

TYPICAL PRECAST CONCRETE BOX SECTION



**HORIZONTAL CURVE DATA:**  
 $\Delta = 5^\circ 38' 17.4''$   
 $D = 1^\circ 54' 35''$   
 $T = 147.73'$   
 $L = 295.21'$   
 $R = 3000.00'$   
 $E = 3.63'$

**HYDRAULIC DATA:**  
 DRAINAGE AREA = 0.17 SQ. MI.  
 25 YEAR FLOOD : (DESIGN FLOOD)  
 MAGNITUDE = PROPOSED: 296.34 CFS EXISTING: 269.34 CFS  
 VELOCITY = 8.31 FPS 8.31 FPS  
 W.S. ELEV. = 171.20 171.97

**VERTICAL CURVE DATA:**  
 PVI STA 77+50.00  
 ELEV = 175.01  
 VC = 120.00'  
 MO = 0.51'  
 HLOSD = 247.39'  
 -1.87% +1.51%

100 YEAR RISK ASSESSMENT FLOOD :  
 MAGNITUDE = PROPOSED: 440.03 CFS EXISTING: 440.03 CFS  
 VELOCITY = 9.25 FPS 9.25 FPS  
 W.S. ELEV. = 172.61 173.49

FLOOD OF RECORD - N/A

NOTE: HY-8 CULVERT ANALYSIS DOES NOT PROVIDE HEADWATER VELOCITIES. TAILWATER VELOCITIES PROVIDED.

AS-DRILLED BORING TABLE

BORING NO.	SR 4022 SURVEY & CONSTR. @ STATION	OFFSET
SB-1	77+53.90	3.0 LT
SB-2	77+76.30	5.9 LT

	EXISTING CONDITIONS	PROPOSED CONDITIONS
LOW CHORD ELEV (FT)	172.91	173.21
HYDRAULIC OPENING (SF)	56.1	67.31

**NOTES:**

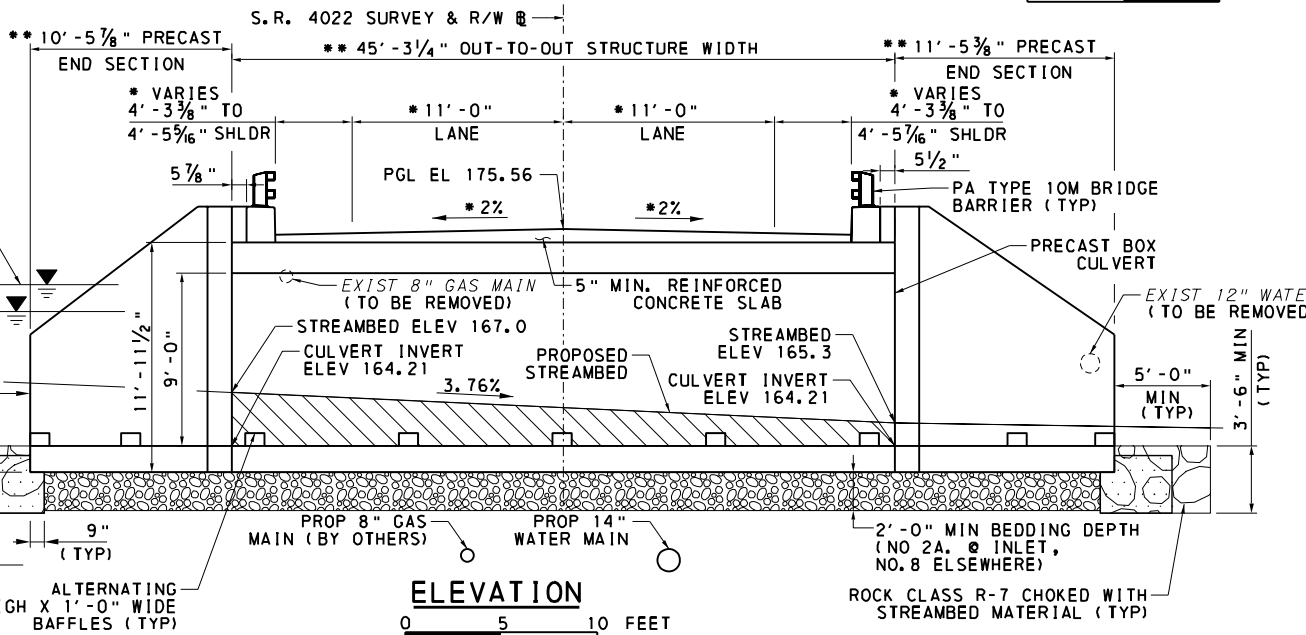
- FOR GENERAL NOTES, SEE SHEET 2.
- FOR QUANTITIES AND CULVERT LOAD RATINGS, SEE SHEET 3.
- FOR STAKE-OUT PLAN, SEE SHEET 4.
- EXISTING WINGWALLS TO BE TEMPORARILY SUPPORTED UNTIL THE EXISTING 6" GAS LINE IS RELOCATED. SEE CONSTRUCTION AND E&S PLANS.

- DIMENSIONS SHOWN MEASURED PERPENDICULAR TO ROADWAY SURVEY & CONSTR.
- DIMENSIONS SHOWN MEASURED ALONG CULVERT C.

PLAN  
0 5 10 FEET

**LEGEND:**

- E/CTV/- EXISTING OVERHEAD LINE
- G- EXISTING GAS LINE
- S- EXISTING SANITARY LINE
- W- EXISTING WATER LINE
- G- PROPOSED GAS LINE
- W- PROPOSED WATER LINE
- PROPOSED STREAMBED
- NO. 8 COARSE AGGREGATE
- ROCK, CLASS R-4 SLOPE PROTECTION
- ROCK, CLASS R-7 CHOKED WITH STREAMBED MATERIAL
- AS-DRILLED SOIL BORING



ELEVATION  
0 5 10 FEET

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

SR 4022 PREVIOUSLY KNOWN AS LR 0462  
 BMS STR ID: 46-4022-0030-0898 MPMS/ECMS PROJ: 102320 BRKEY: (TBD)

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION

MONTGOMERY COUNTY  
 S.R. 4022, SECTION HBP  
 SEG. 0030 OFFSET 0898  
 S.R. 4022 STA. 77+76.00  
 OVER UNT TO SCHUYLKILL RIVER  
 SINGLE CELL PRECAST CONC. BOX CULVERT  
 GENERAL PLAN AND ELEVATION



WSP USA, Inc.  
 1700 Market Street  
 Suite 1050  
 Philadelphia, PA 19103

RECOMMENDED \_\_\_\_\_  
 DISTRICT BRIDGE ENGINEER

SHEET 1 OF 16  
 + SUPPLEMENTAL DRWGS  
 S-38301