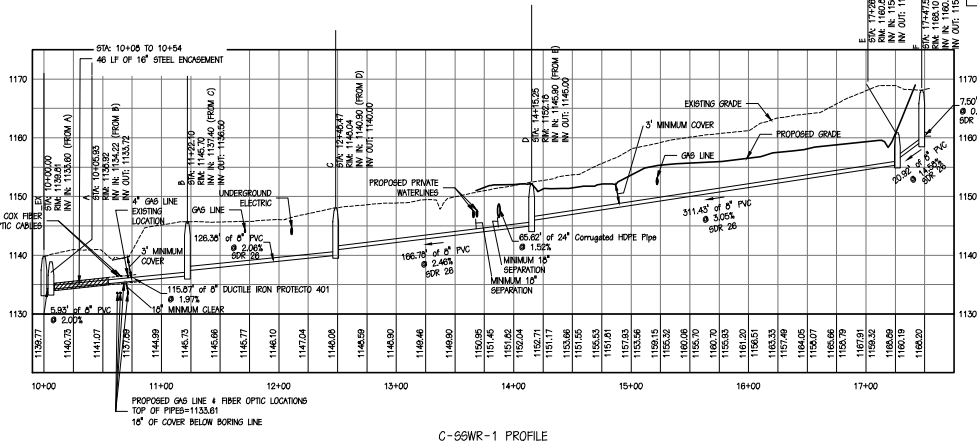


# NOTES:

1. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST WESTERN REGIONAL WATER AUTHORITY SPECIFICATIONS AND STANDARD DETAILS.
2. CONTRACTOR TO CONTACT MISS UTILITY (511) 48 HOURS IN ADVANCE OF ANY CONSTRUCTION ACTIVITY.
3. ALL PROPOSED SANITARY LINES SHOWN HEREIN ARE TO BE PUBLIC LINES.
4. ALL SEWER SHALL HAVE A MINIMUM OF 3' OF COVER.
5. ALL SEWER SHALL HAVE A MINIMUM OF 18" CLEARANCE OF EXISTING UTILITIES.
6. 7450 SF OF LAND DISTURBANCE IS PROPOSED.
7. CONNECTION TO EXISTING MANHOLE WILL REQUIRE A CORE AND A RUBBER BOOT TO BE INSTALLED.
8. MANHOLES LOCATED IN PAVEMENT OR SHOULDER SHALL HAVE LIDS INSTALLED FLUSH WITH FINISHED GRADE.
9. SERVICE CONNECTIONS AT MANHOLES MUST UTILIZE A RUBBER BOOT. SERVICE CONNECTIONS UTILIZING SAMPLING MANHOLES MUST UTILIZE RUBBER BOOT.
10. WATERLINE TO BE INSTALLED PER SITE PLAN AND NOT AS PART OF THE SEWER EXTENSION PLAN.

## EROSION AND SEDIMENT CONTROL LEGEND

3.31	TEMPORARY SEEDING	TS	
3.32	PERMANENT SEEDING	PS	
3.33	MULCHING	MU	



STORM STRUCTURE TABLE			
STRUCTURE ID	STRUCTURE TYPE	DETAILS	NORTHING EASTING
EX	Concentric Structure 48 dia 16 frame 24 cone	RM: 1135.01 INV IN: 1133.80 (FROM A) INV OUT: 1133.80	3663124.05 11074781.02
A	Concentric Structure 48 dia 16 frame 24 cone	RM: 1135.92 INV IN: 1134.22 (FROM B) INV OUT: 1133.72	3663129.74 11074782.65
B	Concentric Structure 48 dia 16 frame 24 cone	RM: 1145.70 INV IN: 1137.40 (FROM C) INV OUT: 1136.50	3663161.12 11074801.14
C	Concentric Structure 48 dia 16 frame 24 cone	RM: 1145.04 INV IN: 1140.80 (FROM D) INV OUT: 1140.00	3663282.52 11074716.27
D	Concentric Structure 48 dia 16 frame 24 cone	RM: 1152.15 INV IN: 1145.90 (FROM E) INV OUT: 1145.00	3663435.75 11074782.10
E	Concentric Structure 48 dia 16 frame 24 cone	RM: 1160.65 INV IN: 1155.30 (FROM F) INV OUT: 1155.40	3663721.90 11074805.03
F	Concentric Structure 48 dia 16 frame 24 cone	RM: 1168.10 INV IN: 1160.25 (FROM ) INV OUT: 1159.35	3663754.99 11074921.34

Pipe Table				
NAME	SIZE	LENGTH	SLOPE	MATERIAL
Pipe - (1)	8"	5.93'	2.00%	PVC
Pipe - (2)	8"	115.67'	1.97%	DUCTILE IRON PROTECTO 401
Pipe - (3)	8"	126.35'	2.00%	PVC
Pipe - (4)	8"	166.75'	2.40%	PVC
Pipe - (5)	8"	311.43'	3.05%	PVC
Pipe - (6)	8"	20.82'	14.50%	PVC
Pipe - (7)	8"	7.50'	0.50%	PVC

**PERKINS & ORRISON**  
 317 BROOK PARK PLACE, FOREST, VIRGINIA 24551  
 PHONE: 434-525-0881 FAX: 434-525-0885  
 EMAIL: pro@perkins-orrison.com  
 1714 NELSON STREET, LEANINGTON, VIRGINIA 24450  
 PHONE: 540-480-0071 FAX: 540-480-0030  
 EMAIL: PNO@PERKINS-ORRISON.COM

## CONSULTANTS



JOB: BOTETOURT  
 CONVENIENCE CENTER  
 AND TRANSFER STATION  
 BOTETOURT COUNTY, VIRGINIA

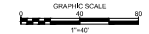
CLIENT: COUNTY WASTE SOUTHWEST VIRGINIA, LLC  
 CO: DELBERT BEASLEY

MARK	DATE	DESCRIPTION
5	11/01/21	SLIP SHEET
4	09/08/21	SLIP SHEET
3	11/13/20	REV PER COMMENTS
2	10/07/20	REV PER COMMENTS
1	08/25/20	REV PER COMMENTS

ISSUE: 4/6/20  
 CONTOUR INTERVAL: 2'  
 DESIGNED BY: RTM  
 DRAWN BY: DBM  
 CHECKED BY: NBW

## SHEET TITLE

SEWER PLAN & PROFILE



C-202  
 18108 19 21

**WESTERN VIRGINIA REGIONAL - CONSTRUCTION DETAIL**  
 FOR PIPE 15" OR SMALLER  
 (FOR DEPTHS UP TO 15 FEET)

1. MATERIALS AND FABRICATION IN ACCORDANCE WITH ASTM C478.  
 2. WHEN USED AS SAMPLING MANHOLE, 1/2" DIA. PASTE STRAIGHT THROUGH 1/4" 180°  
 BE WITHIN 2" OF BOTTOM OF MANHOLE.  
 3. STEPS SHALL BE VERTICALLY ALIGNED. FIRST STEP SHALL BE WITHIN 12" OF COVER. BOTTOM STEP SHALL  
 BE WITHIN 2" OF BOTTOM OF MANHOLE.  
 4. FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 3 FOOT OPENING OF THE MANHOLE.  
 5. STRUCTURE AND BELT IN PLACE.  
 6. FLAT TOP MANHOLES MAY ONLY BE SUBSTITUTED WITH THE PERMISSION OF THE PARTICIPATING UTILITY.  
 7. FLEXIBLE JOINT MANHOLE CONNECTION SHALL BE AS MANUFACTURED BY PRE-SEAL GASKET  
 CORPORATION OR EQUAL.  
 8. GROUT ANNUAL SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE.  
 9. WHEN REPLACING AN EXISTING MANHOLE OR INSTALLING A NEW PRECAST MANHOLE ON AN EXISTING  
 SEWER, A MINIMUM OF 36 INCHES OF EXISTING PIPE SHALL BE REMOVED AND REPLACED WITH NEW  
 MATERIAL ON INLET AND OUTLET OF MANHOLE.  
 10. MANHOLES WHERE THE WADDER IS LOWER THAN THE NORMAL GROUNDWATER ELEVATION (I.E. ALONG  
 CREEKS, RIVERS, LOW LYING AREAS, ETC.) SHALL HAVE A FULL EXTERIOR COATING AND JOINT WRAP  
 APPLIED IN ADDITION TO JOINT SEALANT. (SEE DETAILS S-11).  
 11. IF REQUIRED EXTERIOR VERTICAL WALL SURFACES SHALL BE FACTORY COATED IN ACCORDANCE WITH THE  
 MANUFACTURER'S RECOMMENDATION. COATING SHALL BE HIGH BUILD COAT. THE SPOT TESTING ACTV  
 COAT. COATING SHALL BE APPLIED IN TWO COATS TO A MINIMUM TOTAL THICKNESS OF 18 MILS.  
 12. IF REQUIRED ALL MANHOLES SHALL BE LINED ON EXTERIOR. FRAME AND  
 JOINT SHALL BE FULL JOINTS AND IF THE PROTECTIVE PRIMER/PAINT  
 SEAL SHALL BE MADE OF EPDM RUBBER IN ACCORDANCE WITH  
 ASTM D415 OR POLYURETHANE BACKED EXTERIOR JOINT WRAP  
 IN ACCORDANCE WITH ASTM F145, C-871, AND C-890.  
 13. FOR PIPE LARGER THAN 15 INCHES IN DIAMETER, THE MINIMUM  
 INSIDE DIAMETER OF THE MANHOLE SHALL BE IN ACCORDANCE  
 WITH MANUFACTURER'S RECOMMENDATIONS BASED ON  
 PIPE SIZE AND ANGLE BETWEEN INLET AND OUTLET PIPING.  
 14. IF MINIMUM DIAMETER MANHOLE SHALL BE REQUIRED  
 WHEN DEPTHS EXCEED 15' UNLESS OTHERWISE  
 APPROVED BY PARTICIPATING UTILITY.

ADJUSTMENT BRIMS IF NECESSARY  
 (IF MAX ADJUSTMENT)  
 SEE FRAME & COVER DETAILS

PRECAST HOLE WITH FLEXIBLE  
 ROOT & STAINLESS  
 STEEL BAND

MINIMUM SLOPE FOR  
 SERVICE CONNECTION  
 4" DIA-1/4" PER 1'-0"  
 6" DIA-1/4" PER 1'-0"  
 8" DIA-1/4" PER 1'-0"

BUILITY MASTIC JOINT SEALER OR GASKETS  
 MEETING ASTM C478 AND ASTM C478 TESTING  
 STANDARD (NO MORTAR)

PRECAST HOLE WITH FLEXIBLE  
 ROOT & STAINLESS  
 STEEL BAND

MINIMUM SLOPE FOR  
 SERVICE CONNECTION  
 4" DIA-1/4" PER 1'-0"  
 6" DIA-1/4" PER 1'-0"  
 8" DIA-1/4" PER 1'-0"

MANHOLE WITH  
 PRECAST INVERT

SECTION A-A

PRECAST HOLE (TYP.)  
 GROUT ANNUAL SPACE  
 (TYP. INLET & OUTLET)

FLEXIBLE JOINT WITH  
 STAINLESS STEEL  
 BAND (TYP.)

3/4" DIA. STEEL ROD  
 (IF ADJUSTMENT RINGS  
 ARE REQUIRED)

ECCENTRIC CONE  
 HEIGHT VARIES

RISER  
 SECTIONS  
 HEIGHT VARIES

BASE  
 HEIGHT VARIES

STONE BASE (IF MIN. DEPTH)  
 6" OR EQUIVALENT

APPROVED

By Drew T. Pearson - Planning & Zoning at 2:11 pm, Nov 12, 2021

APPROVED

By David S. Glavin, PE at 10:39 am, Nov 12, 2021