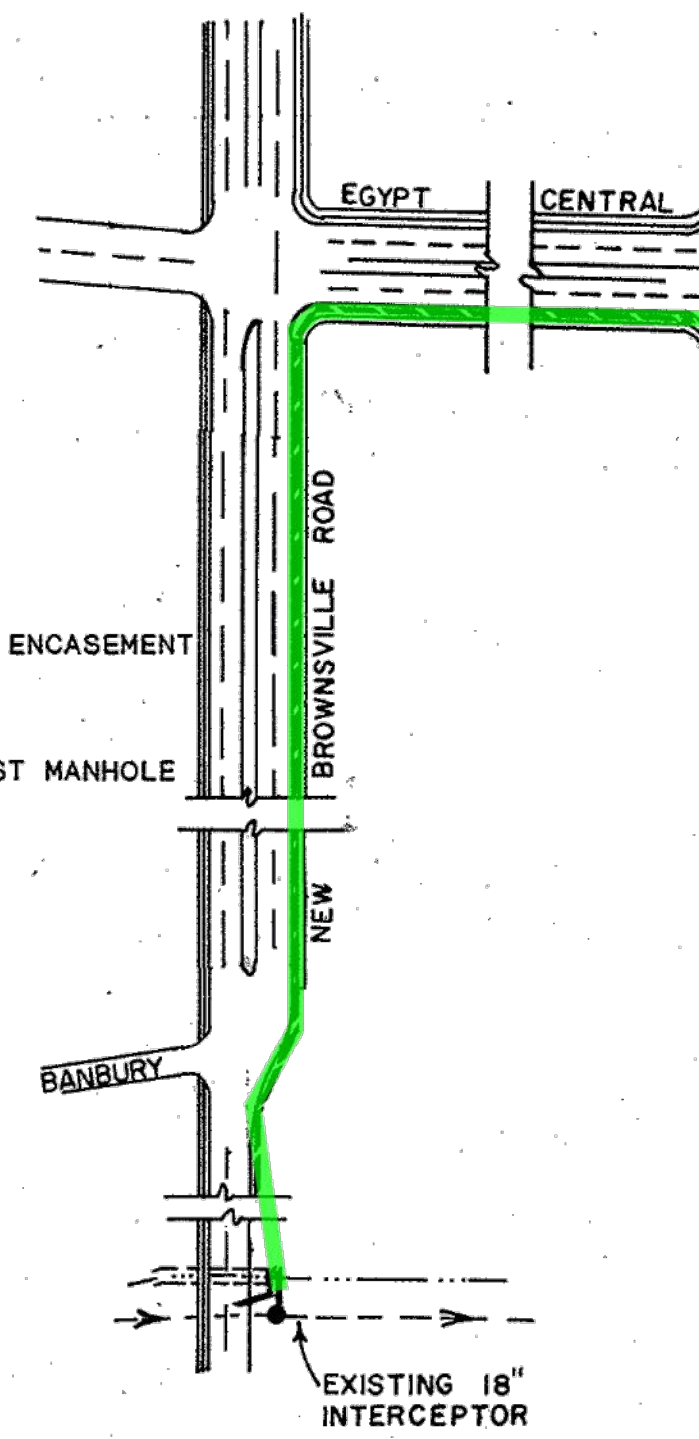


- LEGEND**
- MANHOLE
 - PUMP STATION
 - SEWER 8"
 - SEWER 6" WITH CLEANOUT
 - FORCE MAIN
 - SUBDIVISION BOUNDARY
 - 124 SUBDIVISION LOT NUMBER
 - 5 EASEMENT PARCEL NUMBER

CITY OF MEMPHIS STANDARD DRAWINGS

The following Standard Drawings are included in the construction plans by reference. All construction shall conform to the City of Memphis Design Standards.

DRAWING NO.	DESCRIPTION
SST-1	PRECAST SANITARY MANHOLE
SST-2	SANITARY MANHOLE DROP CONSTRUCTION
SST-3	1. SMALL DIA. SEWER BEDDING, 2. CONCRETE ENCASEMENT
SST-5	NO. 7 MANHOLE RIM AND COVER
SST-9	MANUFACTURED REINFORCED BOTTOM FOR PRECAST MANHOLE
SST-11	AIR RELEASE VALVE
SST-12	CONCRETE THRUST BLOCKING
SST-16	SERVICE CONNECTION



6-INCH FORCE MAIN,
9,600 LF

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

FOR REFERENCE ONLY

SHEET 1 OF 1
DIVISION OF ENGINEERING

PUMP STATION SITE AND FORCE MAIN ROUTING
4329 Wildwood Road

MEMPHIS, TENNESSEE

SURVEY: PFI	PROJECT NO.: 24699.05
DESIGN BY: PFI	BOOK: 1676
DRAWN BY: PFI	SCALE: N.T.S.

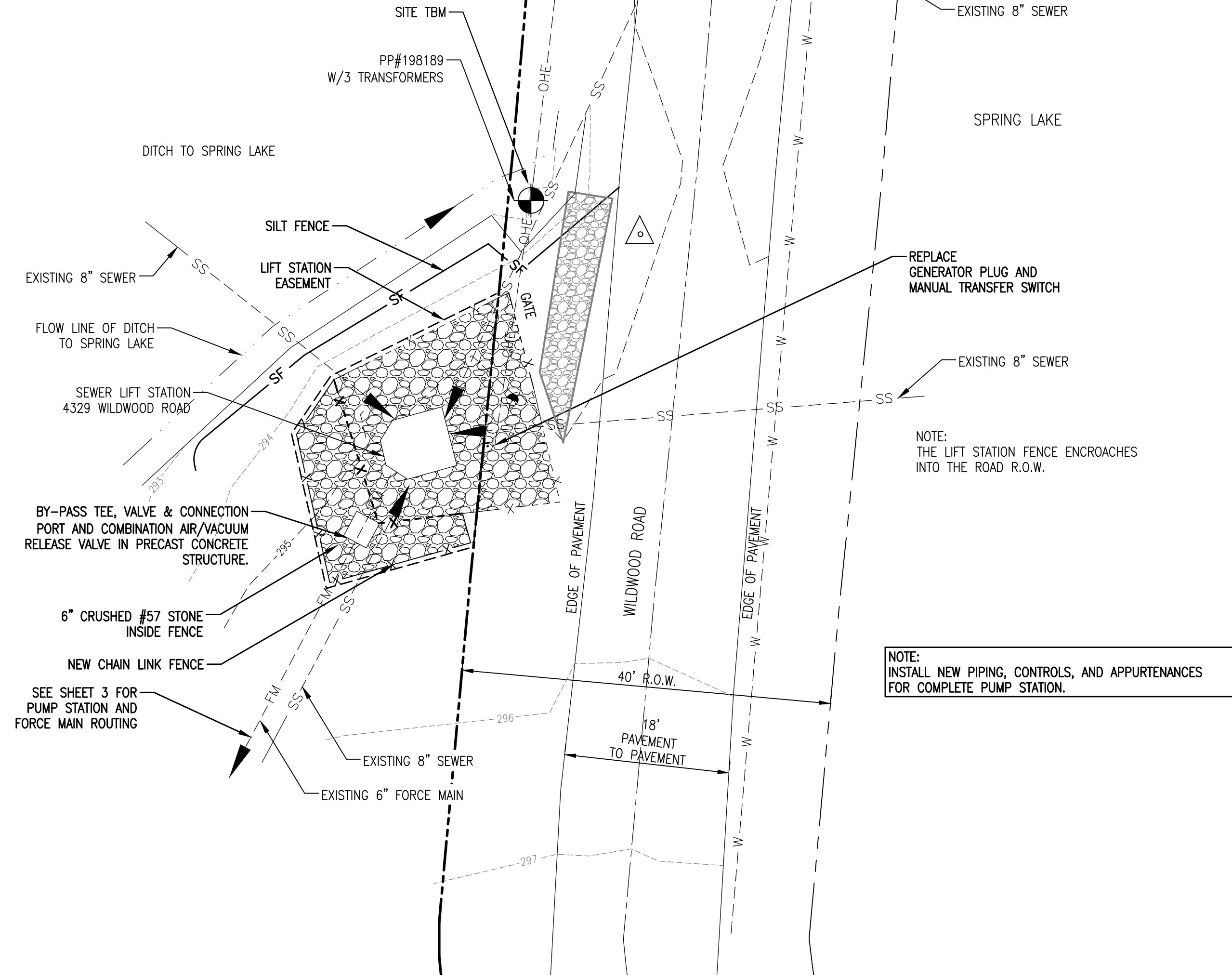
LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

REVIEWED

K:\MEMPHIS\DWG\PLANS\NEW\NOTICE.DWG - July 26, 2021

LOT 25
CORY SWANSON
(17009075)

SPRING LAKE ASSOCIATION, INC
(INST #H35256)



- EROSION AND SEDIMENTATION CONTROL NOTES:**
1. ALL NEWLY CUT AND/OR FILLED AREAS LACKING ADEQUATE VEGETATION SHALL BE SEEDED AS REQUIRED TO EFFECTIVELY PREVENT SOIL EROSION.
 2. SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES SHALL BE USED AS SHOWN AND AS DIRECTED BY THE ENGINEER TO CONTROL SOIL EROSION.
 3. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTROLS SHOWN ON THE PLAN ARE THE MINIMUM REQUIRED AND THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
 4. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT FOR ALL EROSION CONTROL DURING CONSTRUCTION ACTIVITIES.
 5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES AND REPORTING ANY MAINTENANCE AS REQUIRED BY THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT DURING CONSTRUCTION ACTIVITIES.
 6. PROVISIONS SHALL BE MADE TO PROTECT DOWNSTREAM WATERCOURSES (I.E., STORM SEWER SYSTEMS, DITCHES, WETLANDS, ETC.) FROM SEDIMENT RUNOFF DEVELOPED FROM THE CONSTRUCTION PROCESS. PROVISIONS INCLUDE, BUT ARE NOT LIMITED TO, STRUCTURAL CONTROLS SUCH AS SILT FENCING, GEOTEXTILE FABRIC PROTECTION OF STORM SEWERS, HAY BALES, DIKES AND SANDBAG BERMS; AND/OR VEGETATION CONTROLS SUCH AS SEEDING OR EXISTING VEGETATIVE BUFFER STRIPS (MINIMUM 25 FEET WIDE).
 7. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL INSTALL EROSION AND SEDIMENTATION CONTROLS AT LOCATIONS SHOWN ON PLANS.
 8. CONTRACTOR SHALL PERFORM STREET CLEANING ON ROADS AND STREETS ADJACENT TO THE PROJECT WHICH ARE USED AS ACCESS ROUTES FOR CONSTRUCTION TRAFFIC IF NECESSARY. WASHING OF STREETS IS PROHIBITED.
 9. LOCATE FUEL/MATERIAL STORAGE AREAS AWAY FROM STORM WATER CONVEYANCE SYSTEMS. USE A MINIMUM 60 MIL POLYETHYLENE LINER UNDER ABOVE GROUND STORAGE TANKS. USE 2 FOOT HIGH BERMS AROUND FUEL STORAGE AREAS.
 10. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL ENVIRONMENTAL LAWS.
 11. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF FUELS, MATERIALS AND CONTAMINATED EXCAVATIONS IN A LEGALLY APPROVED MANNER.
 12. AT A MINIMUM, STRUCTURAL CONTROLS SHOULD BE INSPECTED TWICE EVERY CALENDAR WEEK AT LEAST 72 HOURS APART. THE INSPECTOR, APPROVED BY THE OWNER, SHALL HAVE AN ACTIVE CERTIFICATION BY COMPLETING THE "FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL LEVEL I" COURSE. A COPY OF THE CERTIFICATION SHALL BE KEPT ONSITE, SHOULD CONTROLS BECOME INEFFECTIVE, NECESSARY REPAIRS SHALL BE PERFORMED TO RETURN THE INTEGRITY OF THE STRUCTURAL CONTROLS.
 13. EQUIPMENT STAGING AREA TO BE DESIGNATED BY CONTRACTOR AND APPROVED BY OWNER PRIOR TO CONSTRUCTION.
 14. SEDIMENT WILL BE REMOVED FROM THE UPSTREAM FACE OF THE SILT FENCE WHEN IT REACHES A MAXIMUM DEPTH OF 50% OF THE FENCE'S CAPACITY. THE FENCE WILL BE REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
 15. TEMPORARY SEEDING MAY BE REQUIRED IN ADDITION TO PERMANENT SEEDING TO ASSIST IN COMPLYING WITH THE CONSTRUCTION GENERAL PERMIT.

CITY OF MEMPHIS SANITARY SEWER CONSTRUCTION NOTES

1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT NECESSARILY ALL OF SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY COMPANY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND/OR UNDERGROUND STRUCTURES PRIOR TO THE INITIATION OF ANY CONSTRUCTION. CONTRACTOR SHALL ALSO ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN THE CONSTRUCTION PERIMETERS. THE SITE LOCATION FOR EXISTING UTILITIES INVOLVING M&W, SOUTH CENTRAL BELL, TEXAS GAS COMPANY, AND/OR SEWER LOCATION CALL 811.
2. CONTRACTOR SHALL ENSURE UNINTERRUPTED SEWER SERVICE ON EXISTING SEWER AND SERVICE CONNECTIONS BY PROVIDING AMPLE TEMPORARY WASTEWATER PUMPING AND/OR BYPASSING.
3. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES.
4. CONTRACTOR SHALL NOTIFY THE SARP10 CONSTRUCTION MANAGER A MINIMUM OF 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
5. ALL AREAS IN CUT OR FILL WHERE VEGETATION HAS BEEN REMOVED SHALL BE SEEDED, MULCHED, FERTILIZED, AND/OR SODDED TO PREVENT EROSION.
6. THE CONTRACTOR SHALL VERIFY EXISTING DATA AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ENGINEER.
7. ALL SANITARY SEWER TO BE CONSTRUCTED AS PER CITY OF MEMPHIS STANDARD CONSTRUCTION SPECIFICATIONS. SANITARY SEWER SERVICE CONNECTIONS TO BE INSTALLED AS PER CITY OF MEMPHIS STANDARD SST-16.
8. ALL SEWER MANHOLE LIDS IN OPEN AREAS ARE TO BE CONSTRUCTED 1.5' ABOVE PROPOSED GRADE. IN BACKYARDS, MANHOLE LIDS ARE TO BE 1.5' ABOVE INITIAL GRADE, 0.5' ABOVE FINISHED GRADE.
9. ALL SANITARY SEWER, INCLUDING SEWER CONNECTIONS, WHICH HAS LESS THAN 1.5 CLEARANCE (OUTSIDE OF PIPES) WITH DRAINAGE OR IN FILLED AREAS SHALL BE CLASS 50 D.I.P. OR CONCRETE ENCASED, 10' MINIMUM BOTH SIDES OF CROSSING. ALL DUCTILE IRON PIPE (D.I.P.) SHALL BE POLYETHYLENE LINED OR SHALL BE TREATED WITH PROTECTO 401 OR APPROVED EQUIVALENT.
10. THE CITY OF MEMPHIS SHALL HAVE INGRESS/EGRESS RIGHTS TO USE PRIVATE DRIVES AND YARDS FOR THE PURPOSE OF MAINTAINING ALL PUBLIC SEWER LINES AND SHALL BEAR NO RESPONSIBILITY FOR THE MAINTENANCE OF SAID PRIVATE DRIVES AND YARDS.
11. NO TREES, SHRUBS, PERMANENT STRUCTURES, OR OTHER UTILITIES (EXCEPT FOR CROSSINGS) WILL BE ALLOWED WITHIN THE SANITARY SEWER EASEMENT. NO OTHER UTILITIES OR SERVICES MAY OCCUPY SANITARY SEWER EASEMENTS IN PRIVATE DRIVES AND YARDS EXCEPT FOR CROSSINGS.
12. ALL SANITARY SEWER MANHOLES IN REVERSE CROWN STREETS, ALLEYS, OR DRIVES (PUBLIC OR PRIVATE) SHALL BE PROVIDED WITH GASKETS AND PLUGS FOR PICK HOLES TO PREVENT DRAINAGE INFLOW INTO THE SEWER SYSTEM.
13. THE CONTRACTOR SHALL PROVIDE ADEQUATE AND EFFECTIVE EROSION CONTROL AS NECESSARY TO PREVENT ANY SILTATION INTO THE EXISTING DRAINAGE SYSTEM AND/OR ADJACENT PROPERTIES.

GENERAL NOTES:

1. AT ALL CROSSINGS OF EXISTING UTILITIES, THE CONTRACTOR SHALL FIELD LOCATE BY POST-HOLING OR OTHER APPROPRIATE METHODS, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
2. ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
3. ALL DISTURBED AREAS SHALL BE SEEDED (WITH A SEASONAL MIX) AND COVERED WITH STRAW AT THE END OF EACH WEEK (AT A MINIMUM) OR MORE FREQUENTLY, AS CONDITIONS DICTATE, IN ADDITION TO EROSION CONTROLS REFERENCED ON PLANS.
4. ALL DISTURBED LAWN AREAS SHALL BE SODDED. MATCH EXISTING SOD TYPE.
5. CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES, AND PUBLIC/PRIVATE INFRASTRUCTURE AND PROPERTY.

NOTE:

BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE AND VERIFY FORCE MAIN ROUTING AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

FLOOD NOTE:

THIS IS TO CERTIFY THAT BY GRAPHIC DETERMINATION THE ABOVE PLATTED PROPERTY IS IN A "ZONE X" NO SHADING (AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD ACCORDING TO THE FEMA/FIRM MAP NUMBER 47157C0301G NEAREST BASE FLOOD ELEVATION = 254.

PROJECT BENCHMARKS

CITY BENCHMARK:
#32 IS LOCATED AT AUSTIN PEAY HIGHWAY AND NEW BROWNSVILLE ROAD
CITY MONUMENT IS AT THE SOUTHEAST CORNER AT BACK OF CURB ON THE SOUTH SIDE OF NEW BROWNSVILLE ROAD, 125 EAST OF AUSTIN PEAY HIGHWAY, 45' SOUTH OF CENTERLINE OF NEW BROWNSVILLE ROAD AT END OF SIDEWALK, 14 EAST OF END OF CURB.
ELEVATION: 295.13

SITE TBM #1:
NAIL SET IN SOUTH SIDE OF POWER POLE AS SHOWN.
ELEVATION: 293.86

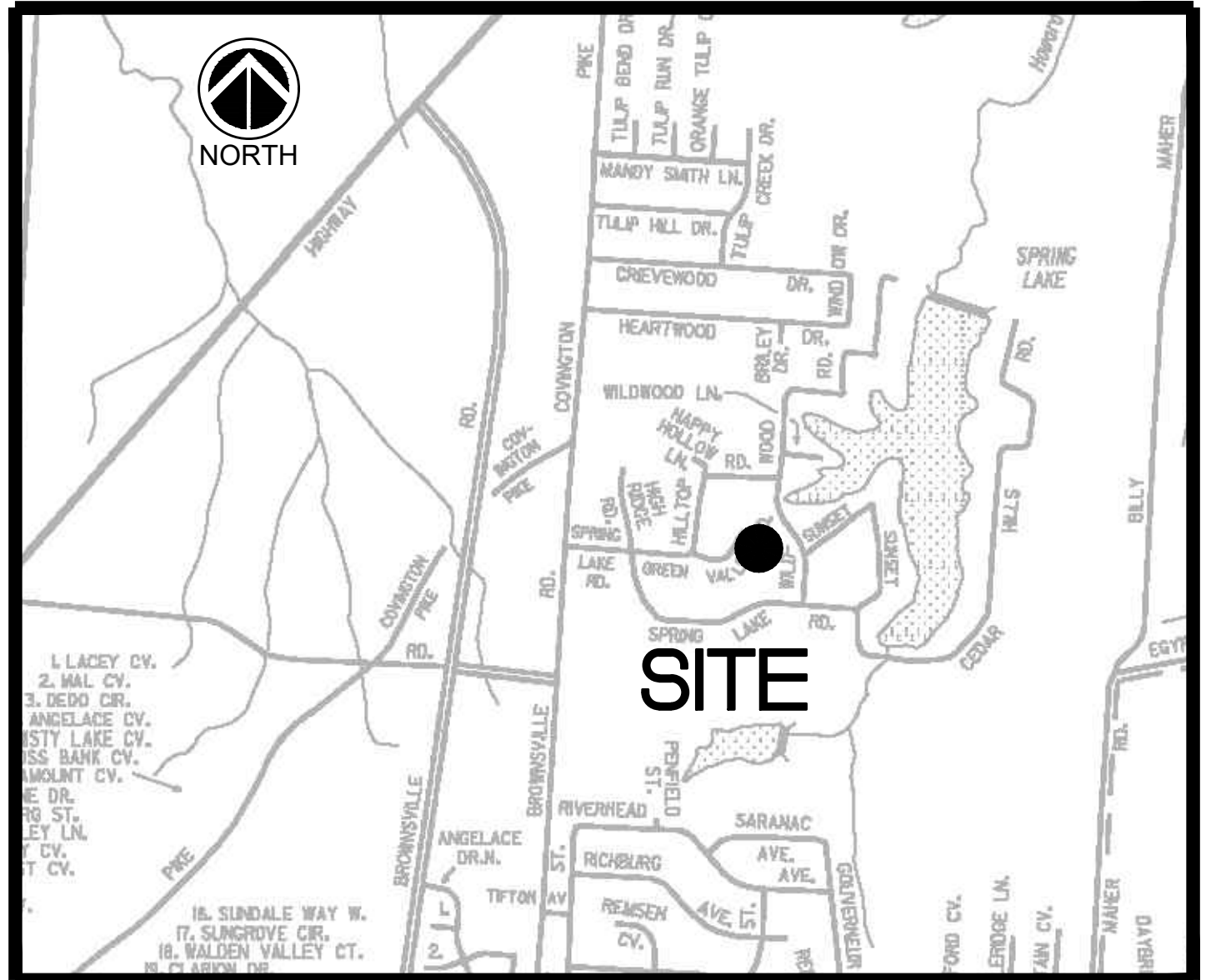
NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

LEGEND

SF	SILT FENCE BARRIER
----	--------------------

NOTE:
SEE SHEET 7 FOR EROSION CONTROL DETAILS.
SEE SHEET 7 FOR FENCE AND GATE DETAILS.

0 5 10 20
1 INCH = 10 FEET



VICINITY MAP (NTS)

LEGEND

[Symbol]	EXISTING FIRE HYDRANT	[Symbol]	EXISTING UNDERGROUND ELECTRIC
[Symbol]	EXISTING POWER POLE	[Symbol]	EXISTING OVERHEAD ELECTRIC
[Symbol]	EXISTING GUY POLE	[Symbol]	EXISTING UNDERGROUND FIBER OPTIC
[Symbol]	EXISTING MAILBOX	[Symbol]	EXISTING UNDERGROUND GAS LINE
[Symbol]	EXISTING SIGN	[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING GAS VALVE	[Symbol]	EXISTING DRAIN LINE
[Symbol]	EXISTING WATER VALVE	[Symbol]	EXISTING TELEPHONE LINE
[Symbol]	EXISTING WATER METER	[Symbol]	EXISTING UNDERGROUND OIL LINE
[Symbol]	EXISTING ROW MARKER	[Symbol]	FORCE MAIN
[Symbol]	EXISTING ELECTRIC TRANSFORMER	[Symbol]	SANITARY SEWER
[Symbol]	EXISTING TELEPHONE PEDESTAL	[Symbol]	SEWER MANHOLE

PICKERING FIRM INCORPORATED UNDERGROUND UTILITIES DISCLAIMER:

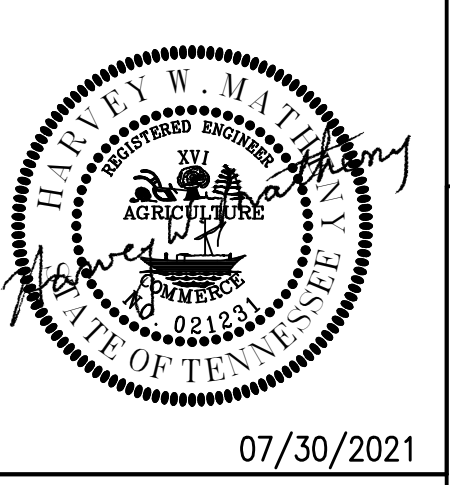
INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE ENGINEER IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

APPROVED FOR CONSTRUCTION

THE DOCUMENT BEARING THIS STAMP HAS BEEN RECEIVED AND REVIEWED BY THE CITY OF MEMPHIS DIVISION OF ENGINEERING UNDER AUTHORITY DELEGATED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION DIVISION OF WATER POLLUTION CONTROL. IT IS HEREBY APPROVED FOR CONSTRUCTION BY THE CITY ENGINEER AS EVIDENCE BY HIS SIGNATURE IN THE TITLE BLOCK BELOW.

APPROVAL EXPIRES 1 YEAR FROM APPROVAL DATE BELOW. THIS APPROVAL SHALL NOT BE CONSTRUED AS CREATING A PRESUMPTION OF CORRECT OPERATION OR AS WARRANTING BY THE CITY ENGINEER THAT THE APPROVED FACILITIES WILL REACH THE DESIRED GOALS.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SEWER BASIN: LS-6
SHEET 1 OF 1
DIVISION OF ENGINEERING

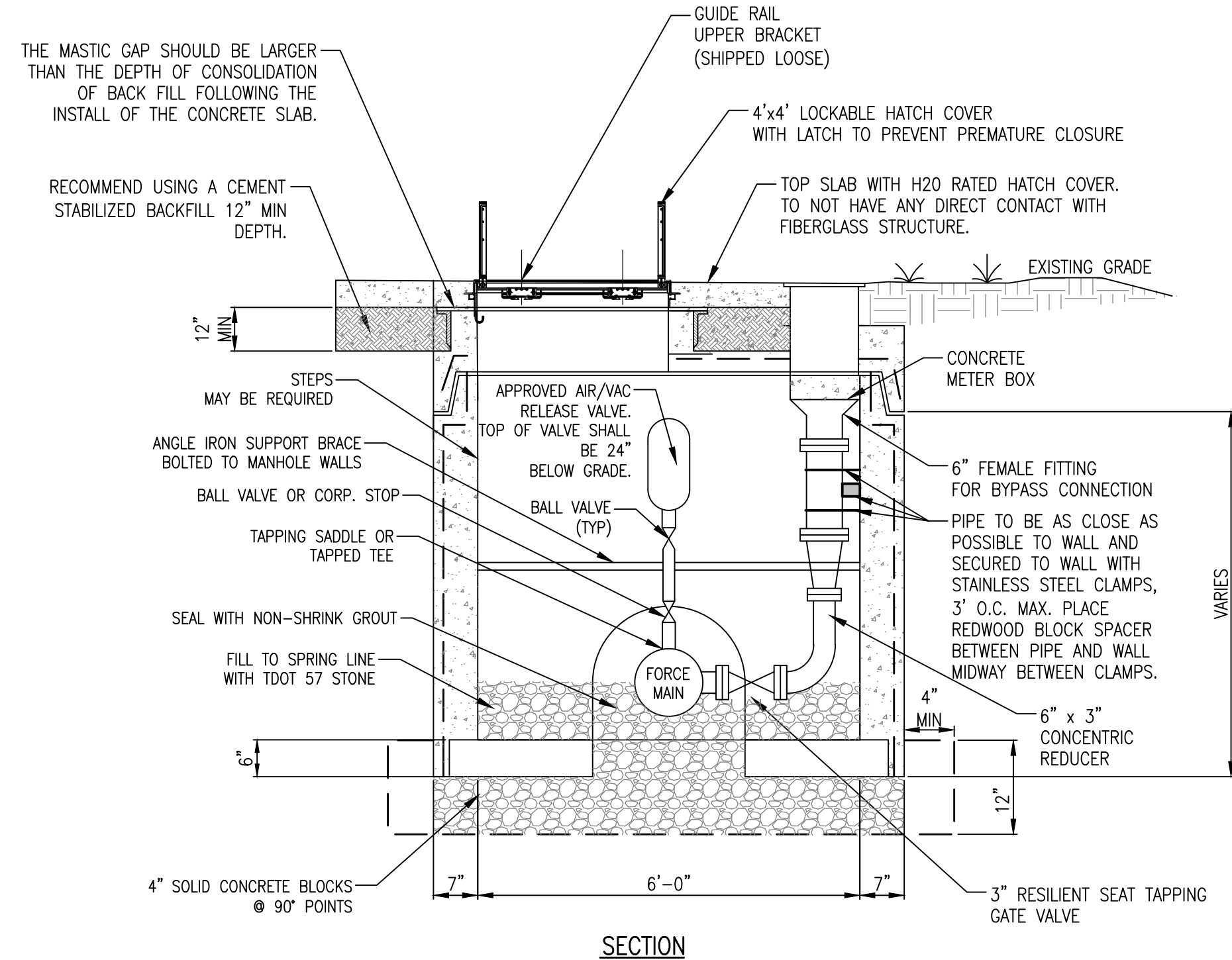
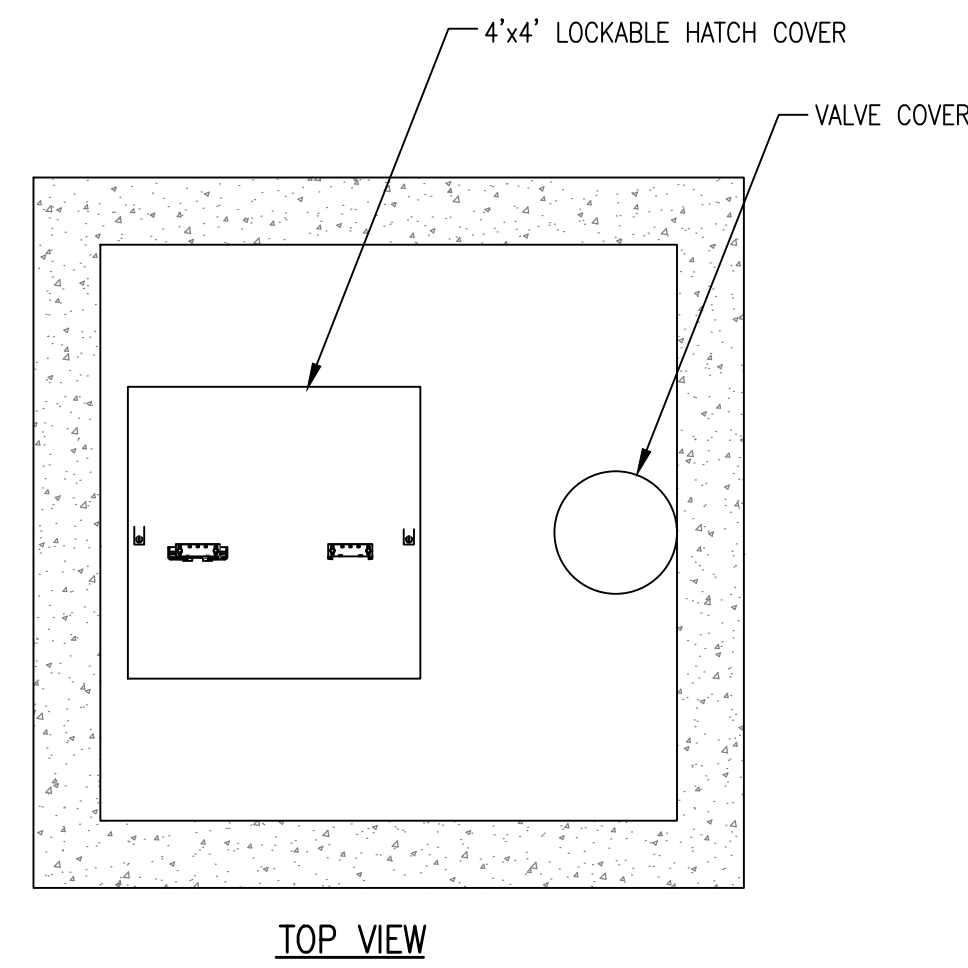
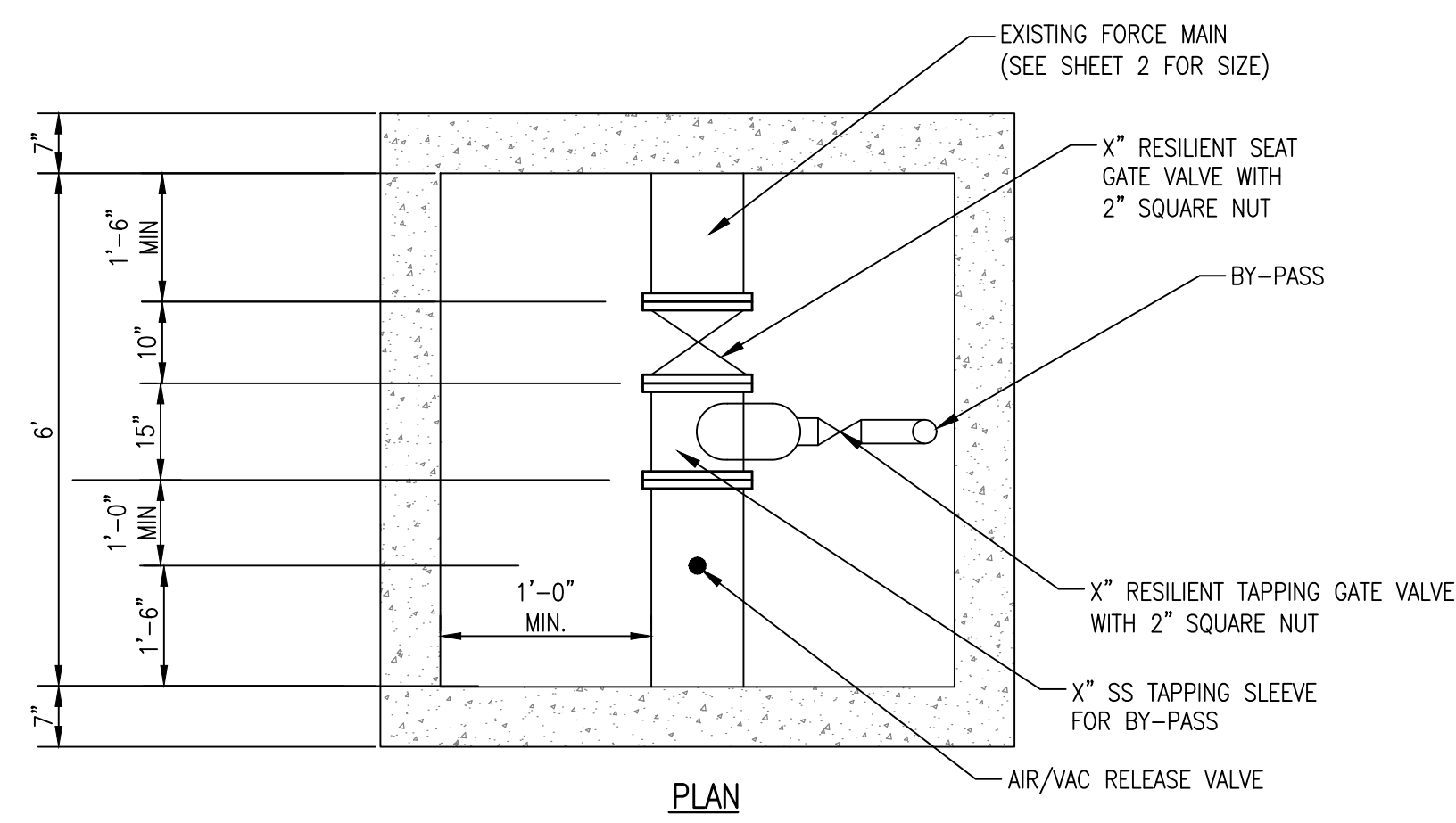
SEWER PLAN
4329 Wildwood Road
MEMPHIS, TENNESSEE

MEMPHIS, TENNESSEE
DATE: JUNE, 2020 PROJECT NO.: 24699.05
DESIGN BY: PFI BOOK: 1676
DRAWN BY: PFI SCALE: 1" = 10'

REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

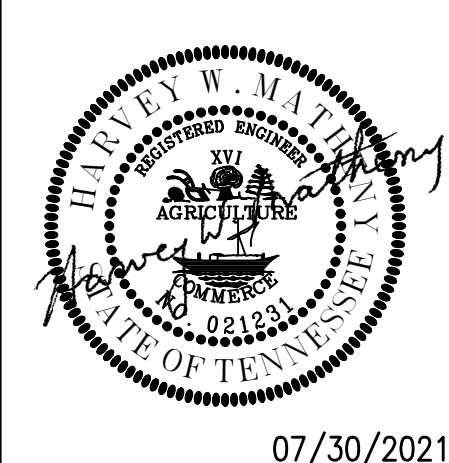
K:\DWG\DWG\PROJECTS\SEWER PLAN\DWG - 07-30-2021



- NOTES:**
1. CONCRETE SHALL BE 4,000 PSI COMPRESSIVE STRENGTH, MIN.
 2. ALL REINFORCING SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
 3. MANHOLE SECTIONS SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
 4. TAPERED JOINT WITH O-RING GASKET SHALL MEET THE REQUIREMENTS OF ASTM SPECS C-361 AND C-443.
 5. CAST MANHOLE SECTION INTO BASE 6" OR DEPTH OF JOINT, WHICHEVER IS DEEPER.
 6. JOINT CONFIGURATION MAY BE CAST BELL-UP OR SPIGOT UP.
 7. SIZE DOGHOUSE OPENINGS 4" MIN. AND 8" MAX. LARGER THAN PIPE O.D.
 8. ALL AIR RELEASE PIPING SHALL BE STAINLESS STEEL.
 9. FOR FORCE MAIN SMALLER THAN 6", EXCEPT THE DUCTILE IRON, CLAMP THE AIR/VACUUM RELEASE VALVE TO THE ANGLE IRON SUPPORT BRACE.
 10. CAST BASE ON FIRM, UNDISTURBED SOIL.
 11. STANDARD PRECAST BASE SECTION MAY BE USED FOR NEW FORCE MAIN CONSTRUCTION. BED STANDARD BASE ON MIN. 6" TDOT No. 21A CORE HOLES FOR PIPE MIN. 4" LARGER THAN PIPE O.D.. CONFORM TO THIS DETAIL FOR ALL OTHER REFERENCES.

1 BY-PASS TEE AND AIR/VAC STRUCTURE
NOT TO SCALE

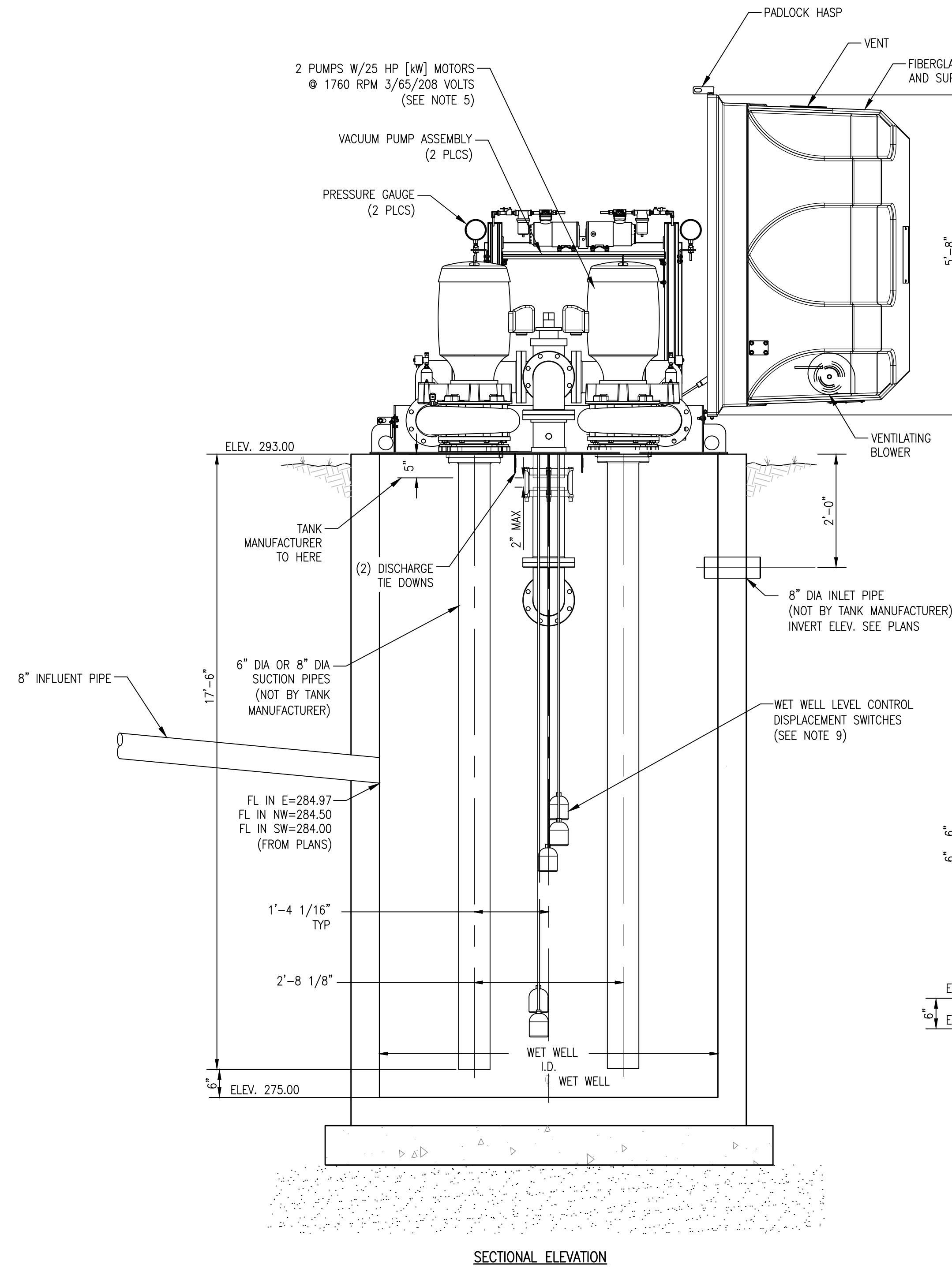
REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



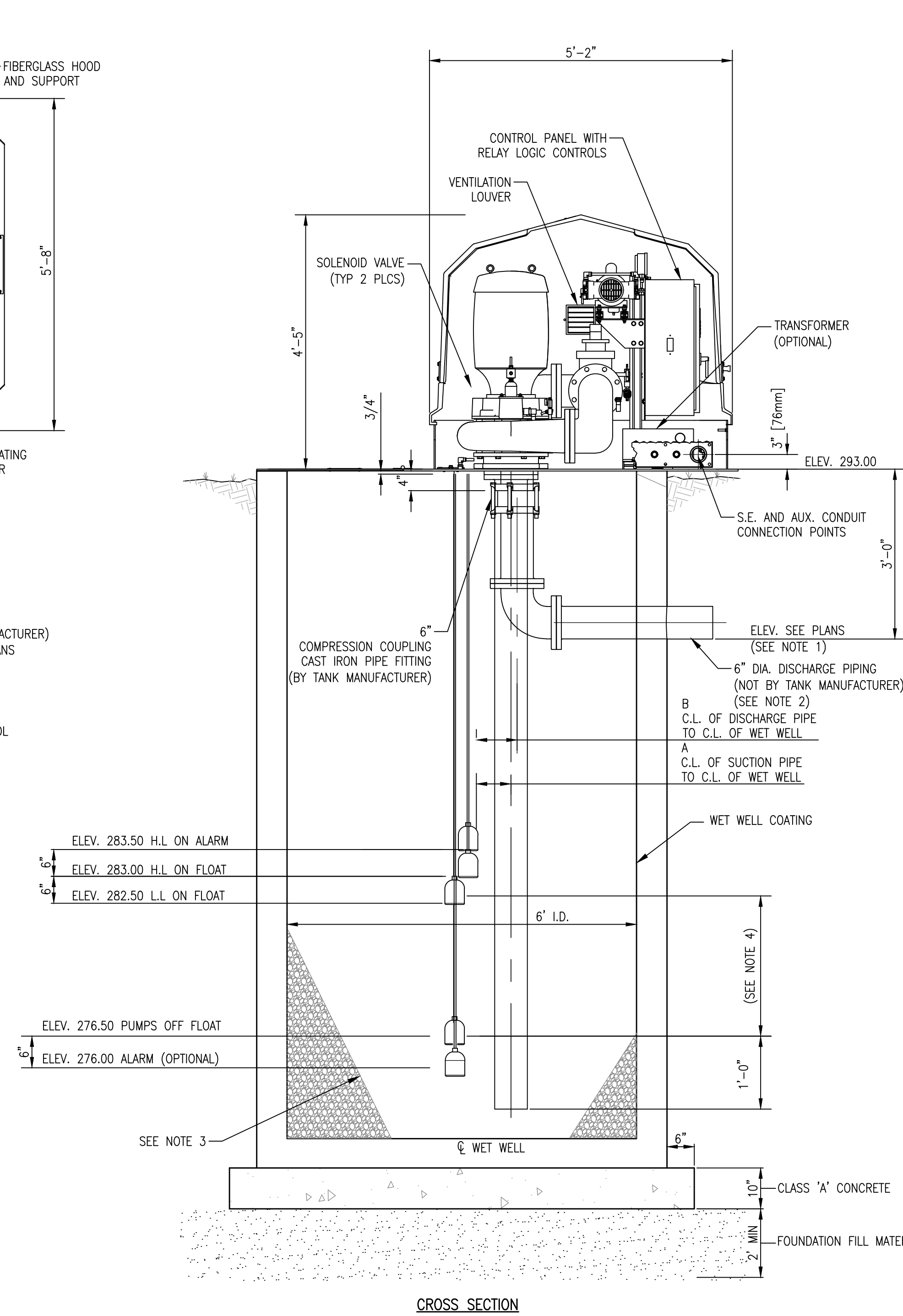
SHEET 1 OF 1
DIVISION OF ENGINEERING
PUMP DETAILS
4329 Wildwood Road
MEMPHIS, TENNESSEE
SURVEY: PFI DATE: JUNE, 2020 PROJECT NO.: 24699.05
DESIGN BY: PFI DATE: AUG, 2020 BOOK: 1688
DRAWN BY: PFI DATE: AUG, 2020 SCALE: N.T.S.
REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

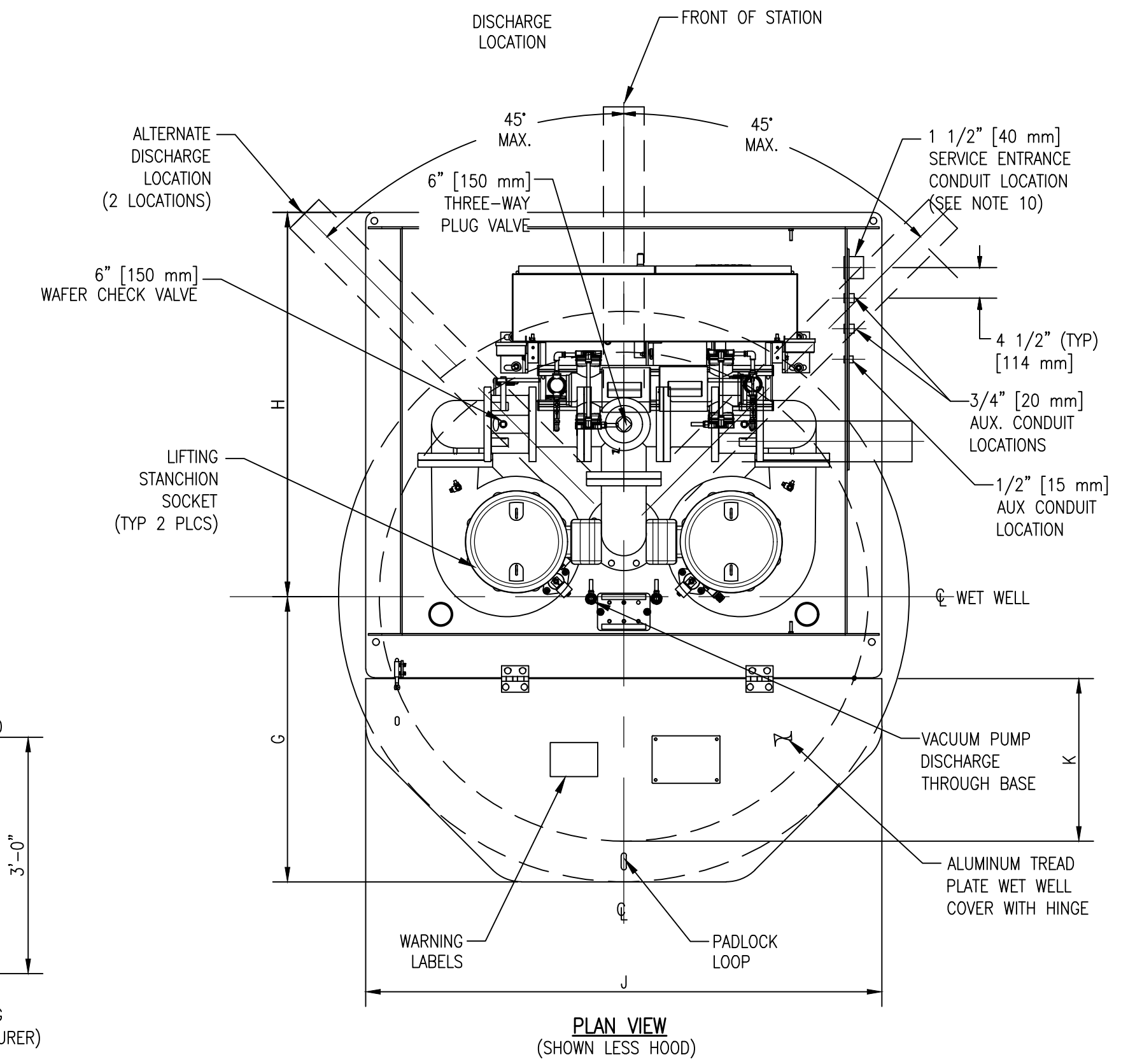
WET WELL ID	DIM A	DIM B	DIM G	DIM H	DIM J	DIM K
EXISTING 6'-0"	10 9/16"	6 13/16"	3'-5 15/16"	5'-2 1/16"	6'-8"	2'-1 1/16"



SECTIONAL ELEVATION



CROSS SECTION



PLAN VIEW
(SHOWN LESS HOOD)

NOTES :

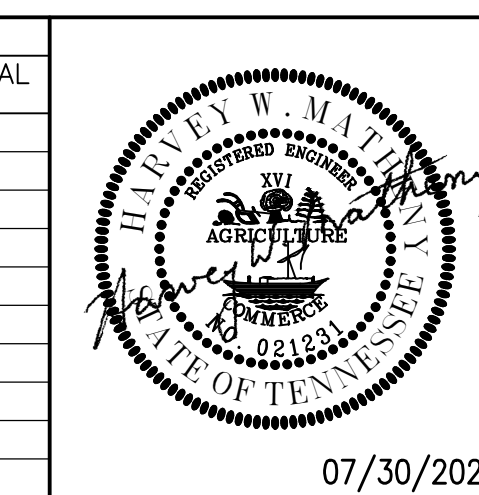
- IF THE END OF THE DISCHARGE LINE IS BELOW THE ELEVATION OF THE DISCHARGE LINE AT THE POINT OF LEAVING THE WET WELL, A PRIMING LOCK LOOP MAY BE REQUIRED.
- IF THE DISCHARGE LINE IS LESS THAN 200 FEET IN LENGTH, A CHECK VALVE OR PRIMING LOCK LOOP MAY BE REQUIRED.
- PROVIDE 60° SLOPE IN WET WELL AS REQUIRED.
- VOLUME BETWEEN L.L. ON AND PUMPS OFF SHOULD BE EQUAL TO, OR GREATER THAN, THE PUMPING RATE PER MINUTE.
- FLOAT SWITCH CONTROLS SHOWN. OPTIONAL PRESSURE TRANSDUCER, HIGH WATER AND LOW WATER ALARMS FLOAT SWITCHES CONTROLS ARE AVAILABLE ON REQUEST.
- U.S. CUSTOMARY CONDUIT COUPLING SIZES SHOWN. ALTERNATE METRIC SIZES ARE AVAILABLE. CONSULT FACTORY.
- ALL PIPES TO BE D.I.P..

1 WET WELL MOUNTED PUMP STATION DETAIL
N.T.S.

LIFT STATION REHAB NOTES:

- EXISTING PRECAST CONCRETE WET WELL AND PUMPS TO REMAIN.
- REMOVE GREASE CAP IF STATION HAS ACCUMULATED GREASE.
- CLEAN AND COAT EXISTING WET WELL WITH A 2-COAT EPOXY-MODIFIED-MORTAR LINING AND HYBRID EPOXY COATING PER MANUFACTURER'S RECOMMENDATIONS. COVER EXPOSED REBAR WITH COMPATIBLE PRIMER AND MORTAR AND SEAL ANY LEAKS WITH HYDRAULIC CEMENT.
- FOR REFERENCE - PUMPS:
25HP @ 1760 RPM
265 GPM
TDH = 138 FT
6" PVC FORCE MAIN @ 9,600 LF

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



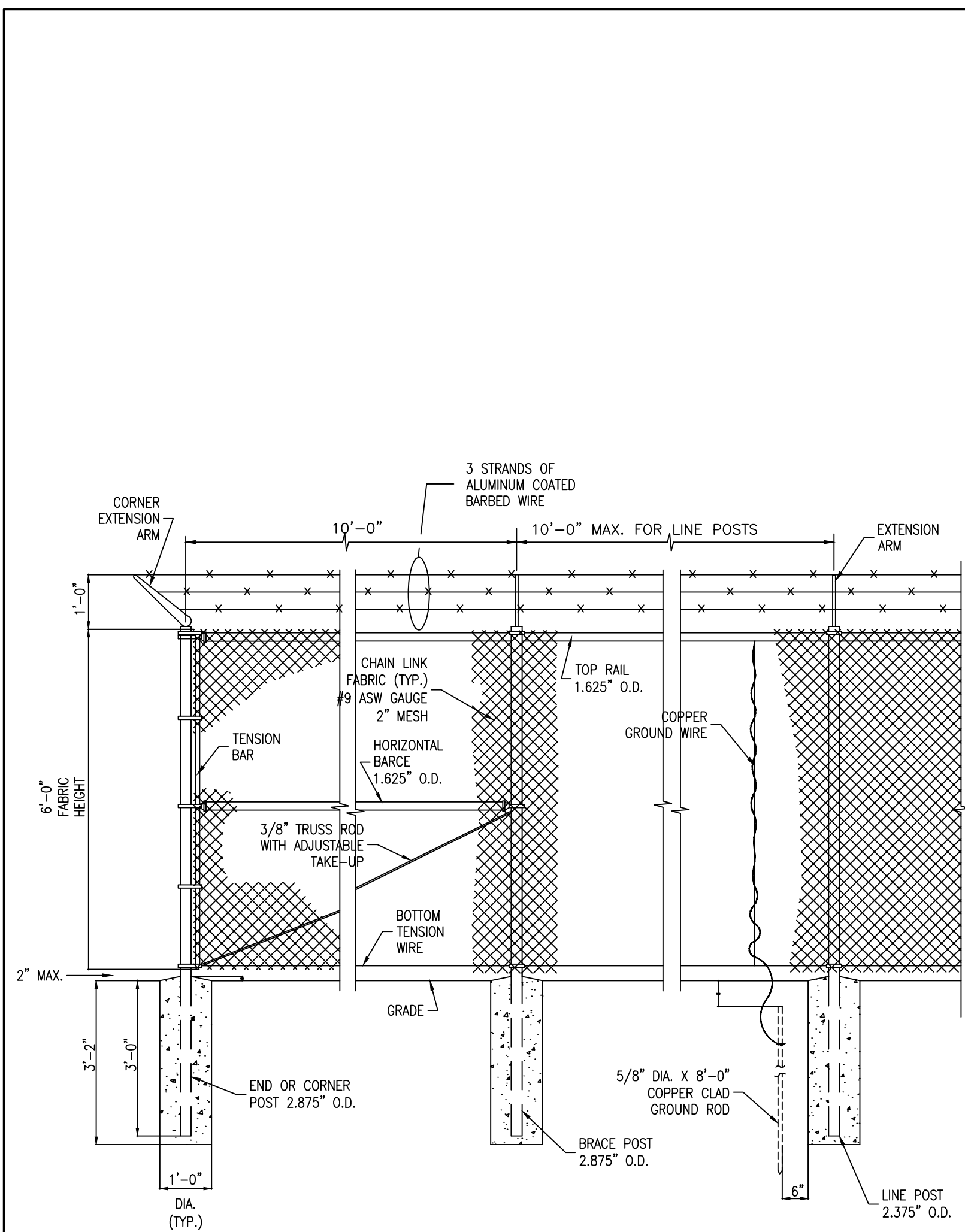
SHEET 1 OF 1
DIVISION OF ENGINEERING

PUMP STATION DETAILS
4329 Wildwood Road
MEMPHIS, TENNESSEE

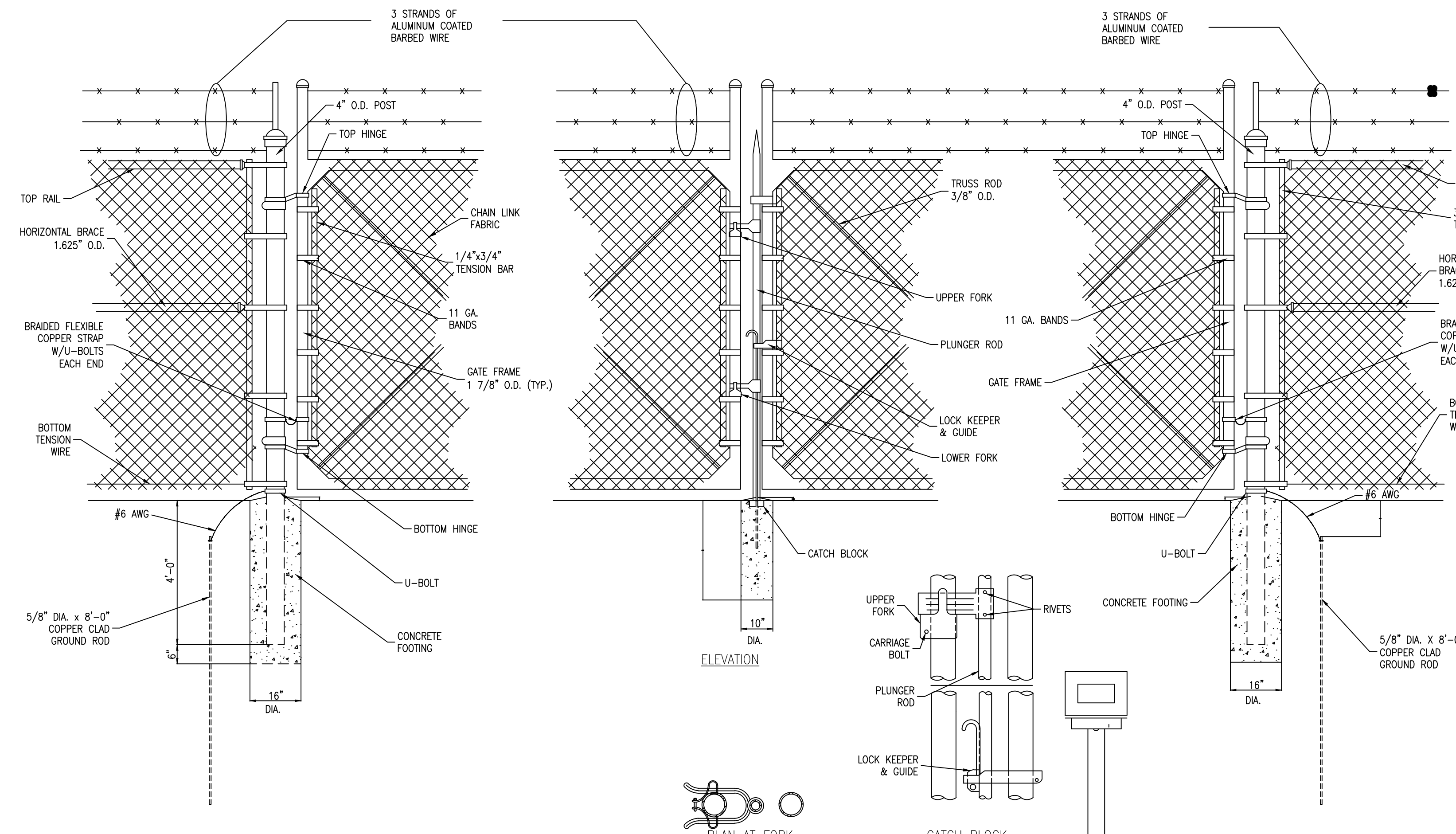
PROJECT NO.: 24699.05
BOOK: 1676
SCALE: N.T.S.

REVIEWED

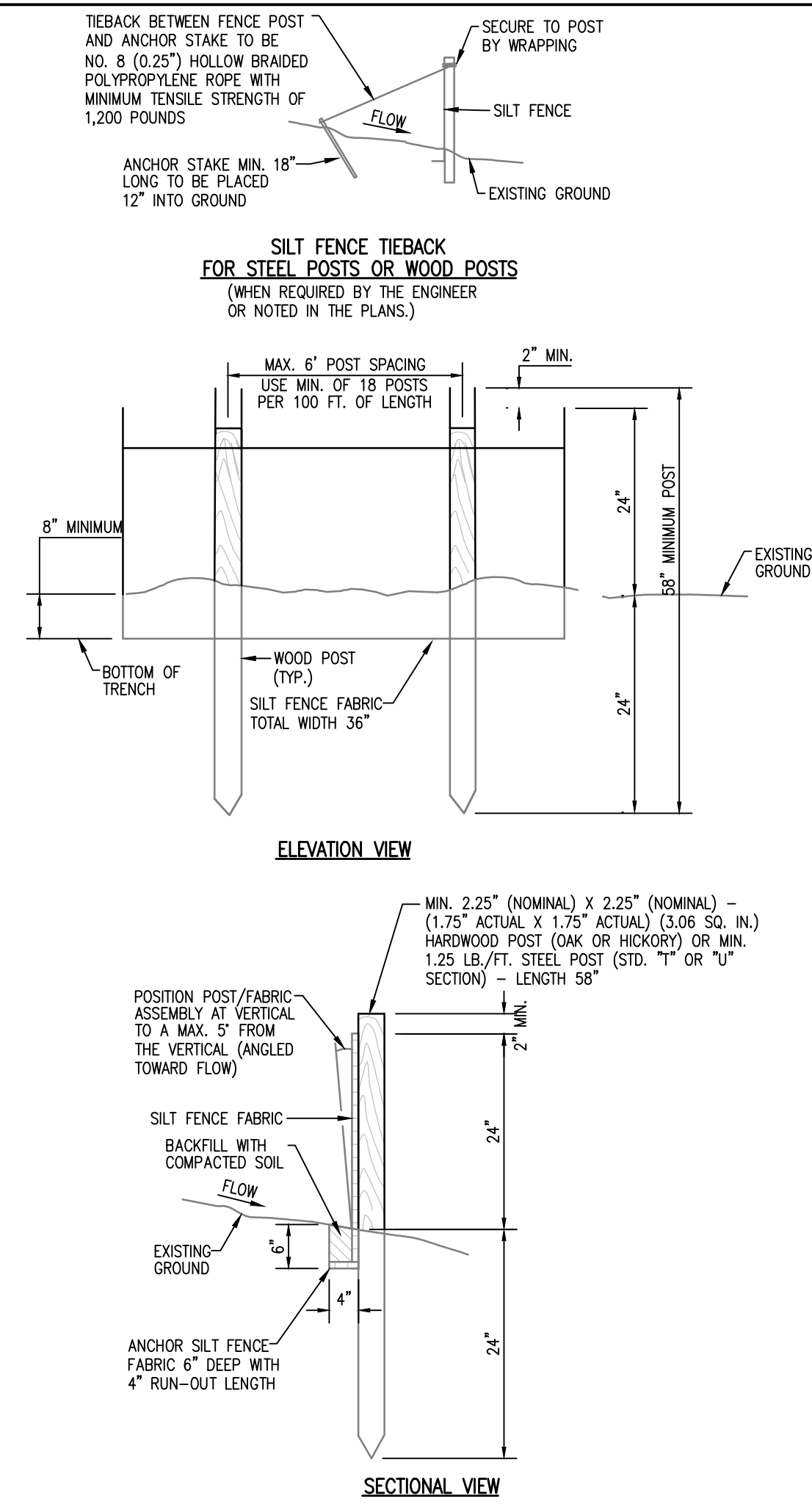
LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.



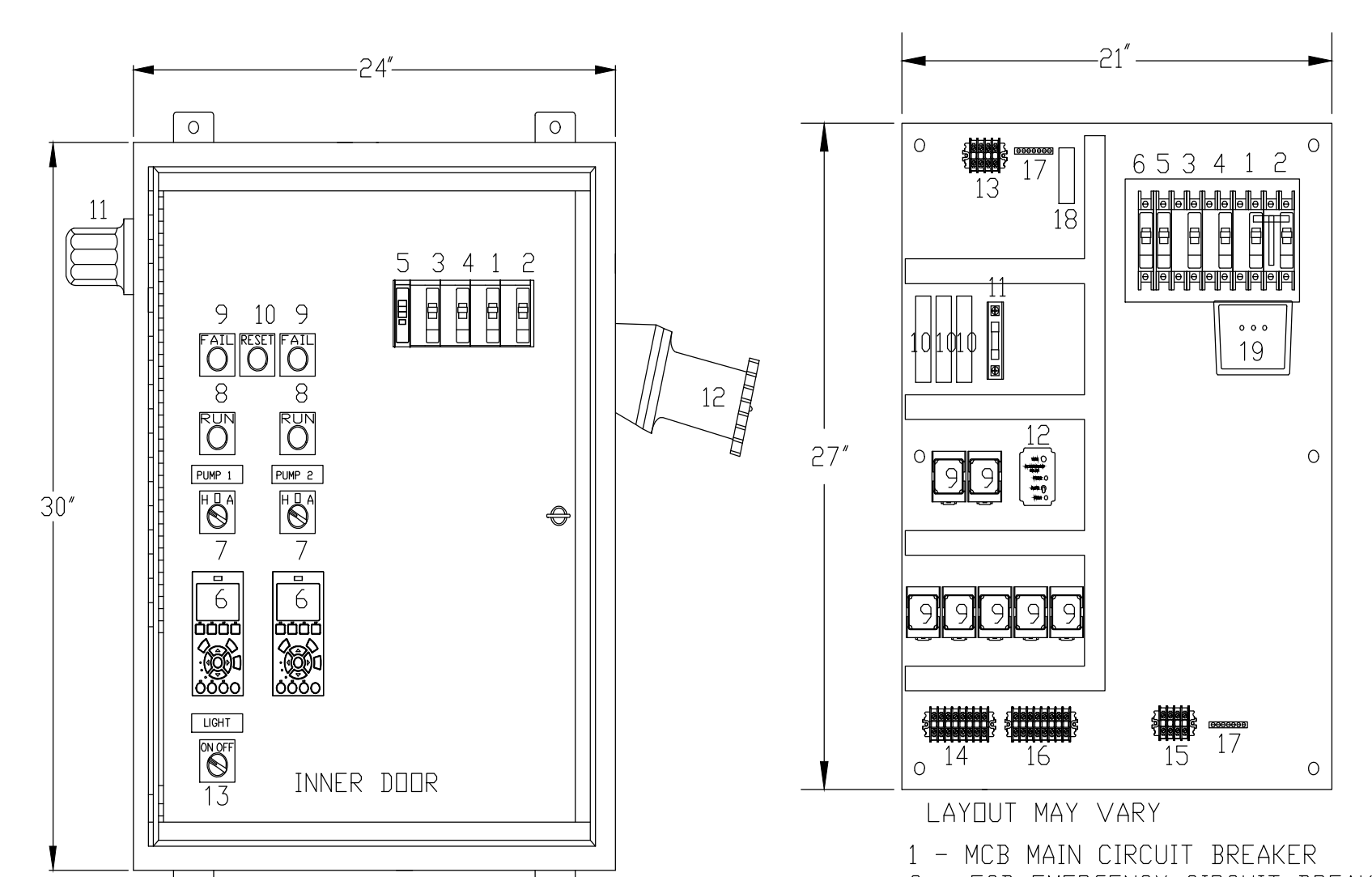
1 TYPICAL SECURITY FENCE ELEVATION
NOT TO SCALE



2 5' DOUBLE SWING GATE DETAIL
NOT TO SCALE

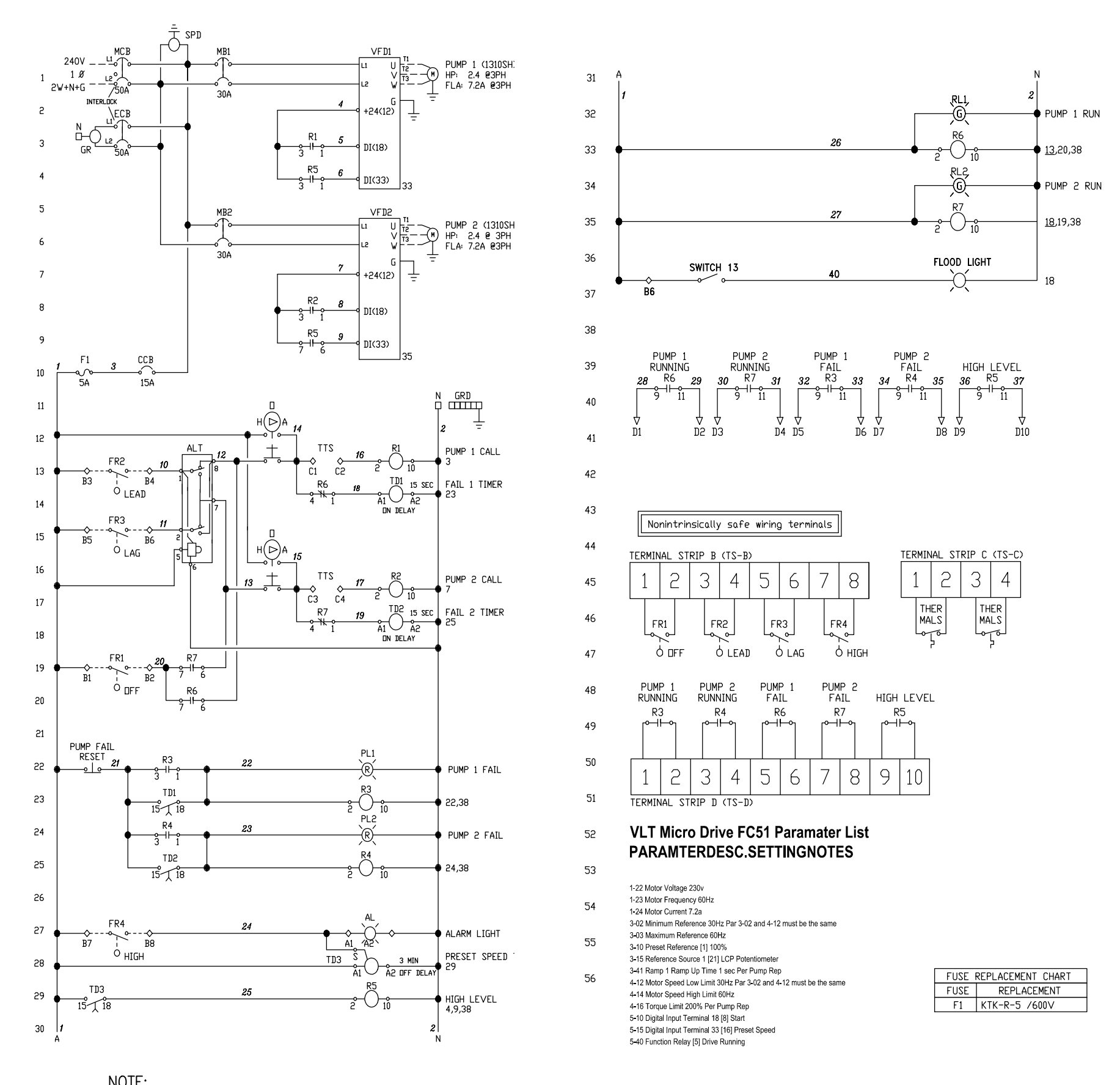


5 SILT FENCE
NOT TO SCALE



5 CONTROL PANEL
NOT TO SCALE

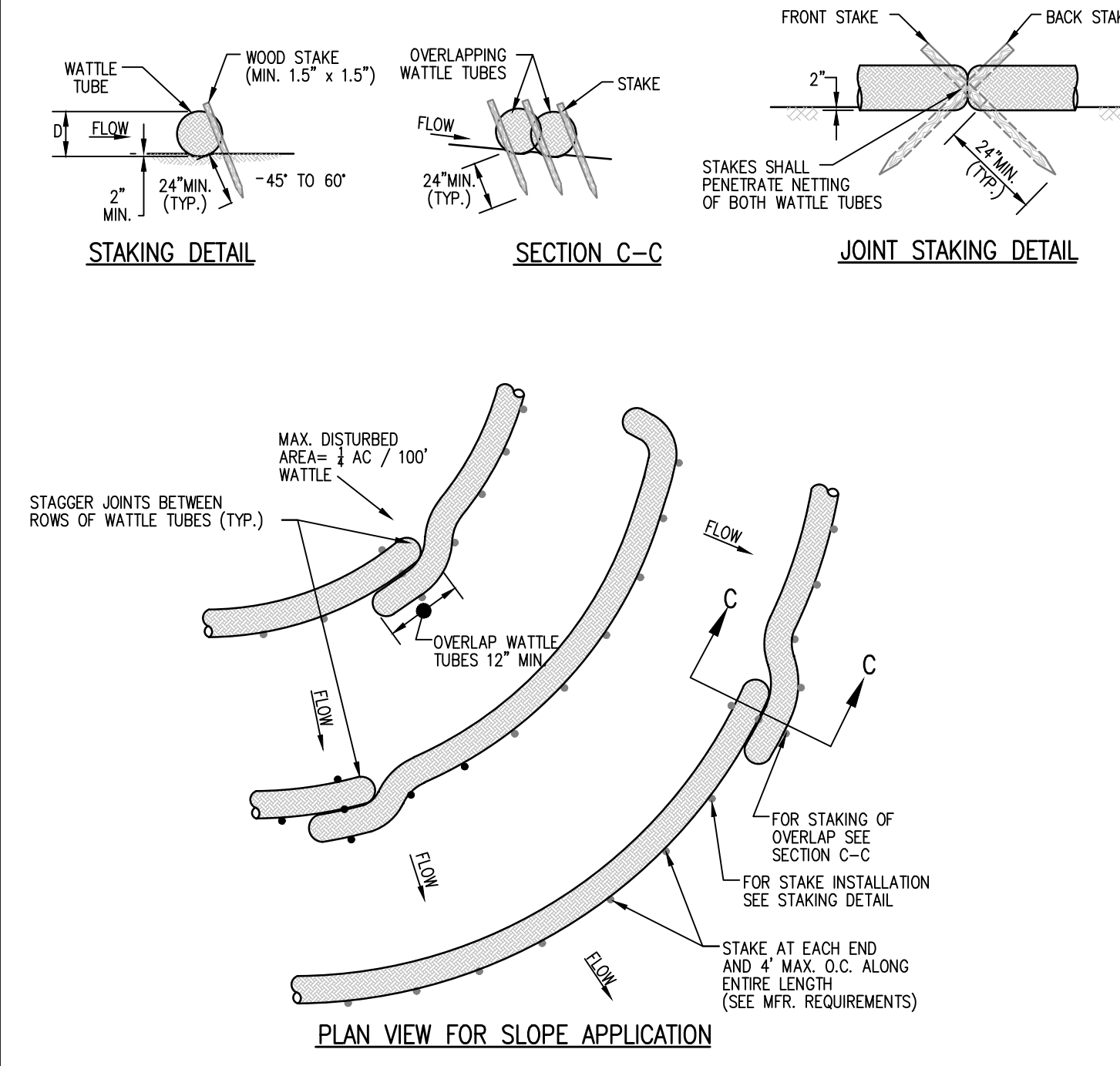
- LAYOUT MAY VARY
- 1 - MCB MAIN CIRCUIT BREAKER
 - 2 - ECB EMERGENCY CIRCUIT BREAKER
 - 3 - MB1 MOTOR BREAKER 1
 - 4 - MB2 MOTOR BREAKER 2
 - 5 - CCB CONTROL CIRCUIT BREAKER
 - 6 - FLOOD LIGHT BREAKER
 - 7 - NOT USED
 - 8 - NOT USED
 - 9 - R1 TO R7 CONTROL RELAY
 - 10 - TD1 TO TD3 TIME DELAY
 - 11 - F1 FUSE BLOCK
 - 12 - ALT ALTERNATOR
 - 13 - TSA TERMINAL STRIP A
 - 14 - TSB TERMINAL STRIP B
 - 15 - TSC TERMINAL STRIP C
 - 16 - TSD TERMINAL STRIP D
 - 17 - GRD GROUND BAR
 - 18 - N NEUTRAL BLOCK
 - 19 - SPD SURGE PROTECTIVE DEVICE



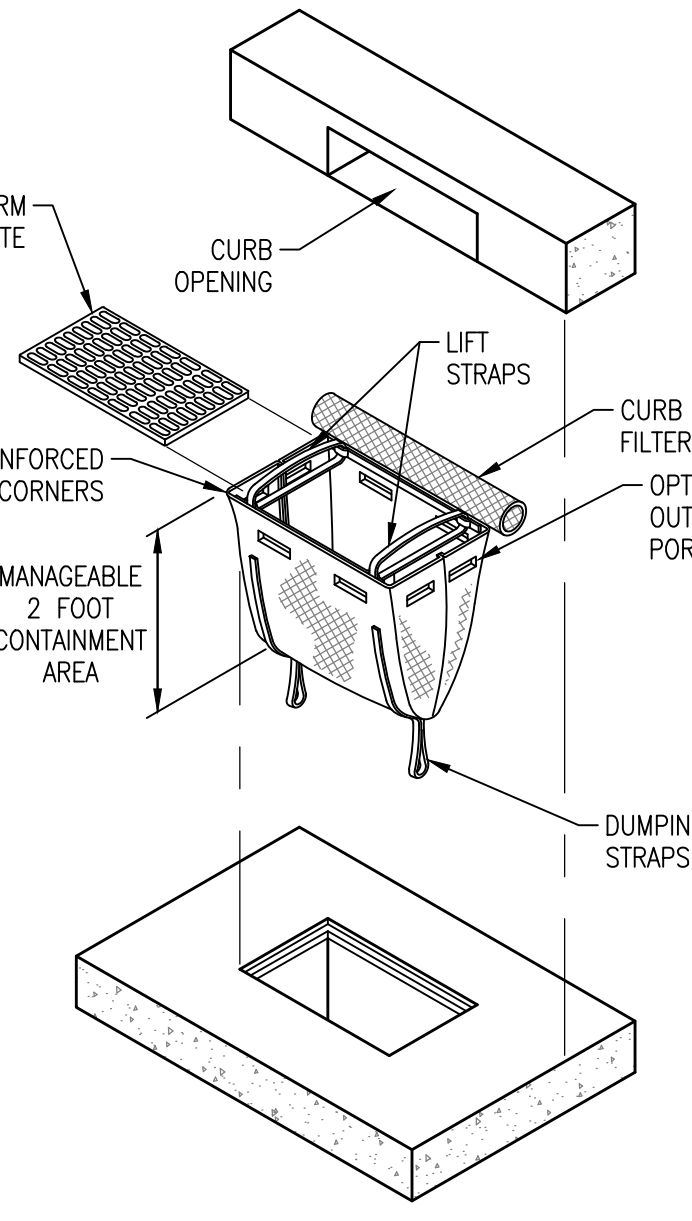
7 TUBES AND WATTLES
NOT TO SCALE

VLT Micro Drive FC51 Paramater List
PARAMETERDESC.SETTINGNOTES

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



7 TUBES AND WATTLES
NOT TO SCALE



4 CURB INLET PROTECTION-SILT SACK
NOT TO SCALE

REVISION

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020

LIFT STATION REHAB DESIGN

DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

07/30/2021

SHEET 1 OF 1
DIVISION OF ENGINEERING

DETAILS
4329 Wildwood Road

MEMPHIS, TENNESSEE

PROJECT NO.: 24699.05
BOOK: 1676
SCALE: N.T.S.

SURVEY: PFI
DESIGN BY: PFI
DRAWN BY: PFI

REVIEWED

JULY, 2021
CONSTRUCTION PLANS

LIFT STATION REHAB DESIGN
SARP10

4884 S. THIRD STREET (HIGHWAY 61)

SCHEDULE OF DRAWINGS	
SH.	TITLE
1	COVER
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	PUMP STATION SITE AND FORCE MAIN ROUTING
4	SEWER PLAN
5	PUMP DETAILS
6	PUMP STATION DETAILS
7	DETAILS



VICINITY MAP
N.T.S.



Pickering Firm, Inc.
Facility Design • Civil Engineering • Surveying •
Transportation • Natural / Water Resources
6363 Poplar Avenue, Suite 300
Memphis, TN 38119
901.726.0810

THE PLANS, IDEAS AND DESIGNS SHOWN ON THIS DRAWING ARE THE PROPERTY OF THE ENGINEER. DESIGNED SOLELY FOR THIS CONTRACT. THIS PLAN SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH IT WAS NOT INTENDED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.



NORTH
0 10 20 40
1 INCH = 20 FEET

NOTES:

- PROPERTY LINES SHOWN ARE APPROXIMATE. NO BOUNDARY SURVEY WAS PERFORMED FOR THIS PROJECT.
- BASED UPON OUR LIMITED SURVEY INFORMATION IT APPEARS THAT THIS LIFT STATION IS PARTIALLY IN THE HWY R.O.W..

NOTE:
CONTRACTOR TO LOCATE AND VERIFY FORCE MAIN ROUTING AT START OF CONSTRUCTION AND NOTIFY ENGINEER OF ANY ISSUES.

LEGEND			
	EXISTING FIRE HYDRANT		EXISTING UNDERGROUND ELECTRIC
	EXISTING POWER POLE		EXISTING OVERHEAD ELECTRIC
	EXISTING GUY POLE		EXISTING UNDERGROUND FIBER OPTIC
	EXISTING MAILBOX		EXISTING UNDERGROUND GAS LINE
	EXISTING SIGN		EXISTING WATER LINE
	EXISTING GAS VALVE		EXISTING DRAIN LINE
	EXISTING WATER VALVE		EXISTING TELEPHONE LINE
	EXISTING WATER METER		EXISTING UNDERGROUND OIL LINE
	EXISTING ROW MARKER		FORCE MAIN
	EXISTING ELECTRIC TRANSFORMER		SANITARY SEWER
	EXISTING TELEPHONE PEDESTAL		SEWER MANHOLE

FLOOD NOTE:

THIS IS TO CERTIFY THAT BY GRAPHIC DETERMINATION THE ABOVE PLATTED PROPERTY IS IN A "ZONE X" NO SHADING (AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD ACCORDING TO THE FEMA/FIRM MAP NUMBER 47157C0415F WITH AN EFFECTIVE DATE OF SEPTEMBER 28, 2007. NEAREST BASE FLOOD ELEVATION = 238.

PROJECT BENCHMARKS

CITY BENCHMARK:
#1068 IS LOCATED AT THE EAST SIDE OF HIGHWAY 61 IN FRONT OF ADDRESS #4844, CITY MONUMENT IS LOCATED 34' EAST OF CENTERLINE OF HIGHWAY, 35' NORTH OF DRIVEWAY AND 59' SOUTH OF A FIRE HYDRANT. ELEVATION: 284.13

SITE TBM #1
NAIL SET IN WEST SIDE OF POWER POLE AS SHOWN. ELEVATION: 274.73

NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

PICKERING FIRM INCORPORATED UNDERGROUND UTILITIES DISCLAIMER:

INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE ENGINEER IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

GENERAL NOTES:

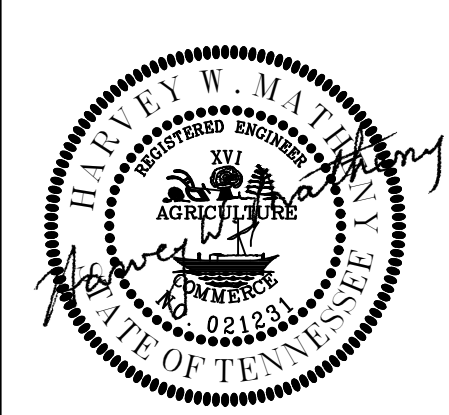
- AT ALL CROSSINGS OF EXISTING UTILITIES, THE CONTRACTOR SHALL FIELD LOCATE BY POST HOLE OR OTHER APPROPRIATE METHODS, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
- ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
- ALL DISTURBED AREAS SHALL BE SEEDED (WITH A SEASONAL MIX) AND COVERED WITH STRAW AT THE END OF EACH WEEK (AT A MINIMUM) OR MORE FREQUENTLY, AS CONDITIONS DICTATE, IN ADDITION TO EROSION CONTROLS REFERENCED ON PLANS.
- ALL DISTURBED LAWN AREAS SHALL BE SOODED, MATCH EXISTING SOD TYPE.
- CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES, AND PUBLIC/PRIVATE INFRASTRUCTURE AND PROPERTY.

NOTE:
RELOCATE EXISTING PUMP STATION AND WET WELL. INSTALL NEW PIPING, CONTROLS, ELECTRICAL COMPONENTS AND APPURTENANCES TO EXISTING PUMPS AND WET WELL TO REBUILD LIKE NEW AND EXTEND INLET PIPE FROM SEWER MANHOLE TO NEW PUMP STATION.

DEMOLITION NOTES:

- THE CONTRACTOR SHALL REMOVE ALL UNDERGROUND UTILITIES AND ANY OTHER ITEMS IN ACCORDANCE WITH THE TDEC AND THE TECHNICAL SPECIFICATIONS. THE CONTRACTOR SHALL STRICTLY FOLLOW ALL CITY, STATE, AND FEDERAL GUIDELINES FOR REMOVAL AND DISPOSAL OF THESE FACILITIES.
- ALL BUILDING, CONCRETE, ASPHALT PAVEMENT, AND GRANULAR SUBBASE SHALL BE REMOVED FULL DEPTH PER THE DIRECTION OF THE GEOTECHNICAL ENGINEER. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE AND FEDERAL REGULATIONS.
- CONTRACTOR SHALL REMOVE & REPAIR PAVEMENT AS REQUIRED FOR UTILITY CONSTRUCTION INCLUDING BUT NOT LIMITED TO: IRRIGATION SLEEVES, SITE LIGHTING CONDUITS, WATER LINES, SANITARY SEWER LINES, STORM DRAINAGE LINES, ETC. CONTRACTOR HAS OPTION TO BORE CONDUITS.
- PRIOR TO COMMENCING ANY UTILITY WORK, CONTRACTOR SHALL NOTIFY ANY SURROUNDING PROPERTY OWNERS WHO MAY EXPERIENCE A DISRUPTION IN SERVICE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MODIFYING ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE PARTS OF THAT EXISTING SYSTEM THAT ARE REMOVED, ABANDONED OR DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO MODIFY ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE NEW AREAS OF LANDSCAPING. ANY IRRIGATION SLEEVES SHALL BE INSTALLED PRIOR TO PAVING AND BACKFILLED PROPERLY BY THE SITE CONTRACTOR.
- THE CONTRACTOR SHALL ENSURE ADEQUATE ACCESS IS PROVIDED DURING ALL PHASES OF CONSTRUCTION. COORDINATE WITH THE PROJECT MANAGER.
- WHEN REMOVING UTILITIES, CONTRACTOR SHALL GROUT AND SEAL ANY STRUCTURES THAT ARE TO REMAIN PER LOCAL REGULATIONS.
- UTILITIES SHOWN ARE LOCATED BY FIELD SURVEY AND RECORD DRAWINGS. ADDITIONAL UNDERGROUND UTILITIES WILL BE ENCOUNTERED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY INACTIVE STRUCTURES & ALERT THE ENGINEER OF ANY ACTIVE, UNMAPPED STRUCTURES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION OF UTILITY DEMOLITION & RELOCATION.
- CONTRACTOR SHALL NOT INTERRUPT DRAINAGE FROM ADJACENT PROPERTIES AND PUBLIC RIGHT-OF-WAYS.

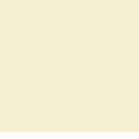
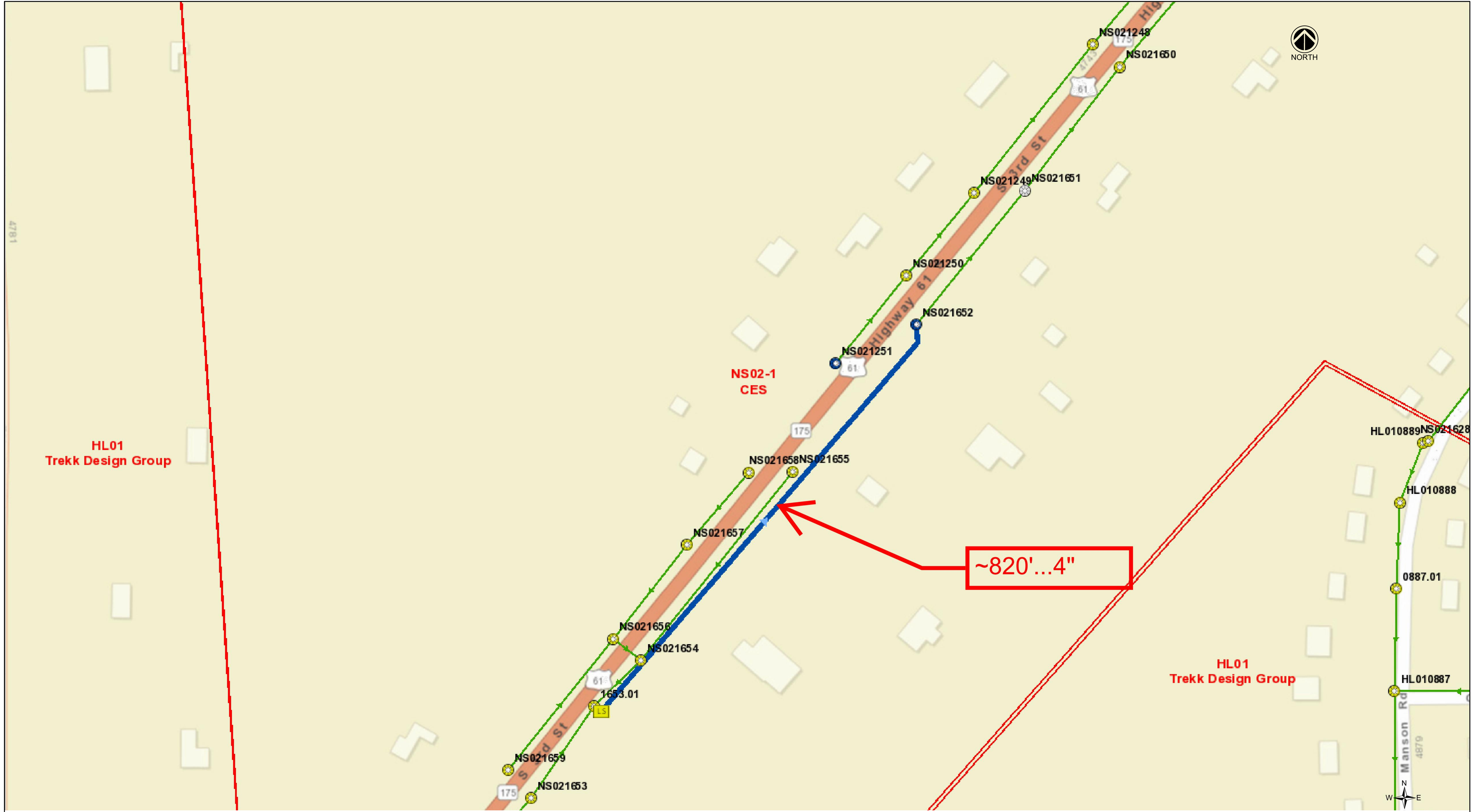
REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SHEET 1 OF 1
DIVISION OF ENGINEERING
EXISTING CONDITIONS & DEMOLITION PLAN
4884 S. Third Street (Highway 61)
MEMPHIS, TENNESSEE
SURVEY: PFI DATE: JUNE, 2020 PROJECT NO.: 24699.05
DESIGN BY: PFI DATE: AUG, 2020 BOOK: 1676
DRAWN BY: PFI DATE: AUG, 2020 SCALE: 1" = 20'
REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

K:\WORK\DWG\DWG\ENGINE\CONCRETE & DEMOLITION PLAN.DWG - July 30, 2021



HL01
Trek Design Group

HL01
Trek Design Group

~820'...4"

- Dead Ends
- ⬮ Cleanout
- ⊗ Diversion Point
- LS Lift Station
- ⊗ Digitized
- ⊙ Field Verified
- ⊙ Field Verified (Not Found)

- Sewer Gravity Main
 - Digitized
 - Field Verified
- Pressurized Main
 - Digitized
 - As-Built
 - Field Verified

- ▨ Siphon Area
- ▨ Aerial Crossing
- ▭ Sub-Basin
- ▭ Pilot Boundary
- ▭ Outfall Map Grid
- ▭ Block Map Grid
- e Engineering Plans

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

FOR REFERENCE ONLY

SHEET 1 OF 1

DIVISION OF ENGINEERING

PUMP STATION SITE AND FORCE MAIN ROUTING

4884 S. Third Street (Highway 61)

MEMPHIS, TENNESSEE

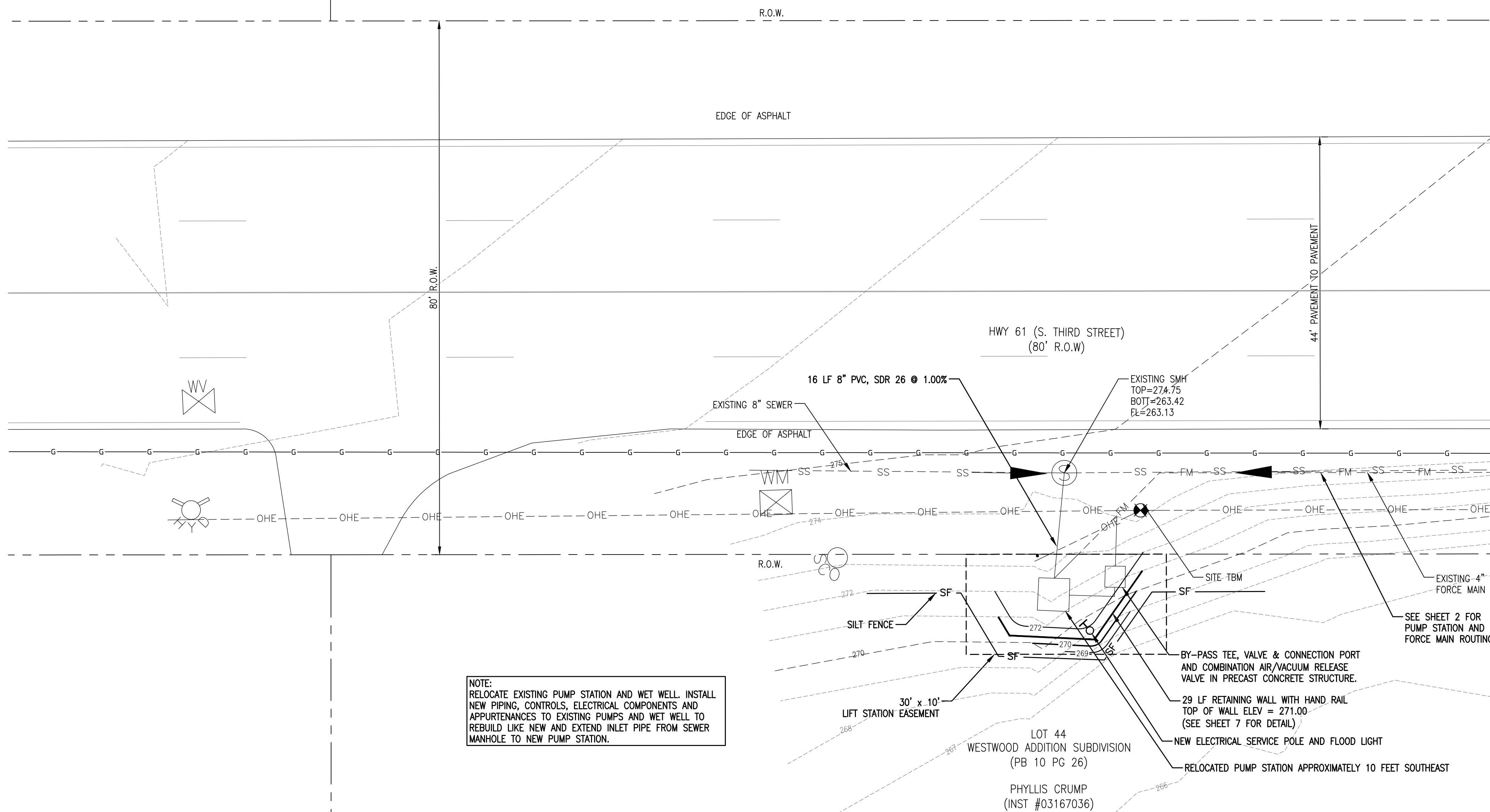
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DESIGN BY: PFI	DATE: AUG, 2020	BOOK: 1676
DRAWN BY: PFI	DATE: AUG, 2020	SCALE: N.T.S.

REVIEWED

LIFT STATION REHAB DESIGN

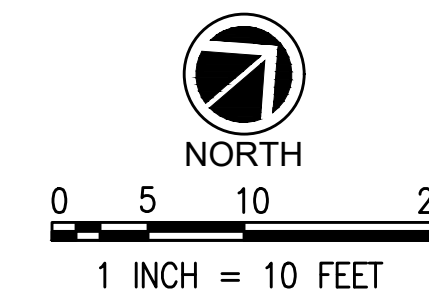
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

K:\Projects\4884 S. Third Street\Drawings - July 20, 2021



NOTE:
RELOCATE EXISTING PUMP STATION AND WET WELL. INSTALL NEW PIPING, CONTROLS, ELECTRICAL COMPONENTS AND APPURTENANCES TO EXISTING PUMPS AND WET WELL TO REBUILD LIKE NEW AND EXTEND INLET PIPE FROM SEWER MANHOLE TO NEW PUMP STATION.

LEGEND	
—SF—	SILT FENCE BARRIER
—	STRAW WATTLE



NOTE:
SEE SHEET 7 FOR EROSION CONTROL DETAILS.



VICINITY MAP (NTS)

LEGEND			
	EXISTING FIRE HYDRANT		EXISTING UNDERGROUND ELECTRIC
	EXISTING POWER POLE		EXISTING OVERHEAD ELECTRIC
	EXISTING GUY POLE		EXISTING UNDERGROUND FIBER OPTIC
	EXISTING MAILBOX		EXISTING UNDERGROUND GAS LINE
	EXISTING SIGN		EXISTING WATER LINE
	EXISTING GAS VALVE		EXISTING DRAIN LINE
	EXISTING WATER VALVE		EXISTING TELEPHONE LINE
	EXISTING WATER METER		EXISTING UNDERGROUND OIL LINE
	EXISTING ROW MARKER		FORCE MAIN
	EXISTING ELECTRIC TRANSFORMER		SANITARY SEWER
	EXISTING TELEPHONE PEDESTAL		SEWER MANHOLE

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NOTE:
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APPROVED FOR CONSTRUCTION
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APPROVAL EXPIRES 1 YEAR FROM APPROVAL DATE BELOW. THIS APPROVAL SHALL NOT BE CONSTRUED AS CREATING A PRESUMPTION OF CORRECT OPERATION OR AS WARRANTING BY THE CITY ENGINEER THAT THE APPROVED FACILITIES WILL REACH THE DESIRED GOALS.

CITY OF MEMPHIS SANITARY SEWER CONSTRUCTION NOTES

1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT NECESSARILY ALL OF SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY COMPANY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND/OR UNDERGROUND STRUCTURES PRIOR TO THE INITIATION OF ANY CONSTRUCTION. CONTRACTOR SHALL ALSO ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN THE CONSTRUCTION PERIMETERS. THE SITE LOCATION FOR EXISTING UTILITIES INVOLVING ML&GW, SOUTH CENTRAL BELL, TEXAS GAS COMPANY, AND/OR SEWER LOCATION CALL 811.
2. CONTRACTOR SHALL ENSURE UNINTERRUPTED SEWER SERVICE ON EXISTING SEWER AND SERVICE CONNECTIONS BY PROVIDING AMPLE TEMPORARY WASTEWATER PUMPING AND/OR BYPASSING.
3. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES.
4. CONTRACTOR SHALL NOTIFY THE SARP10 CONSTRUCTION MANAGER A MINIMUM OF 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
5. ALL AREAS IN CUT OR FILL WHERE VEGETATION HAS BEEN REMOVED SHALL BE SEED, MULCHED, FERTILIZED, AND/OR SODDED TO PREVENT EROSION.
6. THE CONTRACTOR SHALL VERIFY EXISTING DATA AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ENGINEER.
7. ALL SANITARY SEWER TO BE CONSTRUCTED AS PER CITY OF MEMPHIS STANDARD CONSTRUCTION SPECIFICATIONS. SANITARY SEWER SERVICE CONNECTIONS TO BE INSTALLED AS PER CITY OF MEMPHIS STANDARD SST-16.
8. ALL SEWER MANHOLE LIDS IN OPEN AREAS ARE TO BE CONSTRUCTED 1.5' ABOVE PROPOSED GRADE. IN BACKYARDS, MANHOLE LIDS ARE TO BE 1.5' ABOVE INITIAL GRADE, 0.5' ABOVE FINISHED GRADE.
9. ALL SANITARY SEWER, INCLUDING SEWER CONNECTIONS, WHICH HAS LESS THAN 1.5 CLEARANCE (OUTSIDE OF PIPES) WITH DRAINAGE OR IN FILLED AREAS SHALL BE CLASS 50 D.I.P. OR CONCRETE ENCASED, 10" MINIMUM BOTH SIDES OF CROSSING. ALL DUCTILE IRON PIPE (D.I.P.) SHALL BE POLYETHYLENE LINED OR SHALL BE TREATED WITH PROTECTO 401 OR APPROVED EQUIVALENT.
10. THEY CITY OF MEMPHIS SHALL HAVE INGRESS/EGRESS RIGHTS TO USE PRIVATE DRIVES AND YARDS FOR THE PURPOSE OF MAINTAINING ALL PUBLIC SEWER LINES AND SHALL BEAR NO RESPONSIBILITY FOR THE MAINTENANCE OF SAID PRIVATE DRIVES AND YARDS.
11. NO TREES, SHRUBS, PERMANENT STRUCTURES, OR OTHER UTILITIES (EXCEPT FOR CROSSINGS) WILL BE ALLOWED WITHIN THE SANITARY SEWER EASEMENT. NO OTHER UTILITIES OR SERVICES MAY OCCUPY SANITARY SEWER EASEMENTS IN PRIVATE DRIVES AND YARDS EXCEPT FOR CROSSINGS.
12. ALL SANITARY SEWER MANHOLES IN REVERSE CROWN STREETS, ALLEYS, OR DRIVES (PUBLIC OR PRIVATE) SHALL BE PROVIDED WITH GASKETS AND PLUGS FOR PICK HOLES TO PREVENT DRAINAGE INFLOW INTO THE SEWER SYSTEM.
13. THE CONTRACTOR SHALL PROVIDE ADEQUATE AND EFFECTIVE EROSION CONTROL AS NECESSARY TO PREVENT ANY SILTATION INTO THE EXISTING DRAINAGE SYSTEM AND/OR ADJACENT PROPERTIES.

EROSION AND SEDIMENTATION CONTROL NOTES:

1. ALL NEWLY CUT AND/OR FILLED AREAS LACKING ADEQUATE VEGETATION SHALL BE SEED AS REQUIRED TO EFFECTIVELY PREVENT SOIL EROSION.
2. SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES SHALL BE USED AS SHOWN AND AS DIRECTED BY THE ENGINEER TO CONTROL SOIL EROSION.
3. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTROLS SHOWN ON THE PLAN ARE THE MINIMUM REQUIRED AND THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
4. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT FOR ALL EROSION CONTROL DURING CONSTRUCTION ACTIVITIES.
5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES AND REPORTING ANY MAINTENANCE AS REQUIRED BY THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT DURING CONSTRUCTION ACTIVITIES.
6. PROVISIONS SHALL BE MADE TO PROTECT DOWNSTREAM WATERCOURSES (I.E., STORM SEWER SYSTEMS, DITCHES, WETLANDS, ETC.) FROM SEDIMENT RUNOFF DEVELOPED FROM THE CONSTRUCTION PROCESS. PROVISIONS INCLUDE, BUT ARE NOT LIMITED TO, STRUCTURAL CONTROLS SUCH AS SILT FENCING, GEOTEXTILE FABRIC PROTECTION OF STORM SEWERS, HAY BALES, DIKES AND SANDBAG BERMS; AND/OR VEGETATION CONTROLS SUCH AS SEEDING OR EXISTING VEGETATIVE BUFFER STRIPS (MINIMUM 25 FEET WIDE).
7. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL INSTALL EROSION AND SEDIMENTATION CONTROLS AT LOCATIONS SHOWN ON PLANS.
8. CONTRACTOR SHALL PERFORM STREET CLEANING ON ROADS AND STREETS ADJACENT TO THE PROJECT WHICH ARE USED AS ACCESS ROUTES FOR CONSTRUCTION TRAFFIC IF NECESSARY. WASHING OF STREETS IS PROHIBITED.
9. LOCATE FUEL/MATERIAL STORAGE AREAS AWAY FROM STORM WATER CONVEYANCE SYSTEMS. USE A MINIMUM 60 ML POLYETHYLENE LINER UNDER ABOVE GROUND STORAGE TANKS. USE 2 FOOT HIGH BERMS AROUND FUEL STORAGE AREAS.
10. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL ENVIRONMENTAL LAWS.
11. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF FUELS, MATERIALS AND CONTAMINATED EXCAVATIONS IN A LEGALLY APPROVED MANNER.
12. AT A MINIMUM, STRUCTURAL CONTROLS SHOULD BE INSPECTED TWICE EVERY CALENDAR WEEK AT LEAST 72 HOURS APART. THE INSPECTOR, APPROVED BY THE OWNER, SHALL HAVE AN ACTIVE CERTIFICATION BY COMPLETING THE "FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL LEVEL 1" COURSE. A COPY OF THE CERTIFICATION SHALL BE KEPT ONSITE, SHOULD CONTROLS BECOME INEFFECTIVE, NECESSARY REPAIRS SHALL BE PERFORMED TO RETURN THE INTEGRITY OF THE STRUCTURAL CONTROLS.
13. EQUIPMENT STAGING AREA TO BE DESIGNATED BY CONTRACTOR AND APPROVED BY OWNER PRIOR TO CONSTRUCTION.
14. SEDIMENT WILL BE REMOVED FROM THE UPSTREAM FACE OF THE SILT FENCE WHEN IT REACHES A MAXIMUM DEPTH OF 50% OF THE FENCE'S CAPACITY. THE FENCE WILL BE REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
15. TEMPORARY SEEDING MAY BE REQUIRED IN ADDITION TO PERMANENT SEEDING TO ASSIST IN COMPLYING WITH THE CONSTRUCTION GENERAL PERMIT.

GENERAL NOTES:

1. AT ALL CROSSINGS OF EXISTING UTILITIES, THE CONTRACTOR SHALL FIELD LOCATE BY POST HOLEING OR OTHER APPROPRIATE METHODS, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
2. ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
3. ALL DISTURBED AREAS SHALL BE SEED (WITH A SEASONAL MIX) AND COVERED WITH STRAW AT THE END OF EACH WEEK (AT A MINIMUM) OR MORE FREQUENTLY, AS CONDITIONS DICTATE, IN ADDITION TO EROSION CONTROLS REFERENCED ON PLANS.
4. ALL DISTURBED LAWN AREAS SHALL BE SODDED. MATCH EXISTING SOD TYPE.
5. CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES, AND PUBLIC/PRIVATE INFRASTRUCTURE AND PROPERTY.

PICKERING FIRM INCORPORATED UNDERGROUND UTILITIES DISCLAIMER:

INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE ENGINEER IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

PROJECT BENCHMARKS

CITY BENCHMARK:
#1068 IS LOCATED AT THE EAST SIDE OF HIGHWAY 61 IN FRONT OF ADDRESS #4844. CITY MONUMENT IS LOCATED 34' EAST OF CENTERLINE OF HIGHWAY, 35' NORTH OF DRIVEWAY AND 59' SOUTH OF A FIRE HYDRANT. ELEVATION: 284.13

SITE TBM #1
NAIL SET IN WEST SIDE OF POWER POLE AS SHOWN. ELEVATION: 274.73

NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

SEWER BASIN: NS-02
SHEET 1 OF 1
DIVISION OF ENGINEERING

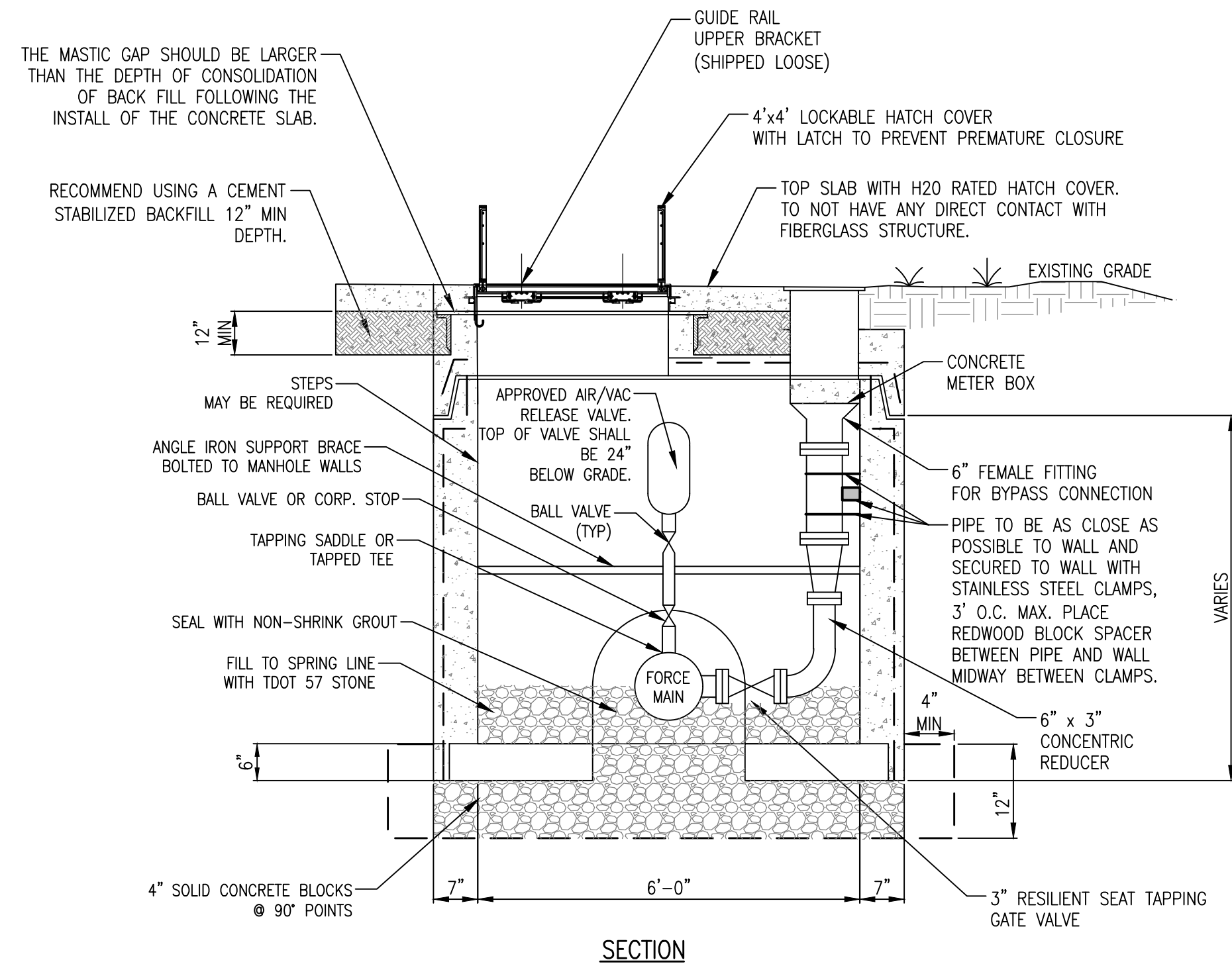
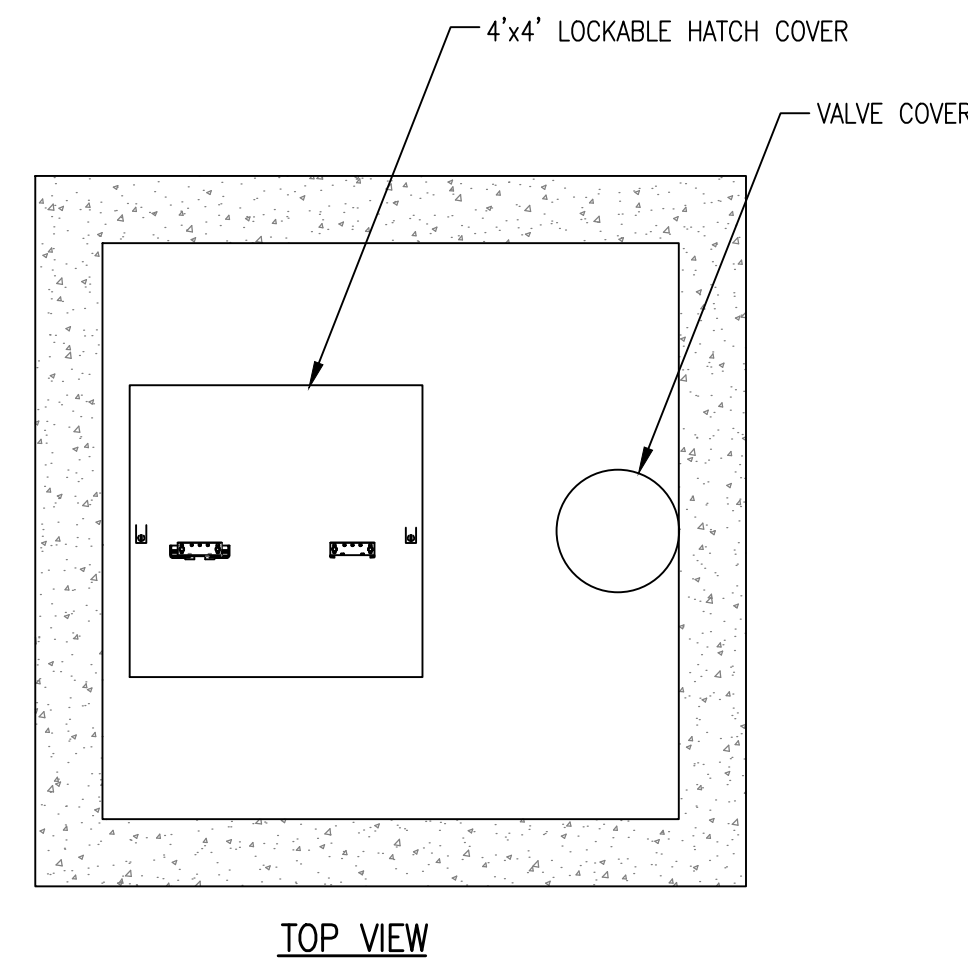
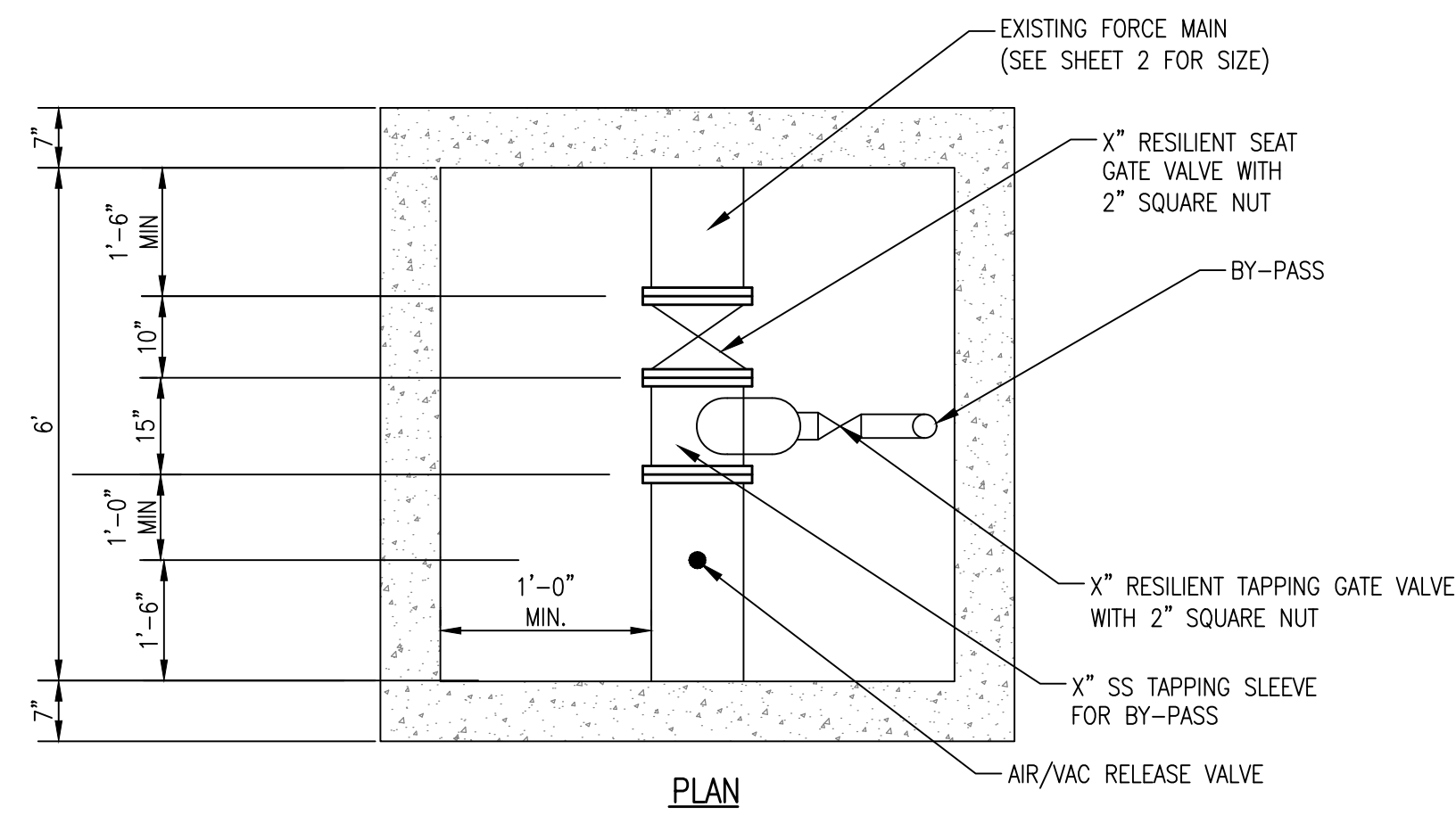
SEWER PLAN
4884 S. Third Street (Highway 61)
MEMPHIS, TENNESSEE

SURVEY: PFI
DESIGN BY: PFI
DRAWN BY: PFI

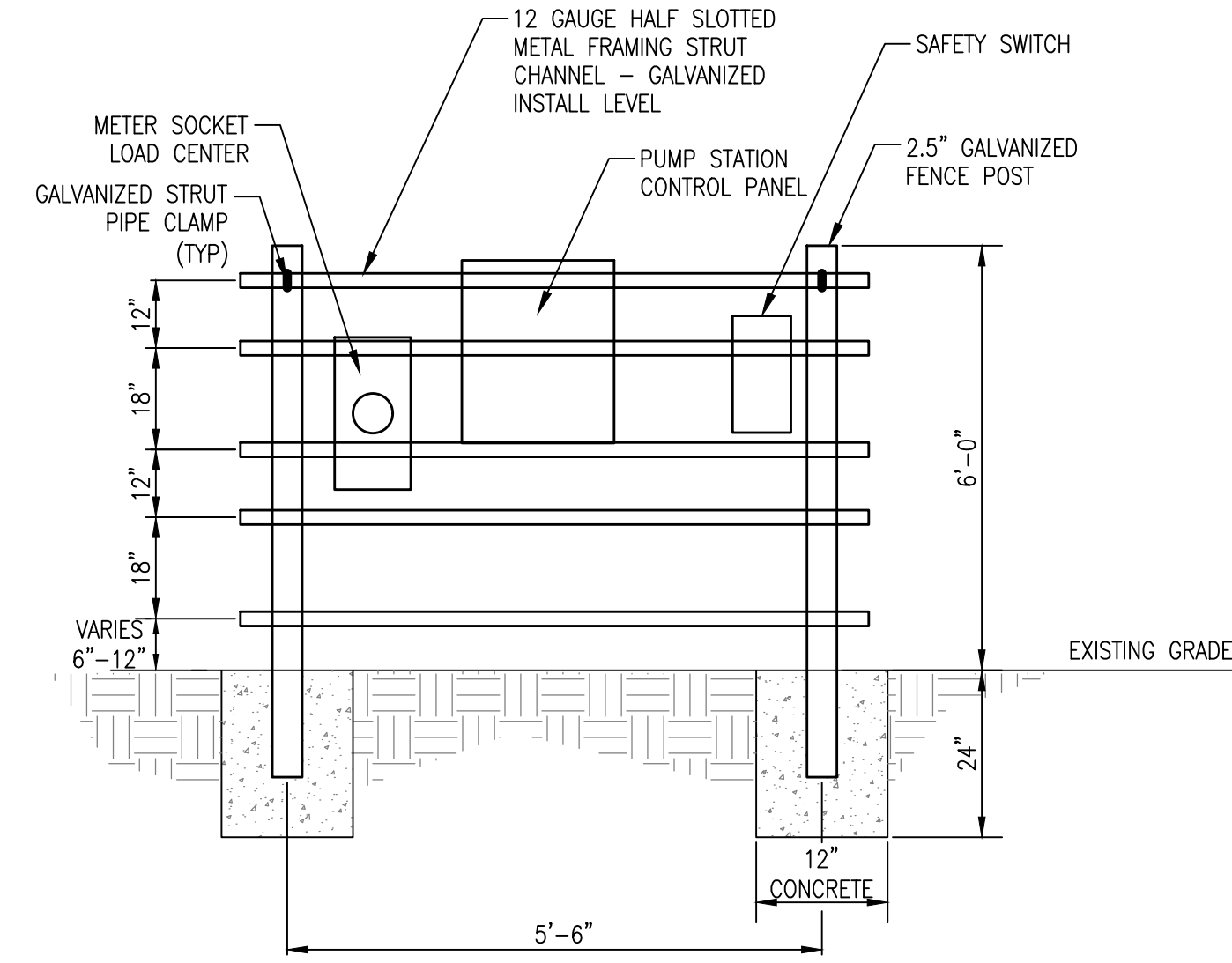
PROJECT NO.: 24699.05
BOOK: 1676
SCALE: 1" = 10'

REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

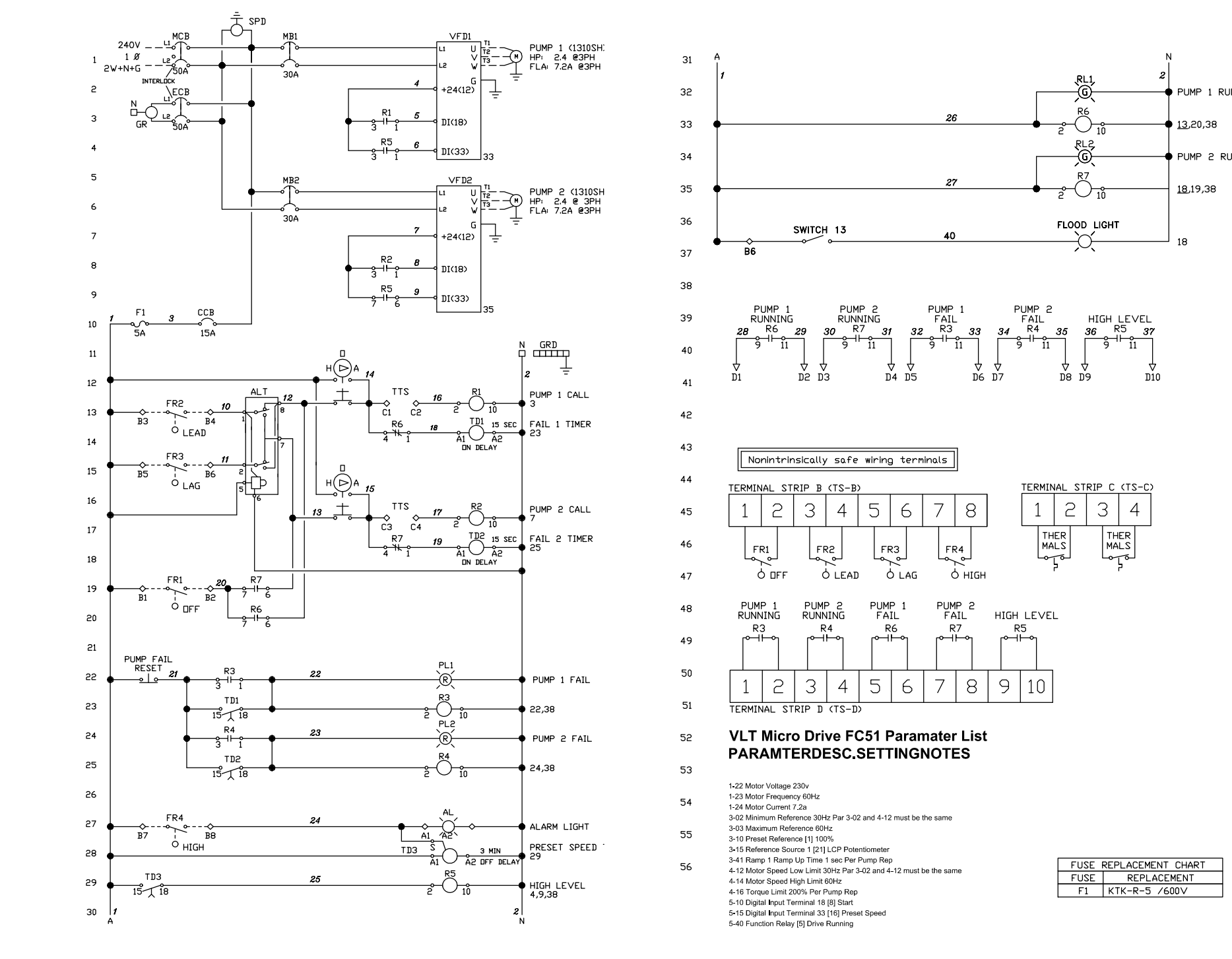
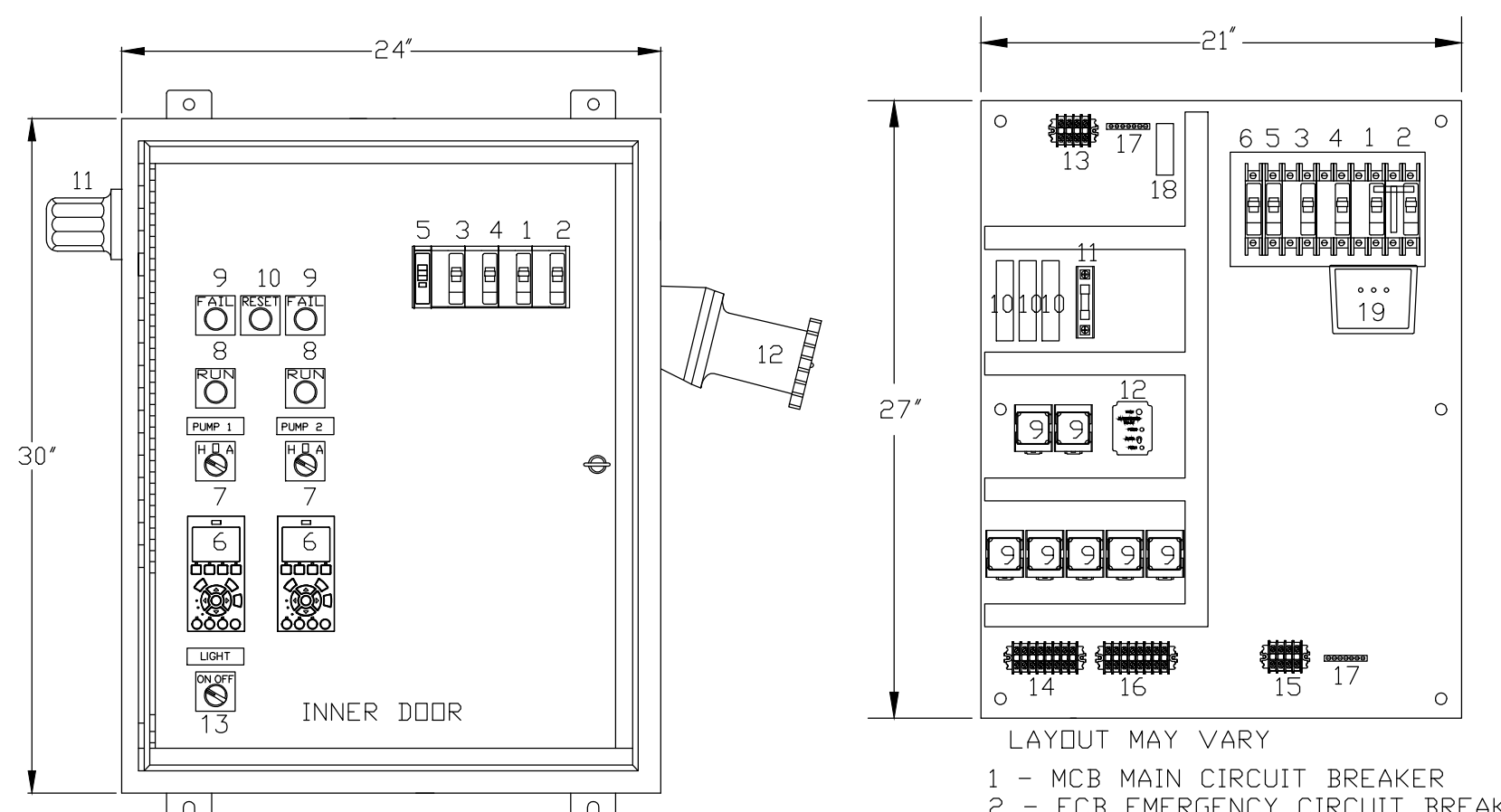


- NOTES:**
1. CONCRETE SHALL BE 4,000 PSI COMPRESSIVE STRENGTH, MIN.
 2. ALL REINFORCING SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
 3. MANHOLE SECTIONS SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
 4. TAPERED JOINT WITH O-RING GASKET SHALL MEET THE REQUIREMENTS OF ASTM SPECS C-361 AND C-443.
 5. CAST MANHOLE SECTION INTO BASE 6" OR DEPTH OF JOINT, WHICHEVER IS DEEPER.
 6. JOINT CONFIGURATION MAY BE CAST BELL-UP OR SPIGOT UP.
 7. SIZE DOGHOUSE OPENINGS 4" MIN. AND 8" MAX. LARGER THAN PIPE O.D.
 8. ALL AIR RELEASE PIPING SHALL BE STAINLESS STEEL.
 9. FOR FORCE MAIN SMALLER THAN 6", EXCEPT THE DUCTILE IRON, CLAMP THE AIR/VACUUM RELEASE VALVE TO THE ANGLE IRON SUPPORT BRACE.
 10. CAST BASE ON FIRM, UNDISTURBED SOIL.
 11. STANDARD PRECAST BASE SECTION MAY BE USED FOR NEW FORCE MAIN CONSTRUCTION. BED STANDARD BASE ON MIN. 6" TDOT No. 21A CORE HOLES FOR PIPE MIN. 4" LARGER THAN PIPE O.D.. CONFORM TO THIS DETAIL FOR ALL OTHER REFERENCES.



1 BY-PASS TEE AND AIR/VAC STRUCTURE
NOT TO SCALE

2 CONTROL PANEL STAND
NOT TO SCALE



- OUTER DOOR HAS BEEN REMOVED FOR CLARITY
- 1 - MAIN BREAKER
 - 2 - EMERGENCY BREAKER
 - 3 - MOTOR BREAKER 1
 - 4 - MOTOR BREAKER 2
 - 5 - CCB CONTROL CIRCUIT BREAKER
 - 6 - VFD DISPLAY KEYPAD
 - 7 - PUMP HAND-OFF-AUTO
 - 8 - RL PUMP RUN LIGHT
 - 9 - PL PUMP FAIL LIGHT
 - 10 - PUMP FAIL RESET BUTTON
 - 11 - AL ALARM LIGHT
 - 12 - GR GENERATOR RECEPTACLE
 - 13 - FLOOD LIGHT SWITCH
- LAYOUT MAY VARY
- 1 - MCB MAIN CIRCUIT BREAKER
 - 2 - ECB EMERGENCY CIRCUIT BREAKER
 - 3 - MB1 MOTOR BREAKER 1
 - 4 - MB2 MOTOR BREAKER 2
 - 5 - CCB CONTROL CIRCUIT BREAKER
 - 6 - FLOOD LIGHT BREAKER
 - 7 - NOT USED
 - 8 - NOT USED
 - 9 - R1 TO R7 CONTROL RELAY
 - 10 - TD1 TO TD3 TIME DELAY
 - 11 - F1 FUSE BLOCK
 - 12 - ALT ALTERNATOR
 - 13 - TSA TERMINAL STRIP A
 - 14 - TSB TERMINAL STRIP B
 - 15 - TSC TERMINAL STRIP C
 - 16 - TSD TERMINAL STRIP D
 - 17 - GRD GROUND BAR
 - 18 - N NEUTRAL BLOCK
 - 19 - SPD SURGE PROTECTIVE DEVICE

NOTE:
STATION CONTROL AND CIRCUITS SHOWN FOR REFERENCE. FINAL DESIGN BY PUMP SUPPLIER.

3 CONTROL PANEL
NOT TO SCALE

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SHEET 1 OF 1

DIVISION OF ENGINEERING

PUMP DETAILS
4884 S. Third Street (Highway 61)

MEMPHIS, TENNESSEE

DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020

PROJECT NO.: 24699.05
BOOK: 1688
SCALE: N.T.S.

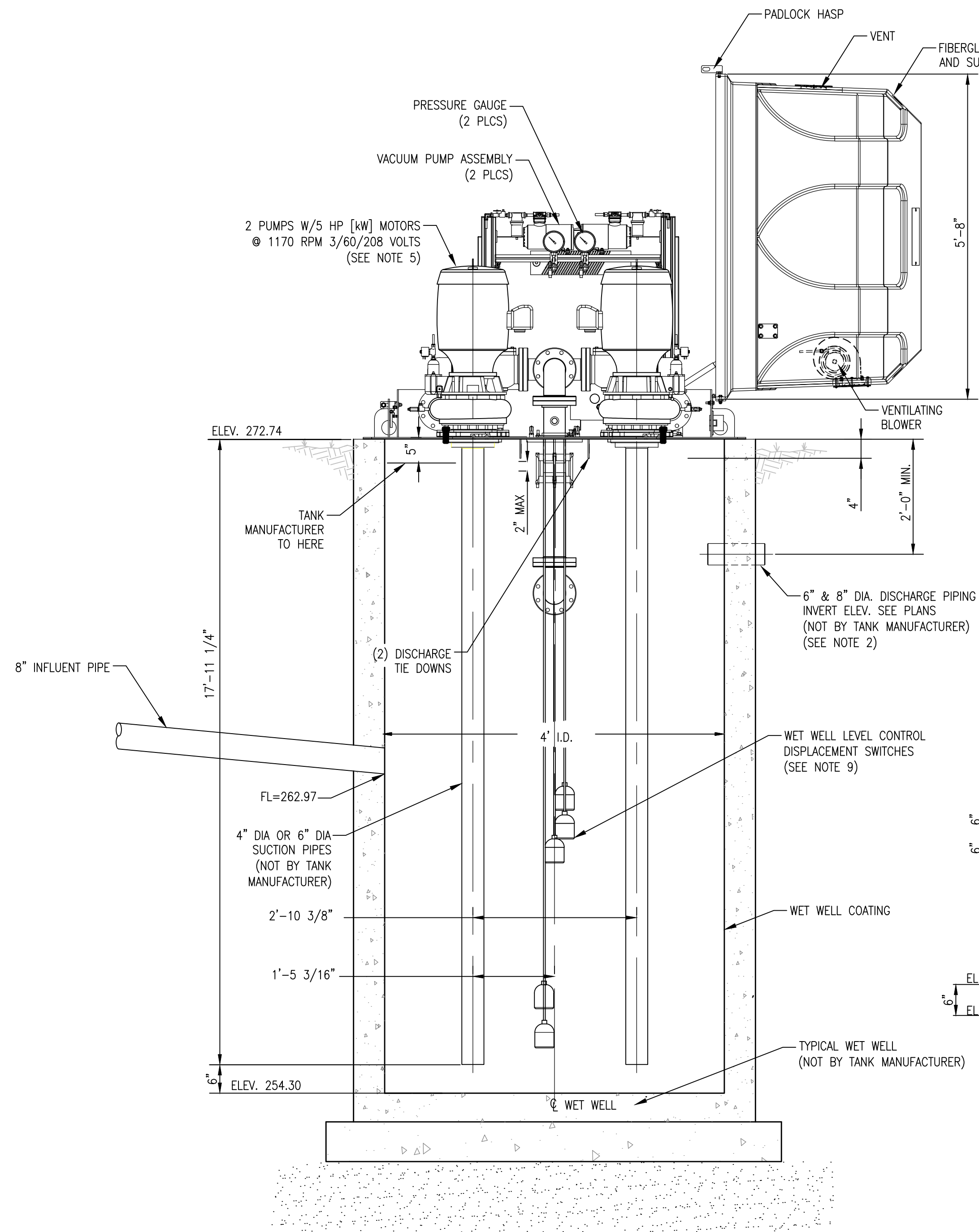
REVIEWED

LIFT STATION REHAB DESIGN

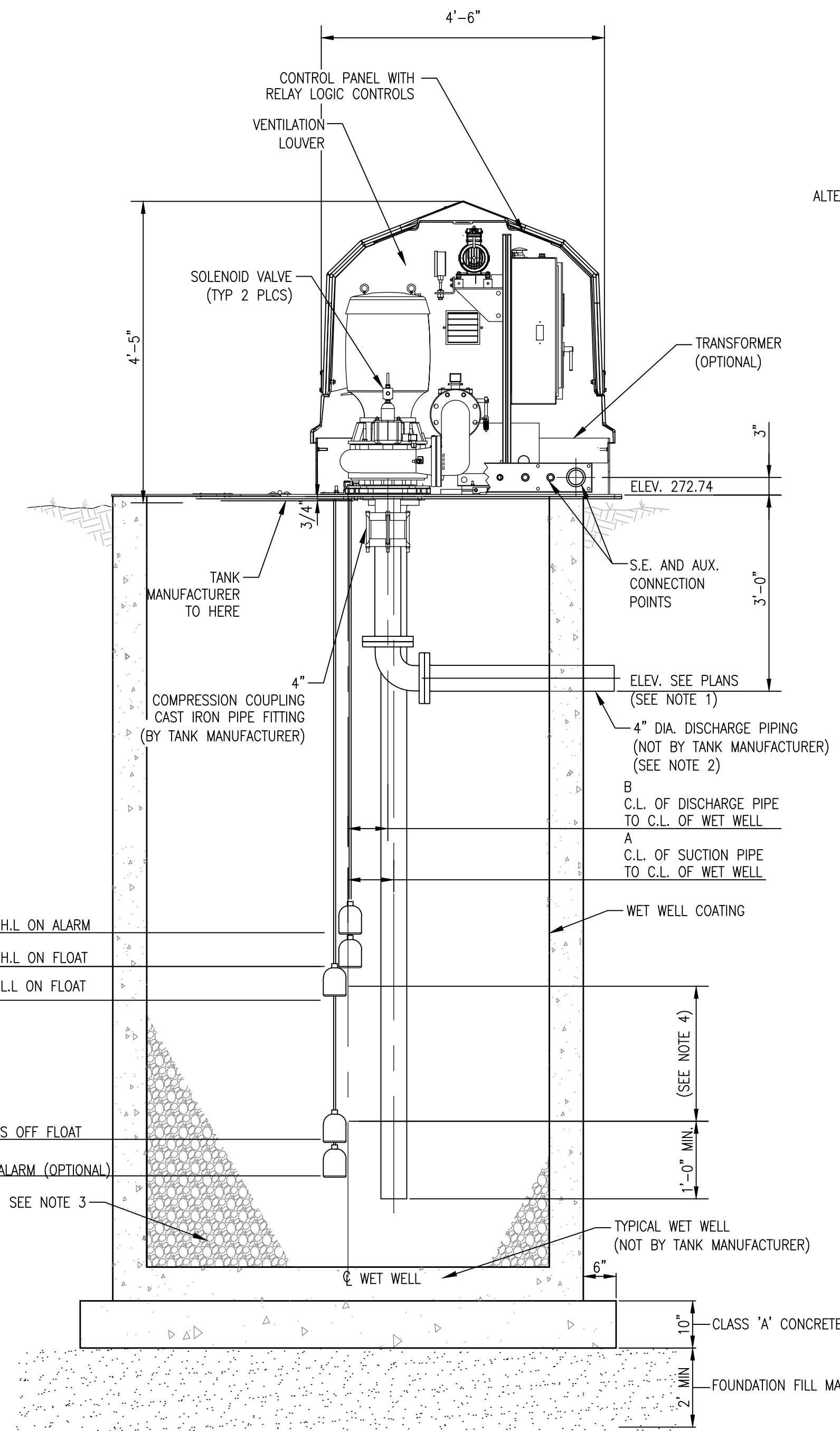
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

K:\WORK\DWG\PLANS\PUMP DETAILS - 8-240000 - July 20, 2021

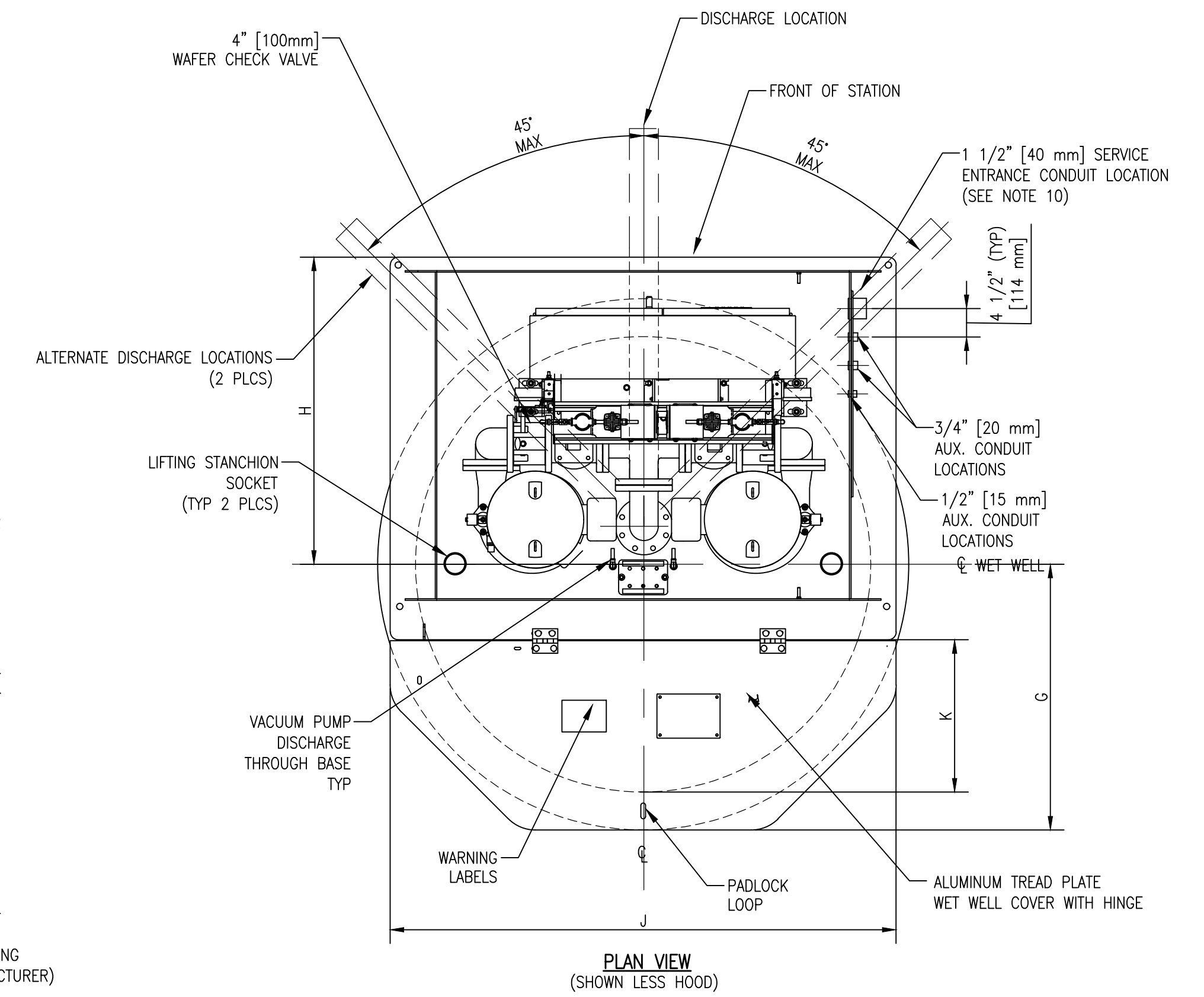
WET WELL ID	DIM A	DIM B	DIM G	DIM H	DIM J	DIM K
4'-0"	6 13/16"	5 3/4"	2'-9 1/2"	4'-1 1/2"	6'-4"	1'-2 1/2"



SECTIONAL ELEVATION



CROSS SECTION



NOTES :

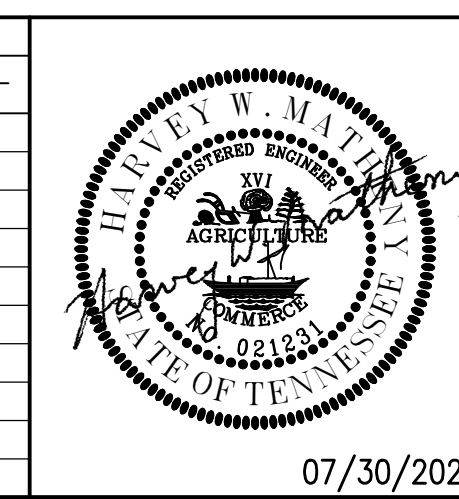
- IF THE END OF THE DISCHARGE LINE IS BELOW THE ELEVATION OF THE DISCHARGE LINE AT THE POINT OF LEAVING THE WET WELL, A PRIMING LOCK LOOP MAY BE REQUIRED.
- IF THE DISCHARGE LINE IS LESS THAN 200 FEET [61 m] IN LENGTH, A CHECK VALVE OR PRIMING LOCK LOOP MAY BE REQUIRED.
- PROVIDE 60° SLOPE IN WET WELL AS REQUIRED.
- VOLUME BETWEEN L.L. ON AND PUMPS OFF SHOULD BE EQUAL TO, OR GREATER THAN, THE PUMPING RATE PER MINUTE.
- FLOAT SWITCH CONTROLS SHOWN. OPTIONAL PRESSURE TRANSDUCER, HIGH WATER AND LOW WATER ALARMS FLOAT SWITCHES CONTROLS ARE AVAILABLE ON REQUEST.
- U.S. CUSTOMARY CONDUIT COUPLING SIZES SHOWN. ALTERNATE METRIC SIZES ARE AVAILABLE. CONSULT FACTORY.
- ALL PIPES TO BE D.I.P..

1 WET WELL MOUNTED PUMP STATION DETAIL
N.T.S.

LIFT STATION REHAB NOTES:

- EXISTING PRECAST CONCRETE WET WELL AND PUMPS TO BE RELOCATED.
- REMOVE AND REPLACE EXISTING PIPING, VALVES, AND APPURTENANCES.
- CLEAN AND COAT EXISTING WET WELL WITH A 2-COAT EPOXY-MODIFIED-MORTAR LINING AND HYBRID EPOXY COATING PER MANUFACTURERS RECOMMENDATIONS. COVER EXPOSED REBAR WITH COMPATIBLE PRIMER AND MORTAR AND SEAL ANY LEAKS WITH HYDRAULIC CEMENT.
- FOR REFERENCE - PUMPS:
SHP @ 1170 RPM
75 GPM
TDH = 40 FT
4" DIP FORCE MAIN @ 585 LF

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SHEET 1 OF 1
DIVISION OF ENGINEERING

PUMP STATION DETAILS
4884 S. Third Street (Highway 61)

MEMPHIS, TENNESSEE

07/30/2021

SURVEY: PFI
DESIGN BY: PFI
DRAWN BY: PFI

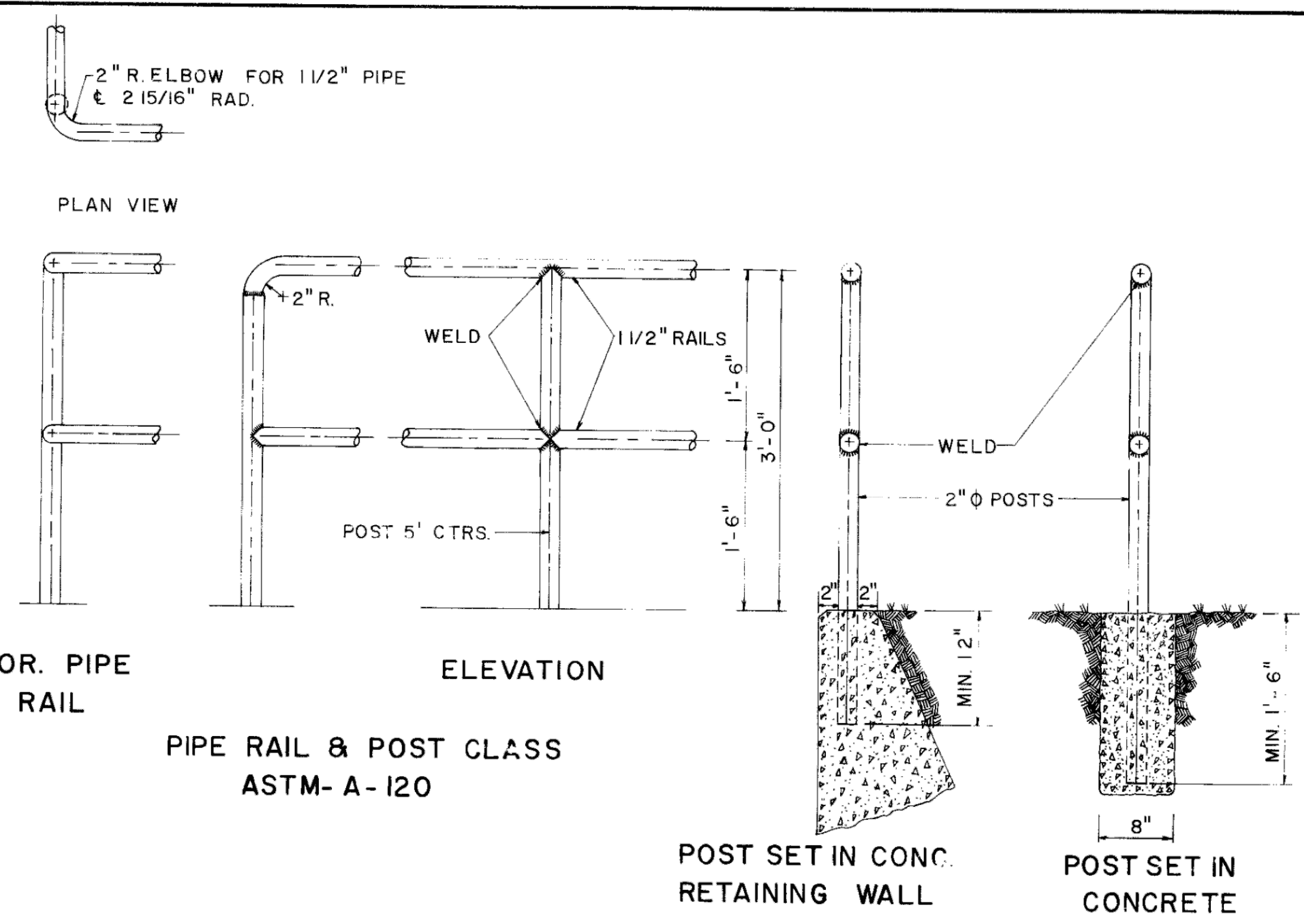
DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020

PROJECT NO.: 24699.05
BOOK: 1676
SCALE: N.T.S.

REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

BUREAU ENGINEER
 CIVIL DESIGN
 DRAFTSMAN, Q.I. DATE 9-17-78 SCALE N.T.S.



REVISIONS			
NO.	DATE	BY	REMARKS
1	5-30-85	L.R.H.	REMOVED DIV. OF PUBLIC WORKS (T.BLK.)
2	2-3-88	D.H.G.	REMOVED DEPARTMENT (T.BLK.)

CONVERSIONS	
ENGLISH	METRIC

COR. PIPE RAIL
PIPE RAIL & POST CLASS
ASTM-A-120

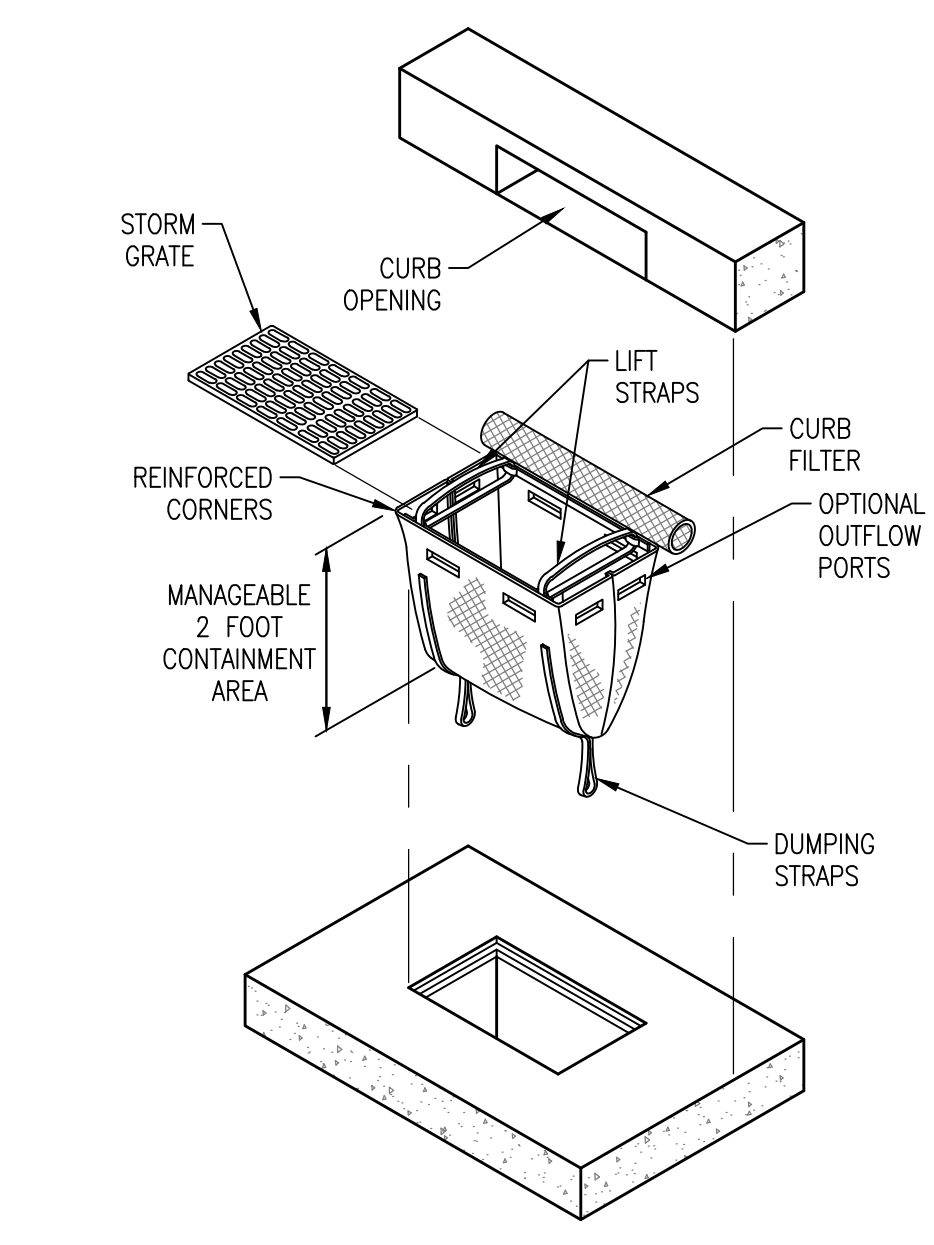
NOTE: PAINT AND PAINTING SHALL CONFORM TO THE* SPECIFICATION FOR PAINTING STEEL. AFTER SHOP FABRICATION IS COMPLETED ALL MEMBERS SHALL BE PAINTED WITH A COAT, EXCEPT THAT ONLY BOILED LINSEED OIL SHALL BE APPLIED ON THE AREAS WHERE FIELD WELDING IS TO BE DONE. TWO COATS OF PAINT SHALL BE APPLIED AFTER ERECTION HAS BEEN COMPLETED.
 * A.A.S.H.T.O. 1977 EDITION, SECTION 14, PAINT SHALL BE FOLIAGE GREEN M-67

CITY OF MEMPHIS
 DIVISION OF ENGINEERING

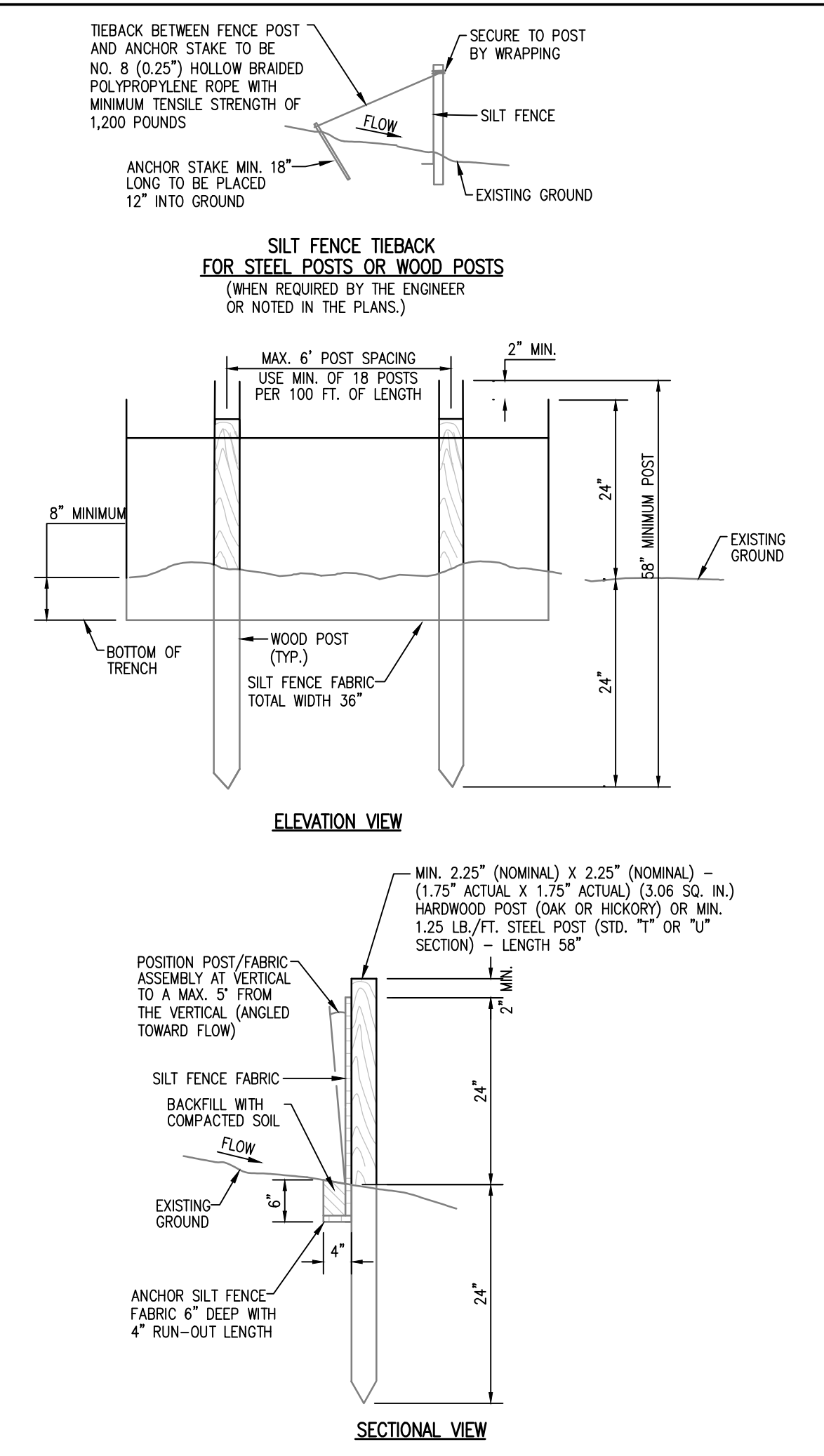
DESIGN STANDARD
 FOR
HAND RAIL

CITY ENGINEER _____ DATE _____
 DWG. NO. 11

1 HANDRAIL
 NOT TO SCALE

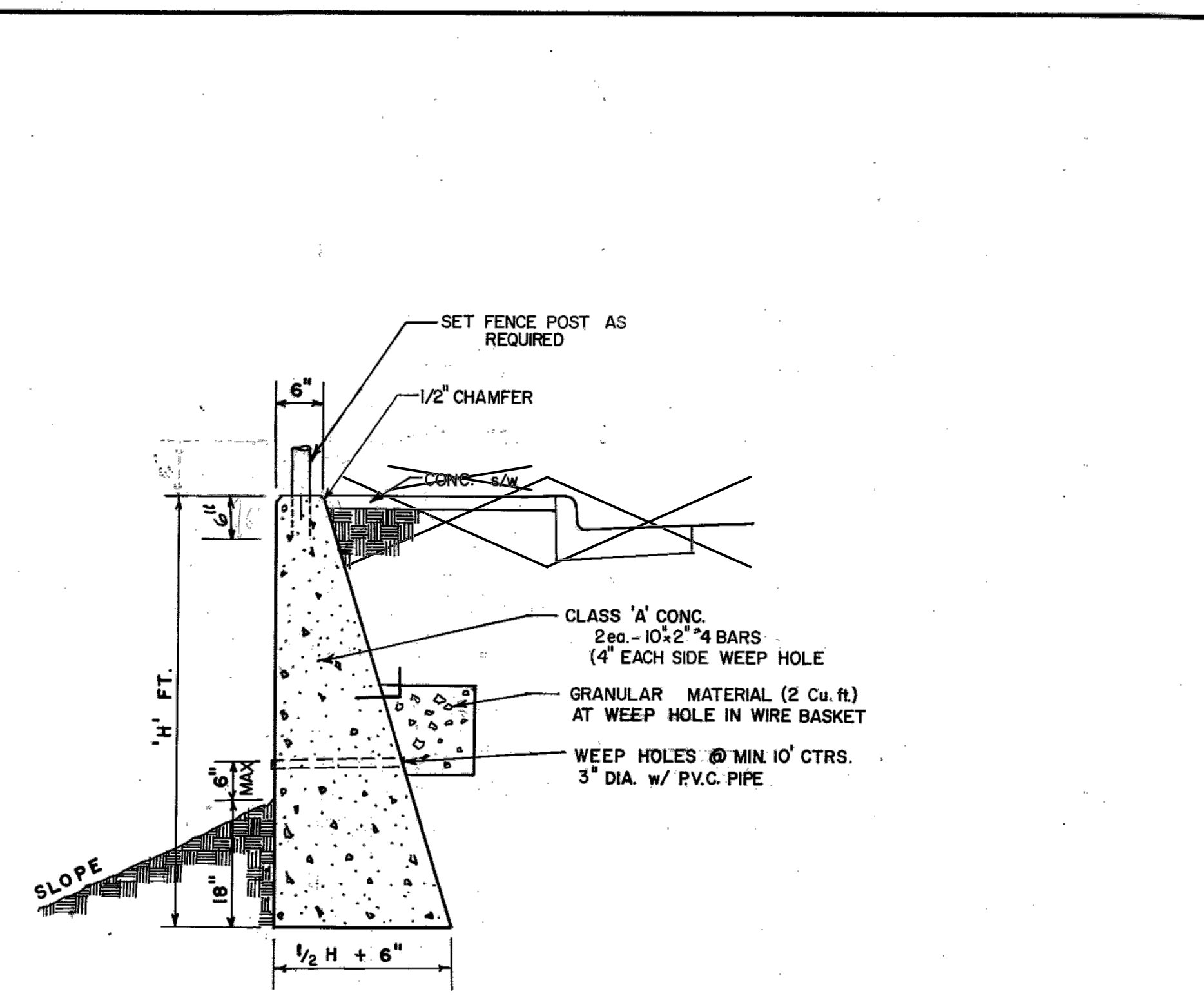


4 CURB INLET PROTECTION-SILT SACK
 NOT TO SCALE



5 SILT FENCE
 NOT TO SCALE

BUREAU ENGINEER
 CIVIL DESIGN
 DRAFTSMAN, S.E. DATE 8-18-77 SCALE N.T.S.



REVISIONS			
NO.	DATE	BY	REMARKS
1	5-30-85	L.R.H.	REMOVED DIV. OF PUBLIC WORKS (T.BLK.)
2	7-10-87	D.H.G.	CLASS 'A' CONC.
3	7-10-87	D.H.G.	ADD: IN WIRE BASKET
4	7-10-87	D.H.G.	CHANGE WEEP HOLES TO 3"
5	7-10-87	D.H.G.	ADD: MAX
6	2-3-88	D.H.G.	REMOVED DEPARTMENT (T.BLK.)
7	3-20-17	L.L.	REVISED POST EMBEDMENT

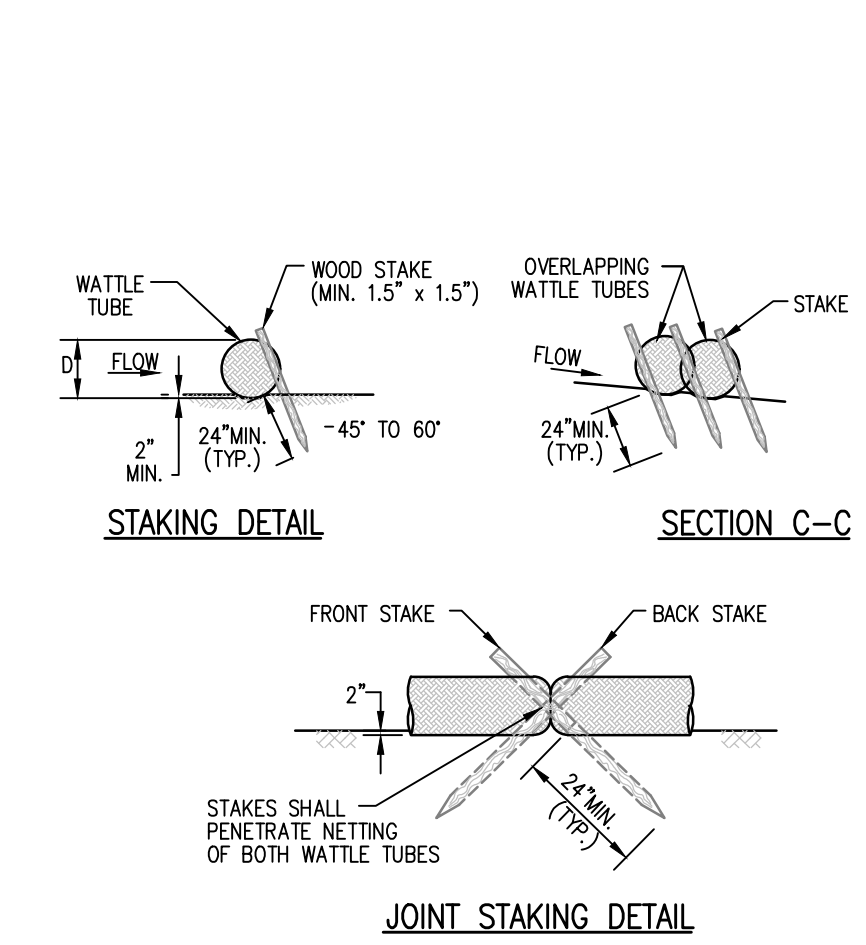
CONVERSIONS	
ENGLISH	METRIC

CITY OF MEMPHIS
 DIVISION OF ENGINEERING

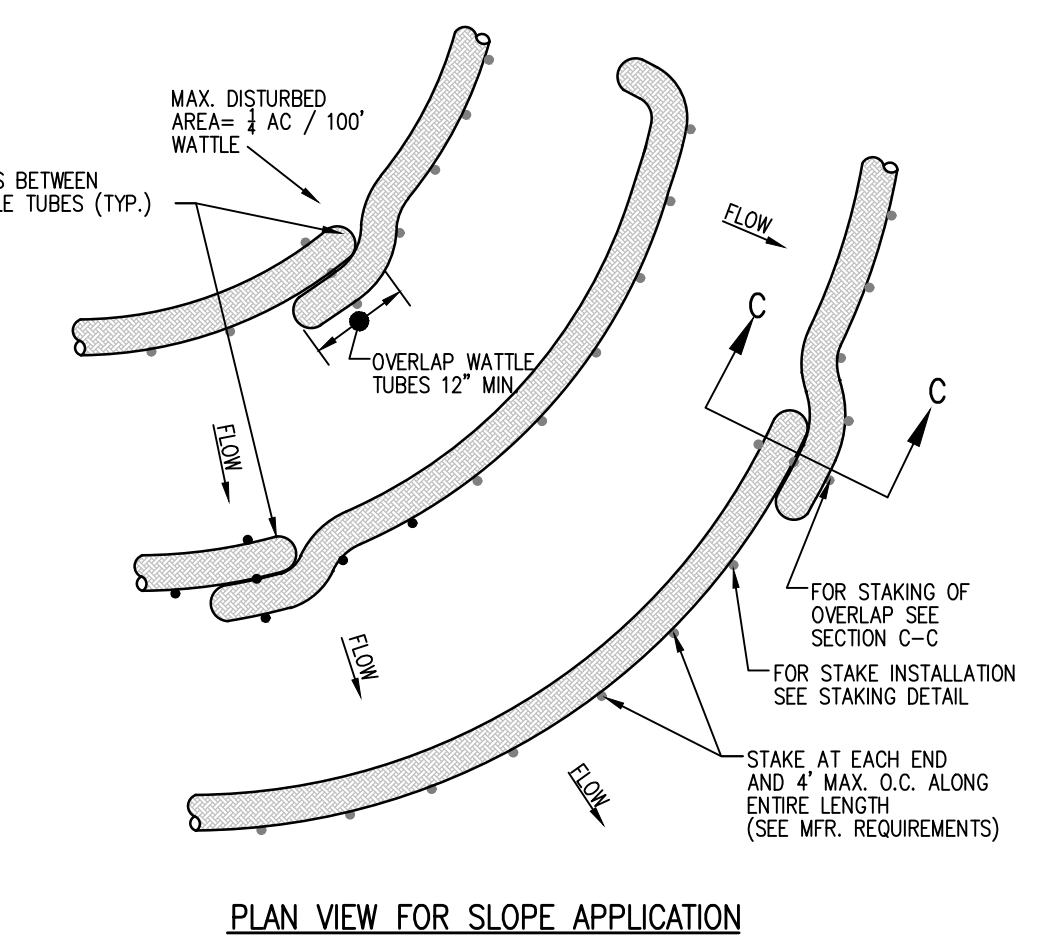
DESIGN STANDARD
 FOR
GRAVITY TYPE RETAINING WALL BELOW SIDEWALK

Principal Civil Engineer _____ DATE 7-5-79
 Deputy Director/Civil Engineer _____ DATE _____
 DWG. NO. 10

5 GRAVITY TYPE RETAINING WALL
 NOT TO SCALE



7 TUBES AND WATTLES
 NOT TO SCALE



REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SHEET 1 OF 1
 DIVISION OF ENGINEERING

DETAILS
 4884 Highway 61 (S. Third Street)

MEMPHIS, TENNESSEE

MEMPHIS, TENNESSEE
 DATE: JUNE, 2020
 DATE: AUG, 2020
 DATE: AUG, 2020

PROJECT NO.: 24699.05
 BOOK: 1676
 SCALE: N.T.S.

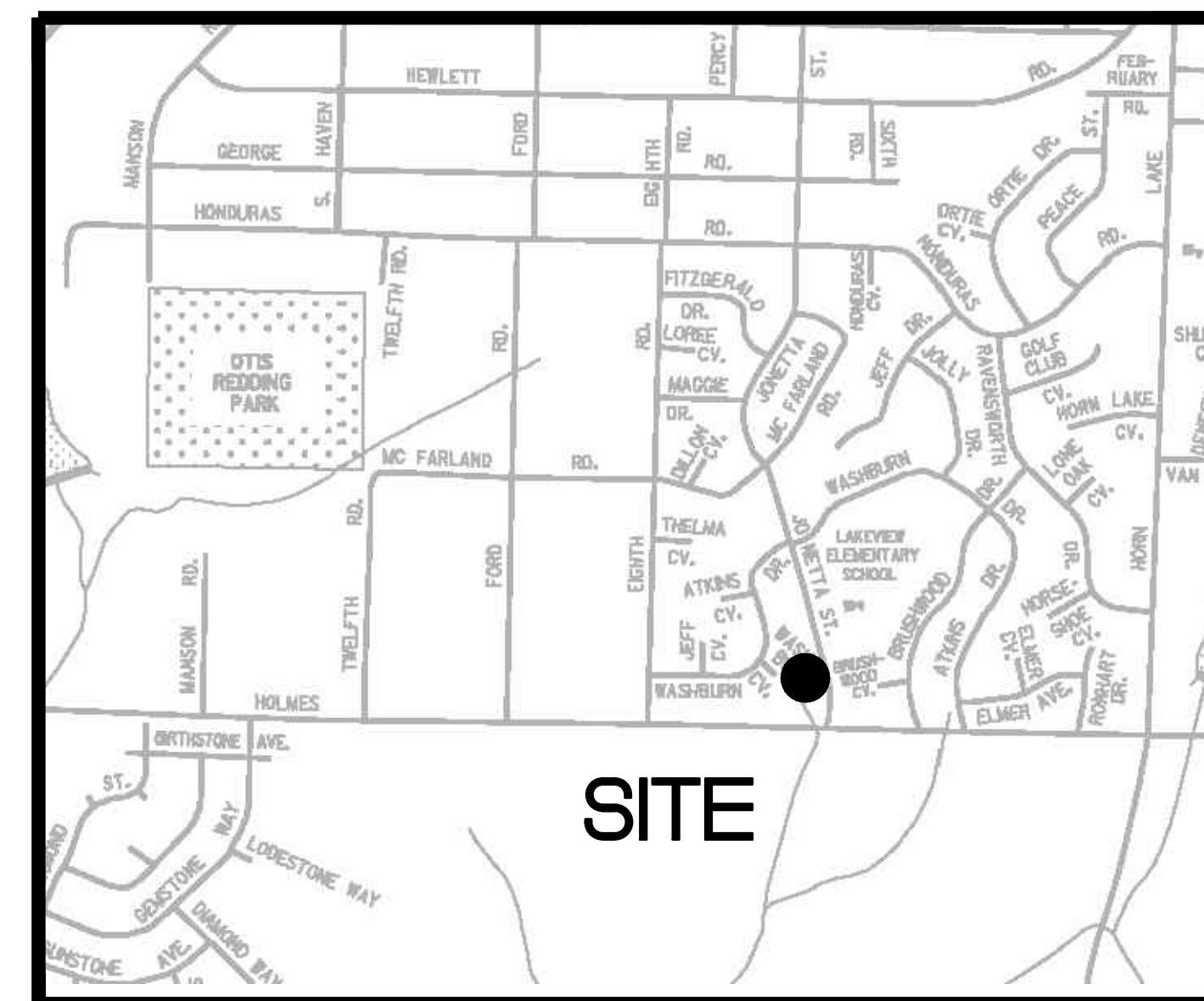
REVIEWED

LIFT STATION REHAB DESIGN
 DEVELOPER: SARP10
 ENGINEER: PICKERING FIRM, INC.

JULY, 2021
 CONSTRUCTION PLANS
 REVISED JANUARY, 2022
 LIFT STATION REHAB DESIGN
 SARP10

5175 JONETTA STREET

SCHEDULE OF DRAWINGS	
SH.	TITLE
1	COVER
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	PUMP STATION SITE AND FORCE MAIN ROUTING
4	SEWER PLAN
5	PUMP DETAILS
6	PUMP STATION DETAILS
7	DETAILS

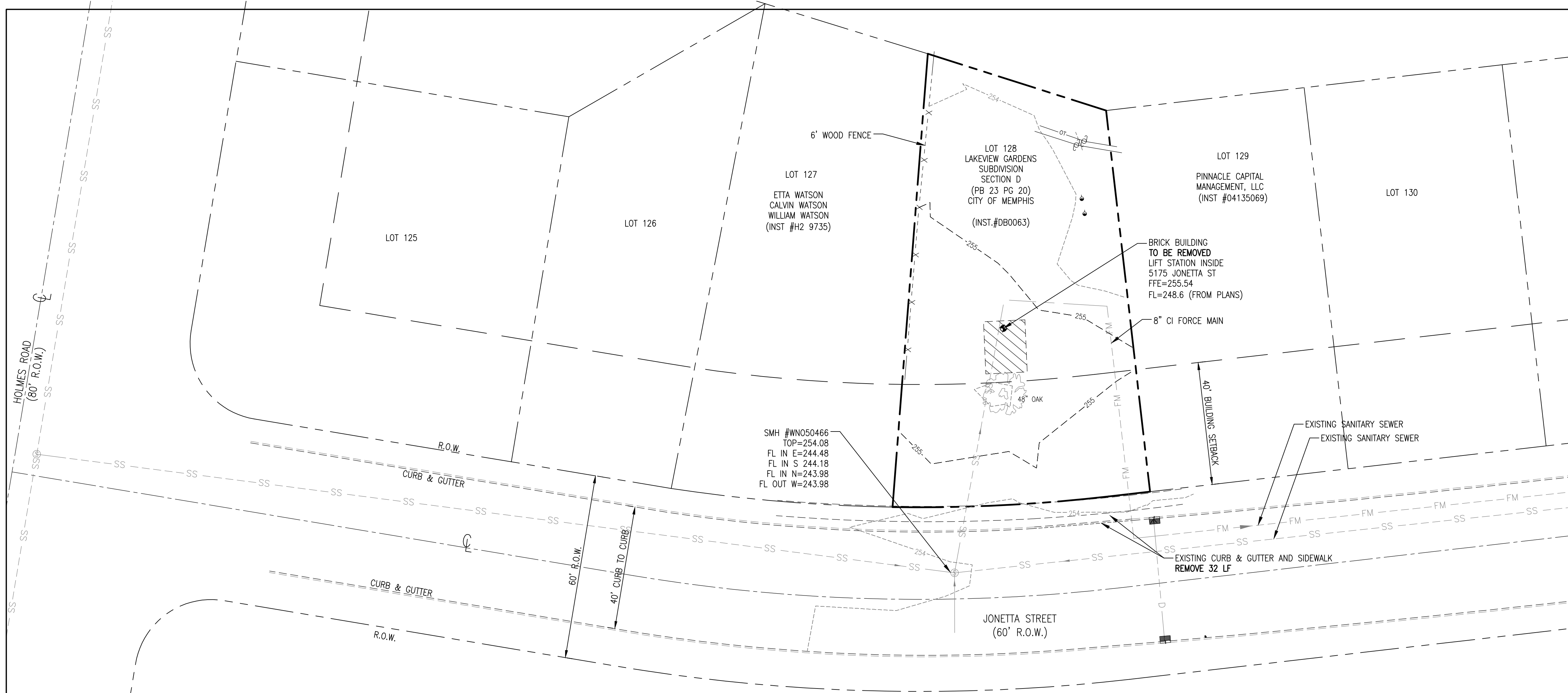
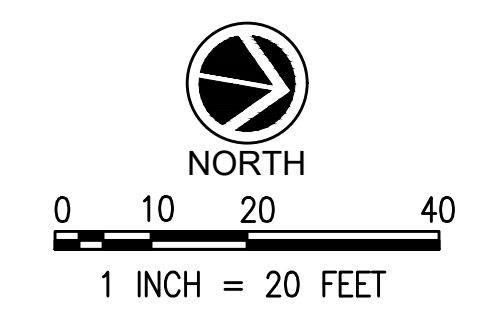


VICINITY MAP
 N.T.S.



Pickering Firm, Inc.
 Facility Design • Civil Engineering • Surveying •
 Transportation • Natural / Water Resources
 6363 Poplar Avenue, Suite 300
 Memphis, TN 38119
 901.726.0810

THE PLANS, IDEAS AND DESIGNS SHOWN ON THIS DRAWING ARE THE PROPERTY OF THE ENGINEER. DESIGNED SOLELY FOR THIS CONTRACT. THIS PLAN SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH IT WAS NOT INTENDED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.



LEGEND			
	EXISTING FIRE HYDRANT		EXISTING UNDERGROUND ELECTRIC
	EXISTING POWER POLE		EXISTING OVERHEAD ELECTRIC
	EXISTING GUY POLE		EXISTING UNDERGROUND FIBER OPTIC
	EXISTING MAILBOX		EXISTING UNDERGROUND GAS LINE
	EXISTING SIGN		EXISTING WATER LINE
	EXISTING GAS VALVE		EXISTING DRAIN LINE
	EXISTING WATER VALVE		EXISTING TELEPHONE LINE
	EXISTING WATER METER		EXISTING UNDERGROUND OIL LINE
	EXISTING ROW MARKER		FORCE MAIN
	EXISTING ELECTRIC TRANSFORMER		SANITARY SEWER
	EXISTING TELEPHONE PEDESTAL		SEWER MANHOLE

NOTE:
CONTRACTOR TO LOCATE AND VERIFY FORCE MAIN ROUTING AT START OF CONSTRUCTION AND NOTIFY ENGINEER OF ANY ISSUES.

NOTE:
EXISTING PUMP STATION AND BUILDING TO BE DEMOLISHED. INSTALL NEW SUBMERSIBLE PUMP STATION. EXTEND EXISTING INFLUENT PIPE TO NEW PUMP STATION.

- GENERAL NOTES:**
1. AT ALL CROSSINGS OF EXISTING UTILITIES, THE CONTRACTOR SHALL FIELD LOCATE BY POST HOLE OR OTHER APPROPRIATE METHODS, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
 2. ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
 3. ALL DISTURBED AREAS SHALL BE SEEDED (WITH A SEASONAL MIX) AND COVERED WITH STRAW AT THE END OF EACH WEEK (AT A MINIMUM) OR MORE FREQUENTLY, AS CONDITIONS DICTATE, IN ADDITION TO EROSION CONTROLS REFERENCED ON PLANS.
 4. ALL DISTURBED LAWN AREAS SHALL BE SODDED. MATCH EXISTING SOD TYPE.
 5. CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES, AND PUBLIC/PRIVATE INFRASTRUCTURE AND PROPERTY.

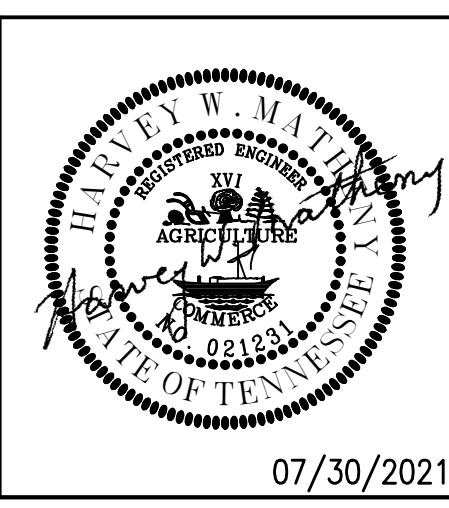
- DEMOLITION NOTES:**
1. THE CONTRACTOR SHALL REMOVE ALL UNDERGROUND UTILITIES AND ANY OTHER ITEMS IN ACCORDANCE WITH THE TDEC AND THE TECHNICAL SPECIFICATIONS. THE CONTRACTOR SHALL STRICTLY FOLLOW ALL CITY, STATE, AND FEDERAL GUIDELINES FOR REMOVAL AND DISPOSAL OF THESE FACILITIES.
 2. ALL BUILDING, CONCRETE, ASPHALT PAVEMENT, AND GRANULAR SUBBASE SHALL BE REMOVED FULL DEPTH PER THE DIRECTION OF THE GEOTECHNICAL ENGINEER. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE AND FEDERAL REGULATIONS.
 3. CONTRACTOR SHALL REMOVE & REPAIR PAVEMENT AS REQUIRED FOR UTILITY CONSTRUCTION INCLUDING BUT NOT LIMITED TO: IRRIGATION SLEEVES, SITE LIGHTING CONDUITS, WATER LINES, SANITARY SEWER LINES, STORM DRAINAGE LINES, ETC. CONTRACTOR HAS OPTION TO BORE CONDUITS.
 4. PRIOR TO COMMENCING ANY UTILITY WORK, CONTRACTOR SHALL NOTIFY ANY SURROUNDING PROPERTY OWNERS WHO MAY EXPERIENCE A DISRUPTION IN SERVICE.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MODIFYING ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE PARTS OF THAT EXISTING SYSTEM THAT ARE REMOVED, ABANDONED OR DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO MODIFY ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE NEW AREAS OF LANDSCAPING. ANY IRRIGATION SLEEVES SHALL BE INSTALLED PRIOR TO PAVING AND BACKFILLED PROPERLY BY THE SITE CONTRACTOR.
 6. THE CONTRACTOR SHALL ENSURE ADEQUATE ACCESS IS PROVIDED DURING ALL PHASES OF CONSTRUCTION. COORDINATE WITH THE PROJECT MANAGER.
 7. WHEN REMOVING UTILITIES, CONTRACTOR SHALL GROUT AND SEAL ANY STRUCTURES THAT ARE TO REMAIN PER LOCAL REGULATIONS.
 8. UTILITIES SHOWN ARE LOCATED BY FIELD SURVEY AND RECORD DRAWINGS. ADDITIONAL UNDERGROUND UTILITIES WILL BE ENCOUNTERED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY INACTIVE STRUCTURES & ALERT THE ENGINEER OF ANY ACTIVE, UNMAPPED STRUCTURES.
 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION OF UTILITY DEMOLITION & RELOCATION.
 10. CONTRACTOR SHALL NOT INTERRUPT DRAINAGE FROM ADJACENT PROPERTIES AND PUBLIC RIGHT-OF-WAYS.

FLOOD NOTE:
THIS IS TO CERTIFY THAT BY GRAPHIC DETERMINATION THE ABOVE PLATTED PROPERTY IS IN A "ZONE X" NO SHADING (AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD ACCORDING TO THE FEMA/FIRM MAP NUMBER 47157C0415F WITH AN EFFECTIVE DATE OF SEPTEMBER 28, 2007. NEAREST BASE FLOOD ELEVATION = 249.

PROJECT BENCHMARKS
CITY BENCHMARK:
#1668 IS LOCATED AT HOLMES ROAD AND JONETTA DRIVE. CITY CAP IS LOCATED ON THE NORTHEAST CORNER, TOP OF CURB ON THE NORTH SIDE OF HOLMES ROAD, 70' EAST OF THE CENTERLINE OF JONETTA DRIVE, 27.4 NORTH OF CENTERLINE OF HOLMES ROAD @ ADDRESS 312 GPS 734. ELEVATION: 258.67
SITE TBM #1
FFE INSIDE BRICK BUILDING AS SHOWN. ELEVATION: 255.54
NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

PICKERING FIRM INCORPORATED UNDERGROUND UTILITIES DISCLAIMER:
INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE ENGINEER IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SHEET 1 OF 1
DIVISION OF ENGINEERING
EXISTING CONDITIONS & DEMOLITION PLAN
5175 Jonetta Street
MEMPHIS, TENNESSEE
SURVEY: PFI DATE: JUNE, 2020 PROJECT NO.: 24699.05
DESIGN BY: PFI DATE: AUG, 2020 BOOK: 1676
DRAWN BY: PFI DATE: AUG, 2020 SCALE: 1" = 20'
REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.



- Dead Ends
- Cleanout
- ⊗ Diversion Point
- LS Lift Station
- ⊗ Digitized
- Field Verified
- ⊗ Field Verified (Not Found)
- Sewer Gravity Main
 - Digitized
 - Field Verified
- Pressurized Main
 - - - Digitized
 - - - As-Built
 - - - Field Verified
- Siphon Area
- Aerial Crossing
- Sub-Basin
- Pilot Boundary
- Outfall Map Grid
- Block Map Grid
- e Engineering Plans

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

FOR REFERENCE ONLY

SHEET 1 OF 1

DIVISION OF ENGINEERING

PUMP STATION SITE AND FORCE MAIN ROUTING

5175 Jonetta Street

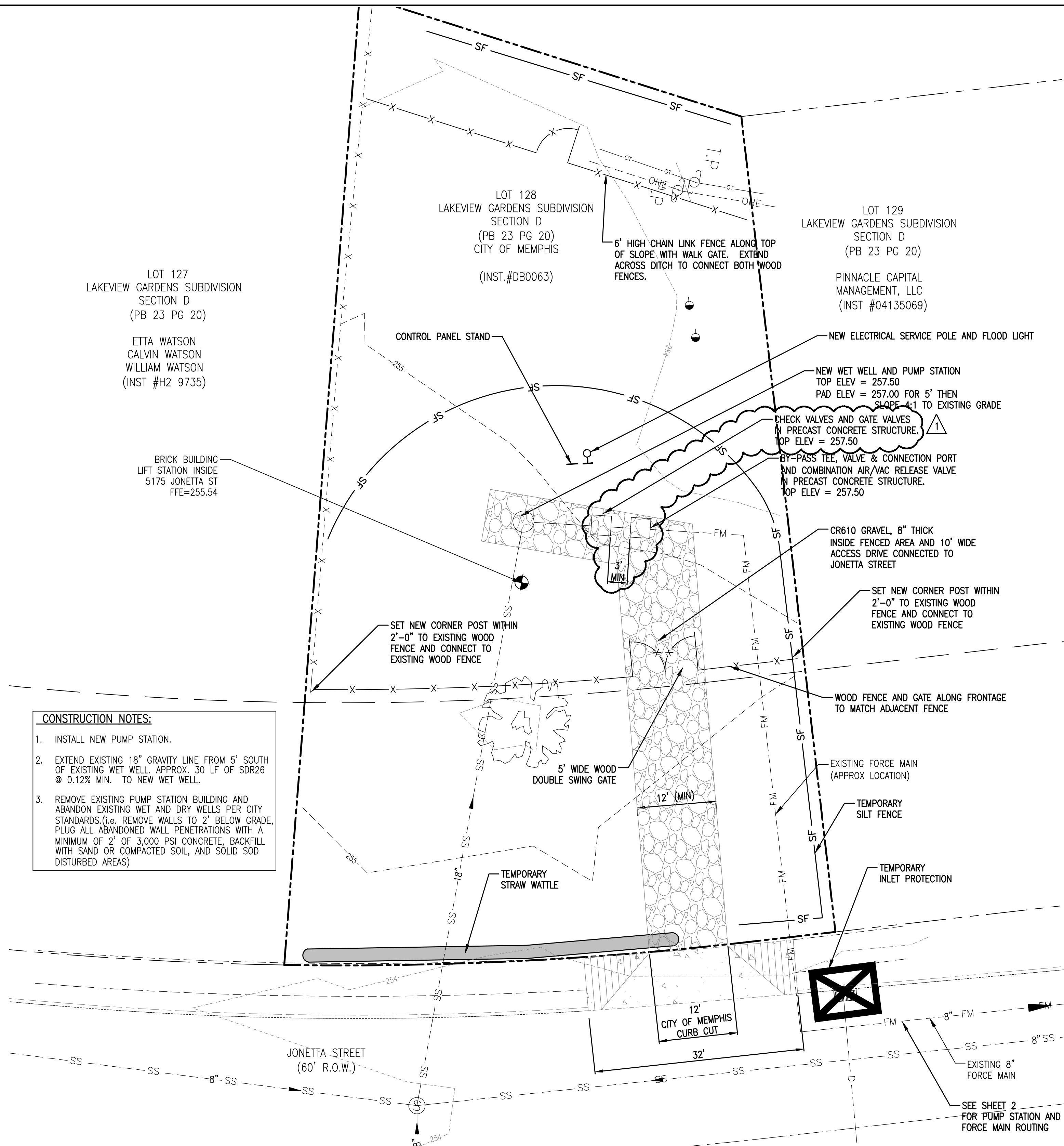
MEMPHIS, TENNESSEE

SURVEY: PFI	PROJECT NO.: 24699.05
DESIGN BY: PFI	BOOK: 1676
DRAWN BY: PFI	DATE: AUG, 2020
REVIEWED	SCALE: N.T.S.

LIFT STATION REHAB DESIGN

DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

K:\Projects\2020\5175 Jonetta\Drawings\10-10-2020.dwg - January 27, 2022



CONSTRUCTION NOTES:

- INSTALL NEW PUMP STATION.
- EXTEND EXISTING 18" GRAVITY LINE FROM 5' SOUTH OF EXISTING WET WELL. APPROX. 30 LF OF SDR26 @ 0.12% MIN. TO NEW WET WELL.
- REMOVE EXISTING PUMP STATION BUILDING AND ABANDON EXISTING WET AND DRY WELLS PER CITY STANDARDS (i.e. REMOVE WALLS TO 2' BELOW GRADE, PLUG ALL ABANDONED WALL PENETRATIONS WITH A MINIMUM OF 2" OF 3,000 PSI CONCRETE, BACKFILL WITH SAND OR COMPACTED SOIL, AND SOLID SOD DISTURBED AREAS)

EROSION AND SEDIMENTATION CONTROL NOTES:

- ALL NEWLY CUT AND/OR FILLED AREAS LACKING ADEQUATE VEGETATION SHALL BE SEEDED AS REQUIRED TO EFFECTIVELY PREVENT SOIL EROSION.
- SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES SHALL BE USED AS SHOWN AND AS DIRECTED BY THE ENGINEER TO CONTROL SOIL EROSION.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTROLS SHOWN ON THE PLAN ARE THE MINIMUM REQUIRED AND THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT FOR ALL EROSION CONTROL DURING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES AND REPORTING ANY MAINTENANCE AS REQUIRED BY THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT DURING CONSTRUCTION ACTIVITIES.
- PROVISIONS SHALL BE MADE TO PROTECT DOWNSTREAM WATERCOURSES (I.E., STORM SEWER SYSTEMS, DITCHES, WETLANDS, ETC.) FROM SEDIMENT RUNOFF DEVELOPED FROM THE CONSTRUCTION PROCESS. PROVISIONS INCLUDE, BUT ARE NOT LIMITED TO, STRUCTURAL CONTROLS SUCH AS SILT FENCING, GEOTEXTILE FABRIC PROTECTION OF STORM SEWERS, HAY BALES, DIKES AND SANDBAG BERMS; AND/OR VEGETATION CONTROLS SUCH AS SEEDING OR EXISTING VEGETATIVE BUFFER STRIPS (MINIMUM 25 FEET WIDE).
- PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL INSTALL EROSION AND SEDIMENTATION CONTROLS AT LOCATIONS SHOWN ON PLANS.
- CONTRACTOR SHALL PERFORM STREET CLEANING ON ROADS AND STREETS ADJACENT TO THE PROJECT WHICH ARE USED AS ACCESS ROUTES FOR CONSTRUCTION TRAFFIC IF NECESSARY. WASHING OF STREETS IS PROHIBITED.
- LOCATE FUEL/MATERIAL STORAGE AREAS AWAY FROM STORM WATER CONVEYANCE SYSTEMS. USE A MINIMUM 60 MIL POLYETHYLENE LINER UNDER ABOVE GROUND STORAGE TANKS. USE 2 FOOT HIGH BERMS AROUND FUEL STORAGE AREAS.
- CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL ENVIRONMENTAL LAWS.
- CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF FUELS, MATERIALS AND CONTAMINATED EXCAVATIONS IN A LEGALLY APPROVED MANNER.
- AT A MINIMUM, STRUCTURAL CONTROLS SHOULD BE INSPECTED TWICE EVERY CALENDAR WEEK AT LEAST 72 HOURS APART. THE INSPECTOR, APPROVED BY THE OWNER, SHALL HAVE AN ACTIVE CERTIFICATION BY COMPLETING THE "FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL LEVEL 1" COURSE. A COPY OF THE CERTIFICATION SHALL BE KEPT ONSITE, SHOULD CONTROLS BECOME INEFFECTIVE, NECESSARY REPAIRS SHALL BE PERFORMED TO RETURN THE INTEGRITY OF THE STRUCTURAL CONTROLS.
- EQUIPMENT STAGING AREA TO BE DESIGNATED BY CONTRACTOR AND APPROVED BY OWNER PRIOR TO CONSTRUCTION.
- SEDIMENT WILL BE REMOVED FROM THE UPSTREAM FACE OF THE SILT FENCE WHEN IT REACHES A MAXIMUM DEPTH OF 50% OF THE FENCE'S CAPACITY. THE FENCE WILL BE REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
- TEMPORARY SEEDING MAY BE REQUIRED IN ADDITION TO PERMANENT SEEDING TO ASSIST IN COMPLYING WITH THE CONSTRUCTION GENERAL PERMIT.

CITY OF MEMPHIS SANITARY SEWER CONSTRUCTION NOTES

- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT NECESSARILY ALL OF SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY COMPANY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND/OR UNDERGROUND STRUCTURES PRIOR TO THE INITIATION OF ANY CONSTRUCTION. CONTRACTOR SHALL ALSO ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN THE CONSTRUCTION PERIMETERS. THE SITE LOCATION FOR EXISTING UTILITIES INVOLVING ML&W, SOUTH CENTRAL BELL, TEXAS GAS COMPANY, AND/OR SEWER LOCATION CALL 811.
- CONTRACTOR SHALL ENSURE UNINTERRUPTED SEWER SERVICE ON EXISTING SEWER AND SERVICE CONNECTIONS BY PROVIDING AMPLE TEMPORARY WASTEWATER PUMPING AND/OR BYPASSING.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES.
- CONTRACTOR SHALL NOTIFY THE SARP10 CONSTRUCTION MANAGER A MINIMUM OF 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- ALL AREAS IN CUT OR FILL WHERE VEGETATION HAS BEEN REMOVED SHALL BE SEEDED, MULCHED, FERTILIZED, AND/OR SODDED TO PREVENT EROSION.
- THE CONTRACTOR SHALL VERIFY EXISTING DATA AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ENGINEER.
- ALL SANITARY SEWER TO BE CONSTRUCTED AS PER CITY OF MEMPHIS STANDARD CONSTRUCTION SPECIFICATIONS. SANITARY SEWER SERVICE CONNECTIONS TO BE INSTALLED AS PER CITY OF MEMPHIS STANDARD SST-16.
- ALL SEWER MANHOLE LIDS IN OPEN AREAS ARE TO BE CONSTRUCTED 1.5' ABOVE PROPOSED GRADE. IN BACKYARDS, MANHOLE LIDS ARE TO BE 1.5' ABOVE INITIAL GRADE, 0.5' ABOVE FINISHED GRADE.
- ALL SANITARY SEWER, INCLUDING SEWER CONNECTIONS, WHICH HAS LESS THAN 1.5 CLEARANCE (OUTSIDE OF PIPES) WITH DRAINAGE OR IN FILLED AREAS SHALL BE CLASS 50 D.I.P. OR CONCRETE ENCASED, 10' MINIMUM BOTH SIDES OF CROSSING. ALL DUCTILE IRON PIPE (D.I.P.) SHALL BE POLYETHYLENE LINED OR SHALL BE TREATED WITH PROTECTO 401 OR APPROVED EQUIVALENT.
- THEY CITY OF MEMPHIS SHALL HAVE INGRESS/EGRESS RIGHTS TO USE PRIVATE DRIVES AND YARDS FOR THE PURPOSE OF MAINTAINING ALL PUBLIC SEWER LINES AND SHALL BEAR NO RESPONSIBILITY FOR THE MAINTENANCE OF SAID PRIVATE DRIVES AND YARDS.
- NO TREES, SHRUBS, PERMANENT STRUCTURES, OR OTHER UTILITIES (EXCEPT FOR CROSSINGS) WILL BE ALLOWED WITHIN THE SANITARY SEWER EASEMENT. NO OTHER UTILITIES OR SERVICES MAY OCCUPY SANITARY SEWER EASEMENTS IN PRIVATE DRIVES AND YARDS EXCEPT FOR CROSSINGS.
- ALL SANITARY SEWER MANHOLES IN REVERSE CROWN STREETS, ALLEYS, OR DRIVES (PUBLIC OR PRIVATE) SHALL BE PROVIDED WITH GASKETS AND PLUGS FOR PICK HOLES TO PREVENT DRAINAGE INFLOW INTO THE SEWER SYSTEM.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE AND EFFECTIVE EROSION CONTROL AS NECESSARY TO PREVENT ANY SILTATION INTO THE EXISTING DRAINAGE SYSTEM AND/OR ADJACENT PROPERTIES.

GENERAL NOTES:

- AT ALL CROSSINGS OF EXISTING UTILITIES, THE CONTRACTOR SHALL FIELD LOCATE BY POST HOLE OR OTHER APPROPRIATE METHODS, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
- ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
- ALL DISTURBED AREAS SHALL BE SEEDED (WITH A SEASONAL MIX) AND COVERED WITH STRAW AT THE END OF EACH WEEK (AT A MINIMUM) OR MORE FREQUENTLY, AS CONDITIONS DICTATE, IN ADDITION TO EROSION CONTROLS REFERENCED ON PLANS.
- ALL DISTURBED LAWN AREAS SHALL BE SODDED. MATCH EXISTING SOD TYPE.
- CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES, AND PUBLIC/PRIVATE INFRASTRUCTURE AND PROPERTY.

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FLOOD NOTE:

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PROJECT BENCHMARKS

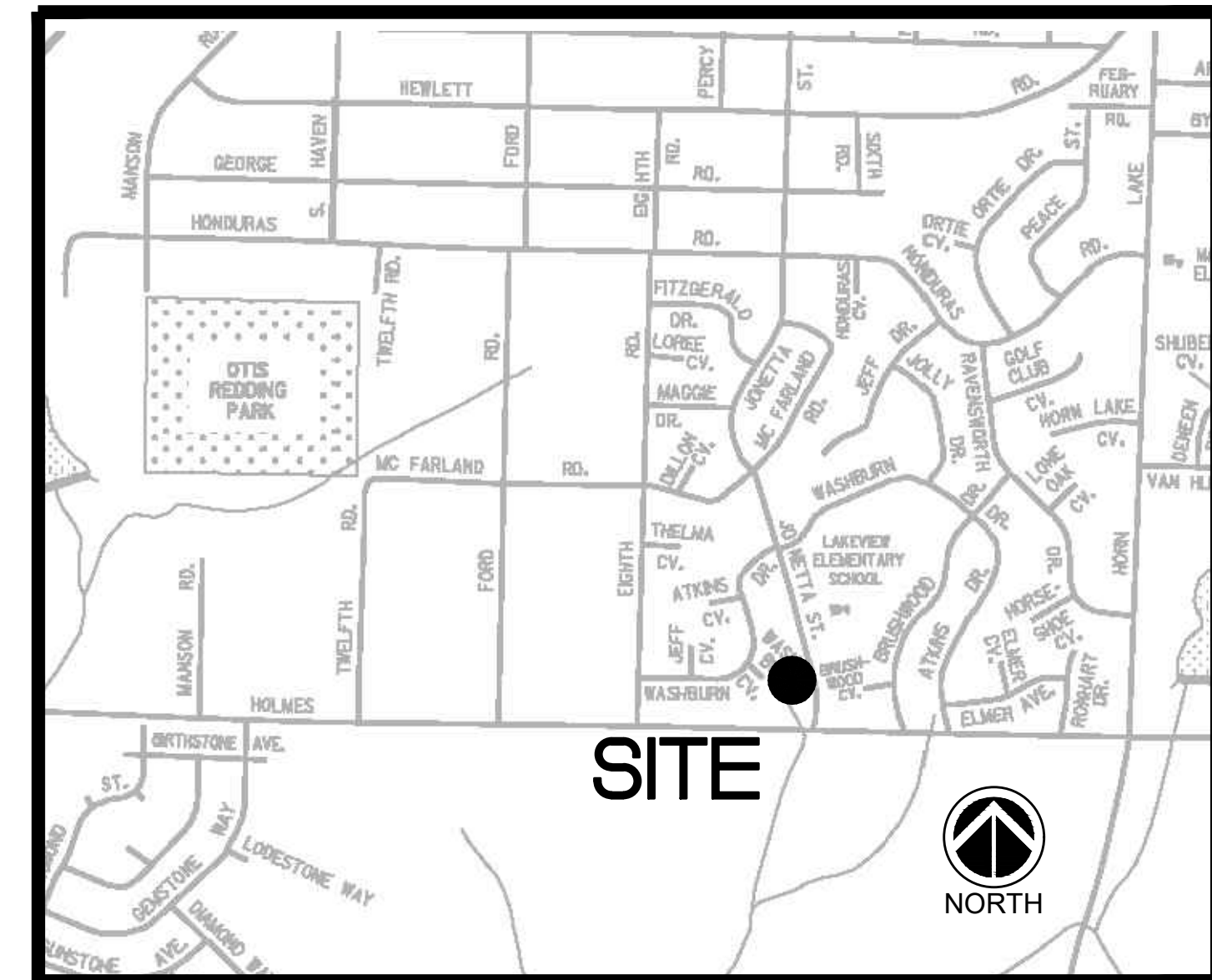
CITY BENCHMARK:
#1668 IS LOCATED AT HOLMES ROAD AND JONETTA DRIVE
CITY CAP IS LOCATED ON THE NORTHEAST CORNER, TOP OF CURB ON THE NORTH SIDE OF HOLMES ROAD, 70' EAST OF THE CENTERLINE OF JONETTA DRIVE, 27.4 NORTH OF CENTERLINE OF HOLMES ROAD @ ADDRESS 312 GPS 734
ELEVATION: 258.67

SITE TBM #1
FFE INSIDE BRICK BUILDING AS SHOWN
ELEVATION: 255.54

NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

LEGEND	
	SILT FENCE BARRIER
	STRAW WATTLE
	CURB INLET PROTECTION

NOTE:
SEE SHEET 7 FOR EROSION CONTROL DETAILS.
SEE SHEET 7 FOR FENCE AND GATE DETAILS.



VICINITY MAP (NTS)

LEGEND			
	EXISTING FIRE HYDRANT		EXISTING UNDERGROUND ELECTRIC
	EXISTING POWER POLE		EXISTING OVERHEAD ELECTRIC
	EXISTING GUY POLE		EXISTING UNDERGROUND FIBER OPTIC
	EXISTING MAILBOX		EXISTING UNDERGROUND GAS LINE
	EXISTING SIGN		EXISTING WATER LINE
	EXISTING GAS VALVE		EXISTING DRAIN LINE
	EXISTING WATER VALVE		EXISTING TELEPHONE LINE
	EXISTING WATER METER		EXISTING UNDERGROUND OIL LINE
	EXISTING ROW MARKER		FORCE MAIN
	EXISTING ELECTRIC TRANSFORMER		SANITARY SEWER
	EXISTING TELEPHONE PEDESTAL		SEWER MANHOLE

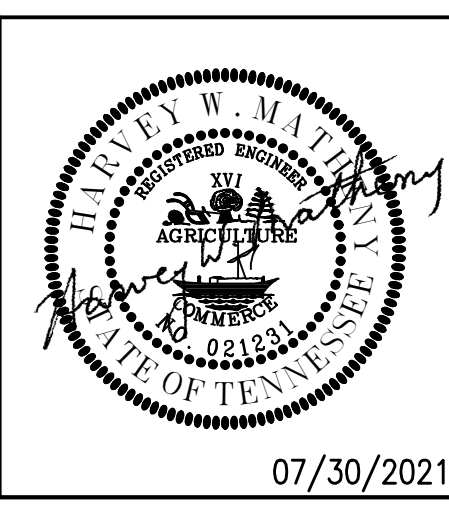
NOTE:
BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE AND VERIFY FORCE MAIN ROUTING AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

APPROVED FOR CONSTRUCTION

THE DOCUMENT BEARING THIS STAMP HAS BEEN RECEIVED AND REVIEWED BY THE CITY OF MEMPHIS DIVISION OF ENGINEERING UNDER AUTHORITY DELEGATED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION DIVISION OF WATER POLLUTION CONTROL. IT IS HEREBY APPROVED FOR CONSTRUCTION BY THE CITY ENGINEER AS EVIDENCE BY HIS SIGNATURE IN THE TITLE BLOCK BELOW.

APPROVAL EXPIRES 1 YEAR FROM APPROVAL DATE BELOW. THIS APPROVAL SHALL NOT BE CONSTRUED AS CREATING A PRESUMPTION OF CORRECT OPERATION OR AS WARRANTING BY THE CITY ENGINEER THAT THE APPROVED FACILITIES WILL REACH THE DESIRED GOALS.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022

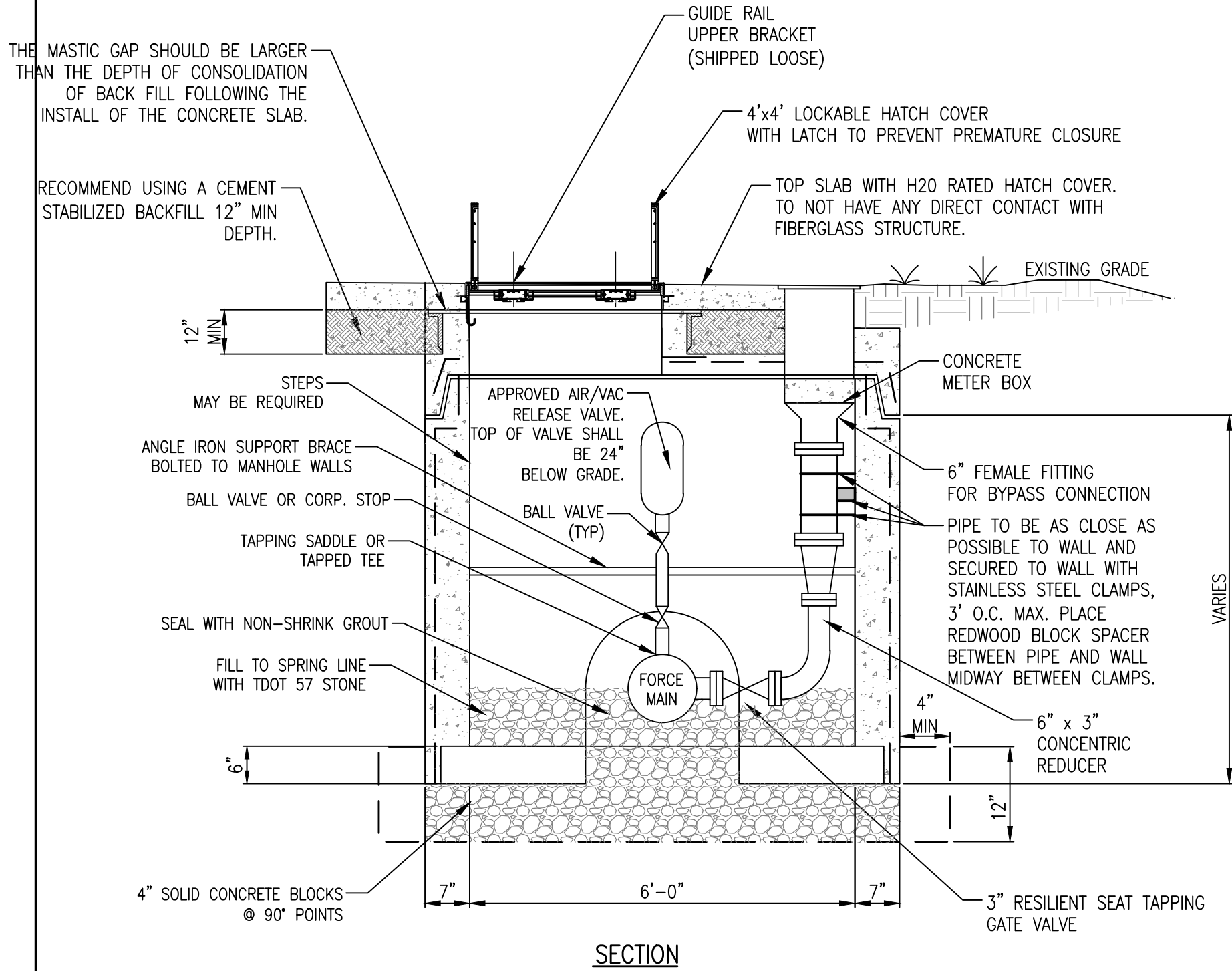
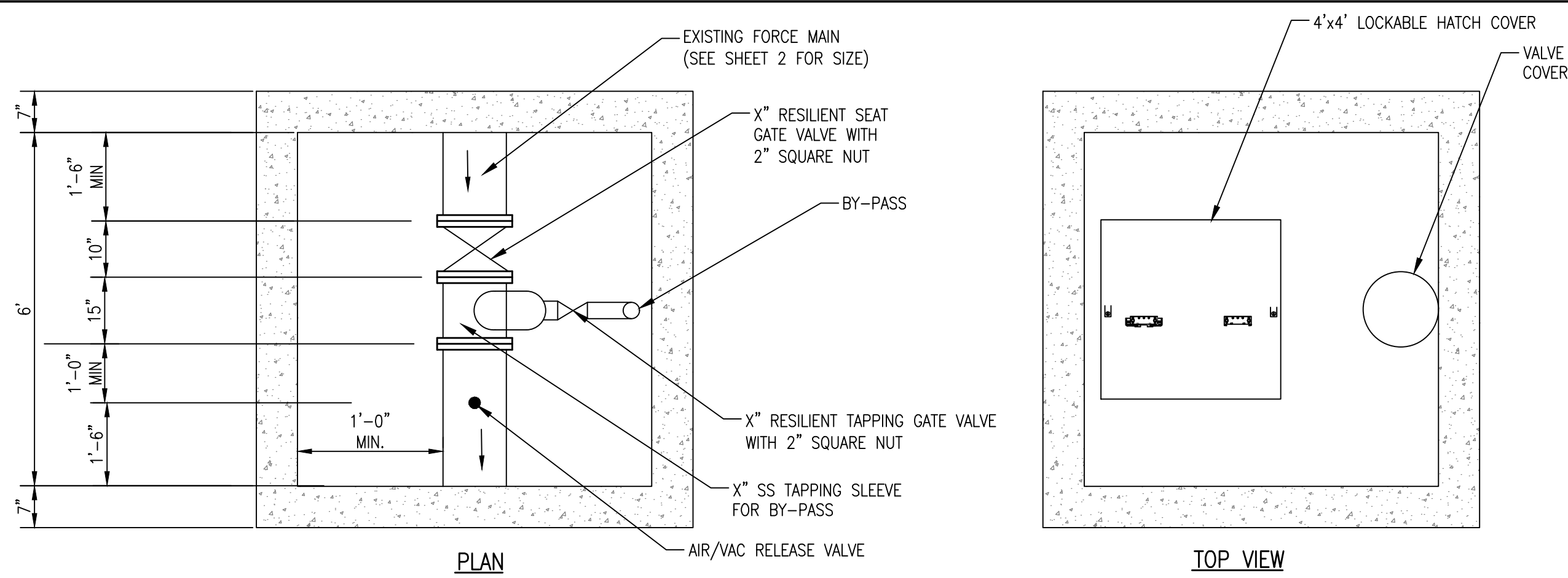


SEWER BASIN: HL-1
SHEET 1 OF 1
DIVISION OF ENGINEERING

SEWER PLAN
5175 Jonetta Street
MEMPHIS, TENNESSEE

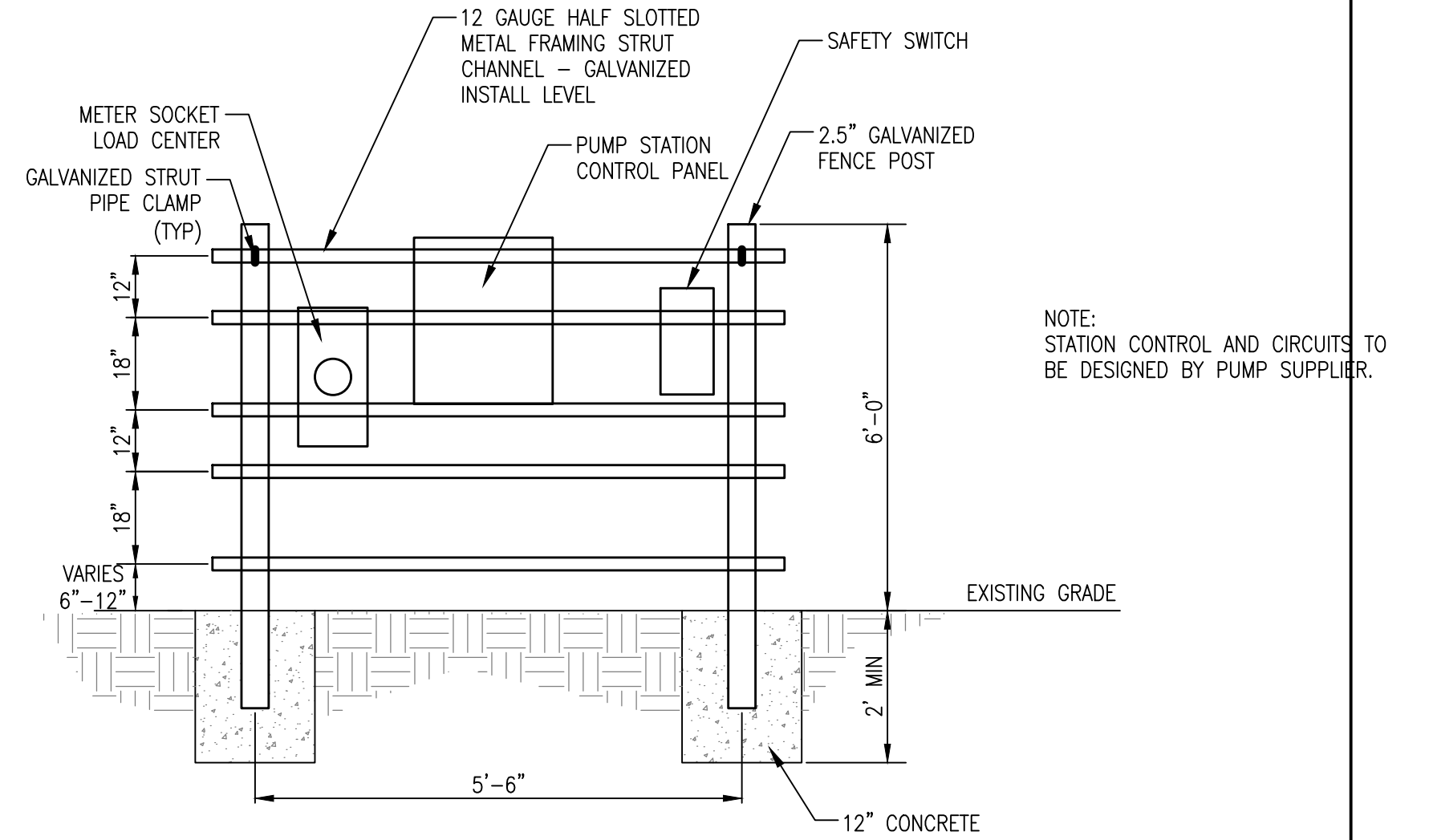
MEMPHIS, TENNESSEE
PROJECT NO.: 24699.05
DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020
BOOK: 1676
SCALE: 1" = 10'
REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

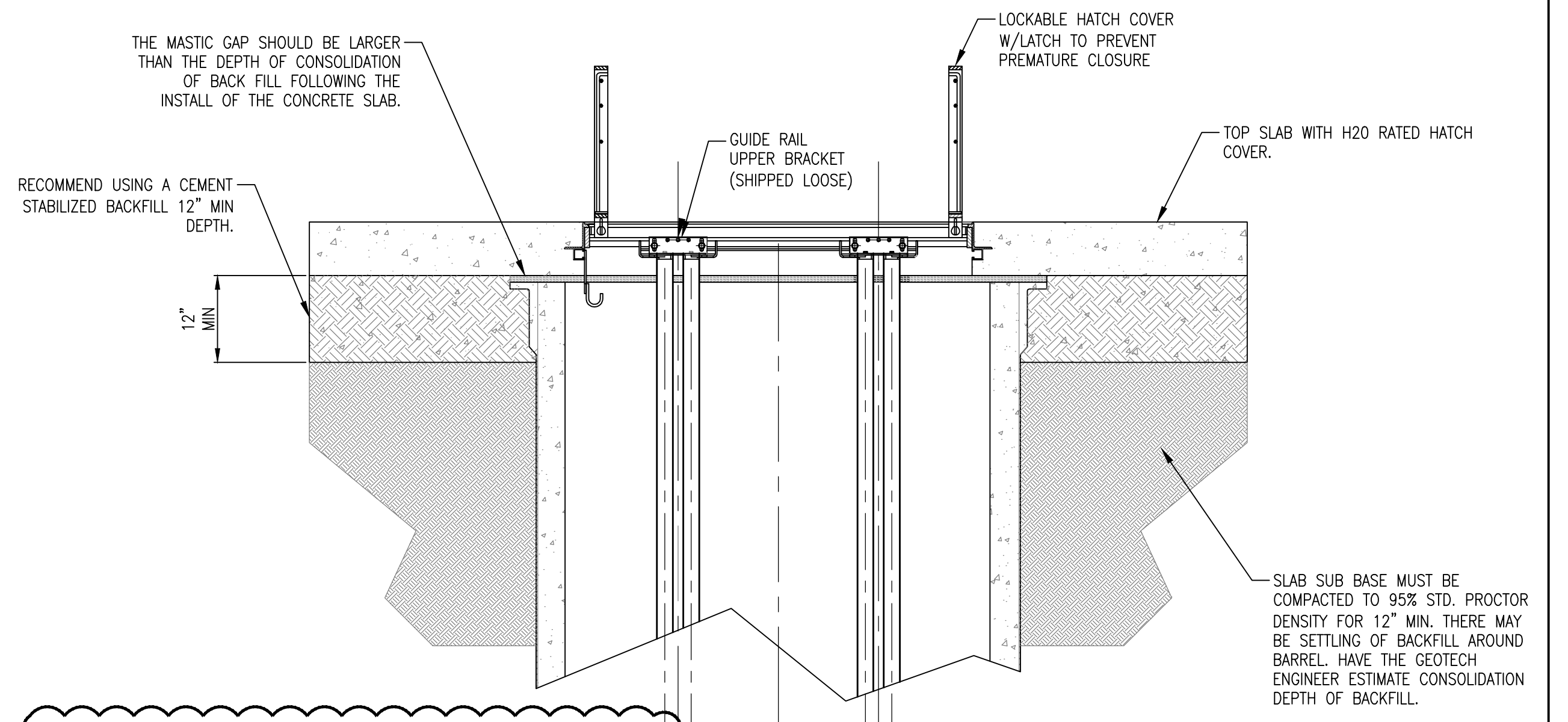


BY-PASS TEE AND AIR/VAC STRUCTURE
NOT TO SCALE

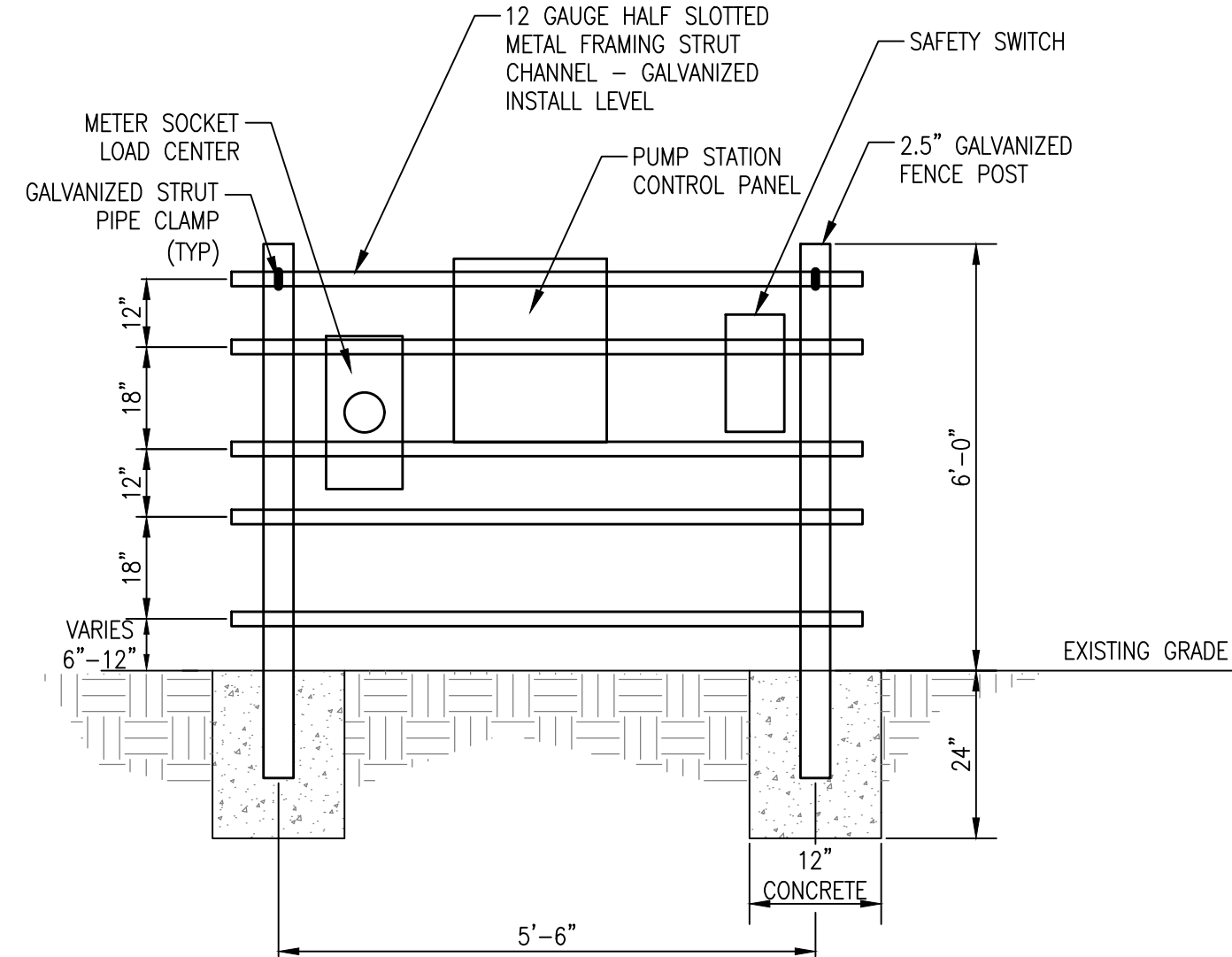
- NOTES:**
1. CONCRETE SHALL BE 4,000 PSI COMPRESSIVE STRENGTH, MIN.
 2. ALL REINFORCING SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
 3. MANHOLE SECTIONS SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
 4. TAPERED JOINT WITH O-RING GASKET SHALL MEET THE REQUIREMENTS OF ASTM SPECS C-361 AND C-443.
 5. CAST MANHOLE SECTION INTO BASE 6" OR DEPTH OF JOINT, WHICHEVER IS DEEPER.
 6. JOINT CONFIGURATION MAY BE CAST BELL-UP OR SPIGOT UP.
 7. SIZE DOGHOUSE OPENINGS 4" MIN. AND 8" MAX. LARGER THAN PIPE O.D.
 8. ALL AIR RELEASE PIPING SHALL BE STAINLESS STEEL.
 9. FOR FORCE MAIN SMALLER THAN 6", EXCEPT THE DUCTILE IRON, CLAMP THE AIR/VACUUM RELEASE VALVE TO THE ANGLE IRON SUPPORT BRACE.
 10. CAST BASE ON FIRM, UNDISTURBED SOIL.
 11. STANDARD PRECAST BASE SECTION MAY BE USED FOR NEW FORCE MAIN CONSTRUCTION. BED STANDARD BASE ON MIN.+ 6" TDOT No. 21A CORE HOLES FOR PIPE MIN. 4" LARGER THAN PIPE O.D.. CONFORM TO THIS DETAIL FOR ALL OTHER REFERENCES.



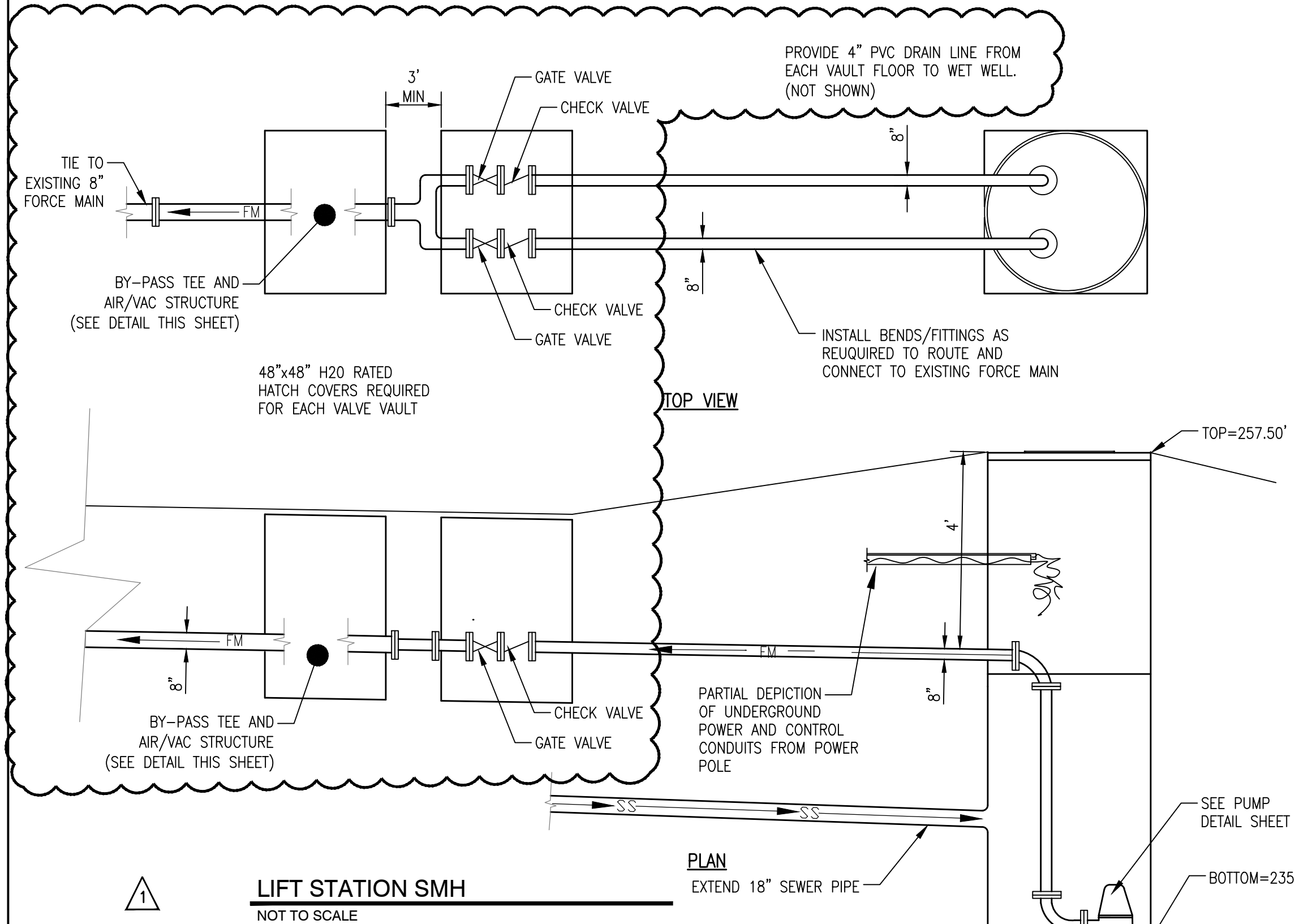
3 CONTROL PANEL STAND
NOT TO SCALE



HATCH DETAIL FOR WET WELL AND VALVES
NOT TO SCALE

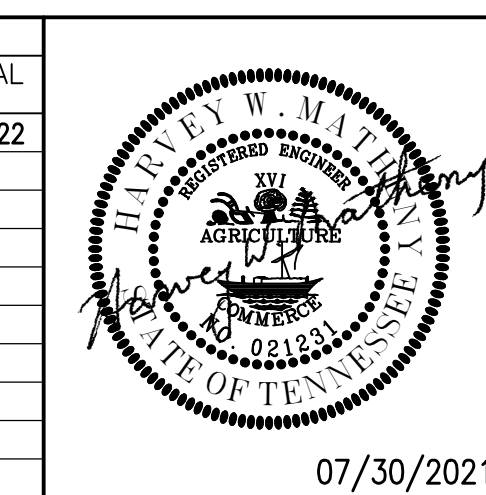


CONTROL PANEL STAND
NOT TO SCALE



LIFT STATION SMH
NOT TO SCALE

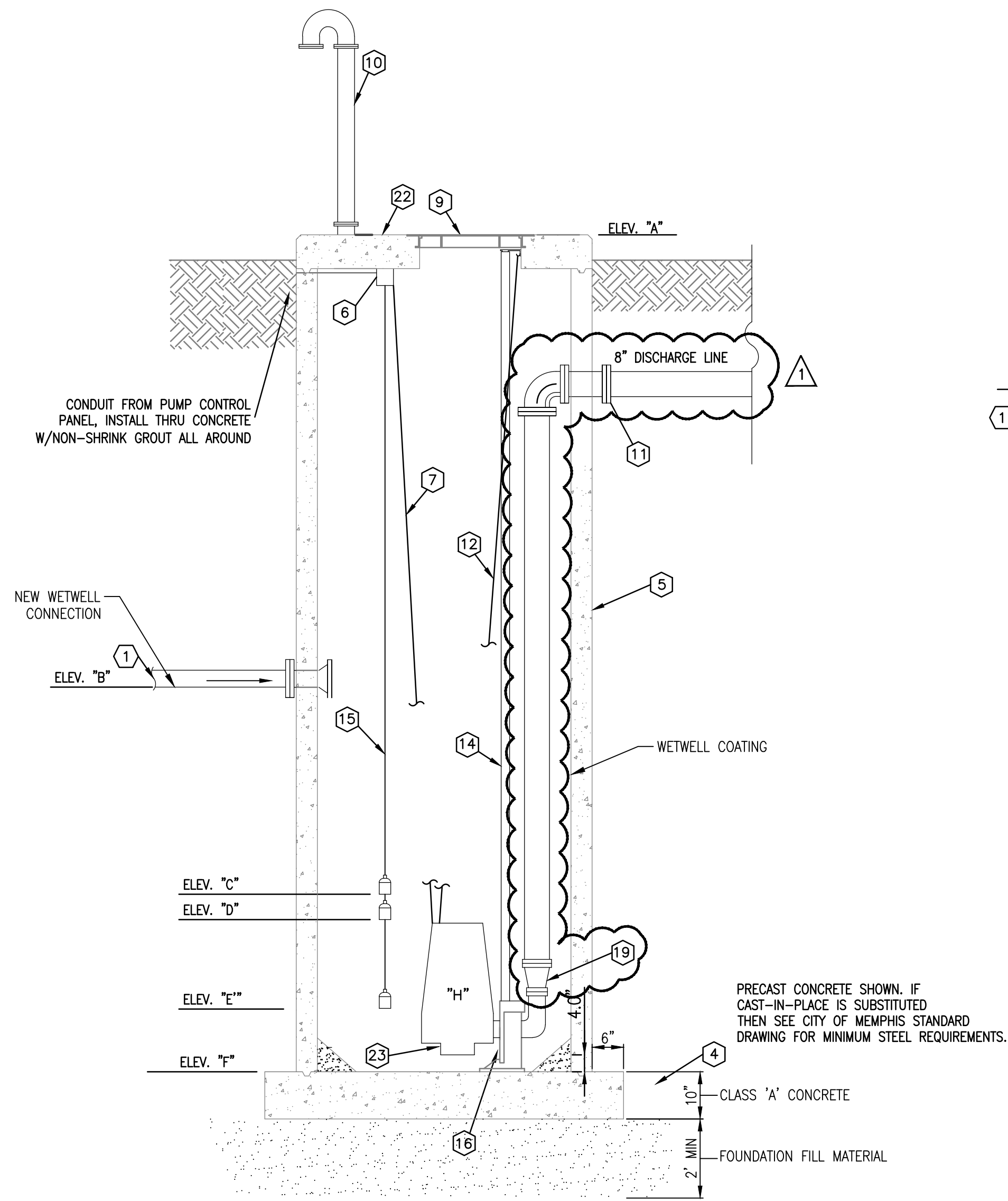
REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022



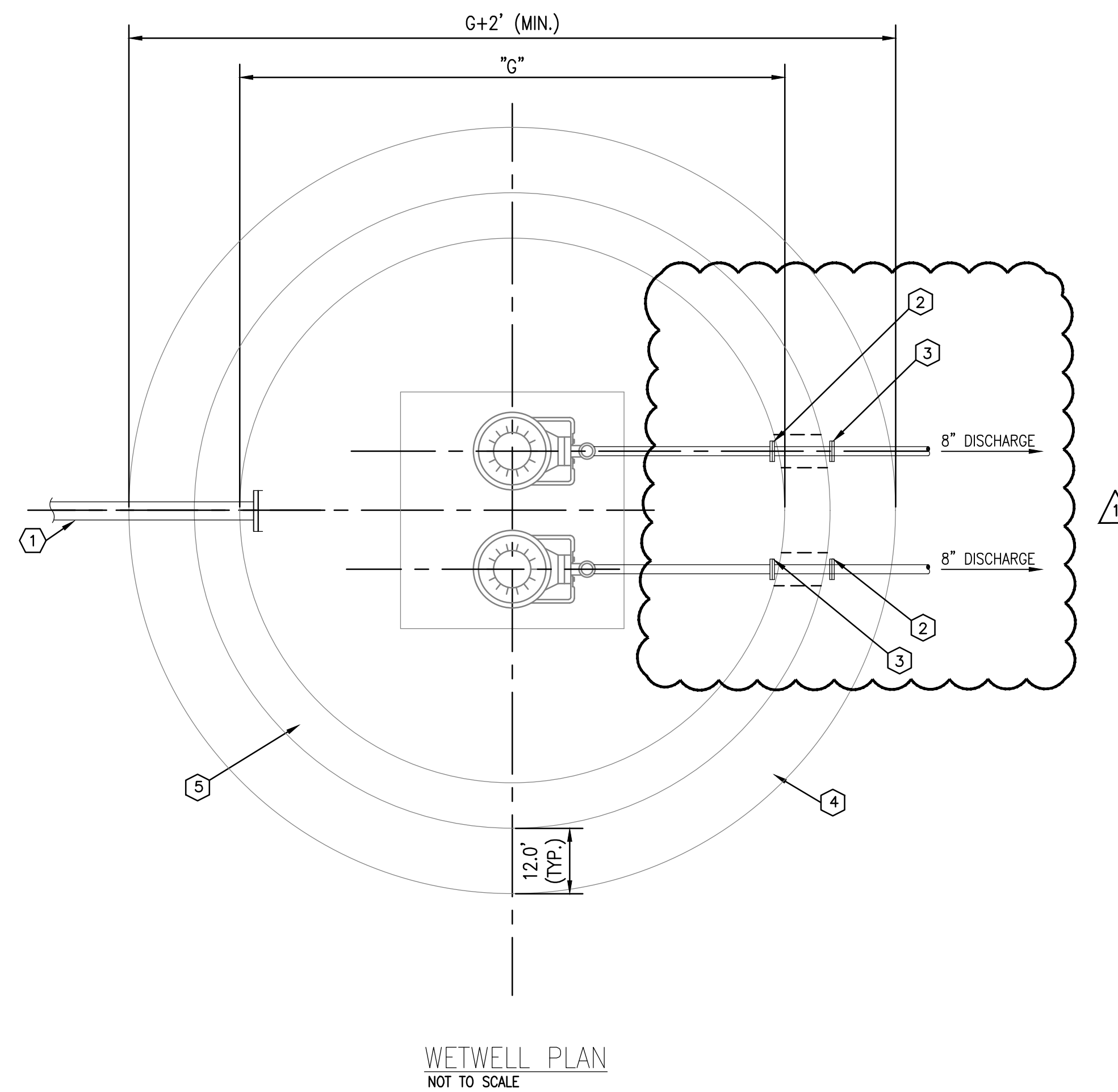
SHEET 1 OF 1
DIVISION OF ENGINEERING
PUMP DETAILS
5175 Jonetta Street
MEMPHIS, TENNESSEE
SURVEY: PFI
DESIGN BY: PFI
DRAWN BY: PFI
DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020
PROJECT NO.: 24699.05
BOOK: 1688
SCALE: N.T.S.
REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

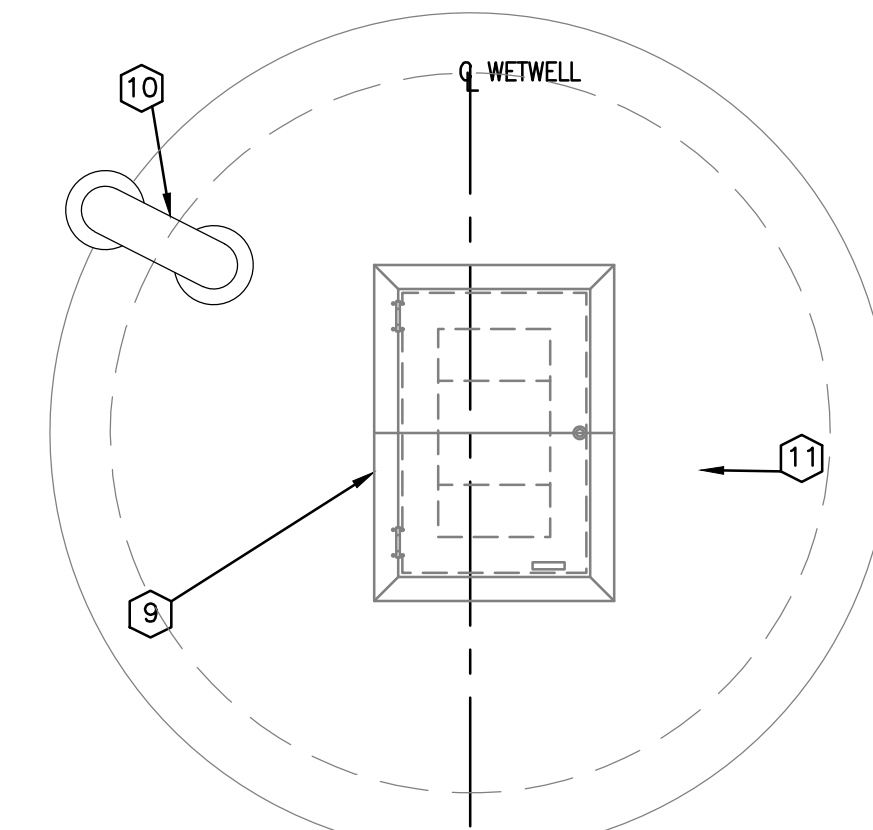
K:\WORKING\DWG\SMH\SMH-PUMP DETAILS - 8-501000.dwg - January 27, 2022



ELEVATION
NOT TO SCALE



WETWELL PLAN
NOT TO SCALE



WETWELL AND VALVE VAULT TOP PLAN
NOT TO SCALE

LIFT STATION REPLACEMENT NOTES:

- ALL PIPES TO BE D.I.P.
- CLEAN AND COAT WETWELL WITH A 2-COAT EPOXY-MODIFIED-MORTAR LINING AND HYBRID EPOXY COATING PER MANUFACTURER'S RECOMMENDATIONS. COVER EXPOSED REBAR WITH COMPATIBLE PRIMER AND MORTAR AND SEAL ANY LEAKS WITH HYDRAULIC CEMENT.

MATERIAL AND EQUIPMENT SCHEDULE

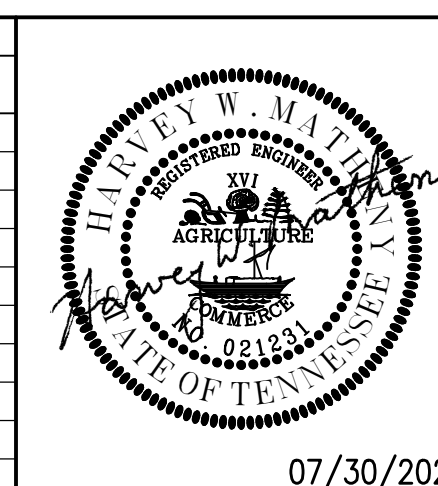
- 1 INCOMING GRAVITY SEWER PIPE, LOCATIONS MAY VARY.
- 2 NEOPRENE PIPE GASKET.
- 3 NON-SHRINK GROUT ALL AROUND PIPE.
- 4 10" THICK, 4000 PSI PRECAST CONCRETE BASE SECTION WITH MONOLITHIC PRECAST CONCRETE RISER. PRECAST CONCRETE AND REINFORCING SHALL CONFORM TO ASTM C-478 AND CITY OF MEMPHIS STANDARDS.
- 5 6" WETWELL W/8" THICK, 4000 PSI PRECAST CONCRETE RISER SECTION CONFORMING TO ASTM C-478. JOINTS SHALL BE COMPLETELY SEALED TO PREVENT LEAKING. INSIDE AND OUTSIDE OF CONCRETE WET WELL RISER WALLS SHALL BE COATED WITH 2 COATS OF COAL TAR EPOXY.
- 6 JUNCTION BOX FOR LEVEL CONTROLS AND POWER CABLE.
- 7 PUMP POWER CABLE.
- 8 NOT USED.
- 9 36"x48" MINIMUM CLEAR OPENING WITH SINGLE LEAF, GASKETED, SERRATED, ALUMINUM ACCESS COVER. COVER SHALL BE PROVIDED WITH LOCKABLE LEAF, CONTROL CABLE HOLDER AND LEAF LOCKING OPEN ARM. CONTRACTOR SHALL VERIFY OPENING SIZE AND LOCATION REQUIREMENTS WITH PUMP MANUFACTURER. 300 PSF RATING WITH SAFETY GRATE.
- 10 4" DIA. DUCTILE IRON WITH FLANGED FLOOR PIPE, 2-90° FLANGED BENDS WITH A #24 ALUMINUM BIRD AND INSECT SCREEN BETWEEN FLANGES.
- 11 FLG.-FLG.-M.J. WALL PIPE WITH LEAK PROOF, NON-SHRINK GROUT ALL AROUND.
- 12 STAINLESS STEEL LIFTING CABLE OR CHAIN.
- 13 NOT USED.
- 14 S.S. GUIDE RAILS AS PER PUMP MANUFACTURER. (2 RAILS PER PUMP REQUIRED). INTERMEDIATE WALL BRACKET REQUIRED.
- 15 MERCURY LEVEL CONTROL SWITCHES, SEE SPECIFICATION.
- 16 AUTOMATIC DISCHARGE CONNECTION.
- 17 HEAVY DUTY S.S. ANCHOR BOLTS WITH VIBRATION DAMPERS. (TYPICAL EACH PUMP). 3/4" OR 1/2" AS REQUIRED BY MANUFACTURER.
- 18 NOT USED.
- 19 4" TO 8" INCREASER.
- 20 NOT USED.
- 21 NOT USED.
- 22 8" PRECAST TOP SLAB CONFORMING TO ASTM 478.
- 23 SEE PUMP NOTES.

PUMPING STATION DATA (DRYWELL)

DESCRIPTION	
"A" TOP OF DRYWELL	257.50
"B" INVERT INCOMING PIPE	243.85 (MAX)
"C" HIGH ALARM/LAG PUMP ON	242.6
"D" PUMP "ON"	240.9
"E" PUMP OFF	239.1
"F" BOTTOM	235.0
"G" WETWELL DIA	6'-0"
"H" NON-CLOG SUBMER. PUMPS	20 HP (2 REQ'D)
3rd ADAPTIVE 463 230 VAC, 3-PHASE 435 GPM, 85' TDH	

PUMP STATION
NOT TO SCALE

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022



SHEET 1 OF 1
DIVISION OF ENGINEERING

PUMP STATION DETAILS

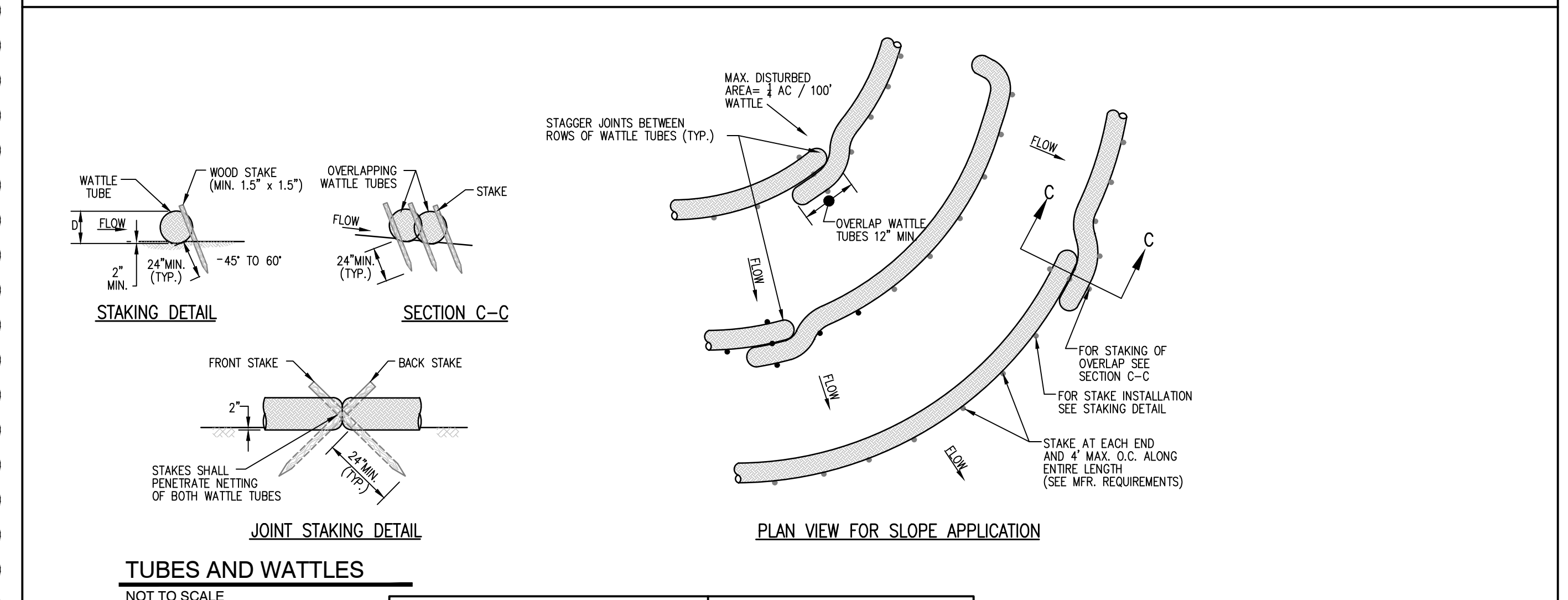
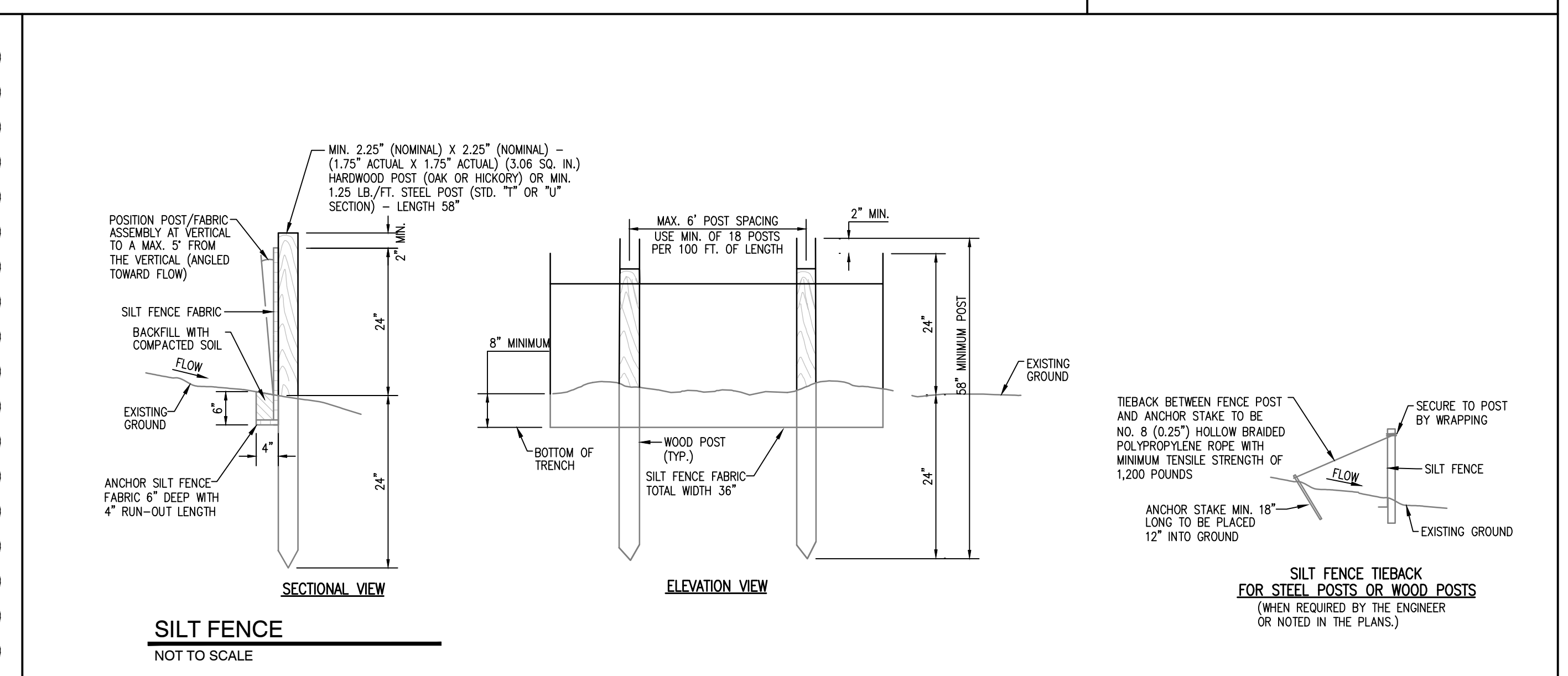
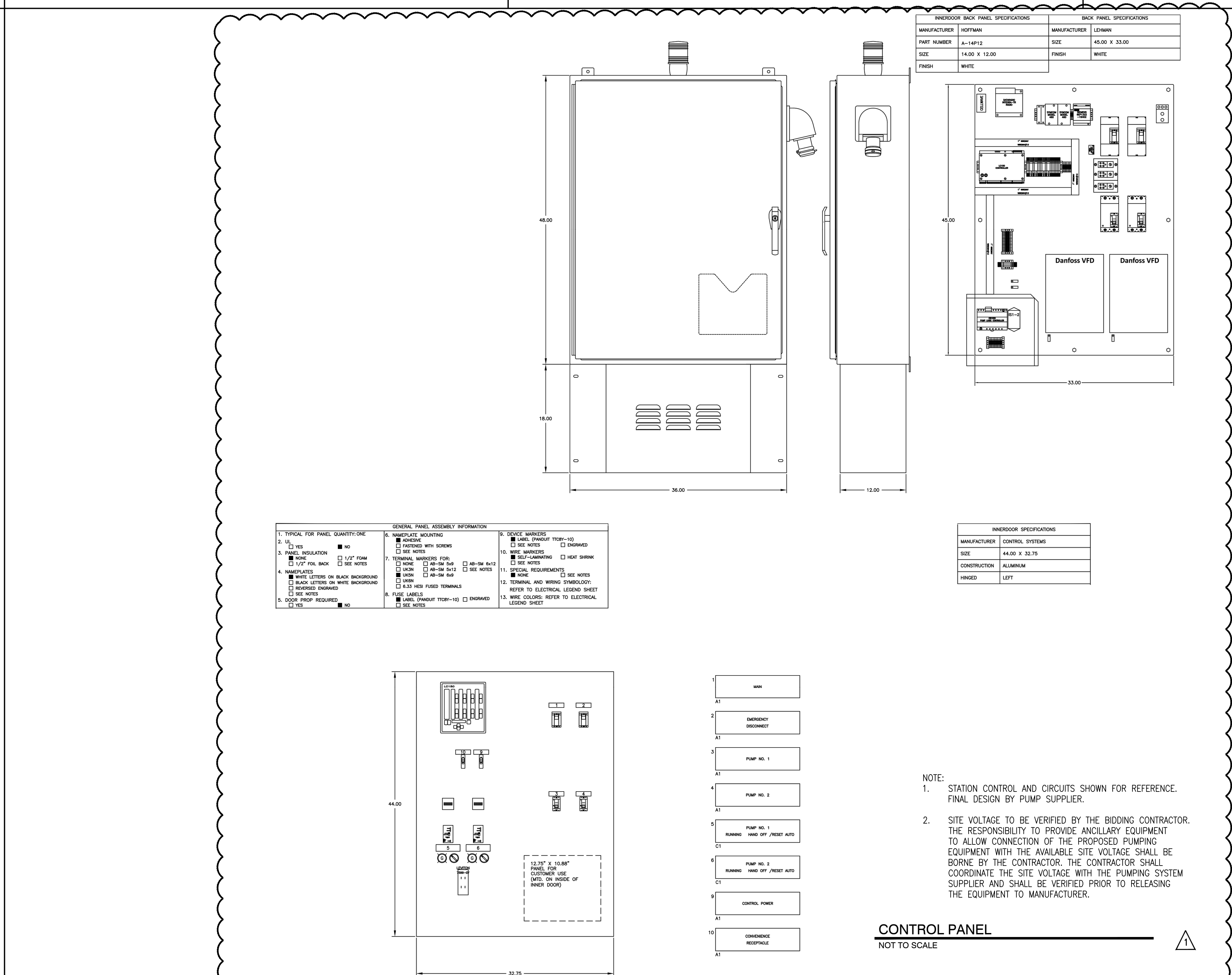
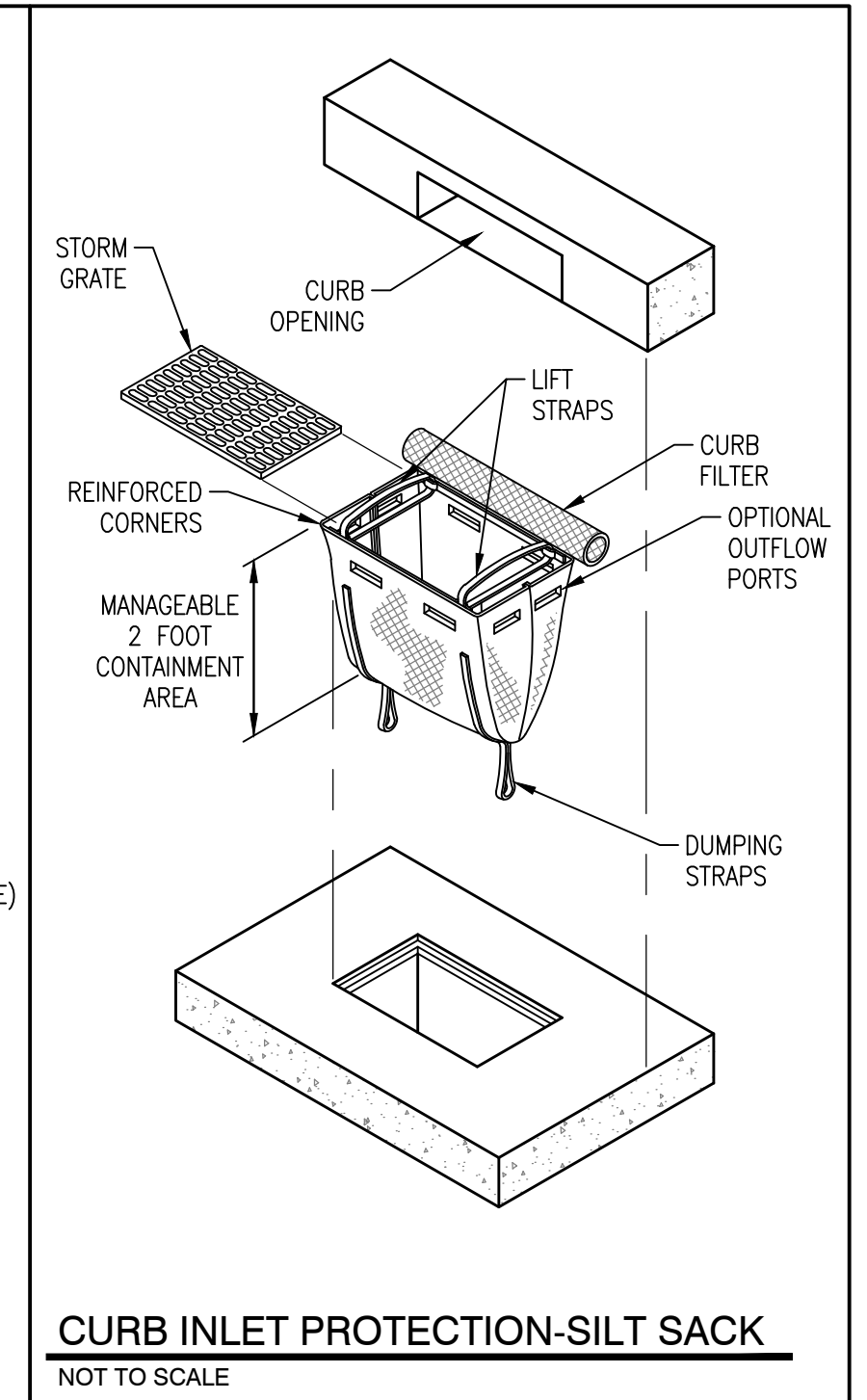
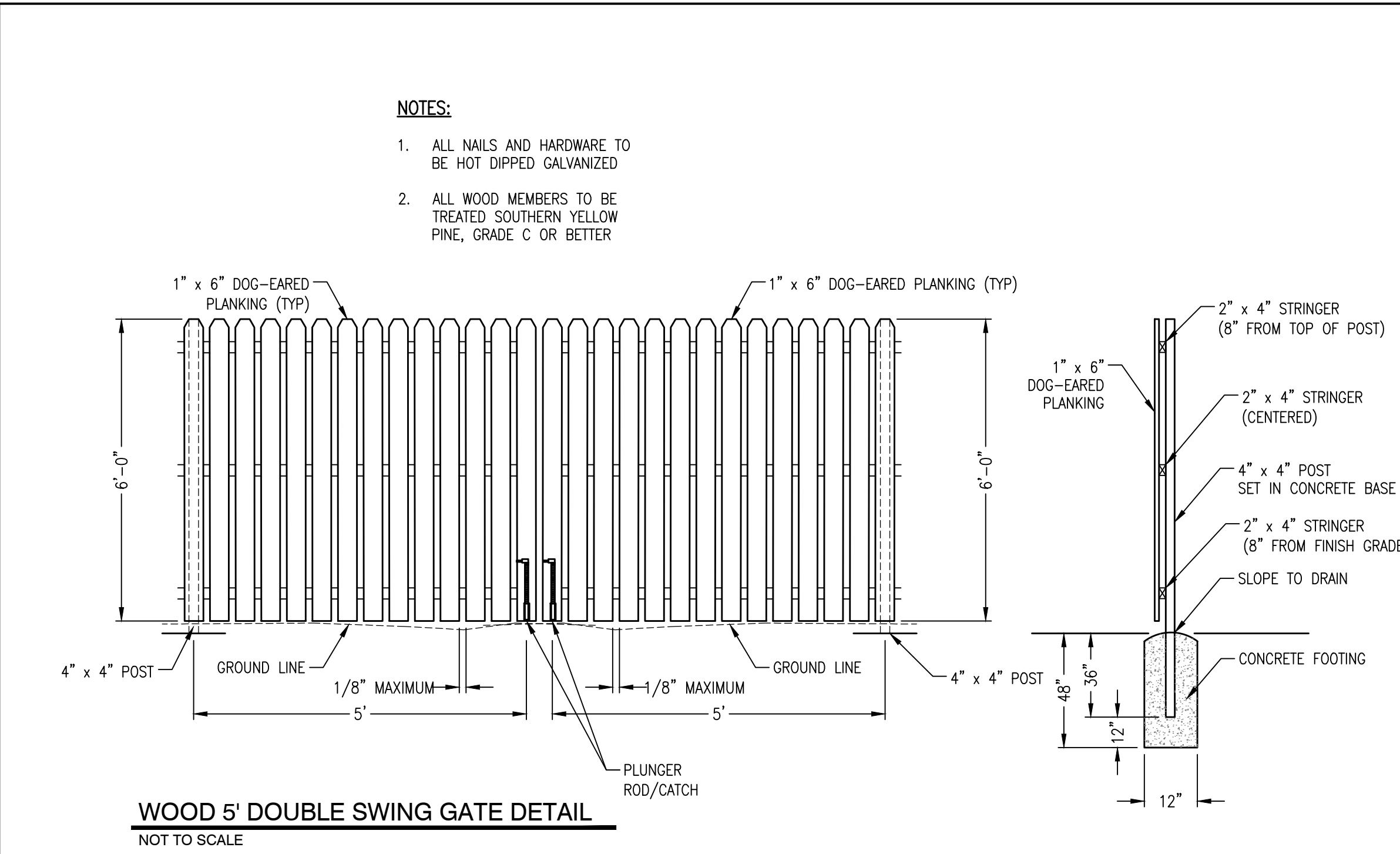
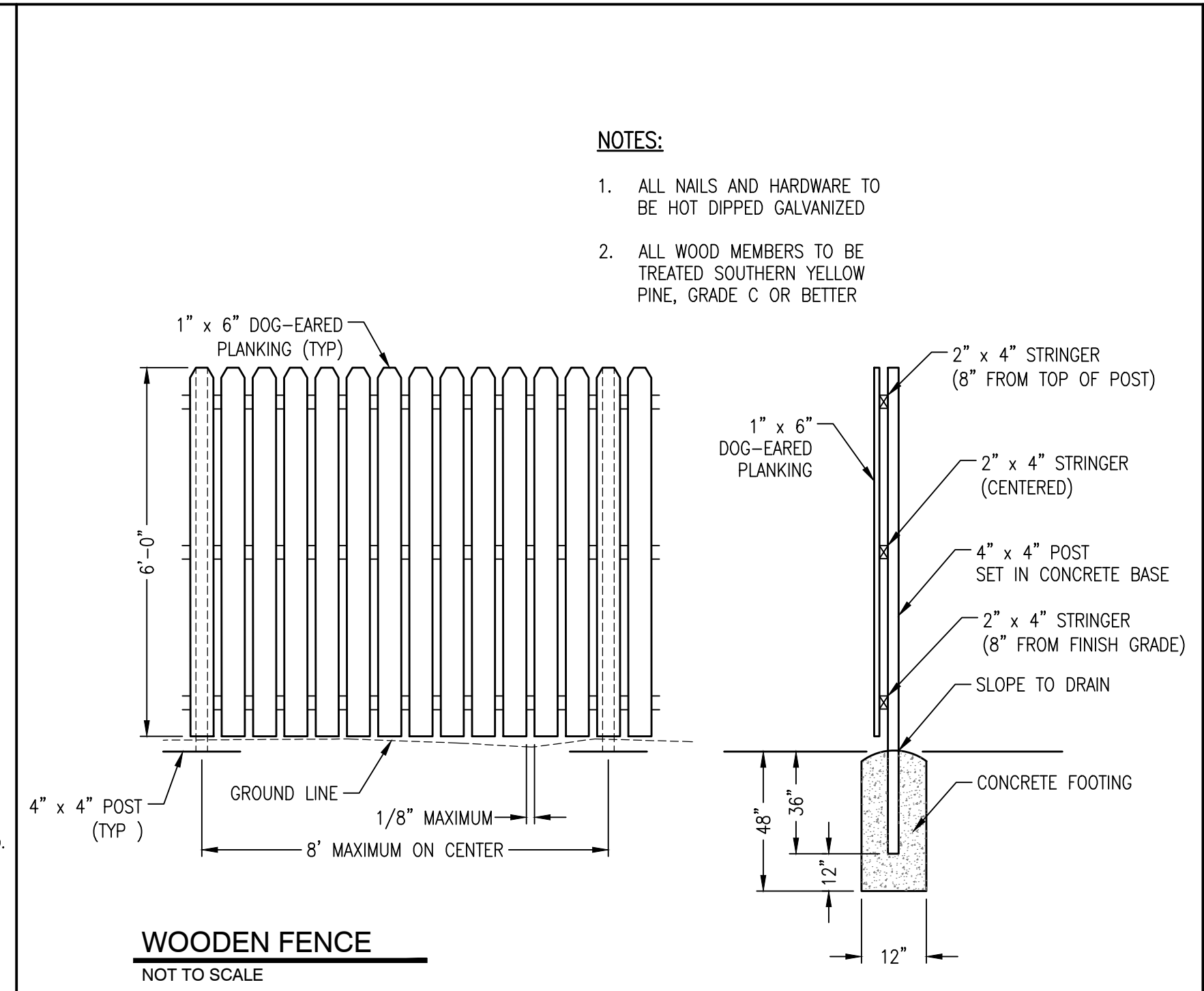
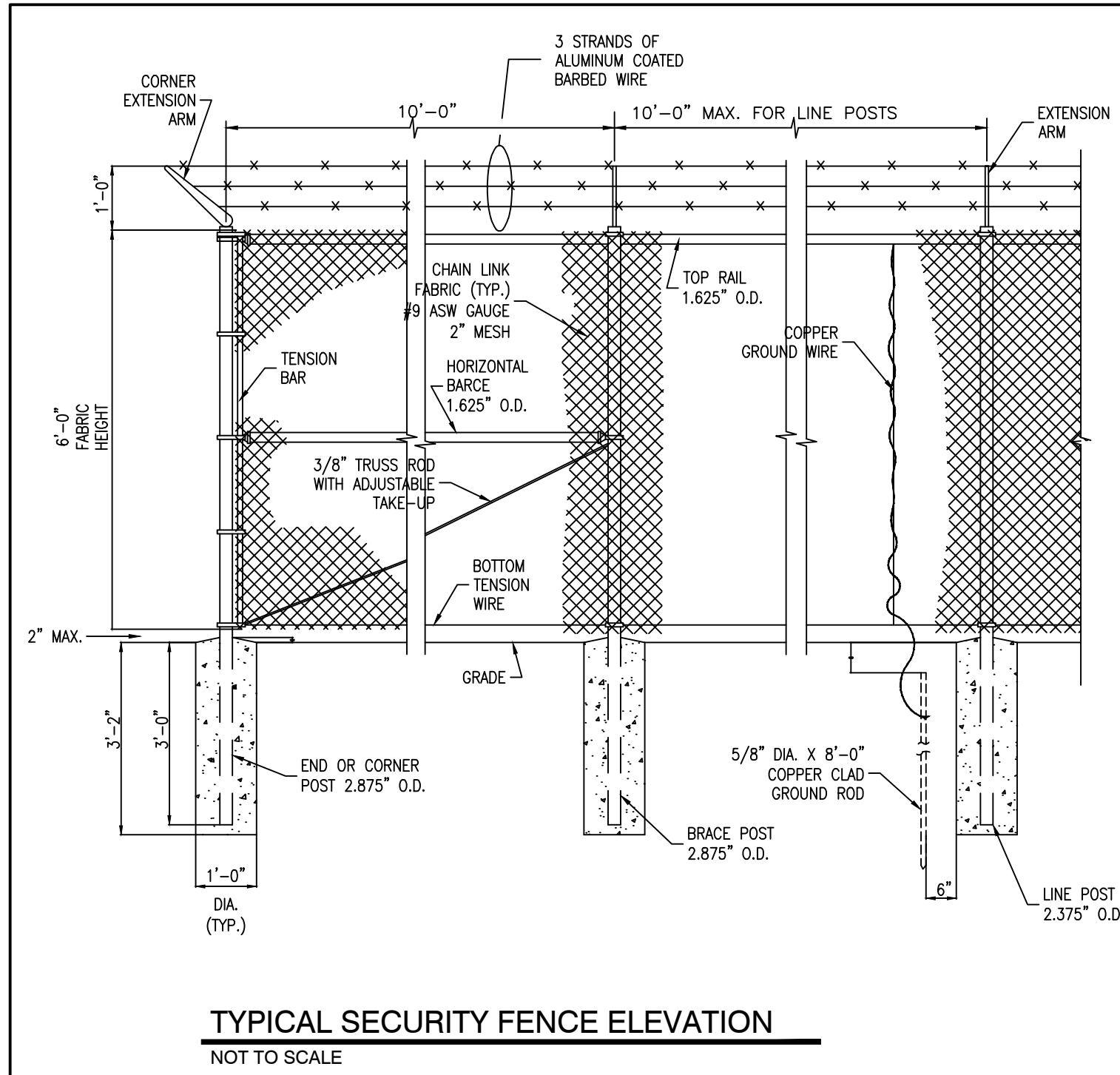
5175 Jonetta Street
MEMPHIS, TENNESSEE

07/30/2021

SURVEY: PFI	DATE: JUNE, 2020	PROJECT NO.: 24699.05
DESIGN BY: PFI	DATE: AUG, 2020	BOOK: 1676
DRAWN BY: PFI	DATE: AUG, 2020	SCALE: N.T.S.

REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.



TUBES AND WATTLES
NOT TO SCALE

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	GENERAL REVISIONS	01/28/2022

07/30/2021

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

SHEET 1 OF 1
DIVISION OF ENGINEERING
DETAILS
5175 Jonetta Street
MEMPHIS, TENNESSEE

PROJECT NO.: 24699.05
DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020

BOOK: 1676
SCALE: N.T.S.

REVIEWED

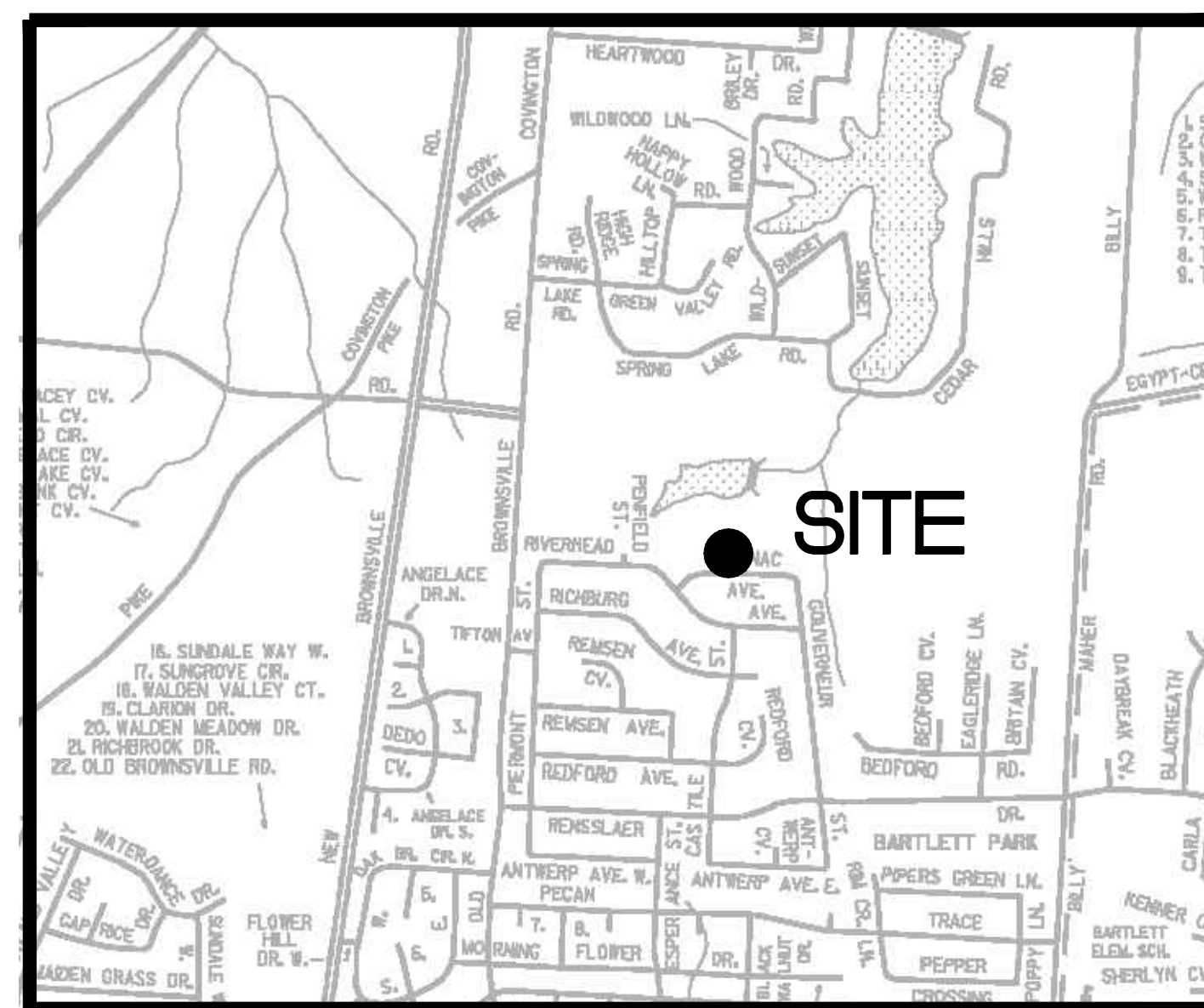
K:\WORK\DWG\DWG\DETAILS - January 27, 2022

JULY, 2021
CONSTRUCTION PLANS

LIFT STATION REHAB DESIGN
SARP10

5730 SARANAC AVENUE

SCHEDULE OF DRAWINGS	
SH.	TITLE
1	COVER
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	PUMP STATION SITE AND FORCE MAIN ROUTING
4	SEWER PLAN
5	PUMP DETAILS
6	PUMP STATION DETAILS
7	DETAILS

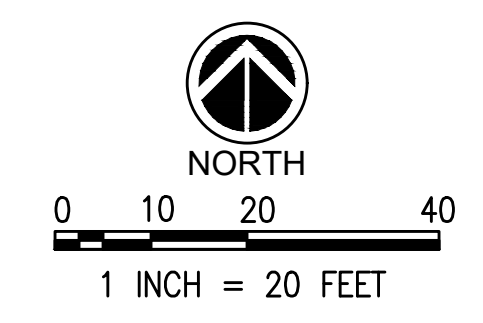


VICINITY MAP
N.T.S.



Pickering Firm, Inc.
Facility Design • Civil Engineering • Surveying •
Transportation • Natural / Water Resources
6363 Poplar Avenue, Suite 300
Memphis, TN 38119
901.726.0810

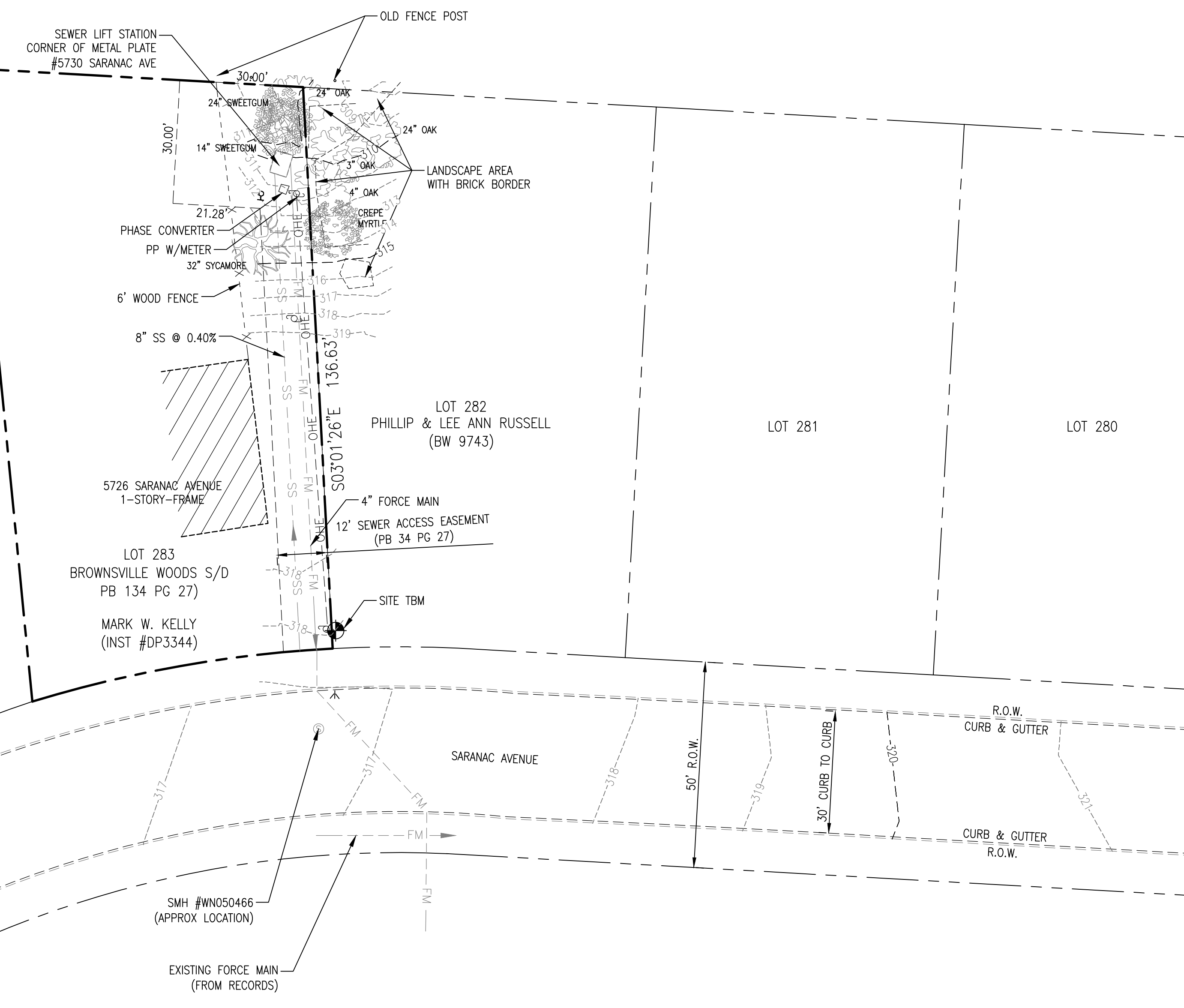
THE PLANS, IDEAS AND DESIGNS SHOWN ON THIS DRAWING ARE THE PROPERTY OF THE ENGINEER. DESIGNED SOLELY FOR THIS CONTRACT. THIS PLAN SHALL NOT BE USED, WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH IT WAS NOT INTENDED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.



NOTE:
CONTRACTOR TO LOCATE AND VERIFY FORCE MAIN ROUTING AT START OF CONSTRUCTION AND NOTIFY ENGINEER OF ANY ISSUES.

NOTE:
WET WELL AND PUMPS TO REMAIN. CONTRACTOR TO REPLACE ALL PIPING, VALVES, APPURTENANCES, CONTROLS, WIRING, CONDUITS TO REBUILD EXISTING PUMP STATION. CONTRACTOR TO REMOVE ACCUMULATED GREASE, CLEAN EXISTING WET WELL, AND INSTALL NEW COATING.

LOT 284
MELBA WOODS
(17066805)



LEGEND			
	EXISTING FIRE HYDRANT		EXISTING UNDERGROUND ELECTRIC
	EXISTING POWER POLE		EXISTING OVERHEAD ELECTRIC
	EXISTING GUY POLE		EXISTING UNDERGROUND FIBER OPTIC
	EXISTING MAILBOX		EXISTING UNDERGROUND GAS LINE
	EXISTING SIGN		EXISTING WATER LINE
	EXISTING GAS VALVE		EXISTING DRAIN LINE
	EXISTING WATER VALVE		EXISTING TELEPHONE LINE
	EXISTING WATER METER		EXISTING UNDERGROUND OIL LINE
	EXISTING ROW MARKER		FORCE MAIN
	EXISTING ELECTRIC TRANSFORMER		SANITARY SEWER
	EXISTING TELEPHONE PEDESTAL		SEWER MANHOLE

FLOOD NOTE:
THIS IS TO CERTIFY THAT BY GRAPHIC DETERMINATION THE ABOVE PLATTED PROPERTY IS IN A "ZONE X" NO SHADING (AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD ACCORDING TO THE FEMA/FIRM MAP NUMBER 47157C0301G WITH AN EFFECTIVE DATE OF FEBRUARY 6, 2013. NEAREST BASE FLOOD ELEVATION = 254.

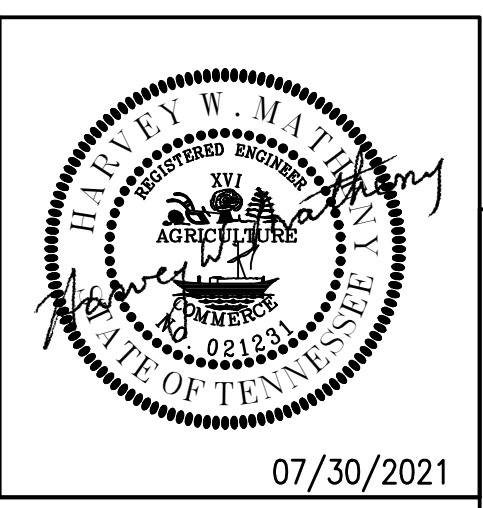
PROJECT BENCHMARKS
CITY BENCHMARK:
#32 IS LOCATED AT AUSTIN PEAY HIGHWAY AND NEW BROWNSVILLE ROAD. CITY MONUMENT IS AT THE SOUTHEAST CORNER AT BACK OF CURB ON THE SOUTH SIDE OF NEW BROWNSVILLE ROAD, 125 EAST OF AUSTIN PEAY HIGHWAY, 45' SOUTH OF CENTERLINE OF NEW BROWNSVILLE ROAD AT END OF SIDEWALK, 14' EAST OF END OF CURB.
ELEVATION: 295.13
SITE TBM #1
NORTHWEST CORNER OF ELECTRIC TRANSFORMER PAD AS SHOWN.
ELEVATION: 318.54
NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

PICKERING FIRM INCORPORATED UNDERGROUND UTILITIES DISCLAIMER:
INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE ENGINEER IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

GENERAL NOTES:
1. AT ALL CROSSINGS OF EXISTING UTILITIES, THE CONTRACTOR SHALL FIELD LOCATE BY POST HOLE OR OTHER APPROPRIATE METHODS, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
2. ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
3. ALL DISTURBED AREAS SHALL BE SEEDED (WITH A SEASONAL MIX) AND COVERED WITH STRAW AT THE END OF EACH WEEK (AT A MINIMUM) OR MORE FREQUENTLY, AS CONDITIONS DICTATE, IN ADDITION TO EROSION CONTROLS REFERENCED ON PLANS.
4. ALL DISTURBED LAWN AREAS SHALL BE SODDED, MATCH EXISTING SOD TYPE.
5. CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES, AND PUBLIC/PRIVATE INFRASTRUCTURE AND PROPERTY.

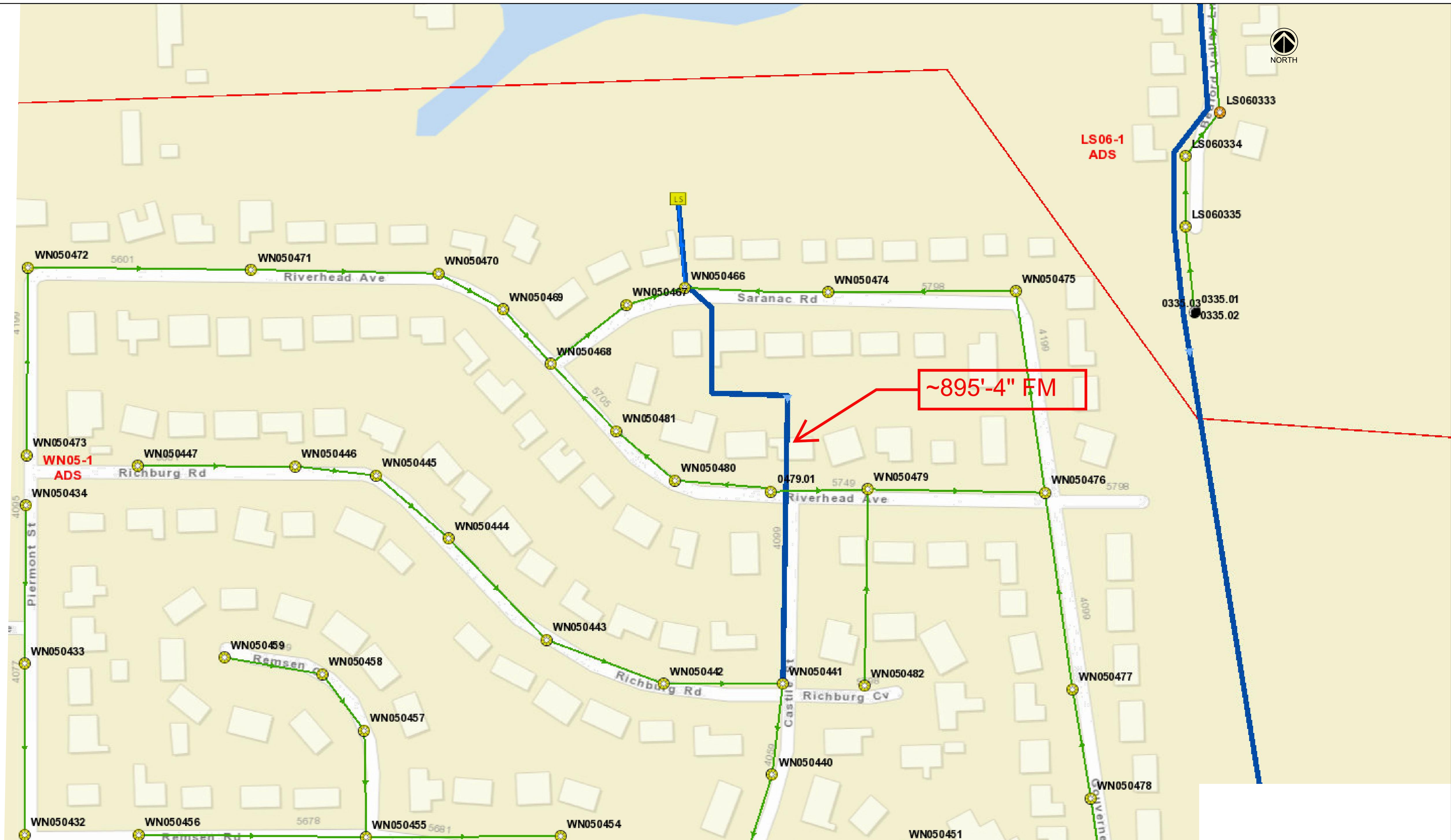
- DEMOLITION NOTES:**
1. THE CONTRACTOR SHALL REMOVE ALL UNDERGROUND UTILITIES AND ANY OTHER ITEMS IN ACCORDANCE WITH THE TDEC AND THE TECHNICAL SPECIFICATIONS. THE CONTRACTOR SHALL STRICTLY FOLLOW ALL CITY, STATE, AND FEDERAL GUIDELINES FOR REMOVAL AND DISPOSAL OF THESE FACILITIES.
 2. ALL BUILDING, CONCRETE, ASPHALT PAVEMENT, AND GRANULAR SUBBASE SHALL BE REMOVED FULL DEPTH PER THE DIRECTION OF THE GEOTECHNICAL ENGINEER. ALL MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE AND FEDERAL REGULATIONS.
 3. CONTRACTOR SHALL REMOVE & REPAIR PAVEMENT AS REQUIRED FOR UTILITY CONSTRUCTION INCLUDING BUT NOT LIMITED TO: IRRIGATION SLEEVES, SITE LIGHTING CONDUITS, WATER LINES, SANITARY SEWER LINES, STORM DRAINAGE LINES, ETC. CONTRACTOR HAS OPTION TO BORE CONDUITS.
 4. PRIOR TO COMMENCING ANY UTILITY WORK, CONTRACTOR SHALL NOTIFY ANY SURROUNDING PROPERTY OWNERS WHO MAY EXPERIENCE A DISRUPTION IN SERVICE.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MODIFYING ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE PARTS OF THAT EXISTING SYSTEM THAT ARE REMOVED, ABANDONED OR DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL ALSO MODIFY ANY EXISTING IRRIGATION SYSTEM TO ACCOMMODATE NEW AREAS OF LANDSCAPING. ANY IRRIGATION SLEEVES SHALL BE INSTALLED PRIOR TO PAVING AND BACKFILLED PROPERLY BY THE SITE CONTRACTOR.
 6. THE CONTRACTOR SHALL ENSURE ADEQUATE ACCESS IS PROVIDED DURING ALL PHASES OF CONSTRUCTION. COORDINATE WITH THE PROJECT MANAGER.
 7. WHEN REMOVING UTILITIES, CONTRACTOR SHALL GROUT AND SEAL ANY STRUCTURES THAT ARE TO REMAIN PER LOCAL REGULATIONS.
 8. UTILITIES SHOWN ARE LOCATED BY FIELD SURVEY AND RECORD DRAWINGS. ADDITIONAL UNDERGROUND UTILITIES WILL BE ENCOUNTERED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY INACTIVE STRUCTURES & ALERT THE ENGINEER OF ANY ACTIVE, UNMAPPED STRUCTURES.
 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION OF UTILITY DEMOLITION & RELOCATION.
 10. CONTRACTOR SHALL NOT INTERRUPT DRAINAGE FROM ADJACENT PROPERTIES AND PUBLIC RIGHT-OF-WAYS.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SHEET 1 OF 1
DIVISION OF ENGINEERING
EXISTING CONDITIONS & DEMOLITION PLAN
5730 Saranac Avenue
MEMPHIS, TENNESSEE
DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020
PROJECT NO.: 24699.05
BOOK: 1688
SCALE: 1" = 20'
REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.



- Dead Ends
- Digitized
- Cleanout
- Field Verified
- Diversion Point
- Field Verified (Not Found)
- LS Lift Station

- Sewer Gravity Main
 - Digitized
 - Field Verified
- Pressurized Main
 - - - Digitized
 - - - As-Built
 - - - Field Verified

- ▨ Siphon Area
- ▨ Aerial Crossing
- ▨ Sub-Basin
- ▨ Pilot Boundary
- ▭ Outfall Map Grid
- ▭ Block Map Grid
- e Engineering Plans

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

FOR REFERENCE ONLY

SHEET 1 OF 1

DIVISION OF ENGINEERING

PUMP STATION SITE AND FORCE MAIN ROUTING

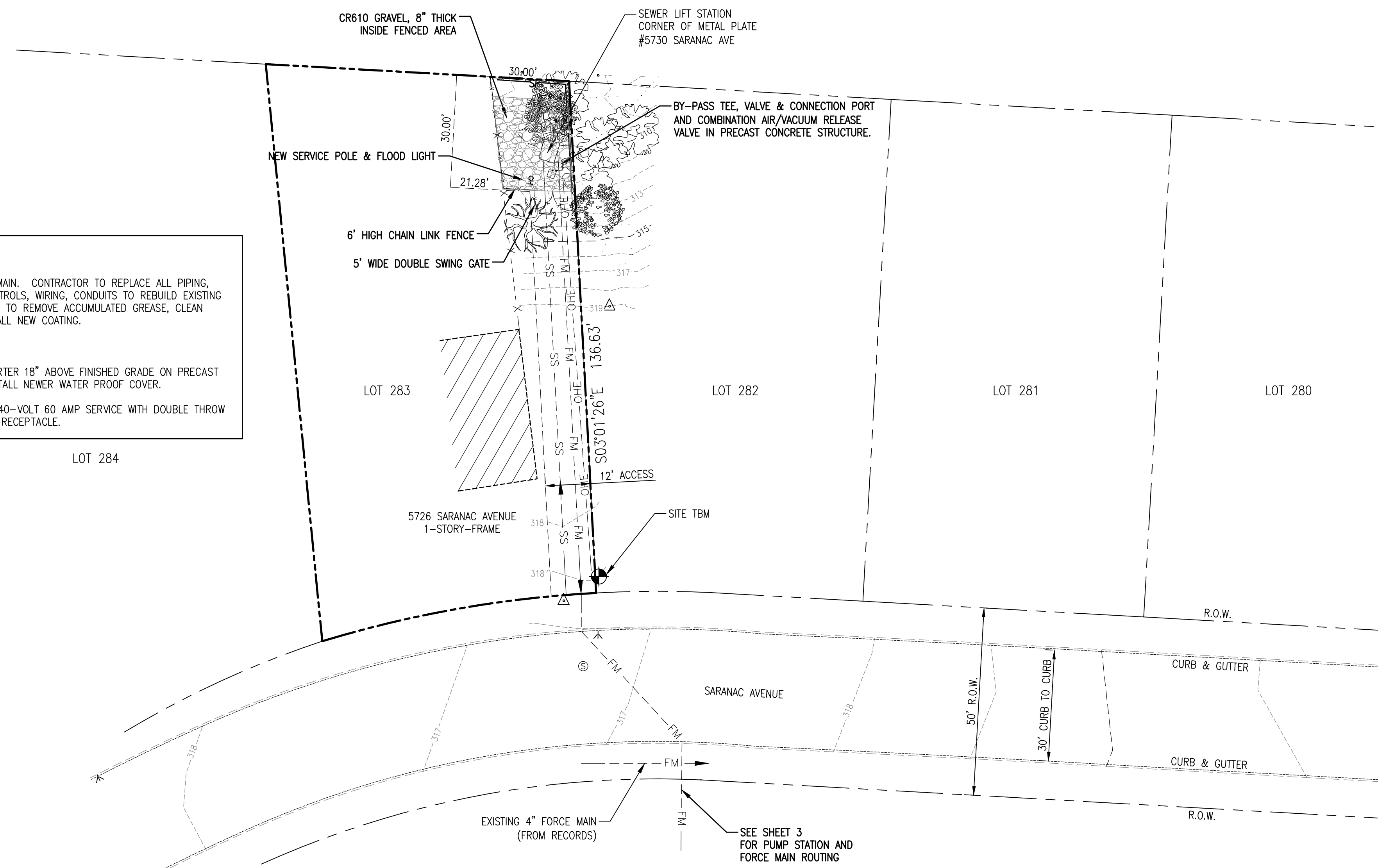
5730 Saranac Avenue
MEMPHIS, TENNESSEE

SURVEY: PFI	DATE: JUNE, 2020	PROJECT NO.: 24699.05
DESIGN BY: PFI	DATE: AUG, 2020	BOOK: 1688
DRAWN BY: PFI	DATE: AUG, 2020	SCALE: N.T.S.

REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

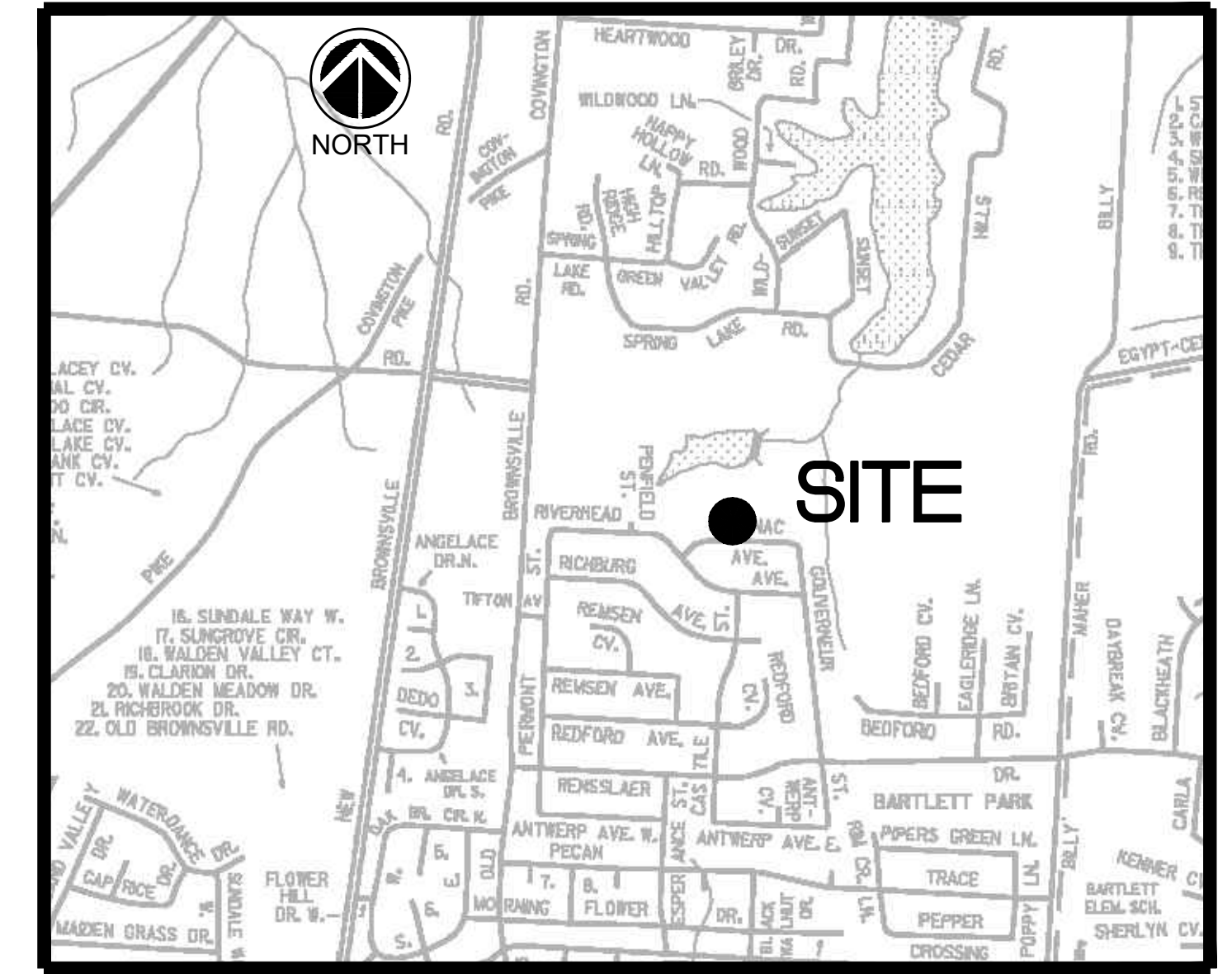
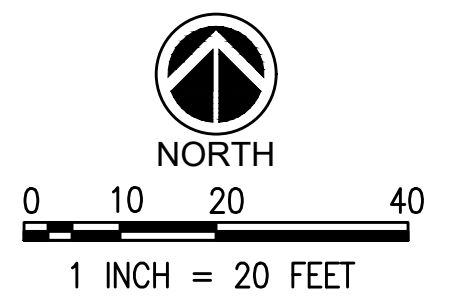
K:\Projects\2020\5730 SARANAC AVENUE\DWG\5730_SARANAC_AVENUE_PUMP_STATION_SITE_AND_FORCE_MAIN_ROUTING.dwg - July 20, 2021



- CONSTRUCTION NOTES:**
1. WET WELL AND PUMPS TO REMAIN. CONTRACTOR TO REPLACE ALL PIPING, VALVES, APPURTENANCES, CONTROLS, WIRING, CONDUITS TO REBUILD EXISTING PUMP STATION. CONTRACTOR TO REMOVE ACCUMULATED GREASE, CLEAN EXISTING WET WELL, AND INSTALL NEW COATING.
 2. INSTALL NEW BY-PASS.
 3. RAISE EXISTING PHASE CONVERTER 18" ABOVE FINISHED GRADE ON PRECAST CONCRETE PEDESTAL AND INSTALL NEWER WATER PROOF COVER.
 4. INSTALL NEW SINGLE PHASE 240-VOLT 60 AMP SERVICE WITH DOUBLE THROW DISCONNECT WITH GENERATOR RECEPTACLE.

LEGEND	
—SF—	SILT FENCE BARRIER

NOTE:
SEE SHEET 7 FOR EROSION CONTROL DETAILS.



VICINITY MAP (NTS)

LEGEND			
	EXISTING FIRE HYDRANT	—UE—	EXISTING UNDERGROUND ELECTRIC
	EXISTING POWER POLE	---OHE---	EXISTING OVERHEAD ELECTRIC
	EXISTING GUY POLE	—UFO—	EXISTING UNDERGROUND FIBER OPTIC
	EXISTING MAILBOX	—G—G—	EXISTING UNDERGROUND GAS LINE
	EXISTING SIGN	—W—W—	EXISTING WATER LINE
	EXISTING GAS VALVE	—D—	EXISTING DRAIN LINE
	EXISTING WATER VALVE	—UT—UT—UT—	EXISTING TELEPHONE LINE
	EXISTING WATER METER	—OL—	EXISTING UNDERGROUND OIL LINE
	EXISTING ROW MARKER	—FM—	FORCE MAIN
	EXISTING ELECTRIC TRANSFORMER	—SS—	SANITARY SEWER
	EXISTING TELEPHONE PEDESTAL	⊙	SEWER MANHOLE

FLOOD NOTE:
THIS IS TO CERTIFY THAT BY GRAPHIC DETERMINATION THE ABOVE PLATTED PROPERTY IS IN A "ZONE X" NO SHADING (AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD ACCORDING TO THE FEMA/FIRM MAP NUMBER 47157C0301G WITH AN EFFECTIVE DATE OF FEBRUARY 6, 2013. NEAREST BASE FLOOD ELEVATION = 254.

NOTE:
BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE AND VERIFY FORCE MAIN ROUTING AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

APPROVED FOR CONSTRUCTION
THE DOCUMENT BEARING THIS STAMP HAS BEEN RECEIVED AND REVIEWED BY THE CITY OF MEMPHIS DIVISION OF ENGINEERING UNDER AUTHORITY DELEGATED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION DIVISION OF WATER POLLUTION CONTROL. IT IS HEREBY APPROVED FOR CONSTRUCTION BY THE CITY ENGINEER AS EVIDENCE BY HIS SIGNATURE IN THE TITLE BLOCK BELOW.
APPROVAL EXPIRES 1 YEAR FROM APPROVAL DATE BELOW. THIS APPROVAL SHALL NOT BE CONSTRUED AS CREATING A PRESUMPTION OF CORRECT OPERATION OR AS WARRANTING BY THE CITY ENGINEER THAT THE APPROVED FACILITIES WILL REACH THE DESIRED GOALS.

- EROSION AND SEDIMENTATION CONTROL NOTES:**
1. ALL NEWLY CUT AND/OR FILLED AREAS LACKING ADEQUATE VEGETATION SHALL BE SEEDED AS REQUIRED TO EFFECTIVELY PREVENT SOIL EROSION.
 2. SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES SHALL BE USED AS SHOWN AND AS DIRECTED BY THE ENGINEER TO CONTROL SOIL EROSION.
 3. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES AND OTHER BEST MANAGEMENT PRACTICES WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTROLS SHOWN ON THE PLAN ARE THE MINIMUM REQUIRED AND THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
 4. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT FOR ALL EROSION CONTROL DURING CONSTRUCTION ACTIVITIES.
 5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES AND REPORTING ANY MAINTENANCE AS REQUIRED BY THE TDEC STORM WATER CONSTRUCTION GENERAL PERMIT DURING CONSTRUCTION ACTIVITIES.
 6. PROVISIONS SHALL BE MADE TO PROTECT DOWNSTREAM WATERCOURSES (I.E., STORM SEWER SYSTEMS, DITCHES, WETLANDS, ETC.) FROM SEDIMENT RUNOFF DEVELOPED FROM THE CONSTRUCTION PROCESS. PROVISIONS INCLUDE, BUT ARE NOT LIMITED TO, STRUCTURAL CONTROLS SUCH AS SILT FENCING, GEOTEXTILE FABRIC PROTECTION OF STORM SEWERS, HAY BALES, DIKES AND SANDBAG BERMS; AND/OR VEGETATION CONTROLS SUCH AS SEEDING OR EXISTING VEGETATIVE BUFFER STRIPS (MINIMUM 25 FEET WIDE).
 7. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL INSTALL EROSION AND SEDIMENTATION CONTROLS AT LOCATIONS SHOWN ON PLANS.
 8. CONTRACTOR SHALL PERFORM STREET CLEANING ON ROADS AND STREETS ADJACENT TO THE PROJECT WHICH ARE USED AS ACCESS ROUTES FOR CONSTRUCTION TRAFFIC IF NECESSARY. WASHING OF STREETS IS PROHIBITED.
 9. LOCATE FUEL/MATERIAL STORAGE AREAS AWAY FROM STORM WATER CONVEYANCE SYSTEMS. USE A MINIMUM 60 MIL POLYETHYLENE LINER UNDER ABOVE GROUND STORAGE TANKS. USE 2 FOOT HIGH BERMS AROUND FUEL STORAGE AREAS.
 10. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL ENVIRONMENTAL LAWS.
 11. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF FUELS, MATERIALS AND CONTAMINATED EXCAVATIONS IN A LEGALLY APPROVED MANNER.
 12. AT A MINIMUM, STRUCTURAL CONTROLS SHOULD BE INSPECTED TWICE EVERY CALENDAR WEEK AT LEAST 72 HOURS APART. THE INSPECTOR, APPROVED BY THE OWNER, SHALL HAVE AN ACTIVE CERTIFICATION BY COMPLETING THE "FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL LEVEL I" COURSE. A COPY OF THE CERTIFICATION SHALL BE KEPT ONSITE, SHOULD CONTROLS BECOME INEFFECTIVE, NECESSARY REPAIRS SHALL BE PERFORMED TO RETURN THE INTEGRITY OF THE STRUCTURAL CONTROLS.
 13. EQUIPMENT STAGING AREA TO BE DESIGNATED BY CONTRACTOR AND APPROVED BY OWNER PRIOR TO CONSTRUCTION.
 14. SEDIMENT WILL BE REMOVED FROM THE UPSTREAM FACE OF THE SILT FENCE WHEN IT REACHES A MAXIMUM DEPTH OF 50% OF THE FENCE'S CAPACITY. THE FENCE WILL BE REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
 15. TEMPORARY SEEDING MAY BE REQUIRED IN ADDITION TO PERMANENT SEEDING TO ASSIST IN COMPLYING WITH THE CONSTRUCTION GENERAL PERMIT.

- CITY OF MEMPHIS SANITARY SEWER CONSTRUCTION NOTES**
1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT NECESSARILY ALL OF SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY COMPANY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND/OR UNDERGROUND STRUCTURES PRIOR TO THE INITIATION OF ANY CONSTRUCTION. CONTRACTOR SHALL ALSO ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN THE CONSTRUCTION PERIMETERS. THE SITE LOCATION FOR EXISTING UTILITIES INVOLVING M&G&W, SOUTH CENTRAL BELL, TEXAS GAS COMPANY, AND/OR SEWER LOCATION CALL 811.
 2. CONTRACTOR SHALL ENSURE UNINTERRUPTED SEWER SERVICE ON EXISTING SEWER AND SERVICE CONNECTIONS BY PROVIDING AMPLE TEMPORARY WASTEWATER PUMPING AND/OR BYPASSING.
 3. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES.
 4. CONTRACTOR SHALL NOTIFY THE SARP10 CONSTRUCTION MANAGER A MINIMUM OF 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
 5. ALL AREAS IN CUT OR FILL WHERE VEGETATION HAS BEEN REMOVED SHALL BE SEEDED, MULCHED, FERTILIZED, AND/OR SODDED TO PREVENT EROSION.
 6. THE CONTRACTOR SHALL VERIFY EXISTING DATA AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ENGINEER.
 7. ALL SANITARY SEWER TO BE CONSTRUCTED AS PER CITY OF MEMPHIS STANDARD CONSTRUCTION SPECIFICATIONS. SANITARY SEWER SERVICE CONNECTIONS TO BE INSTALLED AS PER CITY OF MEMPHIS STANDARD SST-16.
 8. ALL SEWER MANHOLE LIDS IN OPEN AREAS ARE TO BE CONSTRUCTED 1.5' ABOVE PROPOSED GRADE. IN BACKYARDS, MANHOLE LIDS ARE TO BE 1.5' ABOVE INITIAL GRADE, 0.5' ABOVE FINISHED GRADE.
 9. ALL SANITARY SEWER, INCLUDING SEWER CONNECTIONS, WHICH HAS LESS THAN 1.5 CLEARANCE (OUTSIDE OF PIPES) WITH DRAINAGE OR IN FILLED AREAS SHALL BE CLASS 50 D.I.P. OR CONCRETE ENCASED, 10' MINIMUM BOTH SIDES OF CROSSING. ALL DUCTILE IRON PIPE (D.I.P.) SHALL BE POLYETHYLENE LINED OR SHALL BE TREATED WITH PROTECTO 401 OR APPROVED EQUIVALENT.
 10. THE CITY OF MEMPHIS SHALL HAVE INGRESS/EGRESS RIGHTS TO USE PRIVATE DRIVES AND YARDS FOR THE PURPOSE OF MAINTAINING ALL PUBLIC SEWER LINES AND SHALL BEAR NO RESPONSIBILITY FOR THE MAINTENANCE OF SAID PRIVATE DRIVES AND YARDS.
 11. NO TREES, SHRUBS, PERMANENT STRUCTURES, OR OTHER UTILITIES (EXCEPT FOR CROSSINGS) WILL BE ALLOWED WITHIN THE SANITARY SEWER EASEMENT; NO OTHER UTILITIES OR SERVICES MAY OCCUPY SANITARY SEWER EASEMENTS IN PRIVATE DRIVES AND YARDS EXCEPT FOR CROSSINGS.
 12. ALL SANITARY SEWER MANHOLES IN REVERSE CROWN STREETS, ALLEYS, OR DRIVES (PUBLIC OR PRIVATE) SHALL BE PROVIDED WITH GASKETS AND PLUGS FOR PICK HOLES TO PREVENT DRAINAGE INFLOW INTO THE SEWER SYSTEM.
 13. THE CONTRACTOR SHALL PROVIDE ADEQUATE AND EFFECTIVE EROSION CONTROL AS NECESSARY TO PREVENT ANY SILTATION INTO THE EXISTING DRAINAGE SYSTEM AND/OR ADJACENT PROPERTIES.

- GENERAL NOTES:**
1. AT ALL CROSSINGS OF EXISTING UTILITIES, THE CONTRACTOR SHALL FIELD LOCATE BY POST HOLE OR OTHER APPROPRIATE METHODS, THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES.
 2. ALL SEWER TRENCHES SHALL BE PROPERLY BACKFILLED AT THE END OF EACH WORK DAY.
 3. ALL DISTURBED AREAS SHALL BE SEEDED (WITH A SEASONAL MIX) AND COVERED WITH STRAW AT THE END OF EACH WEEK (AT A MINIMUM) OR MORE FREQUENTLY, AS CONDITIONS DICTATE, IN ADDITION TO EROSION CONTROLS REFERENCED ON PLANS.
 4. ALL DISTURBED LAWN AREAS SHALL BE SODDED. MATCH EXISTING SOD TYPE.
 5. CONTRACTOR IS FULLY RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES, AND PUBLIC/PRIVATE INFRASTRUCTURE AND PROPERTY.

PROJECT BENCHMARKS
CITY BENCHMARK:
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ELEVATION: 295.13
SITE TBM #1
NORTHWEST CORNER OF ELECTRIC TRANSFORMER PAD AS SHOWN.
ELEVATION: 318.54
NOTE: BEFORE THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE SITE DATUM WITH ALL SITE TBMS AND IMMEDIATELY REPORT IN WRITING ANY DISCREPANCIES TO THE ENGINEER.

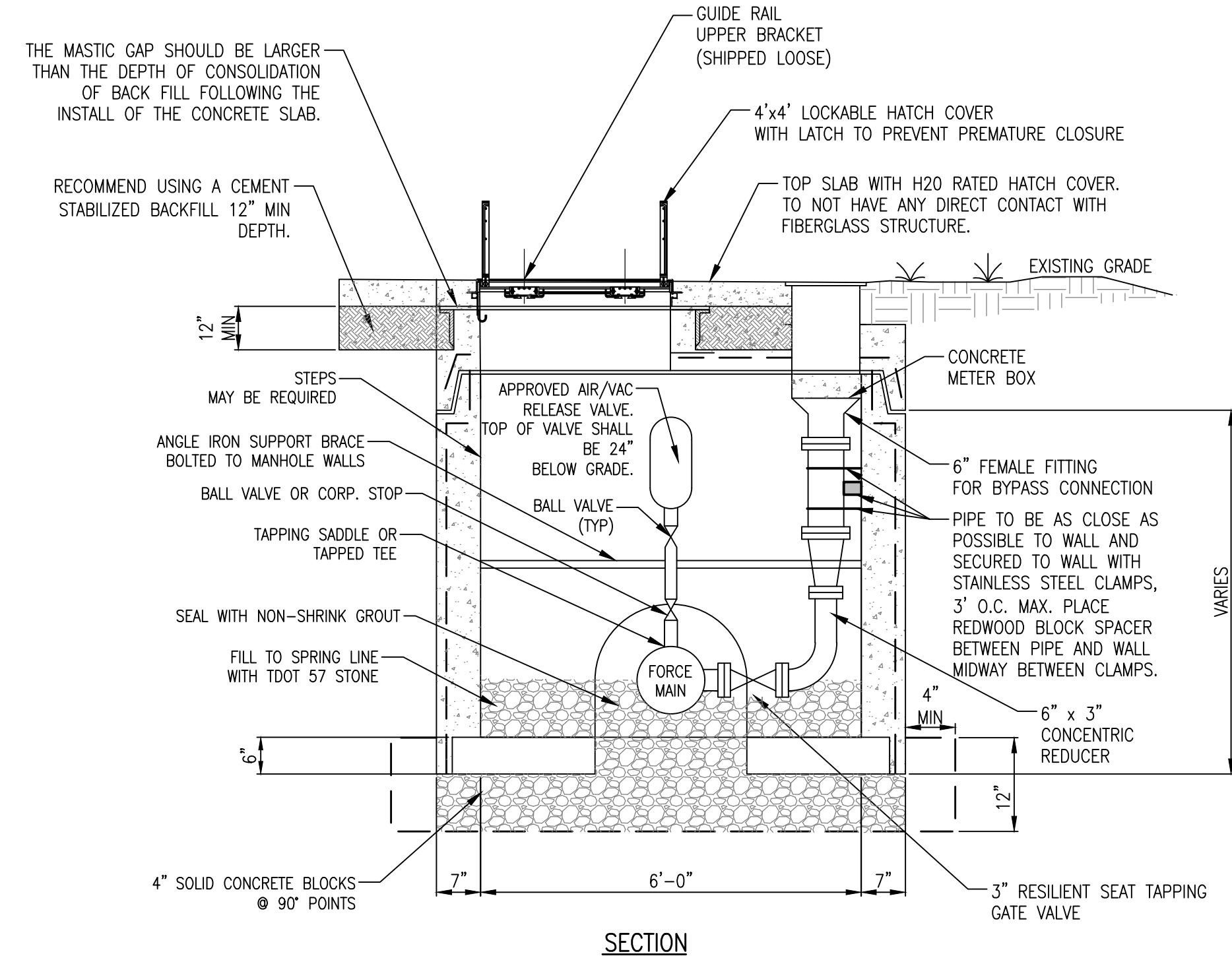
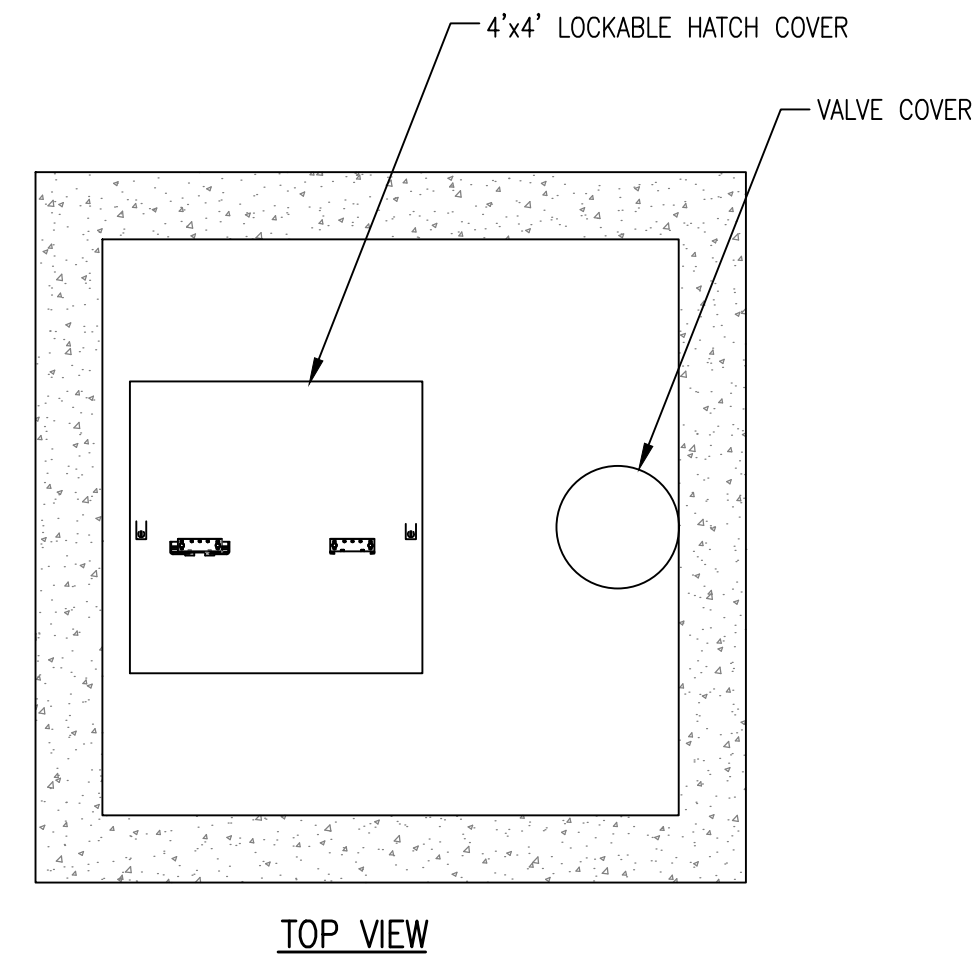
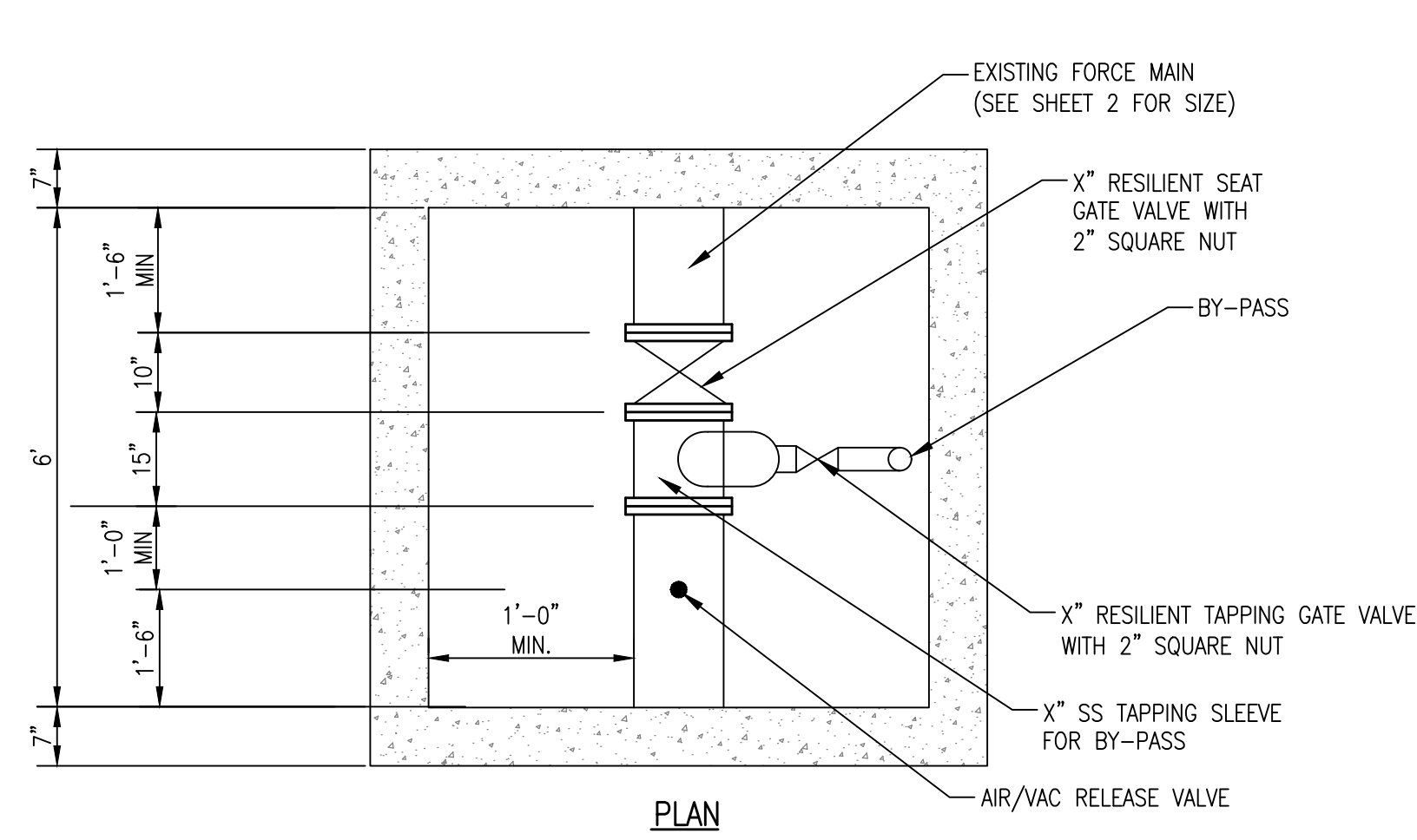
PICKERING FIRM INCORPORATED UNDERGROUND UTILITIES DISCLAIMER:
INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. THE LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON MAY BE INACCURATE AND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE ENGINEER IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THIS INFORMATION REGARDING THE UNDERGROUND UTILITIES AND STRUCTURES RELATED TO UNDERGROUND UTILITIES SHOWN HEREON.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SEWER BASIN: WN-5
SHEET 1 OF 1
DIVISION OF ENGINEERING
SEWER PLAN
5730 Saranac Avenue
MEMPHIS, TENNESSEE
DATE: JUNE, 2020
DATE: AUG, 2020
DATE: AUG, 2020
PROJECT NO.: 24699.05
BOOK: 1688
SCALE: 1" = 20'
REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

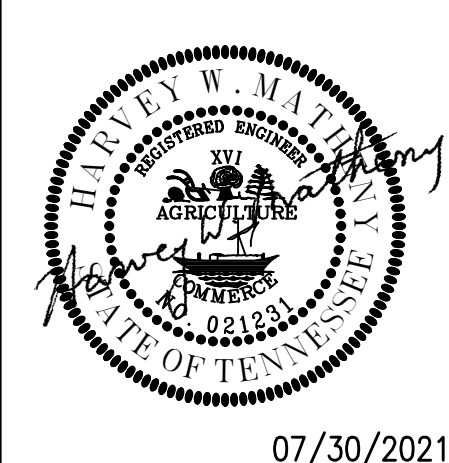


NOTES:

1. CONCRETE SHALL BE 4,000 PSI COMPRESSIVE STRENGTH, MIN.
2. ALL REINFORCING SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
3. MANHOLE SECTIONS SHALL MEET THE REQUIREMENTS OF CITY OF MEMPHIS STANDARDS.
4. TAPERED JOINT WITH O-RING GASKET SHALL MEET THE REQUIREMENTS OF ASTM SPECS C-361 AND C-443.
5. CAST MANHOLE SECTION INTO BASE 6" OR DEPTH OF JOINT, WHICHEVER IS DEEPER.
6. JOINT CONFIGURATION MAY BE CAST BELL-UP OR SPIGOT UP.
7. SIZE DOGHOUSE OPENINGS 4" MIN. AND 8" MAX. LARGER THAN PIPE O.D.
8. ALL AIR RELEASE PIPING SHALL BE STAINLESS STEEL.
9. FOR FORCE MAIN SMALLER THAN 6", EXCEPT THE DUCTILE IRON, CLAMP THE AIR/VACUUM RELEASE VALVE TO THE ANGLE IRON SUPPORT BRACE.
10. CAST BASE ON FIRM, UNDISTURBED SOIL.
11. STANDARD PRECAST BASE SECTION MAY BE USED FOR NEW FORCE MAIN CONSTRUCTION. BED STANDARD BASE ON MIN. 6" TDOT No. 21A CORE HOLES FOR PIPE MIN. 4" LARGER THAN PIPE O.D.. CONFORM TO THIS DETAIL FOR ALL OTHER REFERENCES.

1 BY-PASS TEE AND AIR/VAC STRUCTURE
NOT TO SCALE

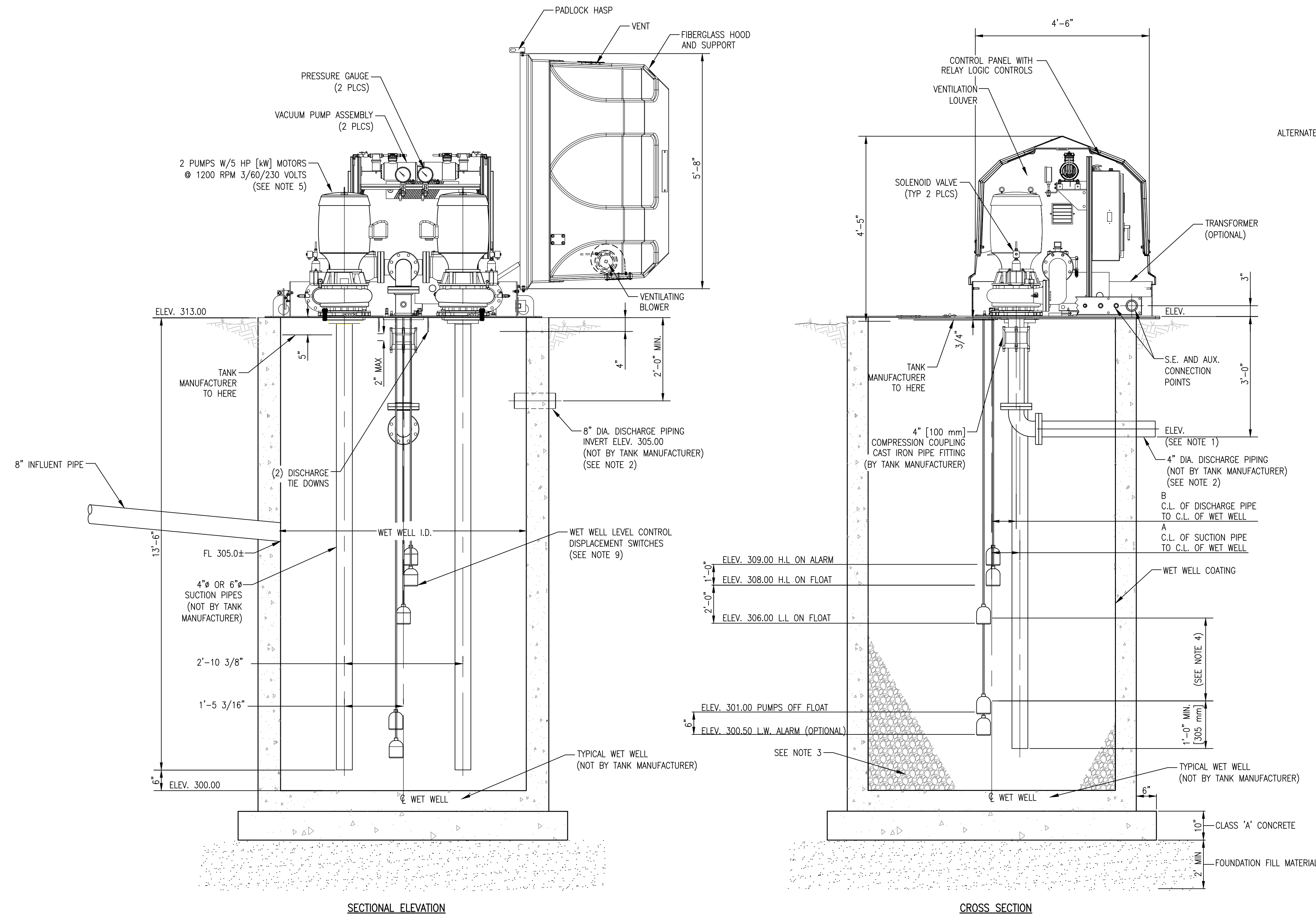
REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SHEET 1 OF 1
DIVISION OF ENGINEERING
PUMP DETAILS
5730 Saranac Avenue
MEMPHIS, TENNESSEE
SURVEY: PFI DATE: JUNE, 2020 PROJECT NO.: 24699.05
DESIGN BY: PFI DATE: AUG, 2020 BOOK: 1688
DRAWN BY: PFI DATE: AUG, 2020 SCALE: N.T.S.
REVIEWED

LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
ENGINEER: PICKERING FIRM, INC.

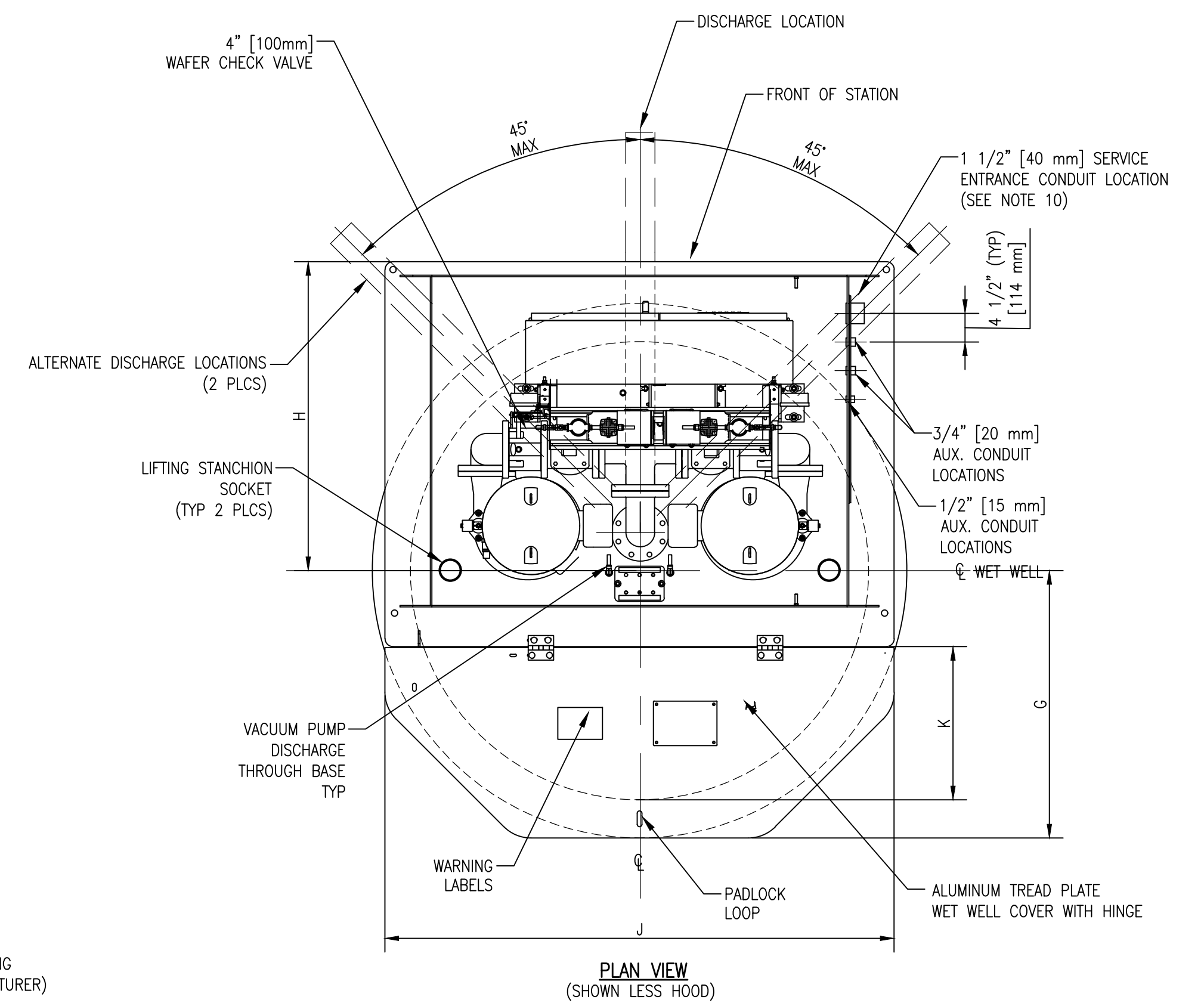
EXISTING WET WELL ID	DIM A	DIM B	DIM G	DIM H	DIM J	DIM K
4'-0"	6 13/16"	5 3/4"	2'-9 1/2"	4'-1/2"	6'-4"	1'-2 1/2"



SECTIONAL ELEVATION

CROSS SECTION

1 WET WELL MOUNTED PUMP STATION DETAIL
N.T.S.



PLAN VIEW
(SHOWN LESS HOOD)

NOTES :

1. IF THE END OF THE DISCHARGE LINE IS BELOW THE ELEVATION OF THE DISCHARGE LINE AT THE POINT OF LEAVING THE WET WELL, A PRIMING LOCK LOOP MAY BE REQUIRED.
2. IF THE DISCHARGE LINE IS LESS THAN 200 FEET [61 m] IN LENGTH, A CHECK VALVE OR PRIMING LOCK LOOP MAY BE REQUIRED.
3. PROVIDE 60° SLOPE IN WET WELL AS REQUIRED.
4. VOLUME BETWEEN L.L. ON AND PUMPS OFF SHOULD BE EQUAL TO, OR GREATER THAN, THE PUMPING RATE PER MINUTE.
5. FLOAT SWITCH CONTROLS SHOWN. OPTIONAL PRESSURE TRANSDUCER, HIGH WATER AND LOW WATER ALARMS FLOAT SWITCHES CONTROLS ARE AVAILABLE ON REQUEST.
6. U.S. CUSTOMARY CONDUIT COUPLING SIZES SHOWN. ALTERNATE METRIC SIZES ARE AVAILABLE. CONSULT FACTORY.
7. ALL PIPES TO BE DIP
8. ADD WET WELL COATING POLYMERIC/EPOXY.
9. SEE SHEET 5 FOR PUMP INSTALLATION DETAIL.

LIFT STATION REHAB NOTES:

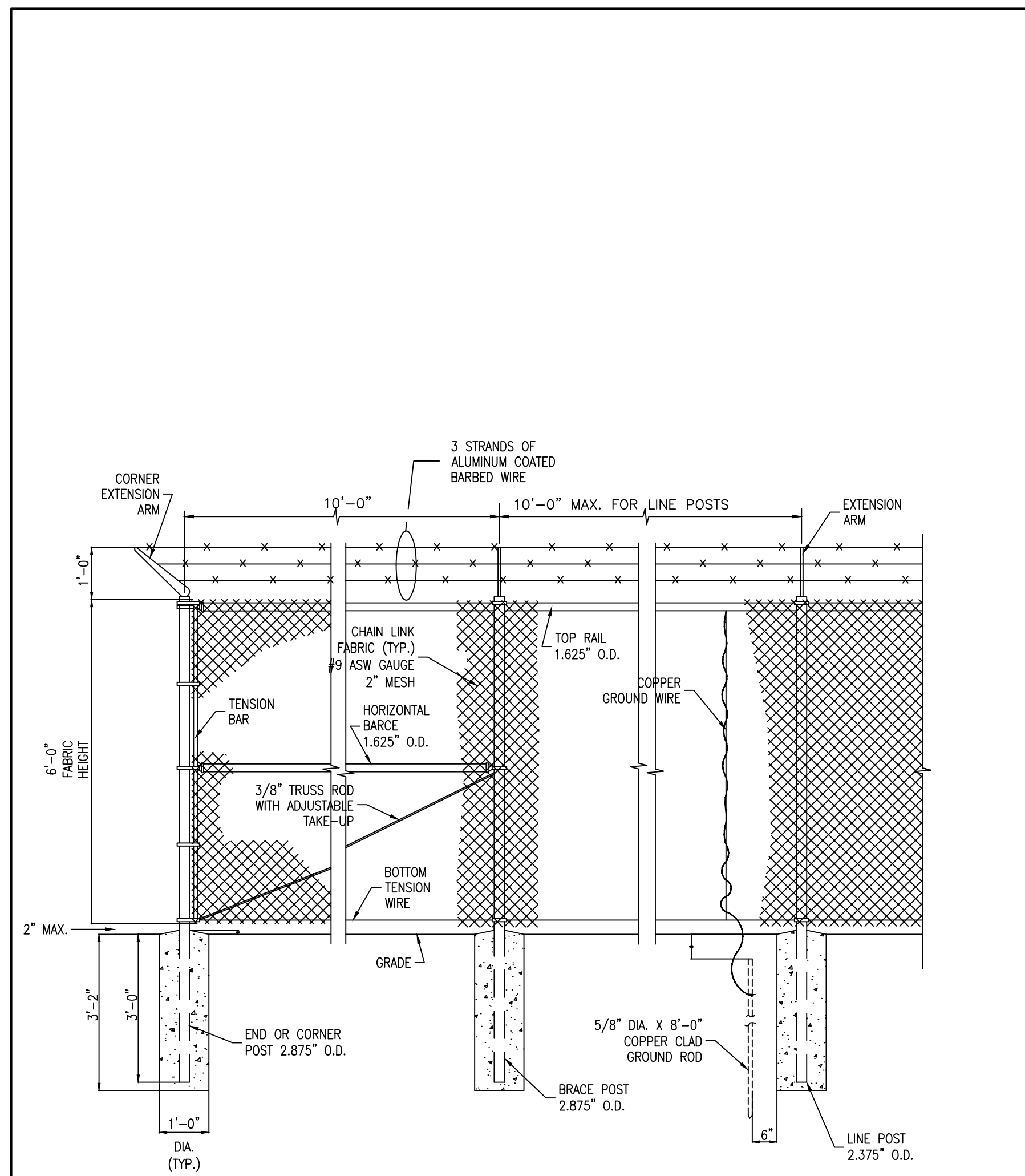
- EXISTING PRECAST CONCRETE WET WELL AND PUMPS TO REMAIN.
- REMOVE GREASE CAP IF STATION HAS ACCUMULATED GREASE.
- REMOVE AND REPLACE EXISTING PIPING, VALVES, AND APPURTENANCES.
- CLEAN AND COAT EXISTING WET WELL WITH A 2-COAT EPOXY-MODIFIED-MORTAR LINING AND HYBRID EPOXY COATING PER MANUFACTURERS RECOMMENDATIONS. COVER EXPOSED REBAR WITH COMPATIBLE PRIMER AND MORTAR AND SEAL ANY LEAKS WITH HYDRAULIC CEMENT.
- FOR REFERENCE - PUMPS:
SHP @ 1200 RPM
100 GPM
TDH = 44 FT
4" CIP FORCE MAIN @ 915 LF

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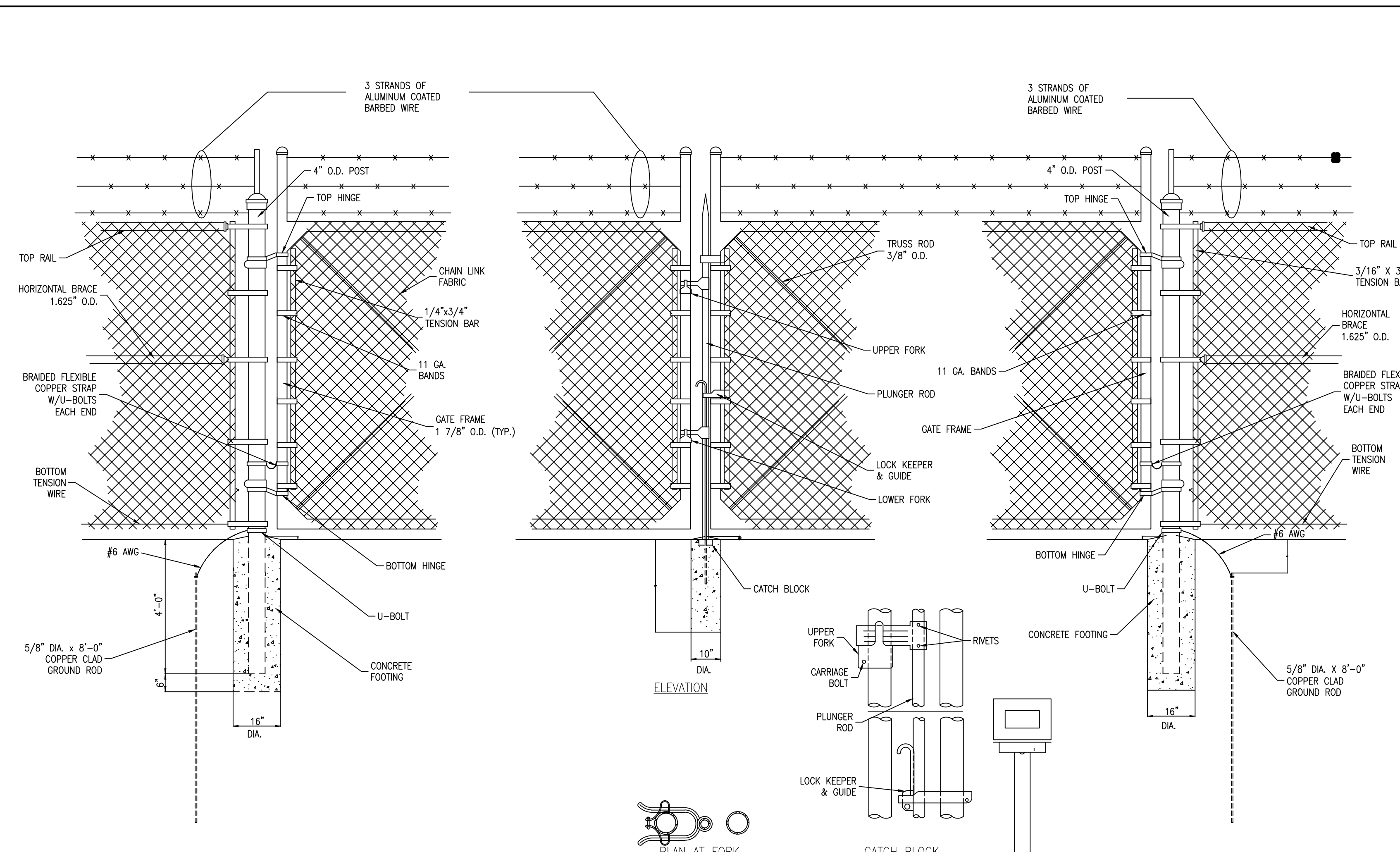


SHEET 1 OF 1
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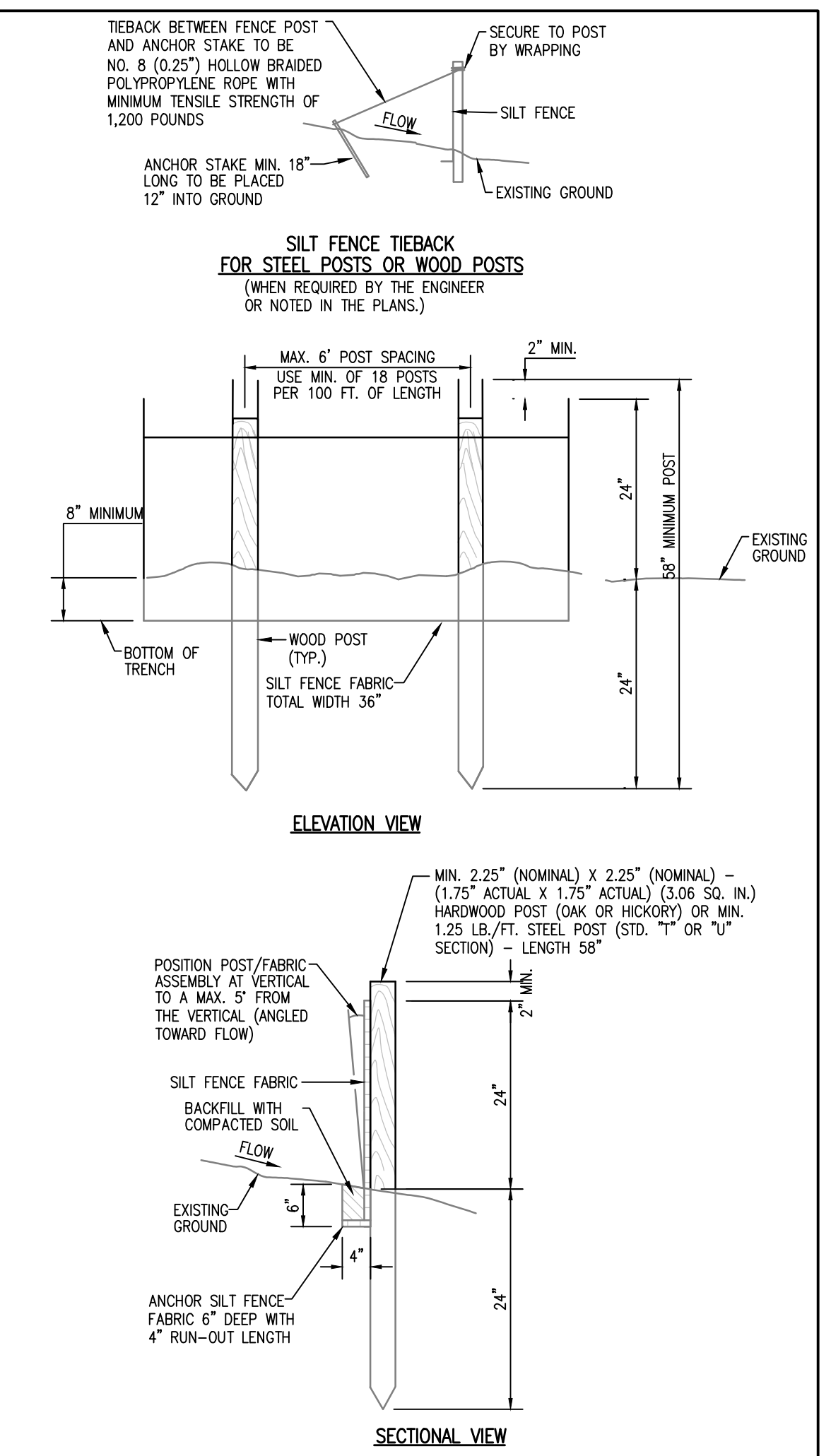
LIFT STATION REHAB DESIGN
DEVELOPER: SARP10
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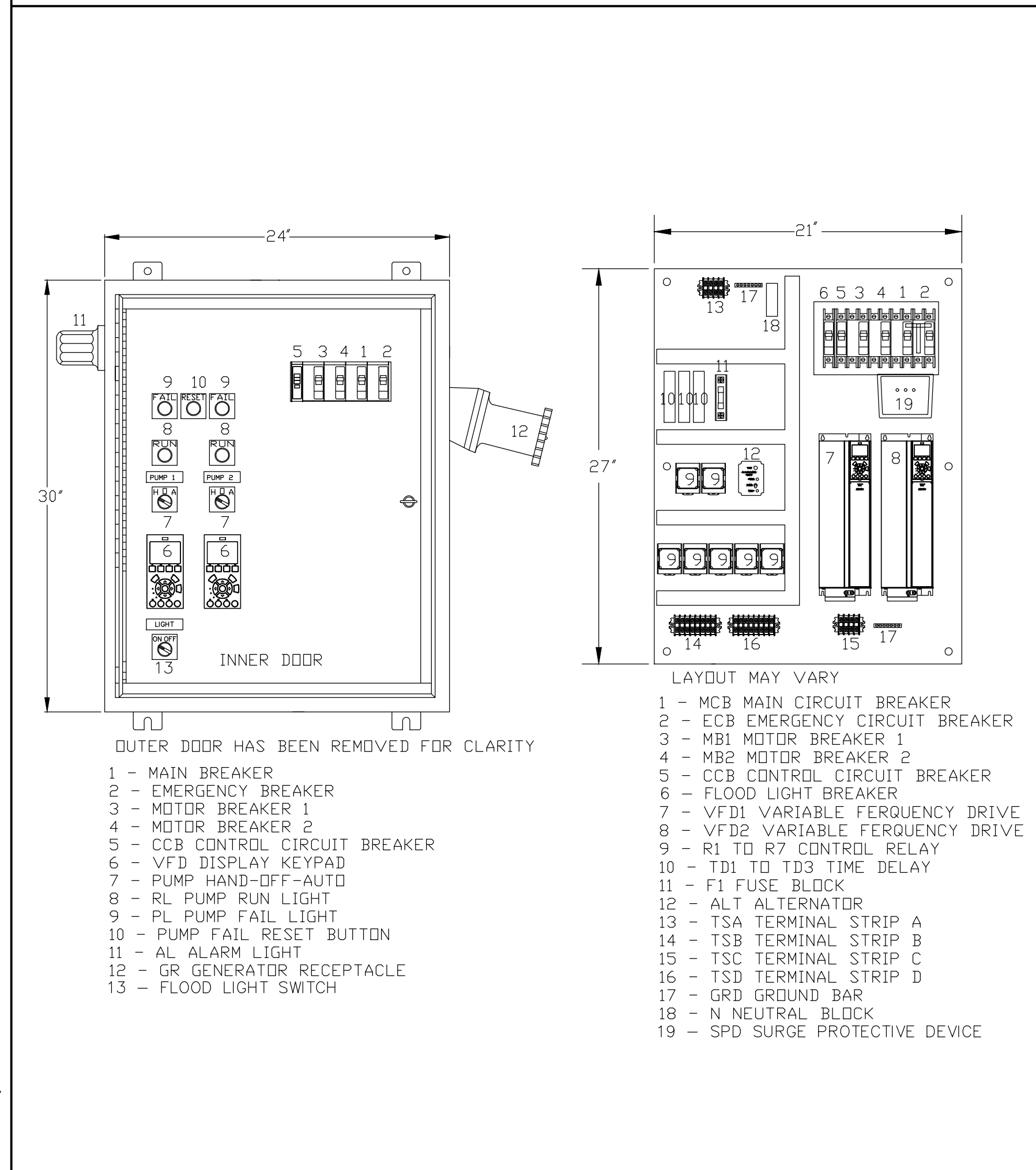
1 TYPICAL SECURITY FENCE ELEVATION
NOT TO SCALE



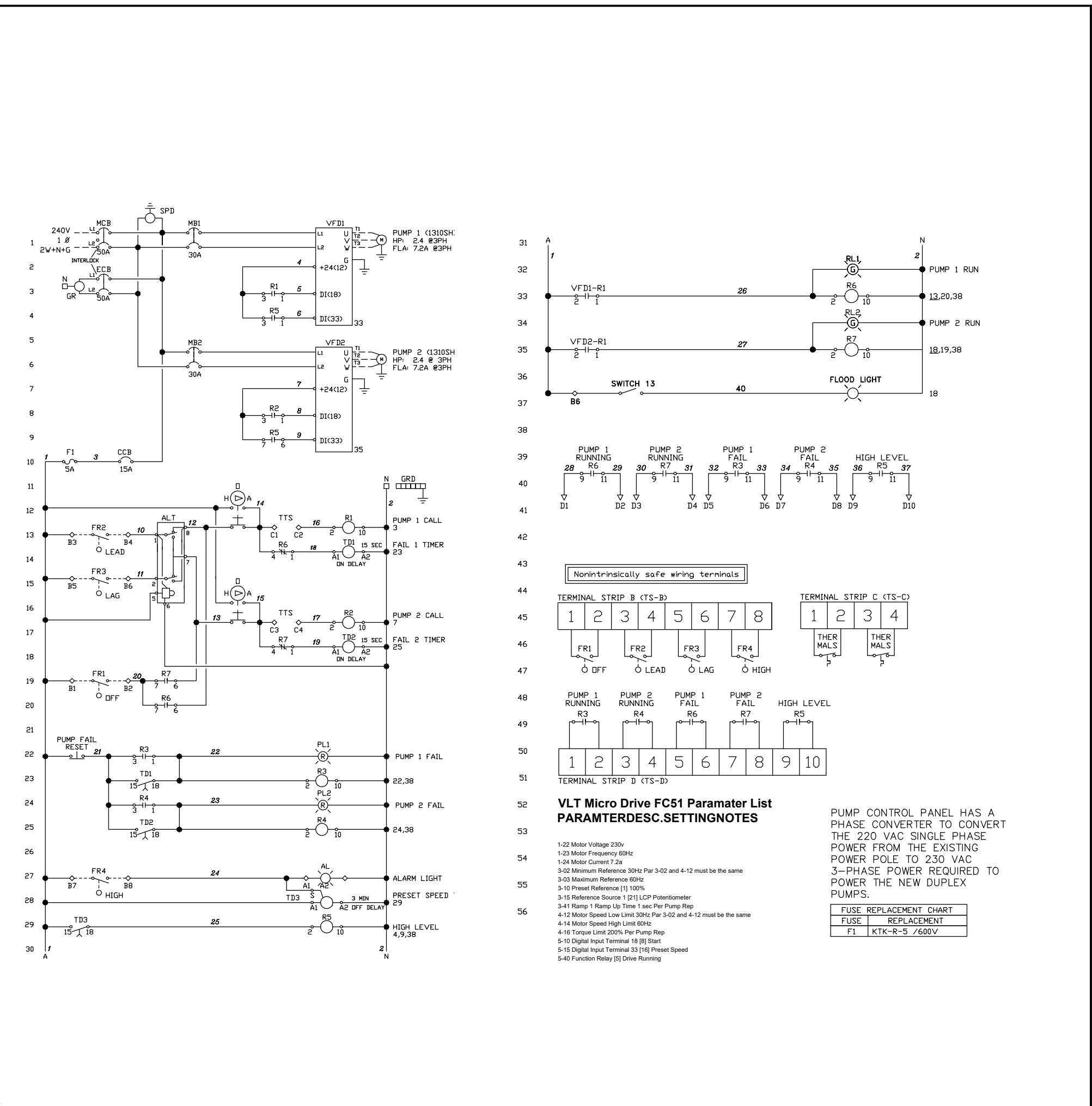
2 5' DOUBLE SWING GATE DETAIL
NOT TO SCALE



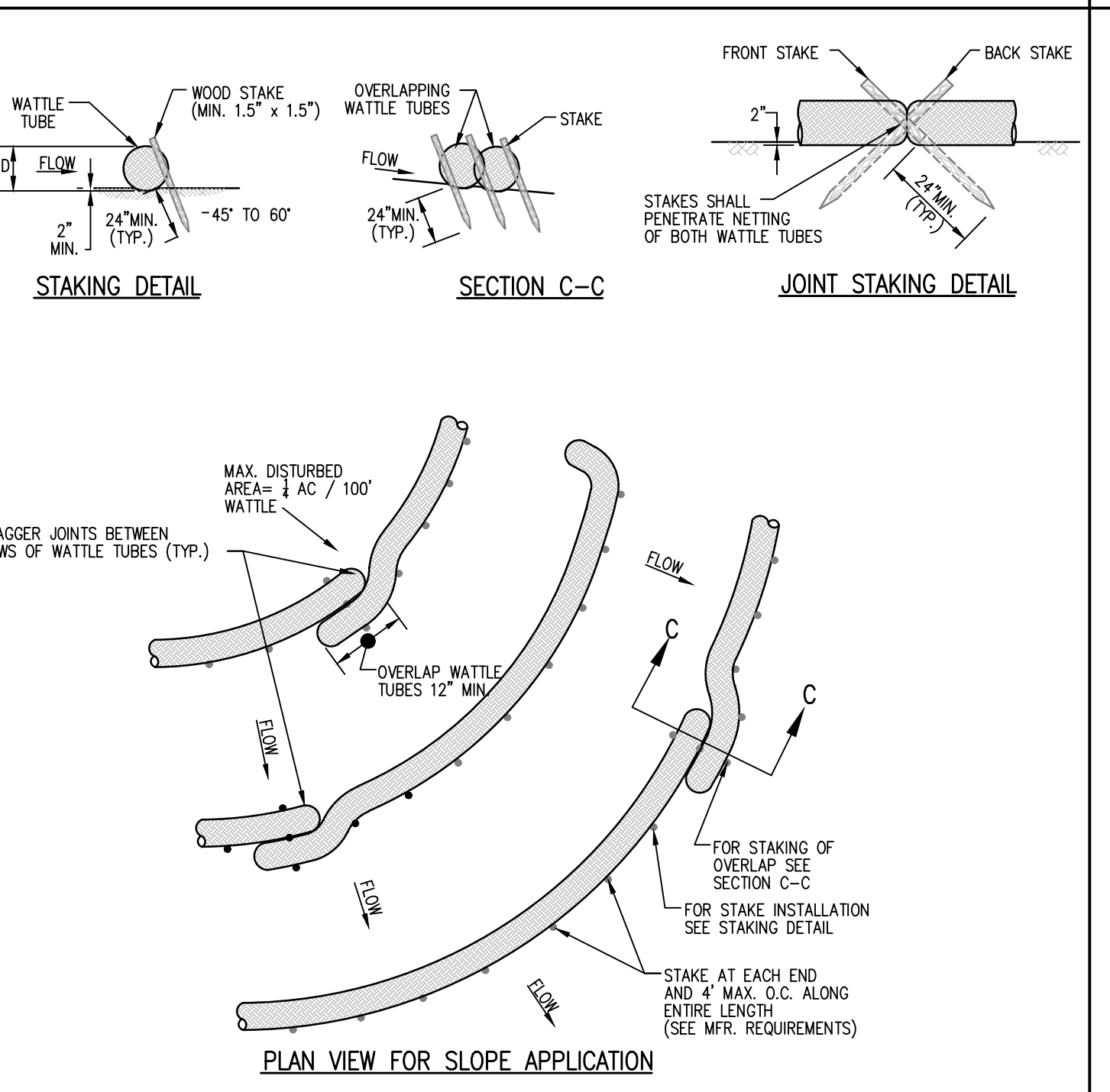
5 SILT FENCE
NOT TO SCALE



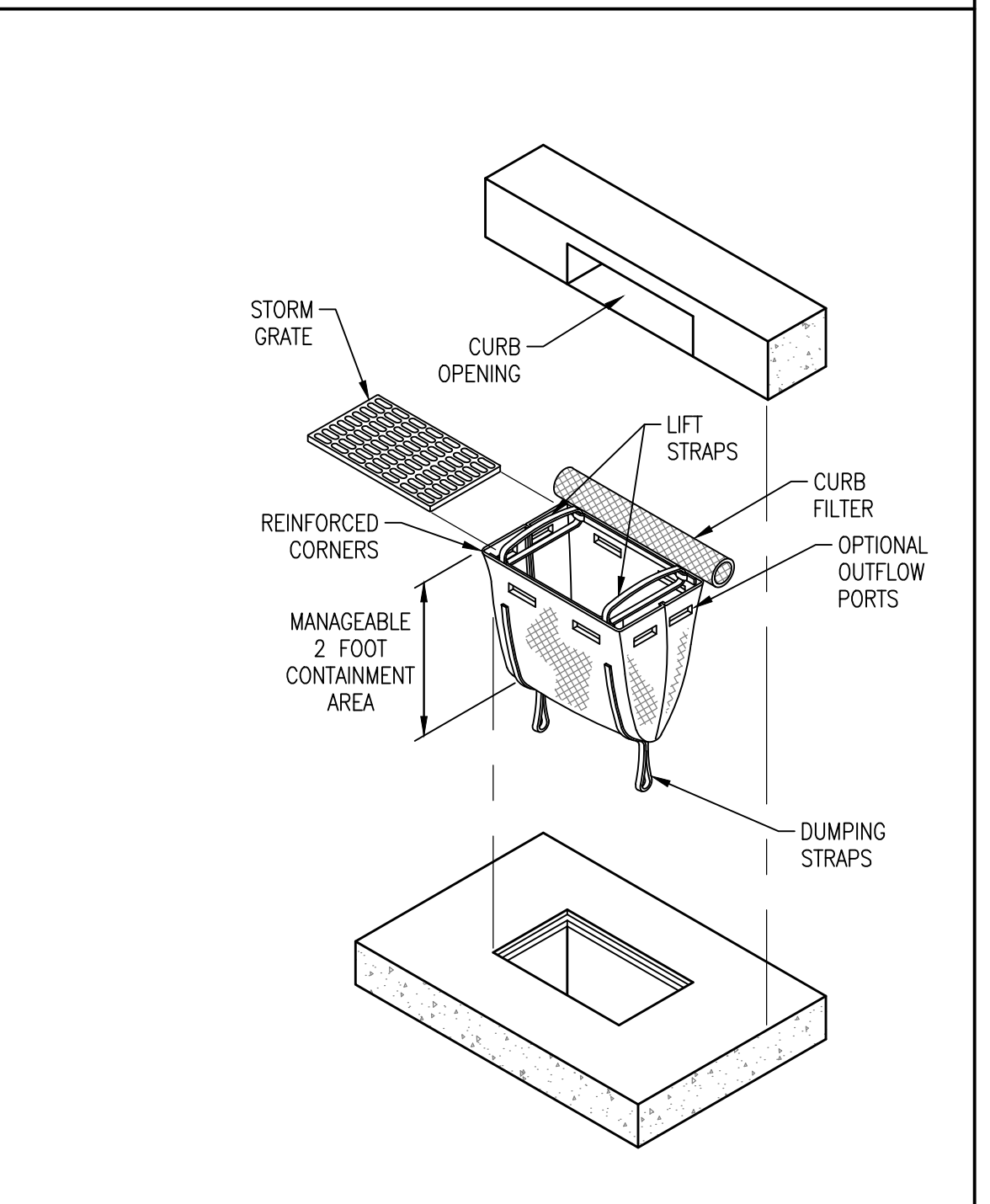
5 SINGLE TO 3-PHASE CONTROL PANEL
NOT TO SCALE



NOTE:
STATION CONTROL AND CIRCUITS
SHOWN FOR REFERENCE. FINAL
DESIGN BY PUMP SUPPLIER.



7 TUBES AND WATTLES
NOT TO SCALE



4 CURB INLET PROTECTION-SILT SACK
NOT TO SCALE

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



LIFT STATION REHAB DESIGN
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