

2019 WATER LINE REPLACEMENTS & IMPROVEMENTS BRONSTON WATER ASSOCIATION PULASKI & WAYNE COUNTIES, KENTUCKY

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BRONSTON WATER ASSOCIATION

ERIC KEITH, PRESIDENT

CLINT KEITH

MATTHEW TUCKER

LELAND KEITH

ALVIN MORROW

OFFICE SECRETARY - VICKIE RAMSEY

SUPERINTENDENT - J.C. NEW

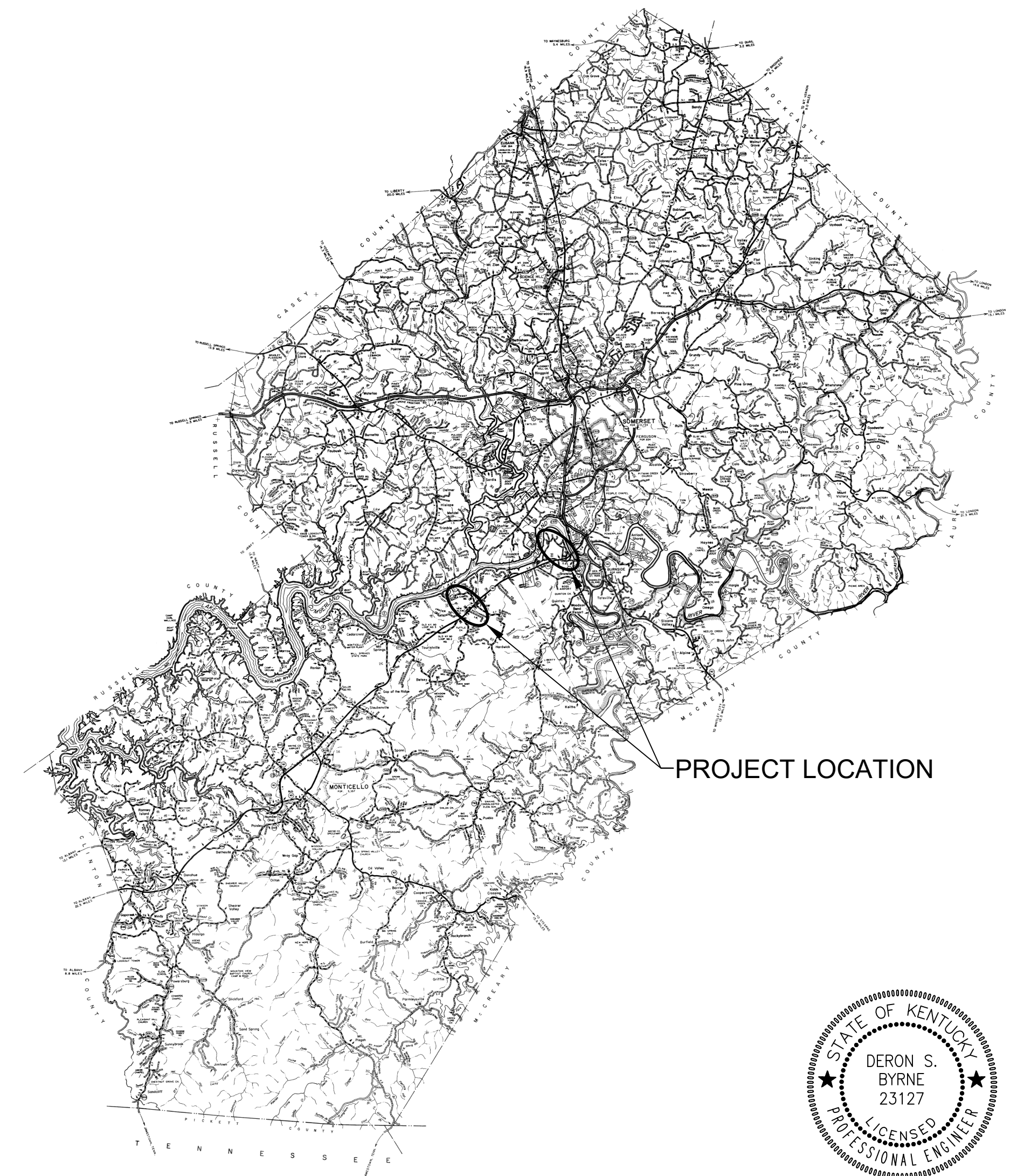
MAY 2020

FUNDED BY:
U.S.D.A. RURAL DEVELOPMENT

M
Monarch Engineering, Inc.

556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

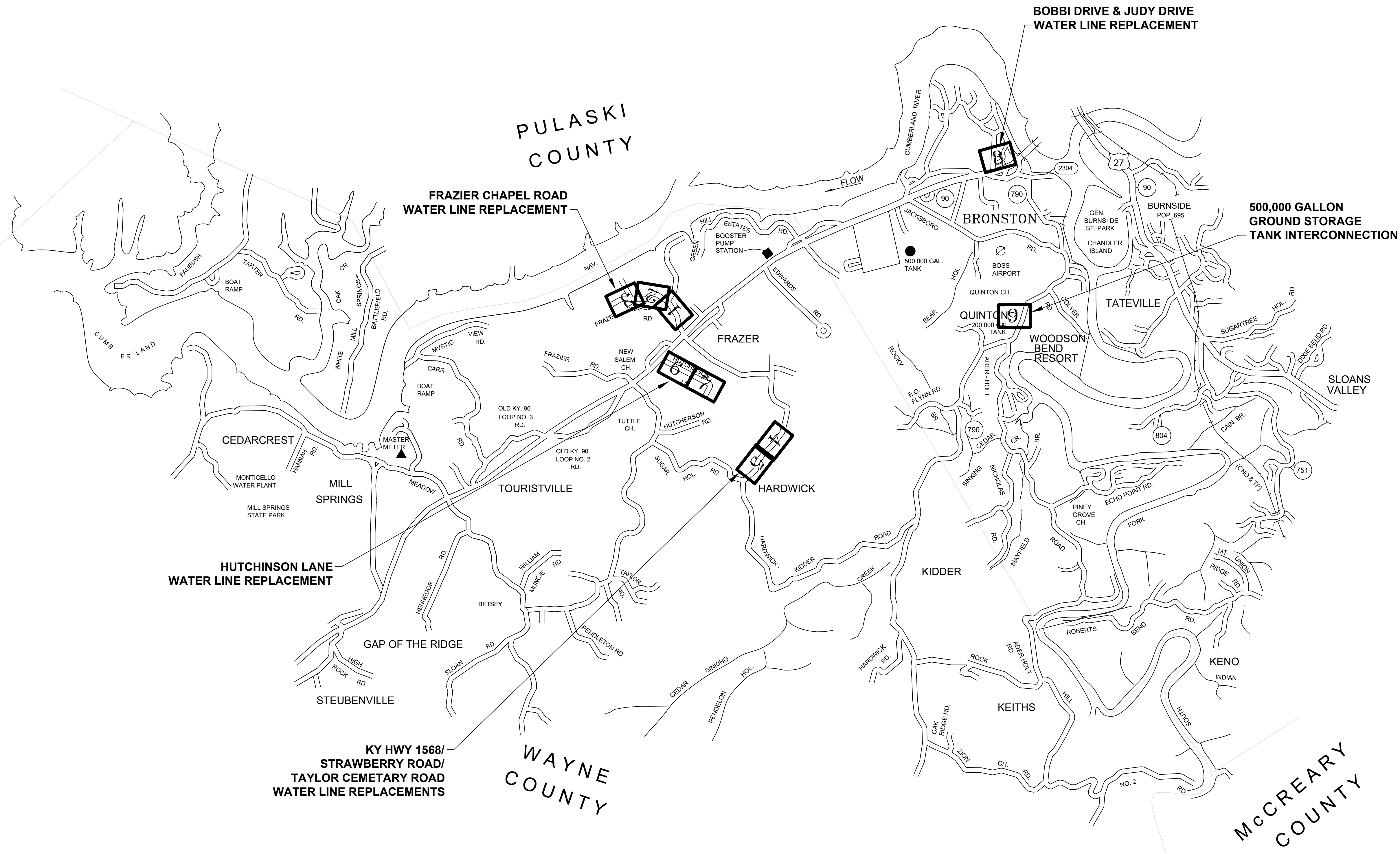
LOCATION MAP





RUSSELL COUNTY

PULASKI COUNTY



MCCREARY COUNTY

2019 WATER SYSTEM IMPROVEMENTS & REPLACEMENTS
 BRONSTON WATER ASSOCIATION
 PULASKI COUNTY, KENTUCKY

LOCATION MAP



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

DRAWN BY: JRC	DATE: OCT 2019	REVISED	SHEET
CHECKED BY: DSB	SCALE: N.T.S.		LM - 1
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GENERAL NOTES TO CONTRACTOR

- BEFORE CONSTRUCTION BEGINS NEAR OR THROUGH EXISTING UTILITIES (i.e. GAS CO., TELEPHONE CO., CABLE CO., ETC.) EACH UTILITY COMPANY SHALL BE NOTIFIED. A REQUEST FOR THE EXACT LOCATION OF THE UTILITY SHALL BE MADE, AND PERMISSION TO PROCEED WITH CONSTRUCTION OBTAINED.
- BEFORE CONSTRUCTION BEGINS THROUGH ANY PROPERTY, THE CONTRACTOR SHALL MAKE HIMSELF AWARE OF THE EXACT LOCATION OF CONSTRUCTION THROUGH THE PROPERTY AND THE BOUNDS OF THE PERMANENT AND TEMPORARY CONSTRUCTION EASEMENTS.
- THE CONTRACTOR SHALL HAVE ON HAND AT THE JOB SITE 22, 45, AND 90 DEGREE BENDS TO ALLOW FOR THEIR USE WHERE BRONSTON WATER ASSOCIATION REQUESTS INSTALLATION AS NECESSARY.
- PIPE JOINT DEFLECTION IS NOT TO EXCEED MANUFACTURER'S ALLOWABLE LIMITS.
- CONNECTING NEW LINES TO EXISTING LINES OR TO WORK IN THEIR CONTRACTS IS SUBSIDIARY TO THE CONTRACT. IT INCLUDES FITTINGS, SLEEVES, ETC., BUT DOES NOT INCLUDE GATE VALVES, WHICH ARE EXTRA PAY ITEM.
- THE CONTRACTOR SHALL FREE BORE ALL ASPHALT AND CONCRETE RESIDENTIAL DRIVEWAYS IN DIRT AND OPEN CUT IN ROCK AS DIRECTED BY THE BRONSTON WATER ASSOCIATION AND ENGINEER. THE CONTRACTOR SHALL EXCAVATE FROM EITHER SIDE OF ALL FENCES TO AVOID CUTTING. FENCE CUTTING AND REPAIR SHALL BE LIMITED TO UNIQUE CONDITIONS WHERE APPROVED BY BRONSTON WATER ASSOCIATION.
- ALL STREAM AND RIVER CROSSINGS GREATER THAN 15 FEET WIDE SHALL HAVE GATE VALVES INSTALLED ON EACH SIDE OF THE CROSSING. THE VALVE ON THE SOURCE SIDE SHALL HAVE A BYPASS SERVICE METER INSTALLED FOR LEAK DETECTION.
- ALL WATER LINES WITHIN 200 FEET RADIUS OF UNDERGROUND STORAGE TANKS (KRS-224.6-100), PETROLEUM STORAGE TANKS (KRS-224.60-115) AND ASSOCIATED PUMPS AND LINES SHALL BE DUCTILE IRON PIPE WITH PETROLEUM RESISTANT JOINTS AND ALL SERVICE LINE SHALL BE COPPER.
- 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 ABOVE OR BELOW THE SEWER AT CROSSINGS, ONE FULL LENGTH OF THE WATER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. SPECIAL STRUCTURAL SUPPORT FOR THE WATER AND SEWER PIPES MAY BE REQUIRED.
- WATER MAINS INSTALLED PARALLEL TO SEWERS SHALL BE LAID TO PROVIDE A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER MAIN.
- THE CONTRACTOR SHALL NOT BE ALLOWED TO MAINTAIN PERSONNEL RESIDENCY FOR ANY EMPLOYEE ON THE CONSTRUCTION SITE.
- WHEN WORKING ALONG THE COMMONWEALTH OF KENTUCKY RIGHT OF WAY, THE CONTRACTOR SHALL BE ADVISED THAT THE WATER LINES SHALL NOT BE PLACED IN FILL AREAS.
- WHEN PERFORMING WORK ALONG OR ACROSS ANY PUBLIC ROADWAY, THE CONTRACTOR SHALL POST WARNING SIGNS PAINTED ORANGE AND THEY SHALL BE FOUR (4) FEET BY FOUR (4) FEET MOUNTED ON POSTS IN ACCORDANCE WITH THE KENTUCKY TRANSPORTATION DEPARTMENT'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THE SIGNS SHALL BE AS FOLLOWS:
 - 1) CAUTION PIPELINE CONSTRUCTION 1500 FEET
 - 2) CAUTION PIPELINE CONSTRUCTION 1000 FEET
 - 3) CAUTION PIPELINE CONSTRUCTION 500 FEET
- THE CONTRACTOR SHALL MAINTAIN TWO (2) FLAG MEN AT ALL TIMES WHERE MACHINERY IS IN OPERATION WHEN WORKING 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 FLAG MEN DOES NOT EXIST.
- ALL SIGNS, BARRICADES, LIGHTS AND TRAFFIC CONTROL SHALL BE INSTALLED IN ACCORDANCE WITH THE KENTUCKY TRANSPORTATION DEPARTMENT'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 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.
- 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.
- ALL NECESSARY STEPS SHALL BE TAKEN TO PREVENT EROSION OR SILTATION OF THE PUBLIC RIGHT OF WAY, ADJOINING PROPERTY AND WATERWAYS.

WATER LINE GENERAL NOTES

1. ALL WATER LINES SHALL BE CONFORMING TO ASTM SPECIFICATIONS D-2241 AND D-3139, FOR MATERIAL. ALL JOINTS SHALL BE SLIP-TYPE WITH RUBBER GASKETS CONFORMING TO ASTM-1869.
2. FITTINGS SHALL BE DUCTILE IRON CLASS 250 IN ACCORDANCE WITH AWWA C111-71 (ANSI A21.10).
3. ALL VALVES SHALL CONFORM TO AWWA C500.
4. CONSTRUCTION PRACTICES AND PROCEDURES SHALL CONFORM TO CURRENT AWWA STANDARDS AND BE APPROVED BY THE BRONSTON WATER ASSOCIATION.
5. AFTER INSTALLATION, WATER LINES SHALL BE DISINFECTED WITH A CHLORINE SOLUTION IN SUCH AMOUNTS AS TO PRODUCE A CONCENTRATION OF AT LEAST FIFTY (50) PPM AND A RESIDUAL OF AT LEAST TWENTY-FIVE (25) PPM AT THE END OF THE 24 HOURS AND FOLLOWED BY THROUGH FLUSHING.
6. MINIMUM COVER OF WATER LINES SHALL BE 30 INCHES. WATER LINE WITHIN COMMONWEALTH OF KENTUCKY RIGHT-OF-WAYS SHALL HAVE A MINIMUM COVER OF 42-INCHES.
7. CONTRACTOR SHALL FULLY COMPLY WITH ALL LOCAL, STATE AND FEDERAL SAFETY AND ENVIRONMENTAL REGULATIONS GOVERNING UTILITY CONSTRUCTION.
8. ALL WATER LINE CROSSING PAVED SURFACE SHALL BE BACKFILLED FULL DEPTH WITH COMPACTED CRUSHED STONE.
9. EXISTING AND PROPOSED WATER MAIN LOCATIONS SHALL BE VERIFIED BY BRONSTON WATER ASSOCIATION PRIOR TO CONSTRUCTION.
10. ALL PIPE AND FITTINGS SHALL HAVE A MINIMUM OF 6-INCHES OF BEDDING OF DIRT UNDER AND ON BOTH SIDES OF PIPE UNLESS OTHERWISE SPECIFIED. ALL PIPE AND FITTING SHALL BE BACK-FILLED WITH DIRT UNLESS OTHERWISE SPECIFIED.
11. ALL FITTINGS: 90° BENDS, TEES, ETC., SHALL BE BLOCK WITH A MINIMUM OF 12-INCHES POURED CONCRETE AGAINST UNDISTURBED SOIL.
12. ALL GATE VALVES SHALL TURN RIGHT TO CLOSE AND TURN LEFT TO OPEN.
13. ALL VALVES SHALL BE C.I. VALVE BOXES EXTENDING 2-INCHES ABOVE SURFACE.
14. ALL FLUSH HYDRANTS SHALL BE STANDARD 2-WAY 5 1/4-INCHES BREAKAWAY TYPE WITH A MINIMUM 3 1/2-INCHES BURY AND TURN LEFT TO OPEN AND RIGHT TO CLOSE.
15. ALL PROPOSED WATER LINES SHALL HAVE A #12 COATED TRACER WIRE.
16. ALL FLUSH HYDRANTS, WATER VALVES AND FITTINGS SHALL HAVE RESTRAINER GLANDS (MEGALUGS®).
17. ALL WATER LINES SHALL BE PRESSURE TESTED TO 150 PSI FOR A MINIMUM OF FOUR (4) HOURS.
18. CONTRACTOR SHALL PROVIDE BACTERIAL SAMPLE RESULTS OF PROPOSED WATER LINES TO BRONSTON WATER ASSOCIATION.

OWNER

BRONSTON WATER ASSOCIATION
 2013 WEST HIGHWAY 90
 BRONSTON, KY 42518
 (606) 561-5209

LINE/CABLE LOCATION SERVICES



2019 WATER SYSTEM IMPROVEMENTS & REPLACEMENTS
 BRONSTON WATER ASSOCIATION
 PULASKI COUNTY, KENTUCKY

GENERAL NOTES

			SHEET G-1	
	556 CARLTON DRIVE LAWRENCEBURG, KY 40342			
	DRAWN BY: JRC	DATE: OCT 2019		REVISED
	CHECKED BY: DSB	SCALE: N.T.S.		PROJECT: 1933



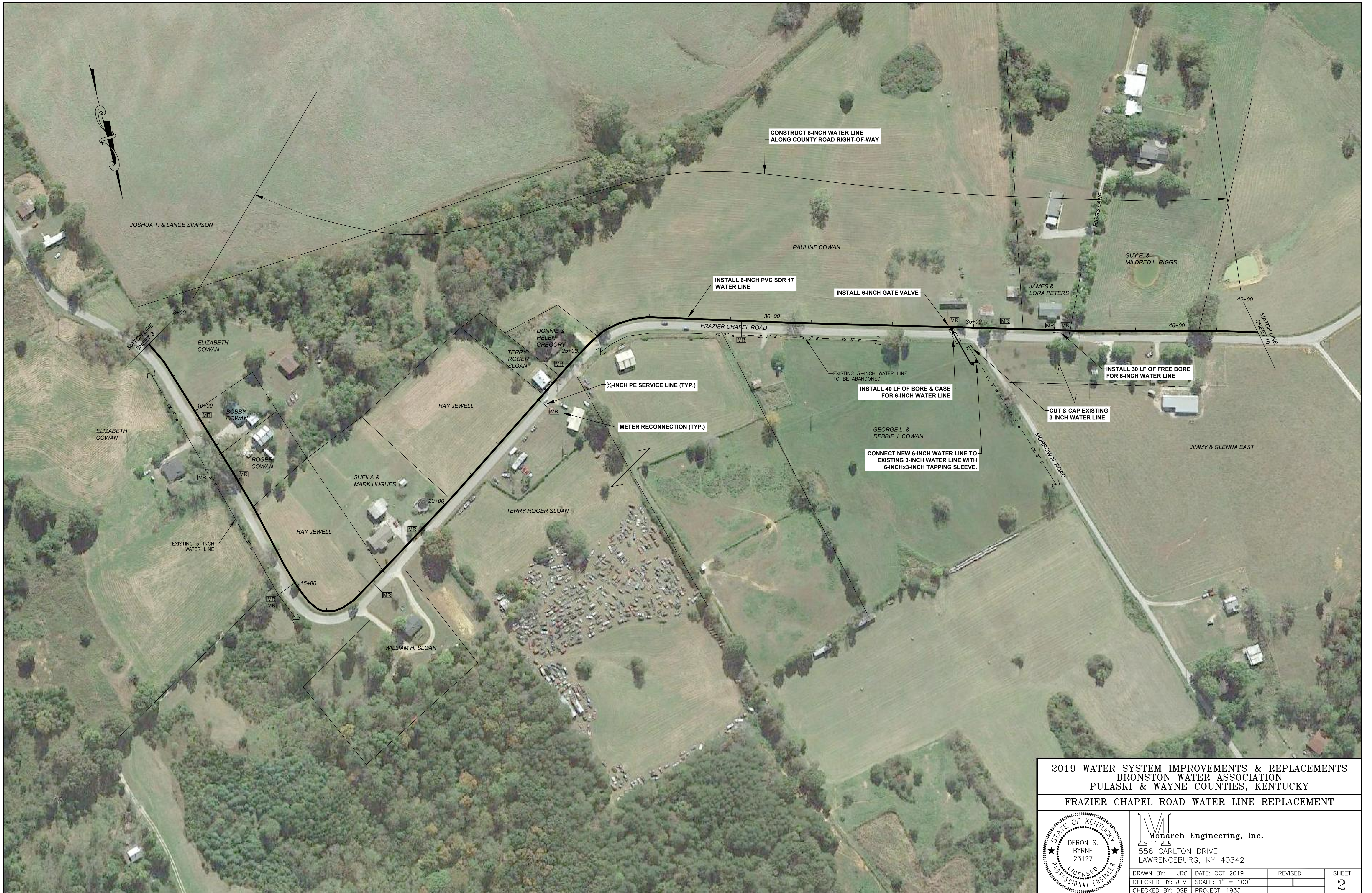
STA. 0+00
 CONNECT NEW 6-INCH WATER LINE TO
 EXISTING 6-INCH WATER LINE WITH
 6-INCHx6-INCH TAPPING SLEEVE AND VALVE.
 LAT: 36° 57' 43.24" N
 LONG: 84° 42' 30.44" W

2019 WATER SYSTEM IMPROVEMENTS & REPLACEMENTS
 BRONSTON WATER ASSOCIATION
 PULASKI & WAYNE COUNTIES, KENTUCKY
 FRAZIER CHAPEL ROAD WATER LINE REPLACEMENT

STATE OF KENTUCKY
 DERON S. BYRNE
 23127
 LICENSED PROFESSIONAL ENGINEER

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

DRAWN BY: JRC	DATE: OCT 2019	REVISED	SHEET
CHECKED BY: JLM	SCALE: 1" = 100'		1
CHECKED BY: DSB	PROJECT: 1933		

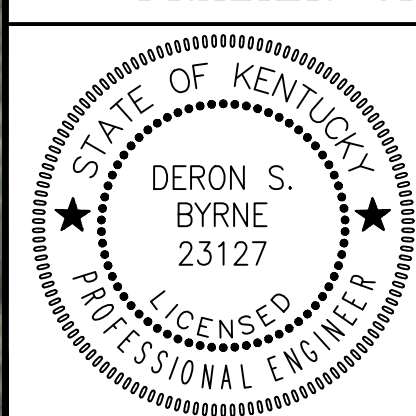


**2019 WATER SYSTEM IMPROVEMENTS & REPLACEMENTS
BRONSTON WATER ASSOCIATION
PULASKI & WAYNE COUNTIES, KENTUCKY
FRAZIER CHAPEL ROAD WATER LINE REPLACEMENT**

	Monarch Engineering, Inc. 556 CARLTON DRIVE LAWRENCEBURG, KY 40342	
	DRAWN BY: JRC CHECKED BY: JLM CHECKED BY: DSB	DATE: OCT 2019 SCALE: 1" = 100' PROJECT: 1933
	REVISED: _____ SHEET: 2	



**2019 WATER SYSTEM IMPROVEMENTS & REPLACEMENTS
BRONSTON WATER ASSOCIATION
PULASKI & WAYNE COUNTIES, KENTUCKY
FRAZIER CHAPEL ROAD WATER LINE REPLACEMENT**



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

DRAWN BY: JRC	DATE: OCT 2019	REVISED	SHEET
CHECKED BY: JLM	SCALE: 1" = 100'		3
CHECKED BY: DSB	PROJECT: 1933		



**2019 WATER SYSTEM IMPROVEMENTS & REPLACEMENTS
BRONSTON WATER ASSOCIATION
PULASKI & WAYNE COUNTIES, KENTUCKY**

KY HWY 1568/STRAWBERRY RD WATER LINE REPLACEMENT

	Monarch Engineering, Inc. 556 CARLTON DRIVE LAWRENCEBURG, KY 40342		
	DRAWN BY: JRC CHECKED BY: JLM CHECKED BY: DSB	DATE: OCT 2019 SCALE: 1" = 100' PROJECT: 1933	REVISED
	SHEET 4		



THE ESTIMATED LENGTH OF EACH DIRECTIONAL BORE IS INDICATED ON THE PLAN SHEET. THIS STATED LENGTH SHALL BE THE FOOTAGE USED FOR THE CONTRACTORS PAYMENT CALCULATION REGARDLESS OF ACTUAL LENGTH REQUIRED FOR INSTALLATION.

2019 WATER SYSTEM IMPROVEMENTS & REPLACEMENTS
 BRONSTON WATER ASSOCIATION
 PULASKI & WAYNE COUNTIES, KENTUCKY
 KY HWY 1568/STRAWBERRY RD WATER LINE REPLACEMENT



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

DRAWN BY: JRC	DATE: OCT 2019	REVISED	SHEET
CHECKED BY: JLM	SCALE: 1" = 100'		5
CHECKED BY: DSB	PROJECT: 1933		



STA. 0+00
CONNECT NEW 3-INCH WATER LINE TO
EXISTING 8-INCH WATER LINE WITH
8-INCHx3-INCH TAPPING SLEEVE AND VALVE.

¾-INCH PE SERVICE LINE (TYP.)

METER RECONNECTION

INSTALL 3-INCH PVC SDR 17
WATER LINE

INSTALL 30 LF OF CREEK CROSSING
FOR 3-INCH WATER LINE

UPON COMPLETION OF HUTCHINSON LANE
CONTRACTOR SHALL DISCONNECT EXISTING
3-INCH WATER LINE AT KY HWY 1568

EXISTING 18-INCH CMP

NEW METER SETTING

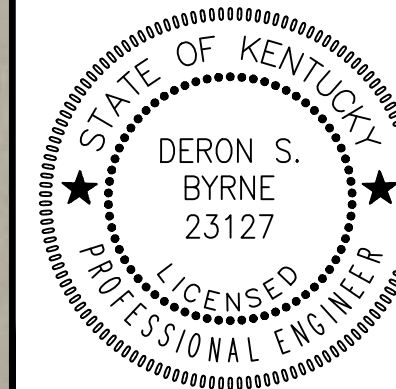
INSTALL ¾-INCH PE
SERVICE LINE (TYP.)

INSTALL NEW METER
SETTING & CONNECT
NEW SERVICE LINE TO
EXISTING SERVICE LINE.

EXISTING METER
TO BE REMOVED

INSTALL 3-INCH WATER LINE ALONG
COUNTY ROAD RIGHT-OF-WAY

2019 WATER SYSTEM IMPROVEMENTS & REPLACEMENTS
BRONSTON WATER ASSOCIATION
PULASKI & WAYNE COUNTIES, KENTUCKY
HUTCHINSON LANE WATER LINE REPLACEMENT

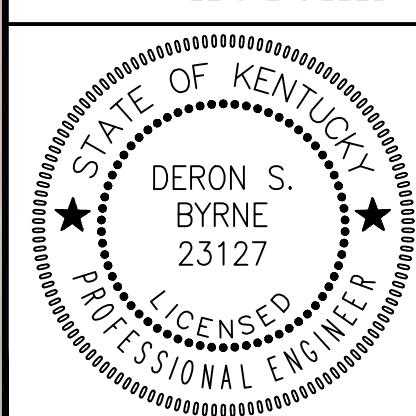


Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DRAWN BY: JRC	DATE: OCT 2019	REVISED	SHEET
CHECKED BY: JLM	SCALE: 1" = 100'		6
CHECKED BY: DSB	PROJECT: 1933		



2019 WATER SYSTEM IMPROVEMENTS & REPLACEMENTS
 BRONSTON WATER ASSOCIATION
 PULASKI & WAYNE COUNTIES, KENTUCKY
 HUTCHINSON LANE WATER LINE REPLACEMENT



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

DRAWN BY: JRC	DATE: OCT 2019	REVISED	SHEET
CHECKED BY: JLM	SCALE: 1" = 100'		7
CHECKED BY: DSB	PROJECT: 1933		



STA. 13+00
CONNECT TO EXISTING 3-INCH WATER LINE
WITH DIRECT TIE IN AND 3-INCH GATE VALVE.

INSTALL 40 LF OF BORE & CASE
FOR 3-INCH WATER LINE.

EXISTING 3-INCH WATER LINE
TO BE ABANDONED

INSTALL 3-INCH PVC SDR 17
WATER LINE

STA. 4+80
END 3-INCH WATER LINE
INSTALL 2-WAY FLUSH HYDRANT

METER RECONNECTION (TYP.)

INSTALL 30 LF OF FREE BORE

INSTALL 3-INCH PVC SDR 17
WATER LINE

INSTALL A DIRECT TIE IN TO THE
EXISTING 2-INCH WATER LINE

INSTALL 2-INCH GATE VALVE

STA. 0+00
CONNECT DIRECTLY INTO
EXISTING 3-INCH GATE VALVE

INSTALL 50 LF OF BORE & CASE
FOR 3-INCH WATER LINE

STA. 0+00
CONNECT DIRECTLY INTO
EXISTING 3-INCH GATE VALVE

CUT & CAP EXISTING
3-INCH WATER LINE

INSTALL 3-INCH WATER LINE
ALONG COUNTY ROAD
RIGHT-OF-WAY

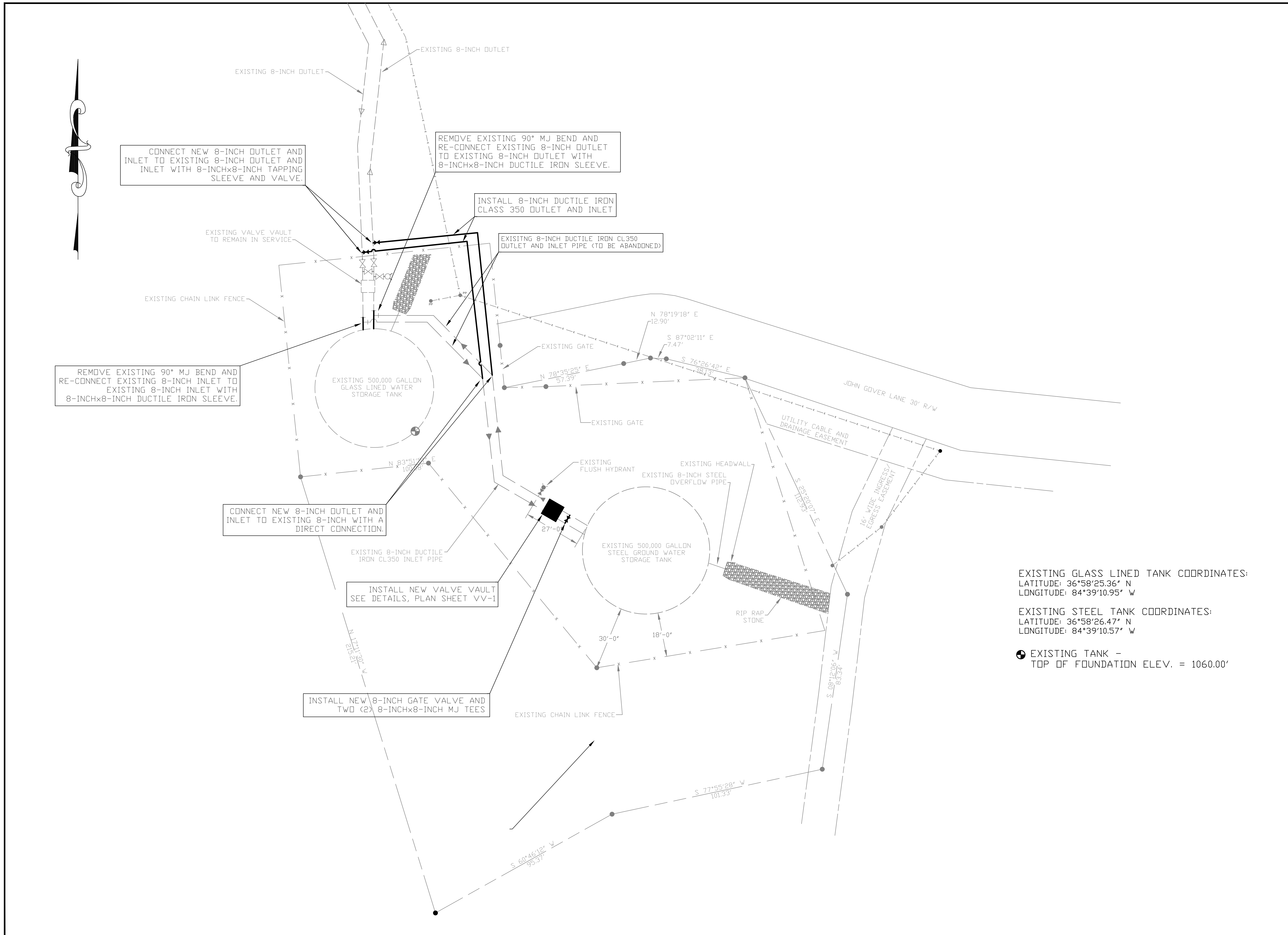
2019 WATER SYSTEM IMPROVEMENTS & REPLACEMENTS
BRONSTON WATER ASSOCIATION
PULASKI & WAYNE COUNTIES, KENTUCKY

BOBBI DRIVE & JUDY DRIVE WATER LINE REPLACEMENT



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

DRAWN BY: JRC	DATE: OCT 2019	REVISED	SHEET
CHECKED BY: JLM	SCALE: 1" = 100'		8
CHECKED BY: DSB	PROJECT: 1933		



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

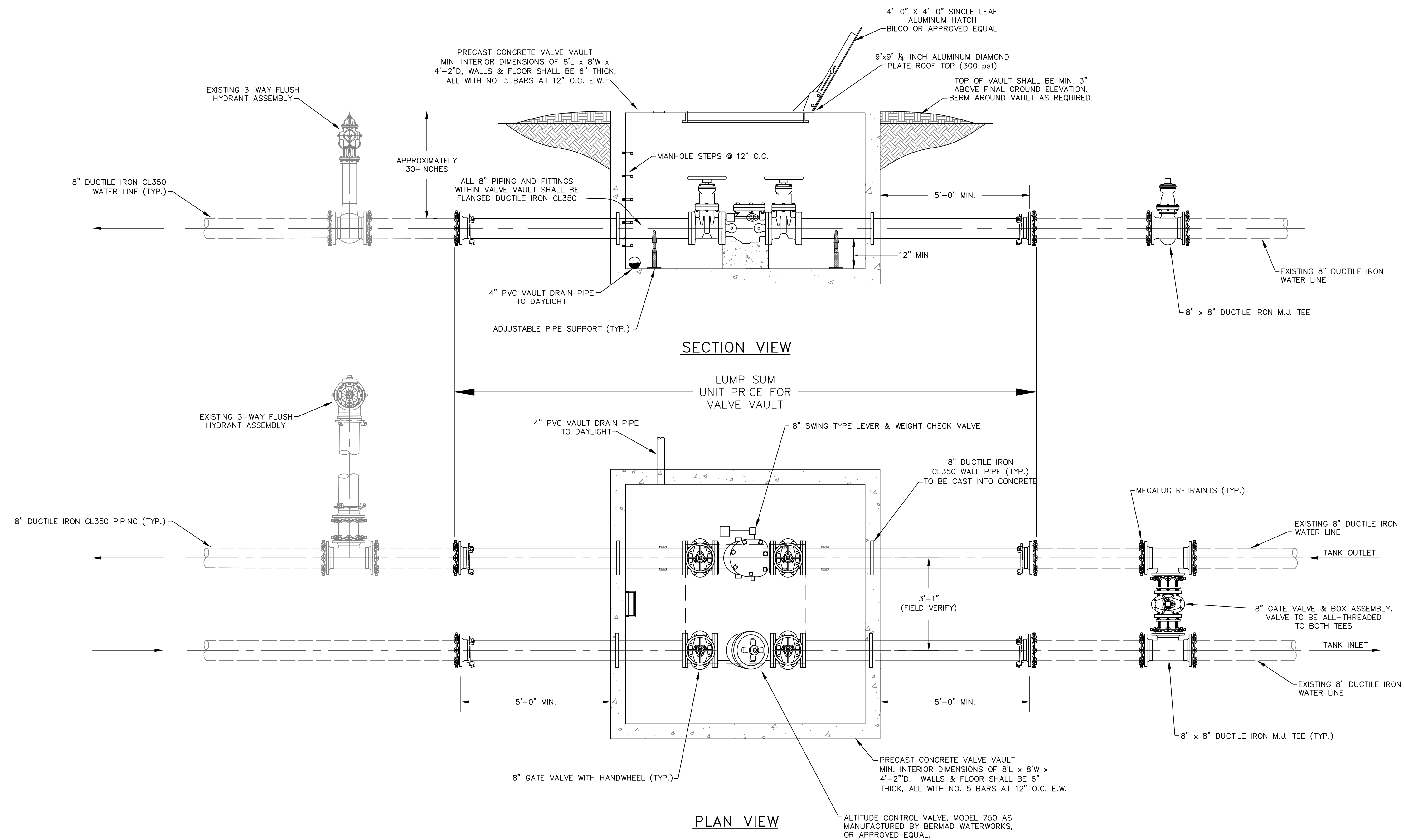
DESCRIPTION:
**500,000 GALLON GLASS LINED
 WATER STORAGE TANK INTERCONNECTION**

CUSTOMER:
**BRONSTON WATER ASSOCIATION
 PULASKI COUNTY, KENTUCKY**

PROJECT NO. 1933
 DATE: OCT 2019
 DRAWN BY: JRC
 CHECKED BY: DSB
 CHECKED BY: DMB
 SCALE: 1"=20'

SHEET:
 9





VALVE VAULT DETAILS
SCALE: 1/2" = 1'-0"

Monarch Engineering, Inc.

556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

DESCRIPTION:

500,000 GALLON TANK
VALVE VAULT INSTALLATION

CUSTOMER:

BRONSTON WATER ASSOCIATION
PULASKI COUNTY, KENTUCKY

PROJECT NO. 1933

DATE: OCT 2019

DRAWN BY: JRC

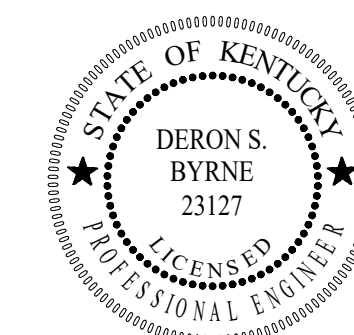
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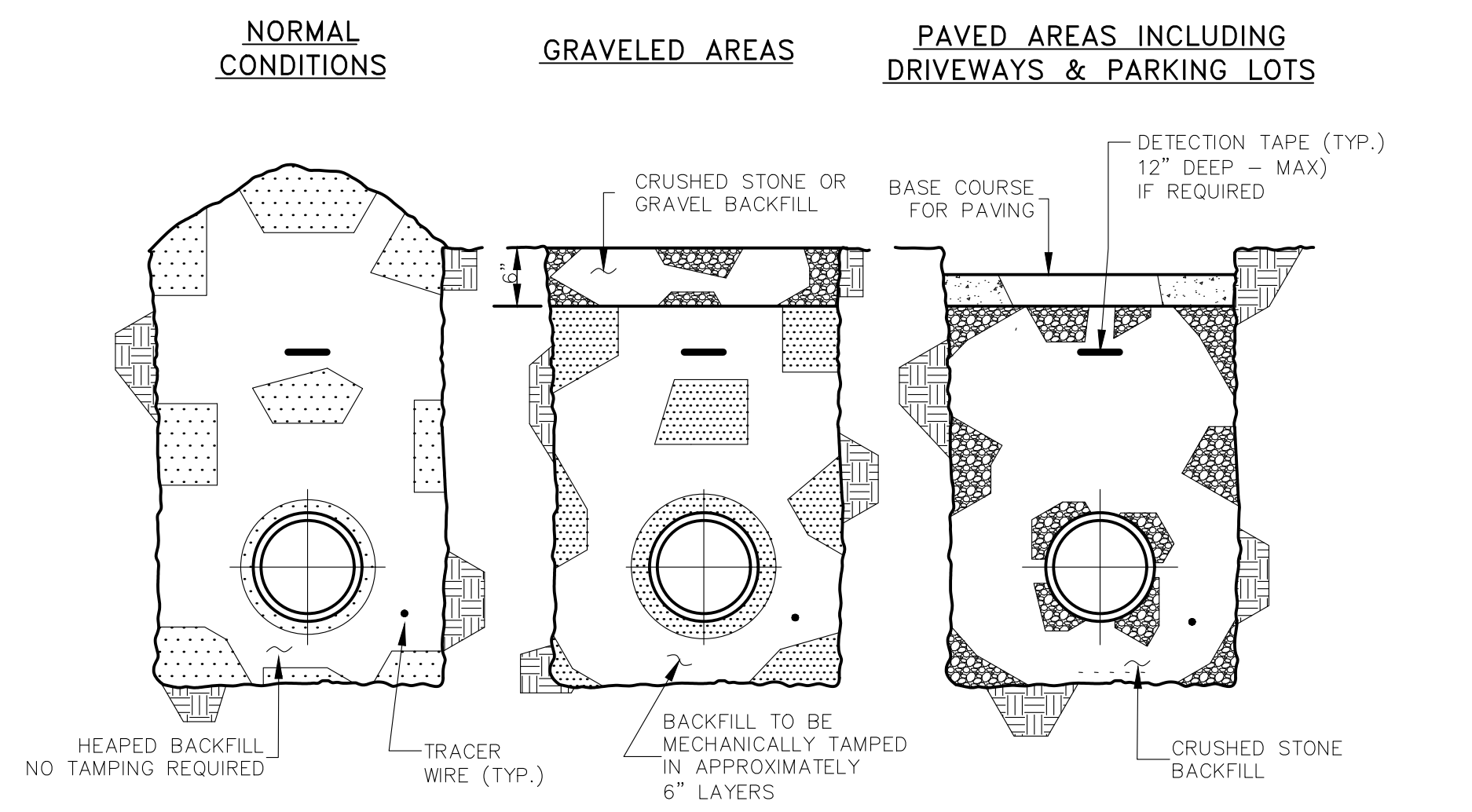
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SCALE: 1/2" = 1'-0"

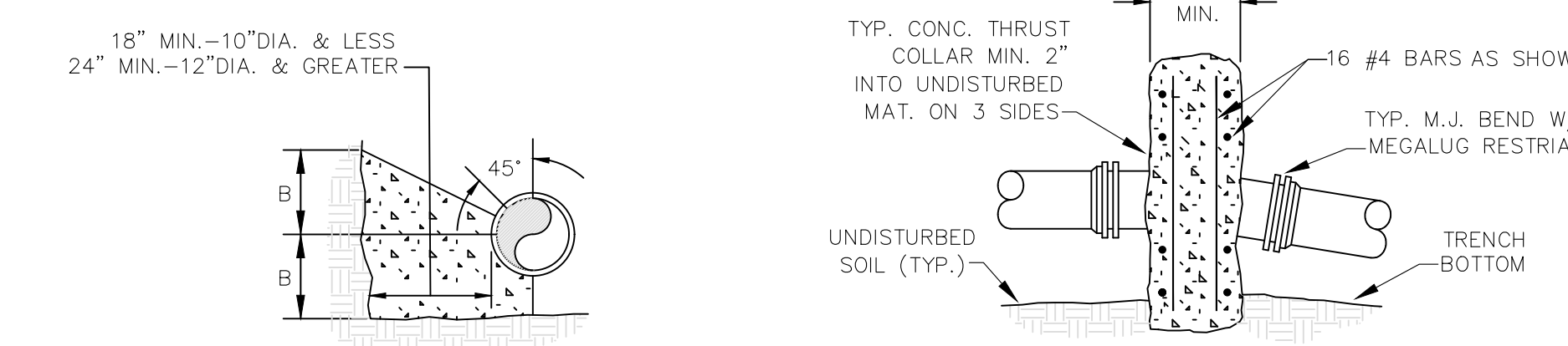
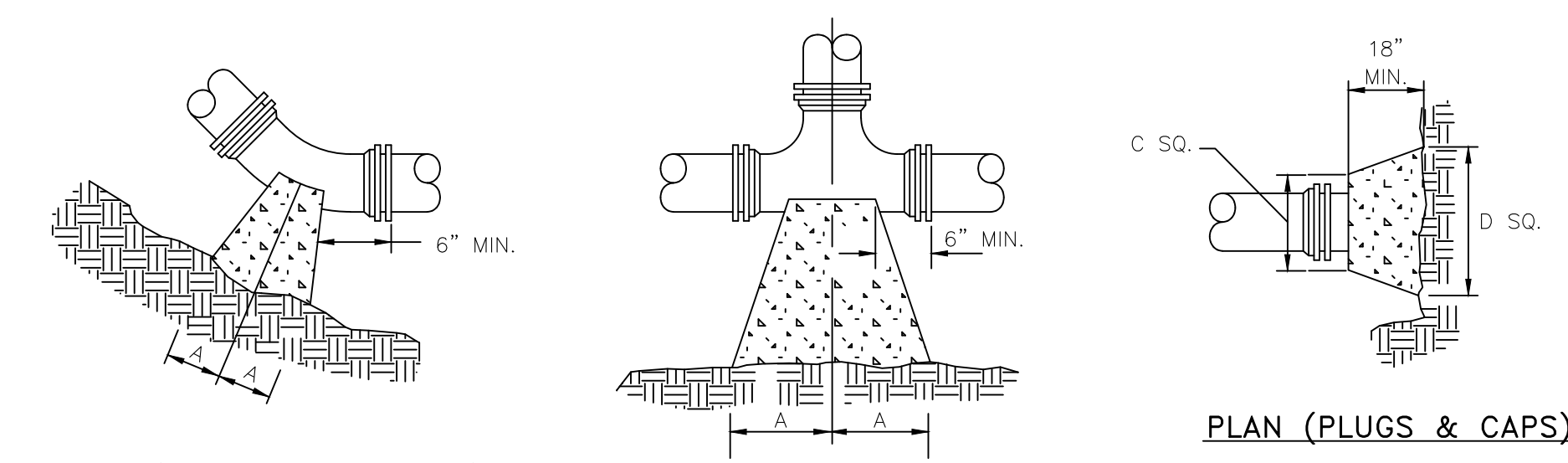
SHEET:

VV-1





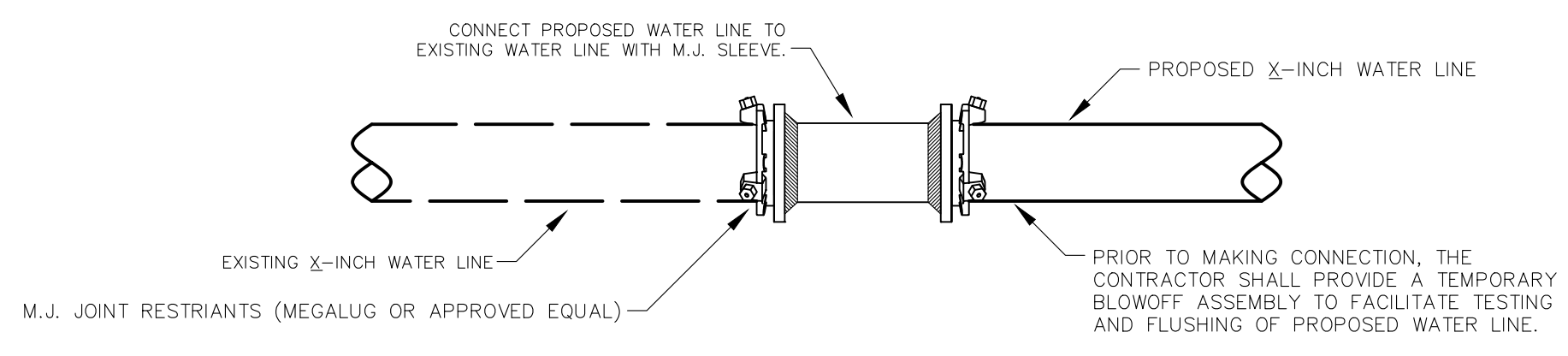
BACKFILLING



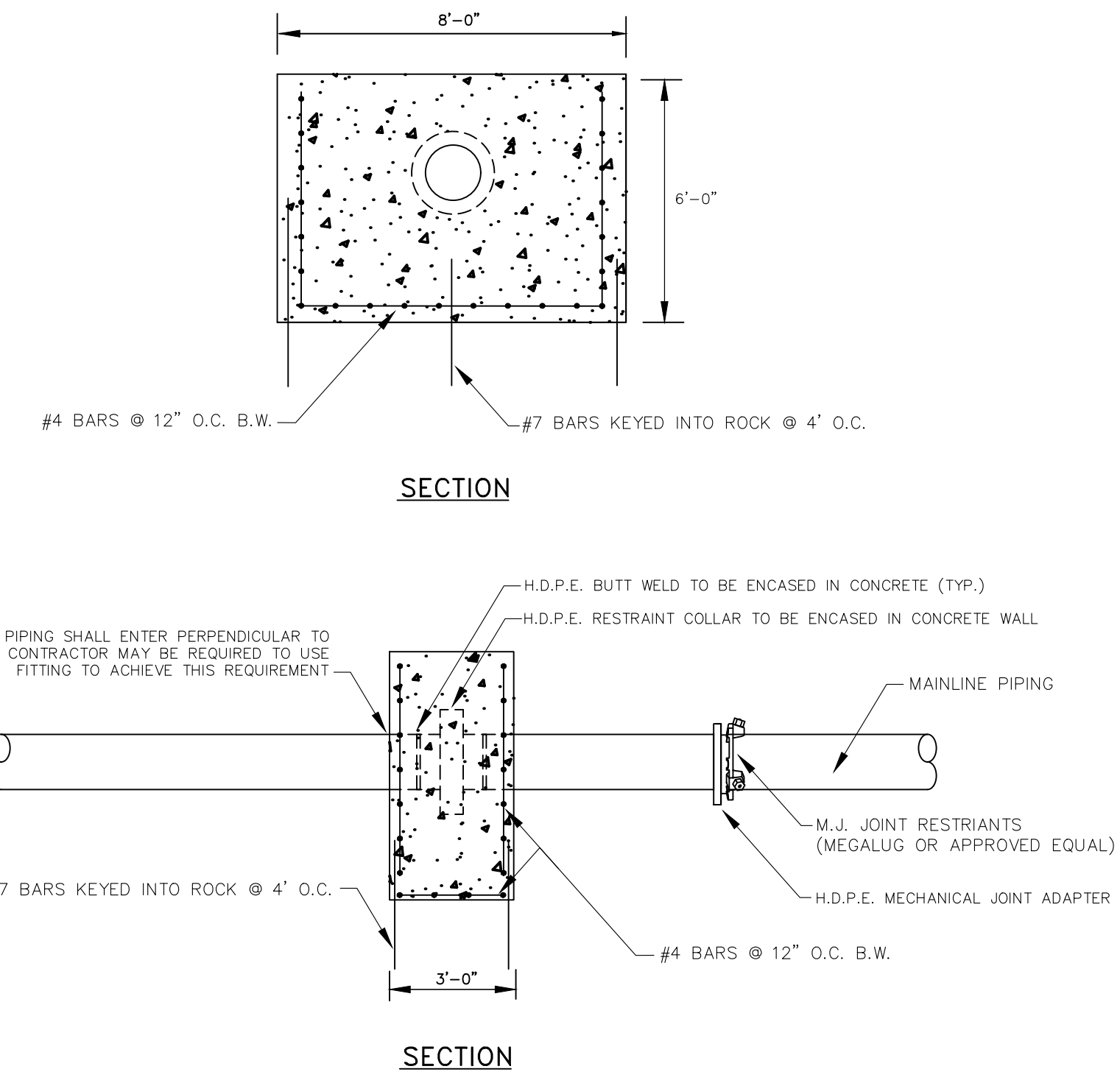
PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		TEE		PLUG	
	A	B	A	B	A	B	A	B	A	B	C	D
4"	8"	12"	8"	8"	6"	6"	6"	6"	11"	9"	10"	6"
6"	18"	12"	8"	10"	8"	8"	8"	8"	11"	10"	12"	18"
8"	18"	13"	10"	10"	8"	8"	8"	8"	11"	12"	12"	24"
10"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"
12"	20"	16"	12"	14"	8"	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

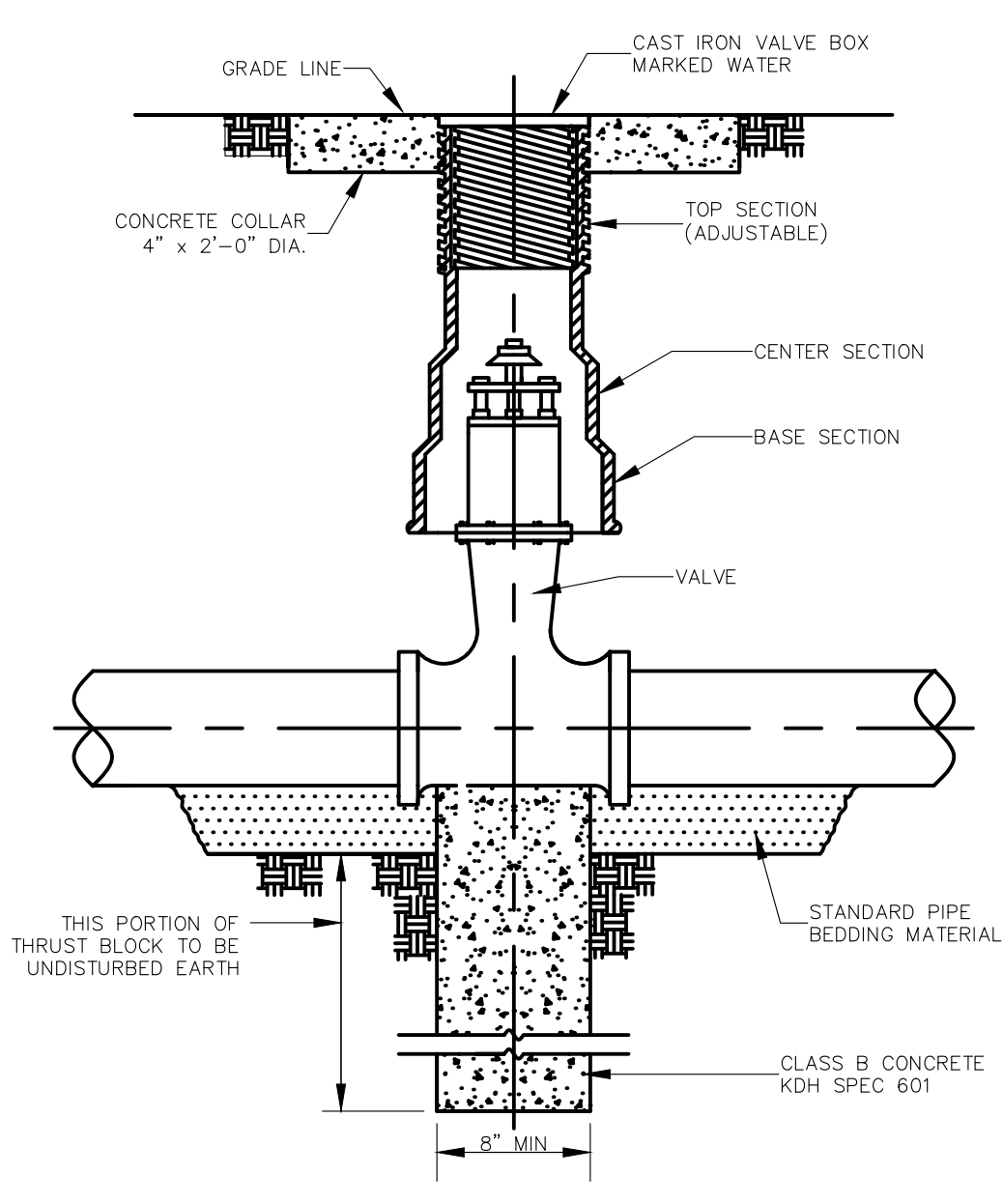
THRUST BLOCK DETAILS



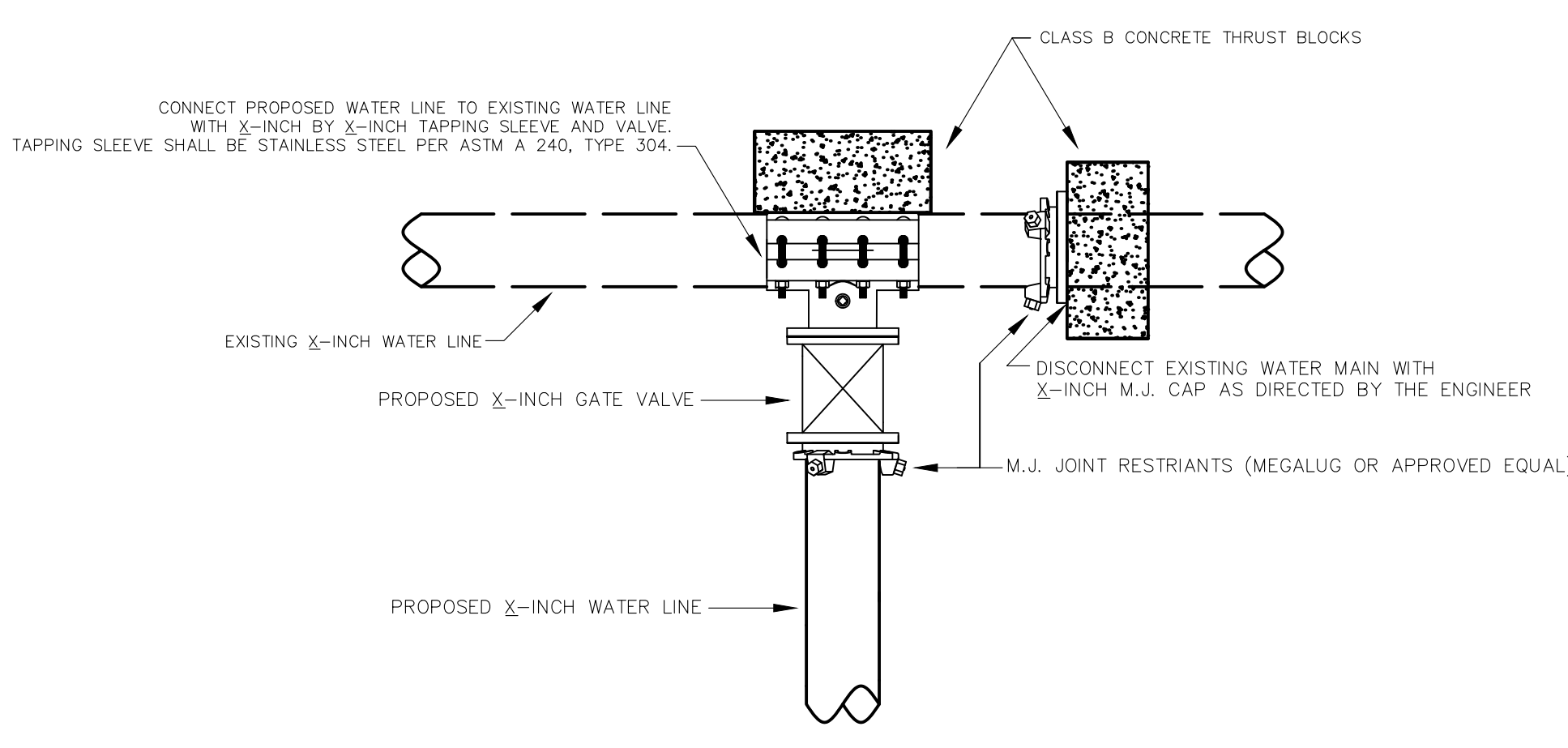
DIRECT CONNECTION



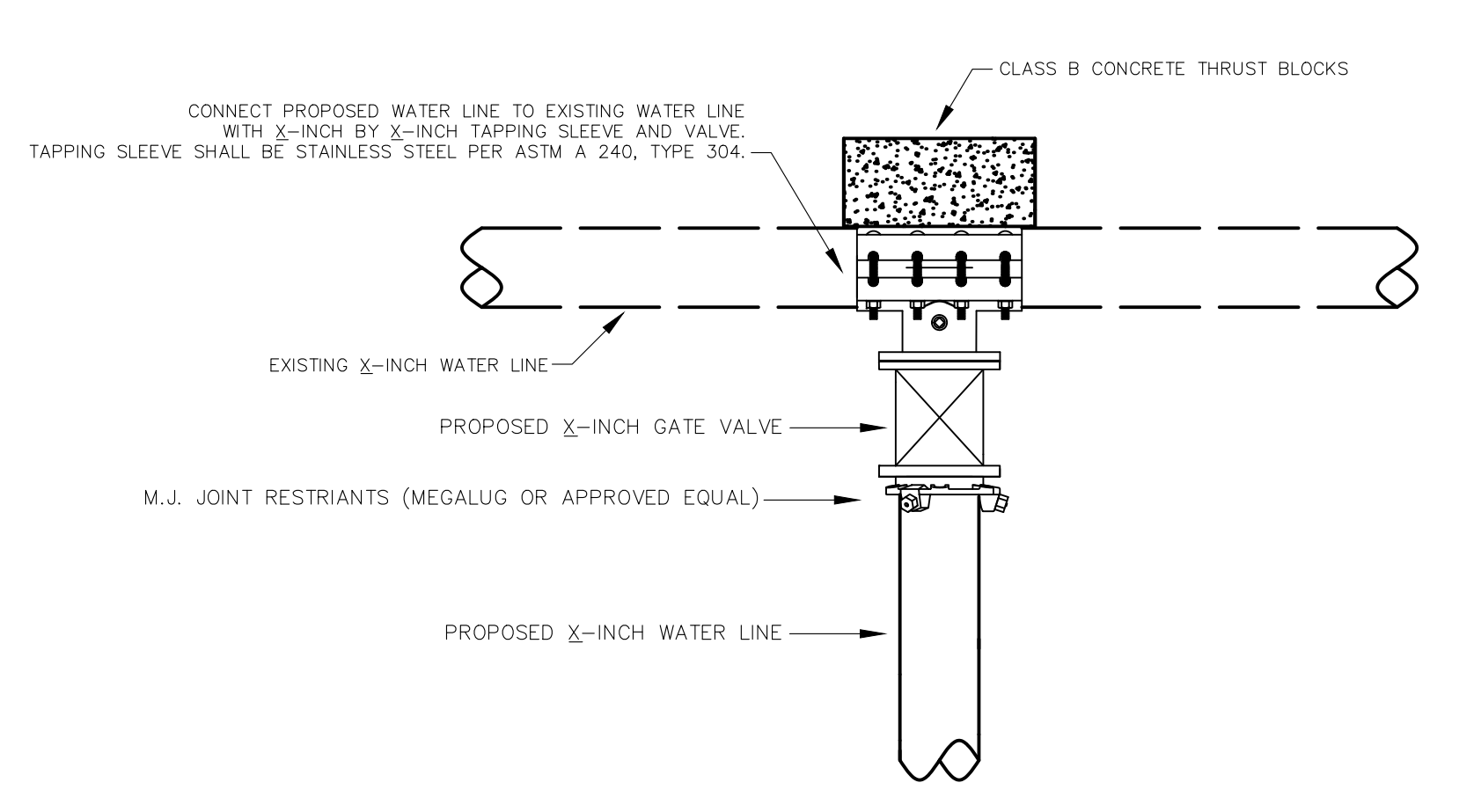
HDPE RESTRAINT WALL



GATE VALVE

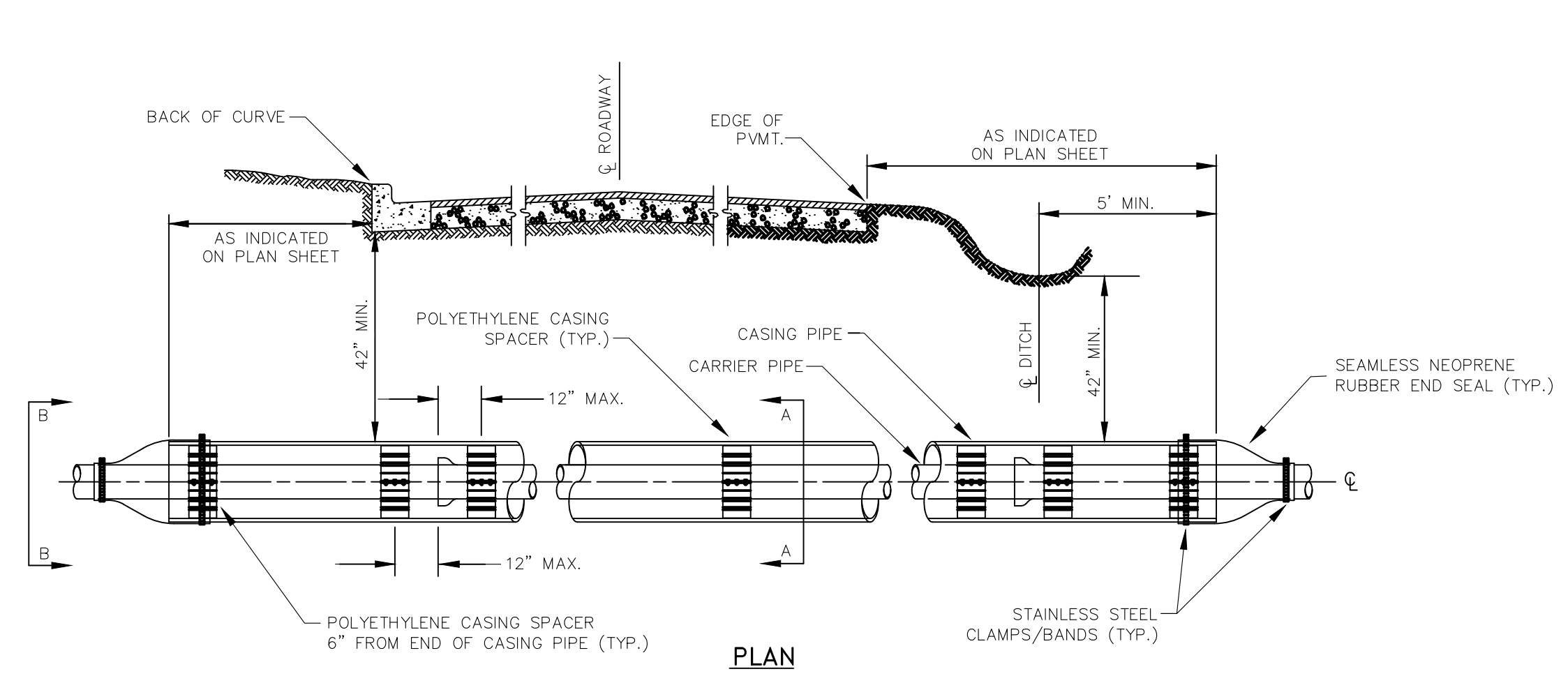


TYPE I CONNECTION

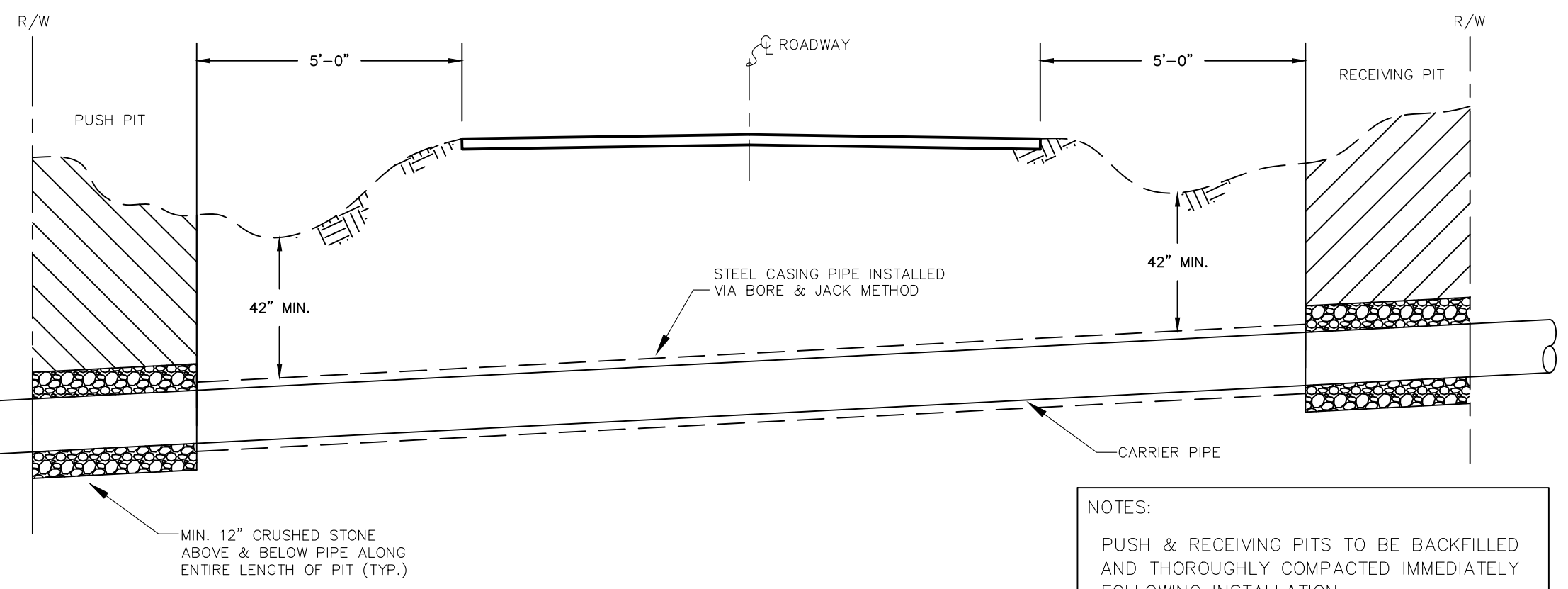


TYPE II CONNECTION

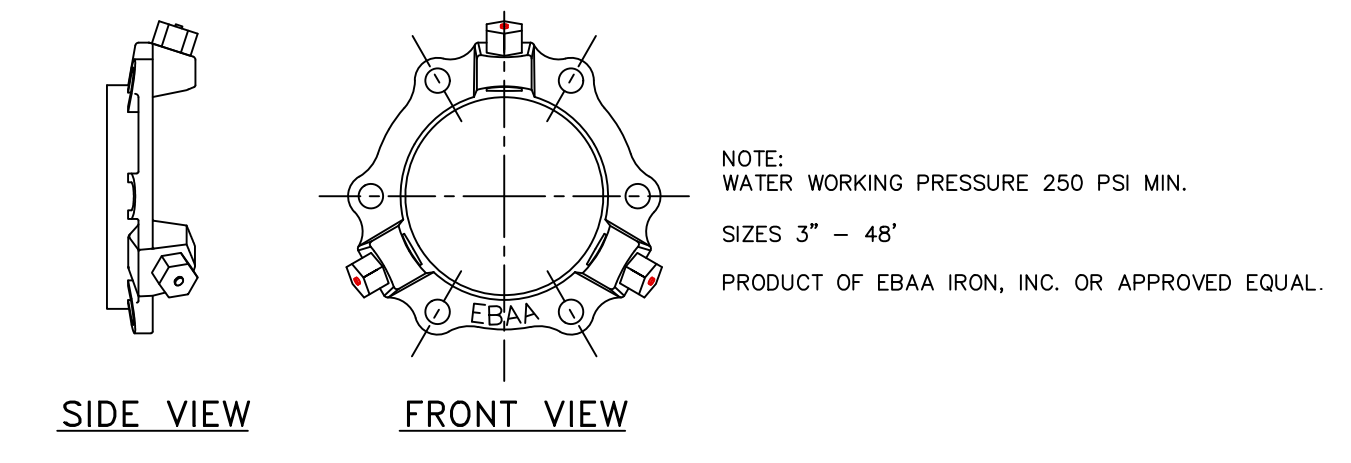
NOTE: SEE SPECIFICATION FOR PIPING MATERIALS AND PIPING JOINTS



ENCASEMENT PIPE DETAILS



STATE HIGHWAY ENCASED BORE CROSSING



MEGA LUG JOINT RESTRAINT

- 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

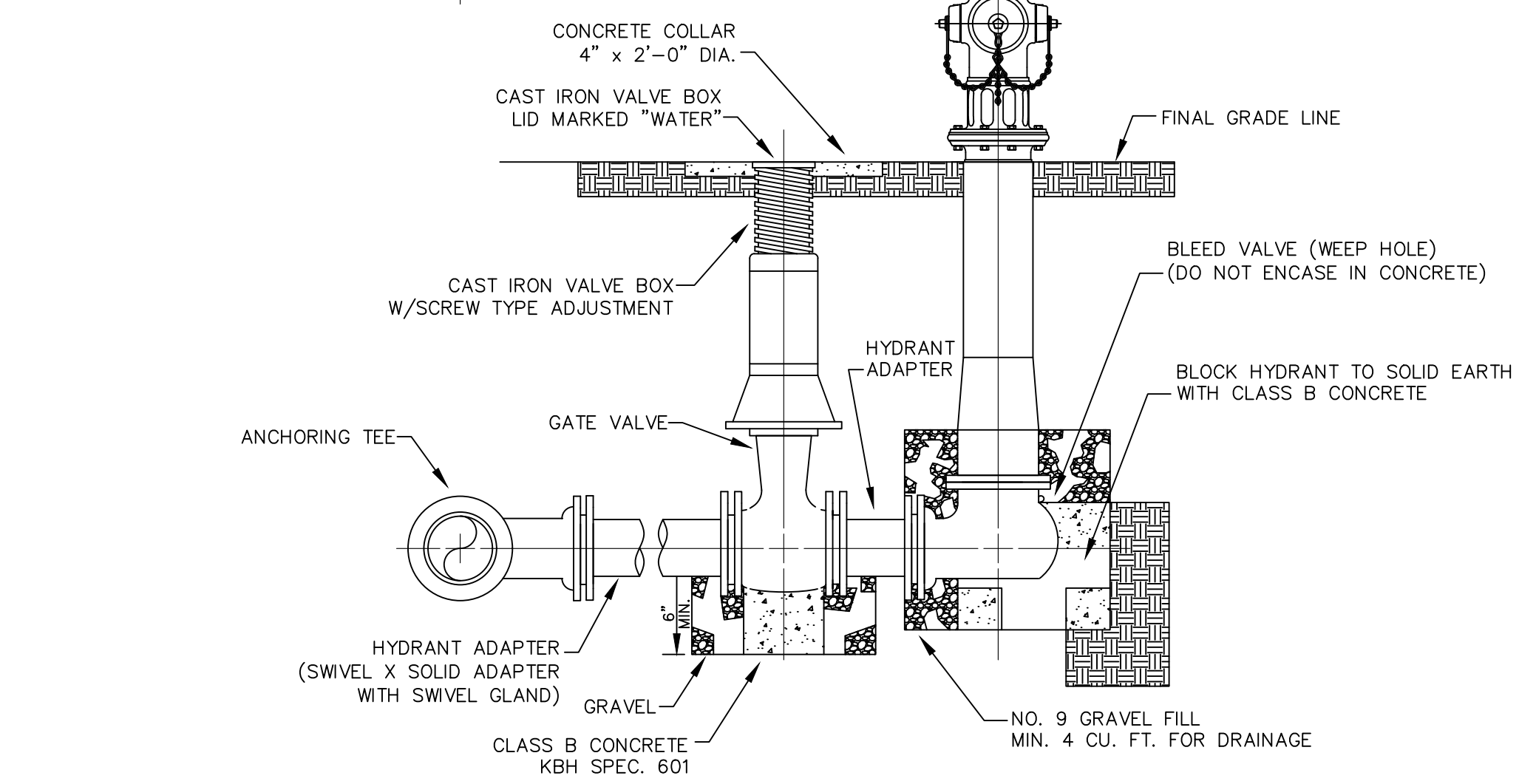
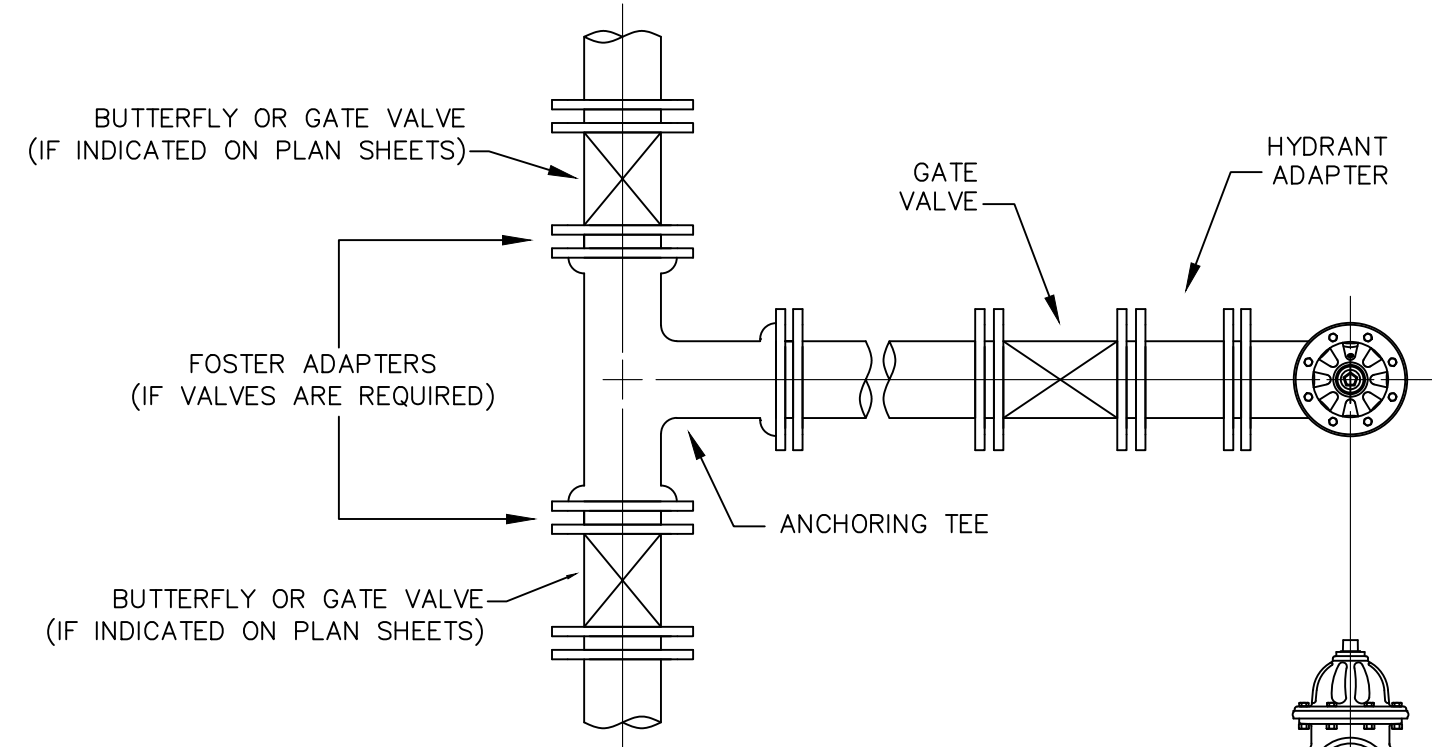
BRONSTON WATER ASSOCIATION
PULASKI COUNTY, KENTUCKY

DESCRIPTION:
CUSTOMER:

PROJECT NO. 1933
DATE: OCT 2019
DRAWN BY: JRC
CHECKED BY: DSB
CHECKED BY: JLM
SCALE: N.T.S.

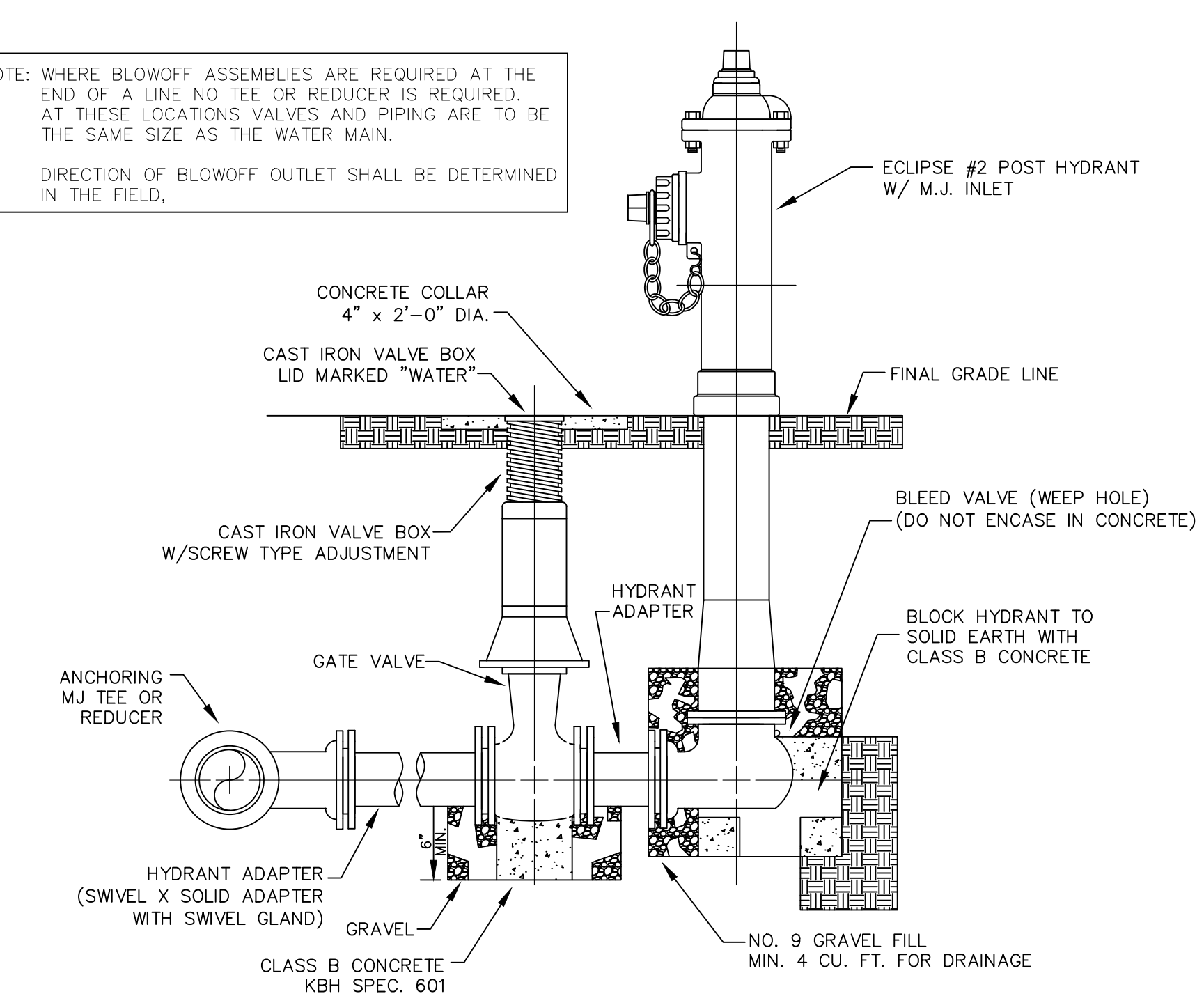
SHEET:
SD-1

STATE OF KENTUCKY
DERON S. BYRNE
23127
LICENSED PROFESSIONAL ENGINEER

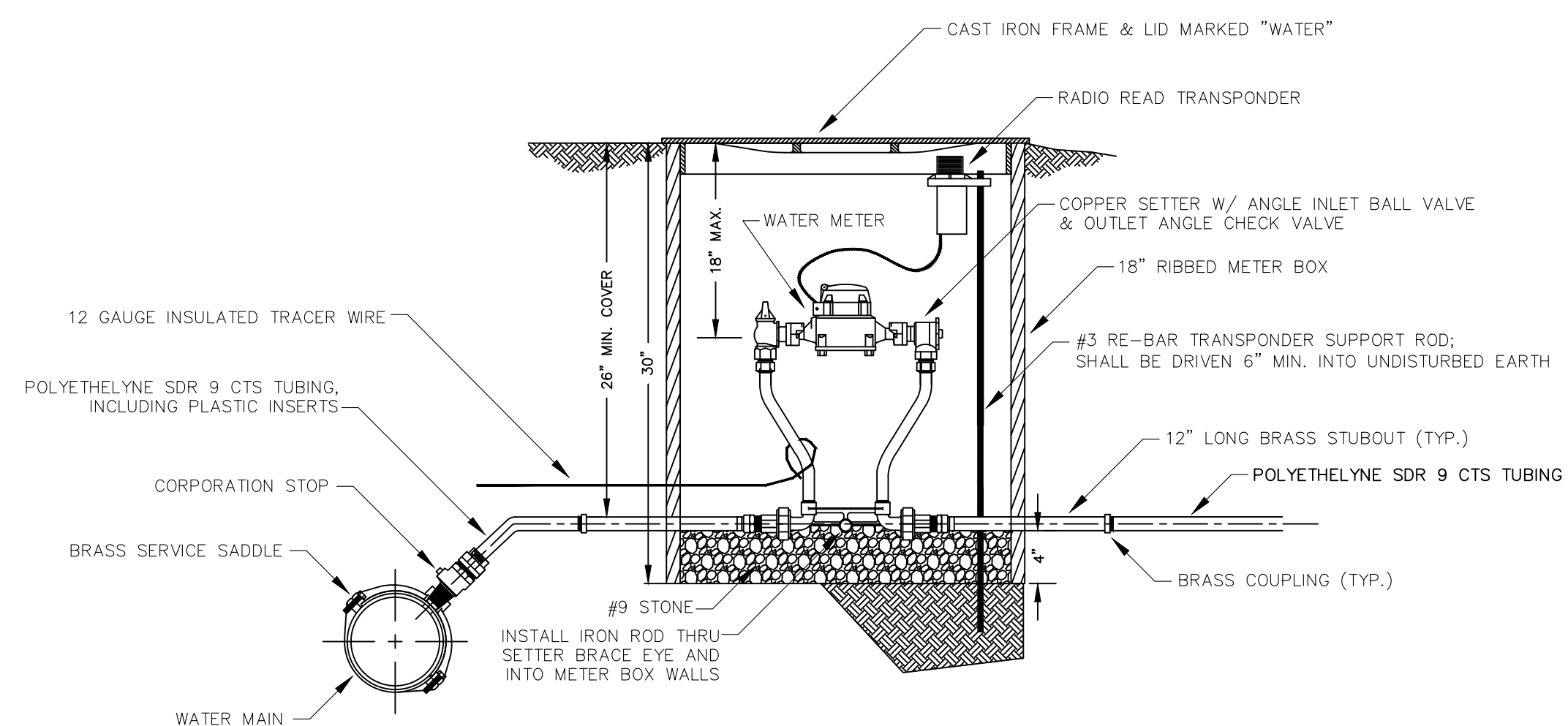


FLUSH HYDRANT ASSEMBLY

NOTE: WHERE BLOWOFF ASSEMBLIES ARE REQUIRED AT THE END OF A LINE NO TEE OR REDUCER IS REQUIRED. AT THESE LOCATIONS VALVES AND PIPING ARE TO BE THE SAME SIZE AS THE WATER MAIN.
DIRECTION OF BLOWOFF OUTLET SHALL BE DETERMINED IN THE FIELD.

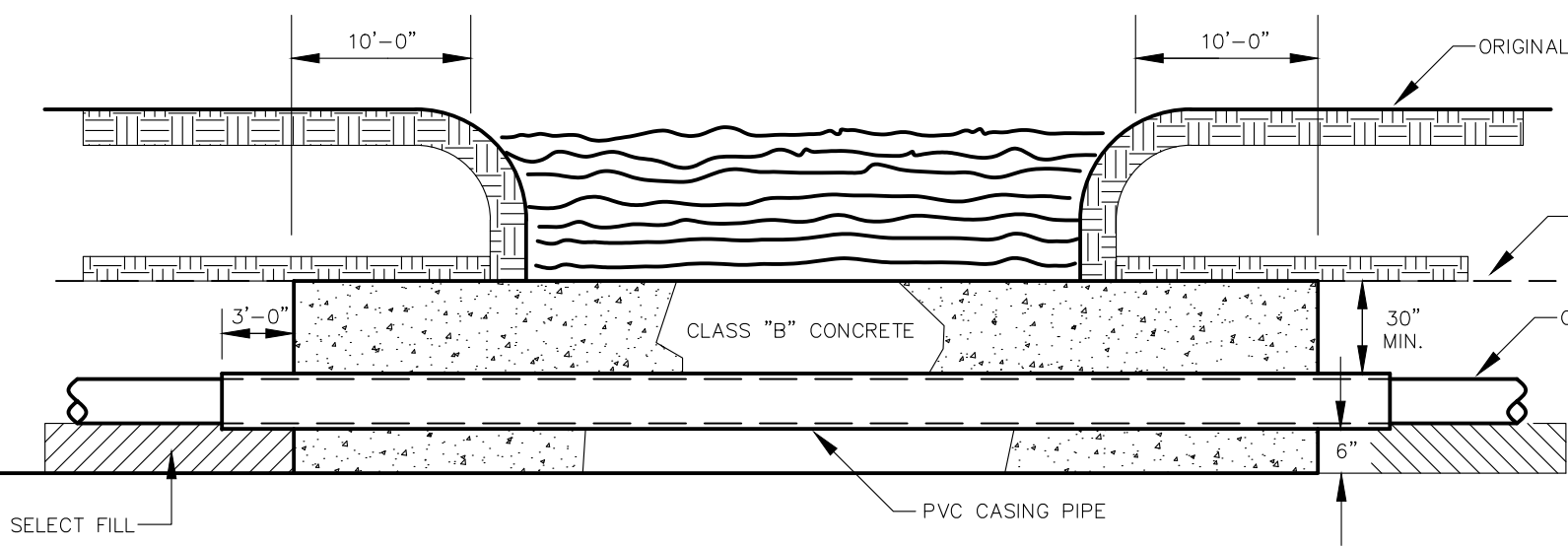


BLOWOFF ASSEMBLY

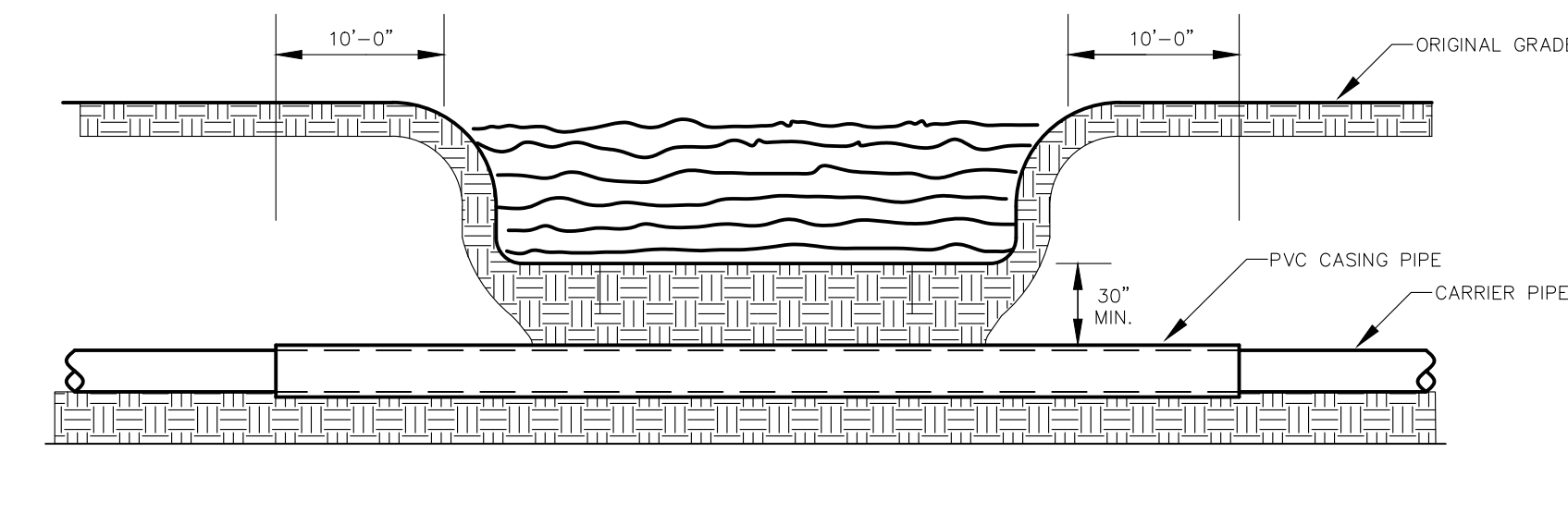


METER SETTING

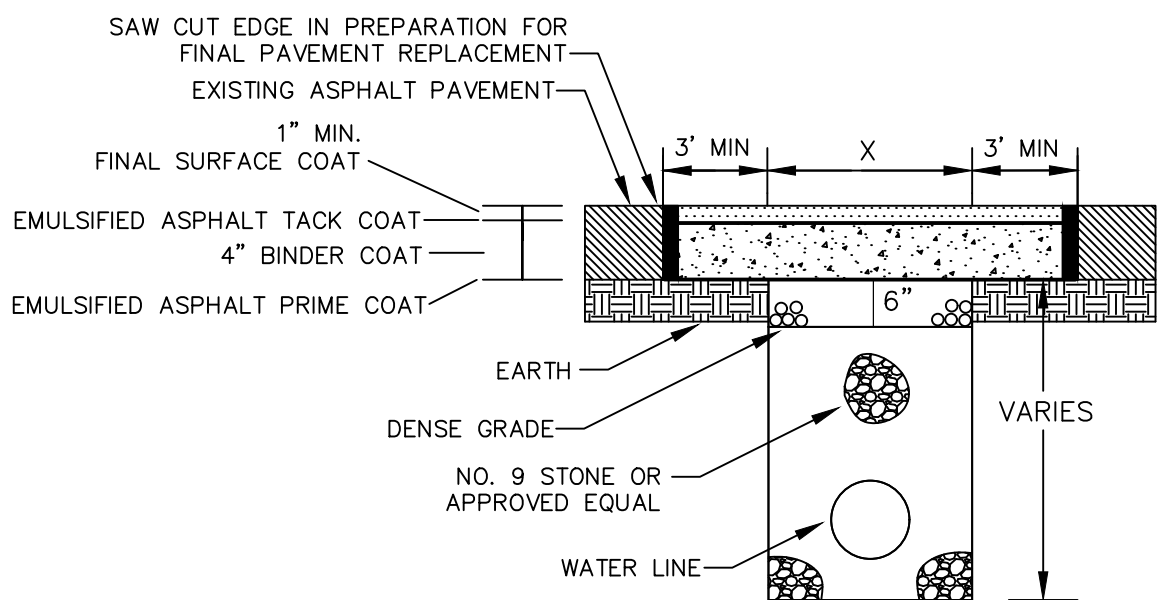
NOTE: INSTALL 12 GA. TRACER WIRE FROM WATER MAIN TO THE METER BOX. THE SERVICE LINE TRACER WIRE SHALL BE CONNECTED TO THE MAIN LINE TRACER WIRE VIA A WATER TIGHT CONNECTION. THE WIRE SHALL BE ROUTED INTO THE METER BOX AND SHALL BE ACCESSIBLE FOR LOCATOR CONNECTION.
METER SETTING SHALL BE PLACED 2 FEET INSIDE PROPERTY LINE UNLESS OTHERWISE DIRECTED BY ENGINEER.



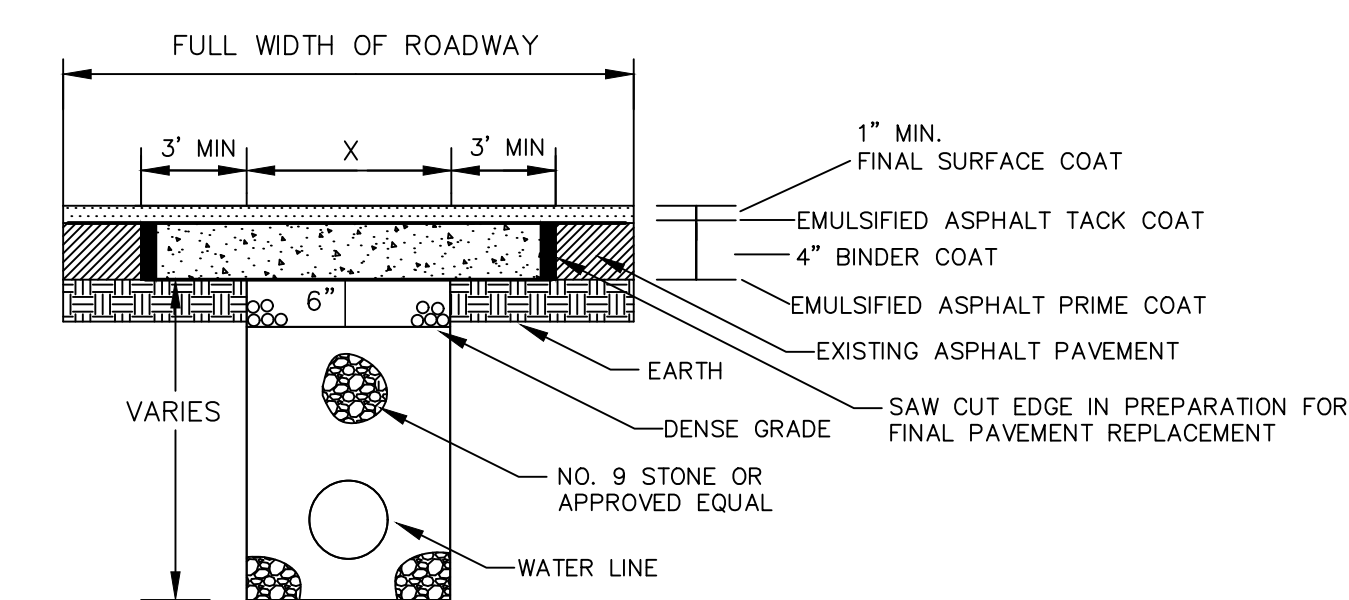
CREEK CROSSING IN ROCK



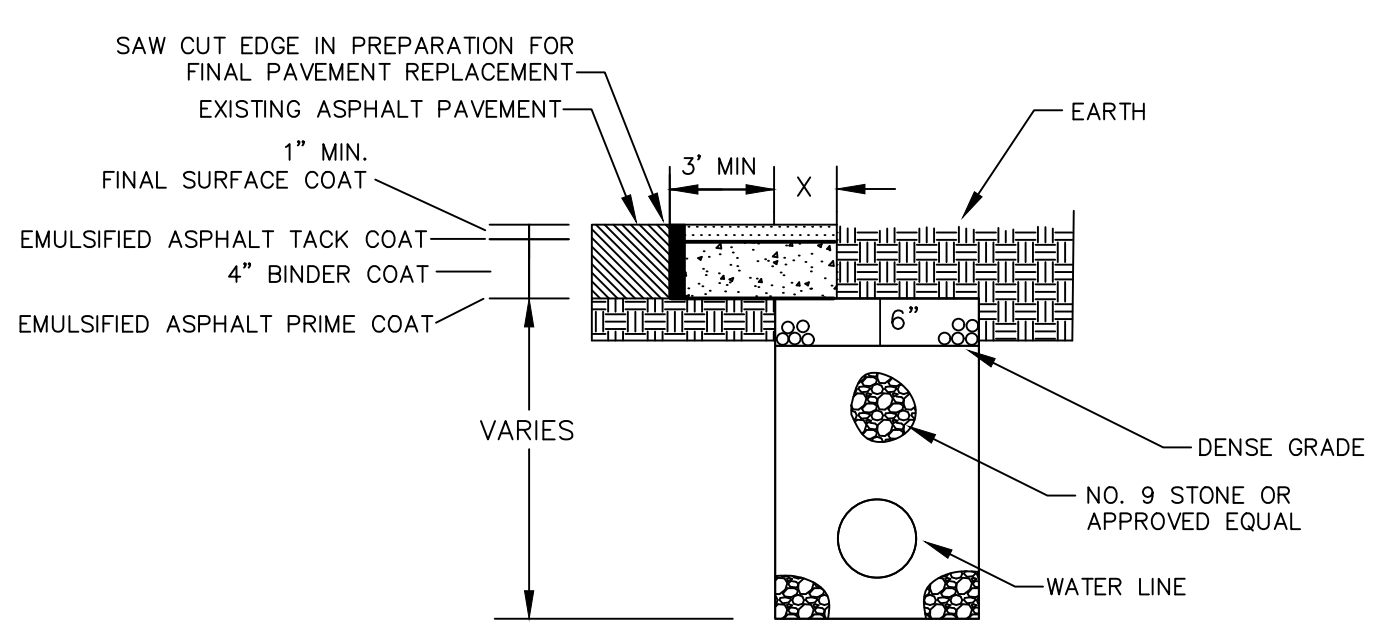
CREEK CROSSING IN SOIL



PAVEMENT REPLACEMENT



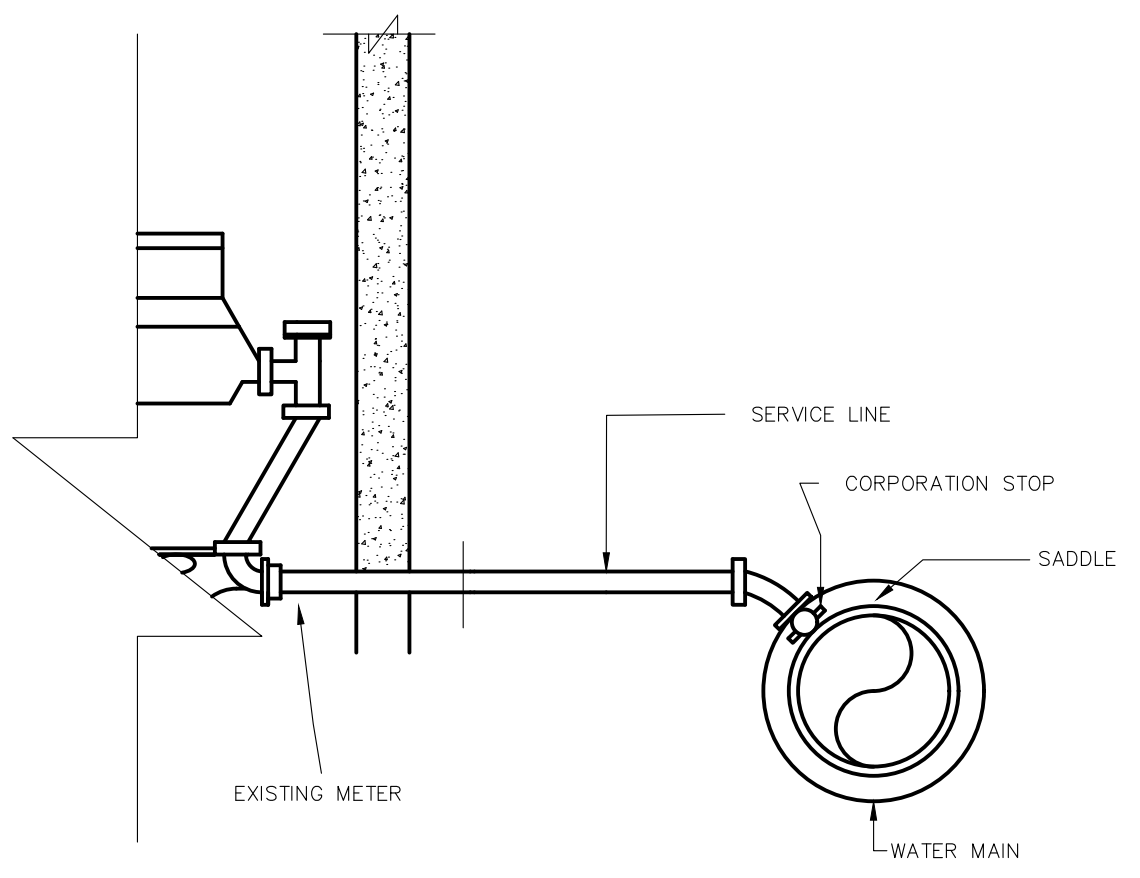
FULL WIDTH PAVEMENT REPLACEMENT



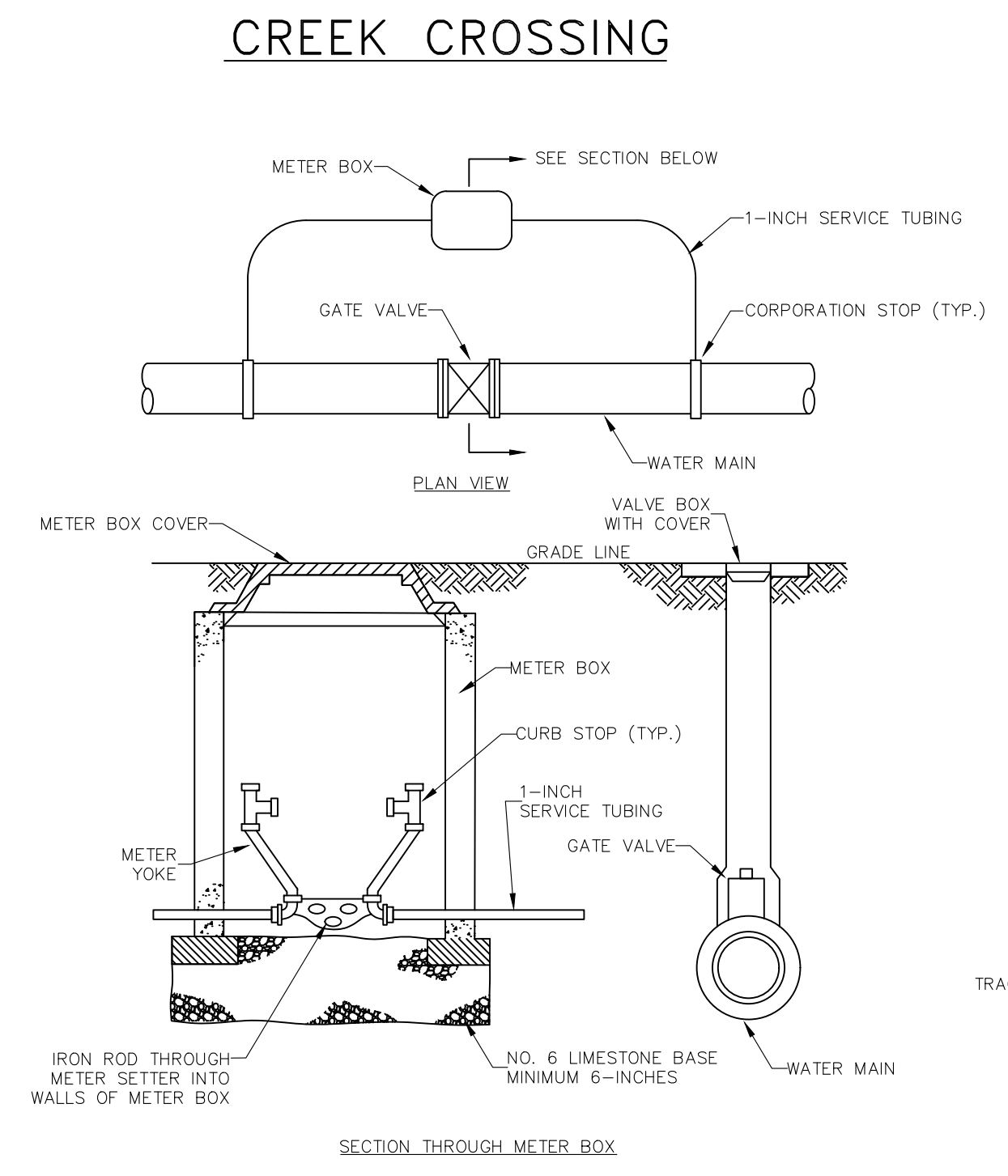
PARTIAL PAVEMENT REPLACEMENT

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

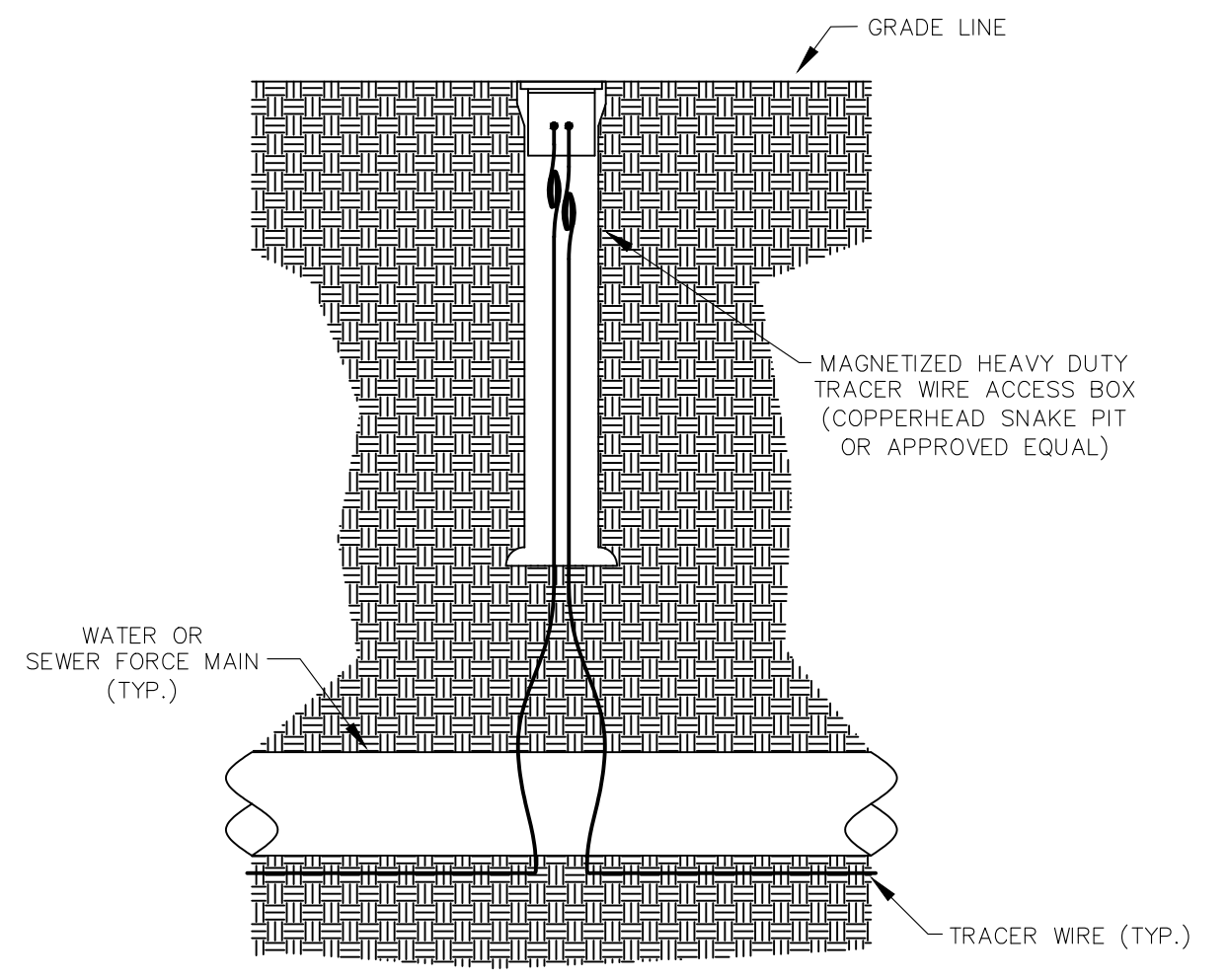
BITUMINOUS PAVEMENT REPLACEMENT



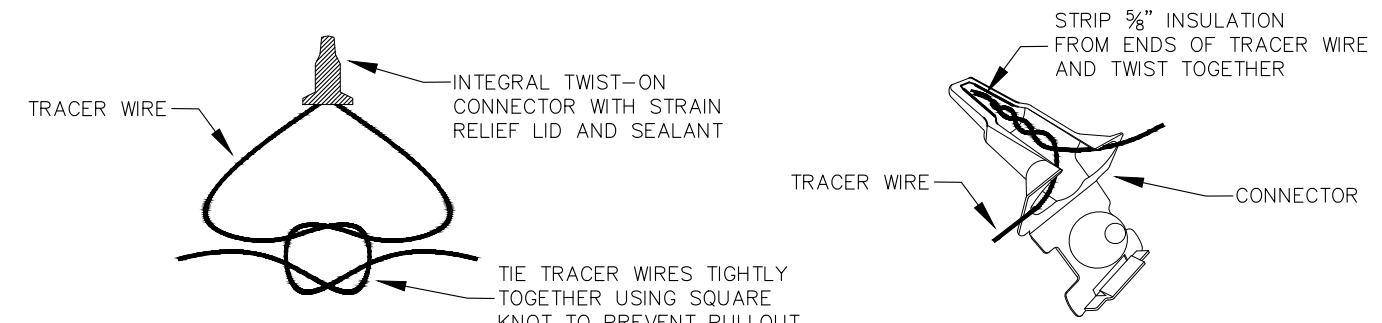
SERVICE RECONNECTION DETAIL



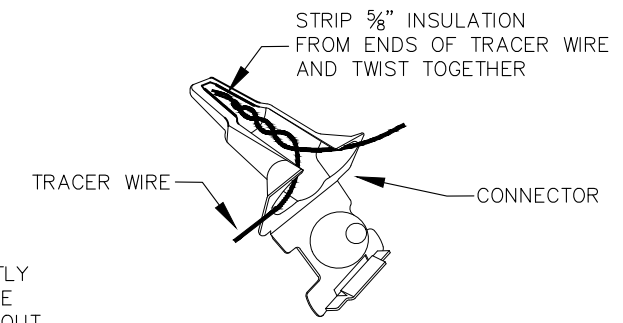
ISOLATION CHECK METER DETAIL



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

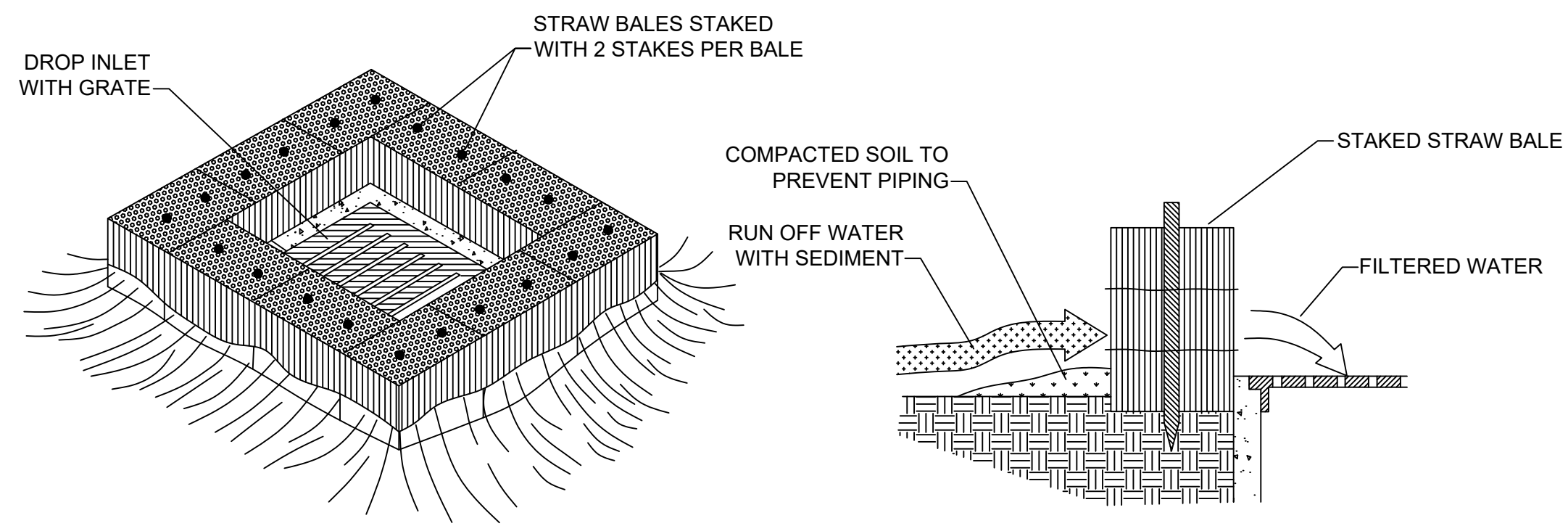
Monarch Engineering, Inc.
556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

STANDARD DETAIL DRAWINGS
BRONSTON WATER ASSOCIATION
PULASKI COUNTY, KENTUCKY

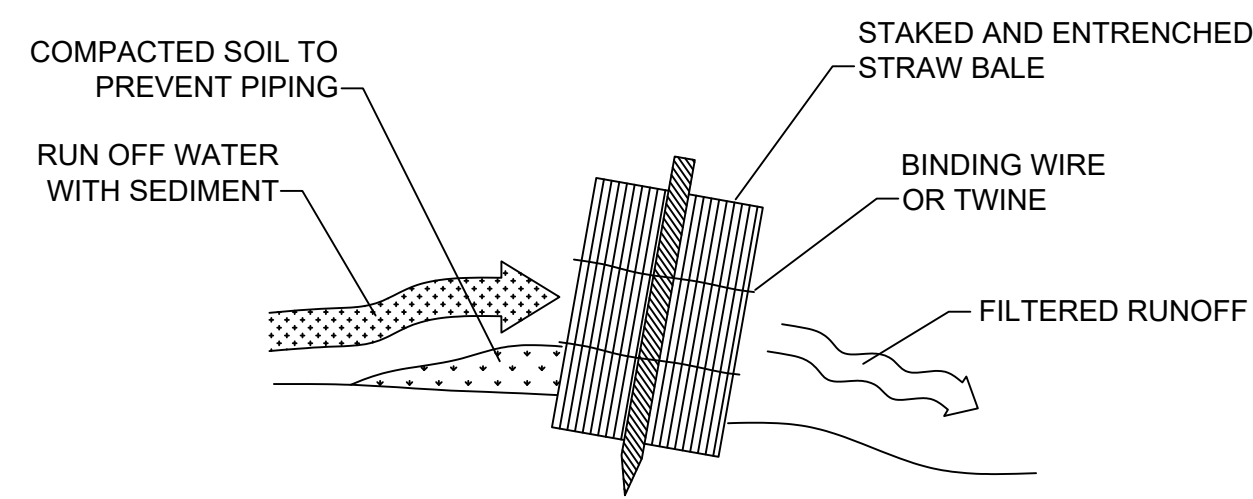
DESCRIPTION:
PROJECT NO. 1933
DATE: OCT 2019
DRAWN BY: JRC
CHECKED BY: DSB
CHECKED BY: JLM
SCALE: N.T.S.

SHEET:
SD-2

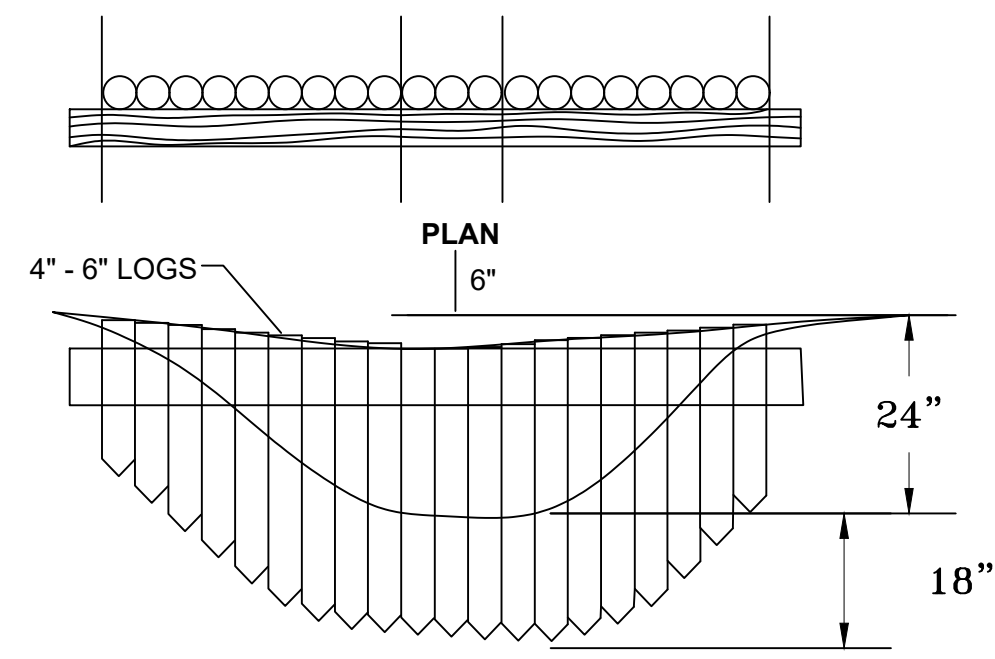




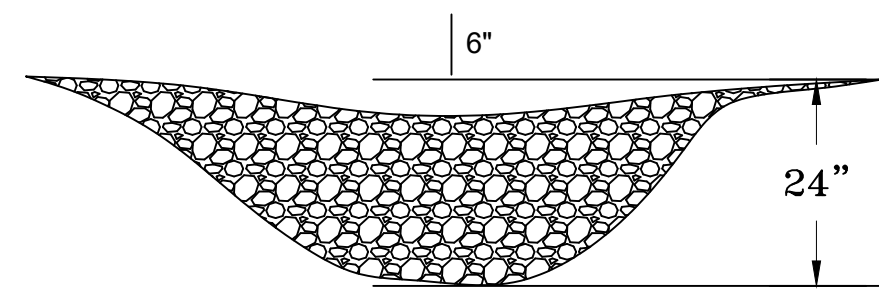
STRAW BALE DROP INLET SEDIMENT FILTER
N.T.S.



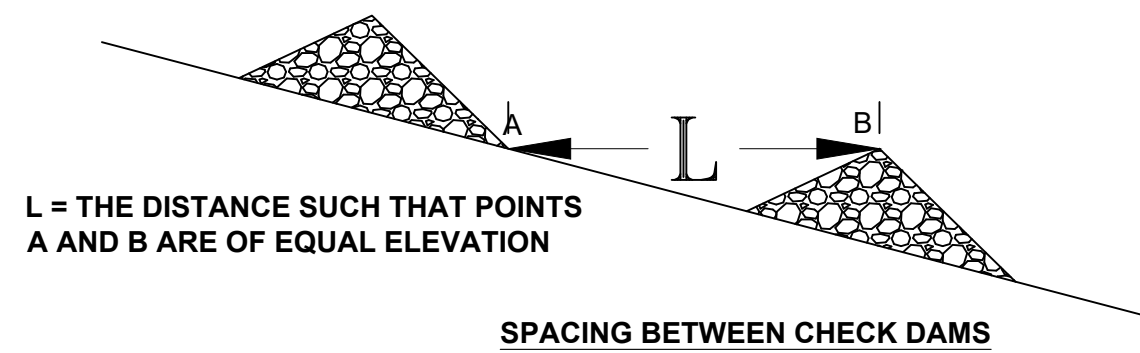
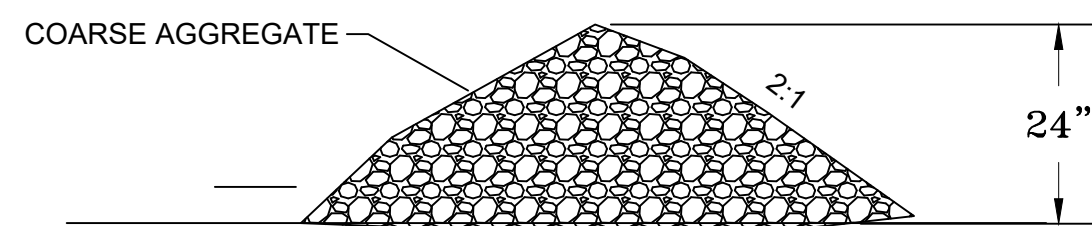
STRAW BALE INSTALLATION PROCEDURES
N.T.S.



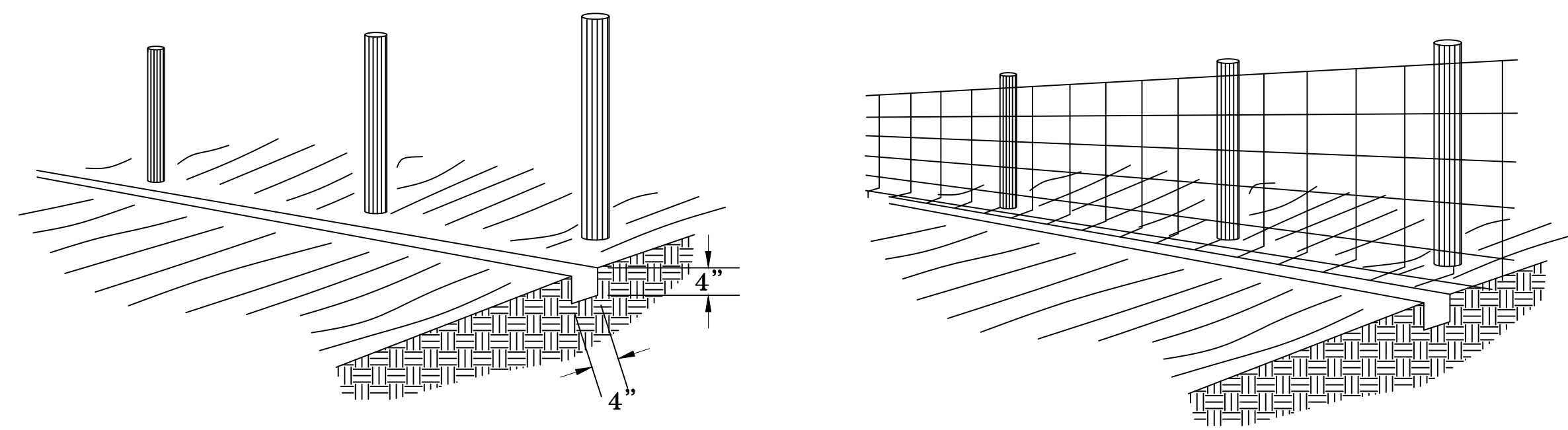
LOG CHECK DAMS



ROCK CHECK DAMS

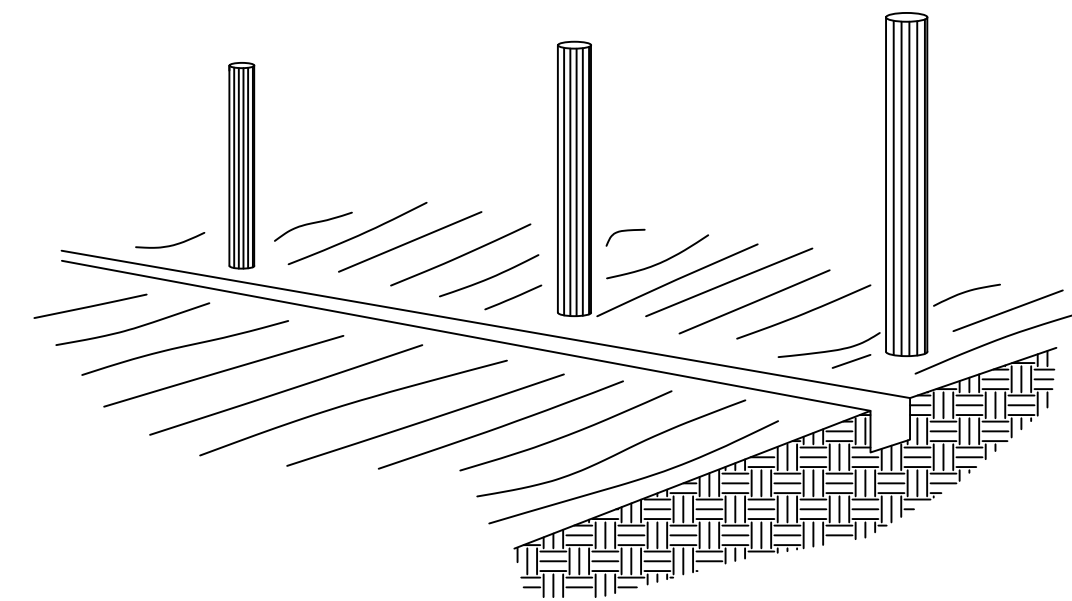


CHECK DAM DETAILS
N.T.S.

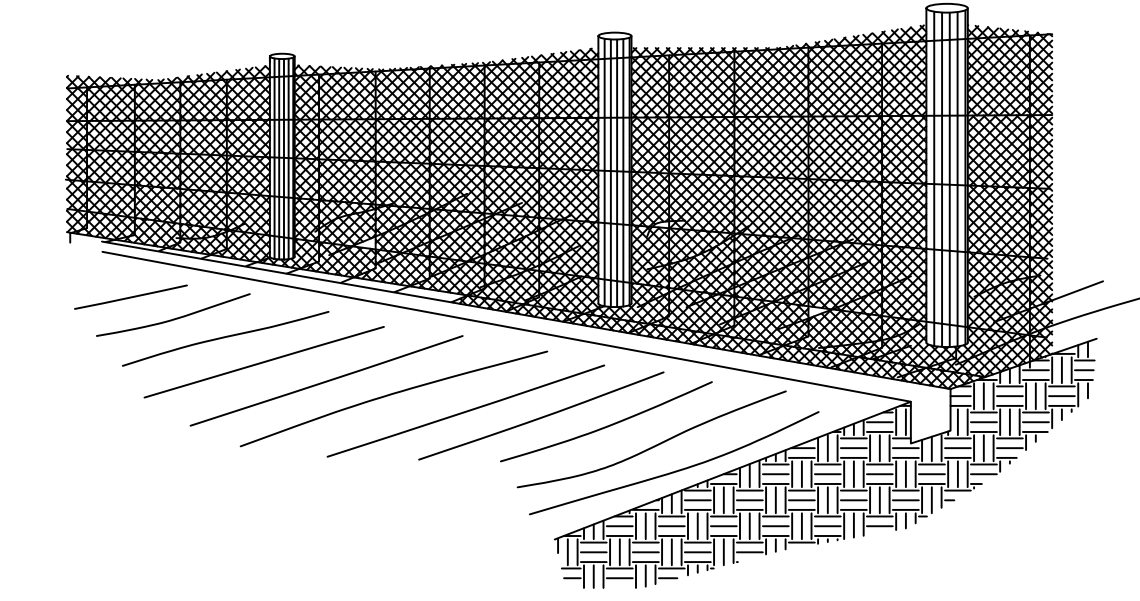


1. SET POSTS AND EXCAVATE A 4" x 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS

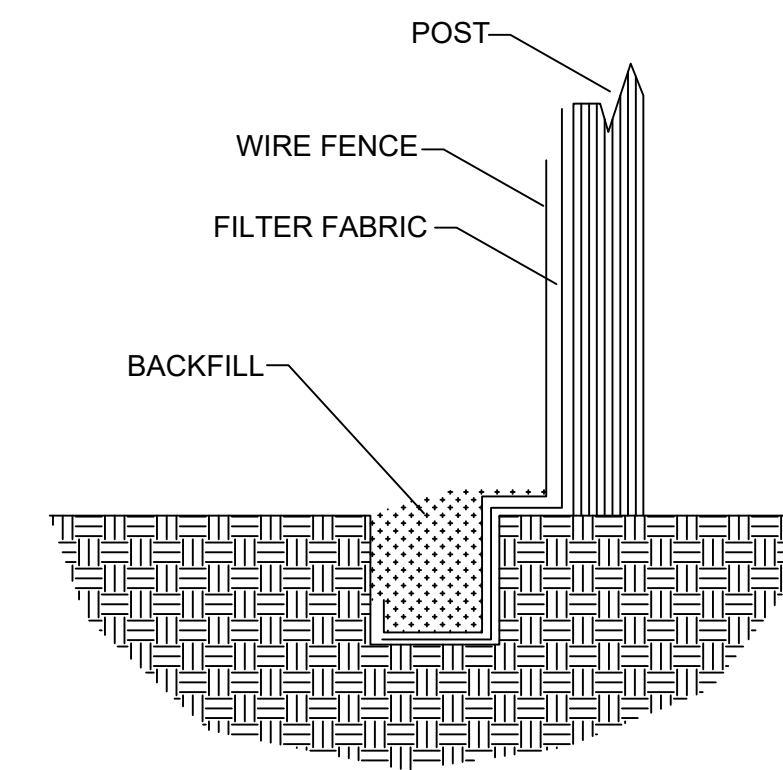
2. STAPLE WIRE FENCING TO POSTS



3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH

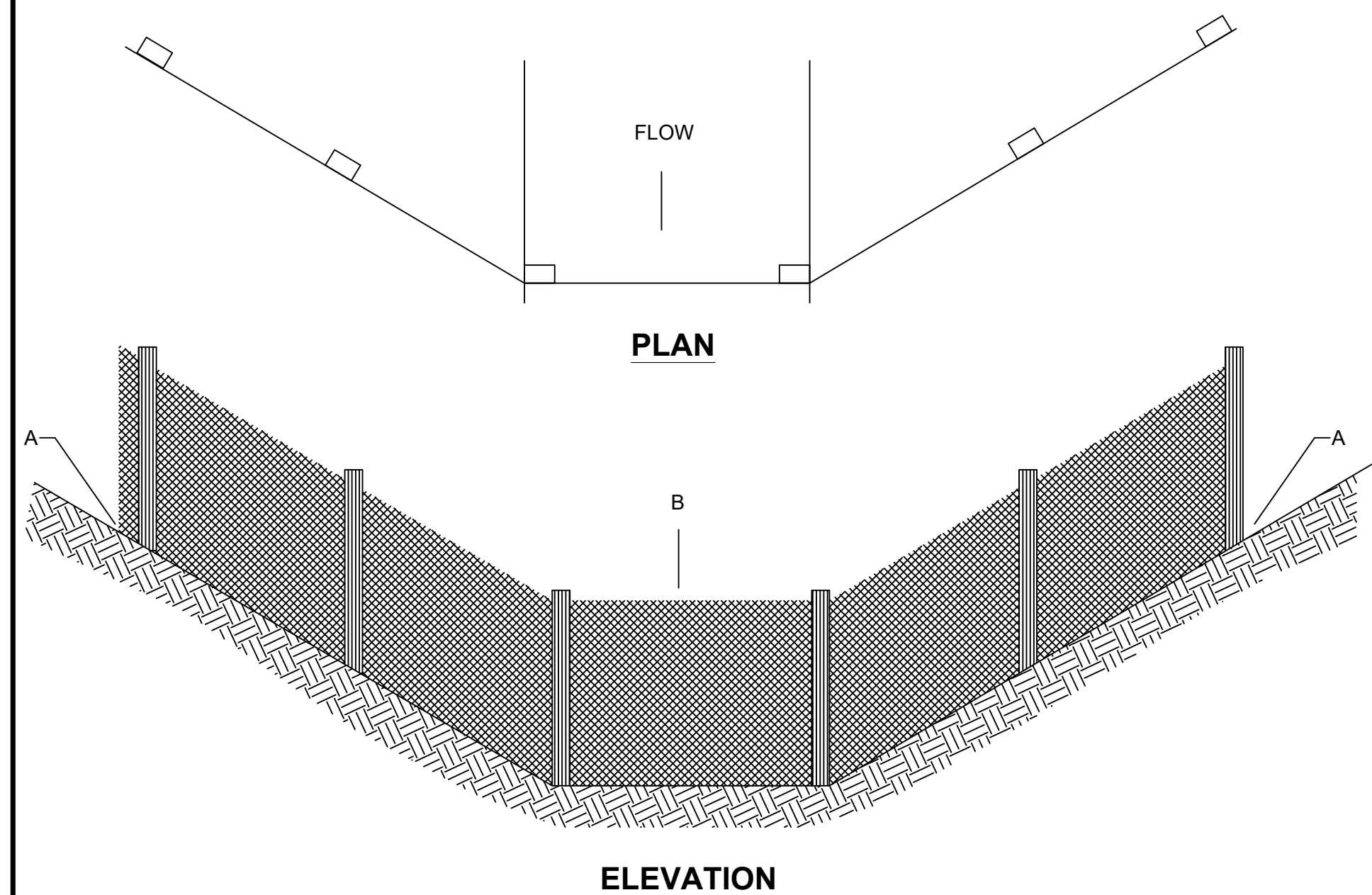


4. BACKFILL AND COMPACT THE EXCAVATED SOIL



EXTENSION OF FABRIC AND WIRE INTO THE TRENCH

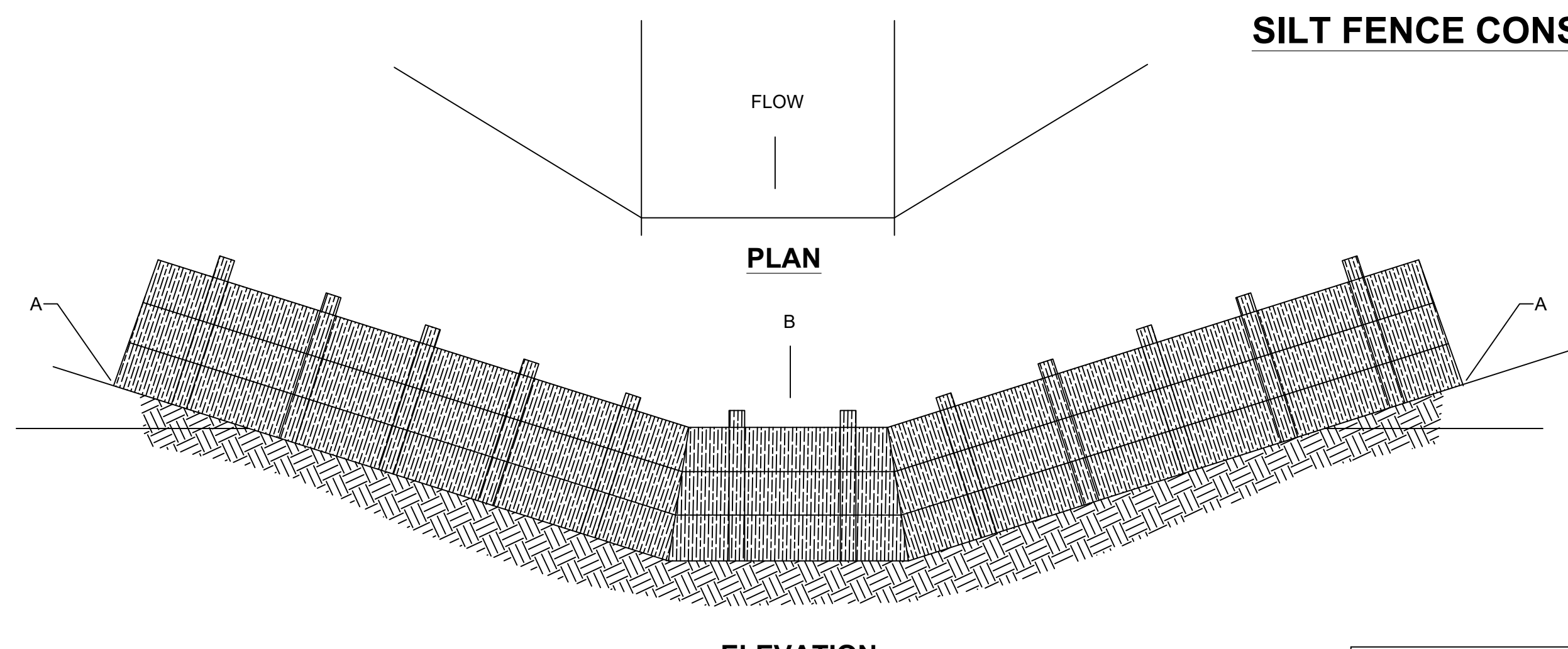
SILT FENCE CONSTRUCTION PROCEDURES
N.T.S.



ELEVATION

POINT A SHOULD BE HIGHER THAN POINT B

PLACEMENT OF FILTER BARRIER
N.T.S.



ELEVATION

POINT A SHOULD BE HIGHER THAN POINT B

PLACEMENT OF STRAW BALE BARRIER
N.T.S.

EROSION CONTROL DETAILS
N.T.S.

The Contractor shall do all work and take all measures necessary to control soil erosion resulting from construction operations, and shall prevent the flow of sediment from the construction site, and shall contain construction materials (including excavation and backfill) within their protected working area so as to prevent damage to the adjacent wetlands and water courses. The Contractor shall use any of the acceptable methods necessary to control soil erosion and prevent the flow of sediment to the maximum extent possible. These methods shall include, but not be limited to, the use of water diversion structures, diversion ditches, and settling basins.

Monarch Engineering, Inc.

556 CARLTON DRIVE
LAWRENCEBURG, KY 40342

EROSION CONTROL DETAILS

DESCRIPTION:

CUSTOMER:

BRONSTON WATER ASSOCIATION
PULASKI COUNTY, KENTUCKY

PROJECT NO. 1933

DATE: OCT 2019

DRAWN BY: JRC

CHECKED BY: DSB

CHECKED BY: DMB

SCALE: AS NOTED

SHEET:

EC-1

