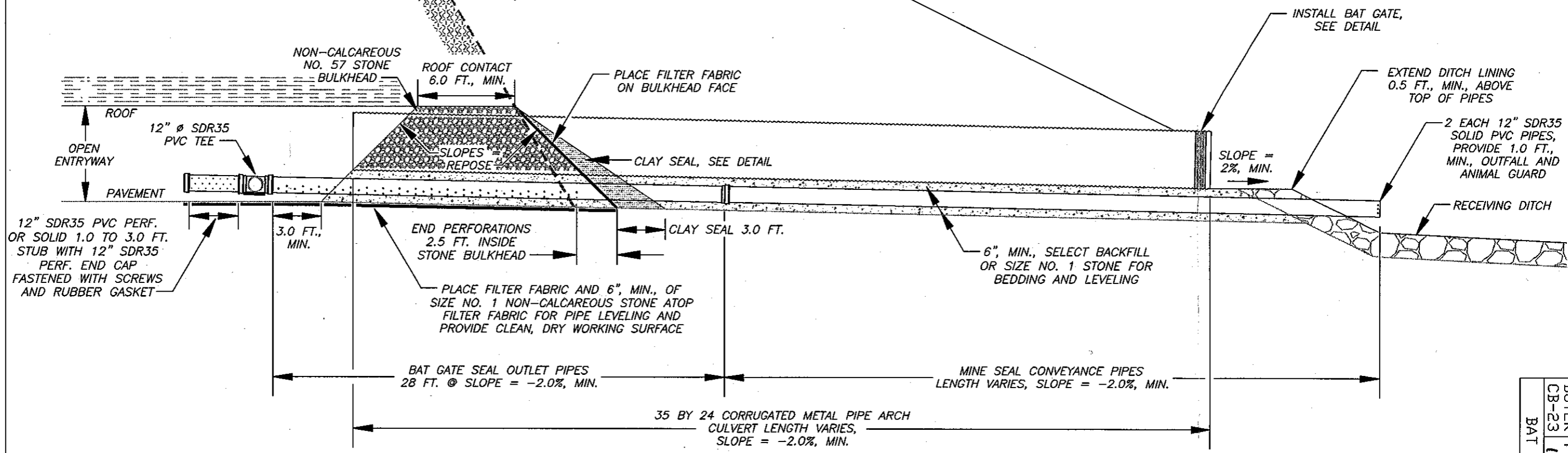


CLAY SEAL DETAILS, TYP.

SCALE: 1" = 4 FT.



PROFILE VIEW, TYP.

SCALE: 1" = 6 FT.

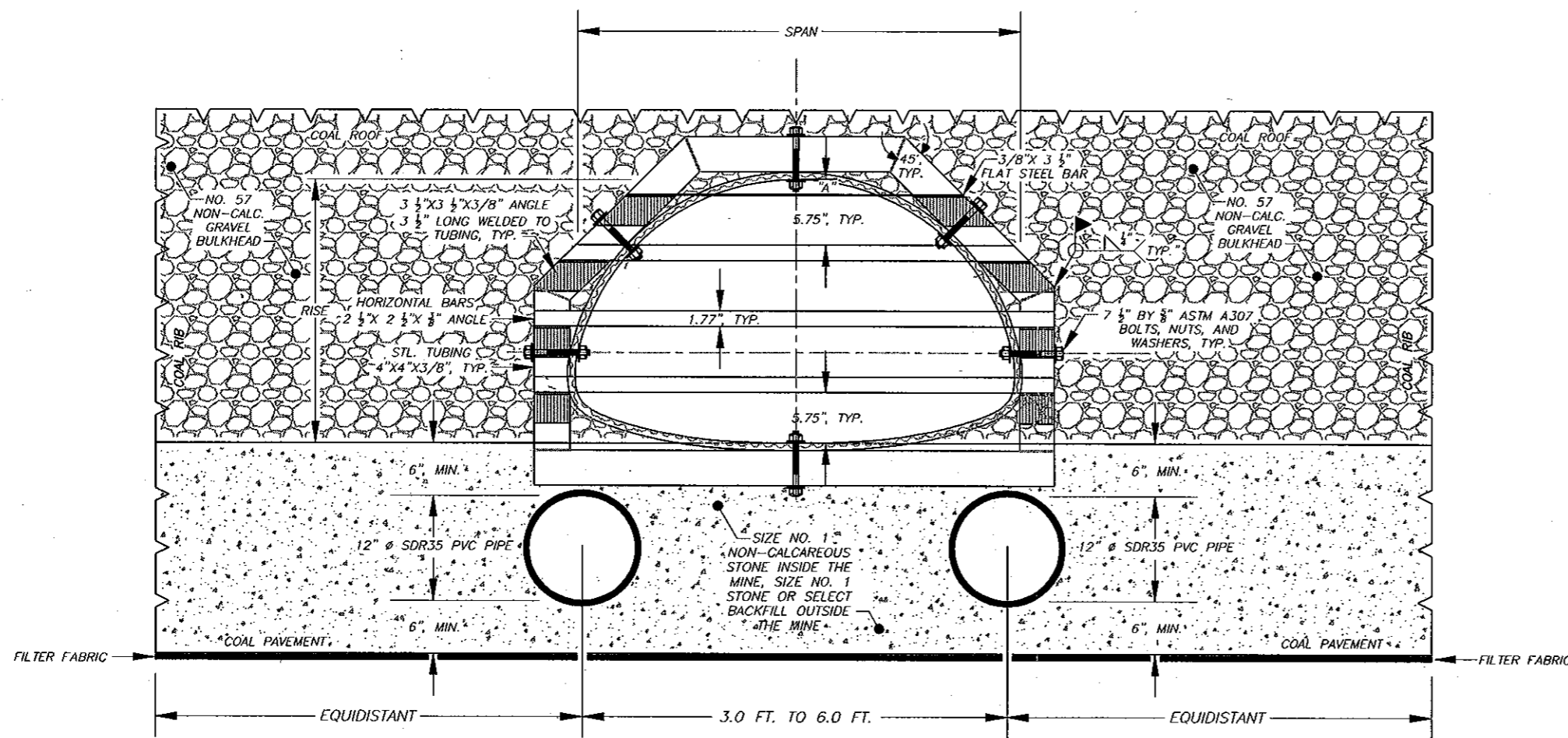
BAT GATE MINE SEAL

SCALE AS NOTED

BUYER PAGE REQ. or P.D. No.
 CB-23 105 DEP 15058
 BAT GATE MINE SEAL

CORRUGATED METAL PIPE ARCH TABLE

SPAN (INCHES)	RISE (INCHES)	CORRUGATIONS (INCHES)	WALL THICKNESS (INCHES)	HORIZONTAL BARS		FLAT BAR	DIMENSION "A" (INCHES)
				(EACH)	SIZE		
35	24	2 3/4 x 1/2	0.138	2	2 1/2 x 2 1/2 x 3/8	NO	0.70
42	29	2 3/4 x 1/2	0.138	3	2 1/2 x 2 1/2 x 3/8	YES	3.29
49	33	2 3/4 x 1/2	0.168	3	2 1/2 x 2 1/2 x 3/8	YES	2.25
57	38	2 3/4 x 1/2	0.168	4	2 1/2 x 2 1/2 x 3/8	NO	4.34
64	43	2 3/4 x 1/2	0.168	4	2 1/2 x 2 1/2 x 3/8	YES	2.95



35 BY 24 TO 64 BY 43 CORRUGATED STEEL PIPE ARCH CROSS SECTION

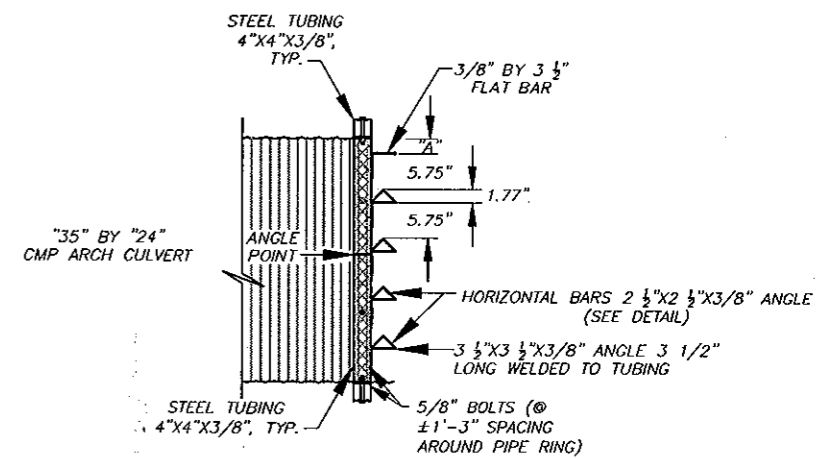
SCALE: 1" = 1 FT.

BAT GATE DETAIL

SCALE AS NOTED

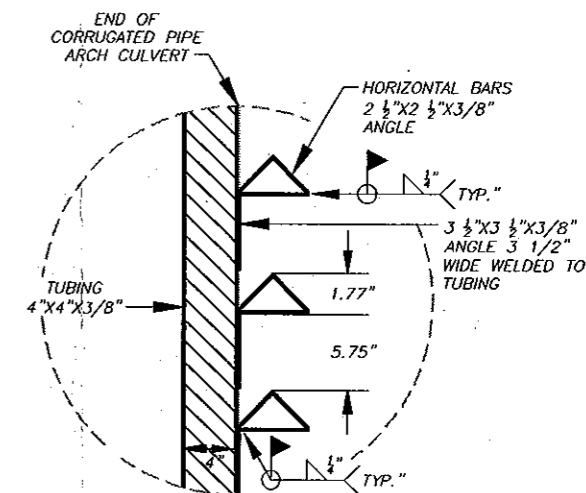
NOTES:

- CONTRACTOR TO DETERMINE WIDTH OF OPENING AND MAINTAIN SPACING BETWEEN COAL RIBS AND 12" PERFORATED PIPES AS SHOWN AND APPROVED BY THE ENGINEER
- HORIZONTAL BAR SPACING ARE NOT TO BE ALTERED. AN ADDITIONAL HORIZONTAL "FLAT" BAR MAY BE REQUIRED TO MAINTAIN SPACING THROUGHOUT ENTIRE HEIGHT OF CULVERT. THESE MODIFICATIONS ARE TO BE APPROVED BY THE ENGINEER PRIOR TO BEING PERFORMED.
- SIZE NO. 1 (AASHTO NO. 1) STONE SHALL MEET THE GRADATION REQUIREMENTS IN TABLE 703.4 OF THE WVDOT SPECIFICATIONS FOR ROADS AND BRIDGES.



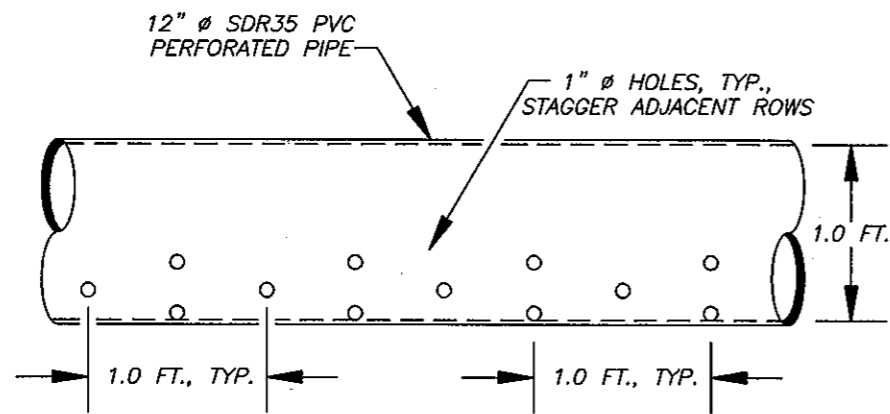
PIPE RING SECTION, TYP.

NOT TO SCALE



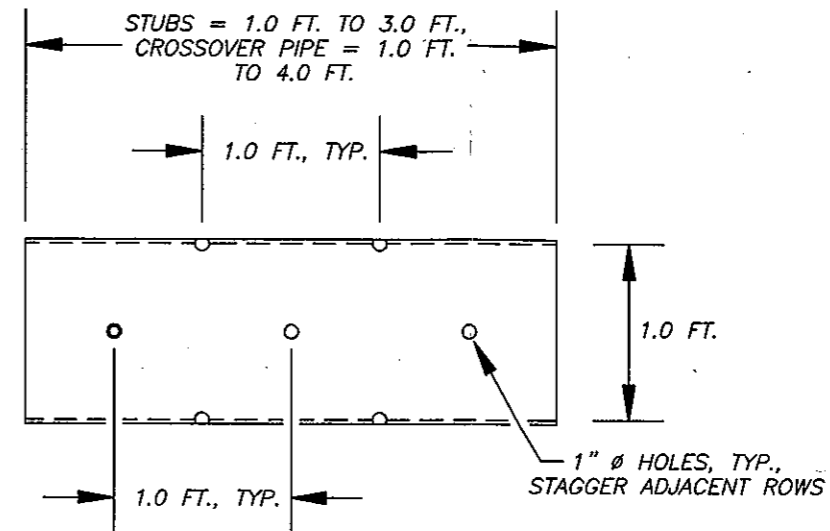
HORIZONTAL BAR DETAIL, TYP.

NOT TO SCALE



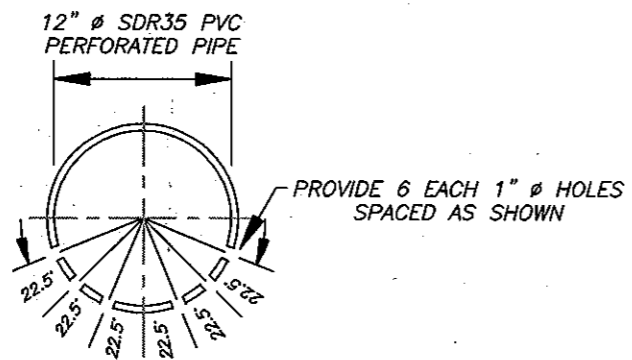
**BAT GATE SEAL OUTLET PIPES
LONGITUDINAL VIEW, TYP.**

SCALE: 1" = 1 FT.



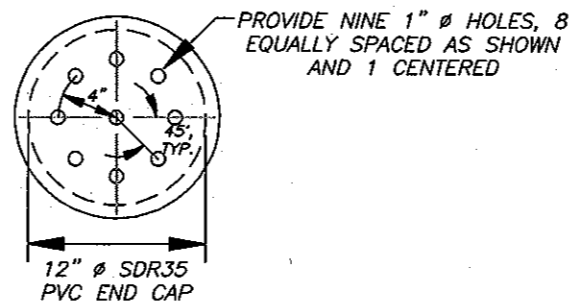
**BAT GATE SEAL CROSS-OVER PIPE AND STUBS
LONGITUDINAL VIEW, TYP.**

SCALE: 1" = 1 FT.



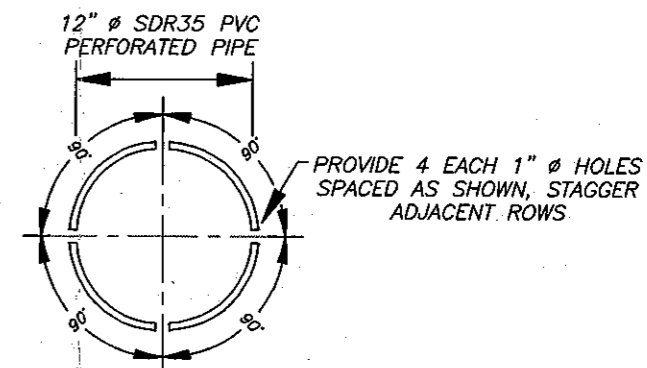
**BAT GATE SEAL OUTLET PIPES
CROSS SECTION, TYP.**

SCALE: 1" = 1 FT.



PERFORATED END CAP

SCALE: 1" = 1 FT.

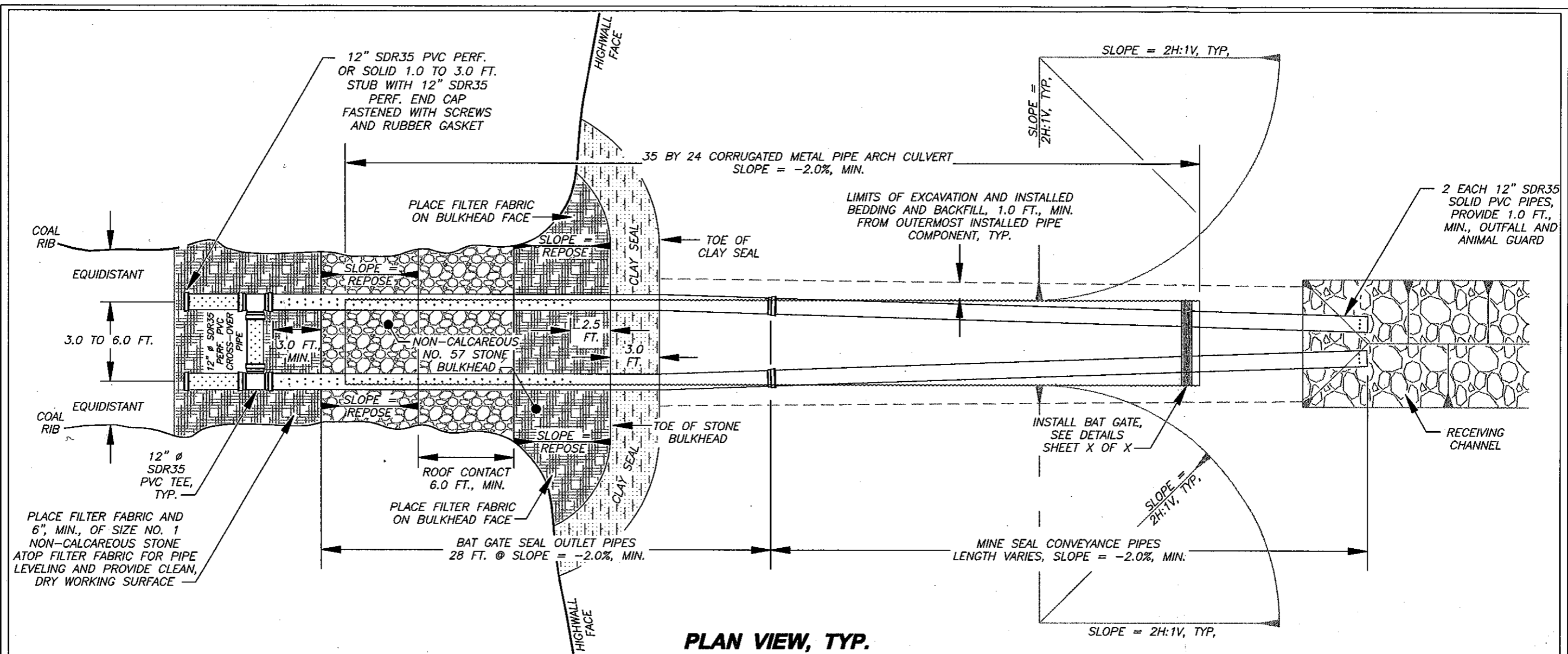


**BAT GATE SEAL CROSS-OVER PIPE AND STUBS
CROSS SECTION, TYP.**

SCALE: 1" = 1 FT.

BAT GATE PIPE DETAILS, TYP.

SCALE: AS NOTED



PLAN VIEW, TYP.

SCALE: 1" = 6 FT.

NOTES:

1. THE TWO (2) JOINTS (28.0 FEET) OF BAT GATE SEAL OUTLET PIPES (REGARDLESS OF WHERE THESE PIPES END IN THE INSTALLATION), ALL PIPE ACCESSORIES INSIDE THE MINE, THE STONE BULKHEAD, CLAY SEAL, FILTER FABRIC, AND CORRUGATED PIPE ARCH SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "BAT GATE MINE SEALS".
2. THE MINE SEAL CONVEYANCE PIPE LENGTHS VARY AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "MINE SEAL CONVEYANCE PIPES". MINE SEAL CONVEYANCE PIPES BEGIN AT THE END OF BAT GATE SEAL OUTLET PIPES AND EXTEND TO THE PLANNED OUTFALL.
3. THE MINE OUTLET PIPES (BAT GATE SEAL OUTLET PIPES AND MINE SEAL CONVEYANCE PIPES) MAY BE ELIMINATED IF NO DRAINAGE IS PRESENT.
4. THE PERFORATED END CAP LOCATED INSIDE THE MINE AT THE END OF THE ONE (1.0') TO THREE FOOT (3.0') STUB SHALL HAVE A RUBBER GASKET, PLACED ON THE UPSTREAM END OF THE STUB AND SCREWED IN PLACE.
5. THE STONE BULKHEAD SHALL BE IN CONTACT WITH COAL ROOF FOR A DISTANCE EQUAL TO THE OPENING HEIGHT OR A MINIMUM OF 6.0 FEET. THE INSIDE AND OUTSIDE STONE BULKHEAD FACES SHALL BE CONSTRUCTED AT THE ANGLE OF REPOSE OF THE NO. 57 NON-CALCAREOUS STONE PLACED.
6. SIZE NO. 1 (AASHTO NO. 1) STONE SHALL MEET THE GRADATION REQUIREMENTS IN TABLE 703.4 OF THE WVDOT SPECIFICATIONS FOR ROADS AND BRIDGES.