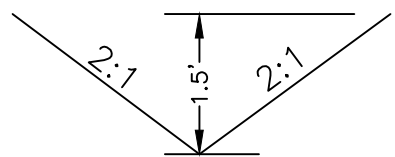


CONVEYANCE CHANNEL CROSS SECTIONS

N.T.S.

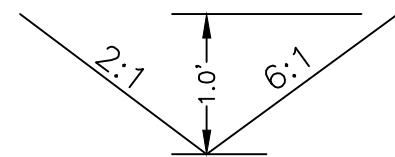
D=1  
DRAINAGE AREA=1.31 AC.



MIN. CONSTRUCTED DEPTH = 1.5 FT  
LINING=EC-2 (TREATMENT 1)

Q<sub>2</sub> = 2.90 cfs  
V<sub>2</sub> = 3.11 fps  
Q<sub>10</sub> = 3.87 cfs  
D<sub>10</sub> = 0.68 ft

D=2  
DRAINAGE AREA=0.56 AC.



MIN. CONSTRUCTED DEPTH = 1.0 FT  
LINING=EC-2 (TREATMENT 1)

Q<sub>2</sub> = 0.92 cfs  
V<sub>2</sub> = 3.36 fps  
Q<sub>10</sub> = 0.22 cfs  
D<sub>10</sub> = 0.15 ft

STORM SEWER INSTALLATION NOTES

- THE MINIMUM DEPTH OF COVER FOR ALL STORM SEWER PIPE 4" TO 48" DIAMETER SHALL BE 12" FROM THE TOP OF THE PIPE TO THE BOTTOM OF FLEXIBLE PAVEMENT (OR TOP OF RIGID PAVEMENT). FOR 54" AND 60" DIAMETER PIPE, THE MINIMUM DEPTH OF COVER SHALL BE 24".
- ALL STORM INLET/MANHOLE BOTTOMS SHALL HAVE INLET SHAPING (IS-1) PER VDOT STANDARDS. NYLOPLAST BASINS SHALL HAVE THE SUMP FILLED WITH CONCRETE.
- ALL PIPE CROSSINGS SHALL MEET THE VERTICAL SEPARATION REQUIREMENTS IN ACCORDANCE WITH THE TOWN'S WATER AND SANITARY SEWER SPECIFICATIONS. THE GENERAL CONTRACTOR SHALL EXERCISE CARE TO VERIFY THE VERTICAL SEPARATION OF UTILITIES IN THE FIELD PRIOR TO INSTALLATION. SHOULD ANY CONFLICTS WITH THE PROPOSED AND/OR EXISTING UTILITIES ARISE, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY.
- ALL STORM SEWER PIPE SHALL BE INSTALLED WITH LEAK-RESISTANT JOINTS.

STRUCTURE SCHEDULE

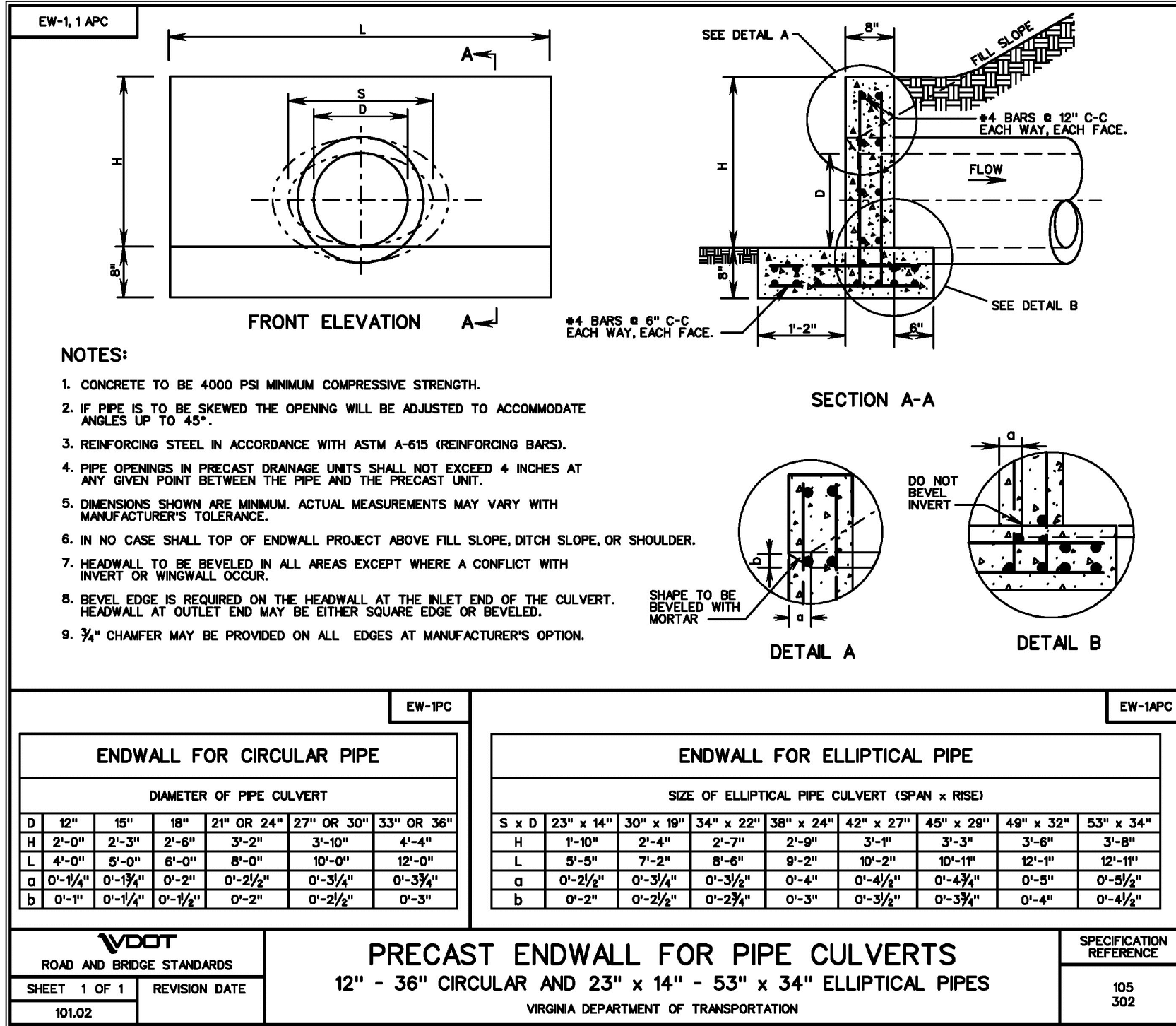
- 32.39 LF OF 18" CMP @ 1.39%  
W/ VDOT EW-1 ENDWALL  
INV. UPPER=2160.45 INV. LOWER=2160.00
- 48" DIA. RISER STRUCTURE  
OUTLET CONTROL FLOW STRUCTURE  
SEE DETAIL SHEET C3  
TOP=2164.00  
18" INV. OUT=2160.45
- 41.43 LF OF 12" HDPE @ 2.81%  
W/ VDOT ES-1 FLARED END SECTION  
INV. UPPER=2167.44 INV. LOWER=2166.28

MONTGOMERY COUNTY

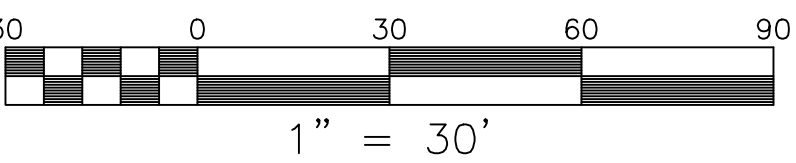
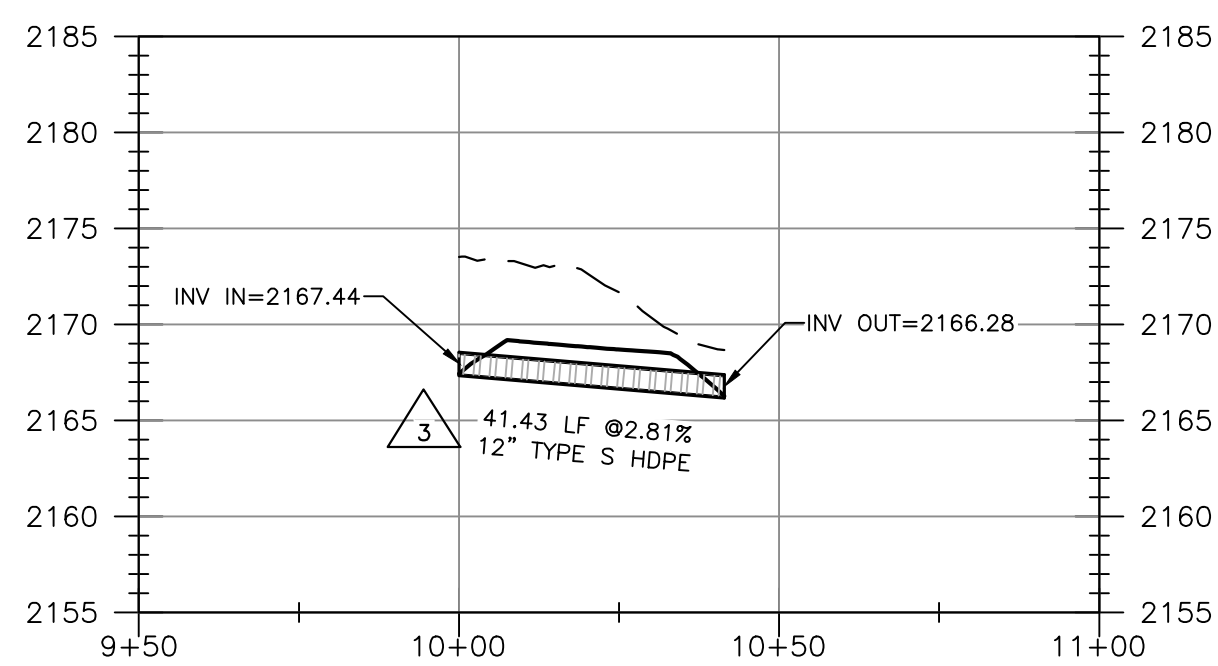
TOWN OF CHRISTIANBURG

LIMITS OF LAND DISTURBANCE  
AREA = 1.77 ACRES

BRAMMER LN  
VARIABLE WIDTH RIGHT OF WAY



CULVERT 3 PROFILE



APPROVED: Engineering \_\_\_\_\_ Date \_\_\_\_\_

APPROVED: Planning \_\_\_\_\_ Date \_\_\_\_\_

GAD - BRAMMER LN MASS GRADING PLAN

GRADING PLAN & STRUCTURE SCHEDULE

DRAWN BY: WRS  
DESIGNED BY: WRS  
CHECKED BY: JRT  
DATE: 07/28/2023  
SCALE: AS NOTED  
REVISIONS:

**BALZER & ASSOCIATES**  
PLANNERS / ARCHITECTS  
ENGINEERS / SURVEYORS

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New River Valley  
Shenandoah Valley

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07/28/2023  
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