



Clarke County Planning Commission

AGENDA – Plans Review Committee Meeting

Friday, December 15, 2023 – 2:30PM

Berryville/Clarke County Government Center – Meeting Room A/B

1. **Call to Order**
2. **Approval of Agenda**
3. **Approval of Minutes – August 1, 2023**
4. **Schulhof Subdivision.** Preliminary review of a possible future subdivision application for tax map parcel 4-A-20, within the AOC District. Discussion of access design options where there is an existing pipestem lot configuration and multiple existing private access easements.
5. **Double Tollgate Pump Station, Frederick Water, SP-23-01.** A request for site development plan approval for a sanitary sewer pump station on tax map parcel 27-A-10C, within the CH Zoning District and HAC Overlay District. An overview of the project and review status that includes a public hearing in January. [Attachment]
6. **Beckett Solar Energy Facility, Horus Virginia LLC, SP-22-02 & SUP-22-02.** A request for a special use permit with a site development plan for the development of a 50 MW Solar Power Plant on tax map parcels 13-A-13 and 13-A-56, within the AOC Zoning District. An update on the application status and recent resubmissions.
7. **Longbranch, SP-23-04 and SUP-23-03.** A request for a special use permit with a site development plan to operate a minor commercial public assembly use on tax map parcel 29-A-29, within the AOC Zoning District. An overview of the project and review status.
8. **Update Of**
 - a. SP-23-02/SUP-23-02, Watermelon Park
 - b. SP-23-01/SUP-23-01, Berryville Berries
 - c. MS-23-11, Markee
 - d. MS-23-09/MLSE-23-04, Foster
 - e. MS-23-08, Regan
9. **Other Business**
10. **Adjournment**



Clarke County Planning Commission

MINUTES – Plans Review Committee

Tuesday, August 1, 2023 – 3:00 PM

Berryville/Clarke County Government Center – Main Meeting Room

DRAFT

ATTENDANCE:			
Ron King (Buckmarsh)	✓	Frank Lee (Berryville)	✓
Pearce Hunt (Russell)	✓	Scott Kreider (Buckmarsh)	x

STAFF PRESENT: Brandon Stidham (Director of Planning) and Jeremy Camp (Senior Planner/Zoning Administrator).

CALL TO ORDER: By Mr. Camp at approximately 3:00 PM.

APPROVAL OF AGENDA: Commissioner Lee motioned to approve the agenda as presented, seconded by Commissioner King. The motion passed 3-0-1.

APPROVAL OF MINUTES: Commissioner Lee motioned to approve the minutes from November 22, 2022 as presented, seconded by Commissioner King. The motion passed 3-0-1.

BECKETT SOLAR (HORUS VA) SITE DEVELOPMENT PLAN – PRELIMINARY:

Mr. Camp overviewed the proposed solar power plant submitted by Horus Va I LLC. He explained that the project is also referred to in various documents as Beckett Solar, Bellringer Farm and Berryville Solar. Mr. Camp explained that the application was submitted about a year ago but the Applicant has been deferring the application as they worked with DEQ to finalize the design and obtain preliminary approval from them. Mr. Camp said that DEQ did recently send the County an email explaining that they are near approval and that there are no significant changes to the plan expected to address the remaining issues. The application is on schedule to be reviewed by the Planning Commission in September.

Mr. Camp identified the previous review comments provided to the Applicant that were in the agenda packet and gave a summary of the characteristics of the property that he observed from his visit to the site. Some discussion continued describing that the location of the solar panels would not be visible, or at least not easily visible, from either state highways (Triple J. Road and Westwood Road). This is believed to be the case because the solar panels will be located far from Westwood Road beyond the location of the existing houses in this area. Along Triple J Road the grade increases above the road creating a screening effect.

Mr. Camp explained that the applicant has revised the plans that were originally submitted to include an entrance off of Triple J. Road. This was discouraged by Staff and the Sheriff’s office. The Applicant would like the entrance off of Triple J. Road primarily to mobilize equipment during construction. The Applicant believes it is more effective to bring the larger trucks and equipment in off of Triple J. Road versus Bellringer Lane via Westwood Road.

Mr. Lee asked if they intend to phase the project. Mr. Camp said that Staff had discussed this with the Applicant and the reply was that they will be building it all at one time.

Mr. Camp identified the 1-mile radius and location of the adjacent substation to show how the project would comply with the solar power plant regulations in the Zoning Ordinance. Some discussion continued about local concerns that solar power plants may use vast amounts of agricultural land in Clarke County. However, the subject property could be the last viable site for solar in the County given the location of the existing substations. Only if a new substation was approved, constructed and in operation would additional locations be able to meet the solar power plant requirements based on current regulations. New substations require a special use permit.

Mr. Camp identified the review comments regarding the decommissioning plan that were in the review comments sent to the applicant. He said that the Applicant needs to address these comments to ensure that the decommissioning plan meets state and local regulations, including safeguards for the County if the solar power plant is abandoned in the future, or if it is decommissioned after the anticipated lifespan of the facility.

Other review comments were discussed, including VDOT's review comments; an additional lot that needs to be merged or consolidated to meet the County's solar power plant regulations; engineering certification regarding the reduced sinkhole buffer; details on what the equipment yard will include; a recommendation for an emergency action plan to ensure procedures are in place to repair damaged solar panels in the case of a natural disaster so that they do not become an environmental risk; and some minor landscaping plan improvements that are needed. The Applicant is currently working on addressing these and the other comments provided to them.

Mr. Lee requested time to review the full paper copy of the site development plan. Mr. Camp acknowledged that Staff would gladly set a time for that. Mr. Lee then discussed the drainage patterns and soil characteristics of the property from his experience. This included discussion of stormwater issues observed in the past along the southern portion of the property. Mr. Camp discussed with members about scheduling a time with them to visit the site after the meeting.

The Applicant, Braden Houston, offered Commissioners to visit his site in West Virginia in addition to the local site in Clarke County. He believed this would help them visualize the project in Clarke County better. Mr. Hunt discussed how this is a good idea and the other Commissioners of the Plans Review Committee agreed. Mr. Lee asked the Applicant if grazing under the solar panels was ever considered. Mr. Hunt asked about the presence of grass under the panels. The Applicant said there would be grass and explained how the panels would move during the day to follow the sun. He further said they have been looking at agriculture with the solar panels and would be willing to consider that if he was able to find a methodology with a local farmer to make it viable.

LANDSCAPING DEVIATIONS REQUESTED BY HECATE:

Mr. Camp summarized the applicants request to make 3 minor modifications to the landscaping plan for the Hecate solar power plant project. He pointed out the location of these areas on the exhibit provided by the applicant's agent, Chris Mohn of Greenway Engineering, who was present at the meeting. Two locations, referred to as #1 and #2, were located in the norther portion of the project and the third location, referred to as #3, was located adjacent to the property of the farmhouse in the southern portion of the project.

Mr. Camp read condition #13 of the Special Use Permit which assigned the Zoning Administrator with the authority to allow minor deviations to the landscaping plan with consultation with the Plans Review Committee.

Mr. Camp said he had concern about the area identified as #3 due to the proximity of it with the farmhouse. However, he said that the requests for #1 and #2 appeared reasonable requests because the landscaping did not appear to have any screening value in those locations due to their extended distance away from the project or other existing vegetation. Furthermore, if the adjoining property owners did not object he was included to approve the changes. Mr. Stidham and others discussed with Mr. Mohn that the landscaping in the area of #3 area could be enhanced from the trees removed in the other locations which Mr. Mohn was agreeable with.

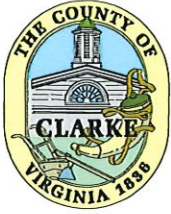
Discussion took place regarding the overlap of Phase 1 and Phase 2. In particular, the northern tip of the project is identified on both site development plans for each phase. It was discussed that Dominion may have to consent to the change. Mr. Mohn said that he would verify this.

Mr. Mohn explained that the intent of the changes is to eliminate landscaping that may not be needed. He explained that Greenway did go to the properties and requested feedback on the changes but had not received much information yet.

Mr. Camp said that Staff could mail the adjoining property owner notice letters requesting input to determine if they have any suggestions. He said that if there was an objection it would not be appropriate to classify the changes as minor; but otherwise if they had no objections the changes were reasonable. Members agreed with this approach.

ADJOURNMENT: The meeting was adjourned by consensus at approximately 3:44 PM.

Jeremy Camp, Clerk



Clarke County Planning Department
101 Chalmers Court, Suite B
Berryville, Virginia 22611
(540) 955-5132

December 8, 2023

Wayne Massie, Wiley|Wilson
127 Nationwide Drive
Lynchburg, VA 24502

Re: Preliminary Review Comments for SP-23-03
Double Tollgate Pump Station
Tax Map # 27-A-10C

Hello Mr. Massie,

The purpose of this letter is to provide you with preliminary comments regarding the above-referenced site development plan application, submitted for a sanitary sewer pump station. At this time, review has been completed by the Planning Department and Emergency Services. Review by other review agencies is currently pending, including the County's Karst Consultant (Hillis-Carnes), Building Department, and Virginia Department of Transportation (VDOT). Comments from these review agencies will be forwarded to you when received.

Review Comments:

I. Clarke County Planning Department.

- 1) **Zoning District.** The property was rezoned to the CH (Highway Commercial District) Zoning District and HAC (Historic Access Corridor) Overlay District. Please change the reference to the AOC District which is no longer accurate.
- 2) **Building Plans.** Please provide plans showing the design and materials proposed for the main pump station building for review by the Planning Commission. The property is located within the HAC Overlay District which requires this information for review is association with the required COA (Certificate of Appropriateness). COAs are reviewed in conjunction with site development plans per the Clarke County Zoning Ordinance.

- 3) **Landscaping.** The shrub shown on the south side of the entrance is illustrated in a location inside of the fence and very close to the fence. Please move the planting location to the outside of the fence with adequate spacing for growth.
- 4) **Approval Notes.** Under the approval signature spaces on the cover page note #2 should be changed to the Clarke County Zoning Administrator's approval. Comments #3 and #4 should be removed or modified per direction by the Clarke County Building Official who is responsible for building permits and land disturbance permits.
- 5) **Front Setback.** The front setback in the CH District when adjacent to a state highway less than 50 feet in width is a distance of 60 feet, not 50' as in the AOC District. The proposed building is in compliance with this but please change the building setback line to accurately reflect the required minimum setback. Also, change the setback requirements required on the cover page. The setbacks proposed also need changed on the cover page as the front setback distance provided is not accurate with the plan.
- 6) **Left Side Setback.** Similar to comment #5, the left side setback is incorrectly shown on the site plan. Please change the left side setback to a distance of 25 feet as required in the CH District. Also, change the setback requirements on the cover page.
- 7) **Maximum Building Height.** The maximum building height is 40 feet in the CH District, not 35' as noted on the cover page. Please correct to reflect accurate code requirements.
- 8) **Creation of Lot.** For information purposes only, please provide a response regarding the intent and timing when the lot and associated easements will be created.
- 9) **85% Impervious Service maximum.** Please provide the amount of impervious service proposed. There is a maximum coverage of 85% in the CH District.
- 10) **Outdoor lighting.** Is any outdoor lighting proposed? If so, please provide the details of it on the site development plan such as the location and lighting type with evidentiary information to verify that the lighting meets Clarke County's outdoor lighting standards, as specified under Section 7.2.6 of the Clarke County Zoning Ordinance.
- 11) **Blasting - Generally.** If explosives are proposed to be used in conjunction with site development then a Blasting Plan is required per Code of Clarke County, Chapter 86

(Explosives). Please add a note to this effect on the site plan along with a statement that a building permit shall not be issued until such Blasting Plan is reviewed and approved by The Board of Septic and Well Appeals.

12) Sinkhole, Sinkhole Buffer, Blasting, and Karst Plan (under review). Final review comments regarding the sinkhole, sinkhole buffer, blasting and karst plan will be provided after review has been completed by the County's Karst Consultant. Comments related to blasting may also be impacted upon completion of this review.

II. Clarke County Department of Fire-Rescue (Emergency Services)

Responded, no issues.

III. Clarke County Building Department

(under review)

IV. Virginia Department of Transportation (VDOT)

(under review)

Please feel free to contact me if you have any questions. Based on the submission date, the application is currently on schedule to be reviewed by the Planning Commission during their meeting on January 5, 2023.

Sincerely,



Jeremy F. Camp, Senior Planner / Zoning Administrator
Clarke County Department of Planning

FREDERICK WATER DOUBLE TOLLGATE PUMP STATION CLARKE COUNTY, VIRGINIA

60% DESIGN SUBMITTAL
WILEY|WILSON COMM. NO.: 223044.10
DATE: NOVEMBER 30, 2023



127 Nationwide Drive | Lynchburg, VA 24502
 434-947-1801 | wileywilson.com | 100% Employee-Owned

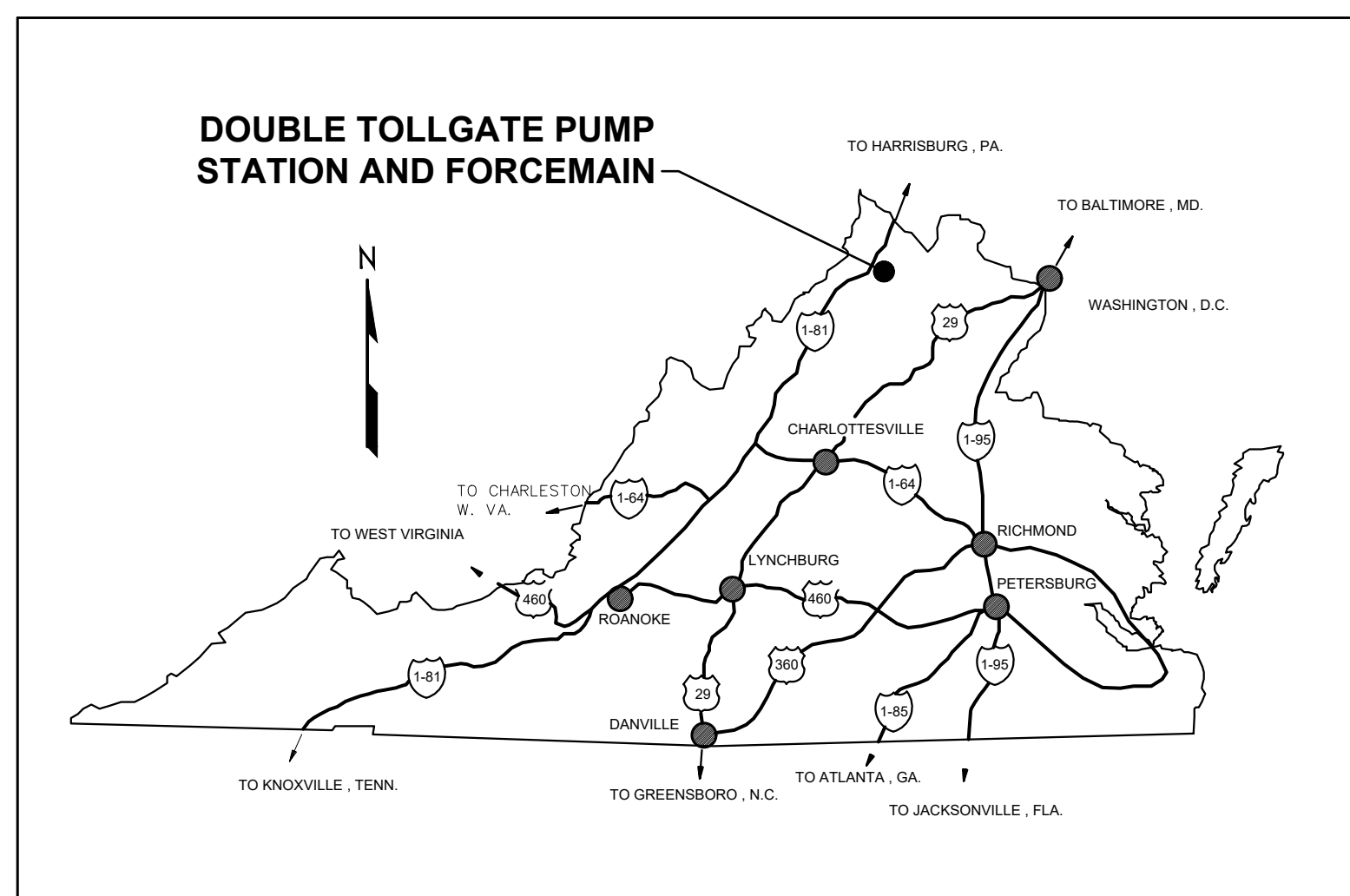
100% DESIGN
 FOR REVIEW
 ONLY

FREDERICK WATER
 DOUBLE TOLLGATE PUMP
 STATION

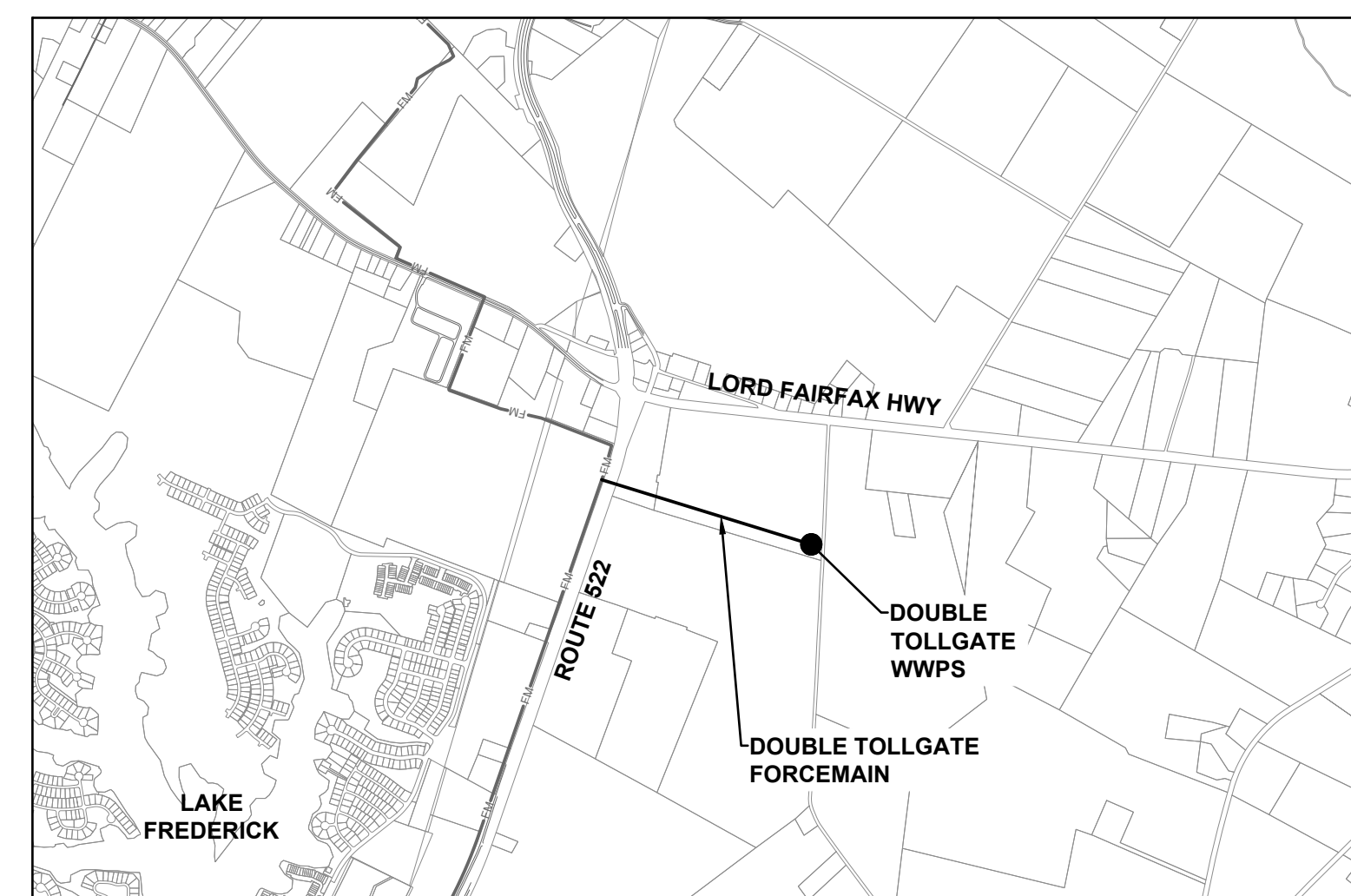
CLARKE COUNTY, VIRGINIA

OWNER
 FREDERICK WATER
 315 TASKER RD
 STEPHENS CITY, VA 22655
 CONTACT: MICHAEL NEWLIN, PE
 OFFICE: 540-868-0074
 EMAIL: MNEWLIN@FREDERICKWATER.COM

ENGINEER/DESIGNER
 WILEY|WILSON
 127 NATIONWIDE DRIVE
 LYNCHBURG, VA 24502
 CONTACT: AARON TICE, PE
 OFFICE: 434-455-3210
 MOBILE: 434-258-6340
 EMAIL: ATICE@WILEYWILSON.COM



VICINITY MAP
 NOT TO SCALE



LOCATION MAP
 SCALE: 1" = 5000'

CLARKE COUNTY SITE PLAN # _____

GENERAL NOTES:

- ZONED: AOC
- MAGISTERIAL DISTRICT: WHITE POST
- EXISTING USE: OPEN SPACE
- PROPOSED USE: PUMP STATION & FORCE MAIN
- MAXIMUM BUILDING HEIGHT: 35 FT
- PROPOSED HEIGHT: 12 FT
- SETBACKS (REQUIRED): 50 FT ROAD CENTERLINE SETBACK;
 10 FT ADJACENT PROPERTY LINE SETBACK
- SETBACKS PROPOSED: 50 FT FRONT SETBACK;
 30 FT SIDE/REAR SETBACK
- PARKING: NO PARKING IS PROVIDED AS A PART OF THIS PLAN.
- SIGNAGE: NO SIGNAGE IS PROVIDED AS PART OF THIS PLAN.
- LANDSCAPING: ALL LANDSCAPING SHALL CONFORM TO THE MOST RECENT EDITION OF THE CLARKE COUNTY ZONING ORDINANCE.

WATER AND SEWER STANDARDS AND SPECIFICATIONS
 UNLESS NOTED OTHERWISE, ALL UTILITY MATERIALS, CONSTRUCTION METHODS, AND TESTING SHALL CONFORM TO THE WATER AND SEWER STANDARDS AND SPECIFICATIONS FOR FREDERICK WATER, REVISED APRIL 19, 2022, AND AVAILABLE AT:

https://www.frederickwater.com/sites/default/files/docs_forms_media/frederick_water_standards_and_specifications_2022-04-19_w_std_details.pdf

RESPONSIBLE LAND DISTURBER

NAME: _____
 CERTIFICATION #: _____
 DATE: _____

THE RESPONSIBLE LAND DISTURBER IS THAT PARTY RESPONSIBLE FOR CARRYING OUT THE LAND DISTURBING ACTIVITY AS SET FORTH IN THE PLANS.

PROPERTY OWNER

NAME: VIRGINIA PORT AUTHORITY _____
 DEED BOOK #: D-664-186 _____
 SIGNATURE: _____ DATE: _____

NOTICE REQUIRED

CONTRACTOR SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST THREE (3) WORKING DAYS, BUT NOT MORE THAN TEN (10) WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION.

CONTACT "MISS UTILITY"
 DIAL 811 OR 1-800-552-7001
 FOR EXISTING UTILITY LOCATIONS

EMERGENCY
 DIAL 911

NON-EMERGENCY
 SHERIFF 540-955-1234
 FIRE AND RESCUE 540-955-5113

NATURAL GAS

WATER AND SEWER
 FREDERICK WATER
 540-868-1061
 315 TASKER RD, STEPHENS CITY, VA 22655

ELECTRICITY
 RAPPAHANNOCK ELEC. COOP.
 540-898-8500
 247 INDUSTRIAL CT, FREDERICKSBURG, VA 22408

TELEPHONE
 VERIZON
 540-665-3153
 404 HILLDALE LANE, WINCHESTER, VA 22602

APPROVALS

CLARKE COUNTY ZONING ADMINISTRATOR _____ DATE _____

FINAL SITE PLAN APPROVED BY CLARKE COUNTY CHAIR OF THE APPROVAL AUTHORITY _____ DATE _____

- SITE PLAN APPROVAL FROM VDOT WILL EXPIRE THREE (3) YEARS FROM THE DATE OF THE APPROVAL LETTER.
- FREDERICK COUNTY ZONING ADMINISTRATOR APPROVAL EXPIRES AT FIVE (5) YEARS FROM THE DATE OF SITE PLAN APPROVAL.
- THE FREDERICK COUNTY DEPARTMENT OF PUBLIC WORKS APPROVAL IS NOT ENOUGH TO BEGIN SITE DEVELOPMENT. THE OWNER/CONTRACTOR MUST OBTAIN A LAND DISTURBANCE PERMIT AND AGREE TO PERIODIC INSPECTIONS.
- THE FREDERICK COUNTY DEPARTMENT OF INSPECTIONS APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT. BUILDING PLANS MUST BE SUBMITTED AND APPROVED PRIOR TO CONSTRUCTING ANY STRUCTURE. FURTHERMORE, THE SITE MUST MEET ALL ADA REQUIREMENTS AND BE APPROVED BY INSPECTIONS.

REVISION DESCRIPTION

DATE

COMM NO: 230044.10

DATE: 11/30/2023

DRAWN: CTS DESIGN: MCP

CHECK: MCM

SHEET TITLE

COVER SHEET

SHT. NO. G-001

REV. NO. 0

LIST OF DRAWINGS

Table with 2 columns: Sheet Number and Sheet Title. Lists drawings from G-001 to EP002.

VDOT GENERAL CONSTRUCTION NOTES

- 1. ALL MATERIALS AND CONSTRUCTION WITHIN THE PUBLIC RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION'S ROAD AND BRIDGE SPECIFICATIONS...

- 33. INSTALLATION, MAINTENANCE AND OPERATION OF STREET LIGHTING SHALL BE PROVIDED BY AND AT THE SOLE EXPENSE OF OTHERS. VDOT WILL ALLOW LIGHTING WITHIN THE RIGHT OF WAY BY LAND USE PERMIT (LUP) ONLY...

GENERAL NOTES

- 1. ALL CONSTRUCTION PROCEDURES, MATERIALS AND DETAILS SHALL BE IN FULL COMPLIANCE WITH THE REQUIREMENTS OF CLARKE COUNTY, COMMONWEALTH OF VIRGINIA, FREDERICK WATER (LATEST VERSION OF WATER AND SEWER STANDARDS AND SPECIFICATIONS), ENGINEER, AND ALL OTHER AGENCIES WHICH HAVE JURISDICTION...

SURVEY NOTES:

- 1. THE PROPERTIES SHOWN HEREON ARE LOCATED ON CLARKE COUNTY TAX ASSESSMENT MAPS AND ARE IDENTIFIED AS TAX MAP 27-A-10-C, TAX MAP 27-A-10 AND TAX MAP 27-A-10B.

1/18/2022 5:15 PM X:\2023\30044 FW Crooked Run WWPS\701 Double Tollgate Drawings\702 C:\w\1230044A\19_G-002.dwg



127 Nationwide Drive | Lynchburg, VA 24502 434-947-1901 | wileywilson.com | 100% Employee-Owned

100% DESIGN FOR REVIEW ONLY

FREDERICK WATER DOUBLE TOLLGATE PUMP STATION

CLARKE COUNTY, VIRGINIA

Table with 10 columns and 1 row for revision/description.

Table with 2 columns: Field Name and Value. Includes COMM NO., DATE, DRAWN, CHECK, SHEET TITLE.

SHEET INDEX AND GENERAL NOTES

Table with 2 columns: SHT. NO. and REV. NO.

LEGEND

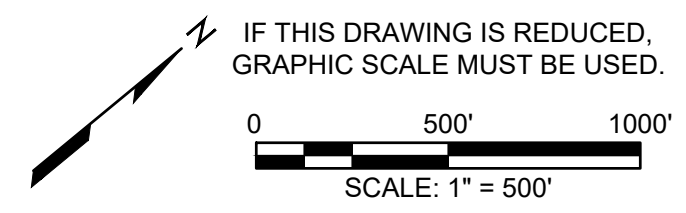
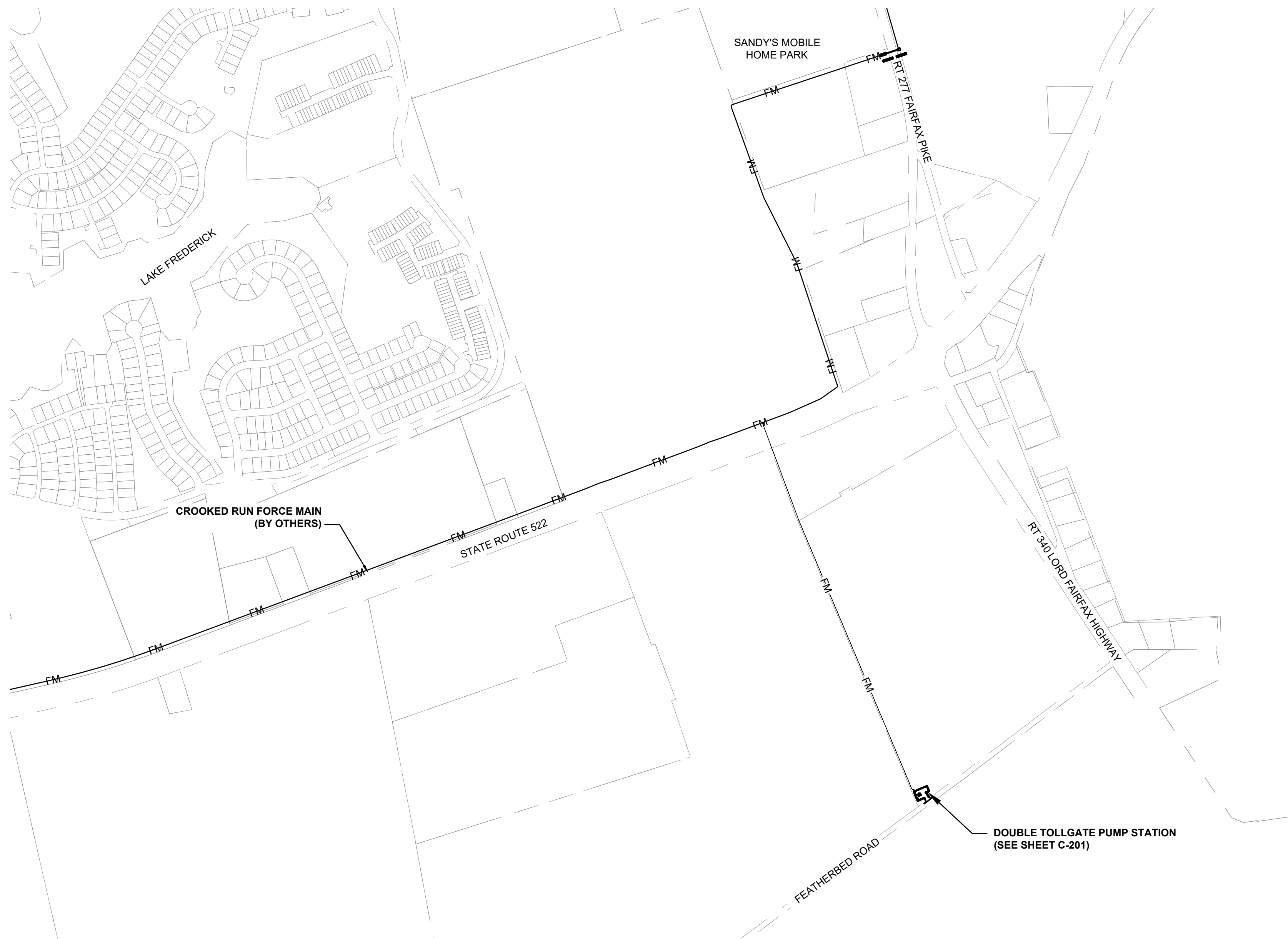
EXISTING	PROPOSED
EDGE OF WATER	WATERLINE
SOIL DELINEATION	STORM CULVERT
EDGE OF PAVEMENT	ELECTRICAL DUCTBANK
GUARD RAIL	FIBER OPTIC
FENCELINE	EDGE OF PAVEMENT
TREELINE	MAJOR CONTOUR
MAJOR CONTOURS	MINOR CONTOUR
MINOR CONTOURS	INTERMEDIATE CONTOUR
OVERHEAD ELECTRIC	CHAINLINK FENCE
GUY WIRE	TEMPORARY CHAINLINK FENCE
STORM LINE	EASEMENT
PROPERTY LINE	TREELINE
RIGHT OF WAY	LIMITS OF DISTURBANCE
WATERLINE	FORCE MAIN
FORCE MAIN	AIR RELEASE VALVE
SANITARY SEWER	BLOWOFF VALVE
ELECTRICAL DUCTBANK	SITE LIGHTING
BENCHMARK	CONCRETE
CONTROL POINT	PAVEMENT
CONTROL POINT - NAIL SET	
IRON PIN FOUND	
POWER POLE	
GUY WIRE	
COMMUNICATIONS MANHOLE	
TELEPHONE PEDESTAL	
SIGN	
STAKE	
TREE	
SANITARY MANHOLE	
LIGHT POLE	
WATER METER	
WATER VALVE	
FIRE HYDRANT	
CONCRETE	
GRAVEL	
ROCK OUTCROPPING	
WETLANDS	

ABBREVIATIONS

APPROX.	APPROXIMATELY	MIN	MINIMUM
ARV	AIR RELEASE VALVE	MJ	MECHANICAL JOINT
CL	CLASS	OD	OUTSIDE DIAMETER
COM	COMMUNICATION	PC	PRESSURE CLASS
CONC.	CONCRETE	PC	POINT OF CURVATURE
CONSTR.	CONSTRUCTION	PT	POINT OF TANGENCY
DEG.	DEGREE	PV	PLUG VALVE
DI	DROP INLET	PVC	POLYVINYL CHLORIDE
DIP	DUCTILE IRON PIPE	RCP	REINFORCED CONCRETE PIPE
DR	DIMENSION RATIO	REST.	RESTRAINED
EX.	EXISTING	SAN	SANITARY
FM	FORCE MAIN	STA	STATION
HORIZ.	HORIZONTAL	STD	STANDARD
ID	INSIDE DIAMETER	TEMP.	TEMPORARY
INV	INVERT	TYP	TYPICAL
LF	LINEAR FEET	UG	UNDERGROUND
MH	MANHOLE	VERT.	VERTICAL
		W/	WITH

EROSION AND SEDIMENT CONTROL LEGEND

3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE		
3.05	SILT FENCE		
3.08	CULVERT INLET PROTECTION		
3.31	TEMPORARY SEEDING		
3.32	PERMANENT SEEDING		
3.35	MULCHING		
3.38	TREE PRESERVATION AND PROTECTION		



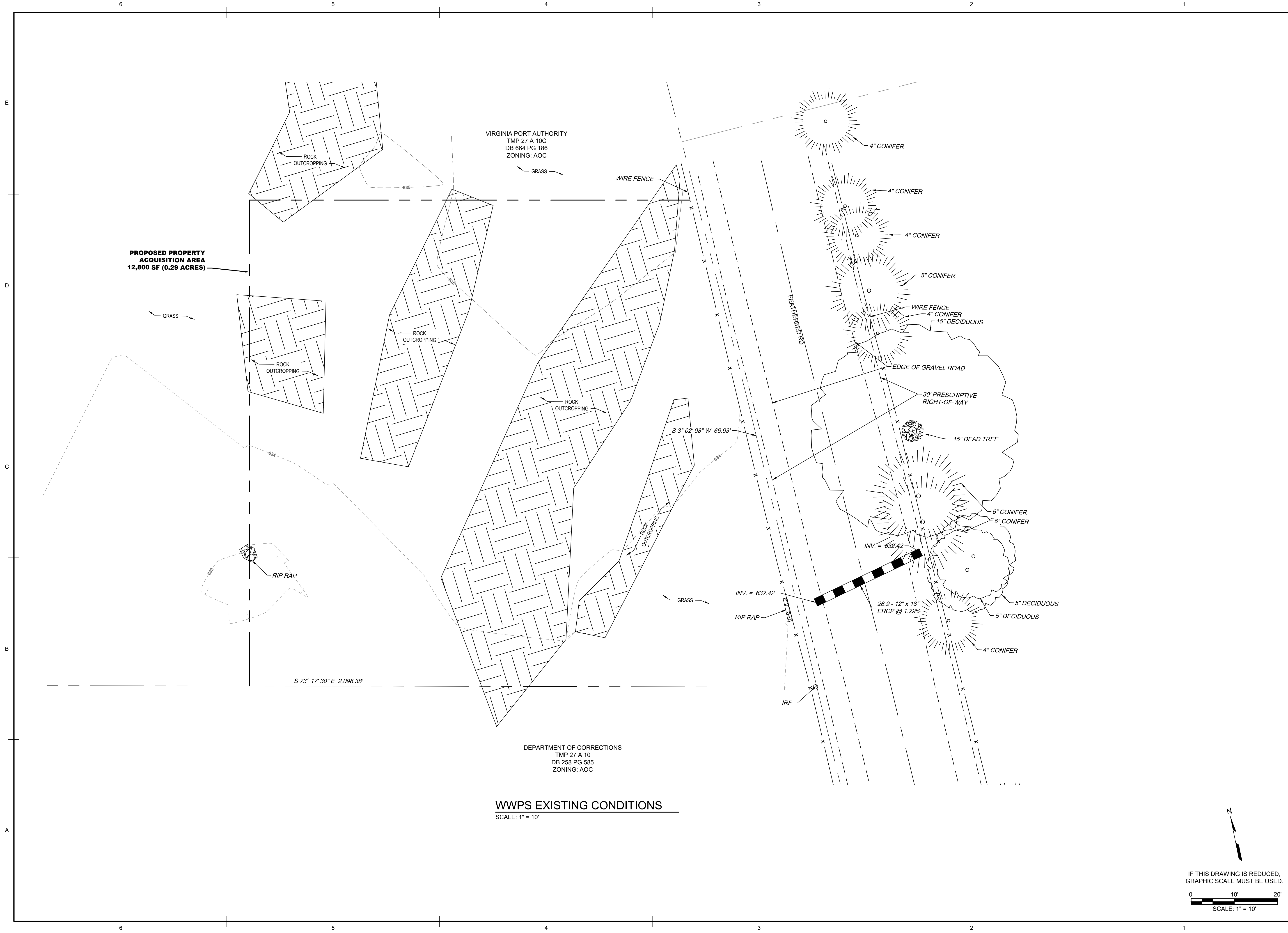
100% DESIGN FOR REVIEW ONLY

**FREDERICK WATER
 DOUBLE TOLLGATE PUMP STATION**

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230044.10
DATE:	11/30/2023
DRAWN: CTS	DESIGN: MCP
CHECK: MCP	
SHEET TITLE	
OVERALL SITE LAYOUT PLAN, LEGEND, AND ABBREVIATIONS	
SHT. NO.	REV. NO.
G-003	0

1/18/2022 5:15 PM
 X:\2023\30044 FW Crooked Run WWPS\101 Double Tollgate Drawings\702 Civil\230044A19_C-201.dwg



DEPARTMENT OF CORRECTIONS
 TMP 27 A 10
 DB 258 PG 585
 ZONING: AOC

WWPS EXISTING CONDITIONS
 SCALE: 1" = 10'

100% DESIGN
 FOR REVIEW
 ONLY

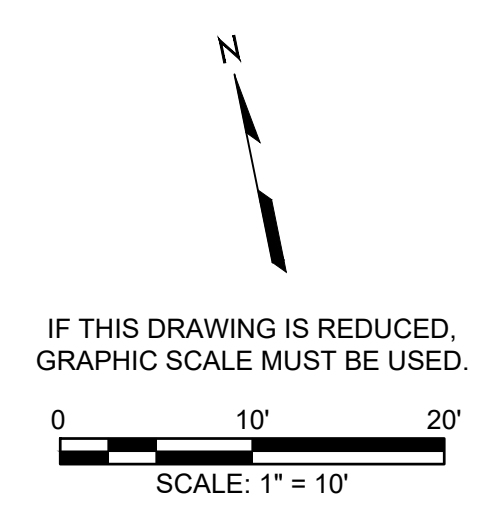
FREDERICK WATER
 DOUBLE TOLLGATE PUMP
 STATION
 CLARKE COUNTY, VIRGINIA

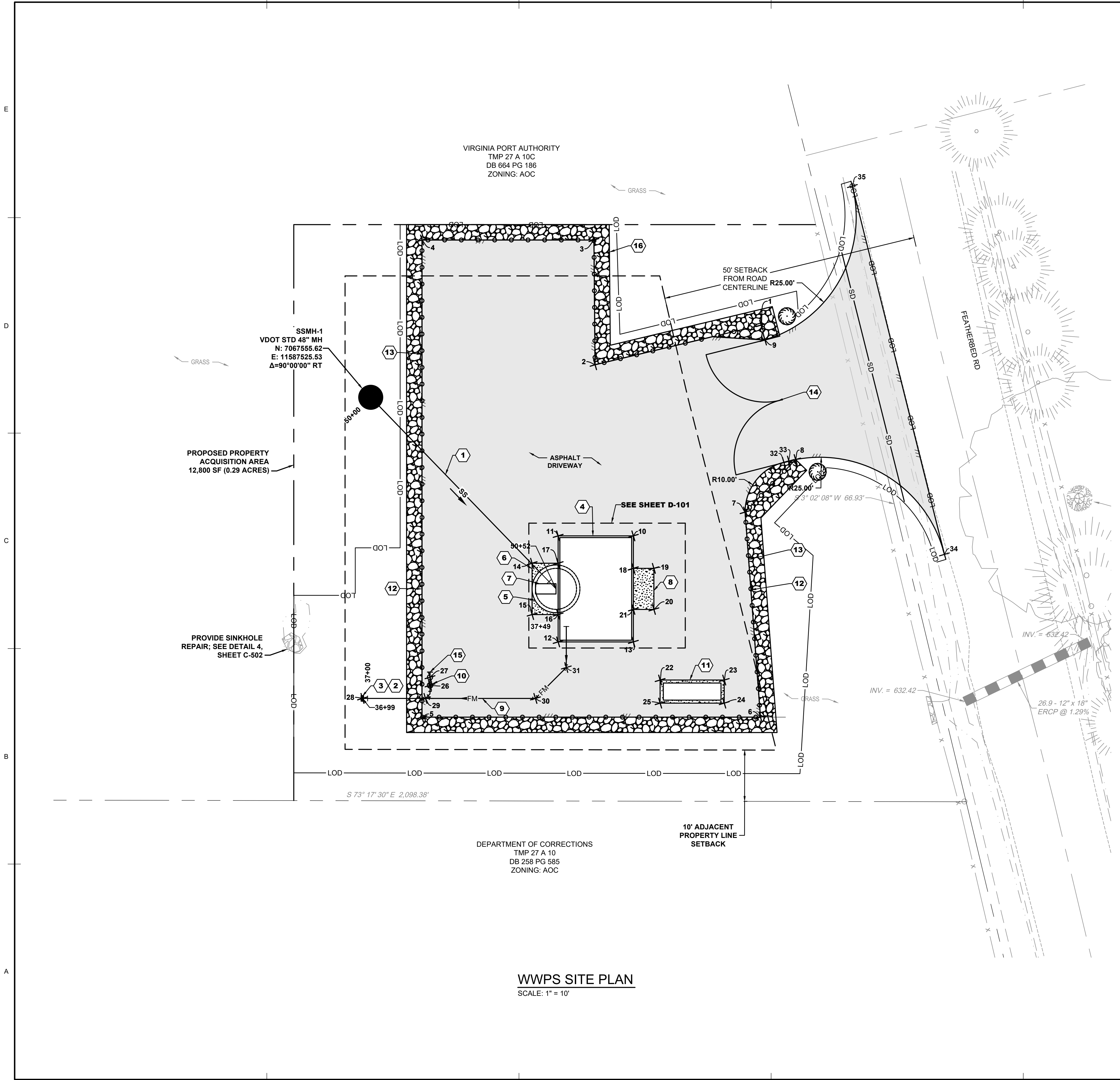
NO.	REVISION DESCRIPTION	DATE	MRK

COMM NO: 230044.10
 DATE: 11/30/2023
 DRAWN: CTS DESIGN: MCP
 CHECK: MCM
 SHEET TITLE

WWPS EXISTING
 CONDITIONS

SHT. NO. C-201 REV. NO. 0





WWPS SITE PLAN
SCALE: 1" = 10'

KEYNOTES

1. 10" GRAVITY SEWER
2. SEE SHEET C-102 FOR CONTINUATION OF FORCE MAIN
3. 6" X 6" PVC TO DIP RESTRAINED TRANSITION COUPLING
4. 14' X 20' (INTERNAL) PRECAST CONCRETE PUMP STATION BUILDING
5. 8' DIAMETER PRECAST CONCRETE WETWELL
6. CONCRETE PAD EXTENSION OVER WETWELL
7. 24" X 48" WETWELL ACCESS HATCH
8. 4' X 8' CONCRETE PAD
9. 6" DI FORCE MAIN PIPE
10. 6" PLUG VALVE AND VALVE BOX
11. 12.5' X 4.5' GENERATOR EQUIPMENT CONCRETE PAD. REFER TO DETAIL 2, SHEET S-501.
12. ASPHALT DRIVEWAY
13. 6' CHAIN LINK FENCE
14. 24' WIDE CHAIN LINK DOUBLE SWING GATE
15. EMERGENCY PUMP CONNECTION
16. 3' STONE STRIP

SPOT SHOT TABLE

POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	--	7067547.35	11587602.50	FENCE CORNER
2	--	7067549.20	11587569.27	FENCE CORNER/EOP
3	--	7067572.56	11587576.01	FENCE CORNER/EOP
4	--	7067582.14	11587543.88	FENCE CORNER/EOP
5	--	7067493.03	11587517.29	FENCE CORNER/EOP
6	--	7067474.16	11587580.54	FENCE CORNER/EOP
7	--	7067513.32	11587589.09	FENCE CORNER/EOP (PT)
8	--	7067520.31	11587601.46	FENCE CORNER/EOP
9	--	7067544.36	11587602.39	FENCE CORNER/EOP (PT)
10	634.58	7067515.10	11587566.89	PUMP BUILDING
11	634.58	7067519.30	11587552.83	PUMP BUILDING
12	634.58	7067499.49	11587546.92	PUMP BUILDING
13	634.58	7067495.30	11587560.98	PUMP BUILDING
14	634.58	7067515.64	11587546.44	WET WELL PAD
15	634.58	7067506.05	11587543.58	WET WELL PAD
16	634.58	7067504.60	11587548.45	WET WELL PAD
17	634.58	7067514.18	11587551.31	WET WELL PAD
18	634.58	7067509.03	11587565.08	CONCRETE PAD
19	634.58	7067507.89	11587568.91	CONCRETE PAD
20	634.58	7067500.22	11587566.62	CONCRETE PAD
21	634.58	7067501.37	11587562.79	CONCRETE PAD
22	634.12	7067486.68	11587563.86	GENERATOR PAD
23	634.12	7067483.11	11587575.83	GENERATOR PAD
24	634.12	7067478.80	11587574.55	GENERATOR PAD
25	634.12	7067482.37	11587562.57	GENERATOR PAD
26	SEE DETAIL	7067498.51	11587520.56	PLUG VALVE
27	SEE DETAIL	7067500.03	11587521.02	EMERGENCY PUMP CONNECTION
28	SEE PROFILE	7067499.84	11587507.22	TRANSITION COUPLING
29	SEE PROFILE	7067496.33	11587518.99	6" WYE
30	SEE PROFILE	7067490.20	11587539.53	6" 45° BEND
31	SEE PROFILE	7067494.25	11587547.02	6" 45° BEND
33	--	7067520.41	11587600.12	PT
34	--	7067494.31	11587623.97	PC
35	--	7067568.23	11587627.30	PC

100% DESIGN FOR REVIEW ONLY

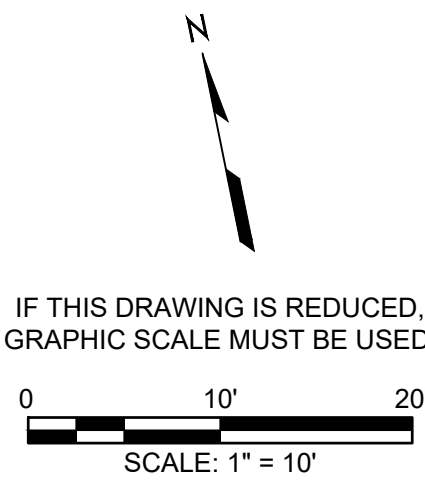
FREDERICK WATER
DOUBLE TOLLGATE PUMP STATION

MRK	DATE	REVISION DESCRIPTION

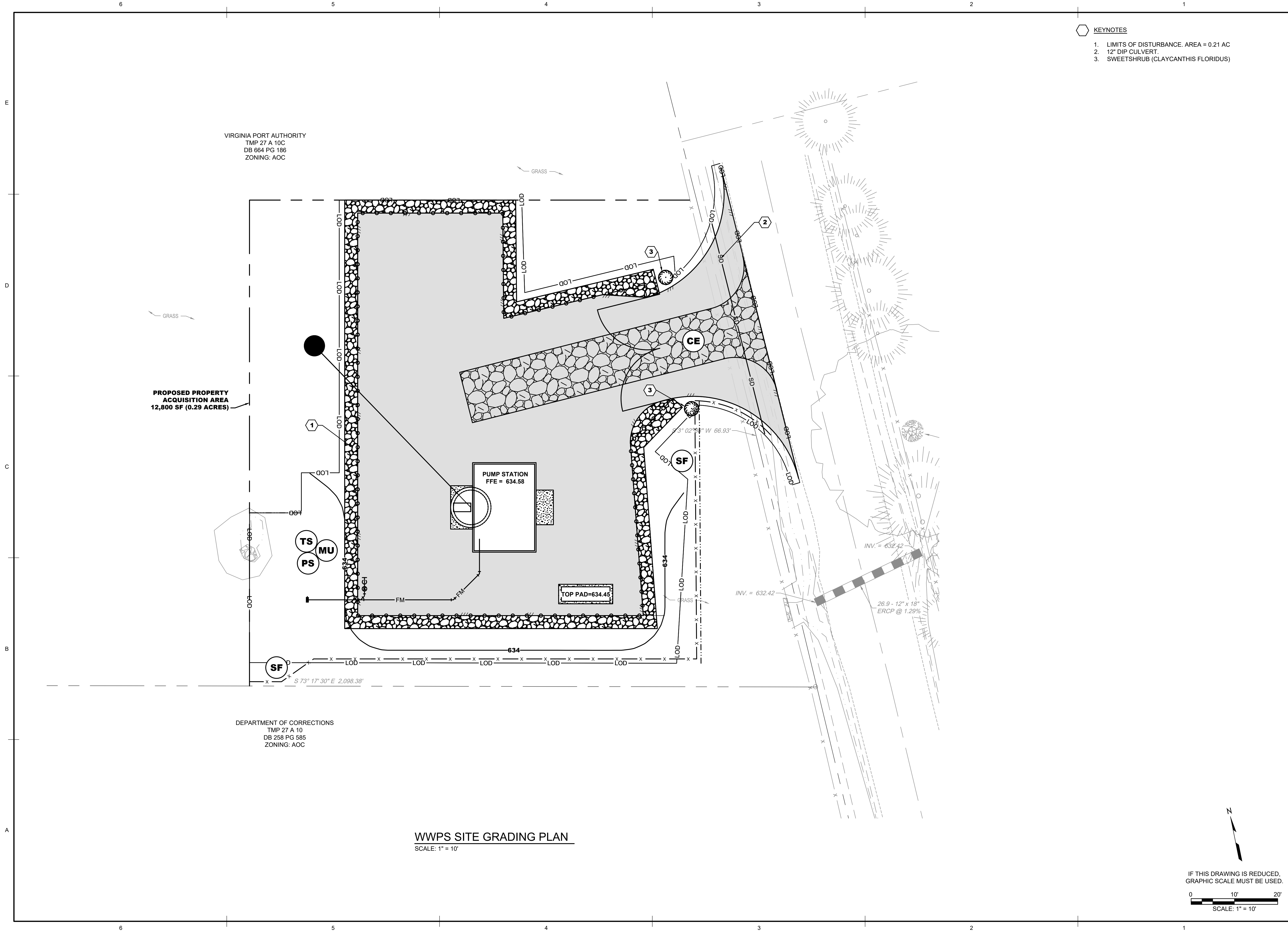
COMM NO.: 230044.10
DATE: 11/30/2023
DRAWN: CTS DESIGN: MCP
CHECK: MCM
SHEET TITLE

WWPS SITE PLAN

SHT. NO. **C-202** REV. NO. **0**



IF THIS DRAWING IS REDUCED, GRAPHIC SCALE MUST BE USED.



VIRGINIA PORT AUTHORITY
TMP 27 A 10C
DB 664 PG 186
ZONING: AOC

PROPOSED PROPERTY
ACQUISITION AREA
12,800 SF (0.29 ACRES)

DEPARTMENT OF CORRECTIONS
TMP 27 A 10
DB 258 PG 585
ZONING: AOC

WWPS SITE GRADING PLAN
SCALE: 1" = 10'

KEYNOTES

- 1. LIMITS OF DISTURBANCE. AREA = 0.21 AC
- 2. 12" DIP CULVERT.
- 3. SWEETSHRUB (CLAYCANTHIS FLORIDUS)



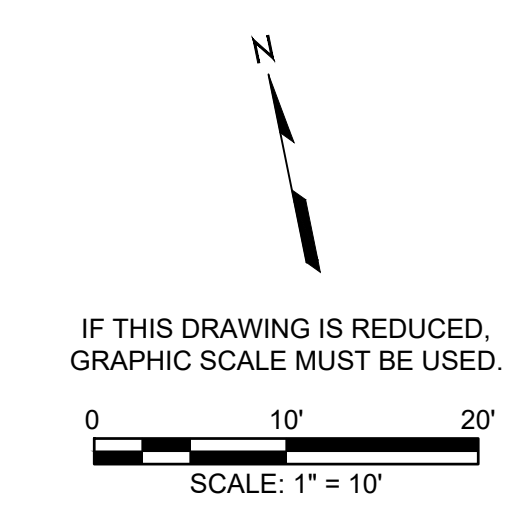
Wiley Wilson
Constant Progress
127 Nationwide Drive | Lynchburg, VA 24502
434.647.1807 | wileywilson.com | 100% Employee-Owned

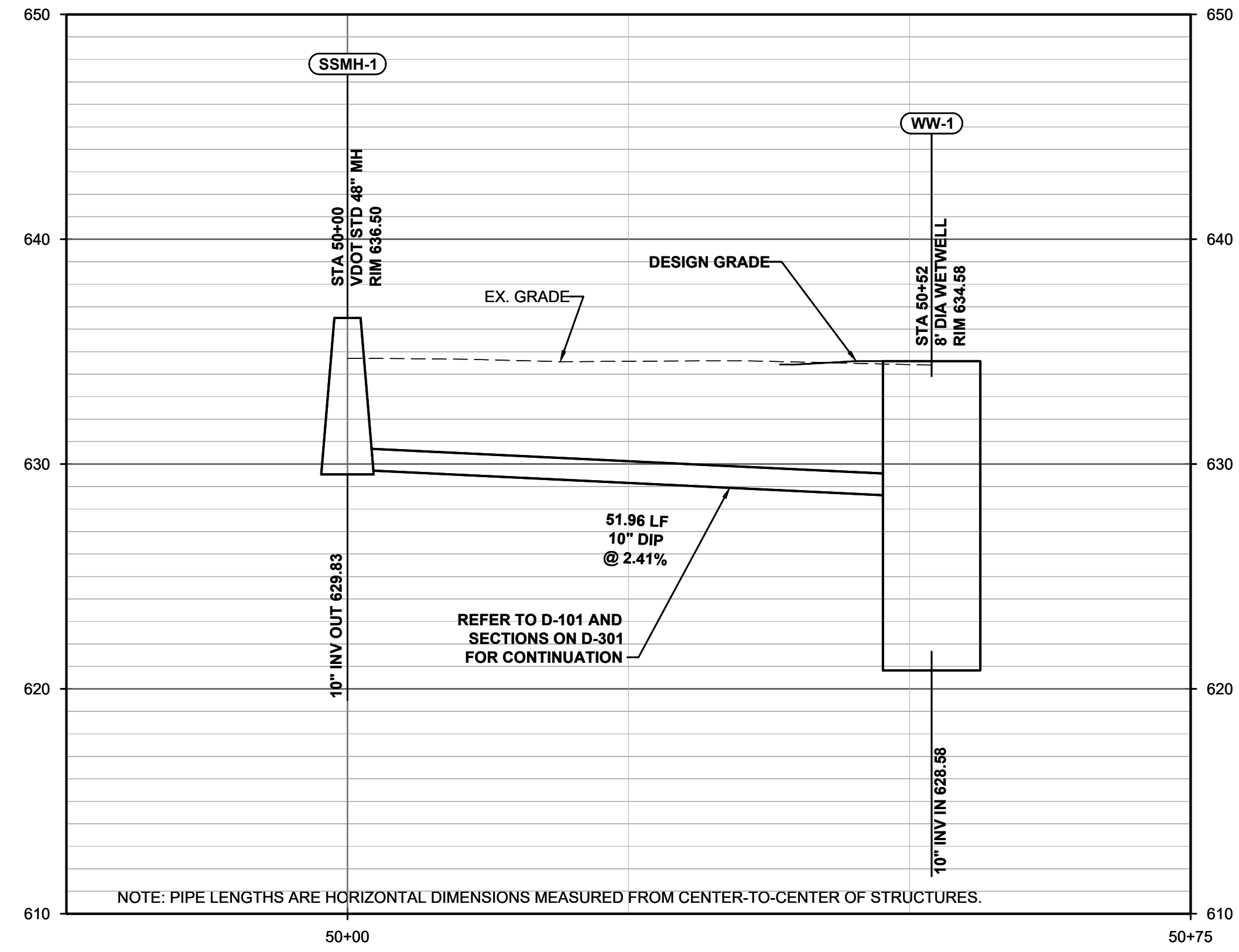
**100% DESIGN
FOR REVIEW
ONLY**

**FREDERICK WATER
DOUBLE TOLLGATE PUMP
STATION**
CLARKE COUNTY, VIRGINIA

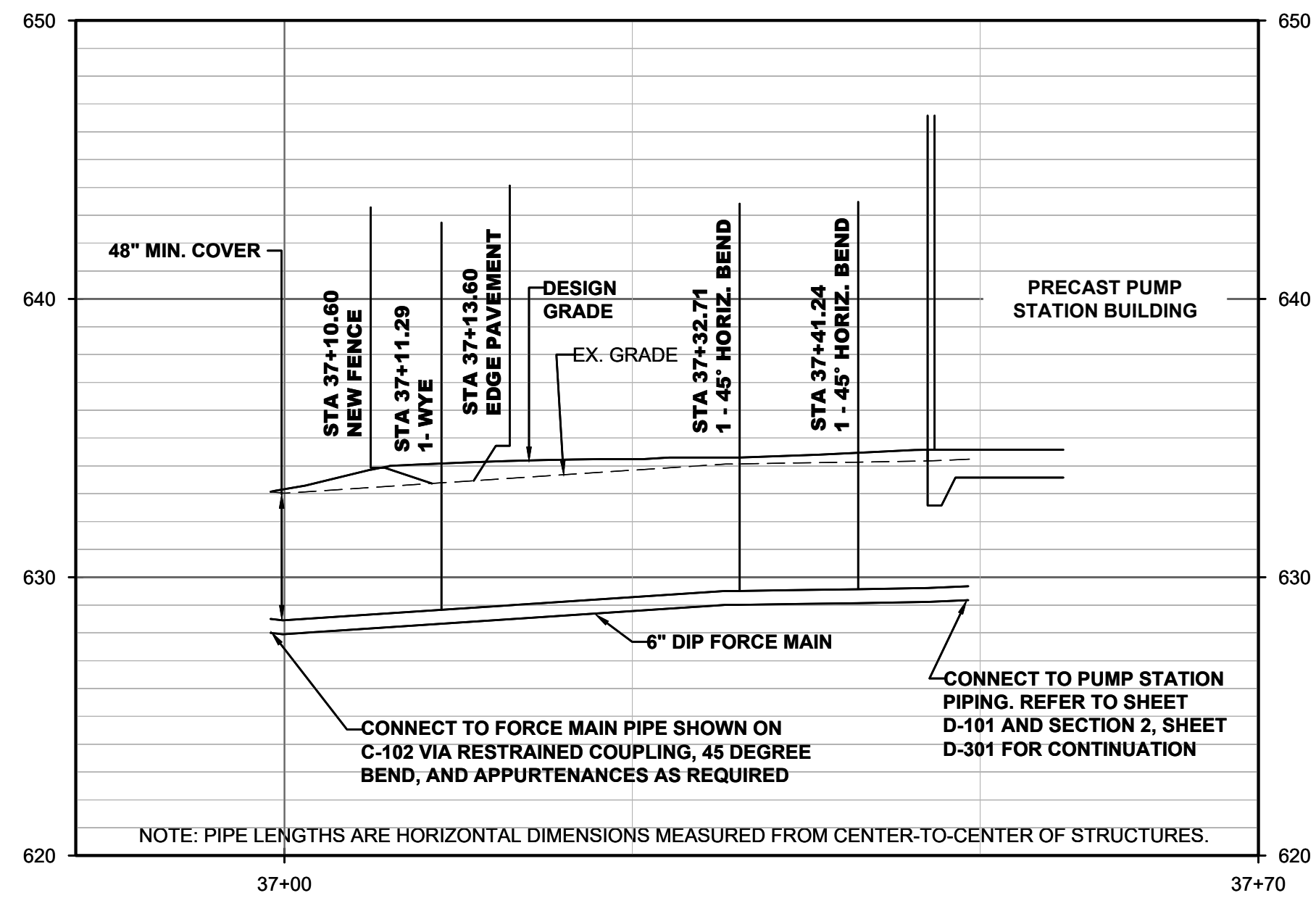
MRK	DATE	REVISION DESCRIPTION

COMM NO:	230044.10		
DATE:	11/30/2023		
DRAWN:	SKS	DESIGN:	MCP
CHECK:	MCM		
SHEET TITLE:	GRADING AND LANDSCAPING PLAN		
SHT. NO.:	C-203	REV. NO.:	0





DOUBLE TOLLGATE WWPS GRAVITY



DOUBLE TOLLGATE WWPS FORCE MAIN

IF THIS DRAWING IS REDUCED,
GRAPHIC SCALE MUST BE USED.
VERT: 1" = 5'
0 5' 10'
0 10' 20'
HORIZ: 1" = 10'

100% DESIGN
FOR REVIEW
ONLY

FREDERICK WATER
DOUBLE TOLLGATE PUMP
STATION

CLARKE COUNTY, VIRGINIA

MRK	DATE	REVISION DESCRIPTION

COMM NO:	230044.10
DATE:	11/30/2023
DRAWN: SKS	DESIGN: MCP
CHECK: MCM	
SHEET TITLE	
SHT. NO.	REV. NO.
C-301	0

EROSION & SEDIMENT CONTROL NARRATIVE

I. PROJECT DESCRIPTION
THIS PROJECT INVOLVES THE CONSTRUCTION OF A WASTEWATER PUMP STATION. THE PUMP STATION WILL BE CONSTRUCTED ALONG FEATHERBED ROAD. THE PROJECT INVOLVES A TOTAL DISTURBANCE OF APPROXIMATELY 0.21 ACRES.
II. EXISTING SITE CONDITIONS
THE PUMP STATION LOT IS A PORTION OF A PARCEL THAT IS CURRENTLY USED FOR PASTURE, THOUGH THIS AREA COULD BE CONSIDERED IMPERVIOUS DUE TO THE EXTENTS OF ROCK OUTCROPPING.
III. ADJACENT PROPERTIES
THE DOUBLE TOLLGATE PUMP STATION SITE IS BOUNDED TO THE WEST, NORTH AND SOUTH BY RURAL AREA (RA ZONING), AND FEATHERBED ROAD TO THE EAST.
IV. OFF-SITE AREAS
FILL MATERIAL WILL BE OBTAINED FROM AREAS OF EXCAVATION CONTAINED WITHIN THE SITE. UNSUITABLE MATERIAL WILL BE HAULED FROM THE SITE AND DISPOSED OF IN AN APPROVED MANNER. THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN TO THE EROSION AND SEDIMENT CONTROL REGULATOR PERTAINING TO OFF-SITE DISTURBED AREAS (IF ANY SUCH AREAS ARE REQUIRED) SUCH AS STOCKPILES, STAGING AREAS, AND SPOIL AREAS THAT ARE USED FOR THIS PROJECT.
V. SOILS
SOILS HAVE NOT YET BEEN IDENTIFIED.
VI. CRITICAL AREAS
THERE ARE SEVERAL ROCK OUTCROPPINGS THROUGHOUT THE SITE. WITHIN THE LIMITS OF DISTURBANCE, THEY TOTAL 0.06 ACRES (2,665 SF).
VII. EROSION AND SEDIMENT CONTROL MEASURES
ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. SYMBOLS, DETAILS, AND DIMENSIONS USED ARE TAKEN FROM THE HANDBOOK, AS WELL AS THE LATEST EDITION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION'S ROAD AND BRIDGE STANDARDS.
A. STRUCTURAL PRACTICES
1. TEMPORARY STONE CONSTRUCTION ENTRANCE (CE), SPEC. 3.02: A CONSTRUCTION ENTRANCE SHALL BE PROVIDED AS SHOWN ON THE PLANS AT THE EXISTING ROAD. EQUIPMENT WHEELS SHALL BE CLEAN WHEN ENTERING UPON A PAVED ROAD. ALL VEHICLES ENTERING AND EXITING THE PROJECT SITE SHALL USE A CONSTRUCTION ENTRANCE.
2. SILT FENCE (SF), SPEC. 3.05: SILT FENCE BARRIERS SHALL BE PROVIDED WHERE SHOWN AND AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE.
3. CULVERT INLET PROTECTION (CIP), SPEC. 3.08: CULVERT INLET PROTECTION SHALL BE PROVIDED FOR THE CULVERTS AS SHOWN ON THE PLANS.
B. VEGETATIVE PRACTICES
4. TEMPORARY SEEDING (TS), SPEC. 3.31: TEMPORARY SEEDING SHALL BE PROVIDED ON SITE TO PROVIDE STABILIZATION UNTIL SITE DEVELOPMENT OCCURS. APPLY SEED BASED ON TEMPORARY SEEDING SCHEDULE SHOWN ON THE PLANS.
5. PERMANENT SEEDING (PS), SPEC. 3.32: PERMANENT SEEDING SHALL BE PROVIDED ON SITE TO PROVIDE STABILIZATION FOR ALL DISTURBED AREAS. APPLY SEED BASED ON PERMANENT SEEDING SCHEDULE SHOWN ON THE PLANS.
6. MULCHING (MU), SPEC. 3.35: ALL PERMANENT AND TEMPORARY SEEDING SHALL BE STRAW MULCHED IMMEDIATELY UPON COMPLETION OF SEED APPLICATION. STRAW ON STEEP SLOPES SHALL BE ANCHORED UNLESS SEEDING WAS PROVIDED BY MEANS OF A HYDROSEEDING, IN WHICH CASE, MULCHING IS NOT REQUIRED.
7. TREE PRESERVATION AND PROTECTION (TP), SPEC. 3.38: TREES IDENTIFIED ON THE E&S PLAN SHEET SHALL BE PROTECTED DURING CONSTRUCTION.
C. MINIMUM STANDARDS
MS-1 STABILIZATION OF DENUDED AREAS: PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT ARE BARE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
MS-2 STABILIZATION OF SOIL STOCKPILES: DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
MS-3 PERMANENT VEGETATIVE COVER: A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
MS-4 TIMING AND STABILIZATION OF SILT TRAPPING MEASURES: SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
MS-5 CONCENTRATED RUNOFF DOWN CUT OR FILLED SLOPES: STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
MS-6 SEDIMENT BASINS AND TRAPS: SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.
B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
MS-7 CUT AND FILL SLOPES: CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
MS-8 CONCENTRATED RUNOFF DOWN CUT OR FILL SLOPES: CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
MS-9 WATER SEEPAGE FROM A SLOPE FACE: WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
MS-10 STORM SEWER INLET PROTECTION: ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
MS-11 STABILIZATION OF OUTLETS: BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
MS-12 WORK IN LIVE WATERCOURSES: WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
MS-13 CROSSING A LIVE WATERCOURSE: WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
MS-14 APPLICABLE REGULATIONS: ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
MS-15 STABILIZATION OF BED AND BANKS: THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
MS-16 UNDERGROUND UTILITIES: UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.
F. APPLICABLE SAFETY REQUIREMENTS SHALL BE COMPLIED WITH.
MS-17 CONSTRUCTION ACCESS ROUTES: WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO

INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
TEMPORARY E&S CONTROL MEASURE REMOVAL: ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
ADEQUACY OF RECEIVING CHANNELS: PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. STREAM RESTORATION AND REALLOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS.
A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
(1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
(2) (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS;
(B) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
(C) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
(1) IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL, THE BED, OR THE BANKS; OR
(2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;
(3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR
(4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION.
D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT.
F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL. CHANNEL DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTFALL, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
J. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.
L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO: (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62.1-44.15.65 OF THE CODE OF VIRGINIA.
M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15.52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62.1-44.15.24 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS.
N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF SUBDIVISION 19 OF THIS SUBSECTION.
D. MAINTENANCE: ALL EROSION AND SEDIMENT CONTROL STRUCTURES AND SYSTEMS SHALL BE MAINTAINED, INSPECTED, AND REPAIRED AS NEEDED TO INSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED AT THE END OF EACH DAY AND AFTER EVERY RAINFALL EVENT.
1. DAMAGE TO EROSION CONTROL MEASURES CAUSED BY CONSTRUCTION TRAFFIC OR OTHER ACTIVITY SHALL BE REPAIRED BEFORE THE END OF EACH WORKING DAY.
2. (SPEC. 3.02) PROVIDE FOR EQUIPMENT WASHING AS NEEDED TO PREVENT THE TRANSPORT OF SOIL ONTO EXISTING ASPHALT ROADWAYS. ANY SEDIMENT ON THE PAVEMENT SHALL BE REMOVED IMMEDIATELY.
3. (SPEC. 3.05) SILT FENCE BARRIERS WILL BE CHECKED DAILY FOR UNDERMINING OR DETERIORATION OF THE FABRIC.
4. (SPEC. 3.08) AGGREGATE FOR CULVERT INLET PROTECTION, IF OPTIONAL STONE COMBINATION IS USED IN LIEU OF SILT FENCE, SHALL BE REPLACED OR CLEANED WHEN INSPECTION REVEALS THAT CLOGGED VOIDS ARE CAUSING PONDING PROBLEMS WHICH INTERFERE WITH ON-SITE CONSTRUCTION.
5. (SPEC. 3.31 & 3.32) AREAS WHICH FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION WILL BE RESEED AS SOON AS SUCH AREAS ARE IDENTIFIED.
6. (SPEC. 3.35) WHERE EROSION OR WASHOUT IS OBSERVED IN MULCHED AREAS, ADDITIONAL MULCH SHOULD BE APPLIED.
VIII. PERMANENT STABILIZATION ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH SEEDING FOLLOWING GRADING IN ACCORDANCE WITH THE MINIMUM STANDARDS. SEEDING SHALL BE IN ACCORDANCE WITH THE TEMPORARY OR PERMANENT SEEDING SCHEDULES SHOWN ON THIS PLAN. IN ALL SEEDING OPERATIONS, TOPSOIL, SEED, FERTILIZER AND LIME SHALL BE APPLIED PRIOR TO INSTALLATION OF MULCHING OR EROSION CONTROL BLANKETS AND MATTING.
IX. STORMWATER MANAGEMENT MANAGEMENT OF STORMWATER RUNOFF DURING CONSTRUCTION WILL COMPLY WITH THE EXISTING VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS 9VAC25-840. THE EROSION AND SEDIMENT CONTROL PLANS INDICATE ALL ACTIVITIES AND STRATEGIES NECESSARY TO MINIMIZE EROSION AND SEDIMENTATION DURING CONSTRUCTION.
MANAGEMENT OF STORMWATER RUNOFF AFTER CONSTRUCTION ARE OUTLINED BY THE EXISTING VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS 9VAC25-870. THE STORMWATER MANAGEMENT PLANS INDICATE ALL ACTIVITIES AND STRATEGIES NECESSARY TO COMPLY WITH THE VSMP REGULATIONS AFTER CONSTRUCTION.
THE PUMP STATION LIMITS OF DISTURBANCE ARE LESS THAN 10,000 SQUARE FEET AND, THEREFORE, MS-19 REQUIREMENTS WOULD NOT APPLY.
X. SOIL STOCKPILES AND BORROW AREAS FILL MATERIAL SHALL BE OBTAINED FROM AREAS OF EXCAVATION ON SITE. LOCATIONS OF SOIL STOCKPILES SHALL BE DETERMINED BY THE CONTRACTOR WITH THE APPROVAL OF THE OWNER/DEVELOPER. ALL STOCKPILES SHALL BE LOCATED ON SITE AND PROTECTED WITH SURROUNDING SILT FENCING AND STABILIZED WITH A VEGETATIVE COVER. THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN FOR ALL SOILS INTENTIONALLY TRANSPORTED OFFSITE IF THE TRANSPORTED MATERIAL DISTURBS MORE THAN 10,000 SQUARE FEET IN AREA.
XI. SEQUENCE OF CONSTRUCTION
1. CONSTRUCT THE TEMPORARY STONE CONSTRUCTION ENTRANCES.
2. INSTALL EROSION AND SEDIMENT CONTROL PRACTICES AS IS PRACTICABLE.
3. CLEAR THE PLANNED DISTURBED AREA AND REMOVE DEBRIS TO A SUITABLE LOCATION.
4. INSTALL UTILITIES, INLET AND OUTLET PROTECTION AS IS PRACTICABLE.
5. BRING GRADES TO DESIRED ELEVATION.
6. STABILIZE ALL DISTURBED AREAS WITH PERMANENT VEGETATION.
7. APPLY SURFACE TREATMENT AS DESIGNED.
8. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL RELEASED BY THE GOVERNING AGENCY.
9. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.
10. STABILIZE AREAS AFFECTED BY THE REMOVAL OF TEMPORARY E&S MEASURES.

TEMPORARY SEEDING SCHEDULE

Table with columns: PLANTING SPECIES, SPECIES, RATE (LBS/ACRE). Rows include SEPT 1 - FEB 15 (50/50 MIX OF ANNUAL RYEGRASS (LOLIUM MULTI-FLOSUM) & CEREAL (WINTER) RYE (SECALE CERALE) at 50-100), FEB 16 - APR 30 (ANNUAL RYEGRASS (LOLIUM MULTI-FLOSUM) at 60-100), and MAY 1 - AUG 31 (GERMAN MILLET (SETARIA ITALICA) at 50).

PERMANENT SEEDING SCHEDULE

SITE SPECIFIC SEEDING MIXTURES FOR APPALACHIAN/MOUNTAIN AREA

Table with columns: MINIMUM LAWN CARE (COMMERCIAL OR RESIDENTIAL), TURF-TYPE TALL FESCUE, IMPROVED PERENNIAL RYEGRASS*, KENTUCKY BLUEGRASS, and TOTAL POUNDS PER ACRE (200-250 LBS, 95-100%, 0-10%, 0-10%).

*PERENNIAL RYEGRASS WILL GERMINATE FASTER AND AT LOWER SOIL TEMPERATURES THAN FESCUE, THEREBY PROVIDING COVER AND EROSION RESISTANCE FOR SEEDBED.

**USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW:

Table with columns: ANNUAL RYE, FOXTAIL MILLET, ANNUAL RYE, WINTER RYE, and MARCH, APRIL THROUGH MAY 15TH, MAY 16TH THROUGH AUGUST 15TH, AUGUST 16TH THROUGH SEPTEMBER, OCTOBER, NOVEMBER THROUGH FEBRUARY.

LIME & FERTILIZER SPECIFICATIONS:

A SOILS TEST IS REQUIRED PRIOR TO FINAL SITE STABILIZATION, TO DETERMINE LIME AND FERTILIZER APPLICATION RATES FOR THE ESTABLISHMENT OF GRASS ON SITE. CONTACT VIRGINIA COOPERATIVE EXTENSION OR A GEOTECHNICAL FIRM WITH SOIL TESTING FACILITIES TO OBTAIN A SOILS REPORT FOR NUTRIENT APPLICATION.

INCORPORATION: LIME AND FERTILIZER SHALL BE INCORPORATED INTO THE TOP 4 INCHES OF TOPSOIL BY DISCING OR OTHER MEANS WHENEVER POSSIBLE. FOR EROSION CONTROL, WHEN APPLYING LIME AND FERTILIZER WITH A HYDROSEEDER, APPLY TO A ROUGH, LOOSE SURFACE.

MULCHING: MULCH WITH STRAW AT A RATE OF 2 TONS/ACRE OR EQUIVALENT.



100% DESIGN FOR REVIEW ONLY

FREDERICK WATER DOUBLE TOLLGATE PUMP STATION

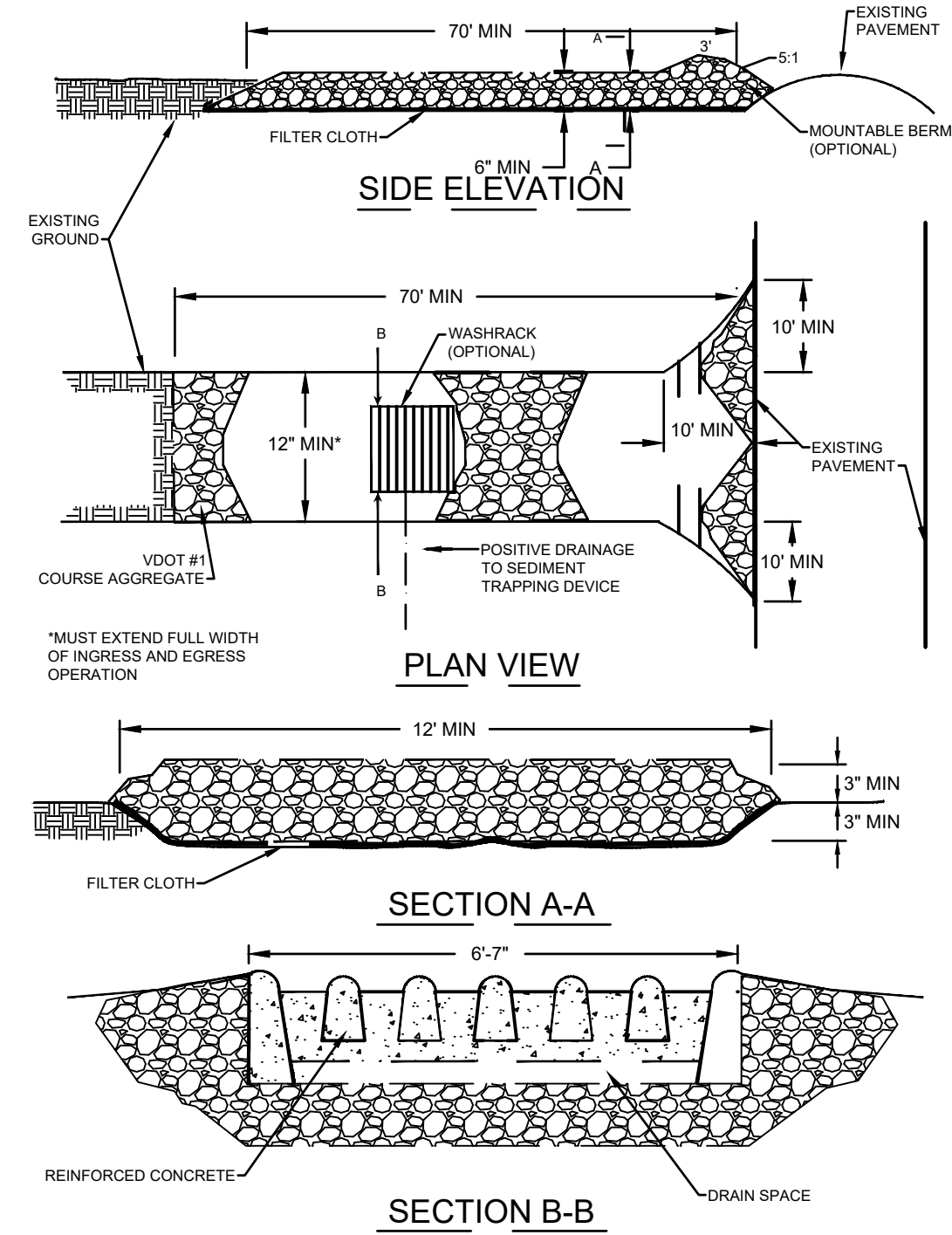
Table with columns: REVISION DESCRIPTION, DATE, M/RK.

COMM NO: 230044.10
DATE: 11/30/2023
DRAWN: CTS DESIGN: MCP
CHECK: MCM
SHEET TITLE

EROSION & SEDIMENT CONTROL NARRATIVE

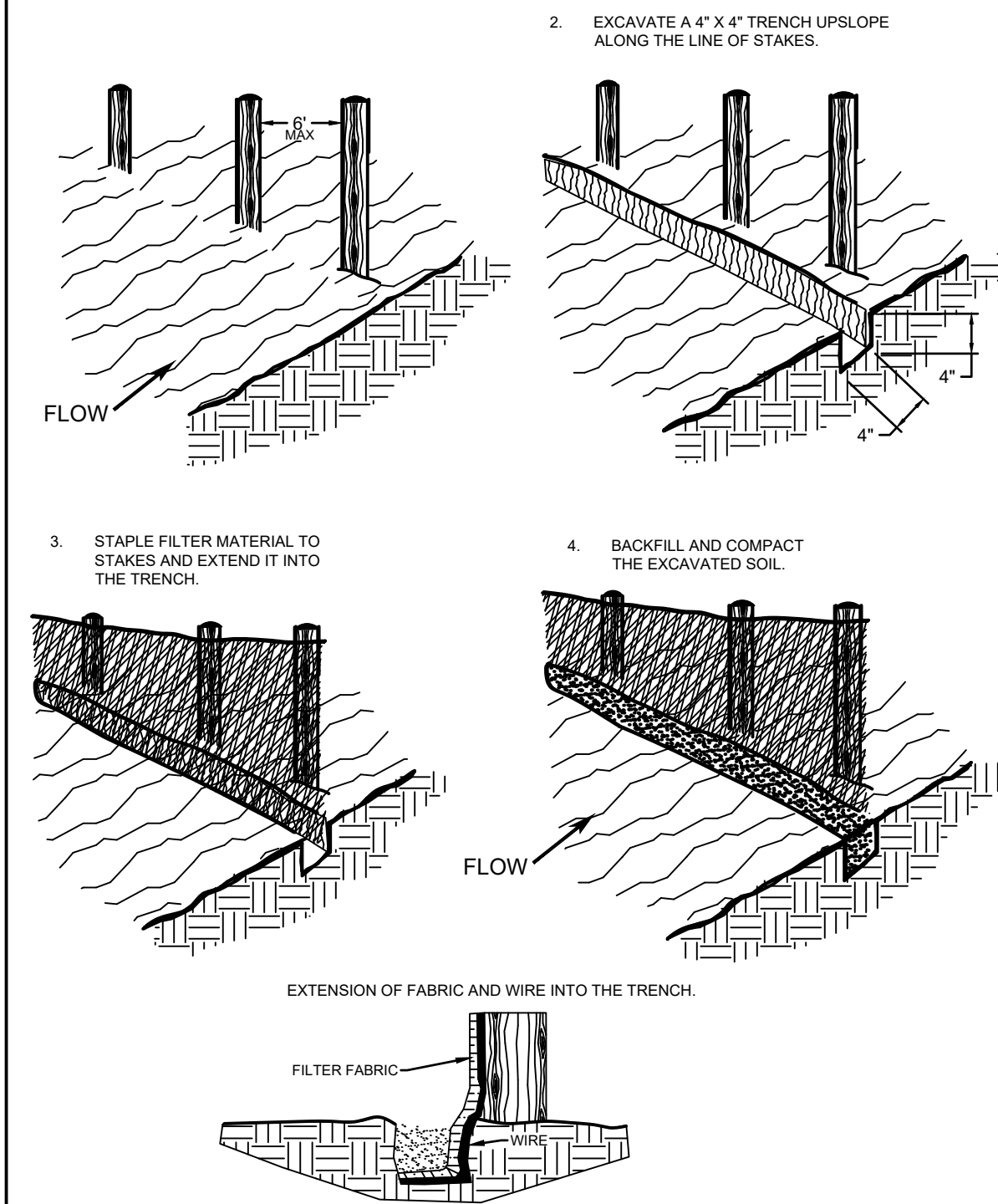
SHT. NO. C-401 REV. NO. 0

STONE CONSTRUCTION ENTRANCE



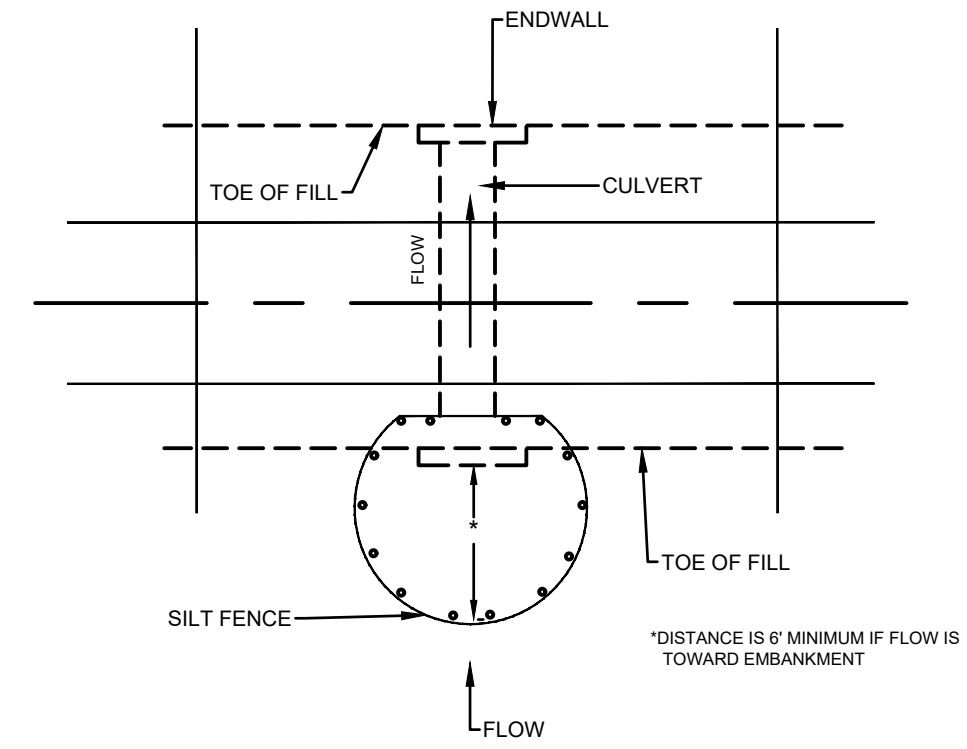
SOURCE: ADAPTED from 1983 Maryland Standards for Soil erosion and Sediment Control, and Va. DSWC

STONE CONSTRUCTION ENTRANCE
NOT TO SCALE PLATE 3.02-1 **CE**



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood & Wyant

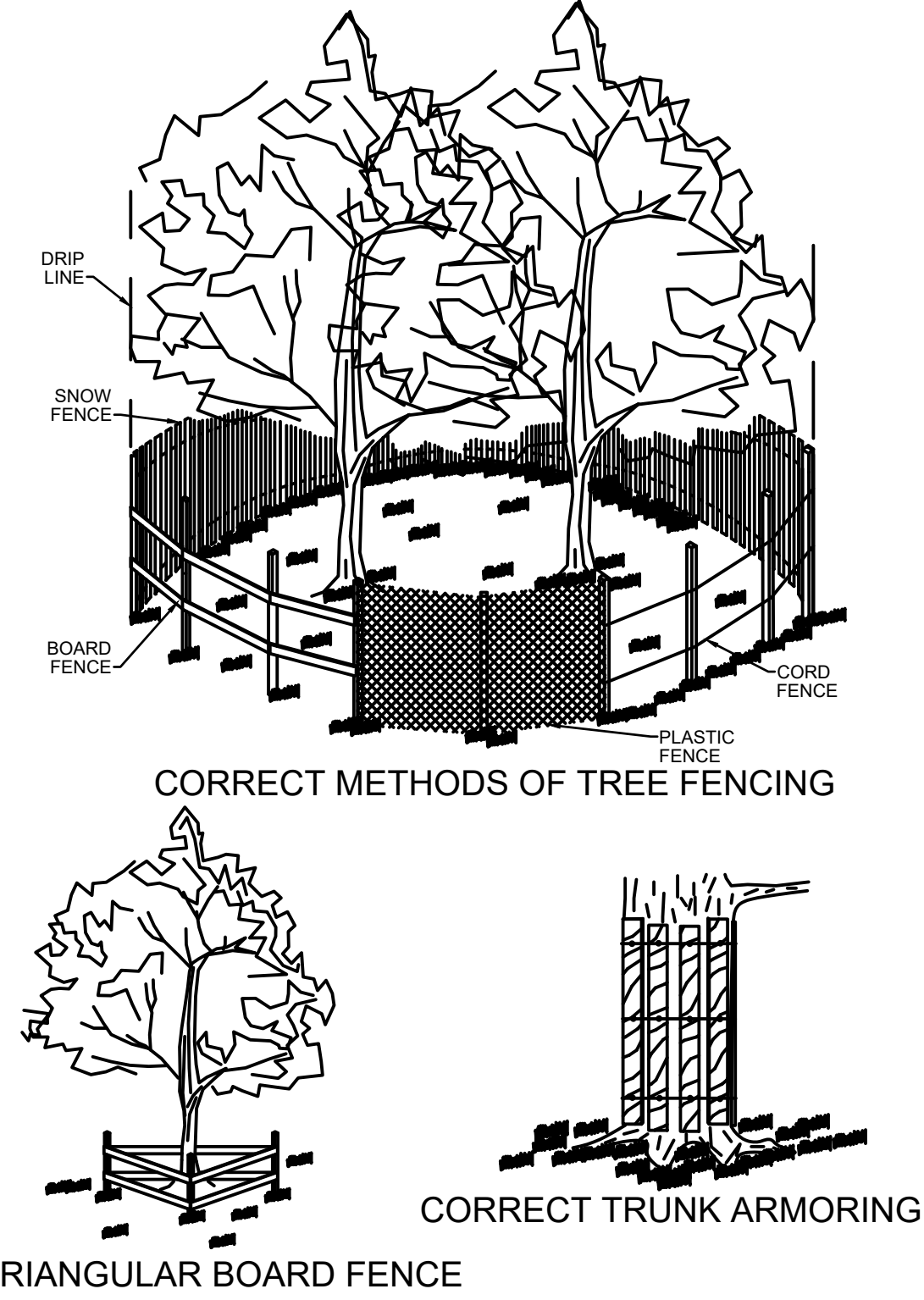
SILT FENCE
NOT TO SCALE PLATE 3.05-1 **SF**



SOURCE: ADAPTED from VDOT Standard Sheets and Va. DSWC

CULVERT INLET PROTECTION
NOT TO SCALE PLATE 3.08-1 **CIP**

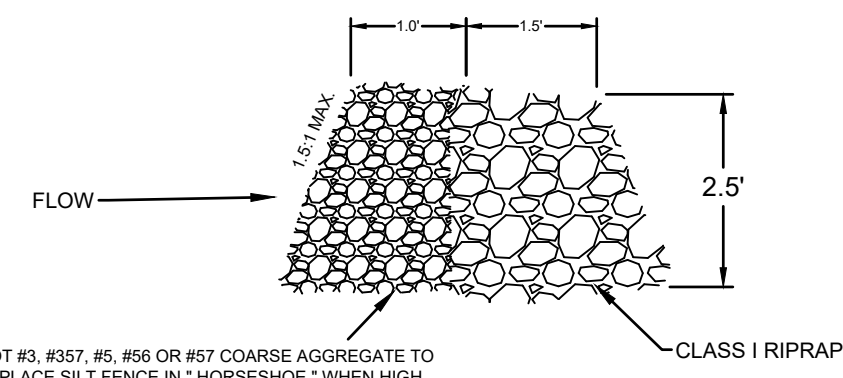
FENCING AND ARMORING



SOURCE: VA, DSCW

TREE PRESERVATION AND PROTECTION
NOT TO SCALE PLATE 3.38-2 **TP**

OPTIONAL STONE COMBINATION**



**VDOT #3, #37, #5, #58 OR #57 COARSE AGGREGATE TO REPLACE SILT FENCE IN "HORSESHOE" WHEN HIGH VELOCITY OF FLOW IS EXPECTED

100% DESIGN FOR REVIEW ONLY

FREDERICK WATER
DOUBLE TOLLGATE PUMP STATION

CLARKE COUNTY, VIRGINIA

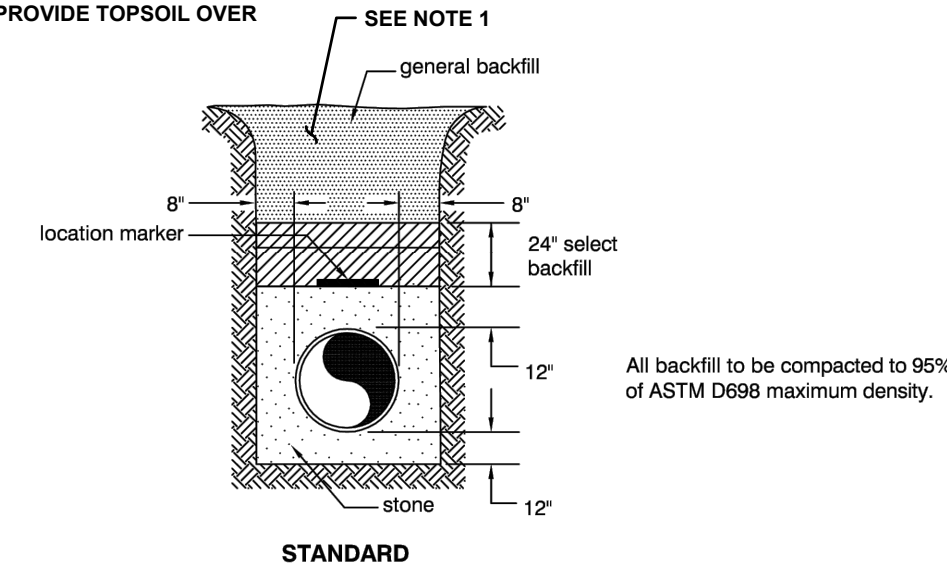
NO.	DATE	REVISION DESCRIPTION

COMM NO:	230044.10
DATE:	11/30/2023
DRAWN: CTS	DESIGN: MCP
CHECK: MCM	
SHEET TITLE	
EROSION & SEDIMENT CONTROL DETAILS	

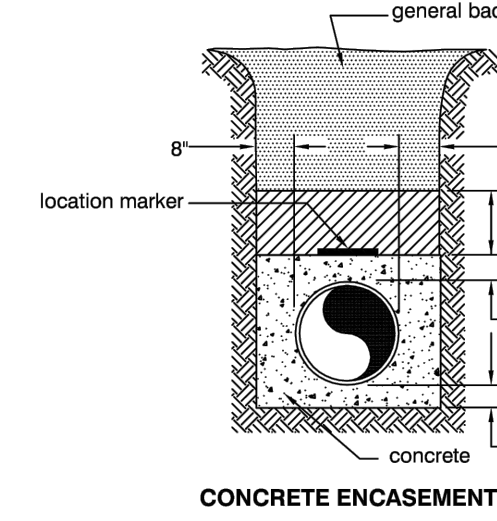
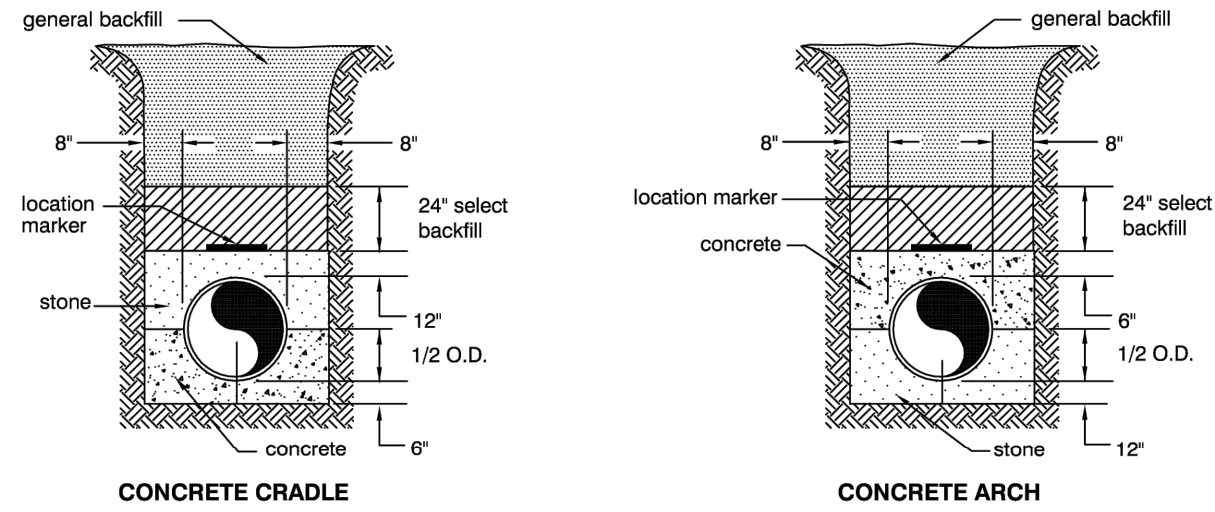
SHT. NO.	REV. NO.
C-402	0

1/18/2022 5:15 PM X:\2023\30044 FW Crooked Run WWPS\701 Double Tollgate Drawings\702 Civil\230044A19_C-402.dwg

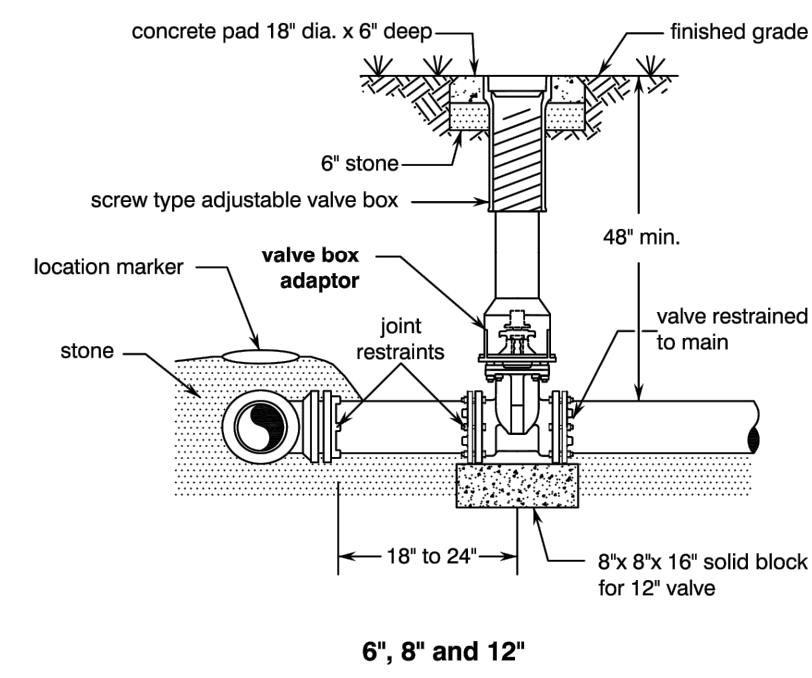
GENERAL NOTE:
1. TRENCHING IN THE VDOT RIGHT OF WAY SHALL HAVE 21A/21B SELECT BACKFILL TO WITHIN 6-INCHES OF THE SURFACE. PROVIDE TOPSOIL OVER TOP 6-INCHES.



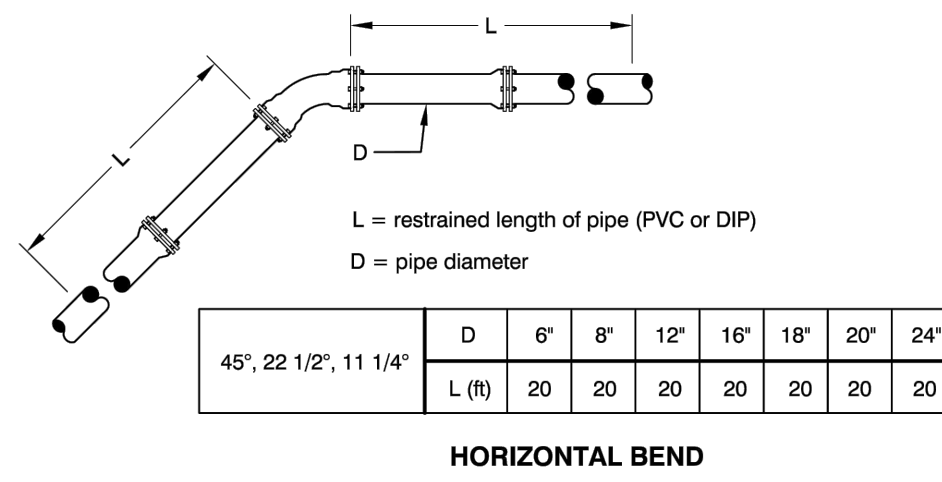
All backfill to be compacted to 95% of ASTM D698 maximum density.



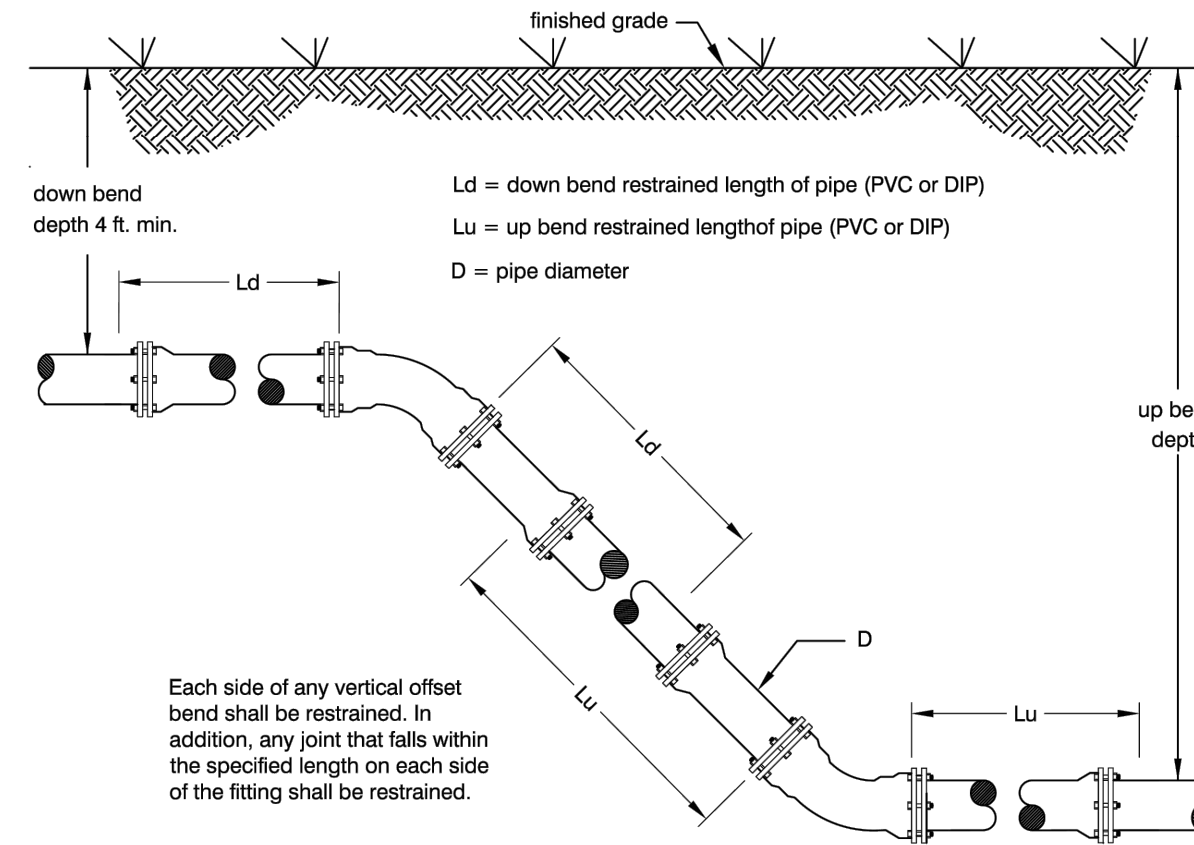
1 TRENCH BEDDING
NOT TO SCALE



2 PLUG VALVE
NOT TO SCALE



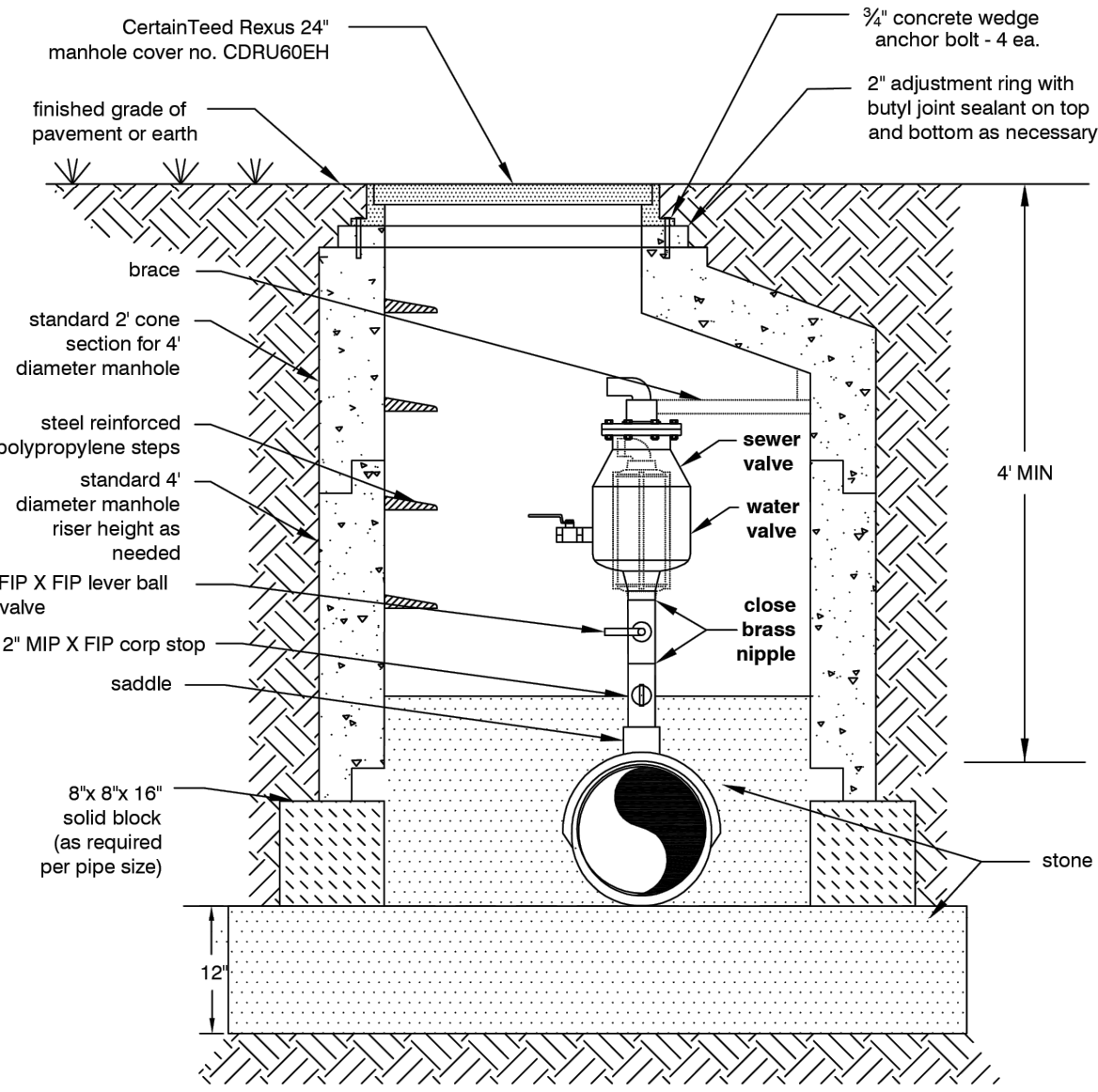
3 RESTRAINED JOINTS FOR TEE, CROSS, WYE, AND HORIZONTAL BEND
NOT TO SCALE



Each side of any vertical offset bend shall be restrained. In addition, any joint that falls within the specified length on each side of the fitting shall be restrained.

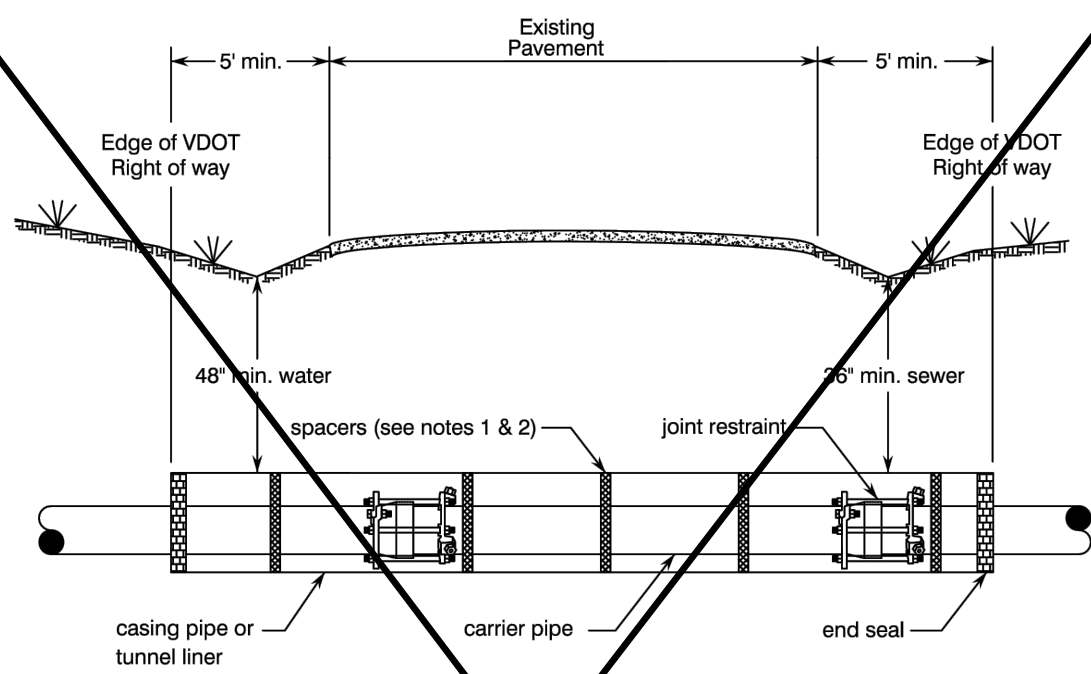
D	6"	8" & 12"	16", 18" & 20"	24"
45"	Ld (ft) 20	40	60	80
	Lu (ft) 20	20	20	20
22 1/2"	Ld (ft) 20	20	40	40
	Lu (ft) 20	20	20	20
11 1/4"	Ld (ft) 20	20	20	20
	Lu (ft) 20	20	20	20

4 RESTRAINED JOINTS FOR VERTICAL OFFSET
NOT TO SCALE



- NOTES:**
- All piping shall be 2" diameter
 - For forced sewer 4" or less in diameter install tee in main (no saddle)
 - water - Model 987 w/2" NPT connection
 - sewer - Model 988 steel body w/2" NPT connection
 - Brace shall be 1-1/2" X 1-1/2" X 3/16" aluminum angle w/bolt around elbow of valve

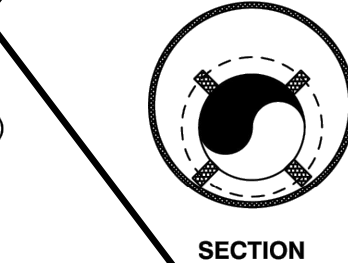
5 COMBINATION AIR RELEASE AND VACUUM VALVE VAULT
NOT TO SCALE



SIZES REQUIRED

CARRIER PIPE	CASING PIPE	
Dia. (inches)	Dia. (inches)	Wall Thickness (inches)
4 or less	12	.250
6	16	.250
8	18	.375
10	20	.375
12	24	.375
14	24	.375
15	24	.375
16	30	.500
18	30	.500
20	36	.500
21	36	.500
24	36	.500

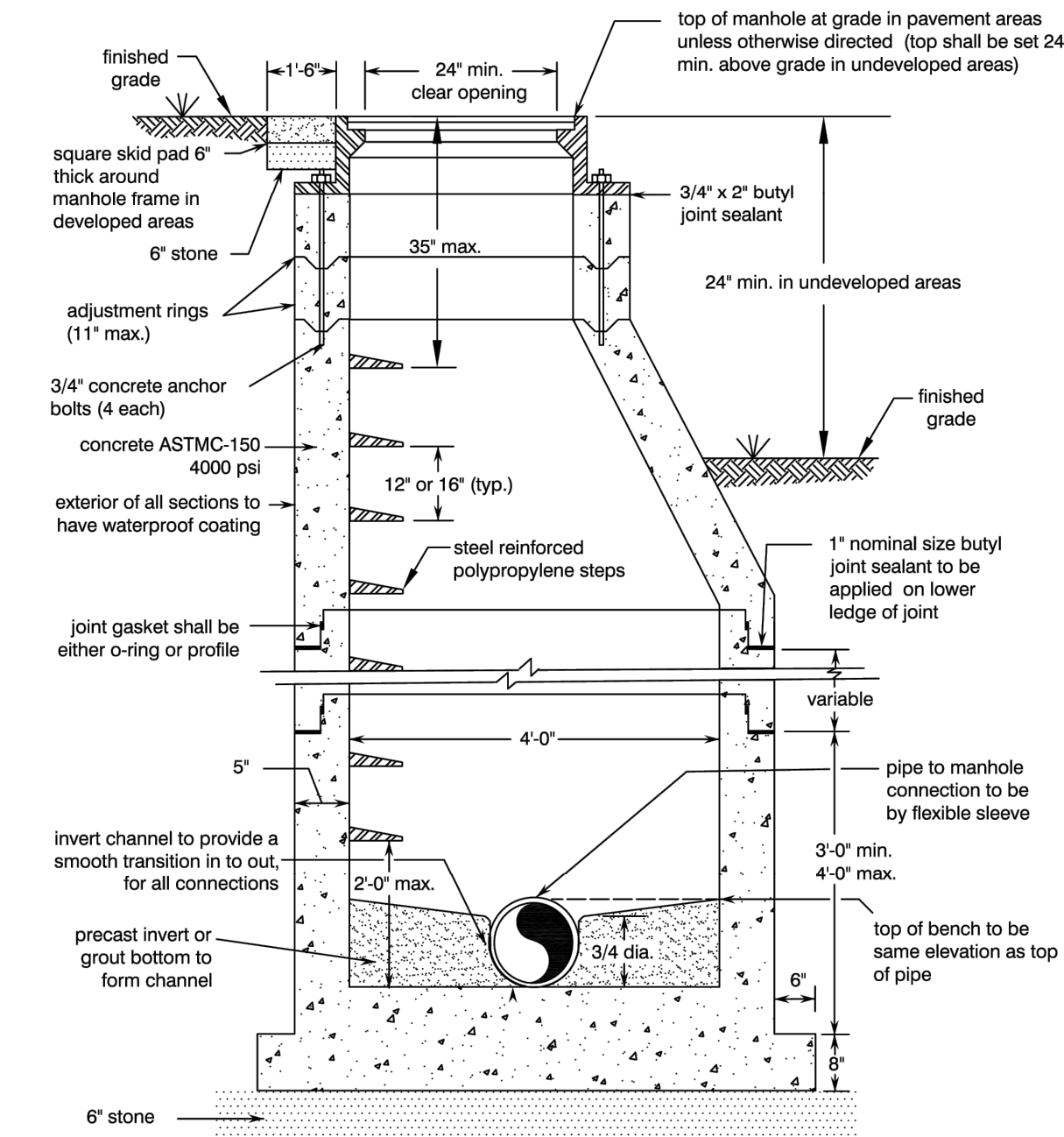
(for larger pipe use tunnel liner)



SECTION

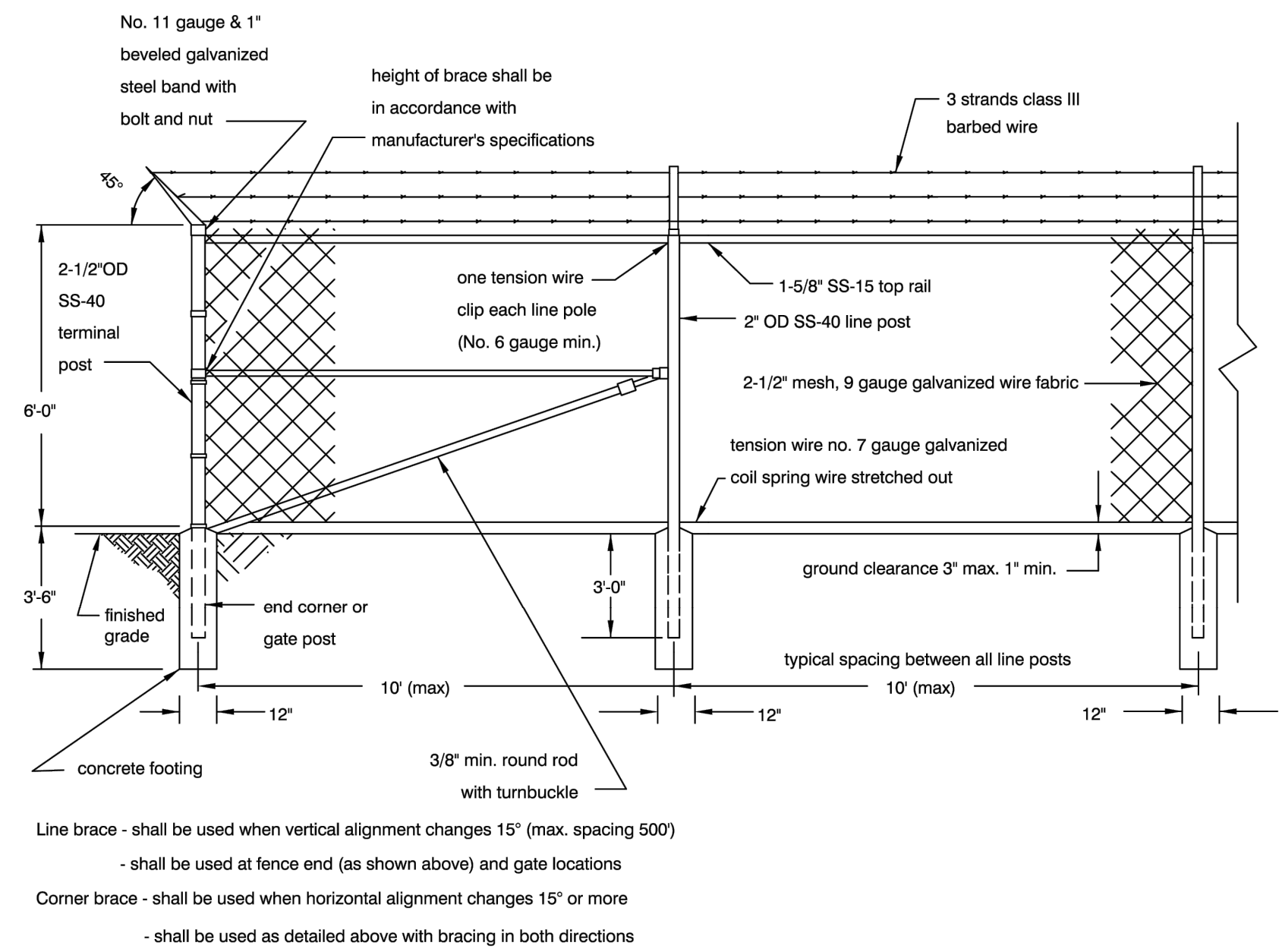
- NOTES:**
- Separation of carrier pipe from casing pipe shall be by manufactured steel and/or plastic casing spacers.
 - Spacers shall be placed on spigot end within 10 inches of connection to bell; then 2" spacers evenly placed on length of pipe.
 - Carrier pipe within the casing shall be restrained
 - Casing pipe shall be SCH 40 PVC or SDR 21
 - 1" 3" diameter pipe for 1" service lines
 - 6" diameter pipe for 2" service lines
 - Water service laterals
 - 1" 3" diameter pipe for 1" service lines
 - 6" diameter pipe for 2" service lines
 - No spacers or sand fill to be installed

6 JACK AND BORE ROAD CROSSING
NOT TO SCALE

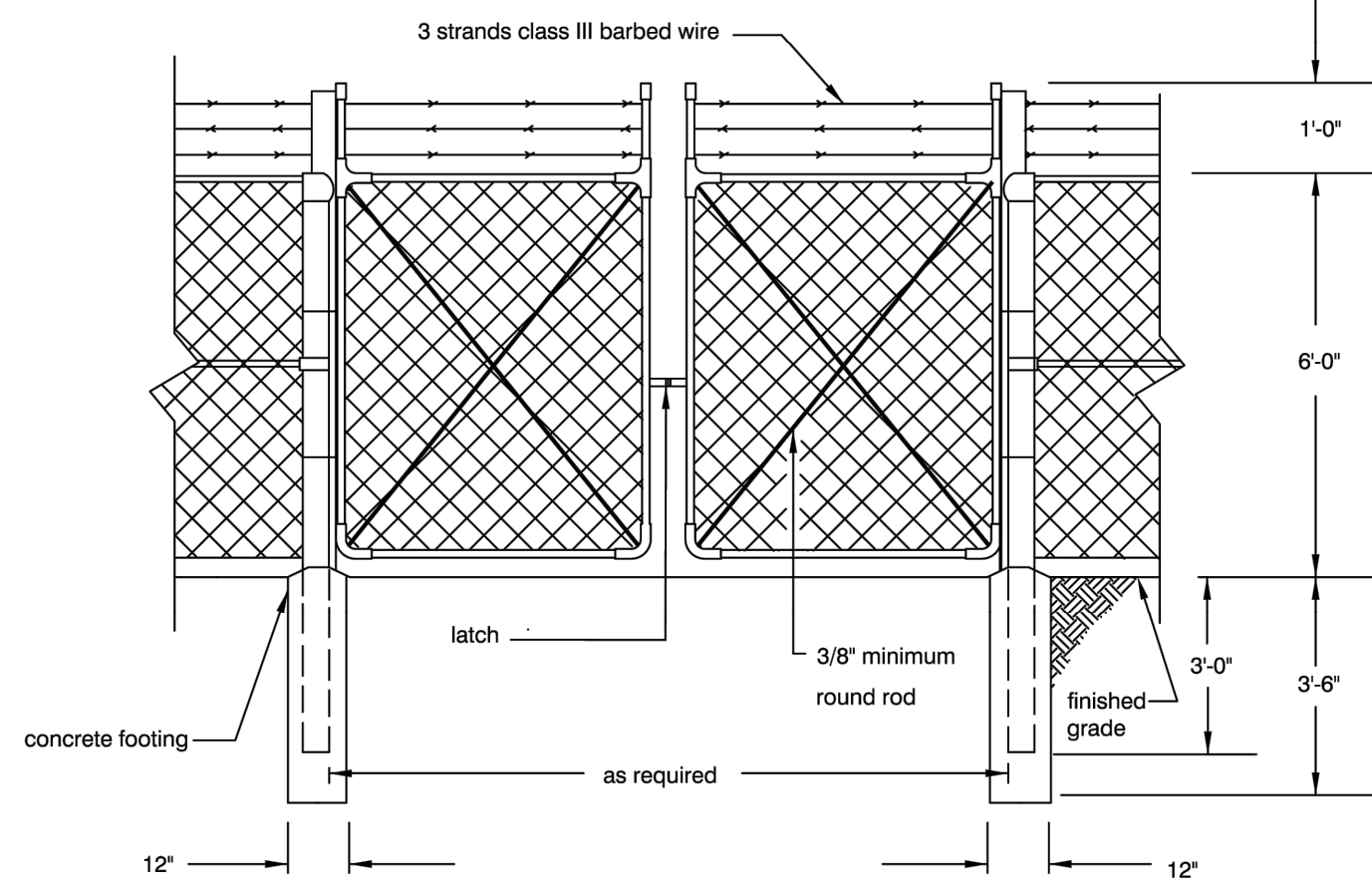


- NOTES:**
- Manhole sections shall have an external coating of approved polymer film water proofing prior to installation.
 - If adjustment elevation exceeds two inches use concrete adjustment rings with a exterior coating of water proofing.
 - Final slope adjustment of manhole frame shall be by shims and non-shrink grout.
 - Skid pad to be placed around manholes located in shoulders of roads.
 - Flat top shall be used if height from invert out to rim is four feet or less. Frame to be 4" in height.
 - There shall be a 0.20 foot drop in elevation through the manhole.

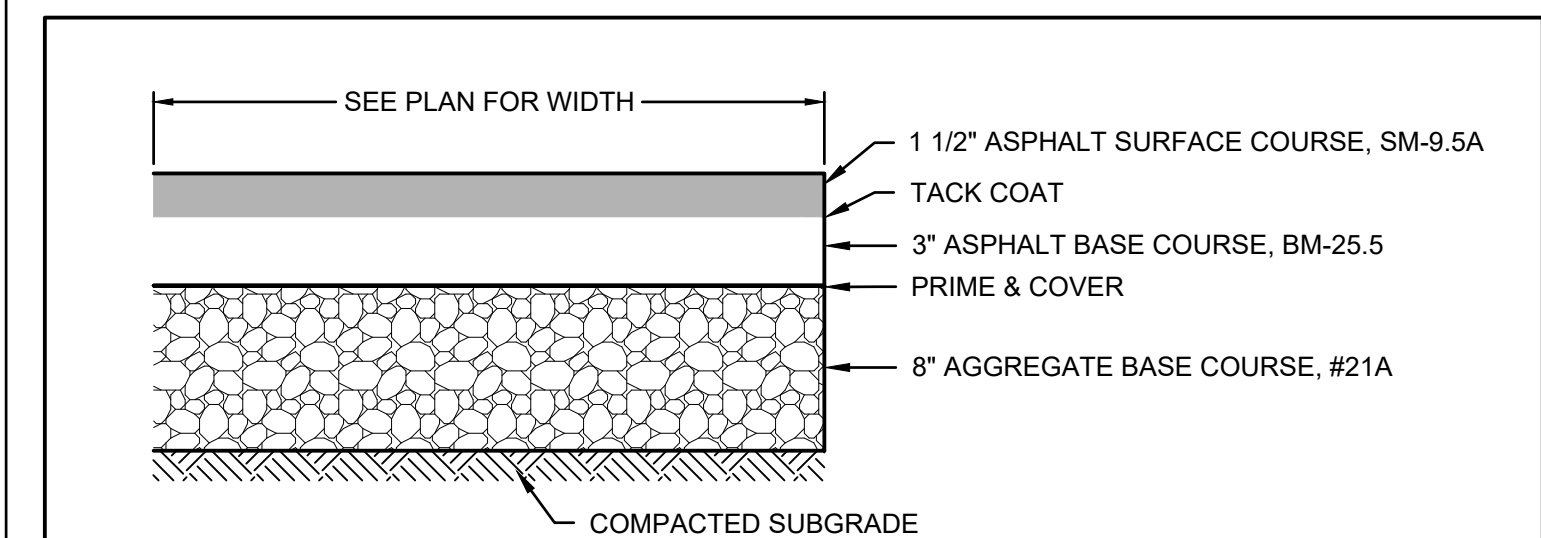
7 STANDARD MANHOLE
NOT TO SCALE



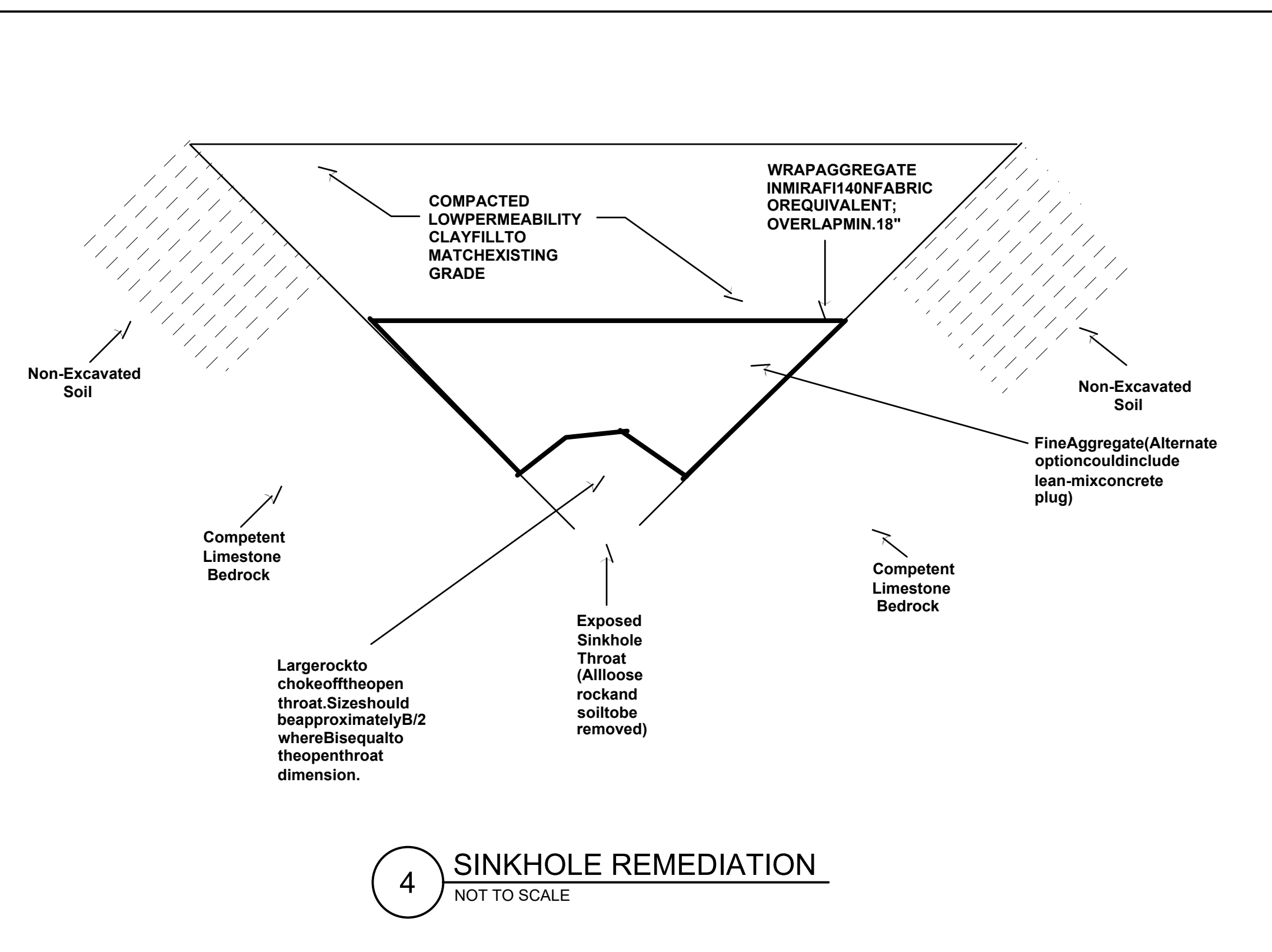
1 CHAIN LINK FENCE
NOT TO SCALE



2 DOUBLE SWING GATE
NOT TO SCALE



3 HEAVY DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE



4 SINKHOLE REMEDIATION
NOT TO SCALE

100% DESIGN FOR REVIEW ONLY

**FREDERICK WATER
DOUBLE TOLLGATE PUMP STATION**

CLARKE COUNTY, VIRGINIA

REVISION DESCRIPTION
DATE

COMM NO:	230044.10
DATE:	11/30/2023
DRAWN: CTS	DESIGN: MCP
CHECK: MCM	
SHEET TITLE	

CIVIL DETAILS

SHT. NO.	REV. NO.
C-502	0