

# GREEN-TAYLOR WATER DISTRICT 2019 WATER SYSTEM IMPROVEMENTS CONTRACT NO. 1 GREEN COUNTY, KENTUCKY

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APRIL 2021

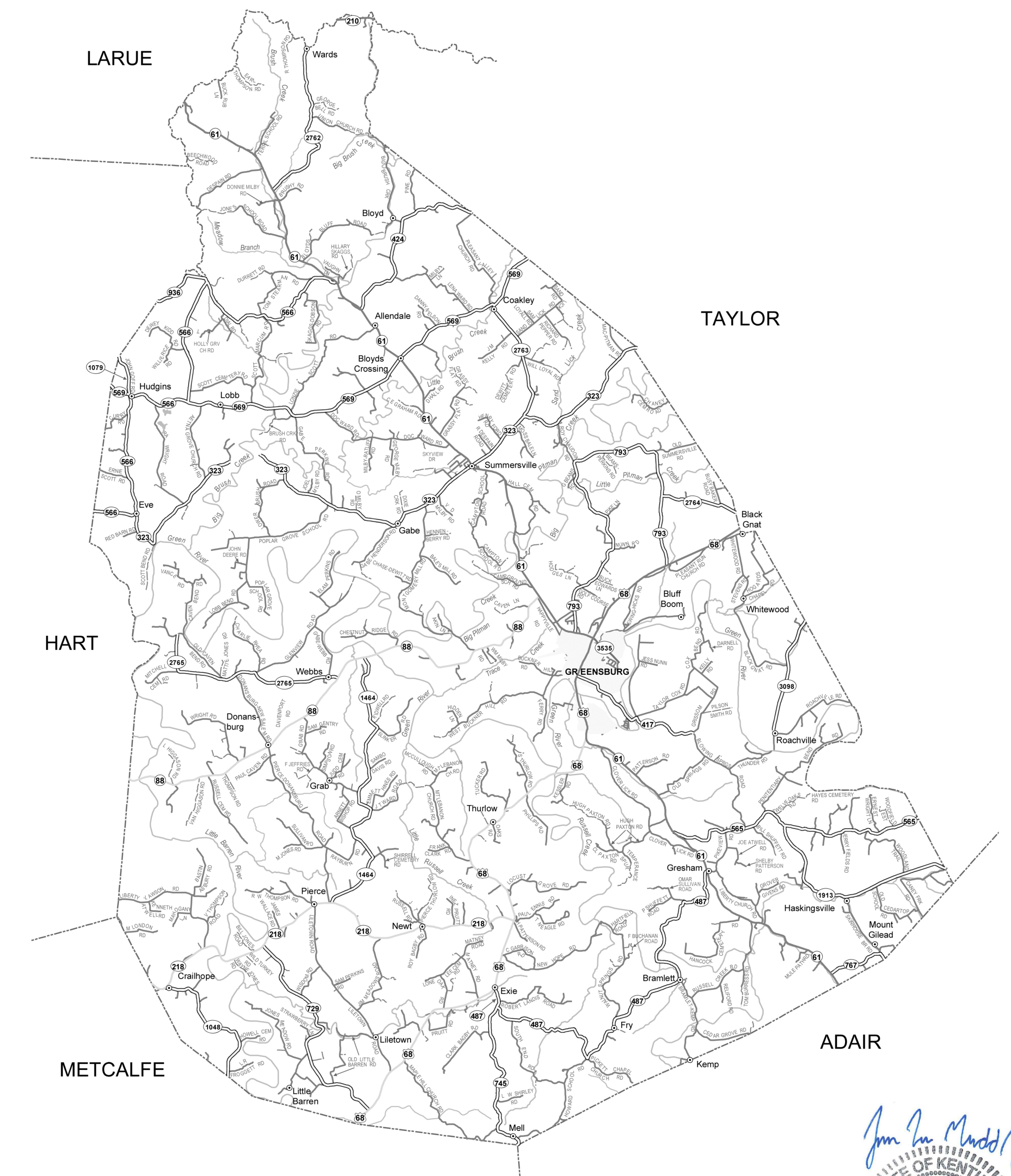
## PROJECT FUNDED BY:

COMMONWEALTH OF KENTUCKY  
DRINKING WATER STATE REVOLVING FUND  
DWSRF PROJECT: F19-018

**M**  
Monarch Engineering, Inc.

556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

## LOCATION MAP



*James Lee Mudd Jr.*  
STATE OF KENTUCKY  
JAMES LEE MUDD JR.  
28893  
LICENSED PROFESSIONAL ENGINEER  
4-6-21



**LOCATION AND SCOPE OF PROJECT**

THE PROJECT SITE IS GENERALLY DEFINED AS GREEN COUNTY, KENTUCKY. THE WORK TO BE DONE UNDER THIS CONTRACT INCLUDES FURNISHING ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO CONSTRUCT THE 2019 WATER SYSTEM IMPROVEMENTS - CONTRACT NO. 1 IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS.

**GENERAL NOTES**

- IT IS THE INTENTION OF THESE PLANS TO CONSTRUCT ALL WORK IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE CITY OF GREENSBURG, GREEN COUNTY, THE KENTUCKY TRANSPORTATION CABINET, THE KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION, AND THE U.S. ARMY CORPS OF ENGINEERS. WHERE THERE IS A CONFLICT BETWEEN THE CONTRACT DOCUMENTS, PLANS, AND SPECIFICATIONS AND THE PERMIT REQUIREMENTS OF THE AGENCY CONTROLLING THE UTILITY OR RESPECTIVE RIGHTS-OF-WAY, THE MORE RESTRICTIVE SHALL GOVERN.
- THE CONTRACTOR AND ANY APPLICABLE SUBCONTRACTORS SHALL ATTEND A PRE-CONSTRUCTION MEETING AT A TIME AND PLACE ARRANGED BY THE ENGINEER, IN WHICH THE AFFECTED PARTIES WILL BE PRESENT. ALSO, A PRE-EXCAVATION WALK THROUGH WILL NEED TO BE ATTENDED BY THE CONTRACTOR.
- FOLLOWING THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION FOR INSPECTION COORDINATION. NO WORK CAN COMMENCE UNTIL ALL PERMITS HAVE BEEN OBTAINED AND THE CONTRACTOR HAS BEEN GIVEN THE AUTHORITY TO PROCEED.
- THE CONTRACTOR SHALL NOTIFY KENTUCKY 811 AT LEAST 72 HOURS IN ADVANCE OF CONSTRUCTION, FOR LOCATION AND MARKING OF ALL EXISTING UTILITIES.
- LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING AND VERIFYING THE LOCATION, DEPTH, AND ELEVATION OF THE EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CONFLICTS ARE APPARENT OR IF LOCATIONS AND DEPTHS DIFFER SIGNIFICANTLY FROM THE PLANS.
- ALL ELEVATIONS REFER TO THE CURRENT NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88).
- THE ENGINEER HAS NOT PERFORMED PROPERTY OR RIGHT-OF-WAY SURVEYS FOR ANY OF THE AREAS INCLUDED IN THIS PROJECT. RIGHT-OF-WAY OR PROPERTY LINES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE SHOWN FOR GENERAL ORIENTATION ONLY. PROPERTY CORNERS OR OTHER SURVEY MARKERS HAVE NOT BEEN LOCATED, UNLESS SPECIFICALLY CALLED OUT ON THE PLANS.
- ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREAS, PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DAMAGED BY THE CONTRACTORS OPERATIONS SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION OF THE PROPERTY OR FACILITY BY THE CONTRACTOR AT THEIR OWN EXPENSE.
- IF, IN THE OPINION OF THE ENGINEER, WORK HAS NOT PROGRESSED IN A REASONABLE AND TIMELY MANNER, THE ENGINEER SHALL HAVE THE RIGHT, WITH THE APPROVAL OF THE OWNER, TO DIRECT THE CONTRACTOR TO PROCEED WITH THE WORK OR ANY PORTION THEREOF IMMEDIATELY, IN THE EVENT THAT THE CONTRACTOR DOES NOT PROCEED WITH THE WORK IMMEDIATELY, AS DIRECTED BY THE ENGINEER, THE ENGINEER, UNDER THE DIRECTION OF THE OWNER, MAY ORDER ANY OR ALL OTHER OPERATIONS OF THE CONTRACTOR, UNDER THIS CONTRACT, TO CEASE UNTIL THE CLEANUP AND RESTORATION WORK IS PROCEEDING IN AN ACCEPTABLE MANNER. SHOULD THE CONTRACTOR FAIL TO COMPLY WITH THESE PROVISIONS, THE OWNER MAY, WITH OR WITHOUT NOTICE, CAUSE THE REQUIRED RESTORATION AND CLEANUP TO BE DONE BY THE OWNER OR OTHERS AND WILL DEDUCT THE COST OF SAID WORK FROM ANY FUNDS DUE OR TO BECOME DUE TO THE CONTRACTOR UNDER THIS CONTRACT. THE PERFORMANCE OF SUCH WORK BY THE OWNER OR OTHERS SHALL SERVE IN NO WAY TO RELEASE THE CONTRACTOR FROM HIS GENERAL OF PARTICULAR LIABILITY FOR THE SAFETY OF THE PUBLIC OR COMPLETION OF THE WORK.
- ACTIONS MUST BE TAKEN TO MINIMIZE THE TRACKING OF MUD AND SOIL FROM CONSTRUCTION AREAS ONTO PUBLIC ROADWAYS. SOIL TRACKED ONTO THE ROADWAY SHALL BE REMOVED DAILY.
- ALL WORK SHALL BE INCORPORATED IN TO THOSE UNIT PRICES LISTED IN THE CONTRACT DOCUMENTS. ANY ITEMS NOT SPECIFICALLY LISTED IN THE UNIT PRICES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND SHALL NOT BE ELIGIBLE FOR SEPARATE PAYMENT OR COMPENSATION.

**EROSION AND SEDIMENTATION CONTROL NOTES**

- THE CONTRACTOR SHALL COMPLY WITH ALL EROSION AND SEDIMENTATION CONTROL REQUIREMENTS OF THE BOTH THE STATE OF KENTUCKY AND THE U.S. ARMY CORPS OF ENGINEERS FOR ALL DISTURBED AREAS INCLUDED IN THE PROJECT.
- THE CONTRACTOR SHALL CONDUCT CONSTRUCTION OPERATIONS IN A MANNER THAT WILL REDUCE ACCELERATED EROSION TO THE PRACTICAL MINIMUM AND PREVENT DAMAGING SILTATION TO EXISTING SEWERS AND WATER COURSES LEADING FROM THE PROJECT AREA.
- THE CONTRACTOR SHALL CONDUCT WORK IN SUCH A MANNER AS TO PREVENT THE ENTRY OF FUELS, OILS, BITUMINOUS MATERIALS, CHEMICALS, SEWERAGE, OR OTHER HARMFUL MATERIALS INTO NEARBY LAKES AND STREAMS.
- WASTE DISPOSAL AREAS SHALL BE SELECTED BY THE CONTRACTOR WITH FULL CONSIDERATION OF EROSION AND SEDIMENT CONTROL, SELECTION OF DISPOSAL SITE(S), AND CONTROL OF OPERATIONS, AND THE RESTORATION OF SAID AREAS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
- EXCAVATIONS FROM THE PROJECT AREA INCLUDING CHANNELS AND WATERCOURSES SHALL NOT BE DEPOSITED IN OR NEAR RIVERS, STREAMS, OR PONDS WHERE IT MAY ENTER THE WATERWAY.
- AT THE COMPLETION OF EACH DAYS CONSTRUCTION, CARE SHOULD BE TAKEN TO ENSURE THAT MINIMAL EROSION WILL OCCUR IN TRENCHES AND TO STOCKPILED MATERIALS UNTIL RESUMPTION OF WORK.
- THE CONTRACTOR SHALL CONFINE CONSTRUCTION OPERATIONS TO THE MINIMUM AMOUNT OF WORKING SPACE PRACTICAL TO AID IN THE MINIMIZATION OF SOIL EROSION.
- THE PROJECT WILL BE CONTINUALLY OBSERVED BY VARIOUS STATE & LOCAL REGULATORY AGENCIES FOR EROSION CONTROL COMPLIANCE. DEFICIENCIES WILL BE CORRECTED BY THE CONTRACTOR IMMEDIATELY UPON NOTICE OF SUCH DEFICIENCIES. FAILURE TO CORRECT THE DEFICIENCIES MAY RESULT IN THE ISSUANCE OF A STOP WORK ORDER AND THERE WILL BE NO CONTRACT TIME EXTENSION GRANTED FOR THIS TYPE OF STOPPAGE.
- TEMPORARY SOIL EROSION CONTROL MEASURES CONSISTING OF SILT FENCE, MULCHING, AND TARPING SHALL BE IMPLEMENTED THROUGHOUT THE ENTIRE CONSTRUCTION PHASE OF THE PROJECT, AND SHALL BE REMOVED BY THE CONTRACTOR AFTER THE PERMANENT SOIL EROSION MEASURES HAVE BEEN ESTABLISHED.
- PERMANENT SOIL EROSION MEASURES CONSISTING OF AN APPROVED SEED MIXTURE AND MULCH BLANKET SHALL BE COMPLETED WITHIN FIVE (5) CALENDAR DAYS OF FINAL GRADING. IN THE EVENT IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE THE AREA DUE TO SITE CONDITIONS OR SEASONAL LIMITATIONS, THE TEMPORARY MEASURES SHALL REMAIN IN FORCE AND SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL SUCH TIME IT IS PRACTICAL TO COMPLETE THE PERMANENT SOIL EROSION CONTROL MEASURES.
- THE ENGINEER SHALL HAVE FULL AUTHORITY TO TEMPORARILY SUSPEND WORK IN THE EVENT THAT ANY OF THE ABOVE REQUIREMENTS ARE NOT BEING MET BY THE CONTRACTOR, OR IF CONDITIONS INDICATE THAT ADDITIONAL TEMPORARY MEASURES ARE WARRANTED, IN THE OPINION OF THE ENGINEER OR REGULATORY AGENCIES.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL INLET FILTERS AT ALL INLETS IN THE CONSTRUCTION AREA.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ANY REQUIRED ACCESS ROAD SURFACES AND SOIL EROSION CONTROL MEASURES WITHIN THE CONSTRUCTION AREA UNTIL THE FULL COMPLETION OF THE PROJECT.
- ALL NON-PAVED DISTURBED AREAS SHALL BE RESTORED AS INDICATED ON THE PLANS. IF NOT SPECIFICALLY STATED ON THE PLANS, RESTORATION SHALL CONSIST OF 4-INCHES OF TOPSOIL, FERTILIZER, SEED AND MULCH. UNLESS OTHERWISE STATED, ALL DISTURBED AREAS SHALL BE SEEDED WITH A SEED MIX APPROVED BY THE ENGINEER.

**WORK LIMITS**

IF INDICATED ON THE PLANS, THE CONTRACTOR SHALL KEEP ALL OPERATIONS WITHIN THE WORK LIMITS SHOWN. OTHERWISE, THE CONTRACTOR SHALL ESTABLISH CONSTRUCTION LIMITS WITHIN THE EXISTING AND/OR PROPOSED RIGHTS-OF-WAY AND EASEMENTS AS DIRECTED BY THE ENGINEER. THIS REQUIREMENT SHALL INCLUDE MATERIAL STOCKPILING AND EQUIPMENT STORAGE. THE CONTRACTOR MAY NOT EXIT THE ESTABLISHED PROJECT WORK LIMITS WITHOUT EXPLICIT PERMISSION FROM THE OWNER AND THE ENGINEER.

**UTILITIES**

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH KENTUCKY LAW, THE CONTRACTOR SHALL SHALL DIAL KENTUCKY 811 A MINIMUM OF THREE (3) FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING WORK IN EACH EXCAVATION AREA WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE PART OF THE 'KY 811' ALERT SYSTEM. UTILITY LOCATIONS SHOWN ON THE PLANS ARE ONLY APPROXIMATE AND SHOULD BE LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION.

**WORK WITHIN PUBLIC ROAD RIGHT-OF-WAYS**

WHEN PERFORMING WORK ALONG OR ACROSS ANY PUBLIC ROADWAY, THE CONTRACTOR SHALL POST WARNING SIGNS PAINTED ORANGE AND THEY SHALL BE FOUR FEET BY FOUR FEET MOUNTED ON POSTS IN ACCORDANCE WITH THE KENTUCKY TRANSPORTATION DEPARTMENT'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THE SIGNS SHALL BE AS FOLLOWS:

- CAUTION PIPELINE CONSTRUCTION 1500 FEET
- CAUTION PIPELINE CONSTRUCTION 1000 FEET
- CAUTION PIPELINE CONSTRUCTION 500 FEET

ALL SIGNS, BARRICADES, LIGHTS, AND TRAFFIC CONTROL SHALL BE INSTALLED IN ACCORDANCE WITH THE KENTUCKY TRANSPORTATION DEPARTMENT'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR SHALL MAINTAIN TWO FLAG MEN AT ALL TIMES WHERE MACHINERY IS IN OPERATION WHERE THE FLOW OF TRAFFIC WILL BE DISTURBED. THERE IS NO EXCEPTION TO THIS REQUIREMENT. THE USE OF RADIOS WILL BE REQUIRED WHEN VISUAL CONTACT BETWEEN THE FLAGMEN DOES NOT EXIST.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ENTIRE ROADWAY FREE AND CLEAR AT THE END OF EACH WORKING DAY. NO EQUIPMENT SHALL BE LEFT ON OR PARKED ALONG THE ROAD RIGHT OF WAY. AT THE COMPLETION OF EACH WORK DAY, THE CONTRACTOR SHALL BACKFILL ALL OPEN TRENCHES AND INSTALL ALL TRAFFIC CONTROL SIGNS, BARRICADES, AND LIGHTS IN ACCORDANCE WITH THE KENTUCKY TRANSPORTATION DEPARTMENT'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

**WORK WITHIN STREAMS, CREEKS & WATERWAYS**

ANY AND ALL WORK TO BE COMPLETED WITHIN STREAMS, CREEKS & WATERWAYS SHALL BE COMPLETED ONLY DURING TIMES OF LOW FLOW AS DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL STRICTLY LIMIT THE USE OF HEAVY EQUIPMENT WITHIN THE WATERCOURSE AT ALL TIMES. STREAM FLOW SHALL NOT BE RESTRICTED OR IMPEDED AT ANY TIME DURING THE COURSE OF CONSTRUCTION.

**WATER & SEWER MAIN SEPARATION**

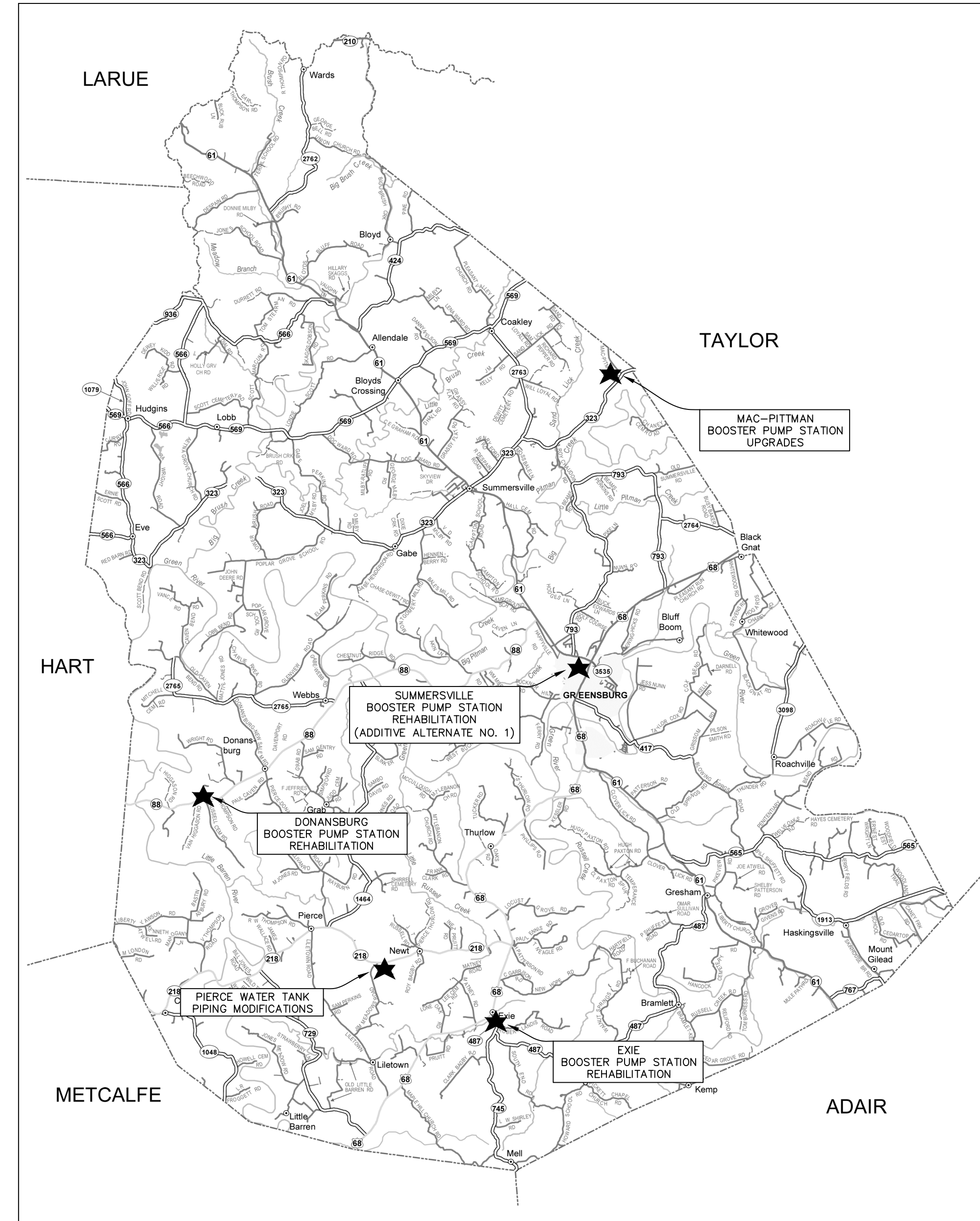
WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER MAIN. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. FOR GRAVITY SEWERS WHERE IT IS NOT PRACTICAL TO MAINTAIN A 10 FOOT SEPARATION, THE KENTUCKY DIVISION OF WATER MAY ALLOW DEVIATION ON A CASE-BY-CASE BASIS. SUCH DEVIATION MAY ALLOW INSTALLATION OF A WATER MAIN CLOSER TO A GRAVITY SEWER, PROVIDED THAT THE WATER MAIN IS IN A SEPARATE TRENCH OR IS INSTALLED ON AN UNDISTURBED EARTHEN SHELF LOCATED ON ONE SIDE OF THE GRAVITY SEWER AND AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.

WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE WATER MAIN JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER PIPE JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO MAINTAIN LINE AND GRADE.

**DISRUPTION OF SERVICE**

THE CONTRACTOR SHALL COORDINATE ALL DISRUPTIONS OF SERVICE WITH THE OWNER AND ENGINEER. PRIOR TO ANY DISRUPTION, THE CONTRACTOR SHALL INFORM BOTH PARTIES OF HIS INTENTIONS, METHODS AND PROJECTED DURATION OF DISTURBANCE AND RECEIVE THEIR APPROVAL PRIOR TO INITIATING THE SPECIFIC WORK.

**PROJECT LOCATION MAP**



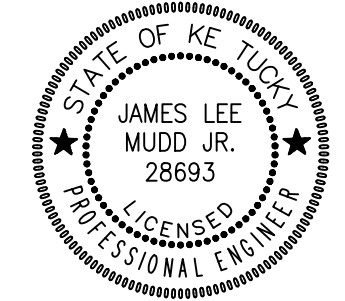
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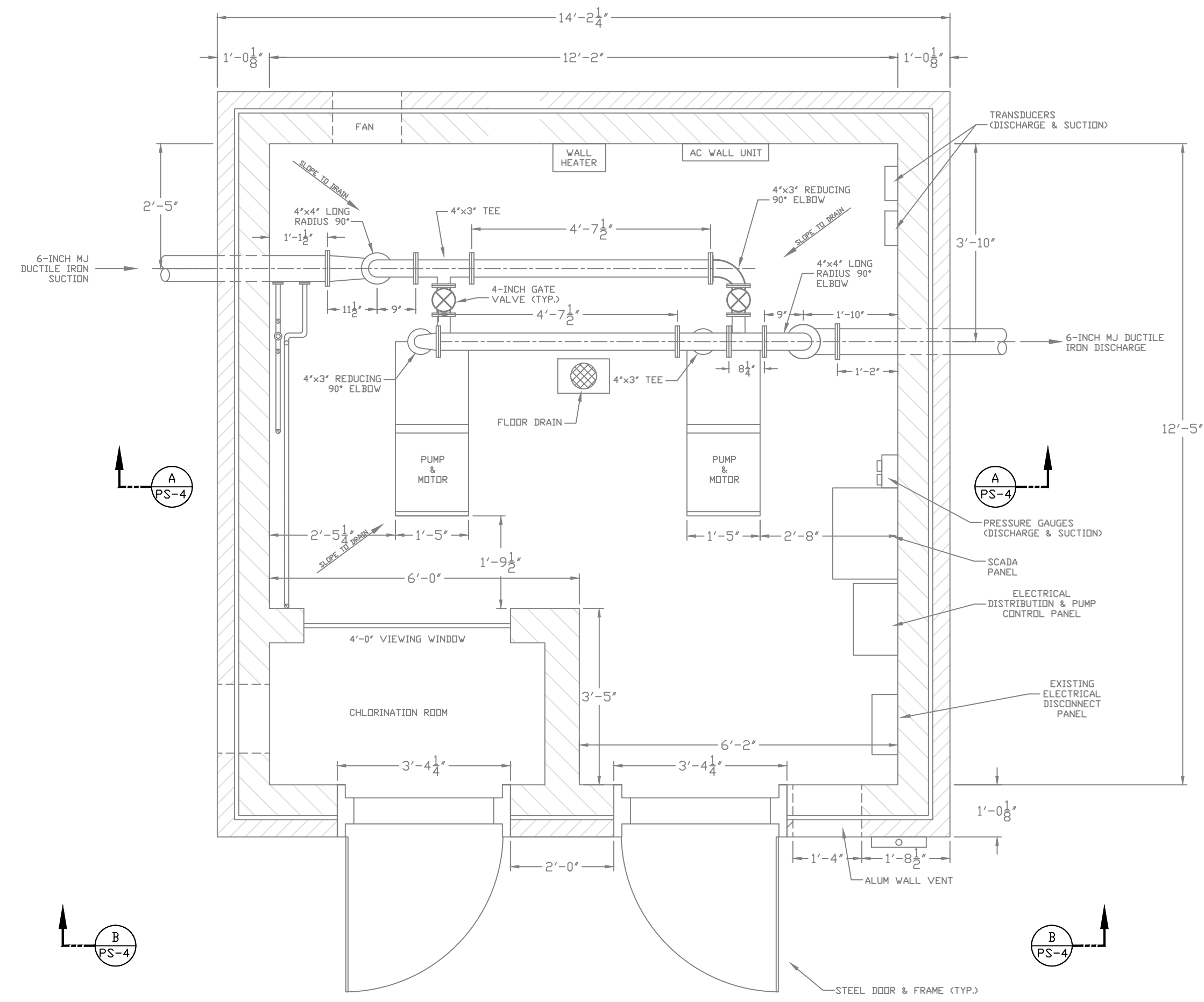
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**2019 WATER SYSTEM IMPROVEMENTS**  
**CONTRACT NO. 1**

CUSTOMER: **GREEN-TAYLOR WATER DISTRICT**  
**GREEN COUNTY, KENTUCKY**

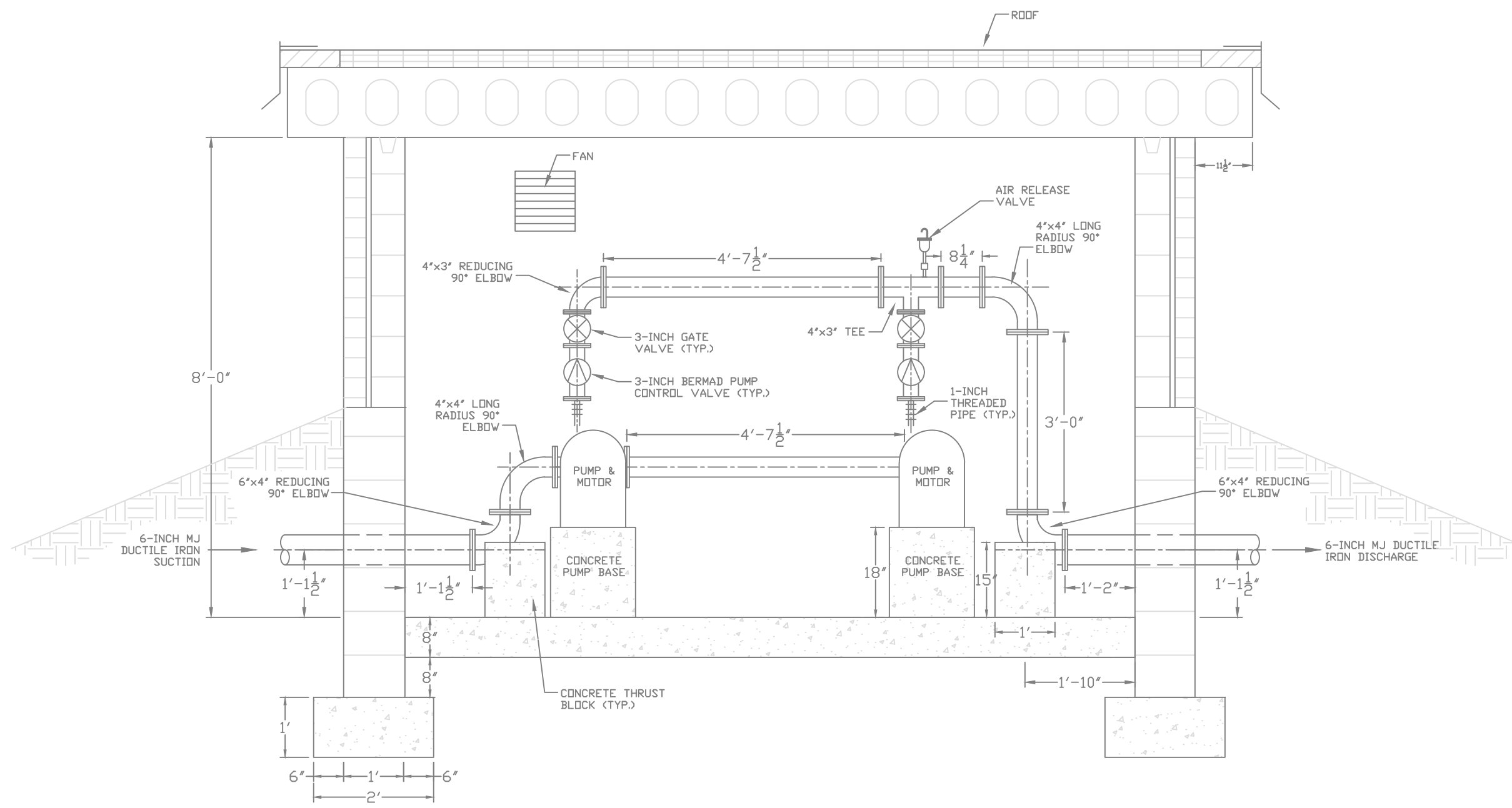
PROJECT NO. 2031  
 DATE: JAN 2021  
 DRAWN BY: JLM  
 CHECKED BY: DSB  
 CHECKED BY: DMB  
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**GN-1**

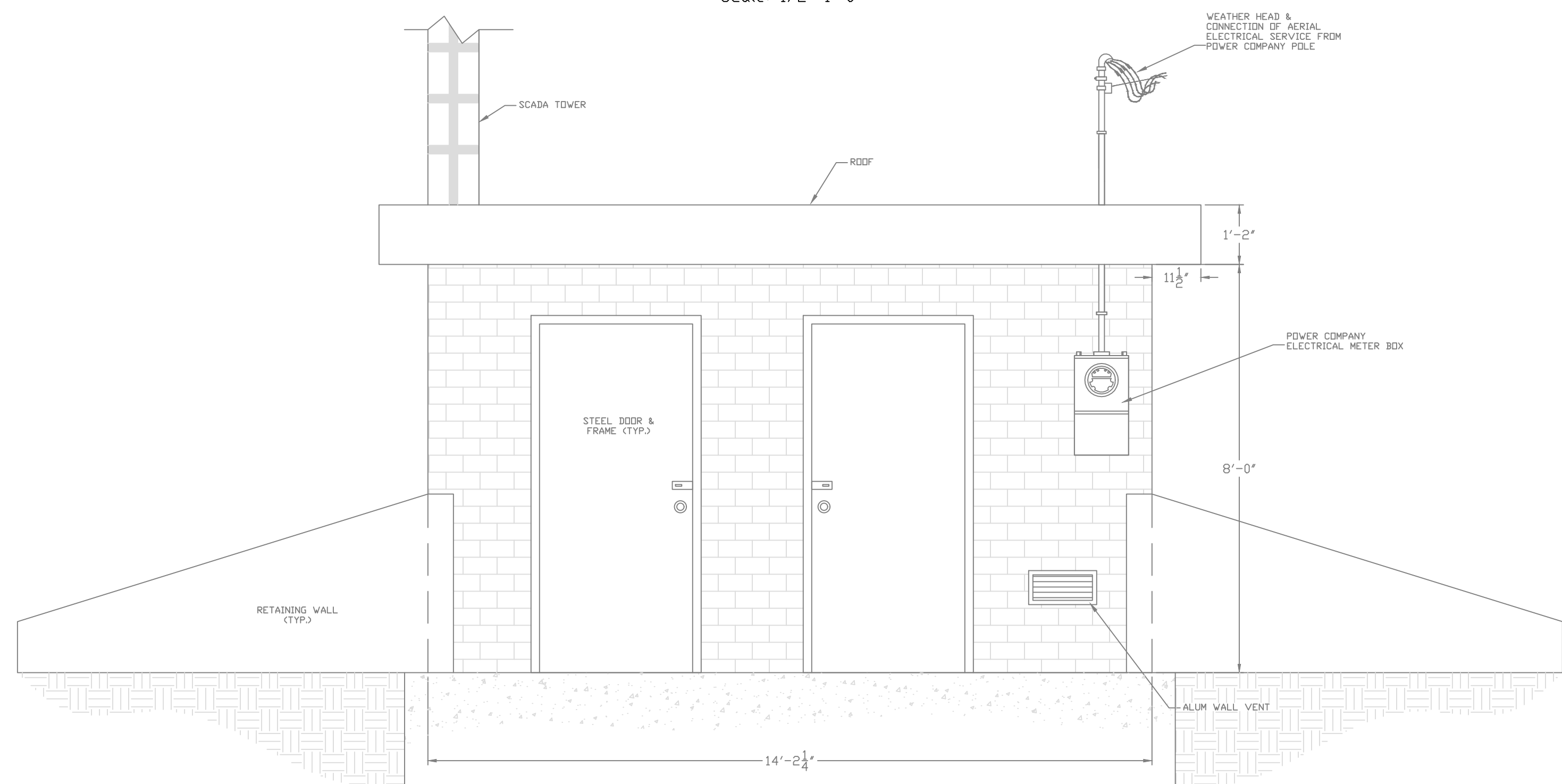




EXISTING PUMP STATION - PLAN VIEW  
Scale: 1/2"=1'-0"



EXISTING PUMP STATION - ELEVATION (A)  
Scale: 1/2"=1'-0"



EXISTING PUMP STATION - ELEVATION (B)  
Scale: 1/2"=1'-0"

**GENERAL NOTES:**

1. DETAILS OF THE EXISTING FACILITIES INCLUDING COMPONENT LOCATION, DIMENSIONS AND ELEVATIONS ARE BASED ON THE ORIGINAL AS-BUILT DRAWINGS FROM 1990 AND FIELD MEASUREMENTS. TRUE DIMENSIONS SHALL BE DETERMINED IN THE FIELD BY CONTRACTOR PRIOR TO LAYOUT AND SHOP DRAWING SUBMITTAL.
2. THE CONTRACTOR SHALL EXAMINE THE DRAWINGS, VISIT THE SITE AND DETERMINE FOR THEMSELVES THE EXTENT OF THE EXISTING FACILITIES, THE EXTENT OF WORK AFFECTED THEREIN AND ALL CONDITIONS UNDER WHICH THEY ARE REQUIRED TO PERFORM THE VARIOUS TASKS. IT IS HIGHLY RECOMMENDED THAT PRIOR TO PRESENTATION OF BID PROPOSAL, THAT THE BIDDER OR QUALIFIED REPRESENTATIVE OF THE BIDDER VISIT THE PROJECT SITE AND REVIEW THE CONDITIONS IN THE FIELD.

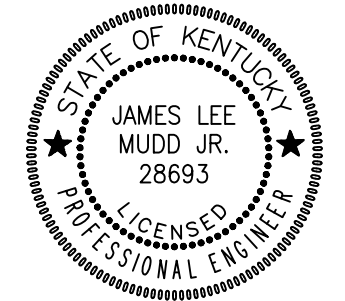
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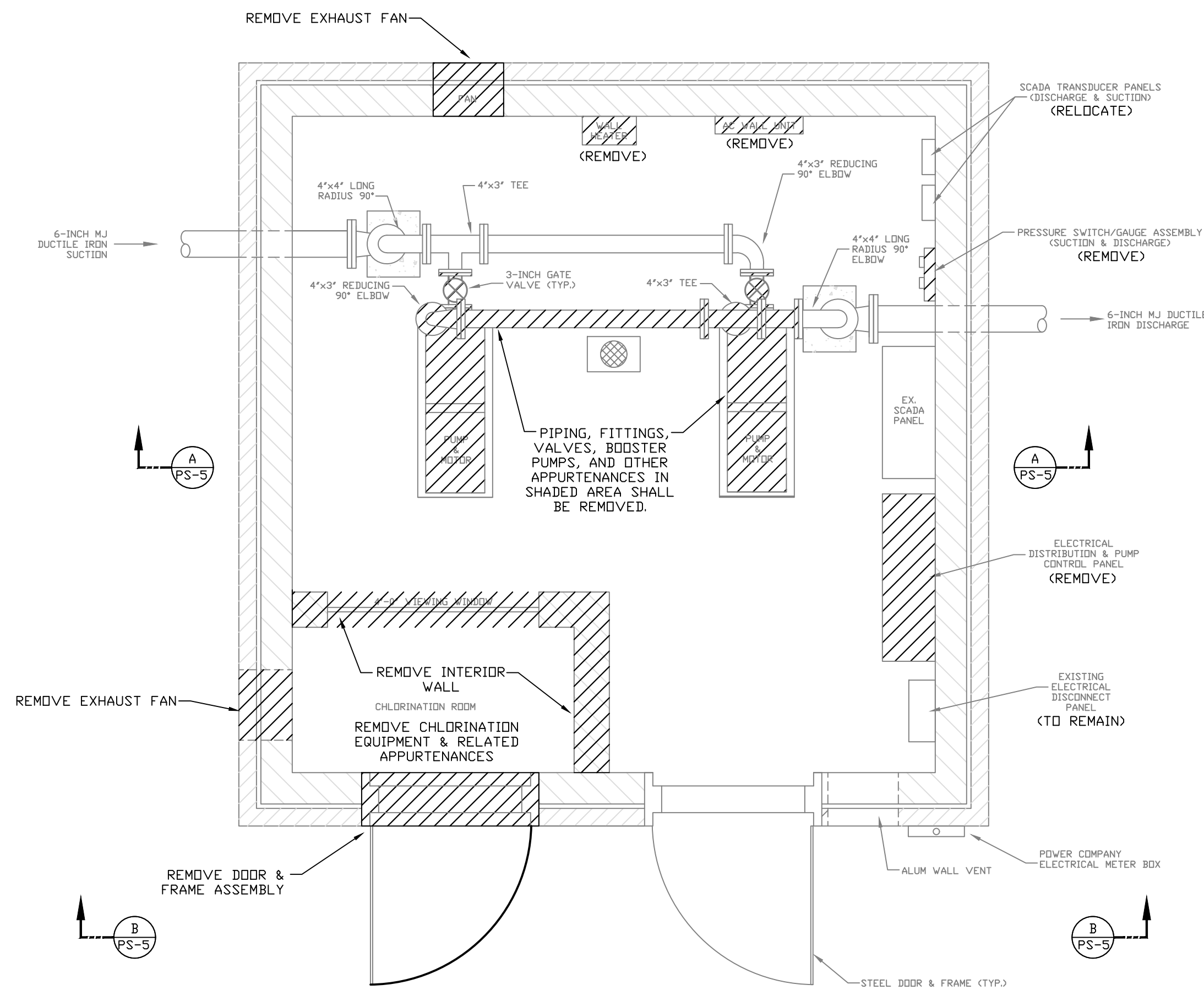
DESCRIPTION:  
EXISTING LAYOUT: PLAN, SECTIONS & DETAILS  
EXIE PUMP STATION REHABILITATION

CUSTOMER:  
GREEN-TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY

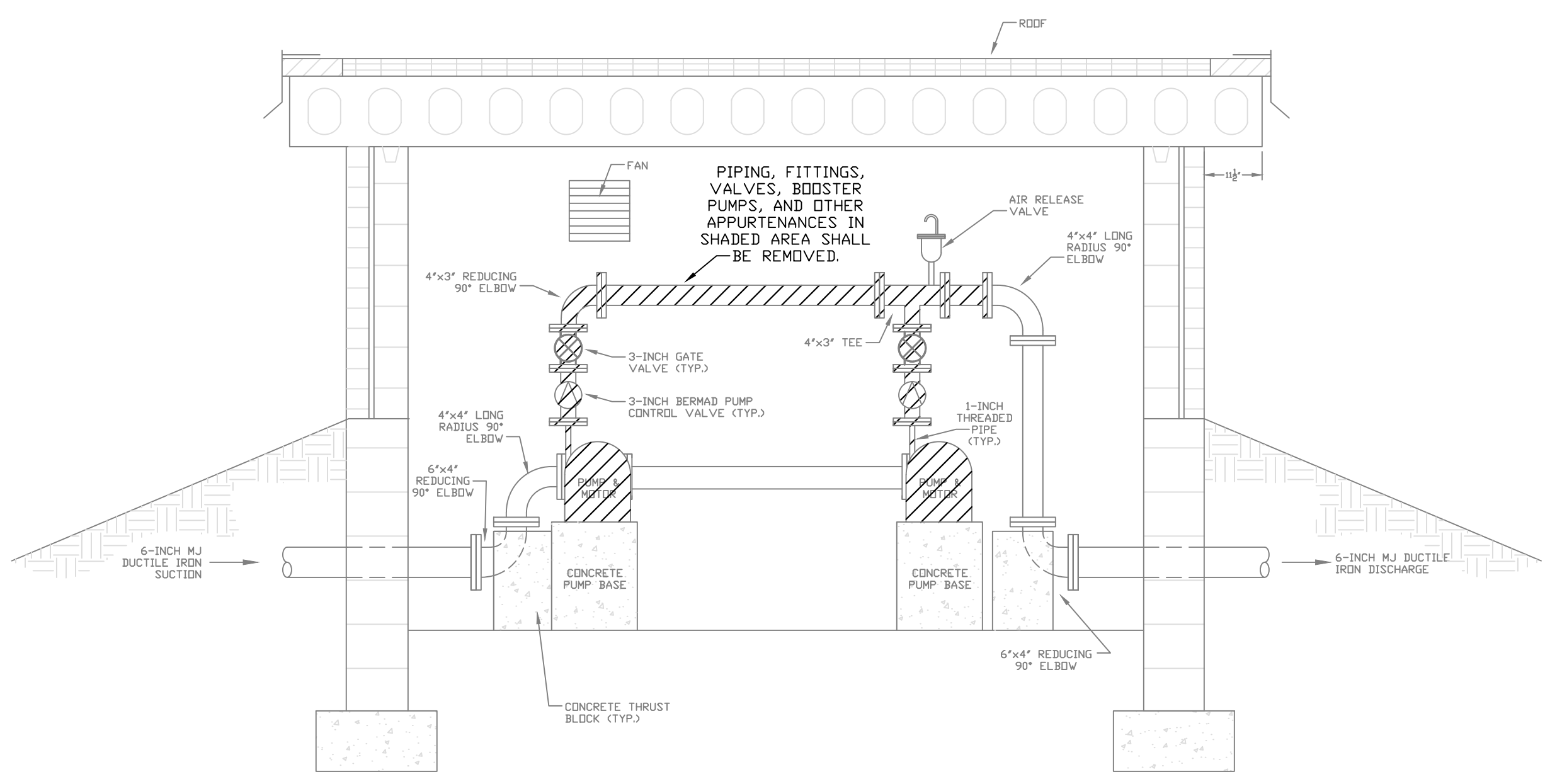
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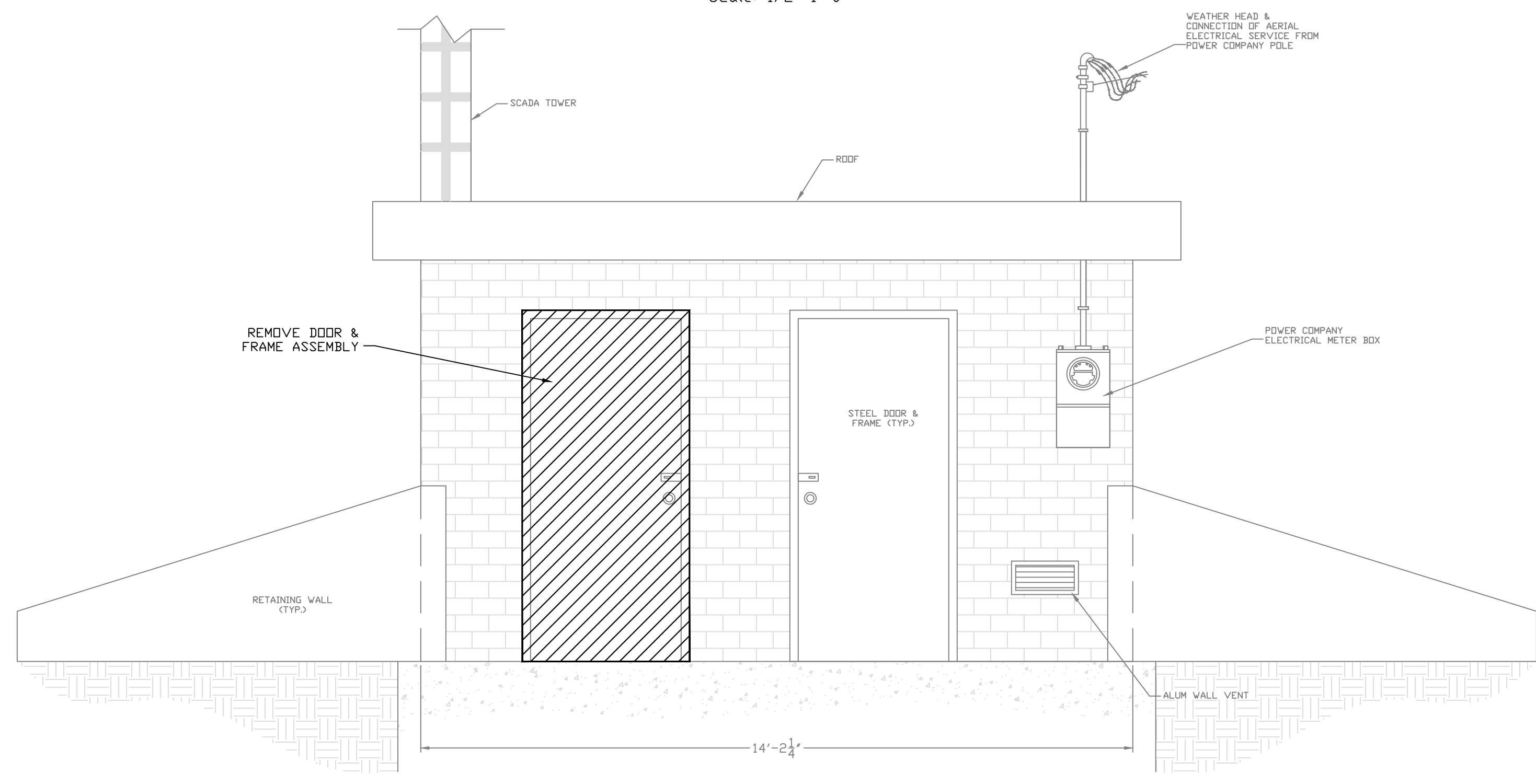




EXISTING PUMP STATION - PLAN VIEW  
Scale: 1/2"=1'-0"



EXISTING PUMP STATION - SECTION  
Scale: 1/2"=1'-0"



EXISTING PUMP STATION - ELEVATION  
Scale: 1/2"=1'-0"

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL COMPLETELY REMOVE EXISTING PIPING, PUMPS, VALVES, BOOSTER PUMPS, AND OTHER APPURTENANCES AS SHOWN. THE DEMOLITION WORK SHALL BE PHASED WITH THE INSTALLATION OF PROPOSED PIPING, ELECTRICAL, EQUIPMENT, ETC. SUCH THAT ONE EXISTING PUMP CAN REMAIN IN OPERATION UNTIL ONE NEW PUMP IS READY FOR SERVICE AS DIRECTED BY THE ENGINEER. TEMPORARY PIPE AND ELECTRICAL WORK AS REQUIRED TO ACCOMPLISH THIS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. SALVAGEABLE MATERIAL AS DETERMINED BY THE OWNER SHALL BE DELIVERED TO AND UNLOADED BY THE CONTRACTOR AT THE WATER DISTRICT OFFICE LOCATED AT 250 INDUSTRIAL PARK RD., GREENSBURG, KY. NON-SALVAGEABLE MATERIALS ARE TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
3. FOLLOWING DEMOLITION AND REMOVAL OF THE INTERIOR CMU WALL, THE CONTRACTOR SHALL ENSURE A NEAT APPEARANCE AT THE SURFACE OF THE CEILING, FLOOR AND EXTERIOR CMU WALLS. THIS SHALL BE ACCOMPLISHED BY GRINDING BACK EXPOSED REBARS A 1/2" MINIMUM, MILLING CONCRETE AS NECESSARY, AND RE-CONSTRUCTING THE SURFACES WITH EPOXY OR NON-SHRINK GROUT.
4. FOLLOWING COMPLETION OF DEMOLITION WORK, THE CONTRACTOR SHALL PRESSURE WASH ALL REMAINING INTERIOR AND EXTERIOR SURFACES TO REMOVE ALL LOOSE PAINT AND SOIL. THE CONTRACTOR SHALL CONTAIN AND COLLECT ALL DEBRIS FOR PROPER DISPOSAL.

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DESCRIPTION:  
DEMOLITION PLAN  
EXIE PUMP STATION REHABILITATION

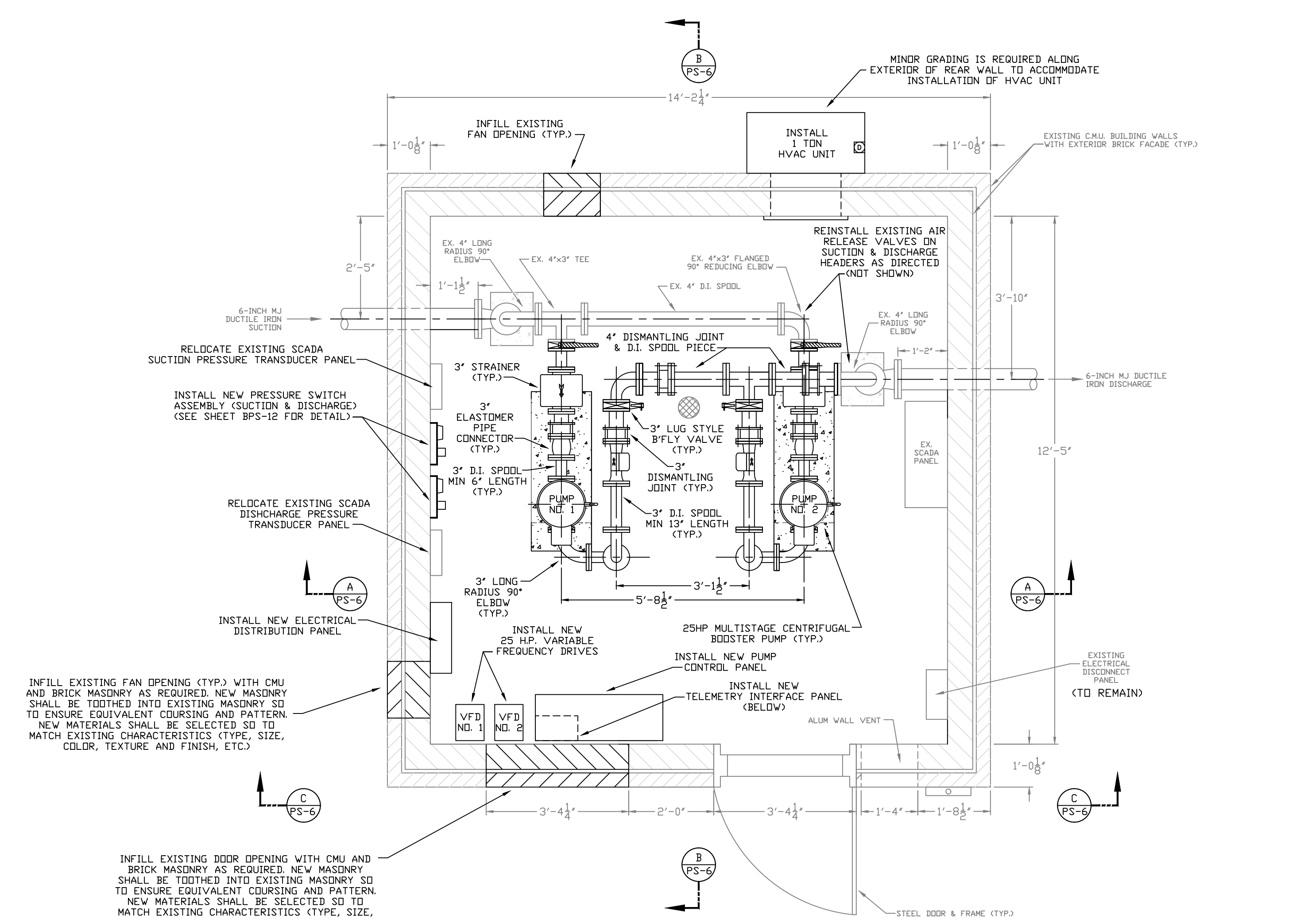
CUSTOMER:  
GREEN-TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY

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CHECKED BY: JLM  
SCALE: AS NOTED

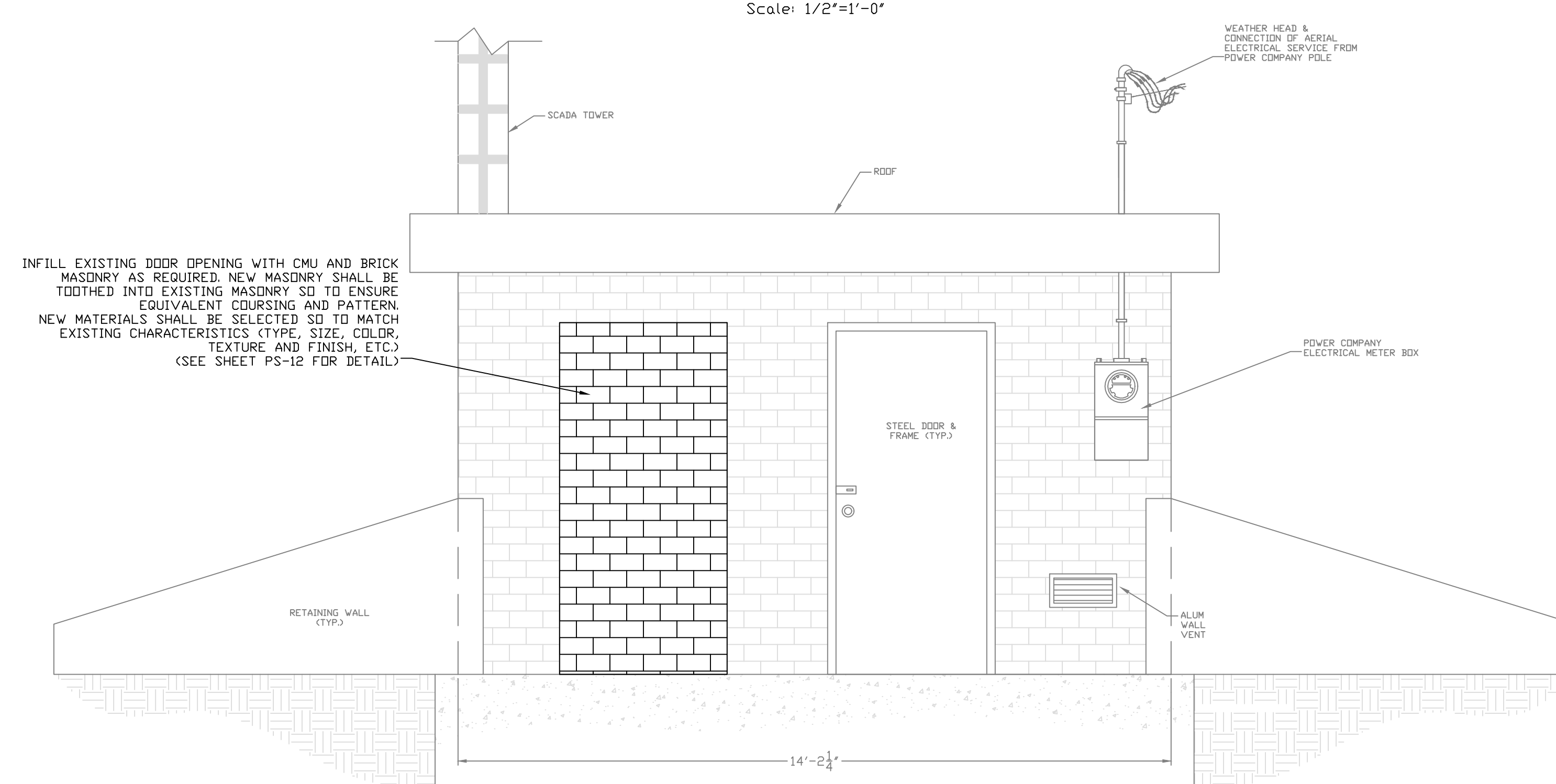
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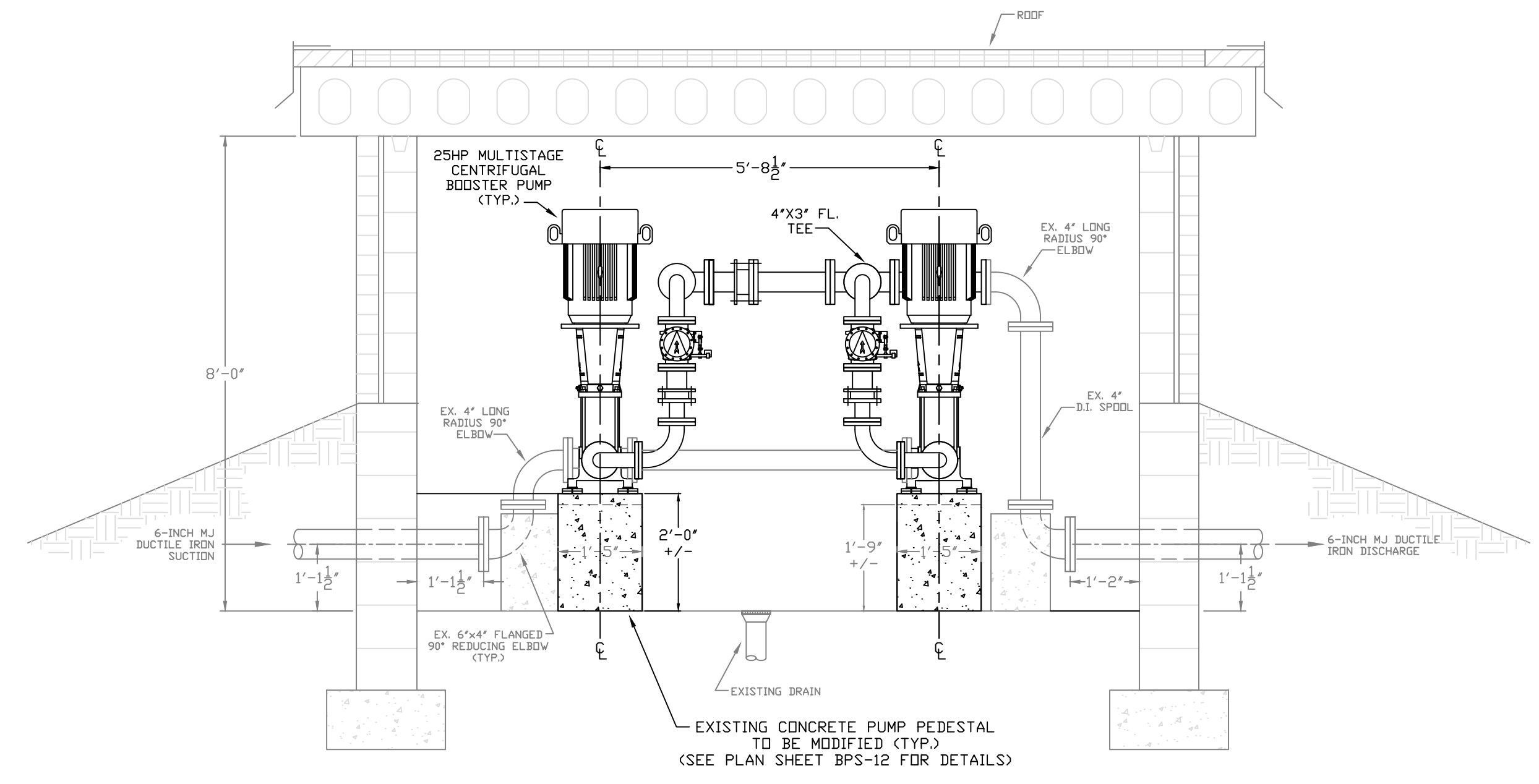




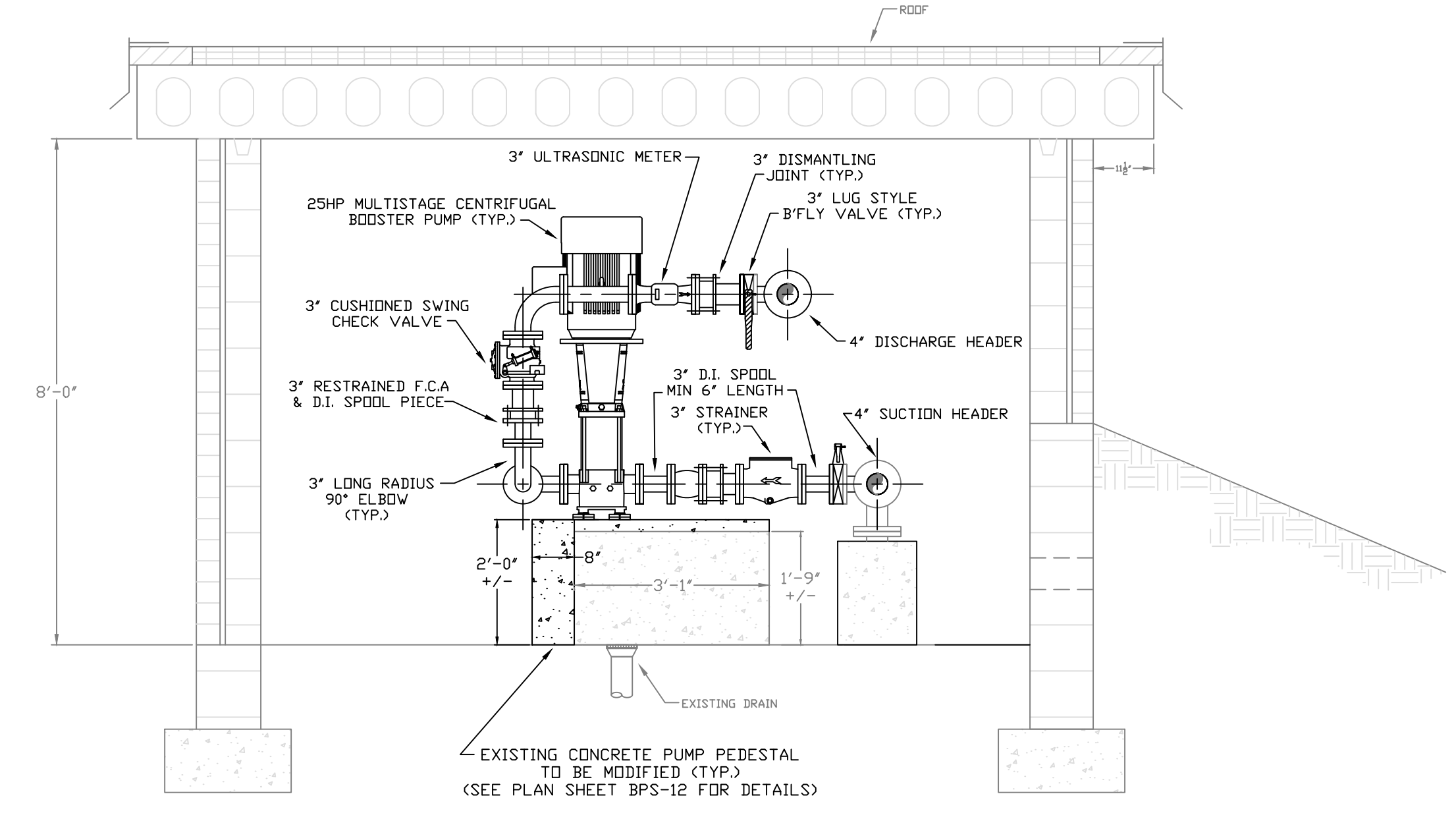
PROPOSED PUMP STATION - PLAN VIEW  
Scale: 1/2"=1'-0"



PROPOSED PUMP STATION - ELEVATION  
Scale: 1/2"=1'-0"



PROPOSED PUMP STATION - SECTION  
Scale: 1/2"=1'-0"



PROPOSED PUMP STATION - SECTION  
Scale: 1/2"=1'-0"

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL COMPLETELY EXAMINE THE WORK SITE AND OBSERVE THE CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED. NO ALLOWANCES WILL BE MADE FOR OMISSIONS AND ERRORS RESULTING FROM CONTRACTOR'S FAILURE TO COMPLETELY EXAMINE THE SITE. ACCORDINGLY, ALL DIMENSIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR PRIOR TO LAYOUT AND SHOP DRAWING SUBMITTAL.
2. STATION PIPING 3" & GREATER IN DIAMETER SHALL BE CLASS 350 DUCTILE IRON - CONFORMING TO ANSI/AWWA C115/A21.5. DUCTILE IRON FITTINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C110/A21.10. PIPE AND FITTINGS SHALL BE SUPPLIED WITH ANSI STANDARD B16.1, CLASS 125 FLANGES, EQUIPPED WITH HIGH PRESSURE GASKETS SO TO ACHIEVE A PRESSURE RATING OF 350 PSI.
3. STATION PIPING LESS THAN 3" IN DIAMETER SHALL BE THREADED DUCTILE IRON MEETING ASTM A-536, GRADE 65-45-12, WITH MINIMUM WALL THICKNESS EQUAL TO 0.25" AND DIAMETERS EQUAL TO IPS SIZE PIPE. THREADS SHALL BE NPT PER ANSI B.120-1-1983, WHERE APPLICABLE, THREADED FLANGES SHALL BE USED.
4. ALL GAUGE, SWITCH AND TRANSMITTER SENSING LINES SHALL BE MINIMUM 3/4" OD RIGID TYPE K COPPER WITH 95-5 TIN-ANTIMONY ALLOY SOLDERED JOINTS. THE ALIGNMENT AND ROUTE OF THE SENSING LINES SHALL BE STRAIGHT RUNS WITH 90 DEGREE FITTINGS, CONTINUOUSLY RISING, AND BE FASTENED TO FLOOR & WALLS.
5. THE CONTRACTOR SHALL CLEAN OUT FLOOR DRAIN AND FLUSH DRAIN LINE TO THE OUTFALL.
6. THE CONTRACTOR SHALL PROVIDE NEW MASONRY INFILL AT EXISTING WALL OPENINGS AS SHOWN. NEW MASONRY SHALL BE TOOTHED INTO EXISTING MASONRY SO TO ENSURE EQUIVALENT COURSING AND PATTERN. NEW MATERIALS SHALL BE SELECTED SO TO MATCH EXISTING CHARACTERISTICS (TYPE, SIZE, COLOR, TEXTURE AND FINISH, ETC.).
7. ALL INTERIOR BUILDING SURFACES (FLOOR, WALLS & CEILING) SHALL BE REPAIRED & PATCHED USING NON-SHRINKING GROUT OR EPOXY AS REQUIRED TO ENSURE A NEAT APPEARANCE. AFTER SANDING AND PRIMING ANY REPAIRED OR BARE AREAS, THE CONTRACTOR SHALL APPLY A MINIMUM OF TWO COATS OF PAINT. THE FLOOR COATING SHOULD INCORPORATE A SKID INHIBITING ADDITIVE TO ENSURE SUPERIOR NON-SLIP PERFORMANCE. COLORS SHALL BE AS SELECTED BY THE OWNER/ENGINEER WITH THE WALLS DIFFERING FROM THE CEILING & FLOOR.
8. THE CONTRACTOR SHALL INSTALL NEW OR MODIFY THE EXISTING ELECTRICAL SYSTEM, CONTROLS, ETC. AS PER THESE DRAWINGS AND THE TECHNICAL SPECIFICATIONS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING, STARTUP, BALANCING, ETC. ON ALL SYSTEMS/EQUIPMENT INSTALLED. MODIFIED OR REVISED IN ASSOCIATION WITH THE WORK.

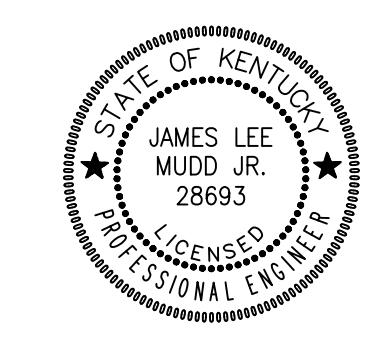
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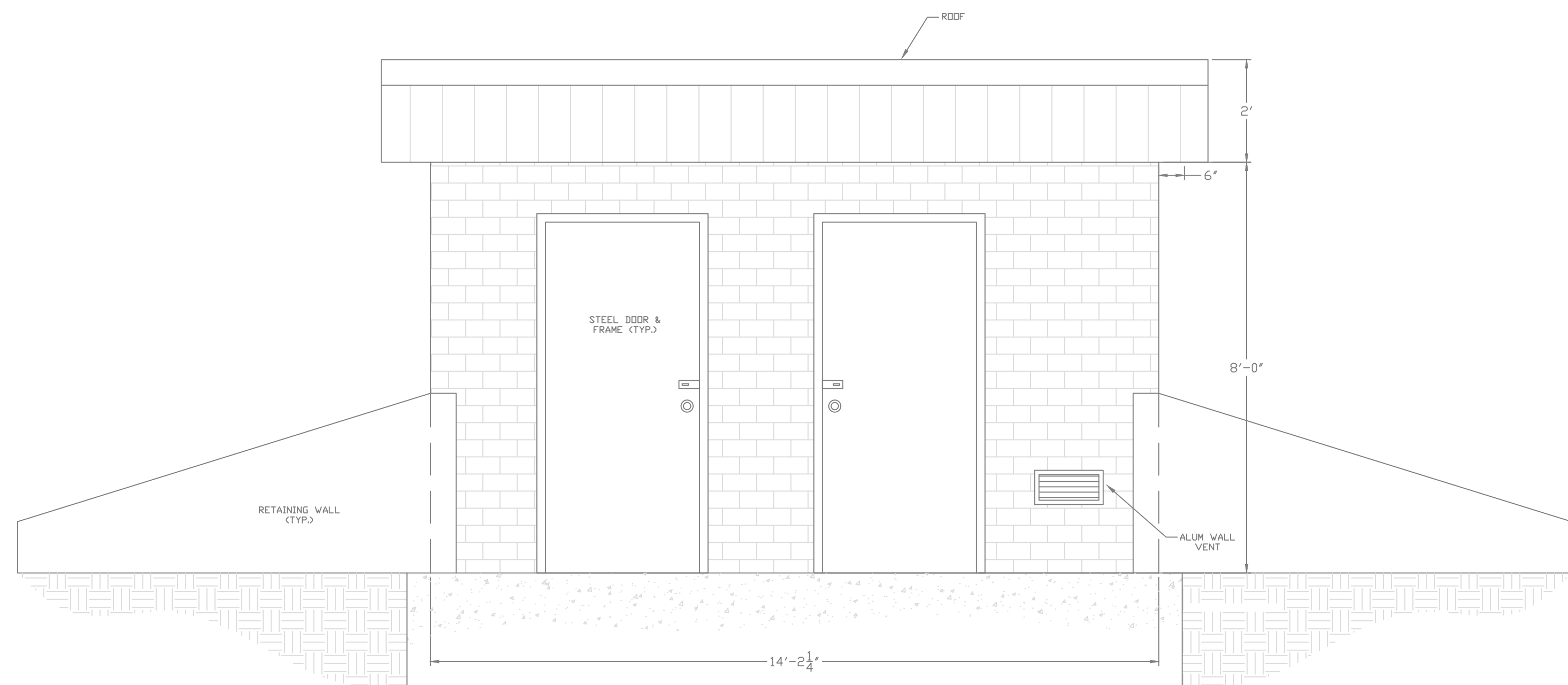
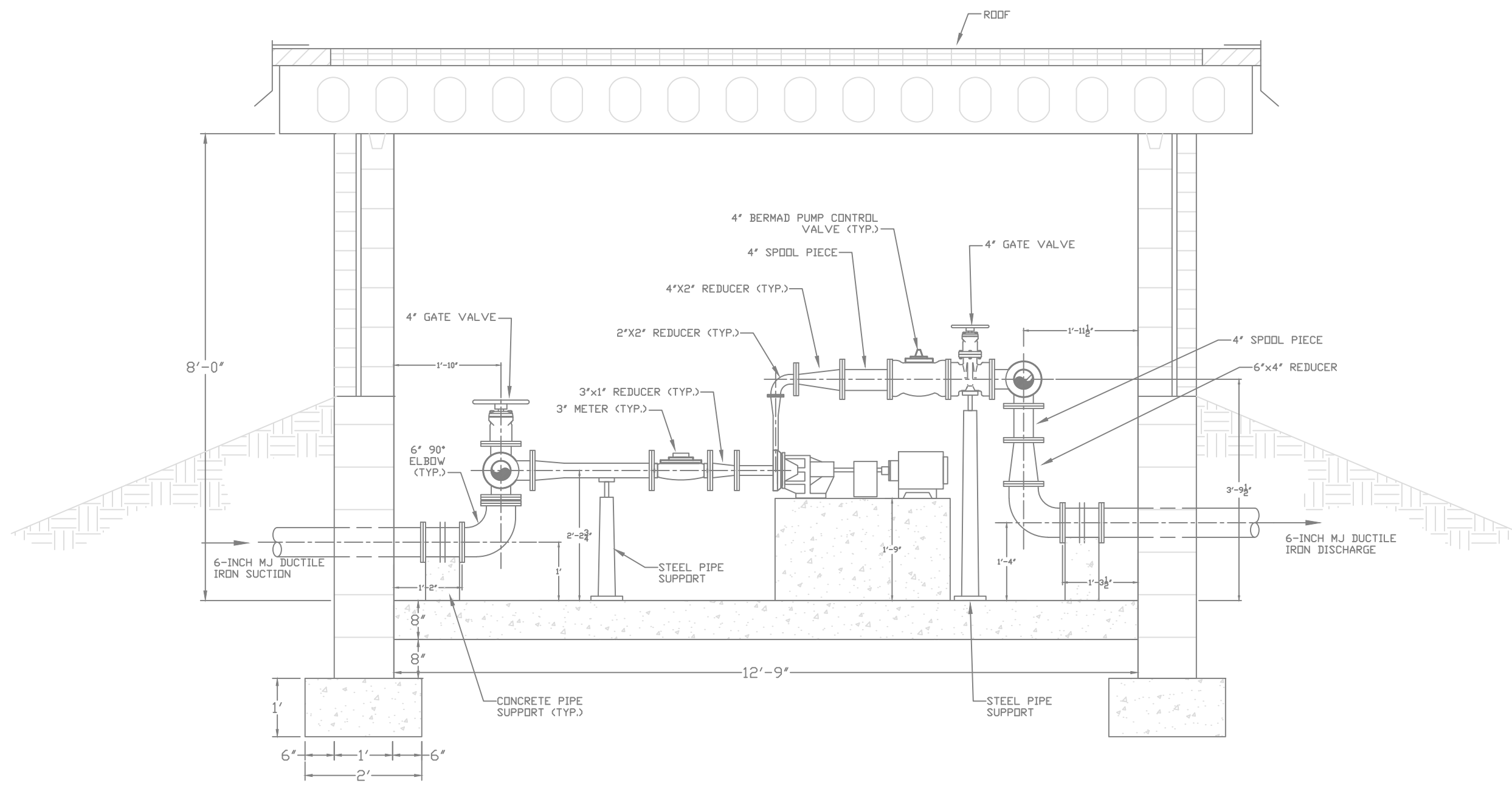
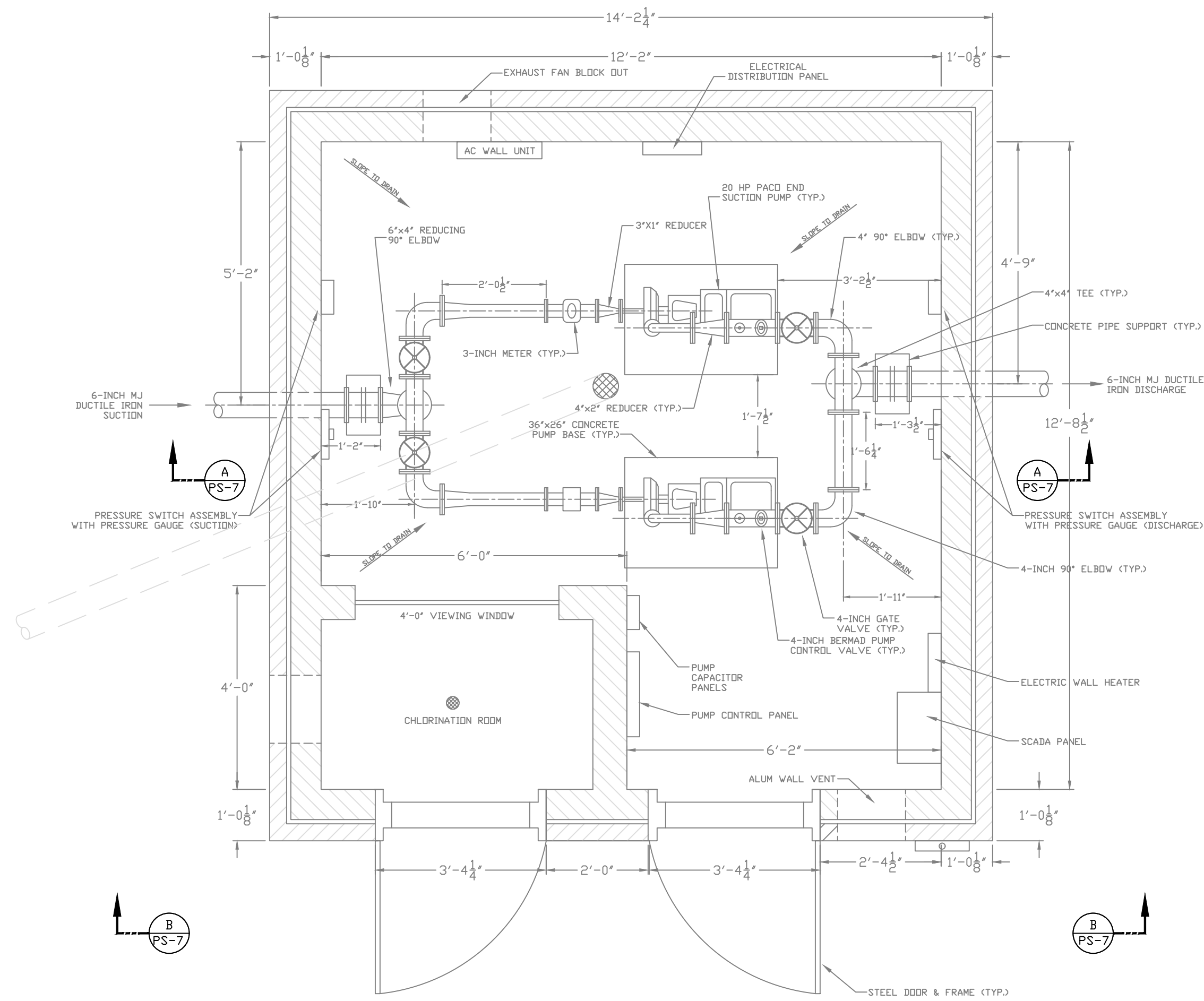
DESCRIPTION:  
PROPOSED LAYOUT: PLAN & SECTIONS  
EXIE PUMP STATION REHABILITATION

CUSTOMER:  
GREEN-TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY

PROJECT NO. 2031  
DATE: JAN 2021  
DRAWN BY: JRC  
CHECKED BY: DSB  
CHECKED BY: JLM  
SCALE: AS NOTED

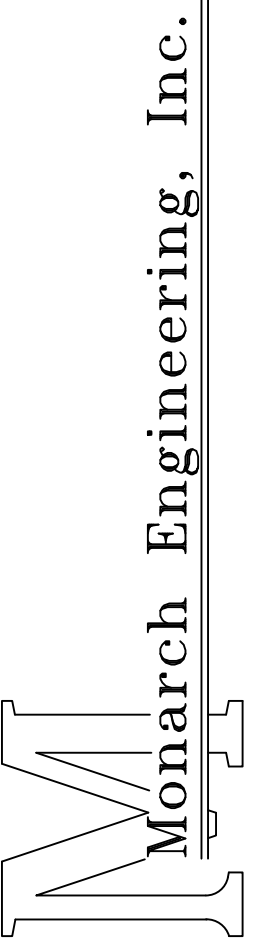
SHEET:  
BPS-3





GENERAL NOTES:

1. DETAILS OF THE EXISTING FACILITIES INCLUDING COMPONENT LOCATION, DIMENSIONS AND ELEVATIONS ARE BASED ON FIELD MEASUREMENTS AND PICTURES. TRUE DIMENSIONS SHALL BE DETERMINED IN THE FIELD BY CONTRACTOR PRIOR TO LAYOUT AND SHOP DRAWING SUBMITTAL.
2. THE CONTRACTOR SHALL EXAMINE THE DRAWINGS, VISIT THE SITE AND DETERMINE FOR THEMSELVES THE EXTENT OF THE EXISTING FACILITIES, THE EXTENT OF WORK AFFECTED THEREIN AND ALL CONDITIONS UNDER WHICH THEY ARE REQUIRED TO PERFORM THE VARIOUS TASKS. IT IS HIGHLY RECOMMENDED THAT PRIOR TO PRESENTATION OF BID PROPOSAL, THAT THE BIDDER OR QUALIFIED REPRESENTATIVE OF THE BIDDER VISIT THE PROJECT SITE AND REVIEW THE CONDITIONS IN THE FIELD.



556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

DESCRIPTION:  
EXISTING LAYOUT: PLAN, SECTIONS & DETAILS  
DONANSBURG PUMP STATION REHABILITATION

CUSTOMER:  
GREEN-TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY

PROJECT NO. 2031

DATE: JAN 2021

DRAWN BY: JRC

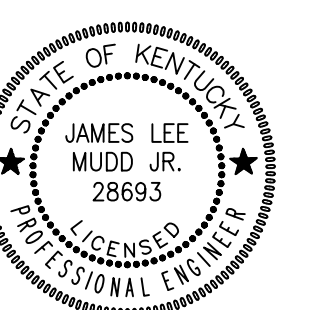
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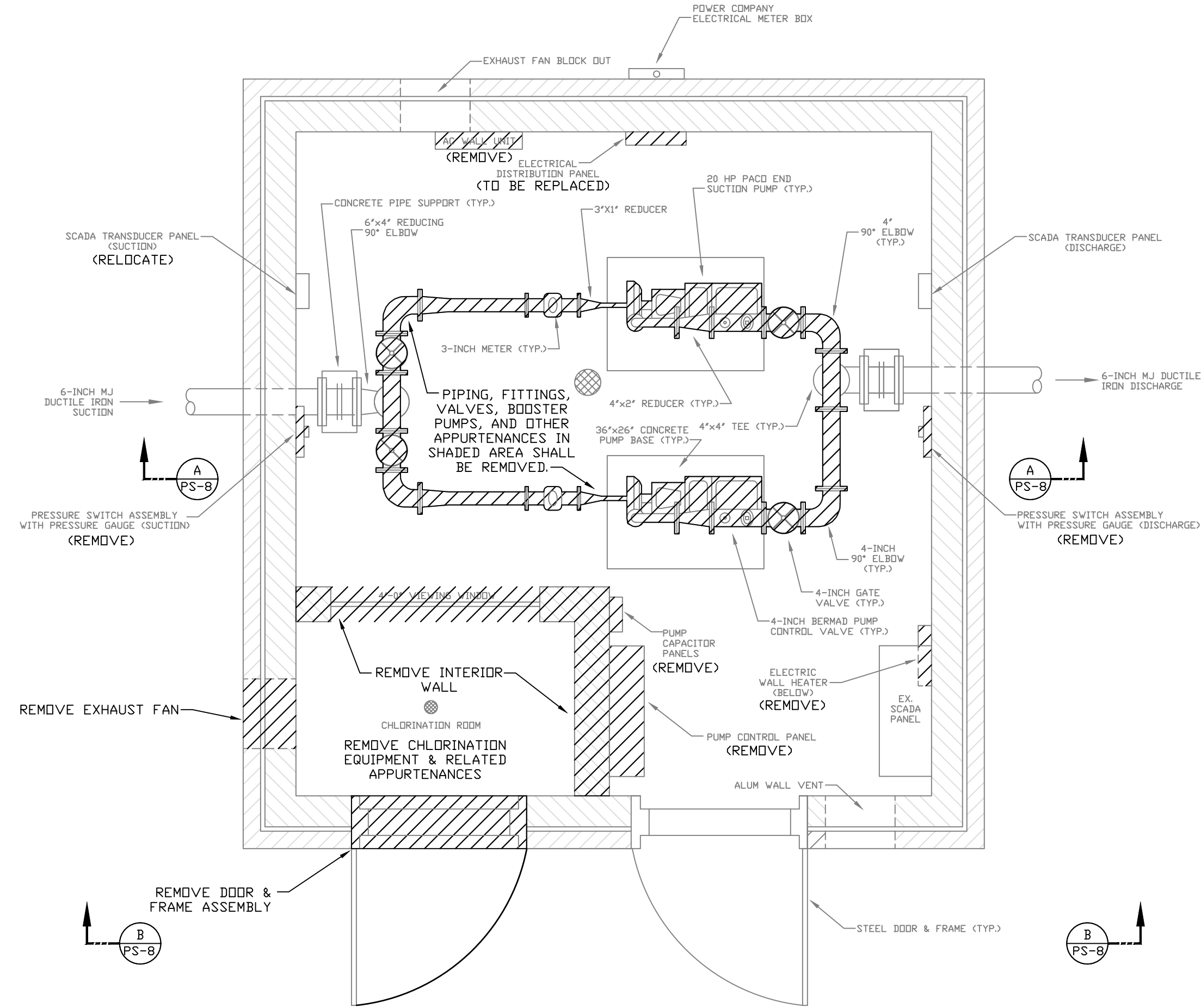
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SCALE: AS NOTED

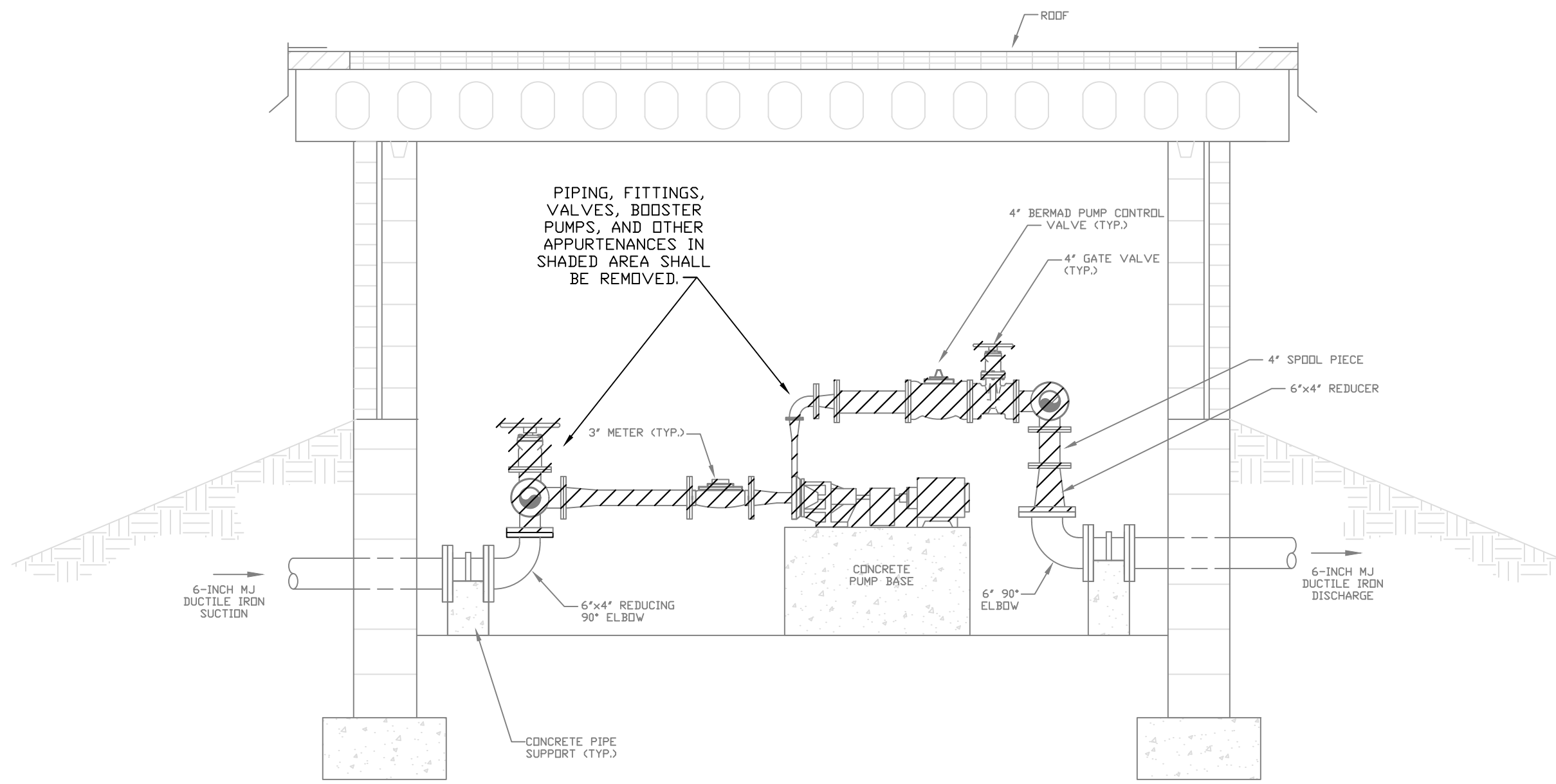
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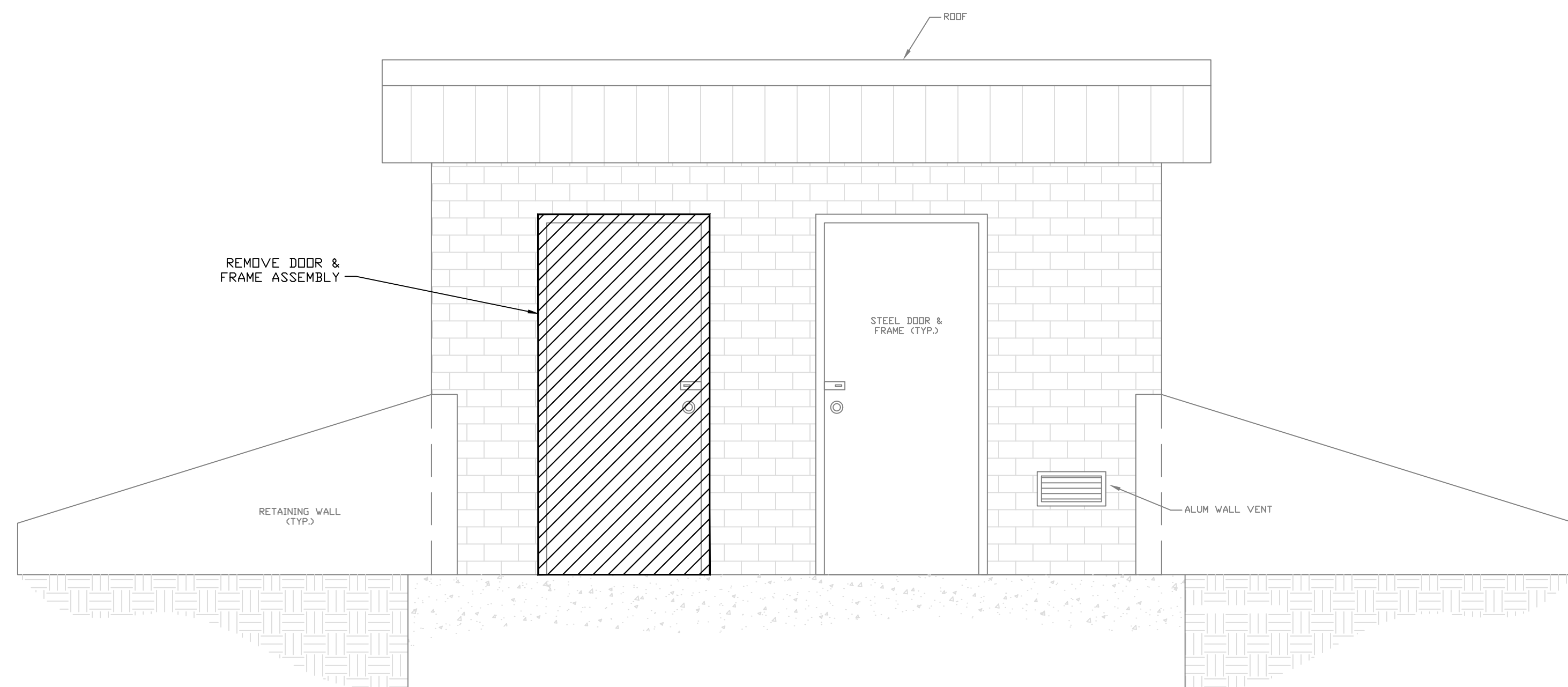




EXISTING PUMP STATION - PLAN VIEW  
Scale: 1/2"=1'-0"



EXISTING PUMP STATION - SECTION  
Scale: 1/2"=1'-0"



EXISTING PUMP STATION - ELEVATION  
Scale: 1/2"=1'-0"

**DEMOLITION NOTES:**

1. THE CONTRACTOR SHALL COMPLETELY REMOVE EXISTING PIPING, PUMPS, VALVES, BOOSTER PUMPS, AND OTHER APPURTENANCES AS SHOWN. THE DEMOLITION WORK SHALL BE PHASED WITH THE INSTALLATION OF PROPOSED PIPING, ELECTRICAL, EQUIPMENT, ETC. SUCH THAT ONE EXISTING PUMP CAN REMAIN IN OPERATION UNTIL ONE NEW PUMP IS READY FOR SERVICE AS DIRECTED BY THE ENGINEER. TEMPORARY PIPE AND ELECTRICAL WORK AS REQUIRED TO ACCOMPLISH THIS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. SALVAGEABLE MATERIAL AS DETERMINED BY THE OWNER SHALL BE DELIVERED TO AND UNLOADED BY THE CONTRACTOR AT THE WATER DISTRICT OFFICE LOCATED AT 250 INDUSTRIAL PARK RD., GREENSBURG, KY. NON-SALVAGEABLE MATERIALS ARE TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
3. FOLLOWING DEMOLITION AND REMOVAL OF THE INTERIOR CMU WALL, THE CONTRACTOR SHALL ENSURE A NEAT APPEARANCE AT THE SURFACE OF THE CEILING, FLOOR AND EXTERIOR CMU WALLS. THIS SHALL BE ACCOMPLISHED BY GRINDING BACK EXPOSED REBARS A 1/2" MINIMUM, MILLING CONCRETE AS NECESSARY, AND RE-CONSTRUCTING THE SURFACES WITH EPOXY OR NON-SHRINK GROUT.
4. FOLLOWING COMPLETION OF DEMOLITION WORK, THE CONTRACTOR SHALL PRESSURE WASH ALL REMAINING INTERIOR AND EXTERIOR SURFACES TO REMOVE ALL LOOSE PAINT AND SOIL. THE CONTRACTOR SHALL CONTAIN AND COLLECT ALL DEBRIS FOR PROPER DISPOSAL.

DESCRIPTION:  
**DEMOLITION PLAN**  
**DONANSBURG PUMP STATION REHABILITATION**

CUSTOMER:  
**GREEN - TAYLOR WATER DISTRICT**  
**GREEN COUNTY, KENTUCKY**

PROJECT NO. 2031

DATE: JAN 2021

DRAWN BY: JRC

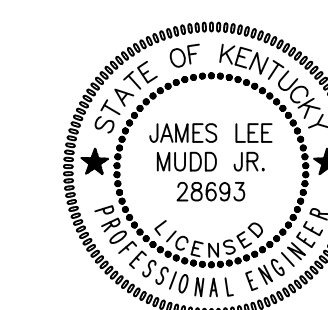
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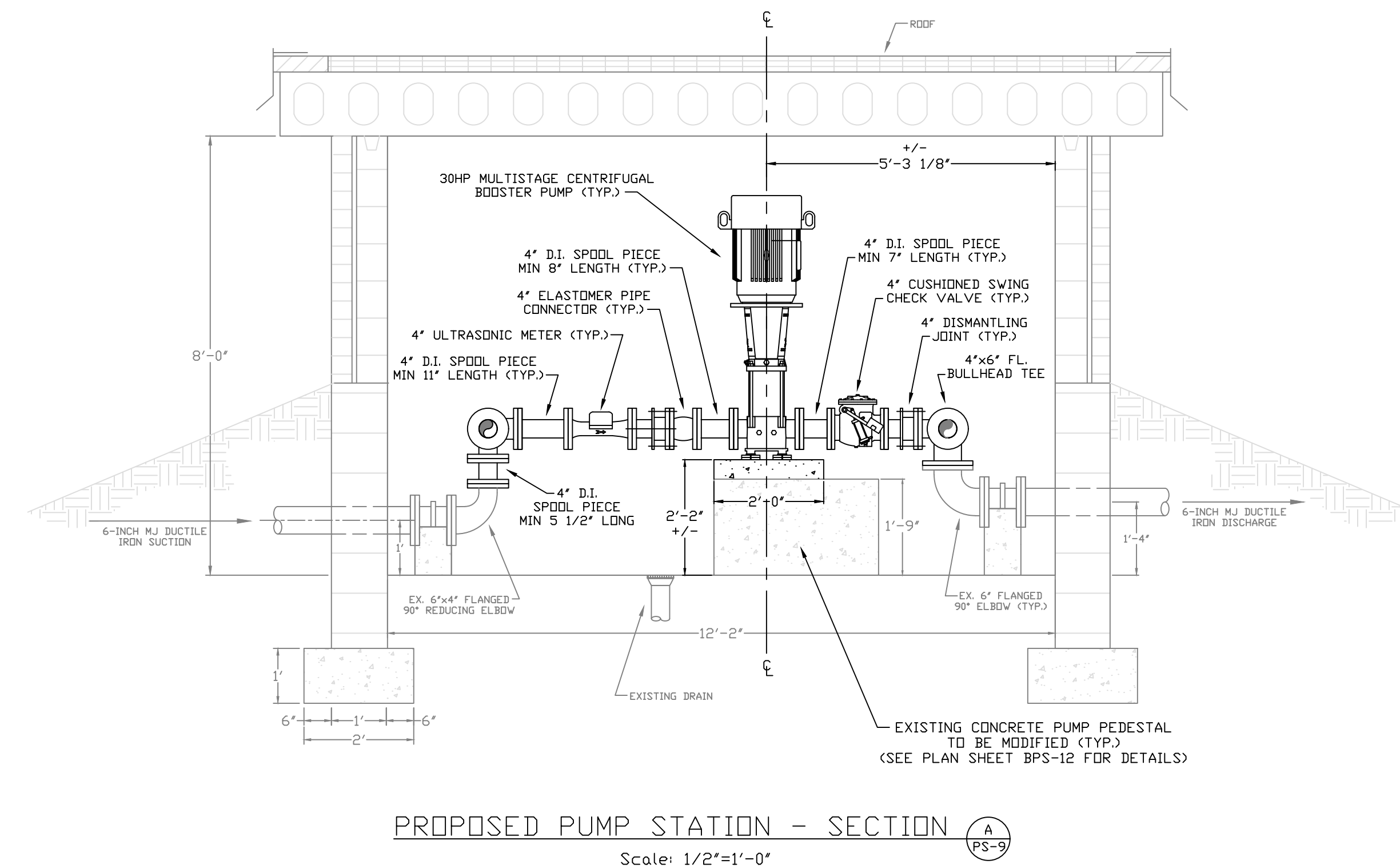
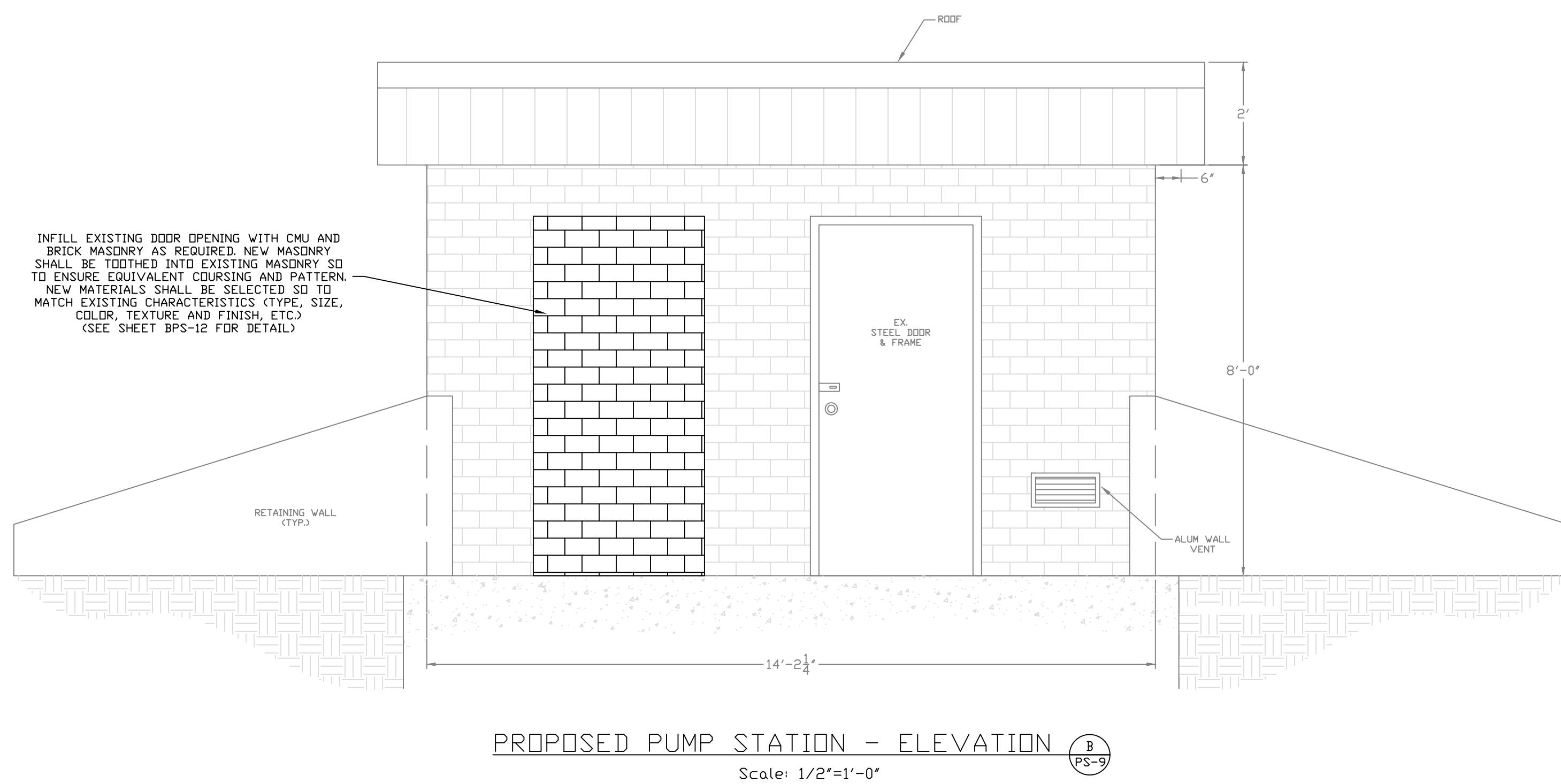
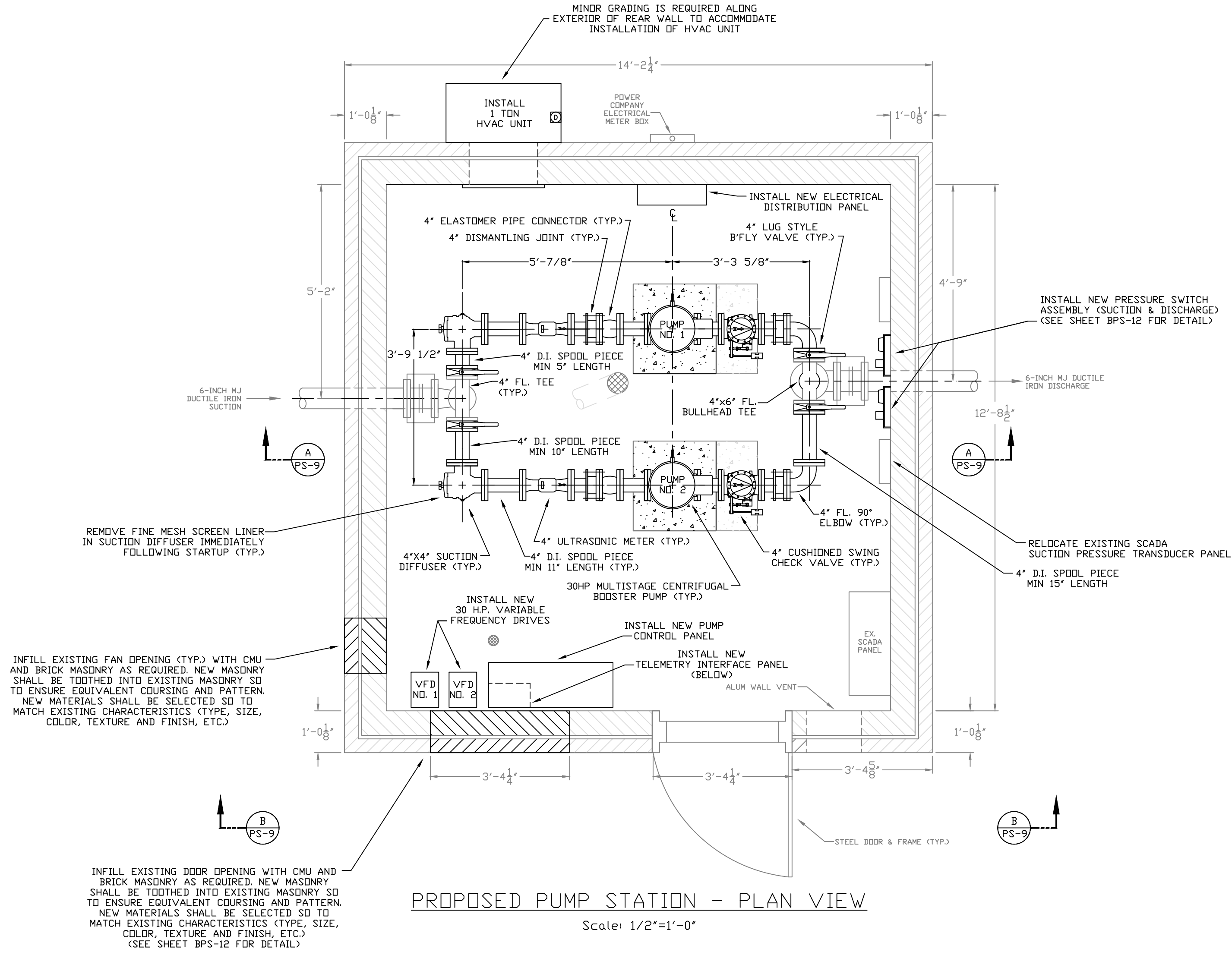
SCALE: AS NOTED

SHEET:

**BPS-5**







**CONSTRUCTION NOTES:**

1. THE CONTRACTOR SHALL COMPLETELY EXAMINE THE WORK SITE AND OBSERVE THE CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED. NO ALLOWANCES WILL BE MADE FOR OMISSIONS AND ERRORS RESULTING FROM CONTRACTOR'S FAILURE TO COMPLETELY EXAMINE THE SITE. ACCORDINGLY, ALL DIMENSIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR PRIOR TO LAYOUT AND SHOP DRAWING SUBMITTAL.
2. STATION PIPING 3" & GREATER IN DIAMETER SHALL BE CL350 DUCTILE IRON CONFORMING TO ANSI/AWWA C115/A21.15. DUCTILE IRON FITTINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C110/A21.10. PIPE AND FITTINGS SHALL BE SUPPLIED WITH ANSI STANDARD B16.1, CLASS 125 FLANGES, EQUIPPED WITH HIGH PRESSURE GASKETS SO TO ACHIEVE A PRESSURE RATING OF 350 PSI.
3. STATION PIPING LESS THAN 3" IN DIAMETER SHALL BE THREADED DUCTILE IRON MEETING ASTM A-536, GRADE 65-45-12, WITH MINIMUM WALL THICKNESS EQUAL TO 0.25" AND DIAMETERS EQUAL TO IPS SIZE PIPE. THREADS SHALL BE NPT PER ANSI B.120-1-1983. WHERE APPLICABLE, THREADED FLANGES SHALL BE USED.
4. ALL GAUGE, SWITCH AND TRANSMITTER SENSING LINES SHALL BE MINIMUM 3/4" OD RIGID TYPE K COPPER WITH 95-5 TIN-ANTIMONY ALLOY SOLDERED JOINTS. THE ALIGNMENT AND ROUTE OF THE SENSING LINES SHALL BE STRAIGHT RUNS WITH 90 DEGREE FITTINGS, CONTINUOUSLY RISING, AND BE FASTENED TO THE FLOOR & WALLS.
5. THE CONTRACTOR SHALL CLEAN OUT FLOOR DRAIN AND FLUSH DRAIN LINE TO THE OUTFALL.
6. THE CONTRACTOR SHALL PROVIDE NEW MASONRY INFILL AT EXISTING WALL OPENINGS AS SHOWN. NEW MASONRY SHALL BE TIED INTO EXISTING MASONRY SO TO ENSURE EQUIVALENT COURSING AND PATTERN. NEW MATERIALS SHALL BE SELECTED SO TO MATCH EXISTING CHARACTERISTICS (TYPE, SIZE, COLOR, TEXTURE AND FINISH, ETC.)
7. ALL INTERIOR BUILDING SURFACES (FLOOR, WALLS & CEILING) SHALL BE REPAIRED & PATCHED USING NON-SHRINK GROUT OR EPOXY AS REQUIRED TO ENSURE A NEAT APPEARANCE. AFTER SANDING AND PRIMING ANY REPAIRED OR BARE AREAS, THE CONTRACTOR SHALL APPLY A MINIMUM OF TWO COATS OF PAINT. THE FLOOR COATING SHOULD INCORPORATE A SKID INHIBITING ADDITIVE TO ENSURE SUPERIOR NON-SLIP PERFORMANCE. COLORS SHALL BE AS SELECTED BY THE OWNER/ENGINEER WITH THE WALLS DIFFERING FROM THE CEILING & FLOOR.
8. THE CONTRACTOR SHALL INSTALL NEW OR MODIFY THE EXISTING ELECTRICAL SYSTEM, CONTROLS, ETC. AS PER THESE DRAWINGS AND THE TECHNICAL SPECIFICATIONS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING, STARTUP, BALANCING, ETC. ON ALL SYSTEMS/EQUIPMENT INSTALLED, MODIFIED OR REVISED IN ASSOCIATION WITH THE WORK.

DESCRIPTION:

PROPOSED LAYOUT: PLAN & SECTIONS  
DONANSBURG PUMP STATION REHABILITATION

CUSTOMER:

GREEN-TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY

PROJECT NO. 2031

DATE: JAN 2021

DRAWN BY: JRC

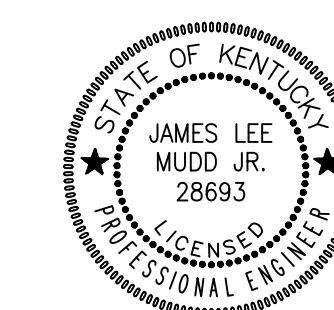
CHECKED BY: DSB

CHECKED BY: JLM

SCALE: AS NOTED

SHEET:

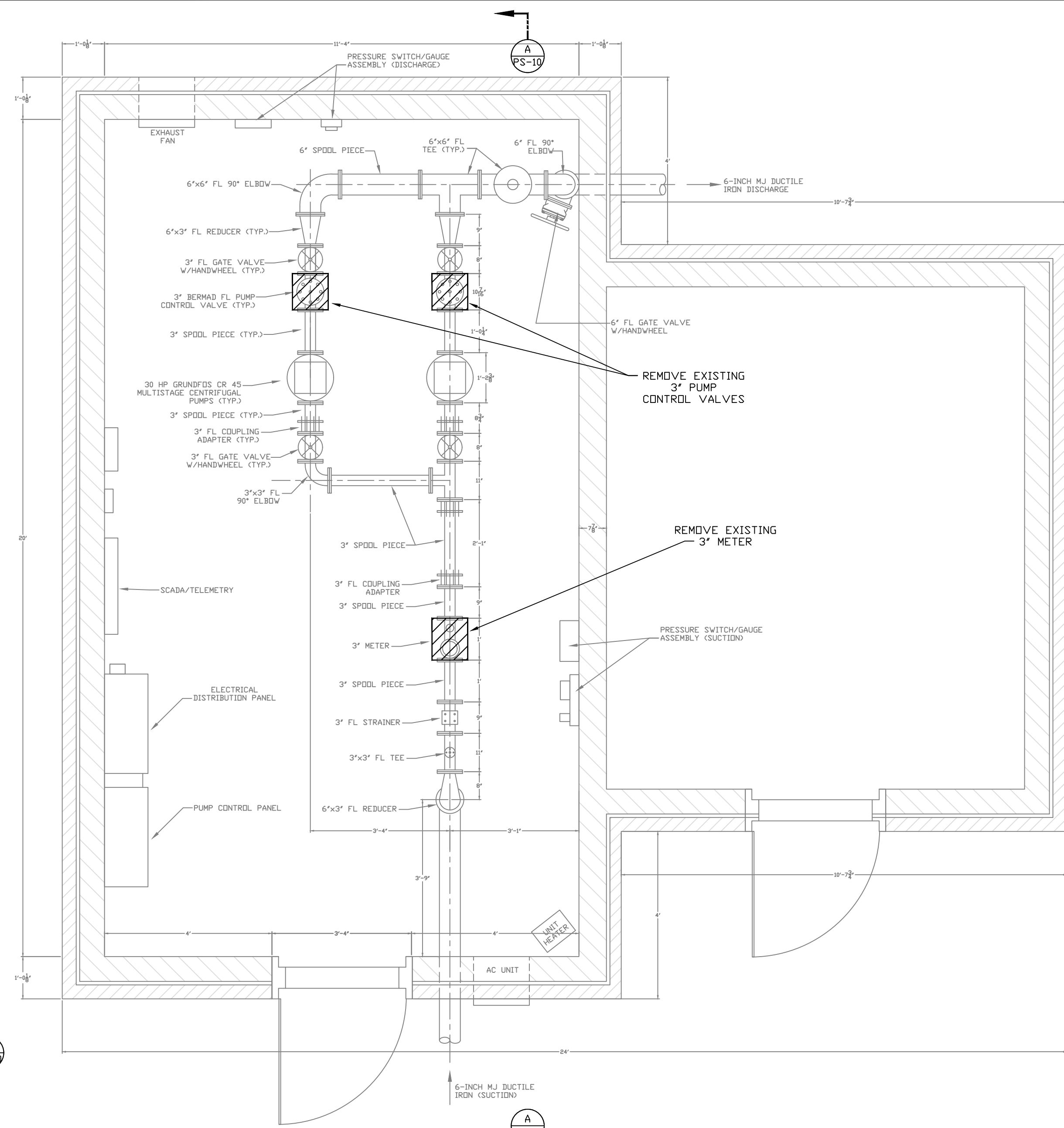
BPS-6



**Monarch Engineering, Inc.**

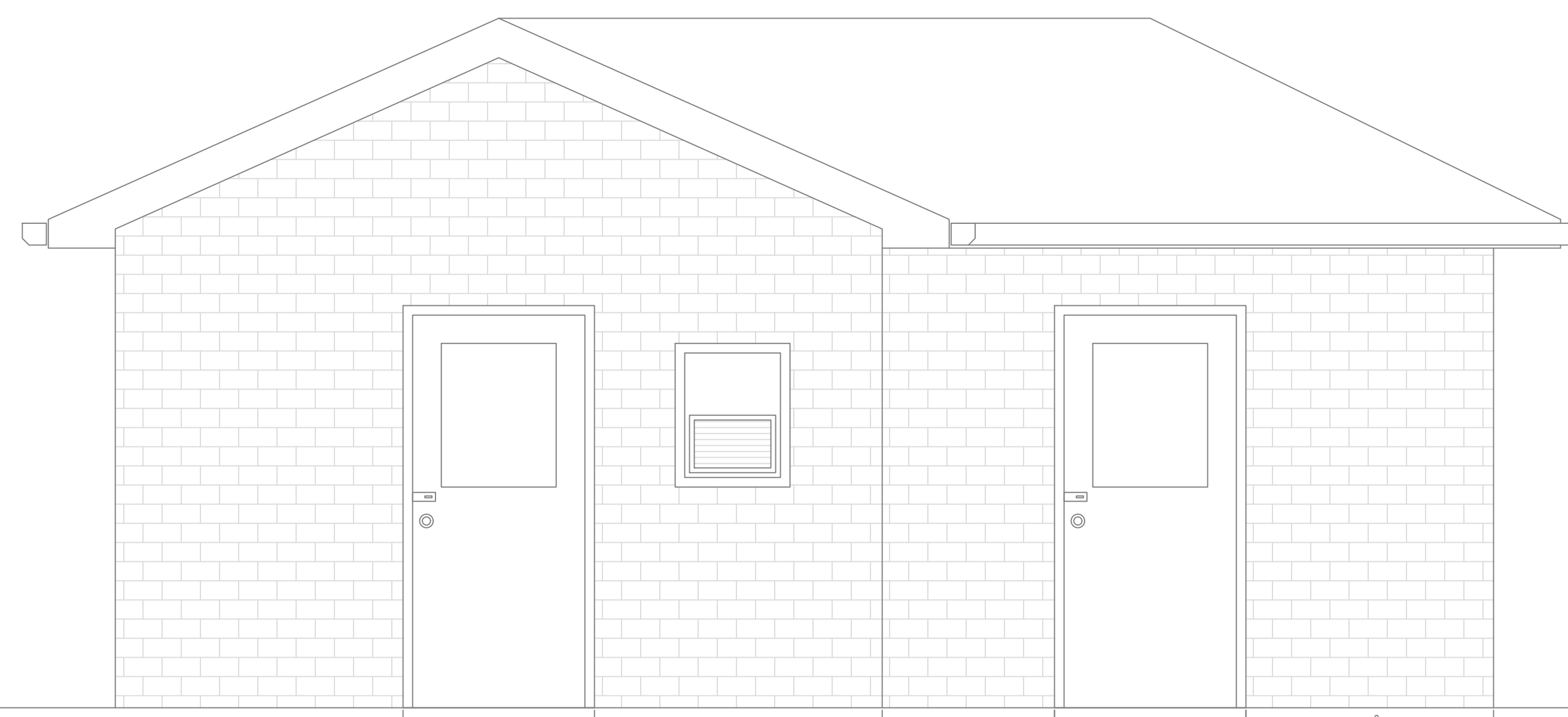
556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342





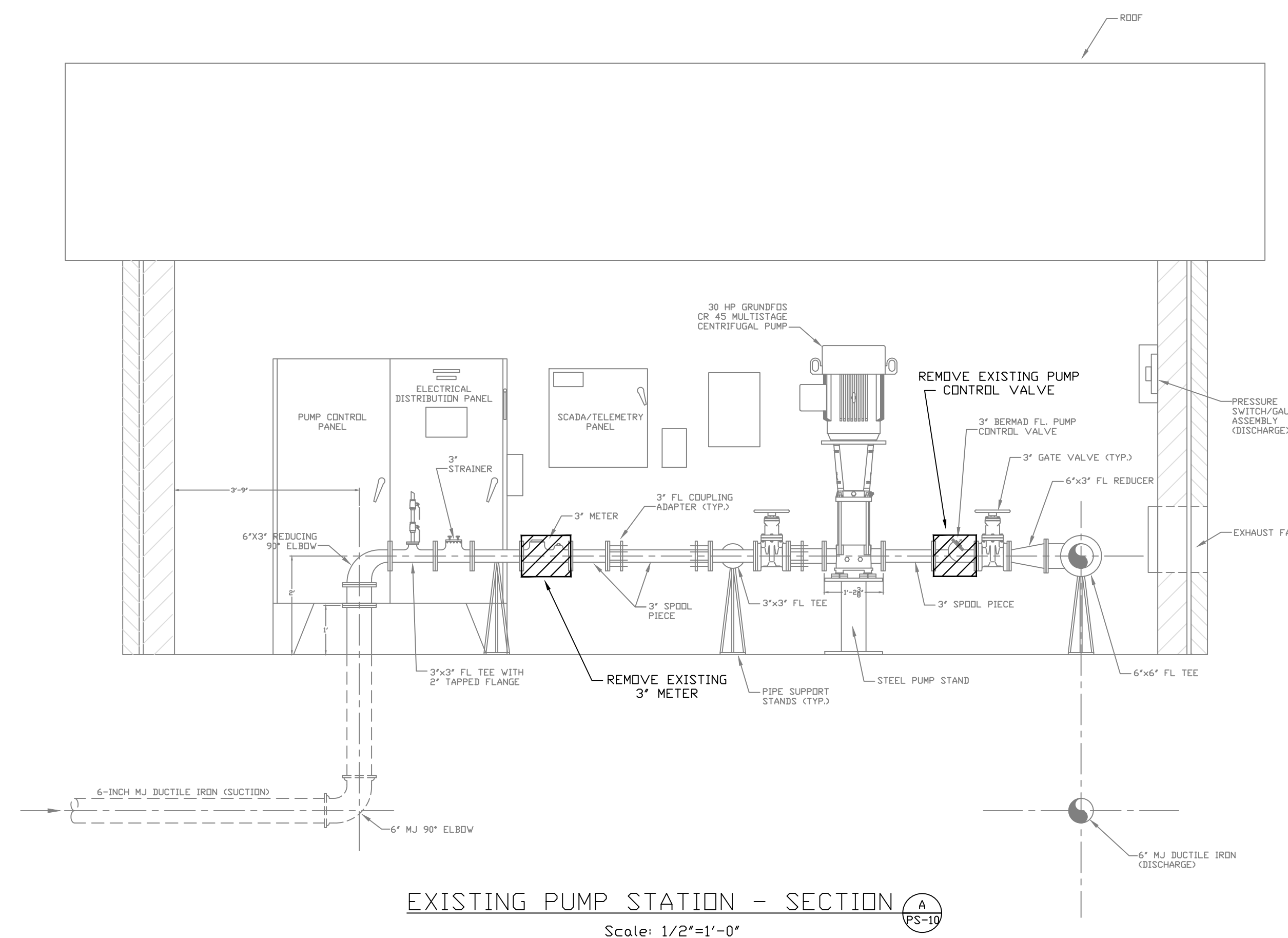
EXISTING PUMP STATION - PLAN VIEW

Scale: 1/2"=1'-0"



EXISTING PUMP STATION - ELEVATION

Scale: 1/2"=1'-0"



EXISTING PUMP STATION - SECTION

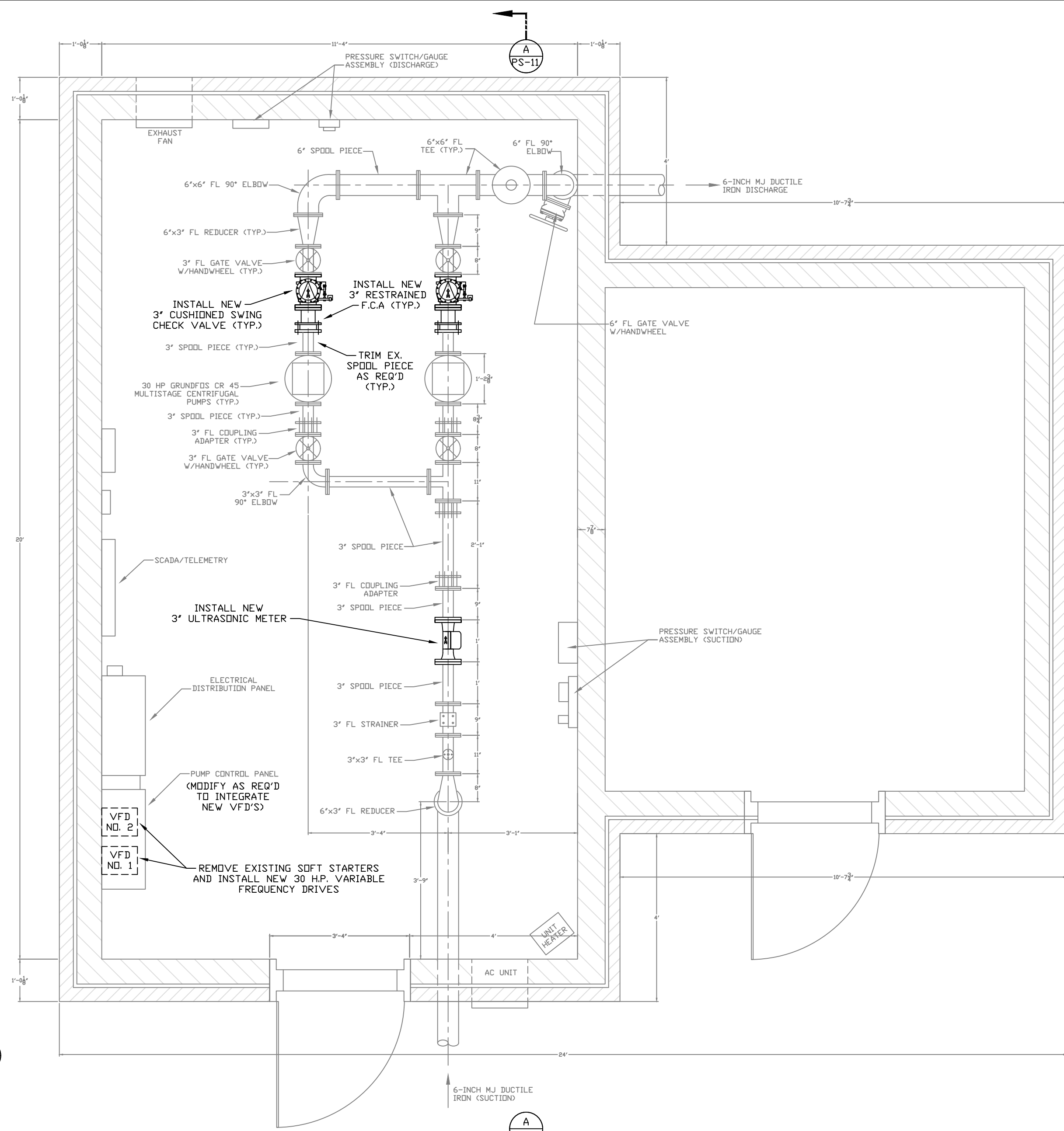
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**GENERAL NOTES:**

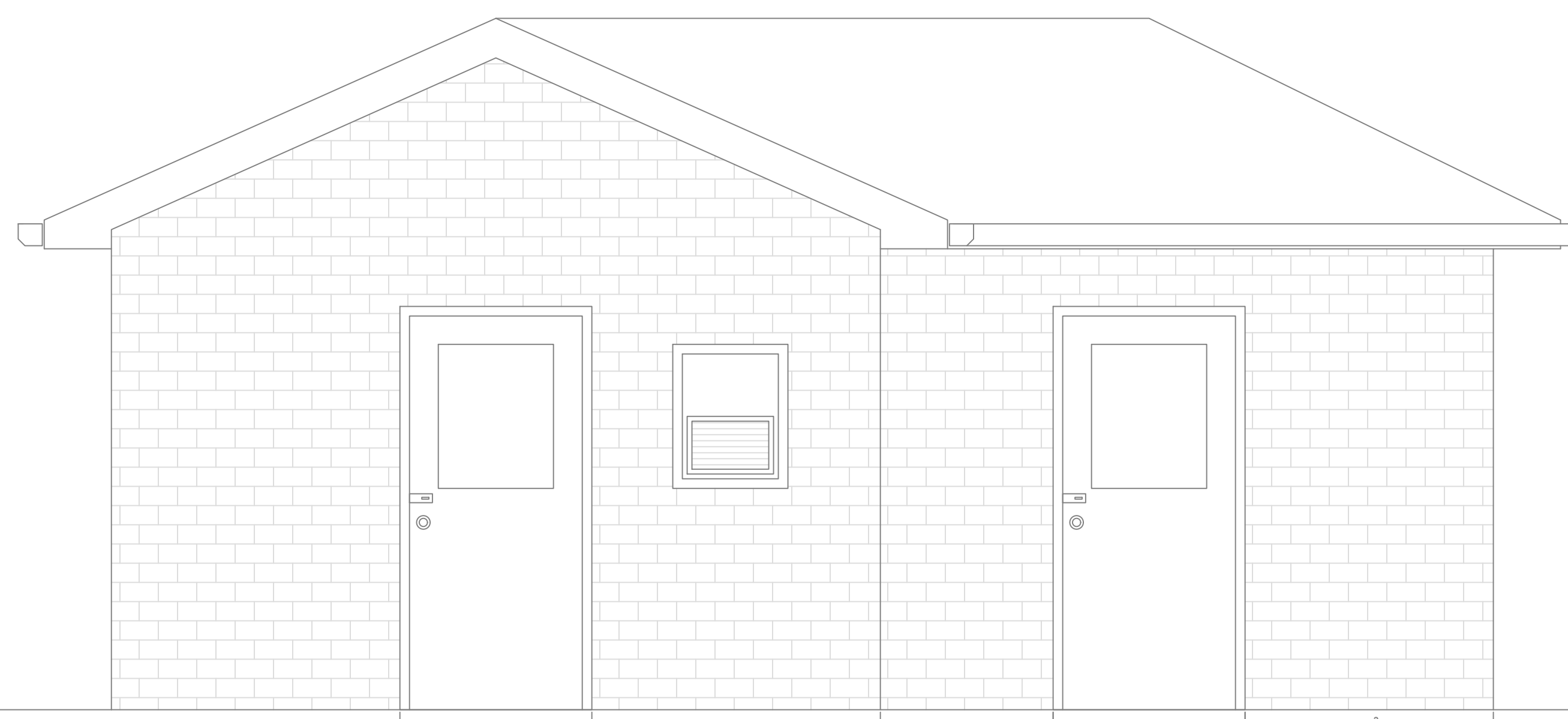
1. DETAILS OF THE EXISTING FACILITIES INCLUDING COMPONENT LOCATION, DIMENSIONS AND ELEVATIONS ARE BASED ON THE ORIGINAL AS-BUILT DRAWINGS FROM 1990 AND FIELD MEASUREMENTS. TRUE DIMENSIONS SHALL BE DETERMINED IN THE FIELD BY CONTRACTOR PRIOR TO LAYOUT AND SHOP DRAWING SUBMITTAL.
2. THE CONTRACTOR SHALL EXAMINE THE DRAWINGS, VISIT THE SITE AND DETERMINE FOR THEMSELVES THE EXTENT OF THE EXISTING FACILITIES, THE EXTENT OF WORK AFFECTED THEREIN AND ALL CONDITIONS UNDER WHICH THEY ARE REQUIRED TO PERFORM THE VARIOUS TASKS. IT IS HIGHLY RECOMMENDED THAT PRIOR TO PRESENTATION OF BID PROPOSAL, THAT THE BIDDER OR QUALIFIED REPRESENTATIVE OF THE BIDDER VISIT THE PROJECT SITE AND REVIEW THE CONDITIONS IN THE FIELD.

**DEMOLITION NOTES:**

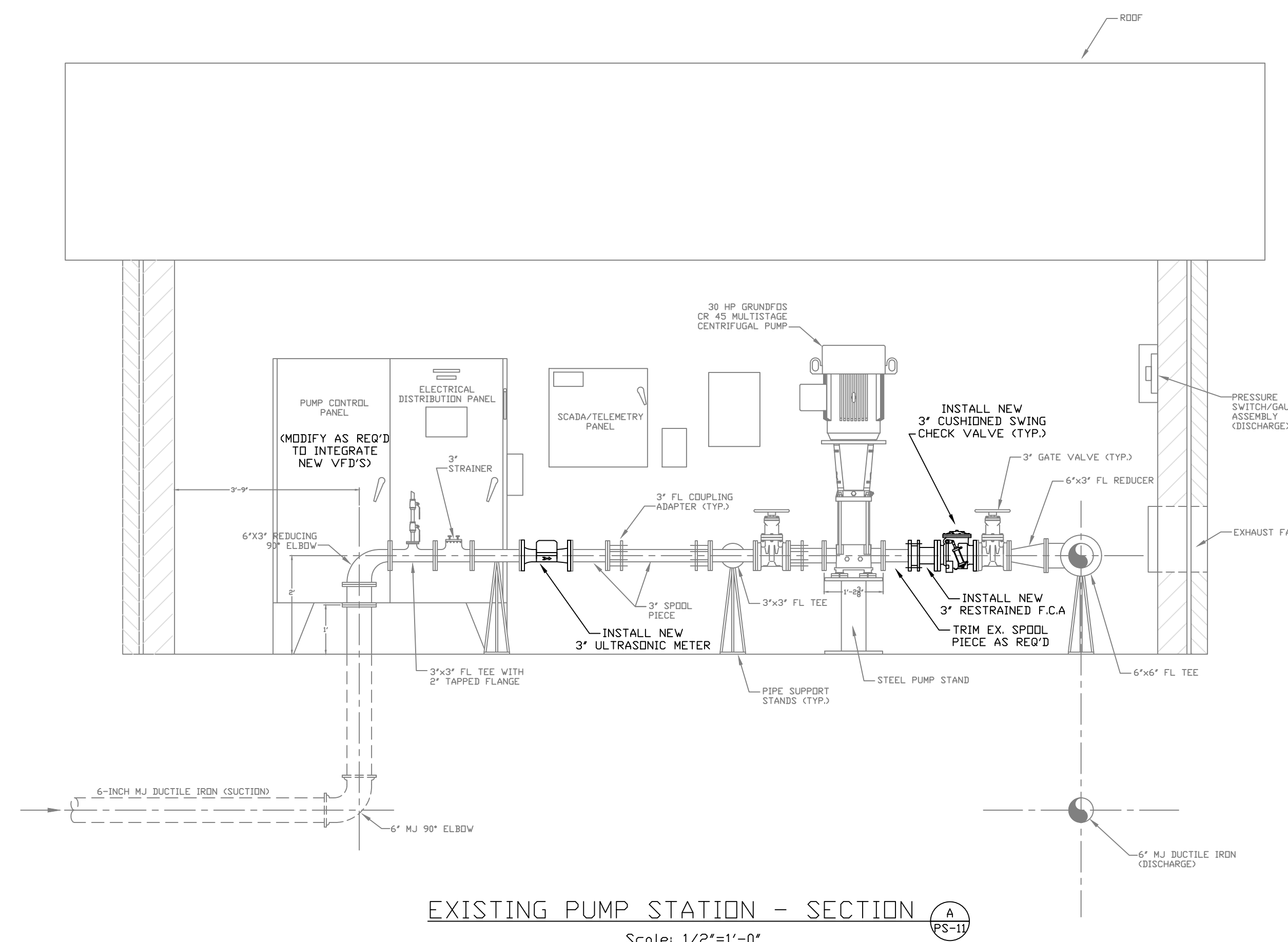
1. THE CONTRACTOR SHALL COMPLETELY REMOVE EXISTING PIPING, PUMPS, VALVES, BOOSTER PUMPS, AND OTHER APPURTENANCES AS SHOWN. THE DEMOLITION WORK SHALL BE PHASED WITH THE INSTALLATION OF PROPOSED PIPING, ELECTRICAL, EQUIPMENT, ETC. SUCH THAT ONE EXISTING PUMP CAN REMAIN IN OPERATION UNTIL ONE NEW PUMP IS READY FOR SERVICE AS DIRECTED BY THE ENGINEER. TEMPORARY PIPE AND ELECTRICAL WORK AS REQUIRED TO ACCOMPLISH THIS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. SALVAGEABLE MATERIAL AS DETERMINED BY THE OWNER SHALL BE DELIVERED TO AND UNLOADED BY THE CONTRACTOR AT THE WATER DISTRICT OFFICE LOCATED AT 250 INDUSTRIAL PARK RD., GREENSBURG, KY. NON-SALVAGEABLE MATERIALS ARE TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR.



EXISTING PUMP STATION - PLAN VIEW  
Scale: 1/2"=1'-0"



EXISTING PUMP STATION - ELEVATION  
Scale: 1/2"=1'-0"

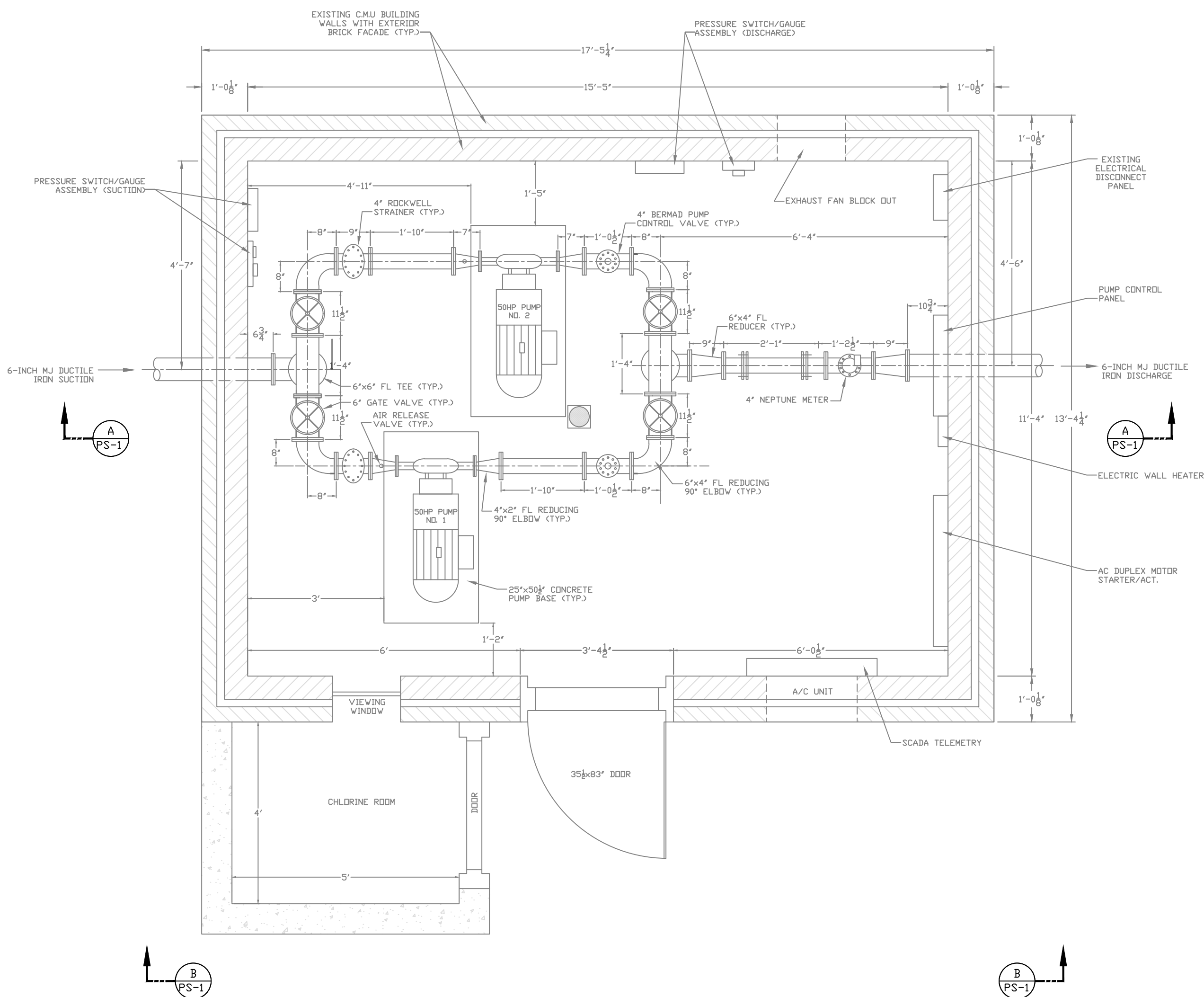


EXISTING PUMP STATION - SECTION  
Scale: 1/2"=1'-0"

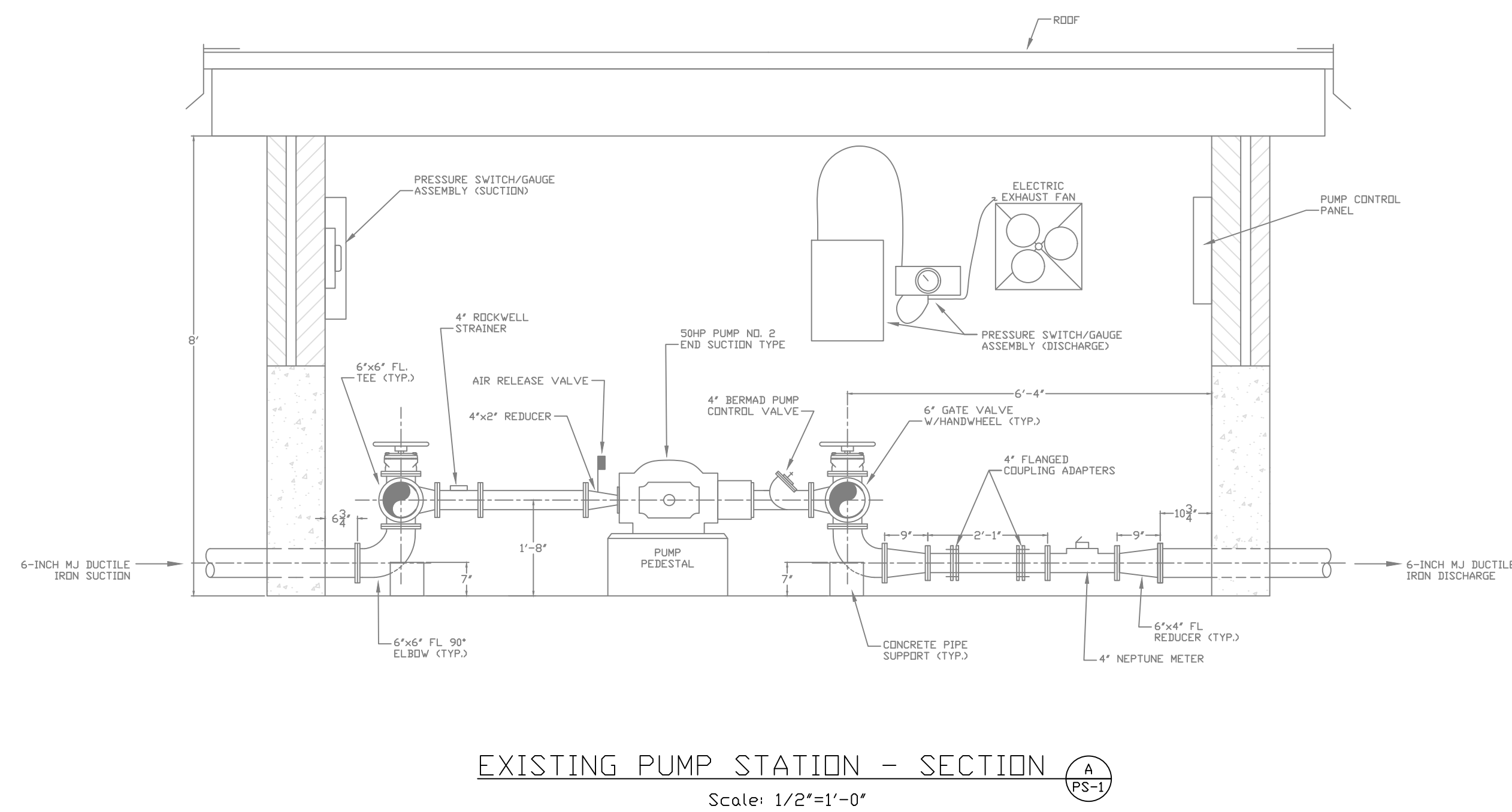
CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL COMPLETELY EXAMINE THE WORK SITE AND OBSERVE THE CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED. NO ALLOWANCES WILL BE MADE FOR OMISSIONS AND ERRORS RESULTING FROM CONTRACTOR'S FAILURE TO COMPLETELY EXAMINE THE SITE. ACCORDINGLY, ALL DIMENSIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR PRIOR TO LAYOUT AND SHOP DRAWING SUBMITTAL.
2. STATION PIPING 3" & GREATER IN DIAMETER SHALL BE CL350 DUCTILE IRON CONFORMING TO ANSI/AWWA C115/A21.15. DUCTILE IRON FITTINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C110/A21.10. PIPE AND FITTINGS SHALL BE SUPPLIED WITH ANSI STANDARD B16.1, CLASS 125 FLANGES, EQUIPPED WITH HIGH PRESSURE GASKETS SO TO ACHIEVE A PRESSURE RATING OF 350 PSI.
3. STATION PIPING LESS THAN 3" IN DIAMETER SHALL BE THREADED DUCTILE IRON MEETING ASTM A-536, GRADE 65-45-12, WITH MINIMUM WALL THICKNESS EQUAL TO 0.25" AND DIAMETERS EQUAL TO IPS SIZE PIPE. THREADS SHALL BE NPT PER ANSI B.120-1-1983. WHERE APPLICABLE, THREADED FLANGES SHALL BE USED.
4. IF REQUIRED, THE CONTRACTOR SHALL FURNISH AND INSTALL NEW 3-INCH FLANGED SPOOL PIECES AT EACH LOCATION OF THE REMOVED PUMP CONTROL VALVES. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW 3-INCH ULTRASONIC FLOW METER. TRUE DIMENSIONS SHALL BE DETERMINED IN THE FIELD BY CONTRACTOR PRIOR TO INSTALLATION OF NEW METER.
5. THE CONTRACTOR SHALL INSTALL NEW OR MODIFY THE EXISTING ELECTRICAL SYSTEM, CONTROLS, ETC. AS PER THESE DRAWINGS AND THE TECHNICAL SPECIFICATIONS.
6. THE EXISTING CONTROL PANEL SHALL BE MODIFIED SUCH NEW VFD'S ARE INSTALLED TO REPLACE EXISTING SOFT STARTERS. IN ADDITION, THE CONTROL SCHEME SHALL BE MODIFIED SUCH THAT ALL SELECTOR SWITCHES, RELAYS, INDICATOR LIGHTS, ETC. ASSOCIATED WITH THE EXISTING PUMP CONTROL VALVES ARE REMOVED. EXISTING TAGS ASSOCIATED WITH THESE CHANGES SHALL BE REMOVED OR REPLACED TO ACCURATELY REFLECT THE REVISED CONTROL SCHEME. THE ORIGINAL ELECTRICAL & CONTROL AS-BUILT DRAWINGS SHALL BE CORRECTED TO REFLECT ALL CHANGES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING, STARTUP, BALANCING, ETC. ON ALL SYSTEMS/EQUIPMENT INSTALLED, MODIFIED OR REVISED IN ASSOCIATION WITH THE WORK.





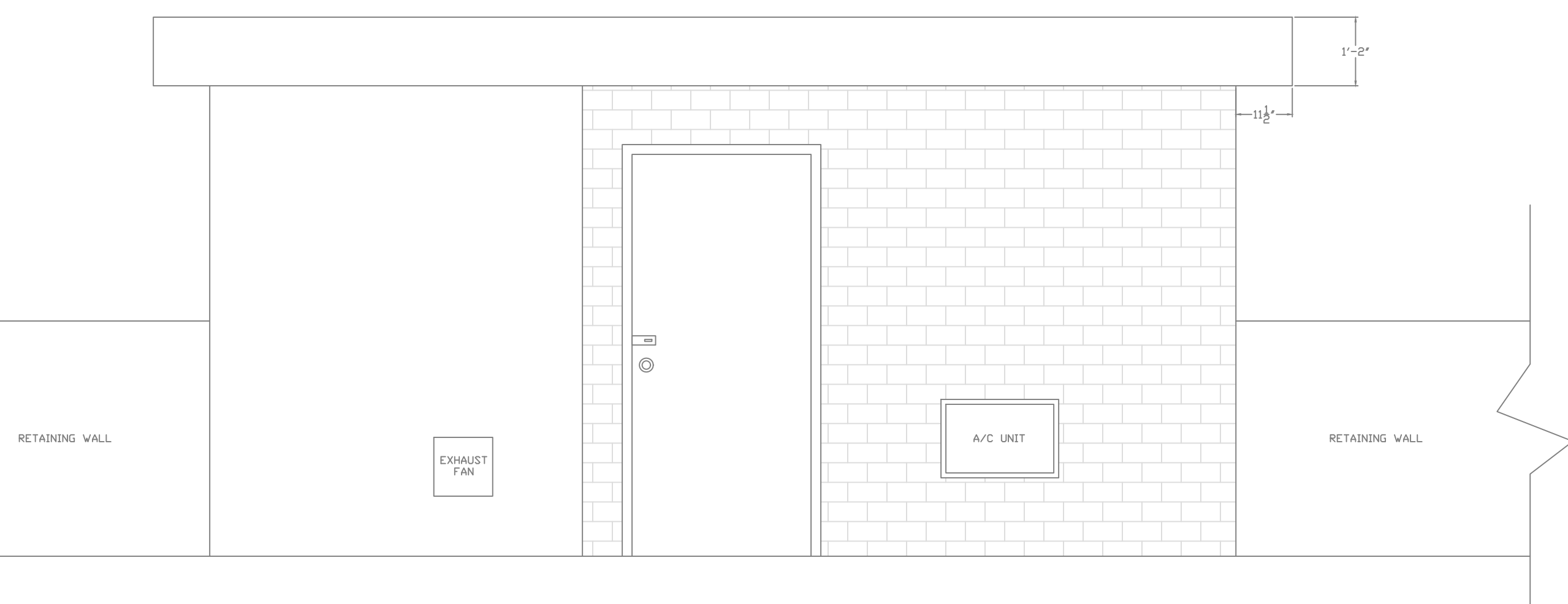
EXISTING PUMP STATION - PLAN VIEW  
Scale: 1/2"=1'-0"



EXISTING PUMP STATION - SECTION  
Scale: 1/2"=1'-0"

GENERAL NOTES:

1. DETAILS OF THE EXISTING FACILITIES INCLUDING COMPONENT LOCATION, DIMENSIONS AND ELEVATIONS ARE BASED ON FIELD MEASUREMENTS AND PICTURES. TRUE DIMENSIONS SHALL BE DETERMINED IN THE FIELD BY CONTRACTOR PRIOR TO LAYOUT AND SHOP DRAWING SUBMITTAL.
2. THE CONTRACTOR SHALL EXAMINE THE DRAWINGS, VISIT THE SITE AND DETERMINE FOR THEMSELVES THE EXTENT OF THE EXISTING FACILITIES, THE EXTENT OF WORK AFFECTED THEREIN AND ALL CONDITIONS UNDER WHICH THEY ARE REQUIRED TO PERFORM THE VARIOUS TASKS. IT IS HIGHLY RECOMMENDED THAT PRIOR TO PRESENTATION OF BID PROPOSAL, THAT THE BIDDER OR QUALIFIED REPRESENTATIVE OF THE BIDDER VISIT THE PROJECT SITE AND REVIEW THE CONDITIONS IN THE FIELD.



EXISTING PUMP STATION - ELEVATION  
Scale: 1/2"=1'-0"

ADDITIVE ALTERNATE NO. 1

**Monarch Engineering, Inc.**

556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

DESCRIPTION:  
EXISTING LAYOUT, PLAN, SECTIONS & DETAILS  
SUMMERSVILLE PUMP STATION REHABILITATION

CUSTOMER:  
GREEN - TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY

PROJECT NO. 2031

DATE: JAN 2021

DRAWN BY: JRC

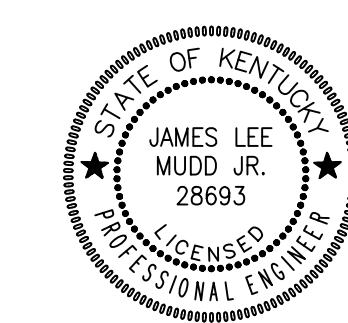
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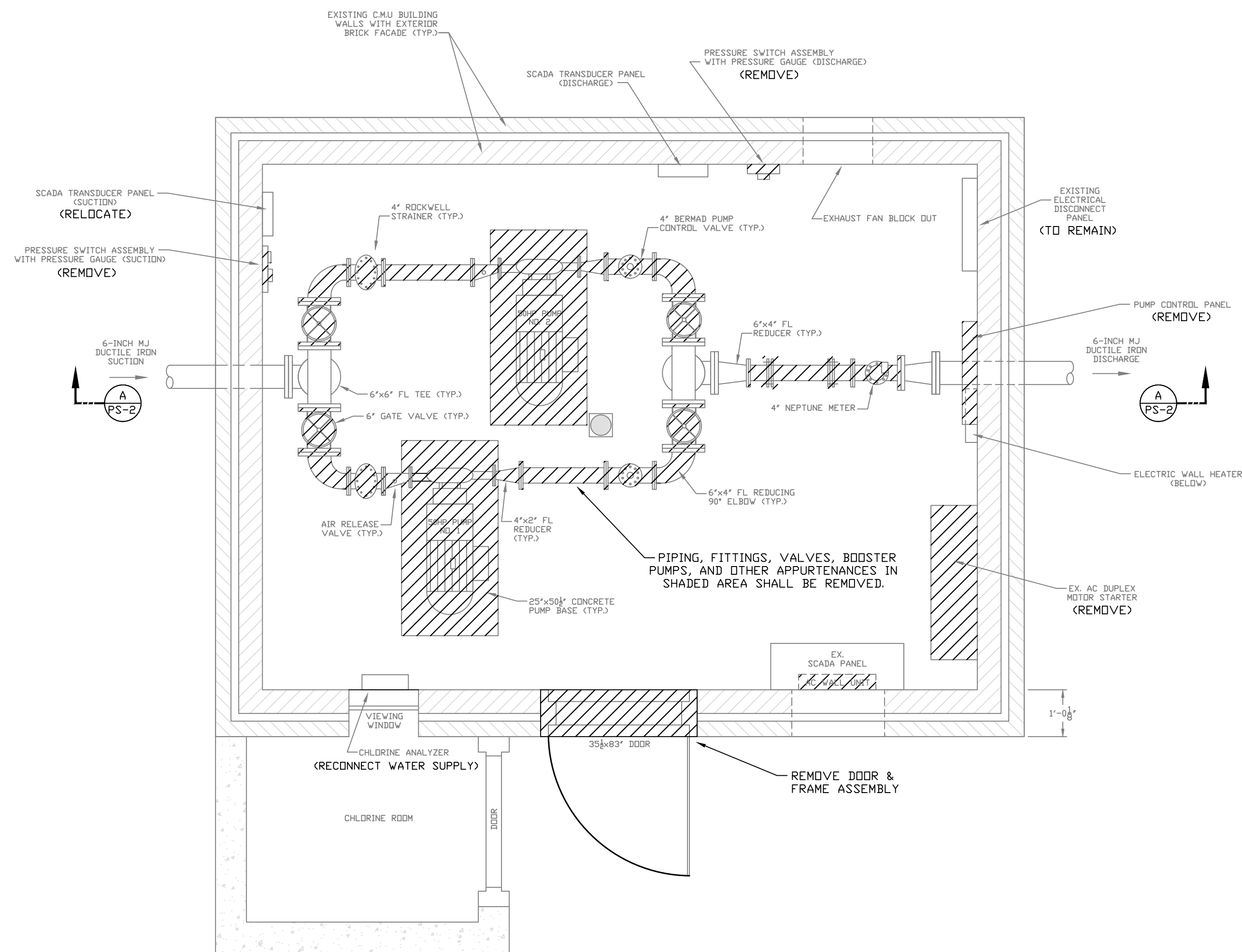
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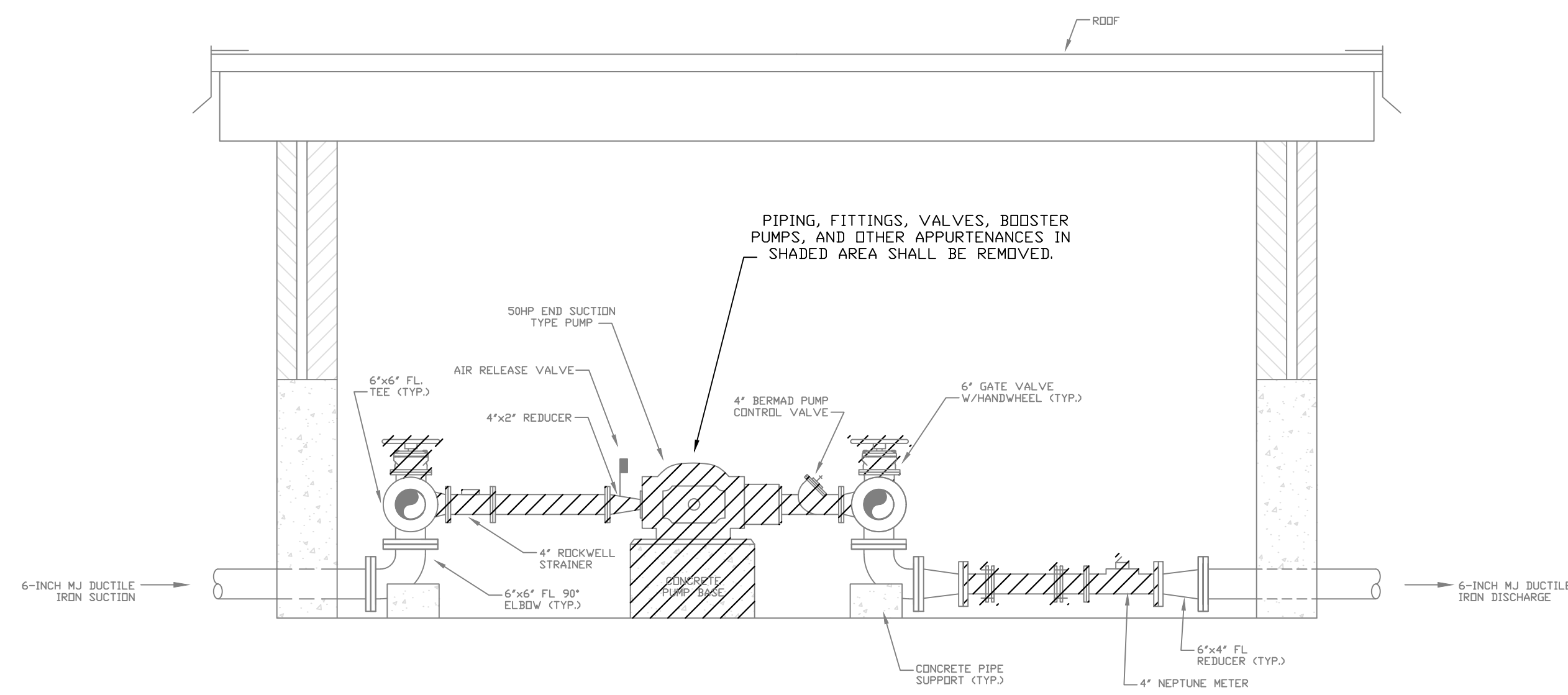
SHEET:

BPS-9





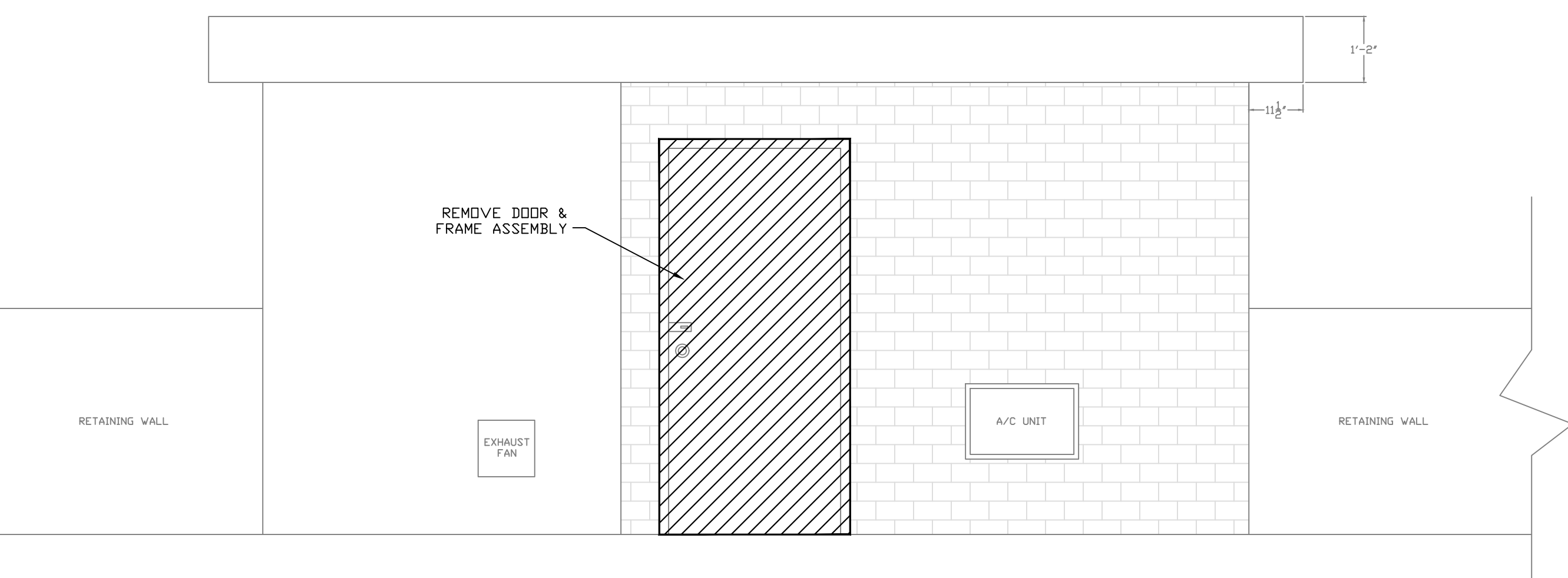
EXISTING PUMP STATION - PLAN VIEW  
Scale: 1/2"=1'-0"



EXISTING PUMP STATION - SECTION  
Scale: 1/2"=1'-0"

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL COMPLETELY REMOVE EXISTING PIPING, PUMPS, VALVES, BOOSTER PUMPS, AND OTHER APPURTENANCES AS SHOWN. THE DEMOLITION WORK SHALL BE PHASED WITH THE INSTALLATION OF PROPOSED PIPING, ELECTRICAL, EQUIPMENT, ETC. SUCH THAT ONE EXISTING PUMP CAN REMAIN IN OPERATION UNTIL ONE NEW PUMP IS READY FOR SERVICE AS DIRECTED BY THE ENGINEER. TEMPORARY PIPE AND ELECTRICAL WORK AS REQUIRED TO ACCOMPLISH THIS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. SALVAGEABLE MATERIAL AS DETERMINED BY THE OWNER SHALL BE DELIVERED TO AND UNLOADED BY THE CONTRACTOR AT THE WATER DISTRICT OFFICE LOCATED AT 250 INDUSTRIAL PARK RD., GREENSBURG, KY. NON-SALVAGEABLE MATERIALS ARE TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
3. FOLLOWING DEMOLITION AND REMOVAL OF THE EXISTING PUMP SUPPORT PEDESTALS, THE CONTRACTOR SHALL ENSURE A NEAT APPEARANCE AT THE FLOOR SURFACE. THIS SHALL BE ACCOMPLISHED BY GRINDING BACK EXPOSED REBARS A 1/2" MINIMUM, MILLING CONCRETE AS NECESSARY, AND RE-CONSTRUCTING THE SURFACES WITH EPOXY OR NON-SHRINK GROUT.
4. FOLLOWING COMPLETION OF DEMOLITION WORK, THE CONTRACTOR SHALL PRESSURE WASH ALL REMAINING INTERIOR AND EXTERIOR SURFACES TO REMOVE ALL LOOSE PAINT AND SOIL. THE CONTRACTOR SHALL CONTAIN AND COLLECT ALL DEBRIS FOR PROPER DISPOSAL.



EXISTING PUMP STATION - ELEVATION  
Scale: 1/2"=1'-0"

ADDITIVE ALTERNATE NO. 1

**Monarch Engineering, Inc.**

556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

DESCRIPTION:  
SUMMERSVILLE PUMP STATION REHABILITATION

CUSTOMER:  
GREEN - TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY

PROJECT NO. 2031

DATE: JAN 2021

DRAWN BY: JRC

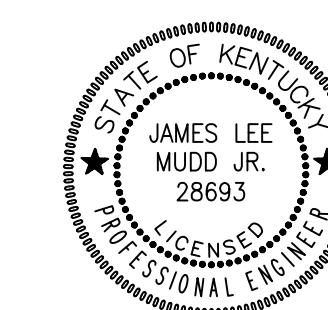
CHECKED BY: DSB

CHECKED BY: JLM

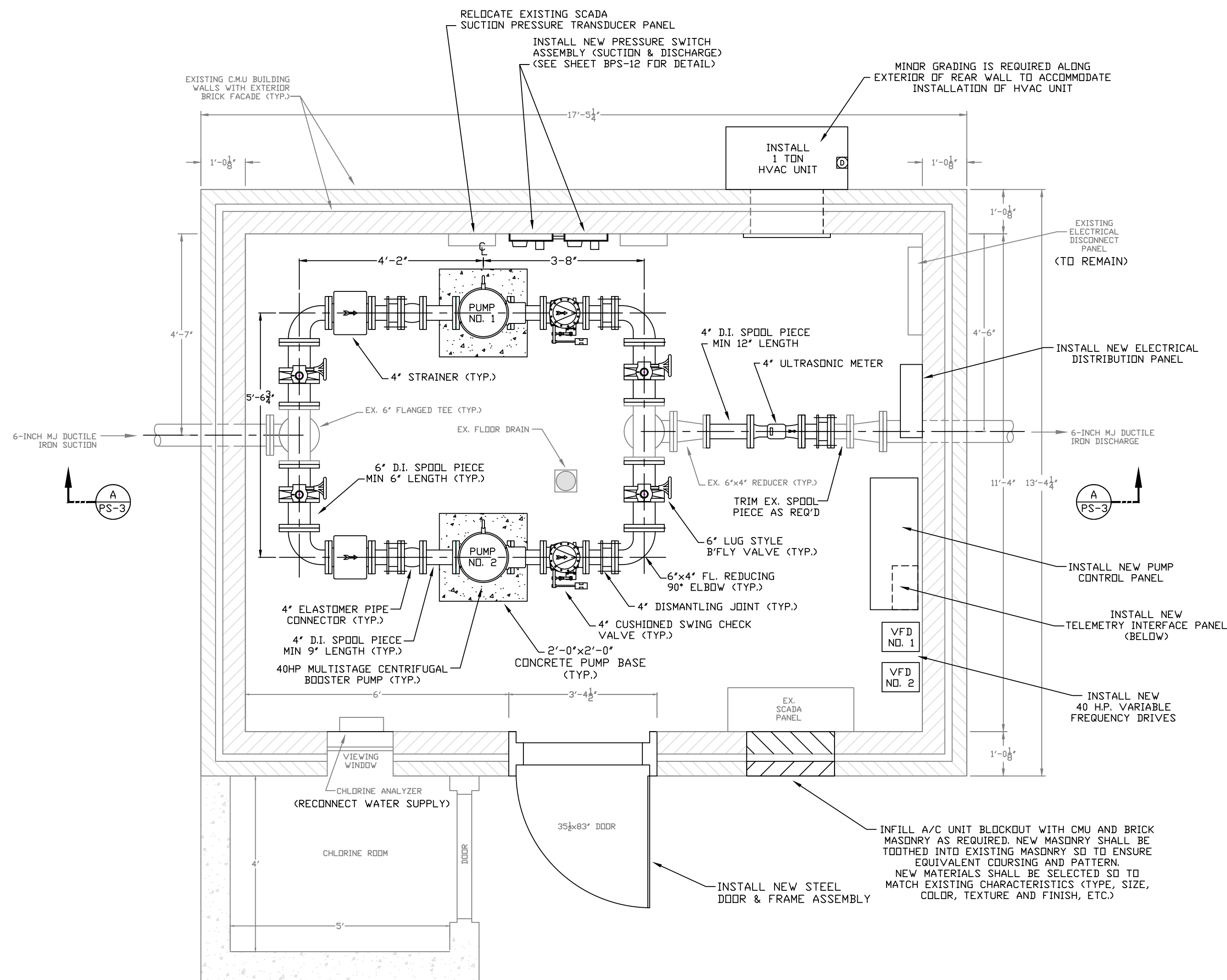
SCALE: AS NOTED

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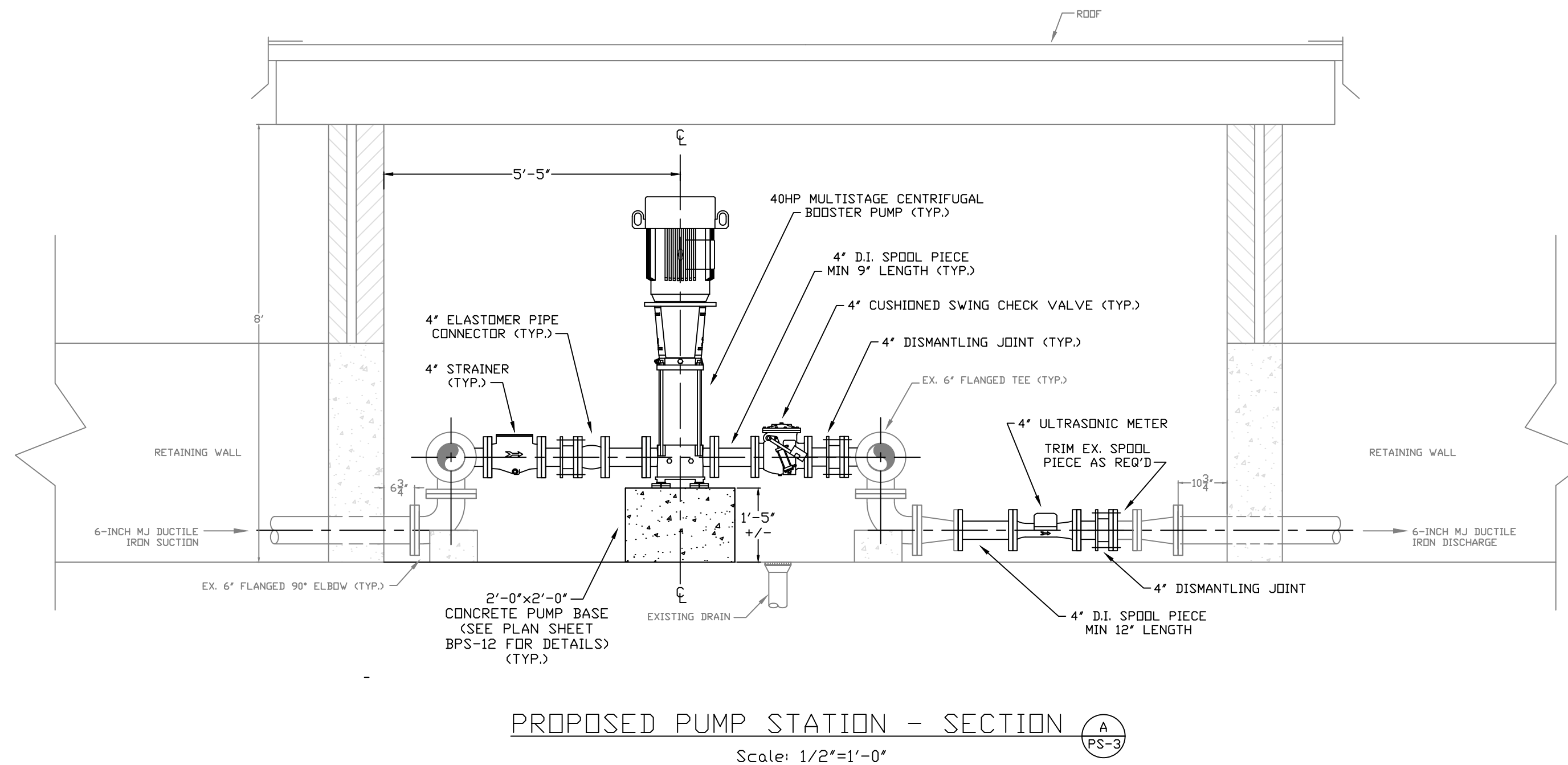
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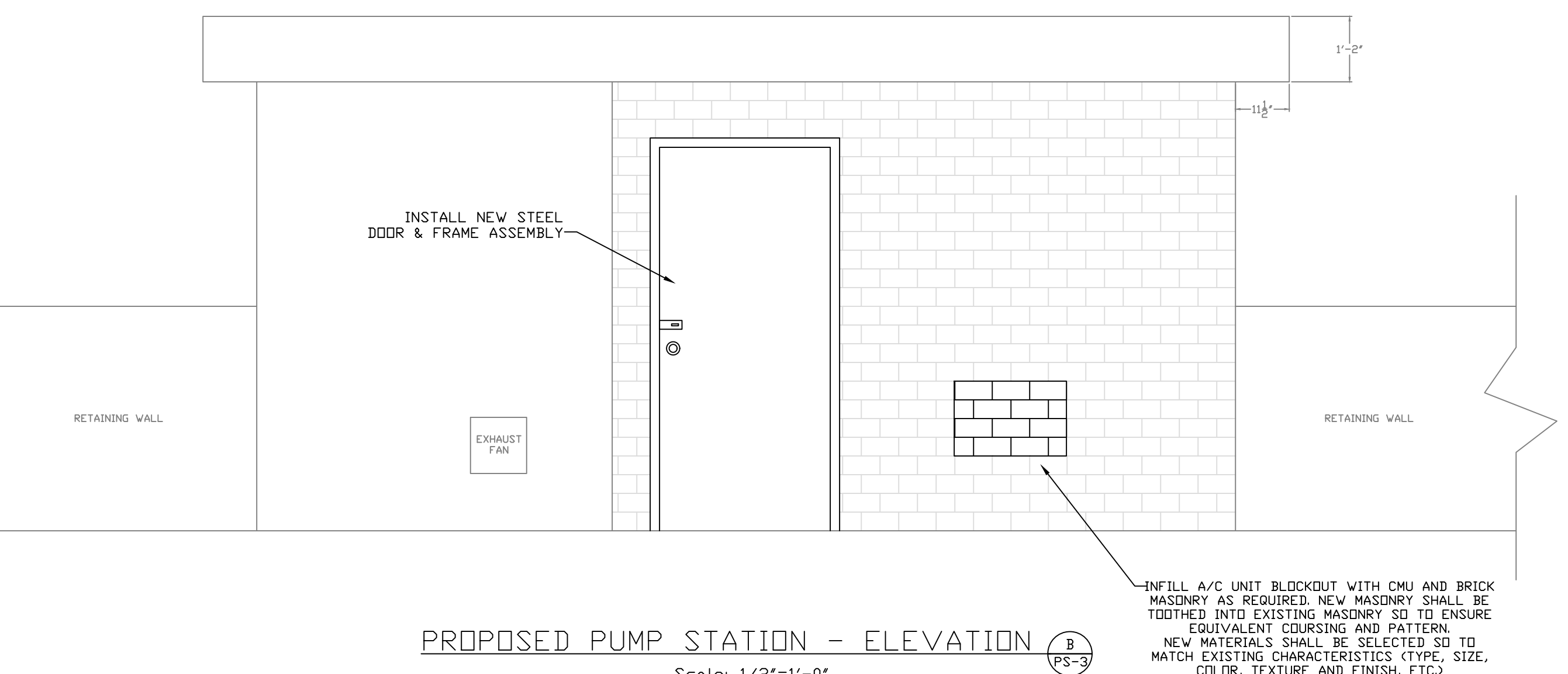




PROPOSED PUMP STATION - PLAN VIEW  
Scale: 1/2"=1'-0"



PROPOSED PUMP STATION - SECTION A  
Scale: 1/2"=1'-0"



PROPOSED PUMP STATION - ELEVATION B  
Scale: 1/2"=1'-0"

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL COMPLETELY EXAMINE THE WORK SITE AND OBSERVE THE CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED. NO ALLOWANCES WILL BE MADE FOR OMISSIONS AND ERRORS RESULTING FROM CONTRACTOR'S FAILURE TO COMPLETELY EXAMINE THE SITE. ACCORDINGLY, ALL DIMENSIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR PRIOR TO LAYOUT AND SHOP DRAWING SUBMITTAL.
2. STATION PIPING 3" & GREATER IN DIAMETER SHALL BE CL350 DUCTILE IRON CONFORMING TO ANSI/AWWA C115/A21.15. DUCTILE IRON FITTINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C110/A21.10. PIPE AND FITTINGS SHALL BE SUPPLIED WITH ANSI STANDARD B16.1, CLASS 125 FLANGES, EQUIPPED WITH HIGH PRESSURE GASKETS SO TO ACHIEVE A PRESSURE RATING OF 350 PSI.
3. STATION PIPING LESS THAN 3" IN DIAMETER SHALL BE THREADED DUCTILE IRON MEETING ASTM A-536, GRADE 65-45-12, WITH MINIMUM WALL THICKNESS EQUAL TO 0.25" AND DIAMETERS EQUAL TO IPS SIZE PIPE. THREADS SHALL BE NPT PER ANSI B.120-1-1983. WHERE APPLICABLE, THREADED FLANGES SHALL BE USED.
4. ALL GAUGE, SWITCH AND TRANSMITTER SENSING LINES SHALL BE MINIMUM 3/4" OD RIGID TYPE K COPPER WITH 95-5 TIN-ANTIMONY ALLOY SOLDERED JOINTS. THE ALIGNMENT AND ROUTE OF THE SENSING LINES SHALL BE STRAIGHT RUNS WITH 90 DEGREE FITTINGS, CONTINUOUSLY RISING, AND BE FASTENED TO THE FLOOR & WALLS.
5. THE CONTRACTOR SHALL CLEAN OUT FLOOR DRAIN AND FLUSH DRAIN LINE TO THE OUTFALL.
6. THE CONTRACTOR SHALL INSTALL A NEW EXTERIOR STEEL DOOR INCLUDING FRAME, THRESHOLD, AND HARDWARE. CONTRACTOR SHALL VERIFY THE DIMENSIONS OF THE EXISTING DOOR OPENING PRIOR TO ORDERING.
7. ALL INTERIOR BUILDING SURFACES (FLOOR, WALLS & CEILING) SHALL BE REPAIRED & PATCHED USING NON-SHRINK GROUT OR EPOXY AS REQUIRED TO ENSURE A NEAT APPEARANCE. AFTER SANDING AND PRIMING ANY REPAIRED OR BARE AREAS, THE CONTRACTOR SHALL APPLY A MINIMUM OF TWO COATS OF PAINT. THE FLOOR COATING SHOULD INCORPORATE A SKID INHIBITING ADDITIVE TO ENSURE SUPERIOR NON-SLIP PERFORMANCE. COLORS SHALL BE AS SELECTED BY THE OWNER/ENGINEER WITH THE WALLS DIFFERING FROM THE CEILING & FLOOR.
8. THE CONTRACTOR SHALL INSTALL NEW OR MODIFY THE EXISTING ELECTRICAL SYSTEM, CONTROLS, ETC. AS PER THESE DRAWINGS AND THE TECHNICAL SPECIFICATIONS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING, STARTUP, BALANCING, ETC. ON ALL SYSTEMS/EQUIPMENT INSTALLED, MODIFIED OR REVISED IN ASSOCIATION WITH THE WORK.

ADDITIVE ALTERNATE NO. 1

DESCRIPTION:

PROPOSED LAYOUT: PLAN & SECTIONS  
SUMMERSVILLE PUMP STATION REHABILITATION

CUSTOMER:

GREEN - TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY

PROJECT NO. 2031

DATE: JAN 2021

DRAWN BY: JRC

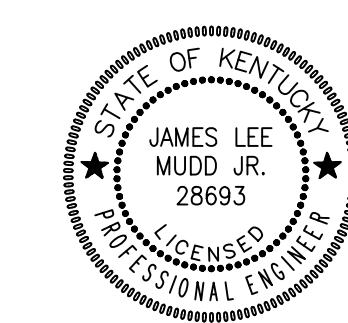
CHECKED BY: DSB

CHECKED BY: JLM

SCALE: AS NOTED

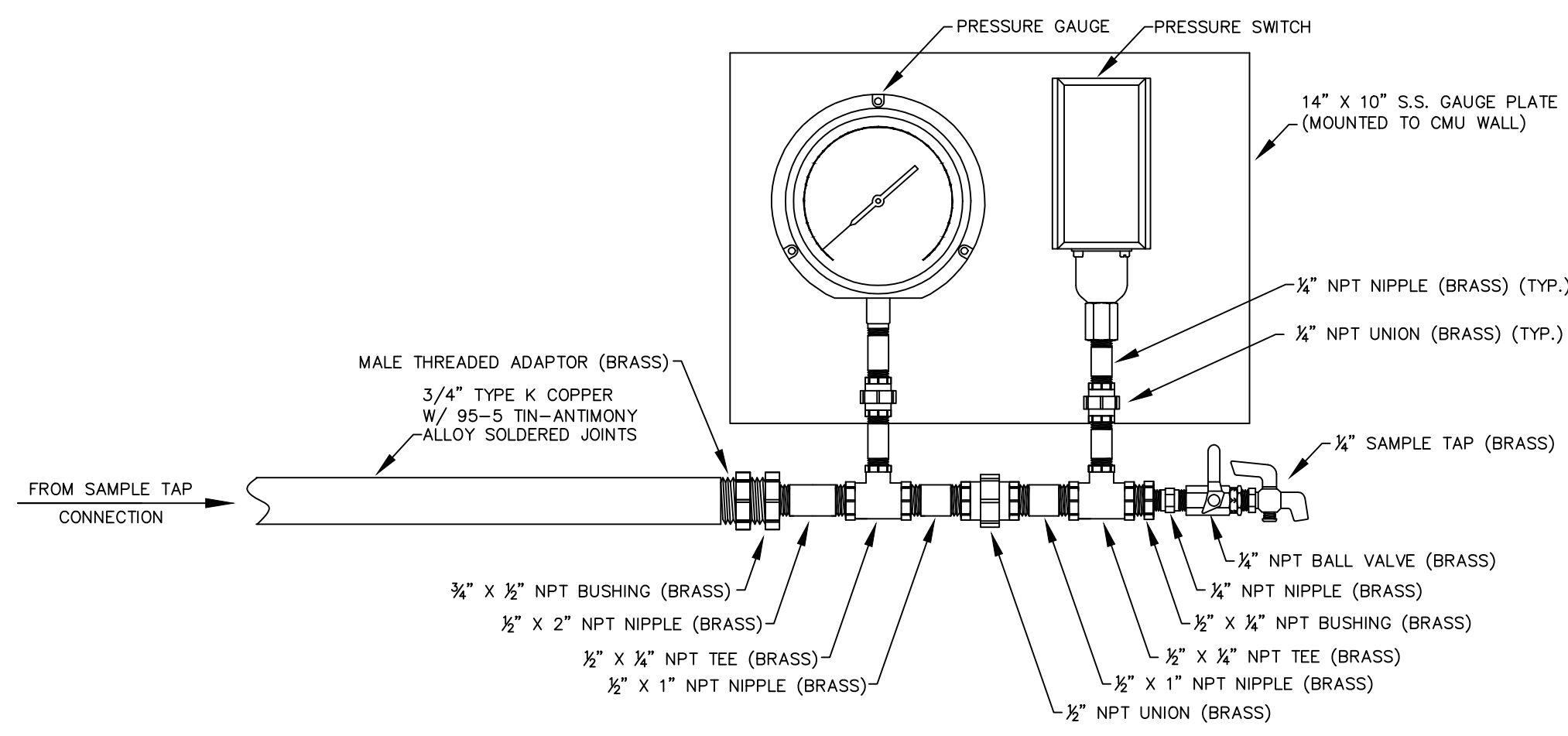
SHEET:

BPS-11



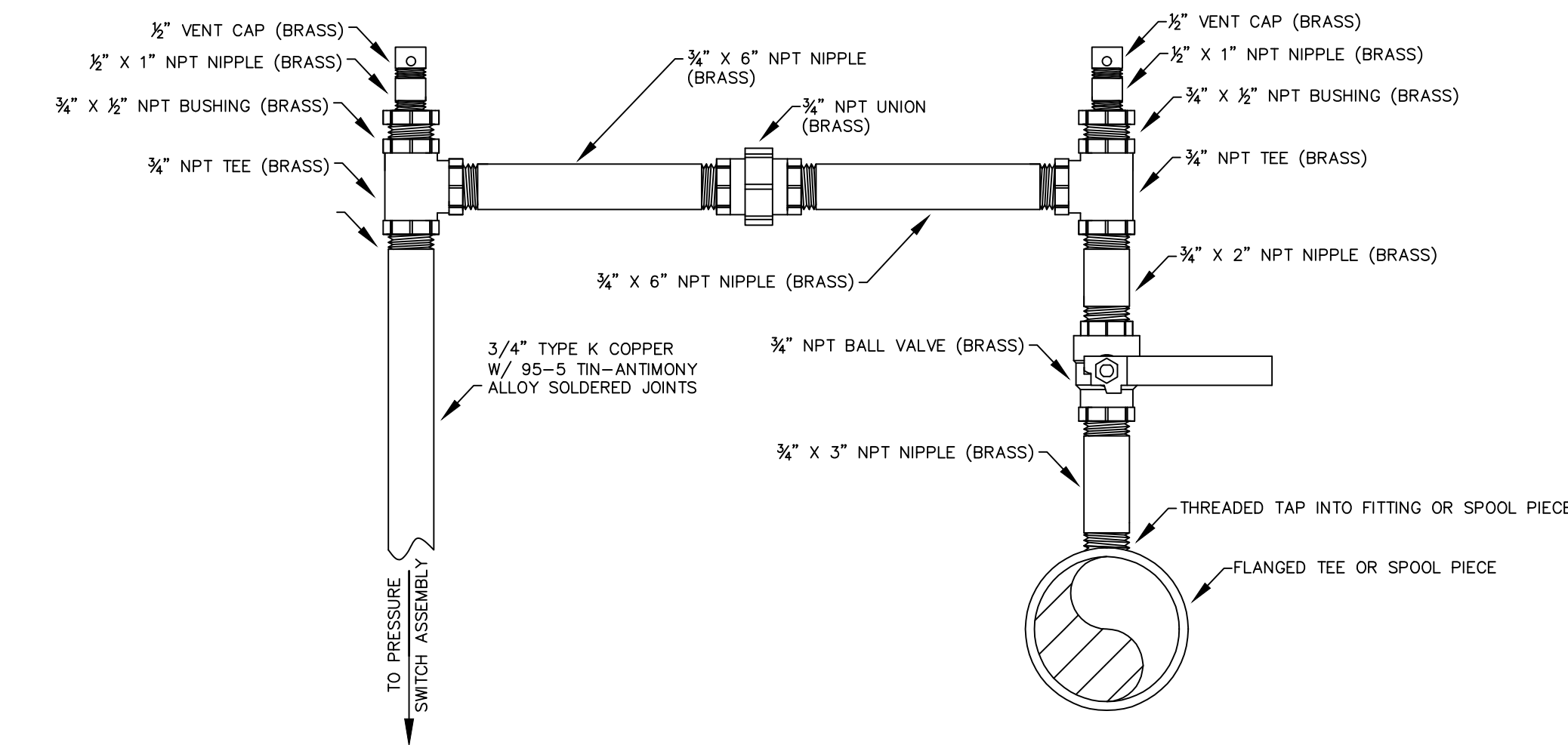
Monarch Engineering, Inc.

556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342



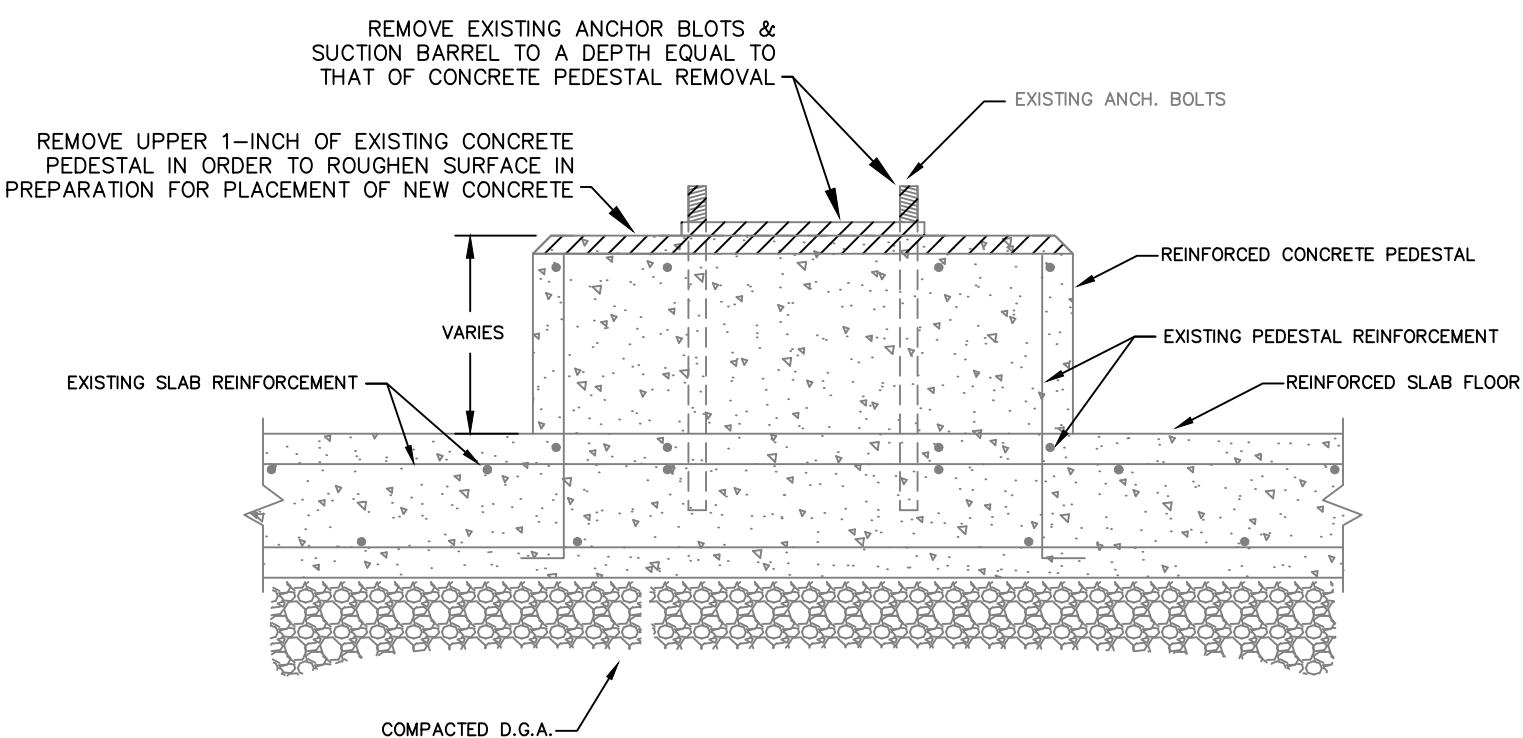
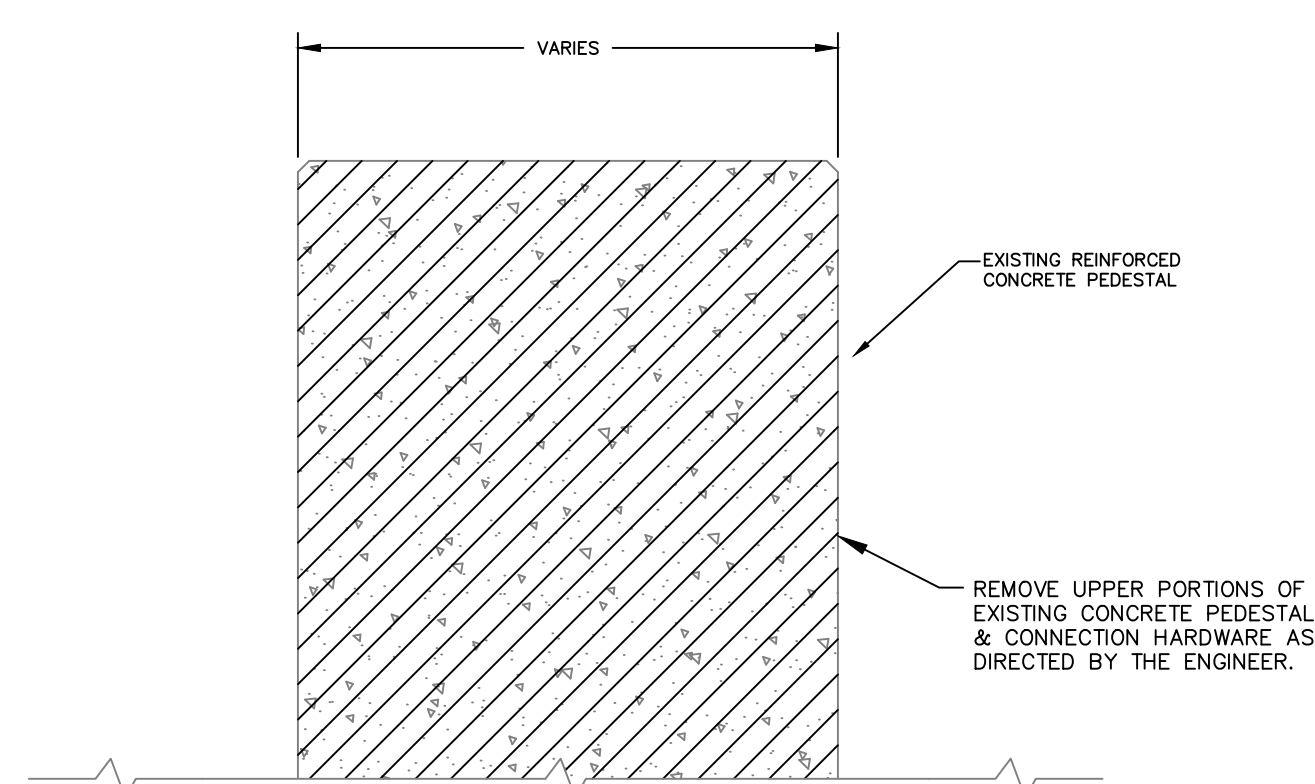
GAUGE PLATE ASSEMBLY - DETAIL

Scale: N.T.S.



SENSING LINE CONNECTION - DETAIL

Scale: N.T.S.



EXISTING

CONSTRUCTION NOTES:

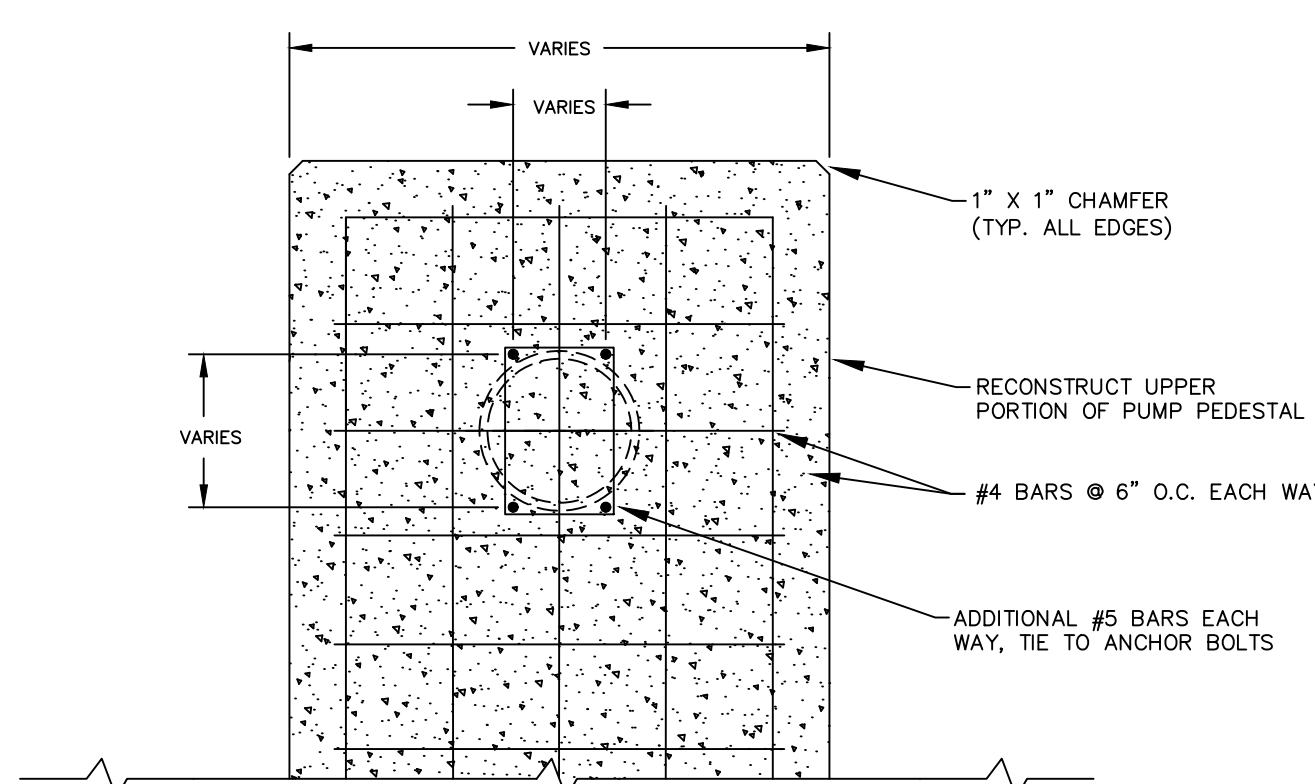
1. CONTRACTOR SHALL REMOVE EXISTING PORTIONS OF THE PUMP BASE PEDESTALS AND INFILL THE SUCTION BARRELS WITH COMPACTED D.G.A. TO THE DESIGNATED HEIGHT PRIOR TO INSTALLATION OF NEW PIPING AND APPURTENANCES.
2. CONTRACTOR SHALL FOLLOW THE PROCEDURAL DESCRIPTION OUTLINED BELOW REGARDING RE-CONSTRUCTION OF PEDESTALS AND INSTALLATION OF NEW PUMPS.
3. FINAL CONCRETE PEDESTAL HEIGHT SHALL BE AS REQUIRED TO ENSURE CONNECTION TO NEW PIPING.
4. FINAL SIZE & ALIGNMENT OF ANCHOR BOLTS SHALL BE AS RECOMMENDED BY THE PUMP MANUFACTURER.
5. A MINIMUM 1-INCH ROD PROTRUSION SHALL BE PROVIDED ABOVE THE FINAL NUT LOCATION AFTER NUT IS TIGHTENED TO THE MANUFACTURERS RECOMMENDATION.

GENERAL CONSTRUCTION PROCEDURE:

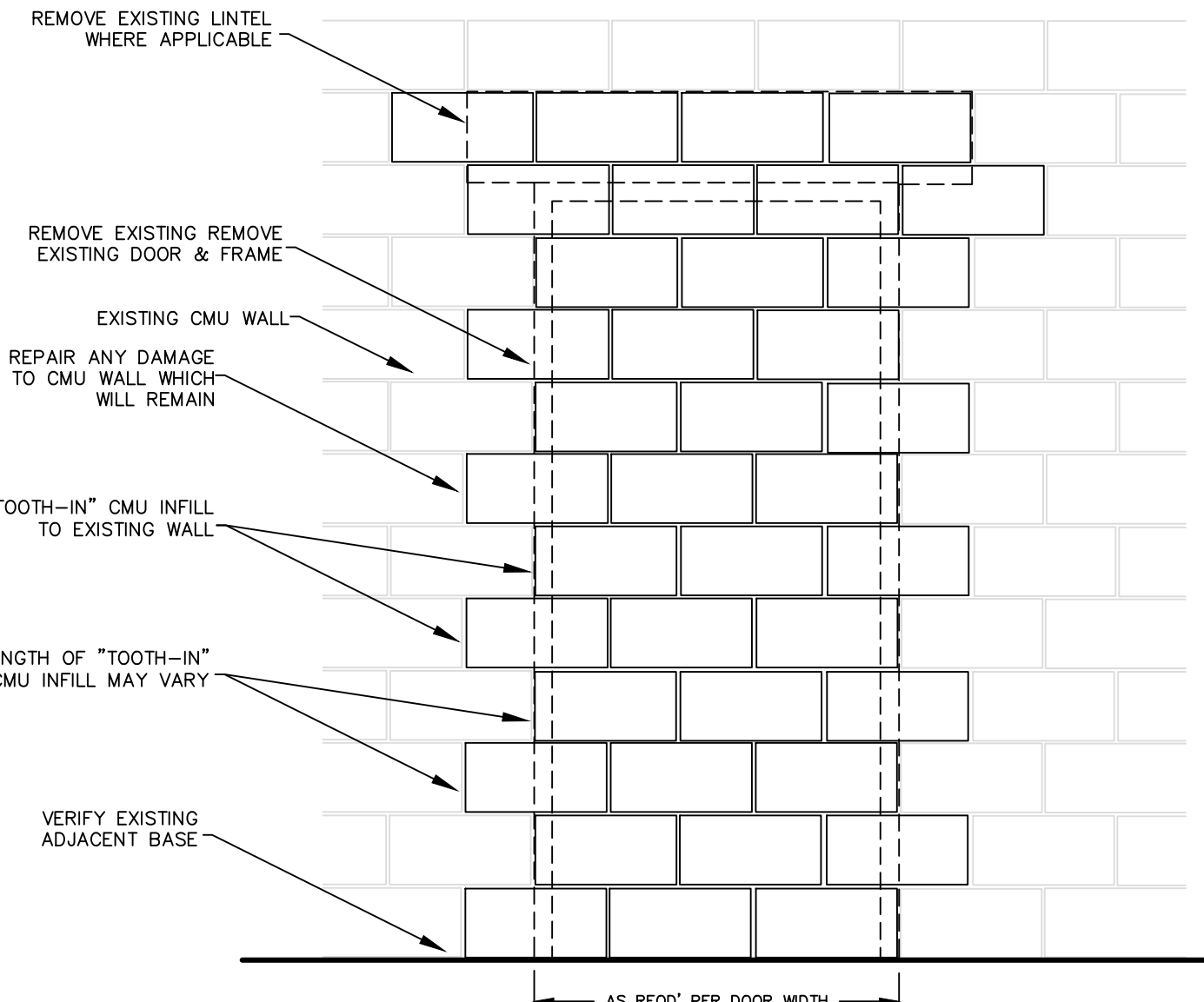
1. USING APPROPRIATELY SIZED, STAINLESS STEEL ANCHOR BOLTS, WITH WASHERS & NUTS IN EACH ANCHOR BOLT HOLE, POSITION AND SUPPORT EACH PUMP AS CLOSE AS POSSIBLE TO ITS DESIGN LOCATION.
2. INSTALL THE SUCTION AND DISCHARGE PIPING AS PER THE DESIGN AND CONNECT EACH PUMP ACCORDINGLY.
3. LEVEL AND ADJUST EACH PUMP VERTICALLY AND/OR HORIZONTALLY TO ENSURE THE PIPING FITS CORRECTLY WITHOUT BINDING. ENSURE THE EACH ANCHOR BOLT IS VERTICAL.
4. ON THE EXISTING CONCRETE BASE, ACCURATELY MARK THE LOCATION OF THE HOLE FOR EACH PUMP ANCHOR BOLT.
5. DISASSEMBLE THE PIPING AND REMOVE EACH PUMP.
6. DRILL & CLEAN EACH ANCHOR BOLT HOLE AND EPOXY EACH ANCHOR BOLT INTO THE EXISTING CONCRETE.
7. IN ORDER TO PROVIDE MAXIMUM ADHESION, ROUGHEN THE TOP OF THE EXISTING CONCRETE PEDESTALS, PRIOR TO PLACEMENT OF NEW CONCRETE. AN APPROVED EPOXY RESIN SHALL BE APPLIED TO FURTHER ENSURE A SOLID BOND BETWEEN THE SOLID AND FRESH CONCRETE.
8. REASSEMBLE THE SUCTION AND DISCHARGE PIPING AND INSTALL THE PUMPS. PROVIDE ADEQUATE PROTECTION FOR PUMPS, PIPING AND APPURTENANCES SO TO ENSURE THEY ARE PROTECTED FROM CONTACT WITH NEW CONCRETE. AGAIN RE-LEVEL AND ADJUST EACH PUMP VERTICALLY ENSURING THAT ALL PIPING FITS CORRECTLY WITHOUT BINDING AND TIGHTEN ALL FITTINGS AND NUTS.
9. ATTACHE REBAR TO THE ANCHOR BOLTS AS DIRECTED BY THE ENGINEER, CONSTRUCT FORMS, AND PLACE CONCRETE, ENSURING THAT CONCRETE MAKES FULL CONTACT WITH THE ENTIRE PUMP BASE.

PUMP BASE MODIFICATION - DETAILS & NOTES

Scale: N.T.S.

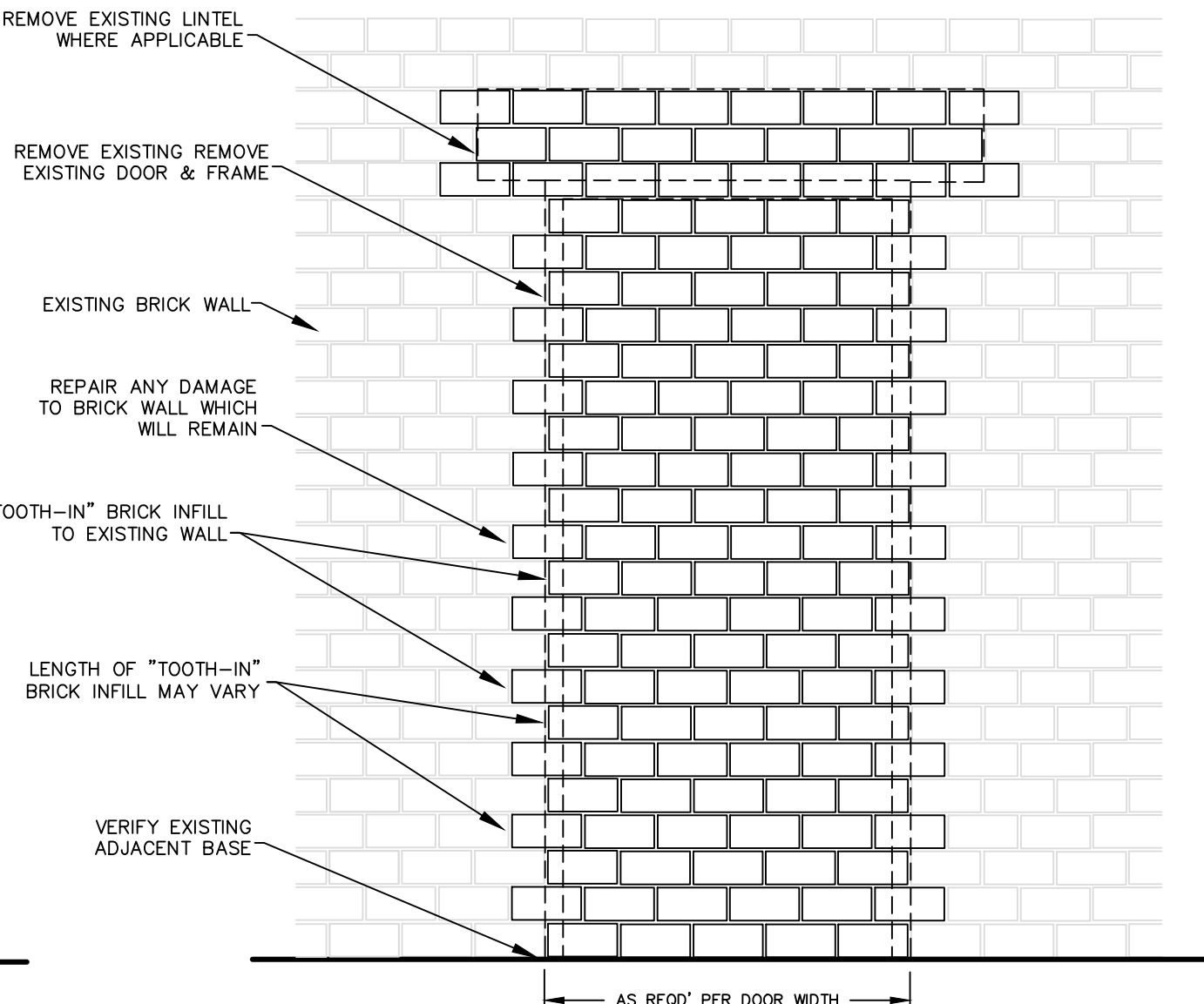


PROPOSED



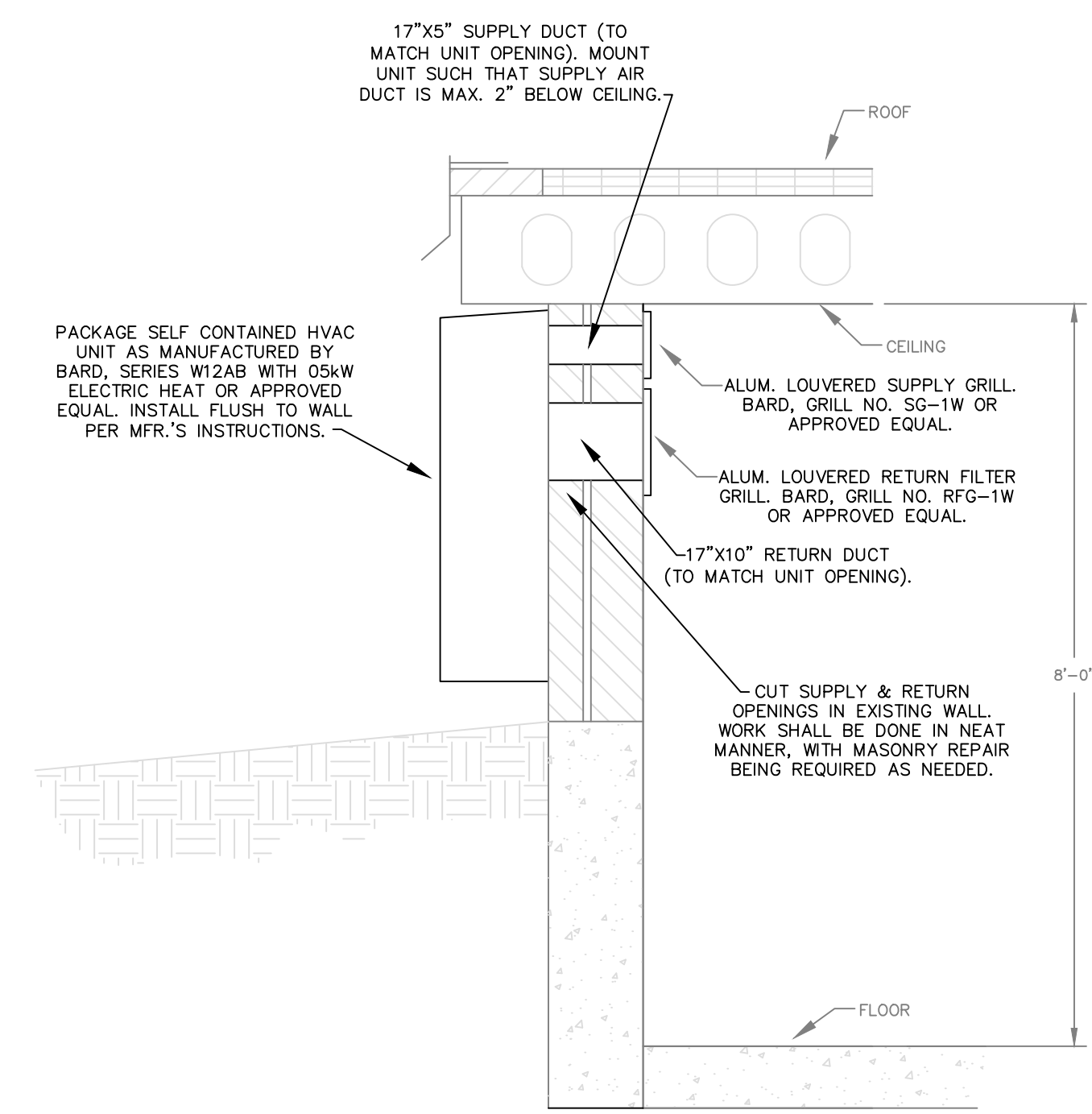
CMU DOOR INFILL - DETAIL

Scale: N.T.S.



BRICK DOOR INFILL - DETAIL

Scale: N.T.S.

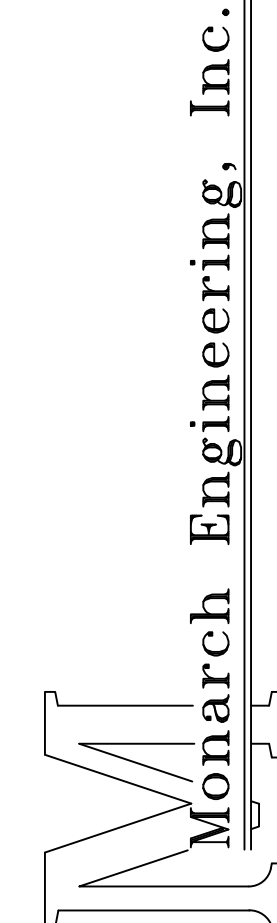


HVAC UNIT INSTALLATION & MOUNTING DETAIL

Scale: N.T.S.

NOTES:

1. INSTALL PACKAGE HVAC UNIT PER MFR.'S INSTRUCTIONS AND PER DETAIL, THIS SHEET. UNIT(S) SHALL BE AS NOTED IN THE TECHNICAL SPECIFICATIONS. CONTRACTOR SHALL INSTALL THERMOSTAT AS SPECIFIED NEAR THE BUILDINGS ENTRY DOOR AT 48" A.F.F. FOLLOWING INSTALLATION, CONFIRM PROPER UNIT CONTROL AND OPERATION.



556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

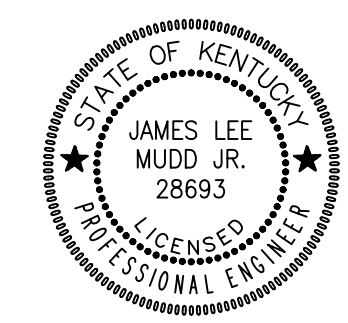
DESCRIPTION:  
MISCELLANEOUS DETAIL DRAWINGS  
PUMP STATION REHABILITATIONS

CUSTOMER:

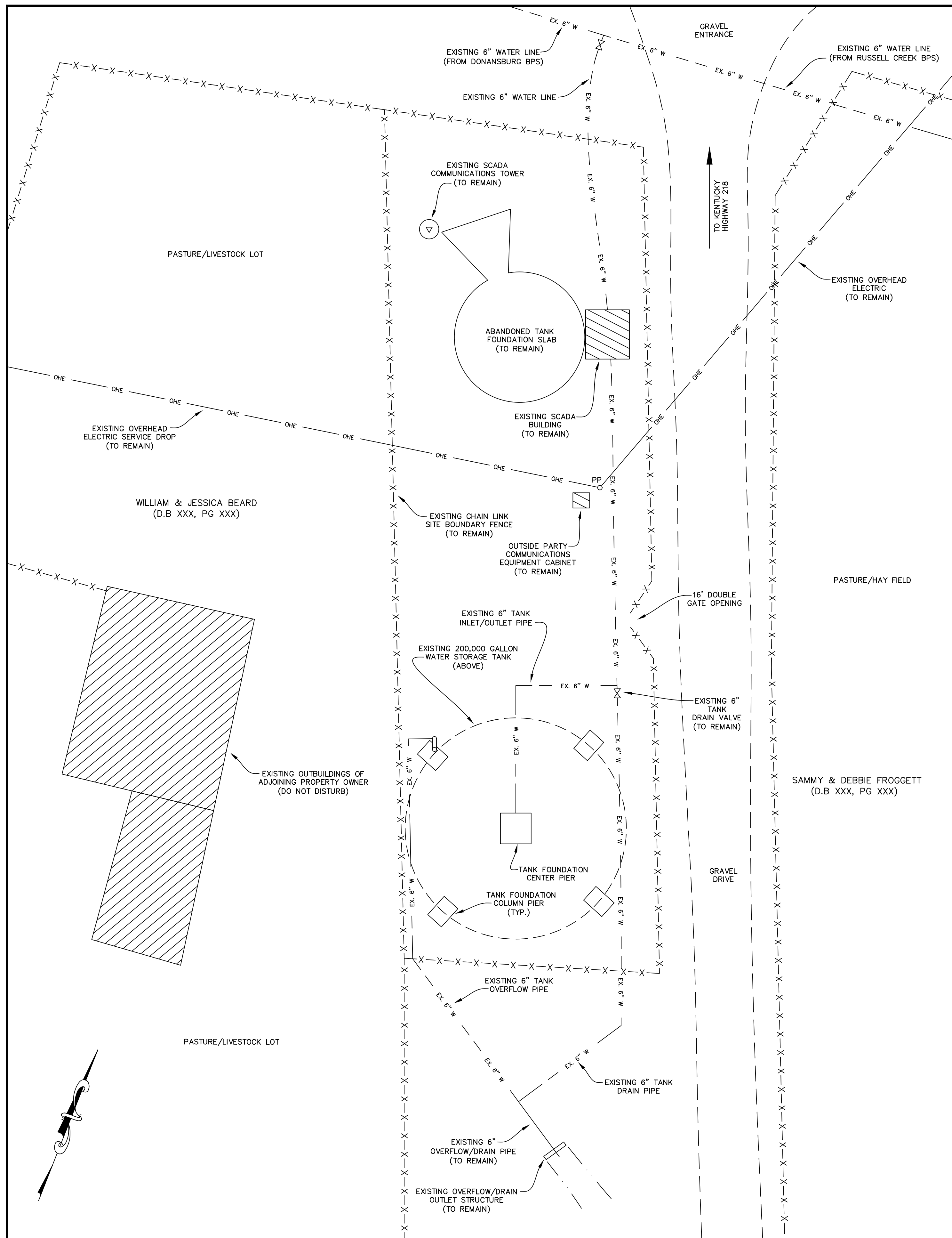
GREEN-TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY

PROJECT NO. 2031  
DATE: JAN 2021  
DRAWN BY: JRC  
CHECKED BY: DSB  
CHECKED BY: JLM  
SCALE: AS NOTED

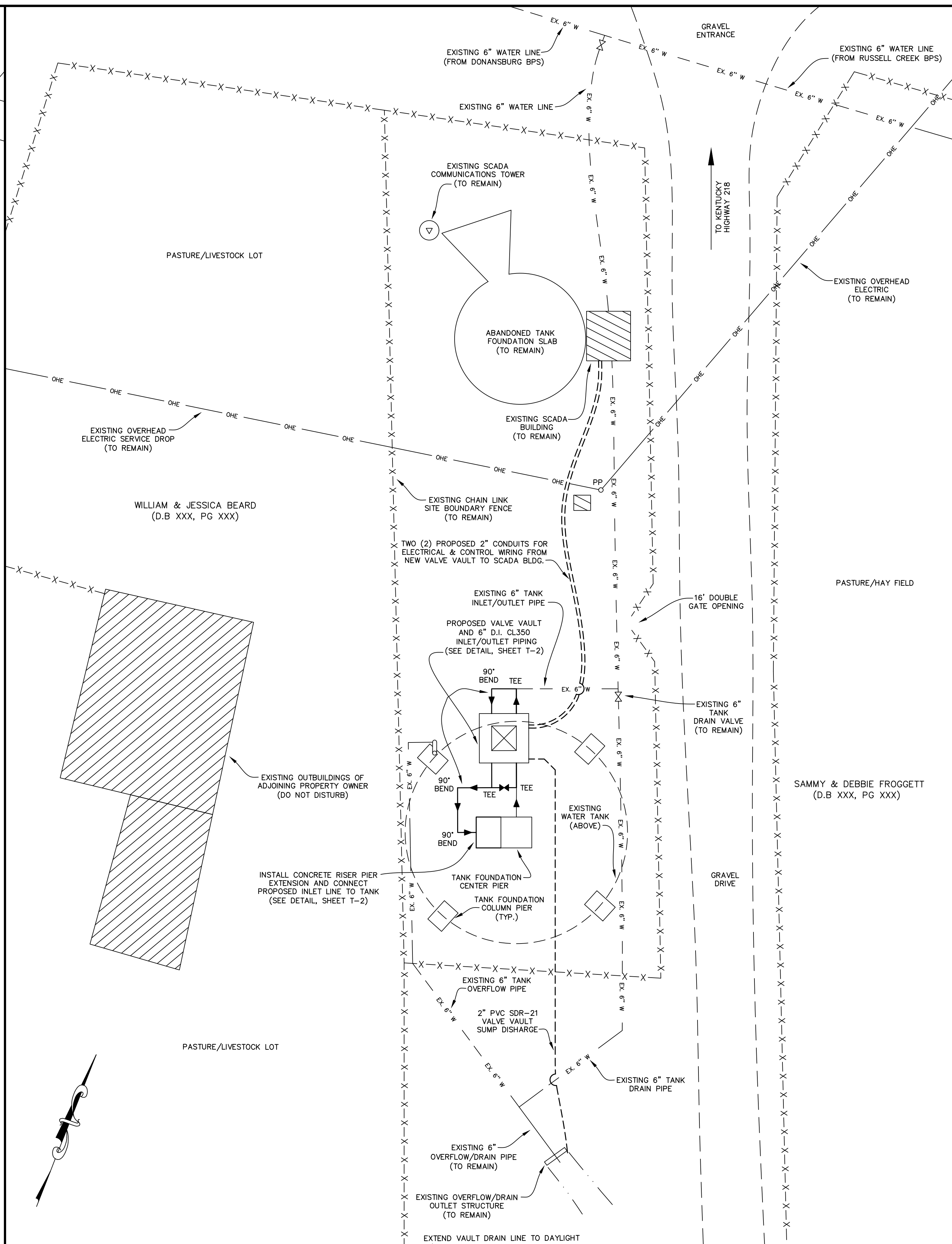
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BPS-12



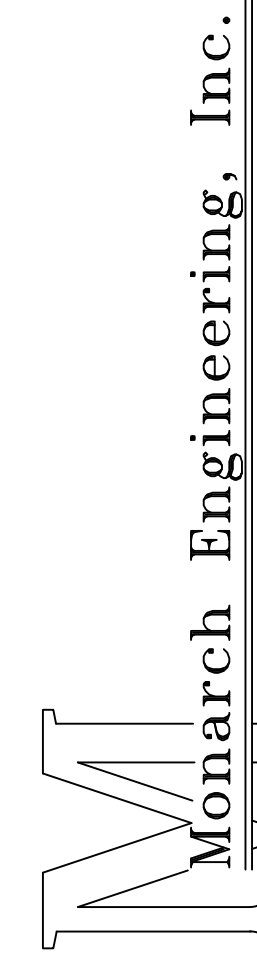




**EXISTING SITE PIPING**  
SCALE: 1"=10'



**PROPOSED SITE PIPING**  
SCALE: 1"=10'



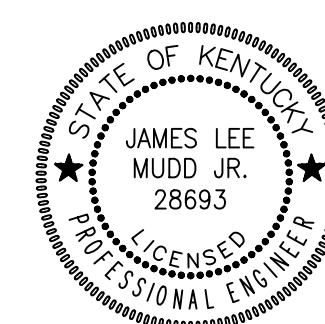
556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

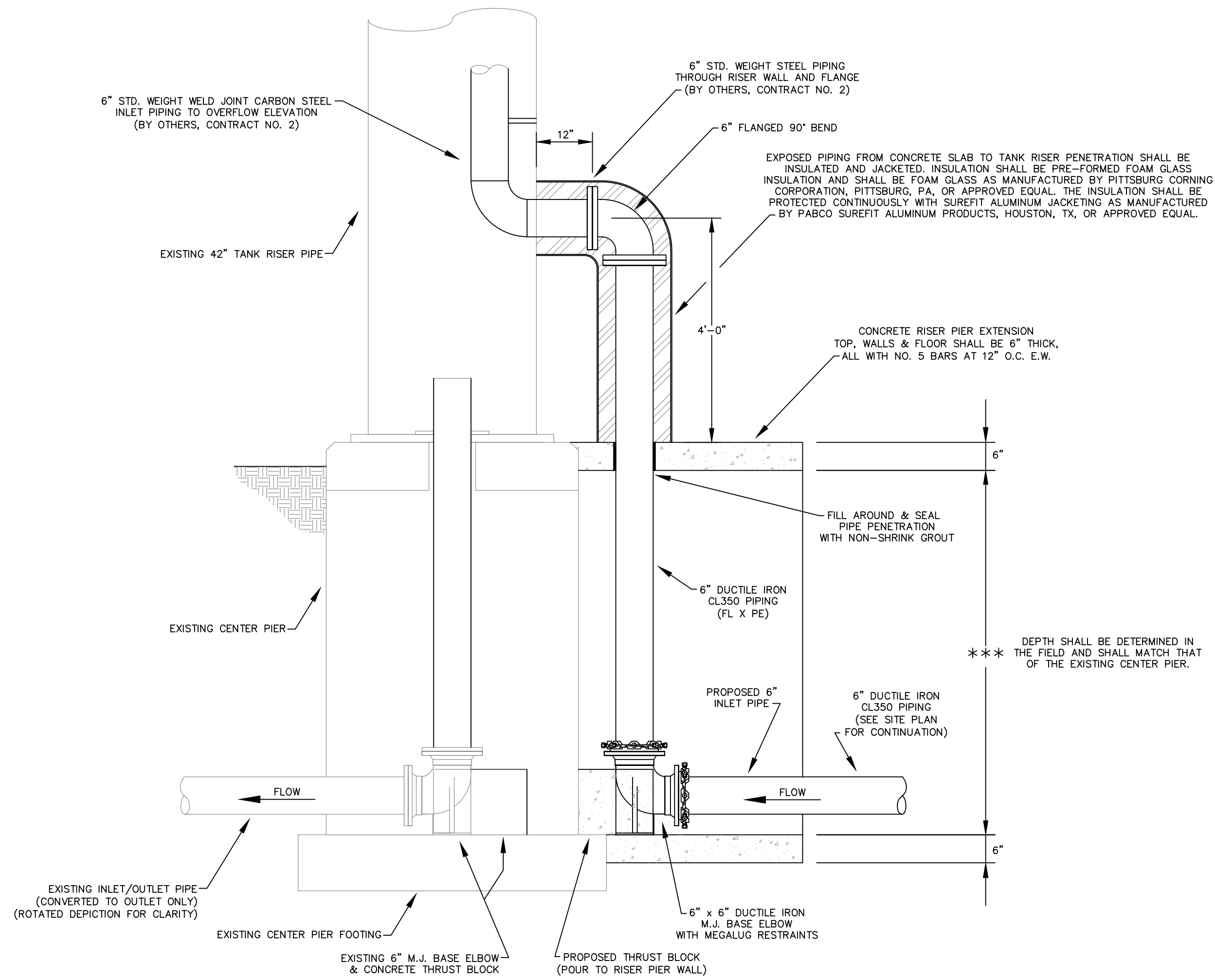
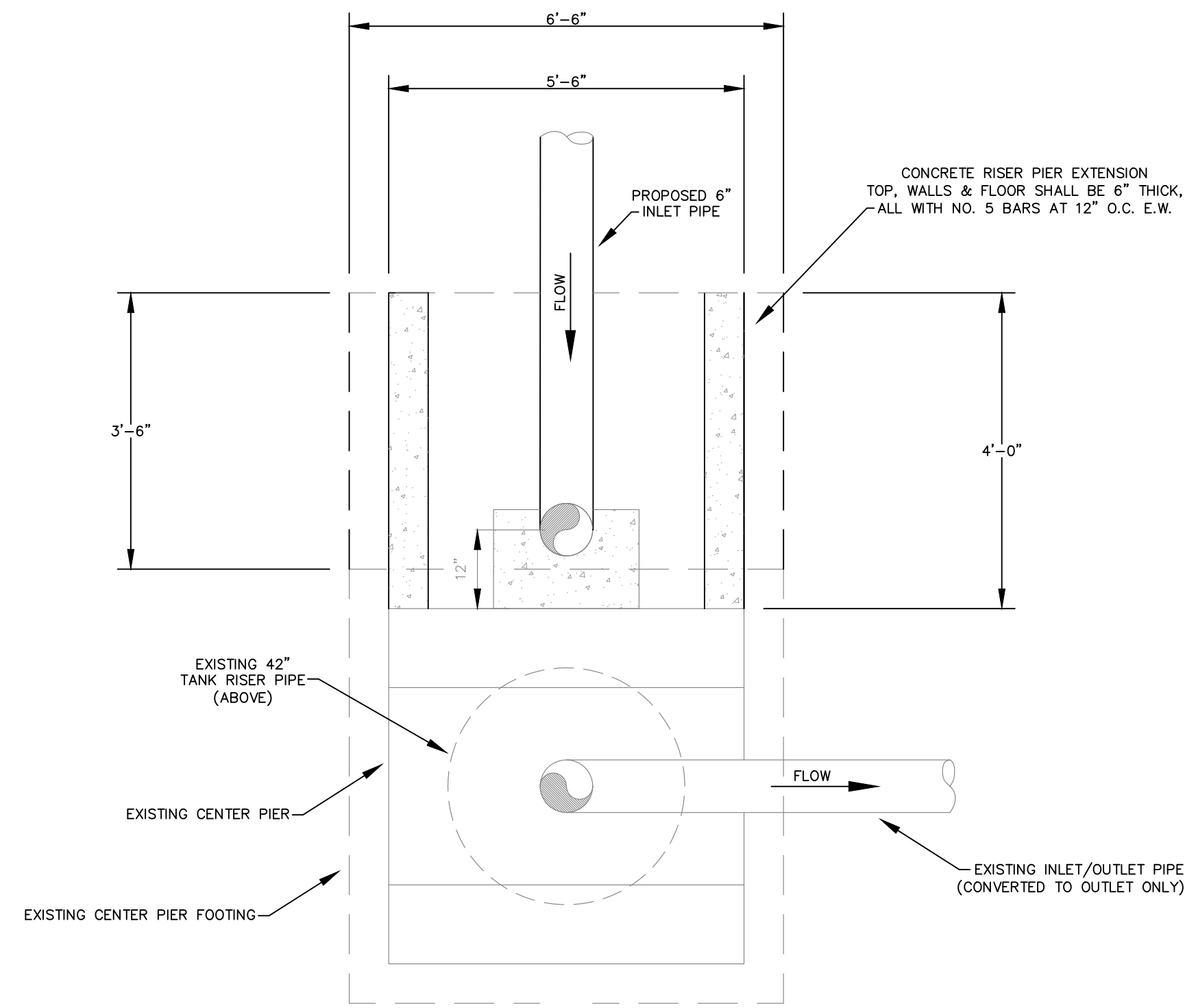
DESCRIPTION:  
PIERCE WATER STORAGE TANK  
SITE PIPING MODIFICATIONS

CUSTOMER:  
GREEN-TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY

PROJECT NO. 2031  
DATE: JAN 2021  
DRAWN BY: JLM  
CHECKED BY: DSB  
CHECKED BY: DMB  
SCALE: AS NOTED

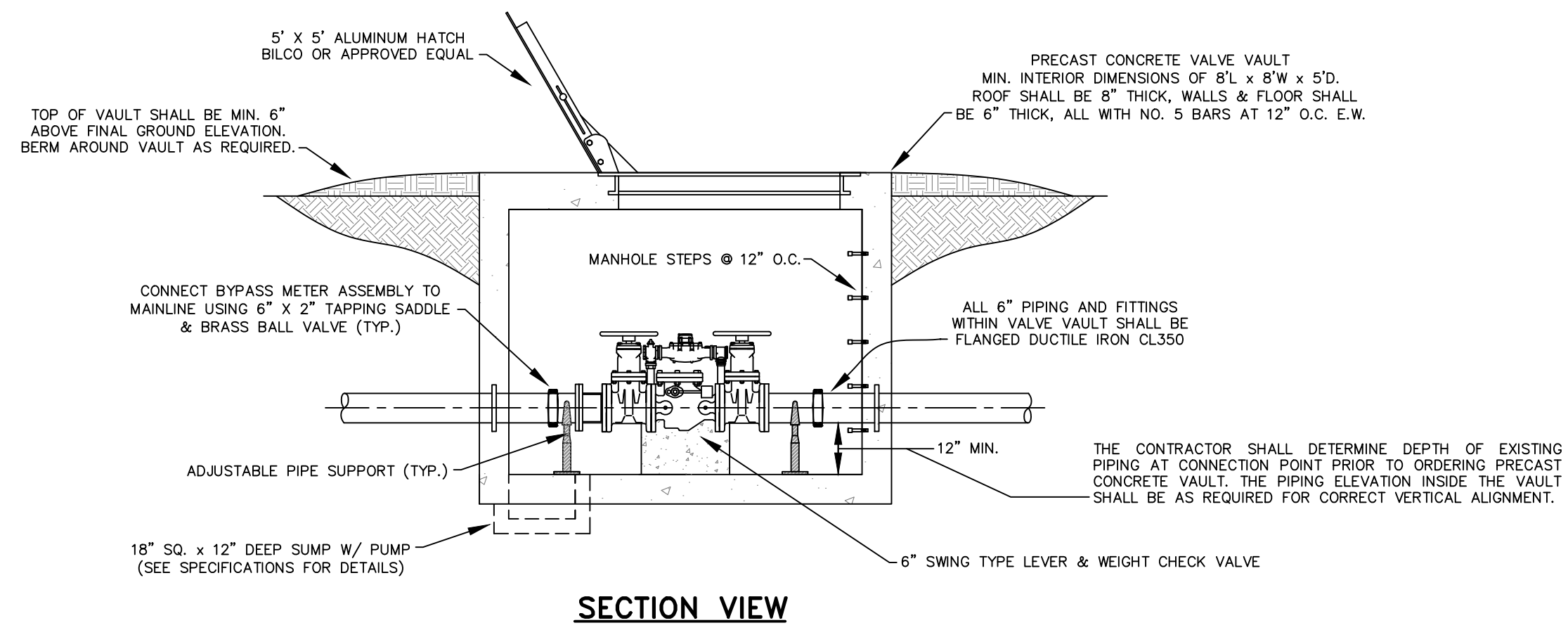
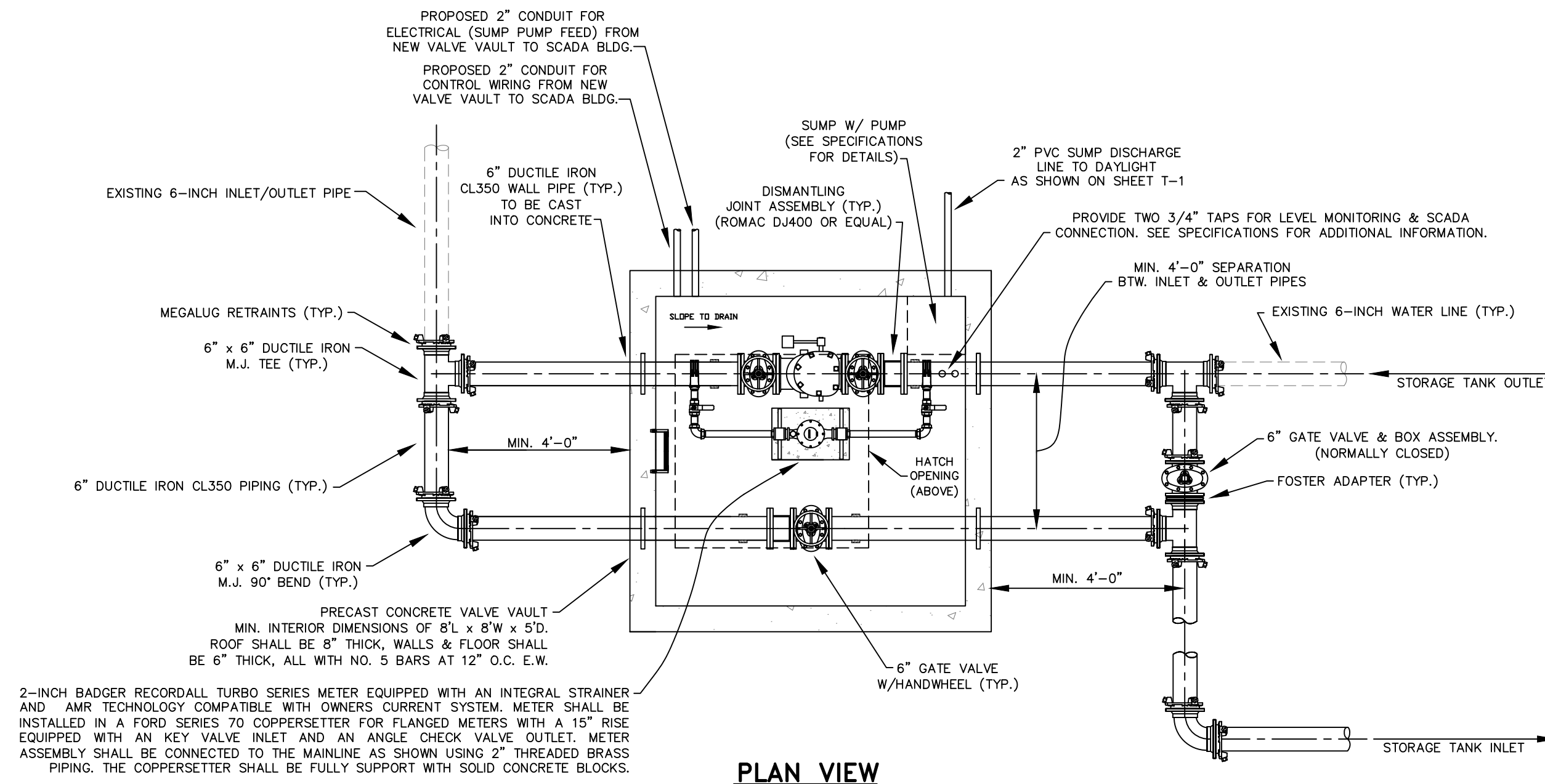
SHEET:  
T-1





**PROPOSED RISER PIER EXTENSION & STORAGE TANK CONNECTION**  
**PIERCE WATER STORAGE TANKS**

SCALE: N.T.S.



**PROPOSED VALVE VAULT**  
**PIERCE WATER STORAGE TANK**

SCALE: N.T.S.

**Monarch Engineering, Inc.**

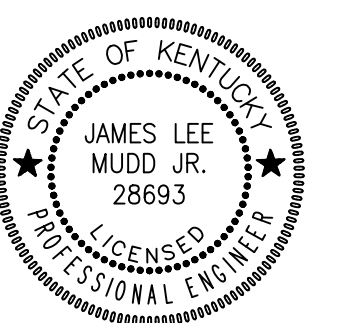
556 CARLTON DRIVE  
 LAWRENCEBURG, KY 40342

DESCRIPTION:  
 MISCELLANEOUS DETAILS  
 STORAGE TANK PIPING MODIFICATIONS

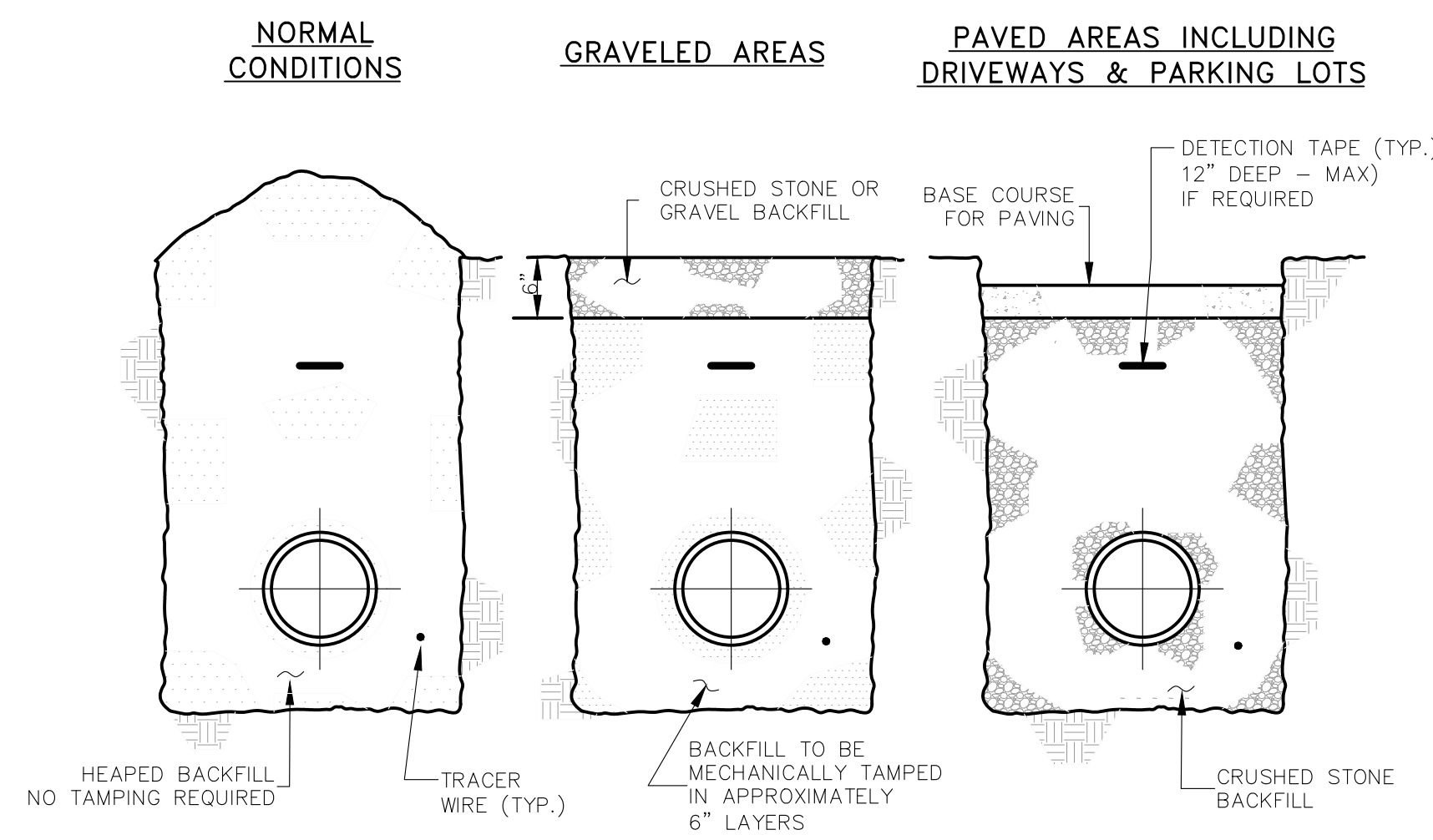
CUSTOMER:  
 GREEN-TAYLOR WATER DISTRICT  
 GREEN COUNTY, KENTUCKY

PROJECT NO. 2031  
 DATE: JAN 2021  
 DRAWN BY: JLM  
 CHECKED BY: DSB  
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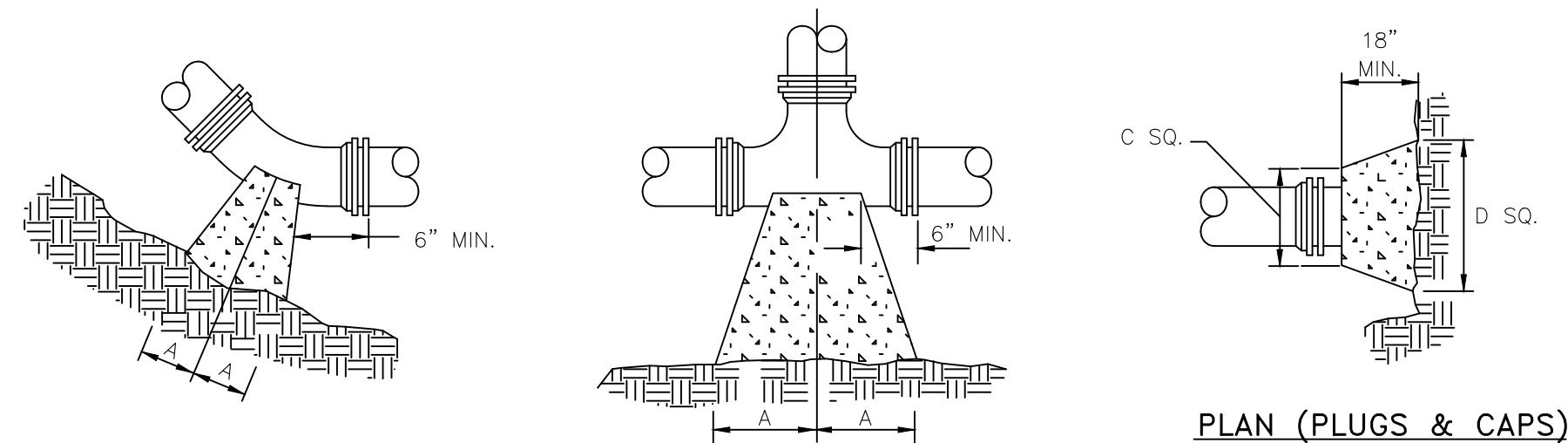
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 T-2







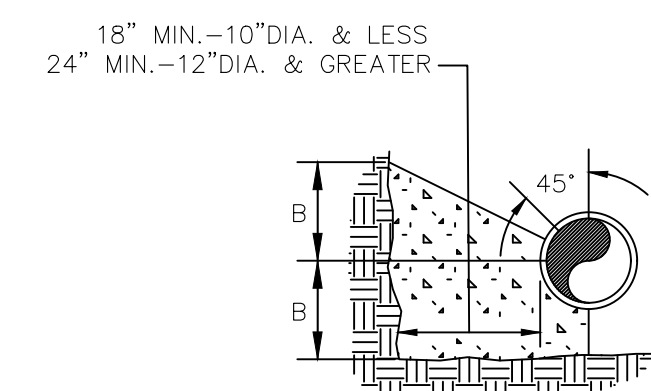
**BACKFILLING**



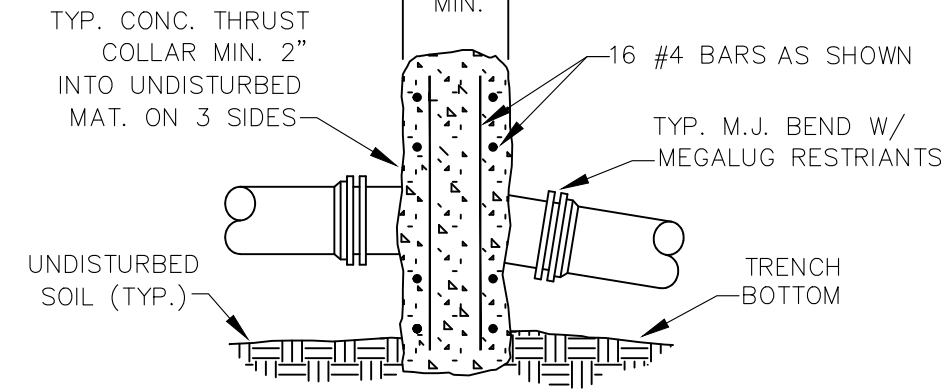
PLAN (HORIZONTAL BENDS)

PLAN (TEES)

PLAN (PLUGS & CAPS)



SECTION (HORIZONTAL BENDS & TEES)



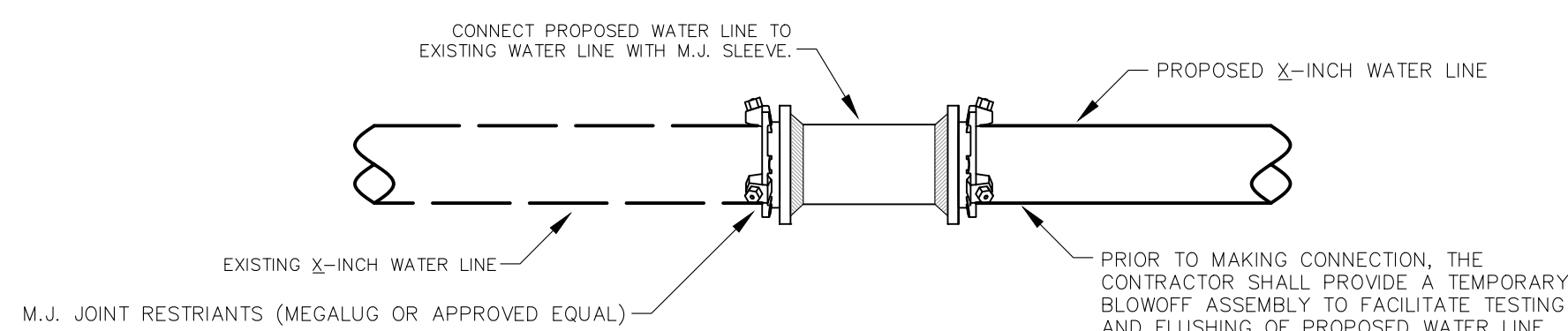
SECTION (VERTICAL BENDS)

PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		TEE		PLUG	
	A	B	A	B	A	B	A	B	A	B	C	D
4"	8"	12"	8"	8"	6"	6"	6"	6"	11"	9"	10"	6"
6"	18"	12"	8"	10"	8"	8"	8"	8"	11"	10"	12"	18"
8"	18"	13"	10"	10"	8"	8"	8"	8"	11"	12"	12"	24"
10"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"
12"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"
16"	26"	20"	16"	18"	11"	13"	11"	13"	18"	20"	20"	36"
24"	82"	42"	62"	30"	44"	22"	22"	16"	82"	42"	82"	42"
30"	185"	42"	100"	42"	52"	42"	40"	30"	185"	42"	185"	42"

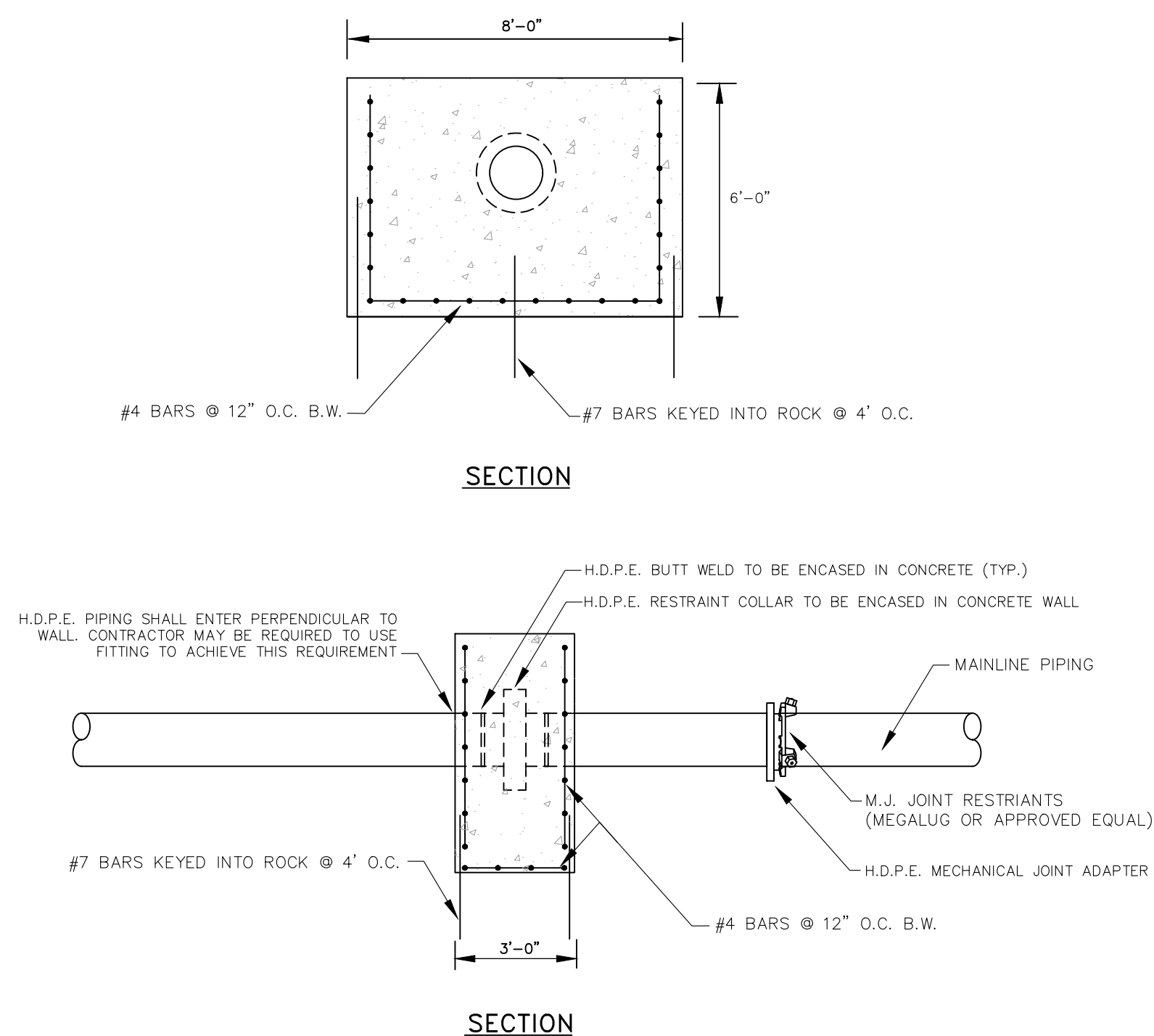
**NOTES:**

- FOR VERT. BEND DOWN IN EXCESS OF 11 1/4° BEND, ANCHORAGE SHALL BE DESIGNED BY ENGINEER.
- FOR VERT. BEND UPWARD, BLOCKING TO BE SIMILAR TO THAT FOR HORIZ. BEND.
- GLANDS & BOLTS SHALL REMAIN ACCESSIBLE AND MUST BE PROTECTED FROM CONCRETE BY PLASTIC SHEETING OR OTHERWISE.
- ALL THRUST BLOCK & SUPPORT CONCRETE SHALL BE 3000 PSI READY MIX
- THRUST BLOCKS WITH "B" DIMENSION GREATER THAN 30" SHALL HAVE THE RESTRAINED PIPE INSTALLED WITH A MINIMUM OF 4" OF COVER.
- DESIGN CRITERIA:  
LINE PRESSURE = 200 psi  
SOIL BEARING CAPACITY = 2000 psf  
FACTOR OF SAFETY = 1.5

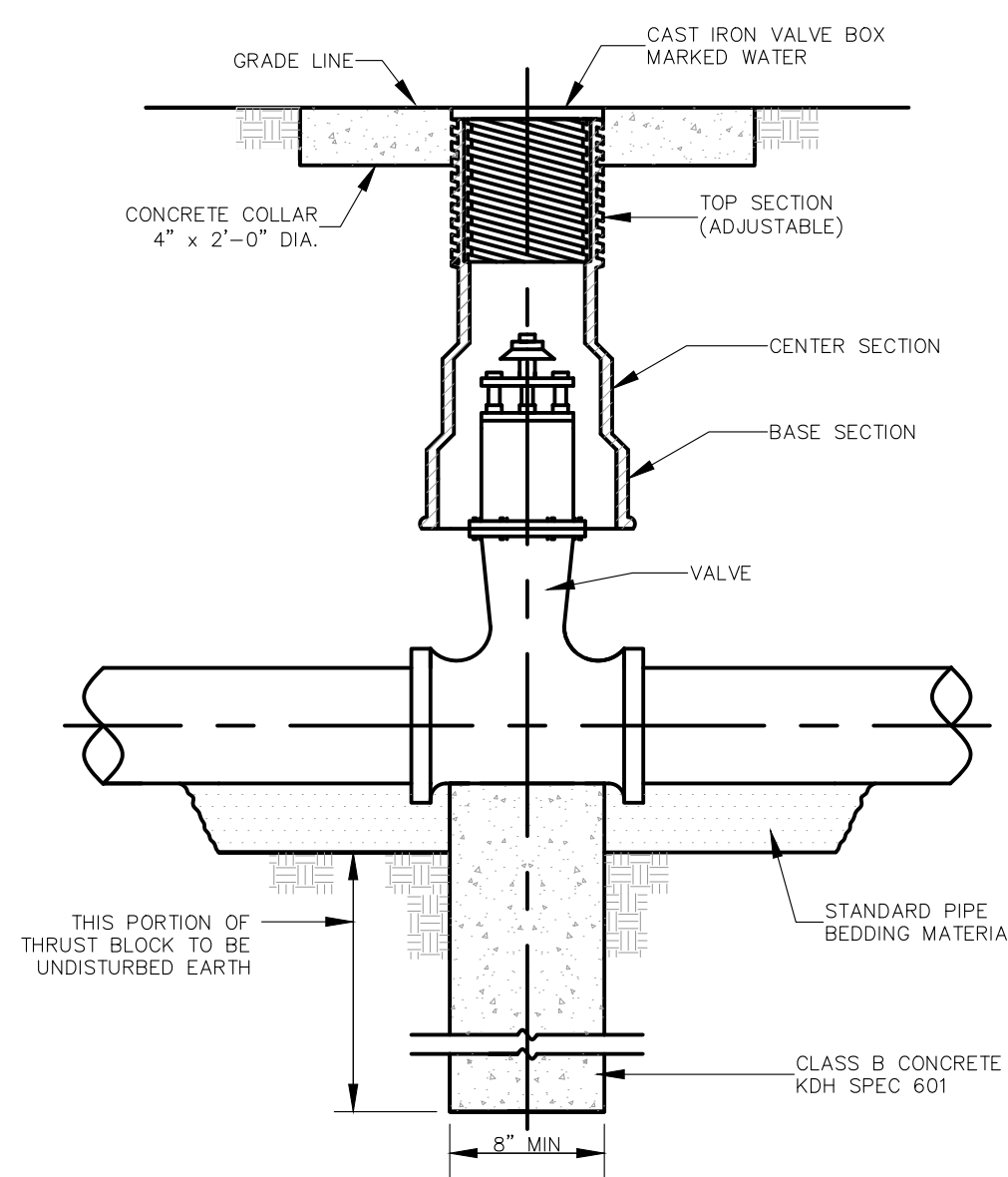
**THRUST BLOCK DETAILS**



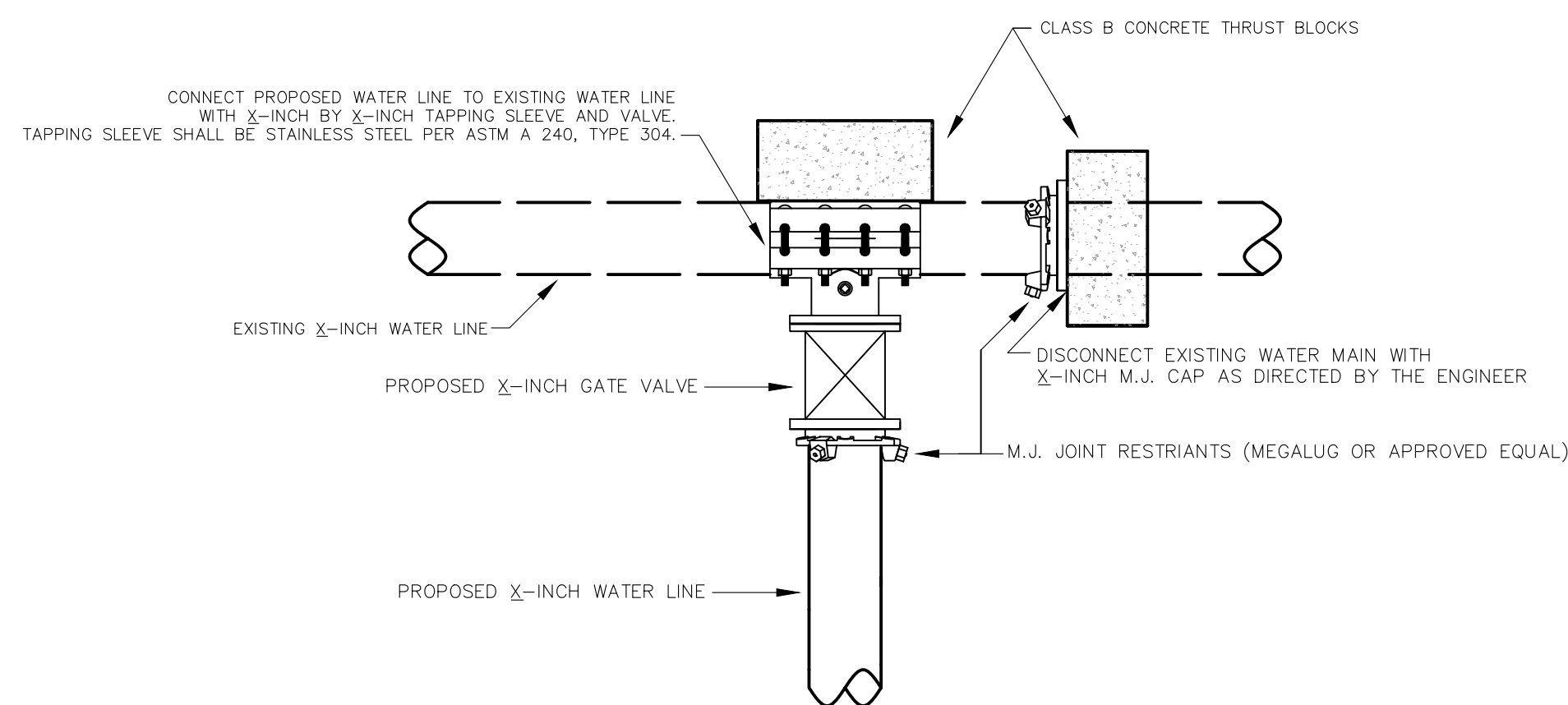
**DIRECT CONNECTION**



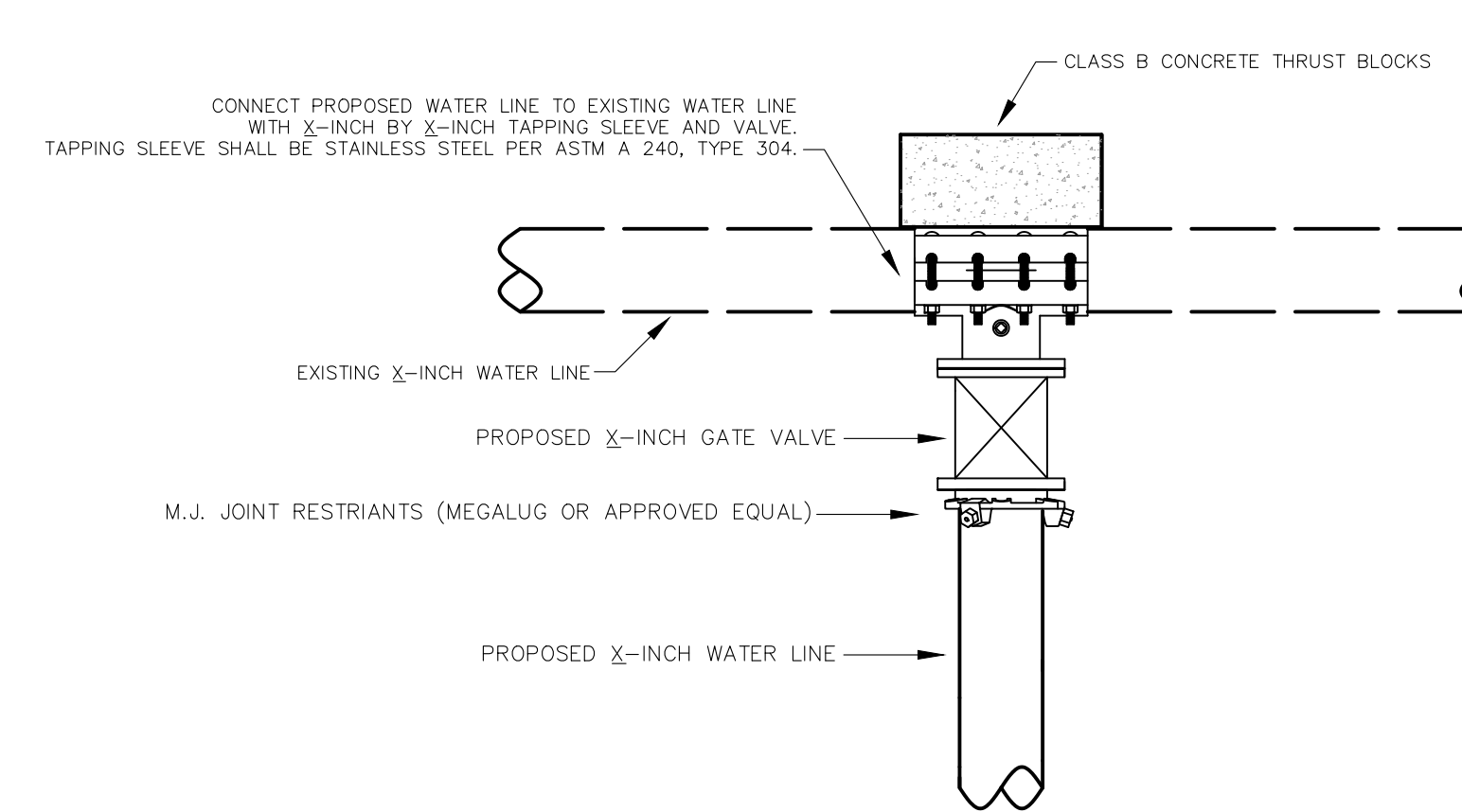
**HDPE RESTRAINT WALL**



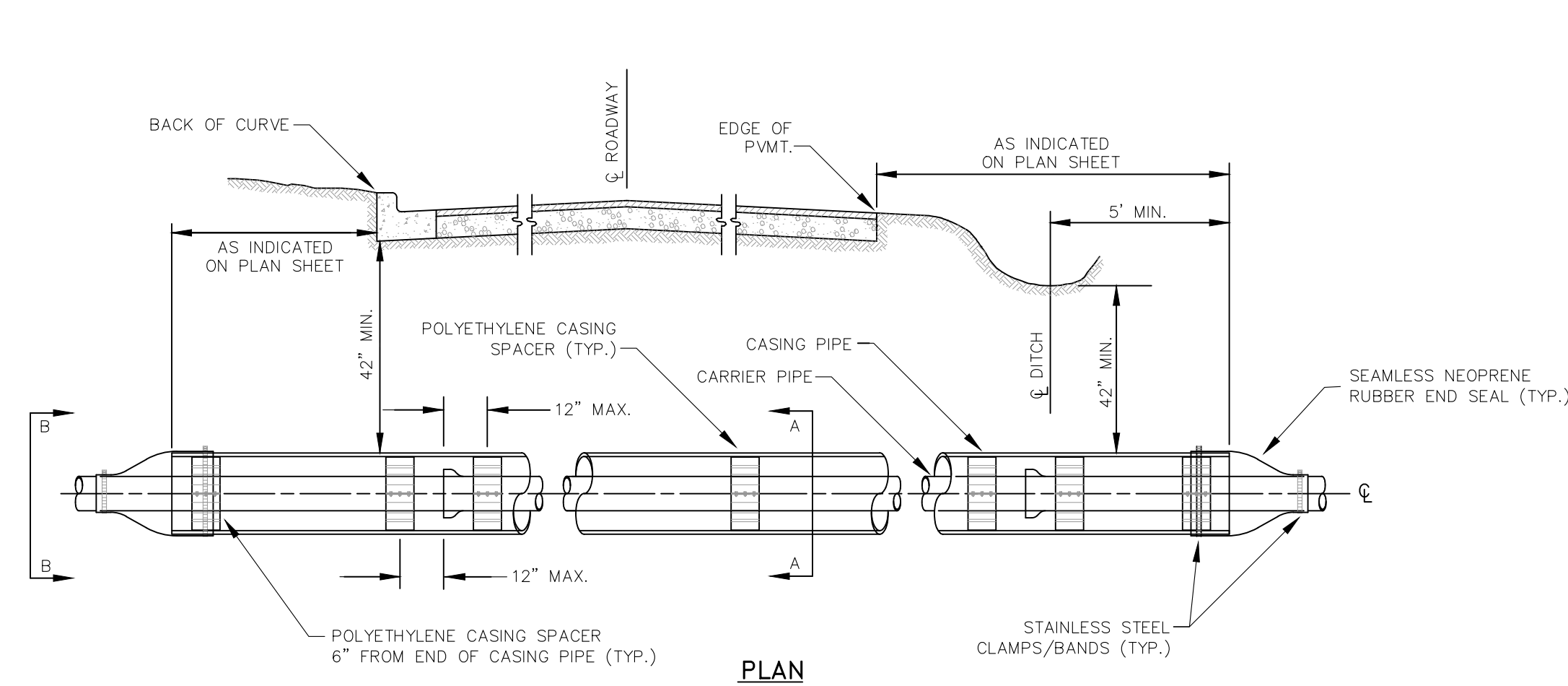
**GATE VALVE**



**TYPE I CONNECTION**

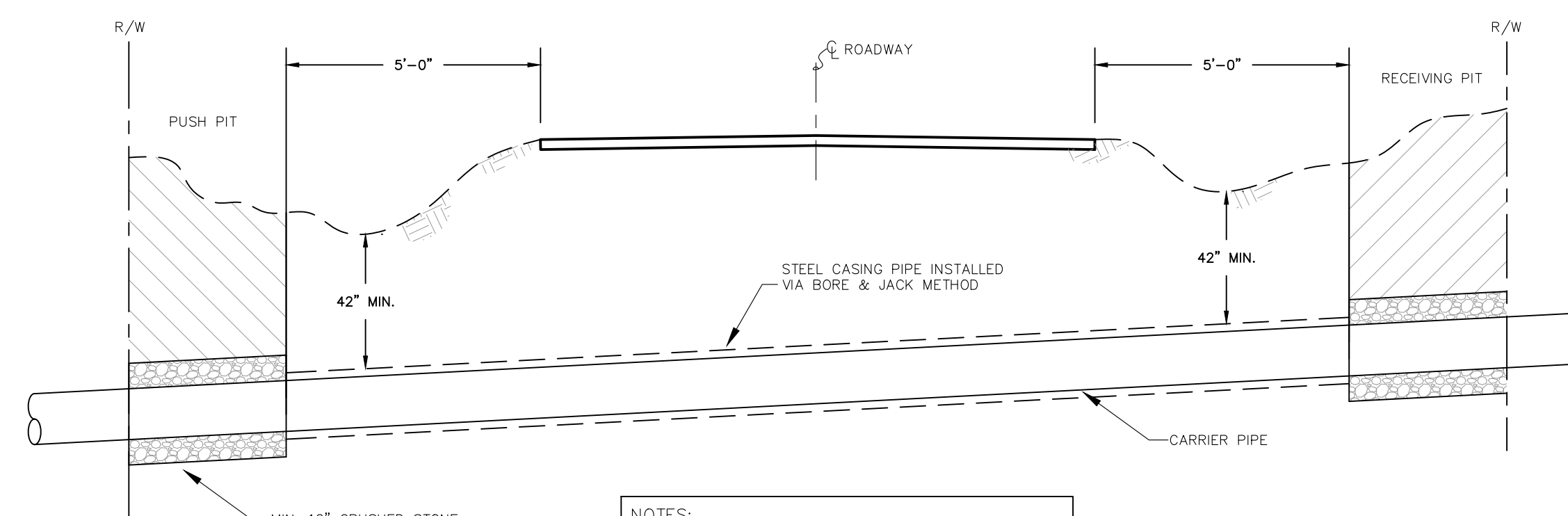


**TYPE II CONNECTION**



**ENCASEMENT PIPE DETAILS**

**NOTES:**  
A MINIMUM OF THREE CASING SPACERS ARE REQUIRED PER JOINT; ONE EACH AT THE SPIGOT, MIDDLE & BELL.  
ALL D.I. PIPE JOINTS WITHIN THE CASING PIPE SHALL BE EQUIPPED WITH A MECHANICAL JOINT RESTRAINT DEVICE.  
CASING SPACERS SHALL BE AS MANUFACTURED BY COI PIPELINE SYSTEMS, MODEL CSP, OR APPROVED EQUAL.  
END SEALS SHALL BE AS MANUFACTURED BY COI PIPELINE SYSTEMS, MODEL ESC, OR APPROVED EQUAL.



**STATE HIGHWAY ENCASED BORE CROSSING**

**NOTES:**  
PUSH & RECEIVING PITS TO BE BACKFILLED AND THOROUGHLY COMPACTED IMMEDIATELY FOLLOWING INSTALLATION.  
ALL HIGHWAY DITCHLINES TO REMAIN FREE AND CLEAR FOLLOWING INSTALLATION.  
GROUND COVER SHALL BE RESTORED IN ALL DISTURBED AREAS VIA SEED AND STRAW AS SOON AS POSSIBLE.

**Monarch Engineering, Inc.**

556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

**STANDARD DETAIL DRAWINGS**

**GREEN-TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY**

DESCRIPTION:

CUSTOMER:

PROJECT NO. 2031

DATE: JAN 2021

DRAWN BY: JLM

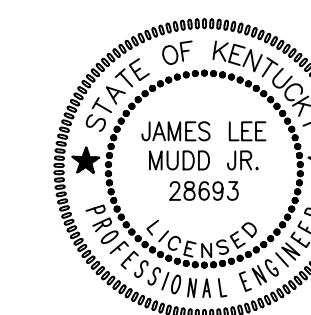
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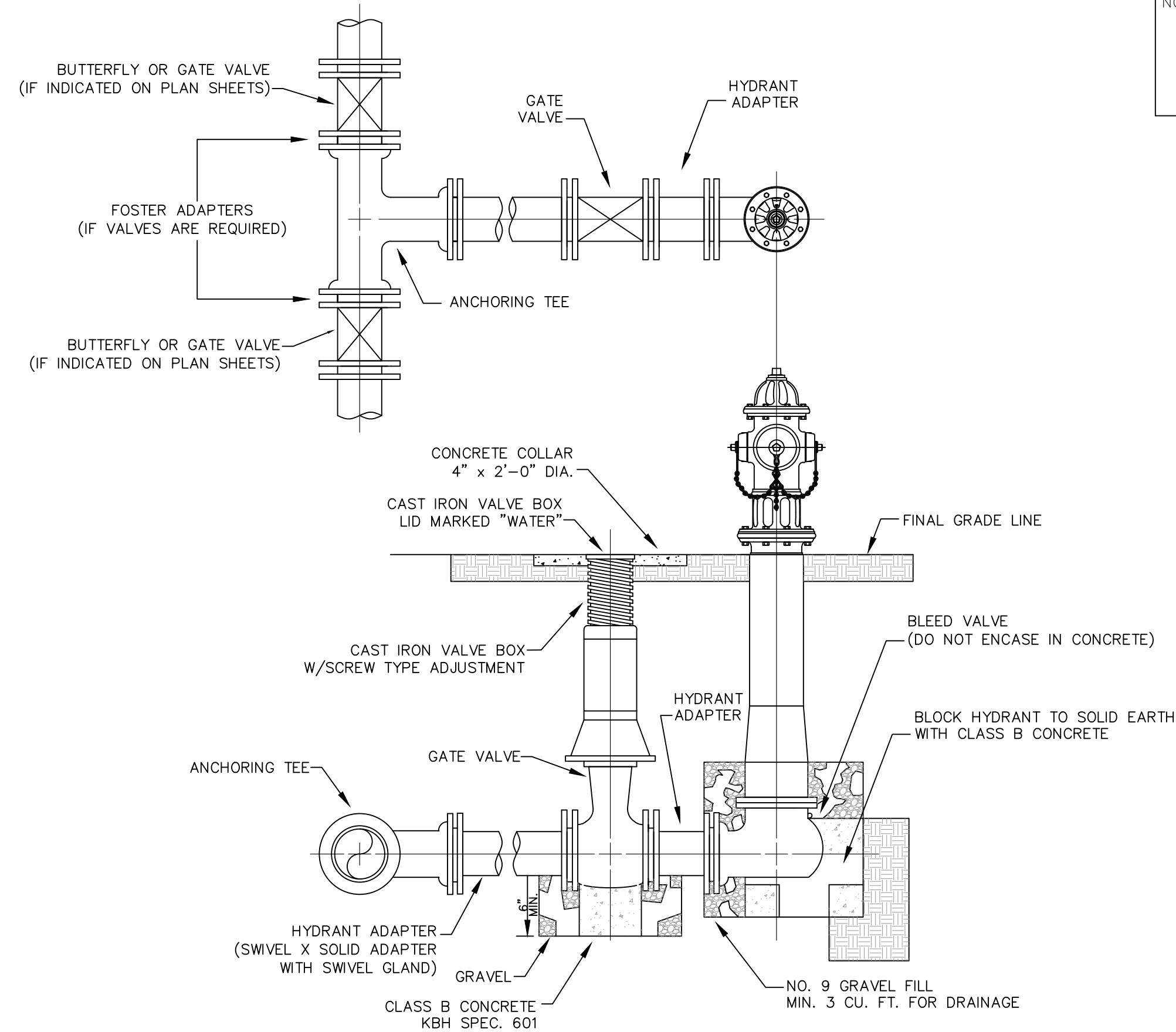
CHECKED BY: DMB

SCALE: N.T.S.

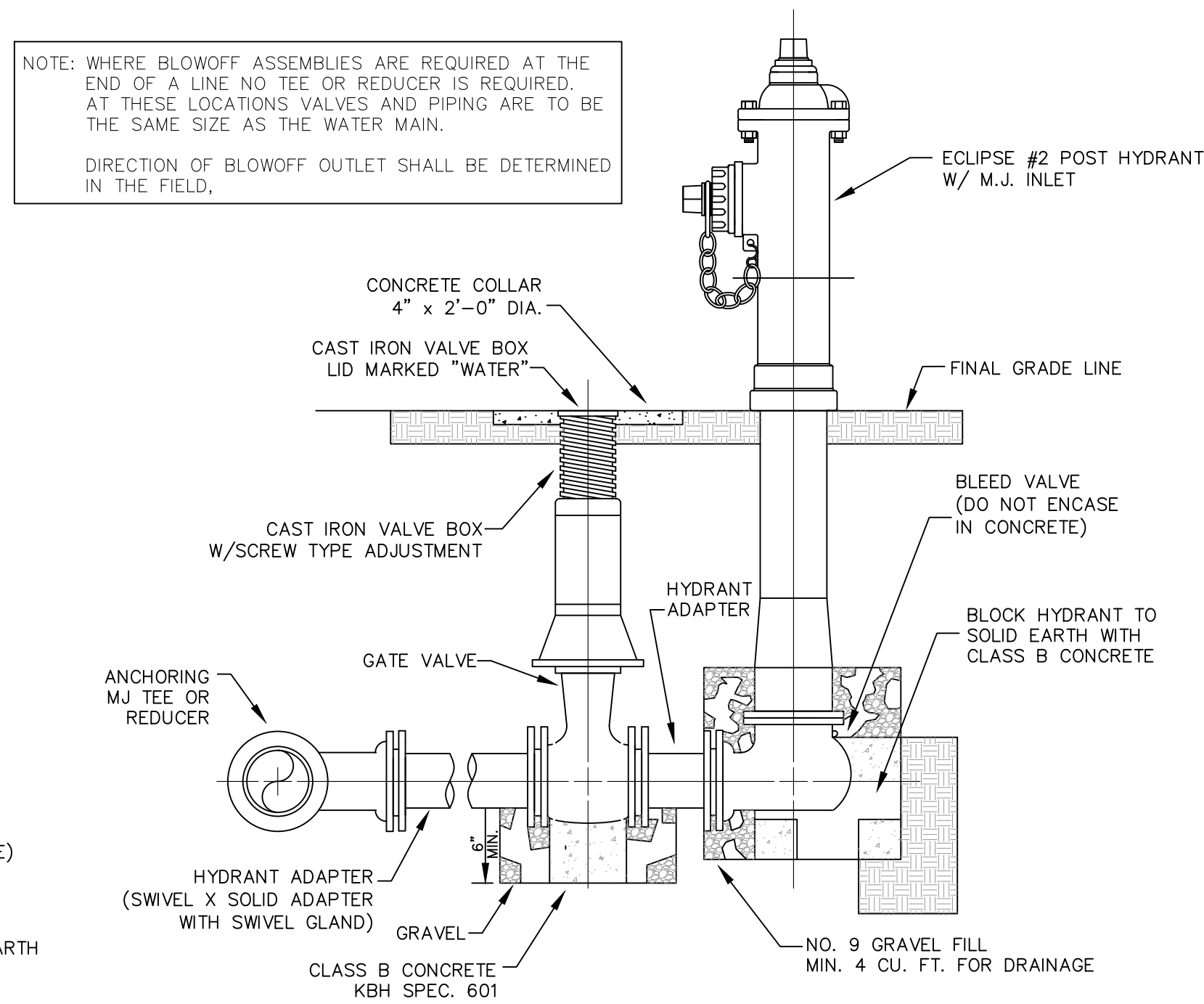
SHEET:

**SD-1**

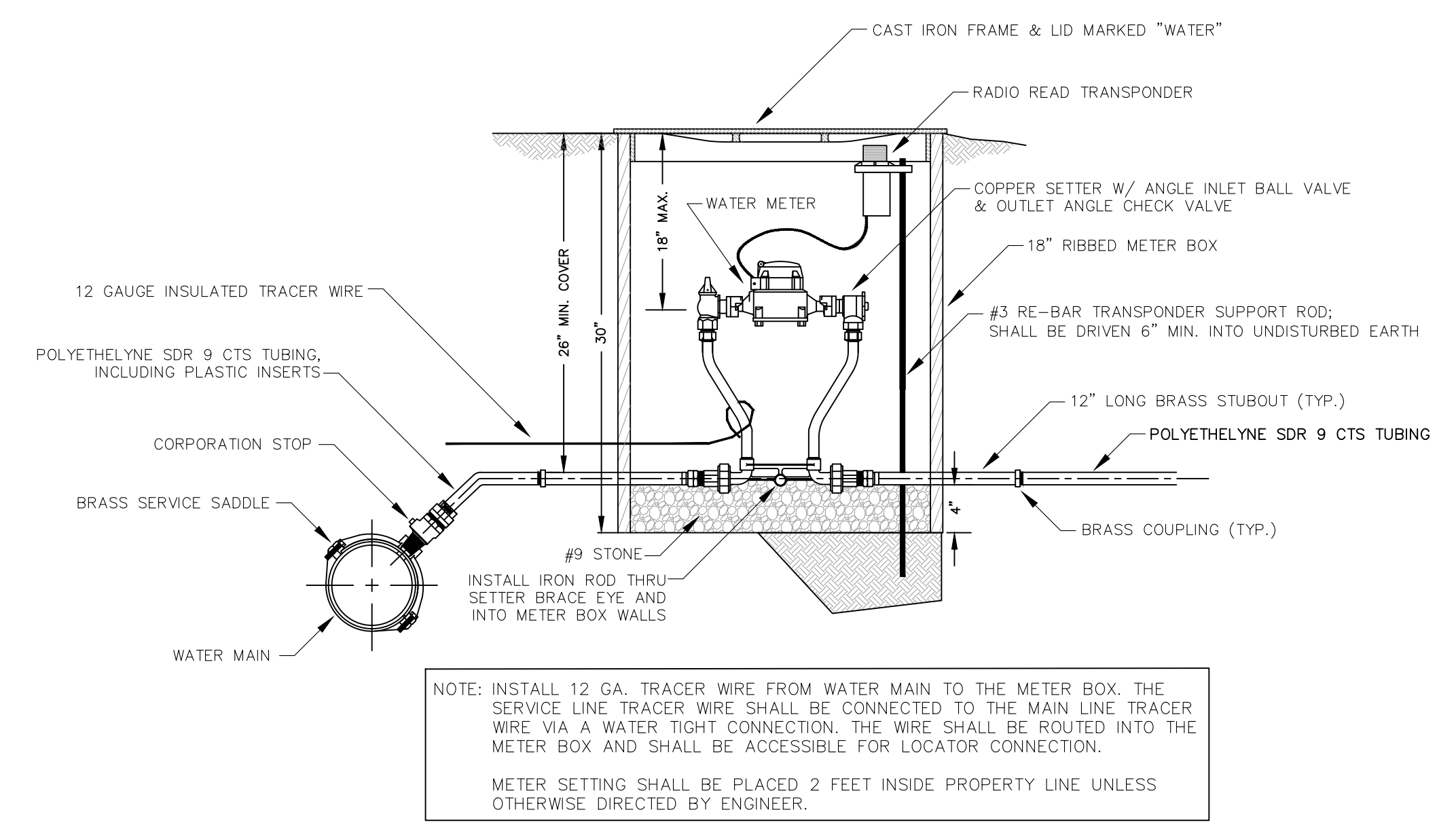




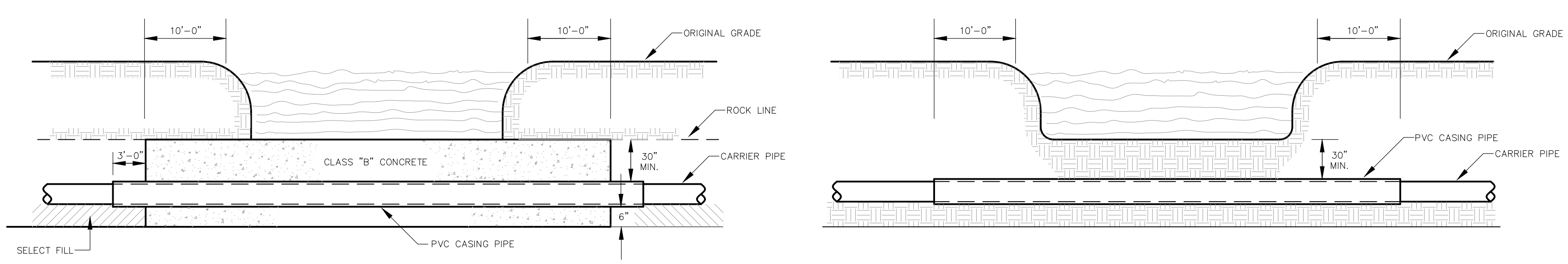
FLUSH HYDRANT ASSEMBLY



BLOWOFF ASSEMBLY



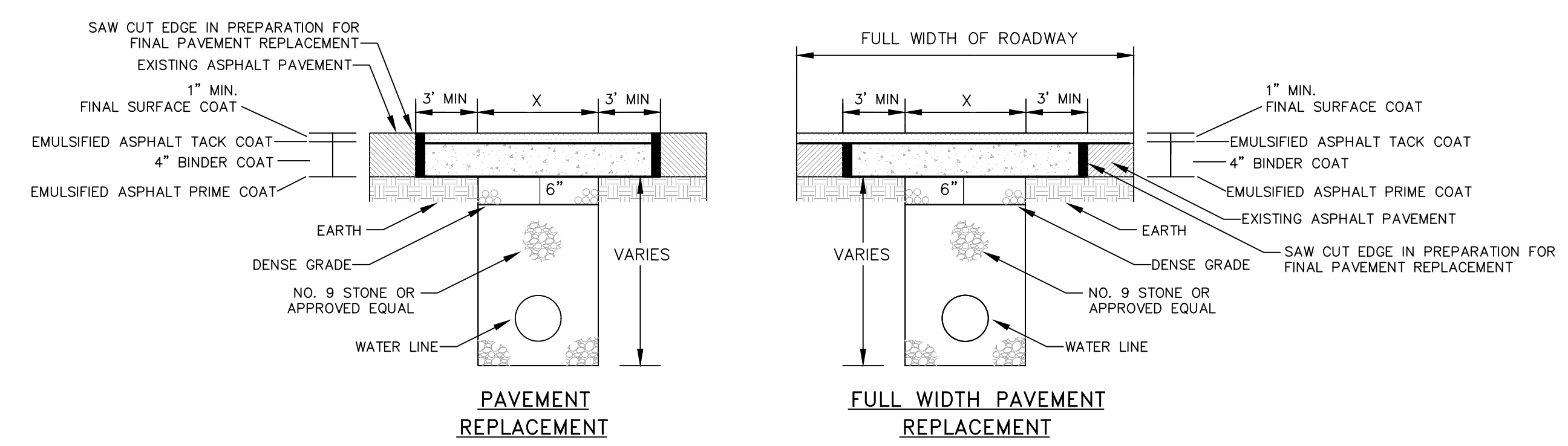
STANDARD METER SETTING



CREEK CROSSING IN ROCK

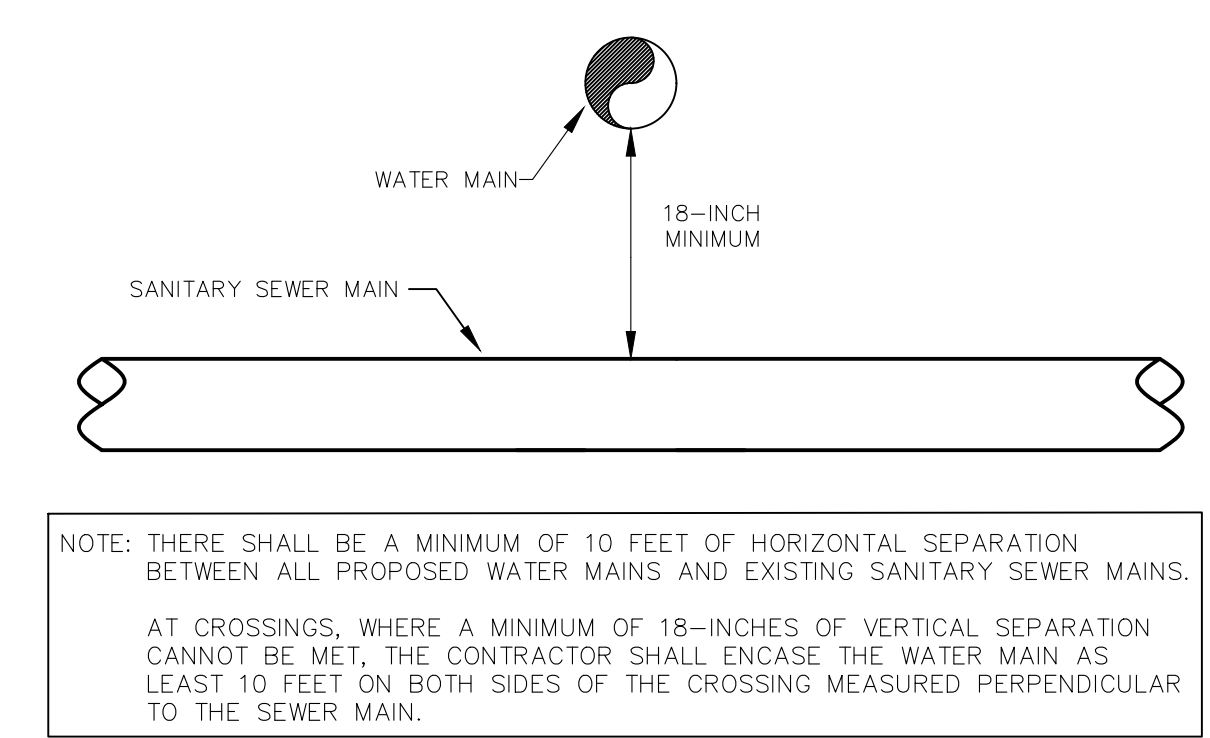
CREEK CROSSING

CREEK CROSSING IN SOIL



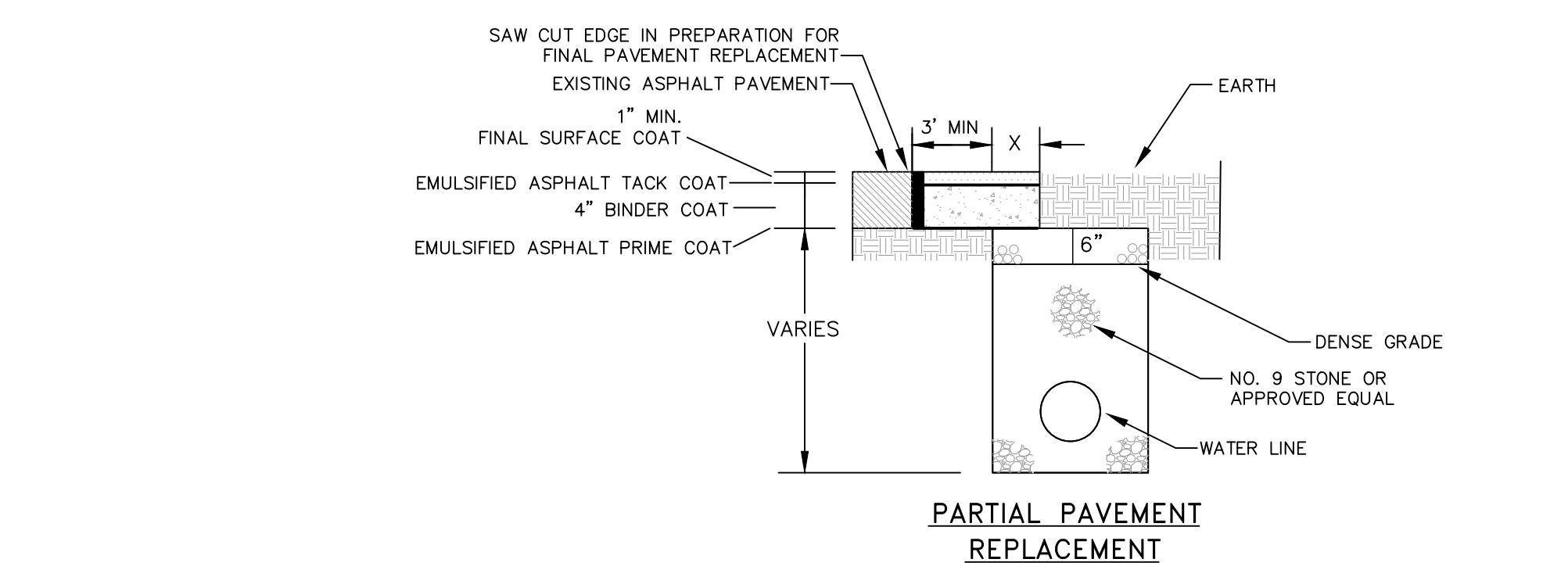
PAVEMENT REPLACEMENT

FULL WIDTH PAVEMENT REPLACEMENT



WATER & SEWER SEPARATION

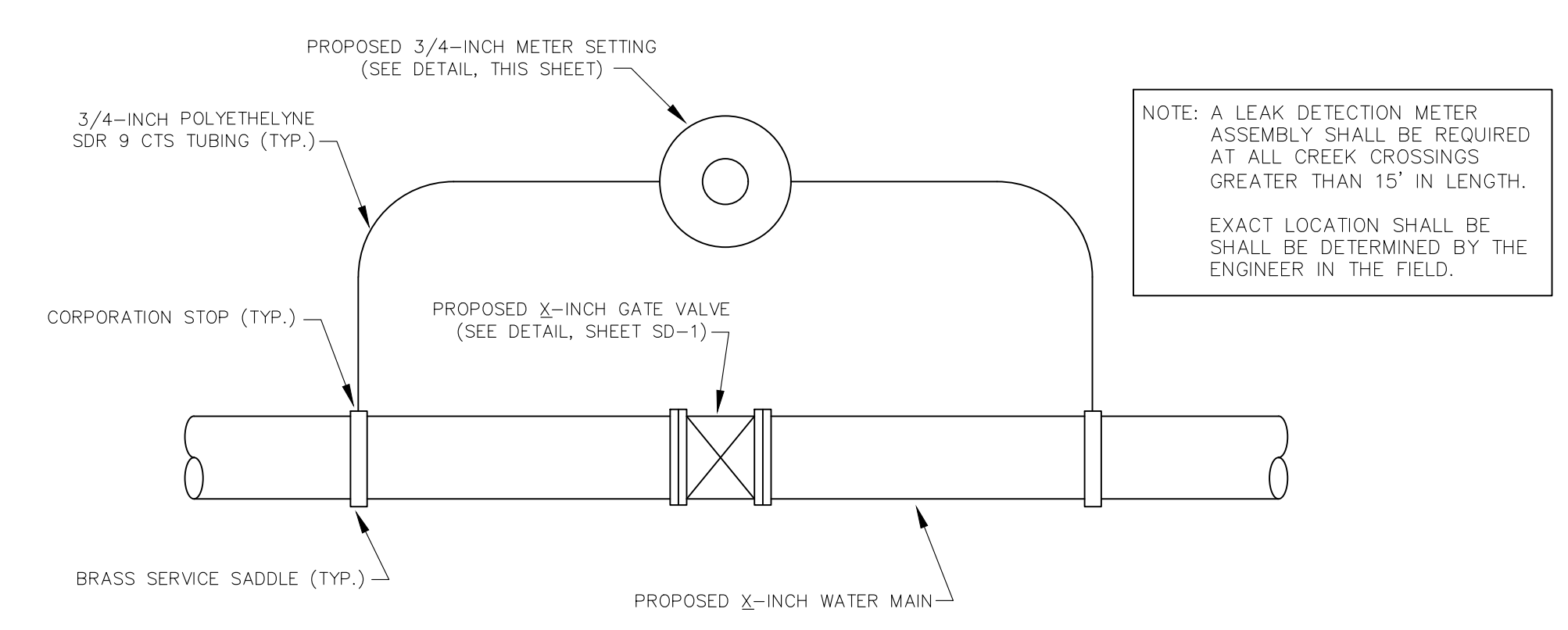
NOTE: THERE SHALL BE A MINIMUM OF 10 FEET OF HORIZONTAL SEPARATION BETWEEN ALL PROPOSED WATER MAINS AND EXISTING SANITARY SEWER MAINS. AT CROSSINGS, WHERE A MINIMUM OF 18-INCHES OF VERTICAL SEPARATION CANNOT BE MET, THE CONTRACTOR SHALL ENCASE THE WATER MAIN AS AT LEAST 10 FEET ON BOTH SIDES OF THE CROSSING MEASURED PERPENDICULAR TO THE SEWER MAIN.



PARTIAL PAVEMENT REPLACEMENT

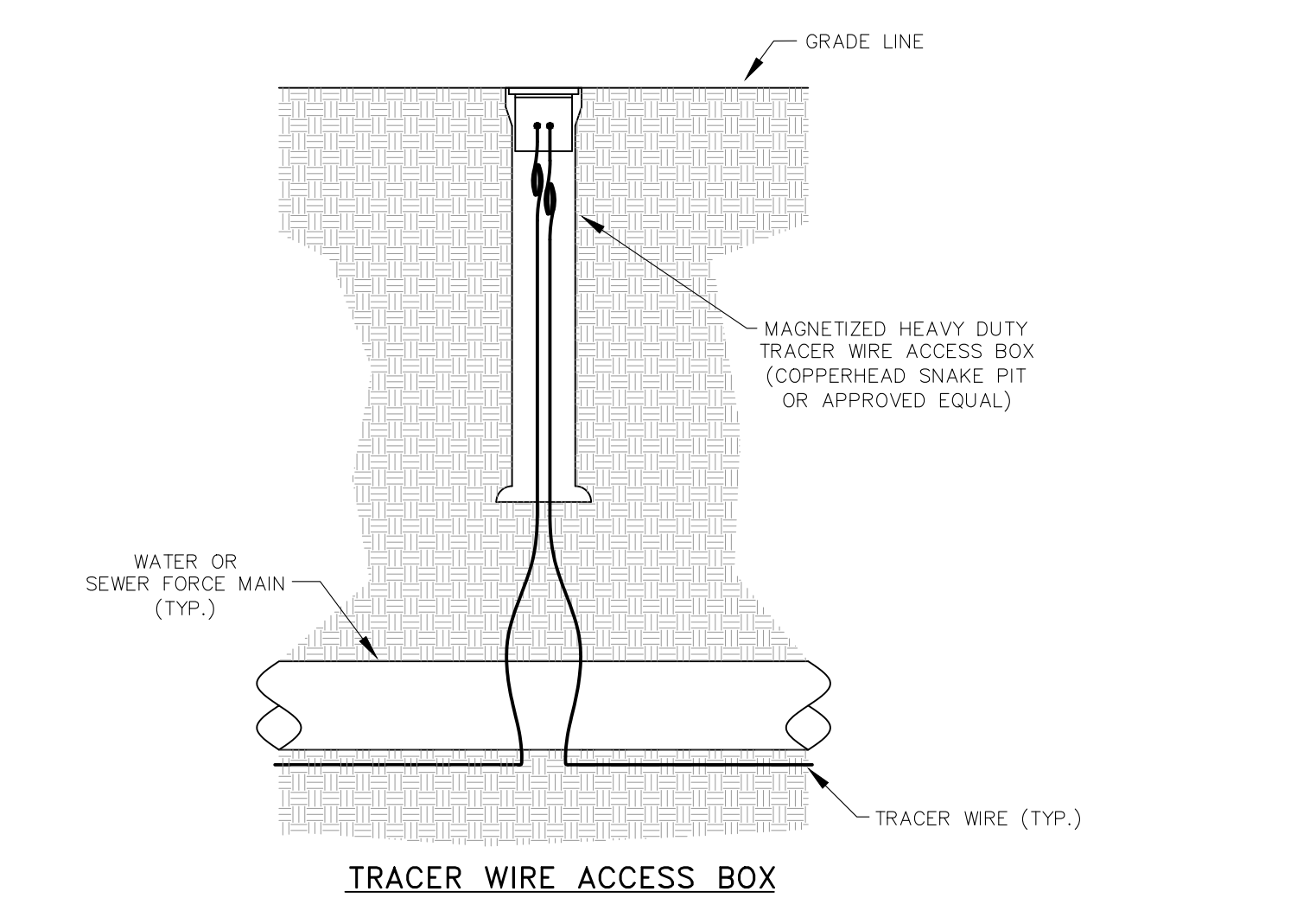
NOTES:  
ANY TRENCH THAT DISTURBS PAVEMENT SHALL BE BACKFILLED WITH STONE  
REPLACE BITUMINOUS PAVEMENT WITH SAME TYPE AND DEPTH AS EXISTING PAVEMENT  
ANY PUBLICLY TRAVELED AREA (I.E. COUNTY ROADS, BUSINESS ENTRANCES, BUSINESS AND PUBLIC PARKING LOTS, ETC.) SHALL BE TEMPORARILY RESTORED AT THE END OF EACH WORK DAY USING AN APPROVED COLD PATCH ASPHALT PAVEMENT

BITUMINOUS PAVEMENT REPLACEMENT

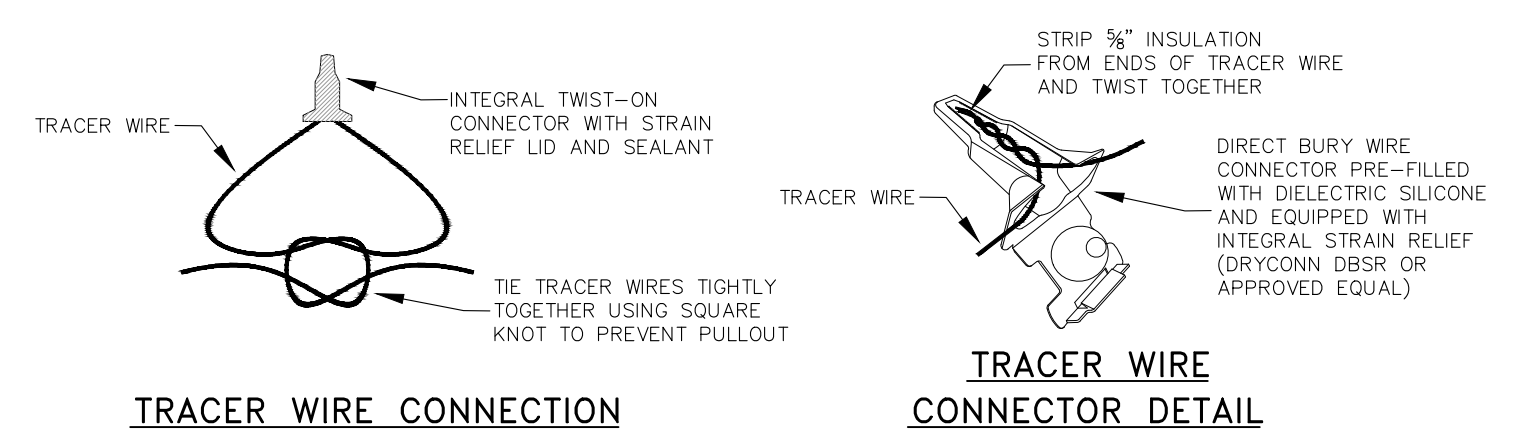


LEAK DETECTION METER ASSEMBLY

NOTE: A LEAK DETECTION METER ASSEMBLY SHALL BE REQUIRED AT ALL CREEK CROSSINGS GREATER THAN 15' IN LENGTH. EXACT LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.



TRACER WIRE ACCESS BOX



TRACER WIRE CONNECTION

TRACER WIRE CONNECTOR DETAIL

NOTES:  
FOR OPEN CUT INSTALLATION, TRACER WIRE IS TO BE #12 AWG SOLID COPPER WITH 30 MIL BLUE HMWPE INSULATION. FOR TRENCHLESS INSTALLATION, TRACER WIRE IS TO BE #12 AWG SOLID COPPER CLAD STEEL CORE WITH 45 MIL BLUE HDPE INSULATION.  
TRACER WIRE SHALL BE INSTALLED WITH THE PIPE AT THE TRENCH BOTTOM. ACCESS BOXES SHALL BE INSTALLED AT EACH VALVE, HYDRANT AND AIR RELEASE VALVE. TRACER WIRE ACCESS BOXES SHALL BE SPACED NO FURTHER THAN 1000' APART. A MINIMUM OF 3 FEET OF TRACER WIRE SHOULD BE COILED UP INSIDE OF EACH ACCESS BOX.

TRACER WIRE DETAILS

**Monarch Engineering, Inc.**  
556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

STANDARD DETAIL DRAWINGS

GREEN-TAYLOR WATER DISTRICT  
GREEN COUNTY, KENTUCKY

DESCRIPTION:

CUSTOMER:

PROJECT NO. 2031  
DATE: JAN 2021  
DRAWN BY: JLM  
CHECKED BY: DSB

CHECKED BY: DMB  
SCALE: N.T.S.  
SHEET: SD-2

