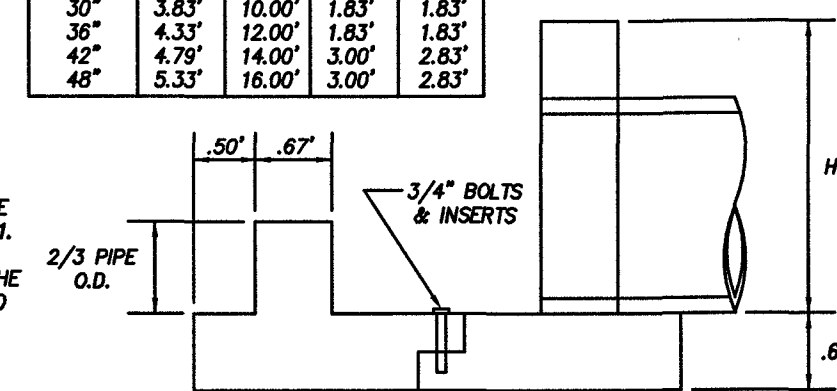


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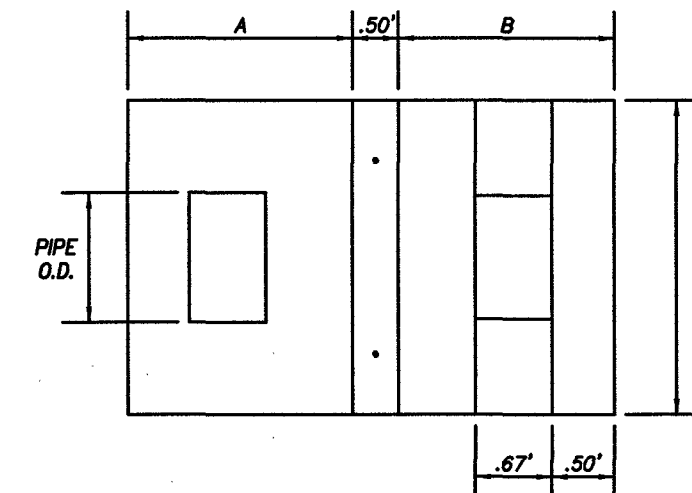
1. CONCRETE 4,000 P.S.I.
2. REINFORCING #4 @ 6" O.C. E.W. DOUBLE ROW THROUGHOUT.
3. FOUR (4) BOLTS AND INSERTS ARE REQUIRED FOR 42" AND 48" EW-1.
4. PLACE CLASS 1 RIP RAP ALONG THE PERIMETER OF THE STRUCTURE TO PREVENT SCOUR AND EROSION.

PIPE I.D.	H	L	A	B
12"	2.00'	4.00'	1.83'	1.83'
15"	2.25'	5.00'	1.83'	1.83'
18"	2.50'	6.00'	1.83'	1.83'
24"	3.17'	8.00'	1.83'	1.83'
30"	3.83'	10.00'	1.83'	1.83'
36"	4.33'	12.00'	1.83'	1.83'
42"	4.79'	14.00'	3.00'	2.83'
48"	5.33'	16.00'	3.00'	2.83'



EW-1 MODIFIED WITH ENERGY DISSIPATER "A"

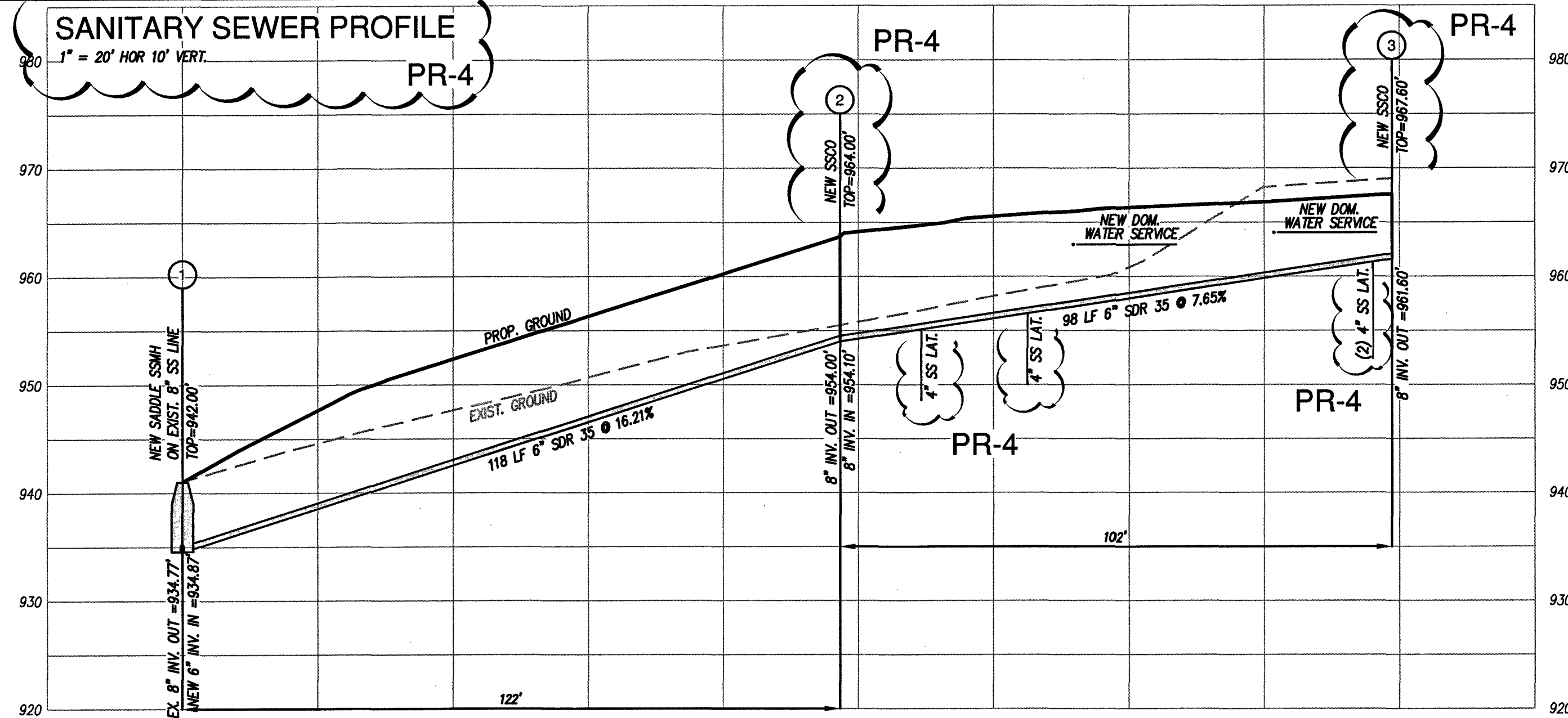
NO SCALE



**EW-1 DETAIL NOTE:**  
SEE ADDITIONAL DETAIL ON SHEET 7, "CONSTRUCTION DETAILS," THIS SET.

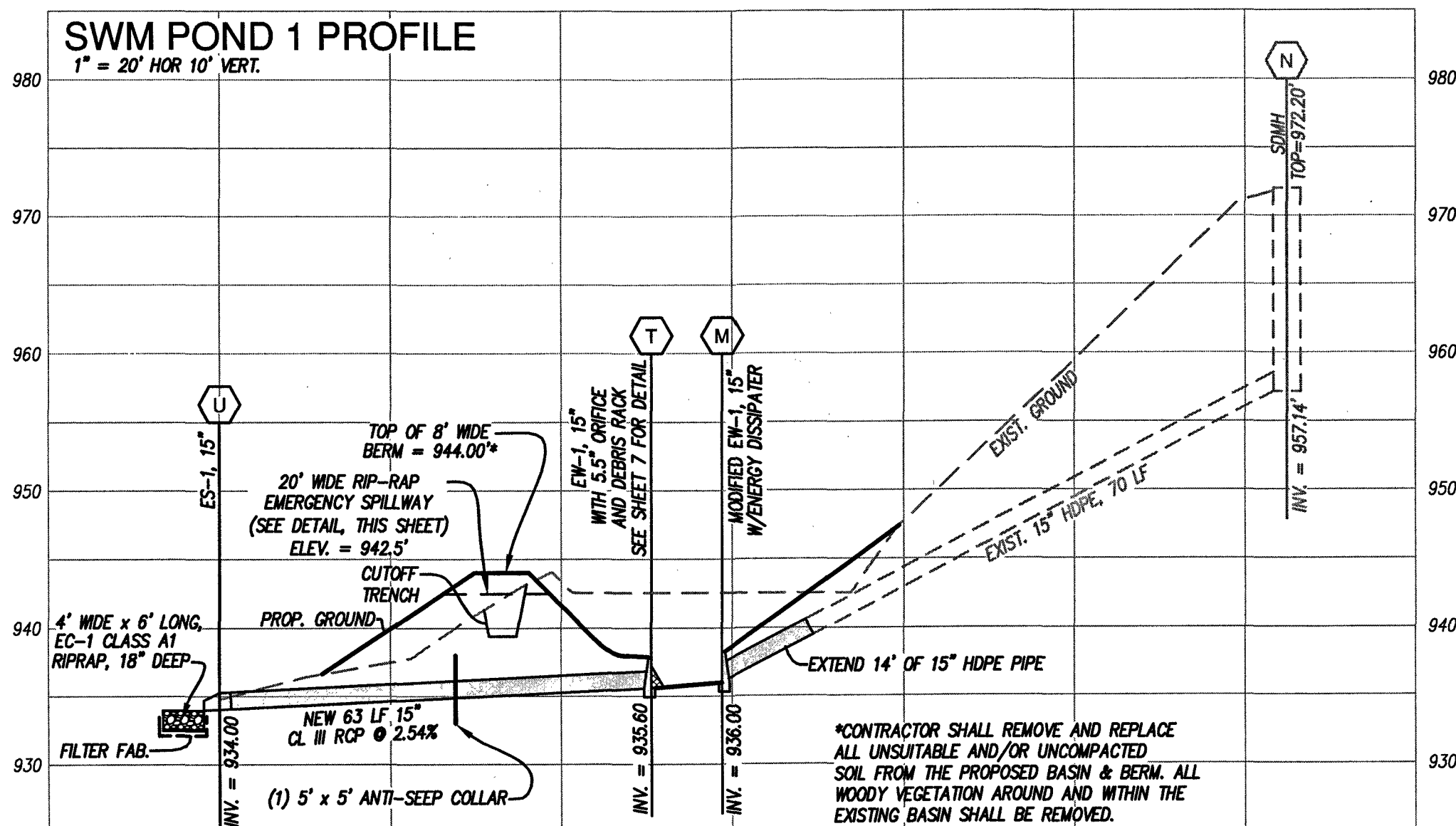
SANITARY SEWER PROFILE  
PR-4

1" = 20' HOR 10' VERT.



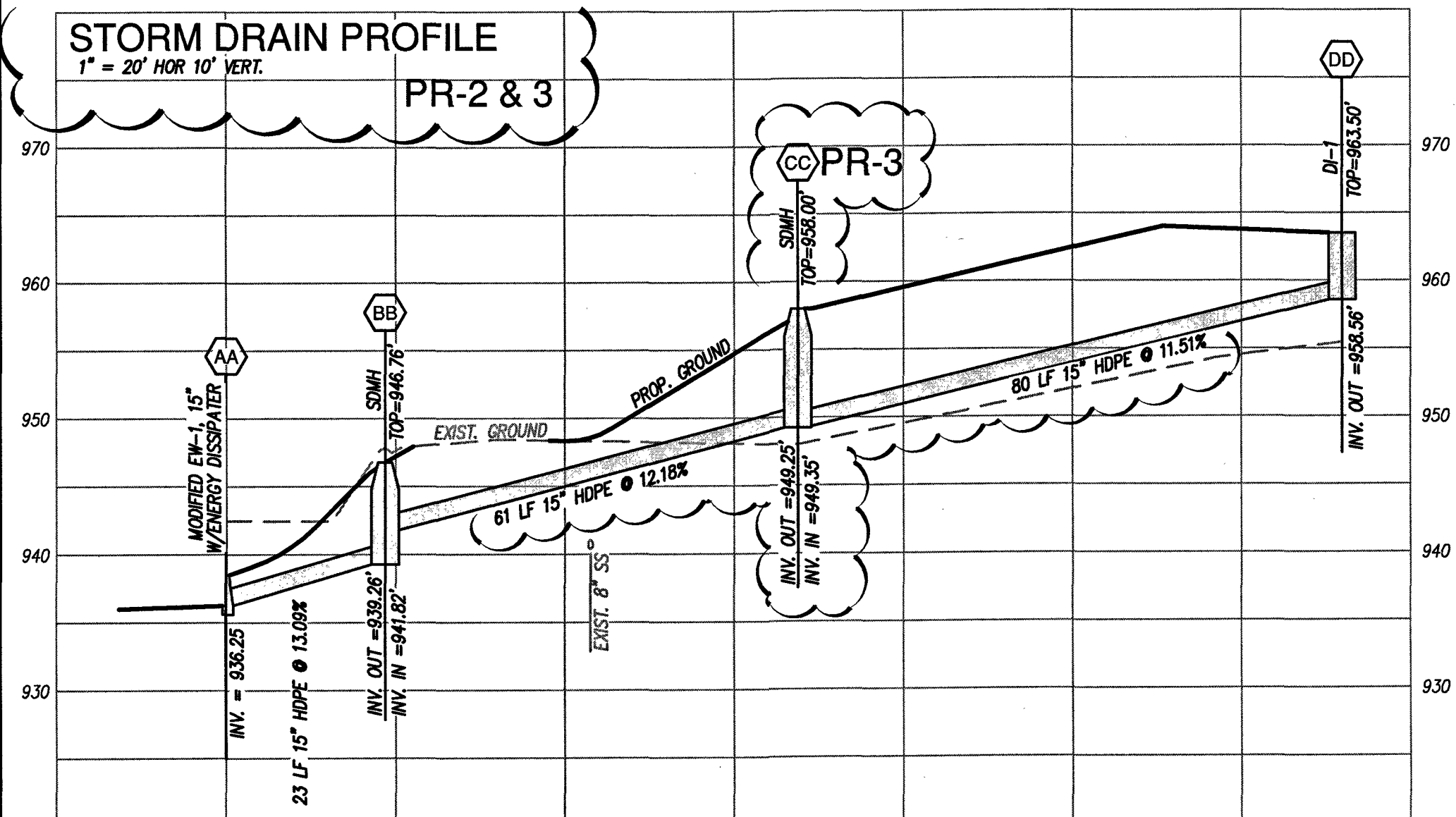
SWM POND 1 PROFILE

1" = 20' HOR 10' VERT.



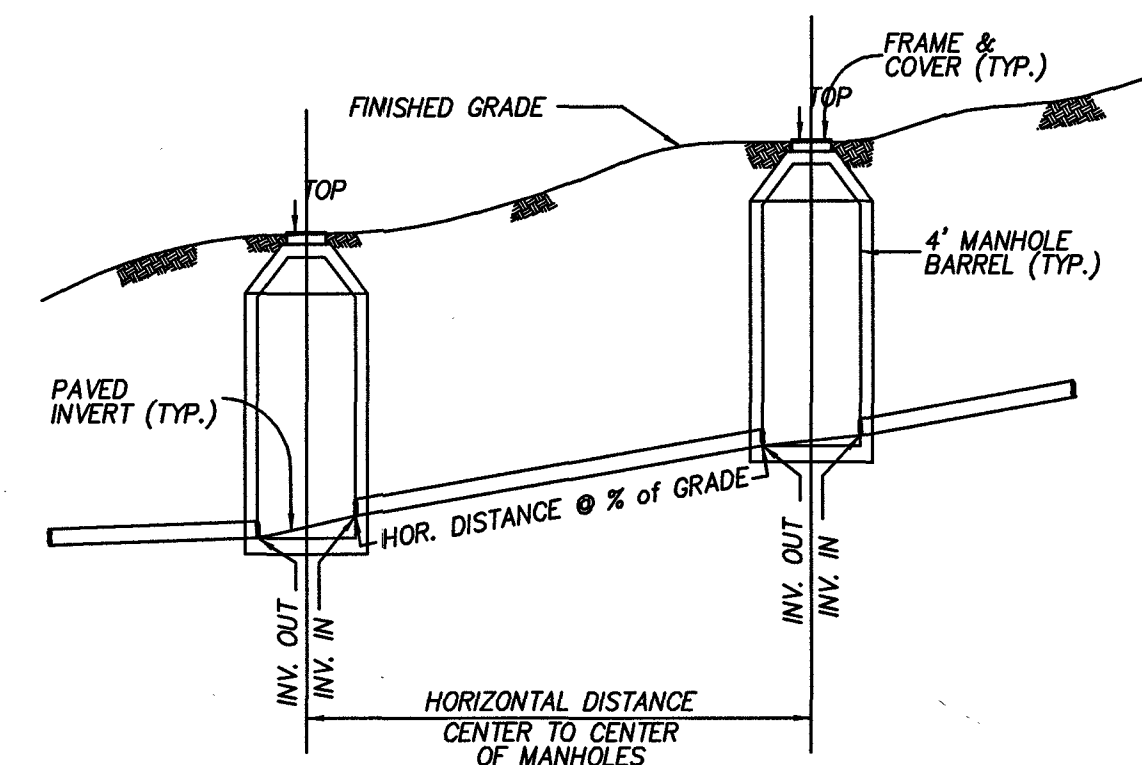
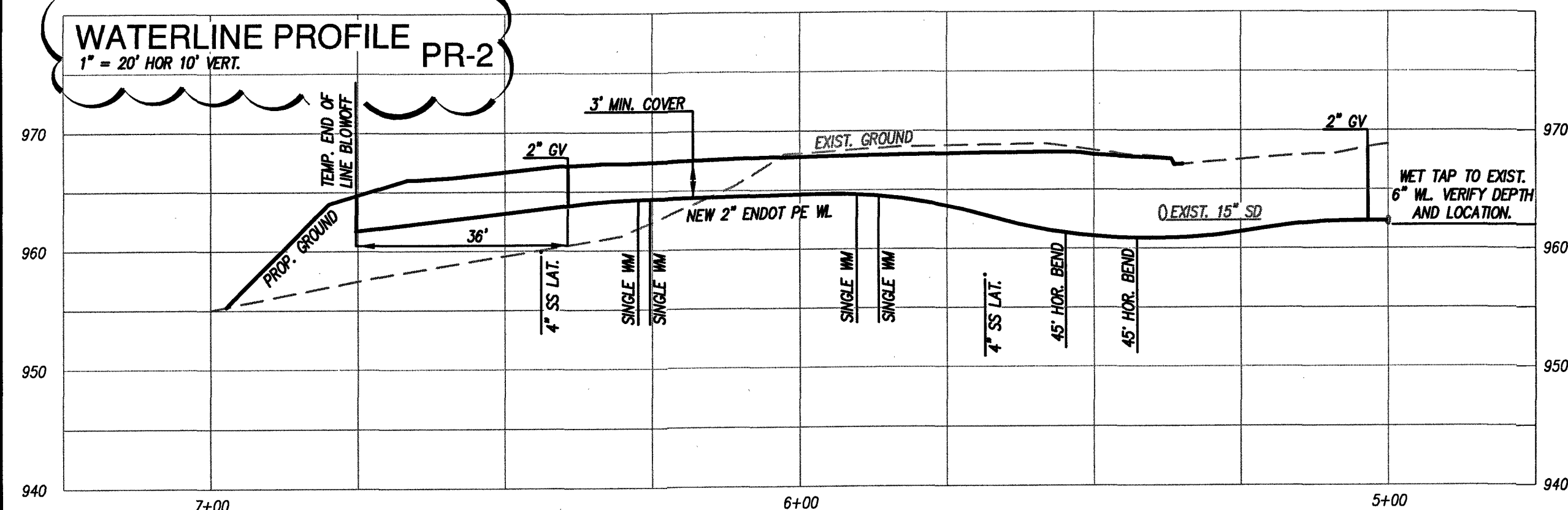
STORM DRAIN PROFILE

1" = 20' HOR 10' VERT.



WATERLINE PROFILE PR-2

1" = 20' HOR 10' VERT.

SANITARY SEWER  
HORIZONTAL AND SLOPE DISTANCE DETAIL

NO SCALE

## PLAN REVISION No. 1 (PR-1) NOTES:

- REMOVED CDS UNIT FROM PLANS.
- INLET "DD" WAS REVISED TO A DI-1 & LOWERED.
- RELOCATED ALIGNMENT OF NEW SS (1) THRU (3) AND ASSOCIATED SS EASEMENT.
- REVISED WATER LINE SIZE FROM 6" TO 2".

## PLAN REVISION No. 2 (PR-2) NOTES:

- RELOCATED BUILDINGS 9 & 10 WITH ASSOCIATED GRADING AND IMPROVEMENTS TEN FEET (10') TO THE WEST.
- RELOCATED ALIGNMENT OF NEW SS (1) THRU (3) AND ASSOCIATED SS EASEMENT.
- RELOCATED SD (BB) THRU (DD).
- EXTENDED WATER LINE TEN FEET (10') TO THE WEST.

## DETENTION BASIN NOTES:

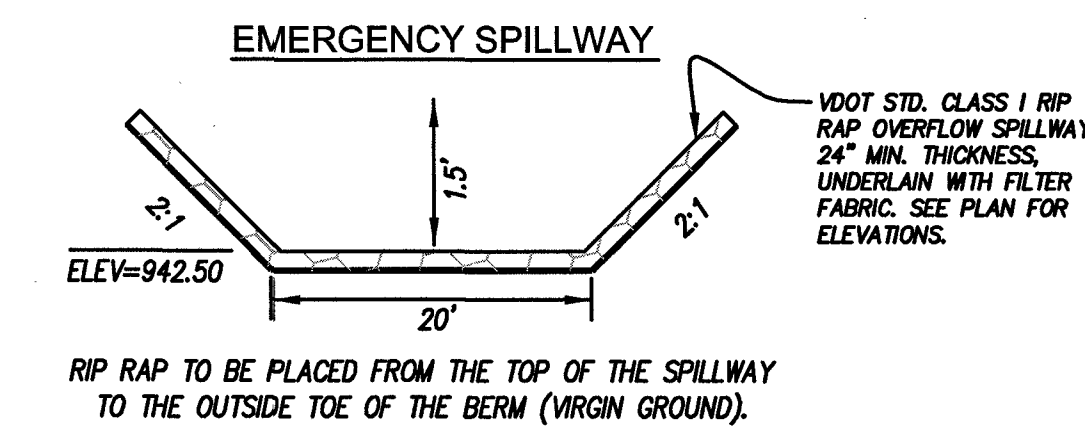
1. DESIGN AND CONSTRUCTION OF BASIN SHALL BE IN ACCORDANCE WITH VIRGINIA STORMWATER MANAGEMENT HANDBOOK LATEST ADDITION (VSMH) SEC 3.06.
2. BASIN SIDE SLOPES SHALL BE NO GREATER THAN 2 TO 1 (HORIZONTAL TO VERTICAL).
3. THE MINIMUM TOP WIDTH OF THE EMBANKMENT SHALL BE 8 FEET.
4. ON-SITE FILL MATERIAL OR BORROW FILL MATERIAL MAY BE UTILIZED IN ACCORDANCE WITH VIRGINIA STORMWATER MANAGEMENT HANDBOOK (VSMH) SEC 3.01.

## FILL MATERIAL SOILS, IN GENERAL:

1. SHALL BE COMPACTIBLE.
2. SHALL BE WITHIN AN ACCEPTABLE RANGE OF MOISTURE CONTENT WHICH IS READILY CONTROLLED SHALL NOT BE HIGHLY SUSCEPTIBLE TO VOLUME CHANGE (SHRINKAGE OR SWELL) OR SETTLEMENT.
3. THE FILL MATERIALS CONTAINING ROCKS LARGER THAN SIX (6) INCHES (15.2 CM) SHALL NOT BE USED. THE UPPERMOST TWO (2) FEET (61 CM) SHALL NOT HAVE ANY ROCK LARGER THAN TWO (2) INCHES (5.1 CM) IN DIAMETER.
4. THE APPROVED FILL SHALL BE PLACED IN EIGHT (8) INCH (20 CM) LOOSE LIFTS. EACH LIFT SHALL BE SPREAD IN UNIFORM LAYERS. FILL SOIL SHALL BE UTILIZED ONLY WITHIN A MOISTURE RANGE OF +/- 2% OF THE OPTIMUM MOISTURE CONTENT. COMPACTION OF THE FILL SHALL BE PERFORMED WITH APPROVED EQUIPMENT. COMPACTION OF THE LAYERS SHALL BE CONTINUOUS AND UNIFORM.
5. EMBANKMENT MATERIAL IN FILL AREAS SHALL BE PLACED IN LIFTS NOT EXCEEDING EIGHT (8) INCHES AND SHALL BE COMPACTED TO A MINIMUM 95% DENSITY IN ACCORDANCE WITH SECTION 303 OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS. CUTOFF TRENCH AND CORE MATERIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH VSMH SEC 3.01.
6. FIELD DENSITY TESTS ARE TO BE CONDUCTED BY AN INDEPENDENT SOILS TESTING LABORATORY UNDER THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER. THE RESULTS OF THESE TESTS SHALL BE SUBMITTED TO THE OWNER & FRANKLIN COUNTY. FIELD DENSITY TESTS, AS DIRECTED BY THE GEOTECHNICAL ENGINEER SHALL BE PERFORMED PERIODICALLY TO DETERMINE THE DEGREE OF COMPACTION. ANY AREAS FAILING TO MEET THE ABOVE REQUIREMENTS SHALL BE REWORKED AND/OR RECOMPACTED UNTIL THE REQUIRED DEGREE OF COMPACTION IS ACHIEVED.
7. ANTI-SEEP COLLARS OR FILTER DIAPHRAGMS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESC), LATEST EDITION AND VSMH.
8. ALL DISTURBED AREAS SHALL BE COVERED WITH FOUR (4) INCHES OF TOPSOIL AND SEEDED.
9. THE PERMITTEE/OWNER SHALL CONTACT FRANKLIN COUNTY FOR INSPECTION AND APPROVAL.

## GENERAL NOTES:

1. ALL STORM DRAINS AND STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED IN ACCORDANCE WITH VDOT STANDARDS.
2. ALL SANITARY SEWER AND WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH STATE AND LOCAL STANDARDS.
3. ALL WATER AND SANITARY SEWER LINES SHALL HAVE A MINIMUM OF 3.0 FEET OF COVER.
4. MAINTAIN A MINIMUM OF 18" CLEARANCE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE AT ALL WATER, SANITARY SEWER, AND STORM DRAIN CROSSINGS WHERE THIS CLEARANCE CAN NOT BE ACHIEVED, CONCRETE PIERS SHALL BE UTILIZED IN ACCORDANCE WITH THE VDMA WATER AND SANITARY SEWER STANDARDS.
5. SANITARY SEWER MAIN PIPE MATERIAL SHALL BE PVC, SDR-35, EXCEPT AS NOTED, OR APPROVED EQUAL.
6. NEW WATER LINE MAIN PIPE MATERIAL SHALL BE C900 PVC DR14, UNLESS OTHERWISE INDICATED, OR APPROVED EQUAL.
7. ALL NEW DROP INLETS AND STORM DRAIN MANHOLES SHALL HAVE VDOT STD. SL-1, INLET SHAPING.
8. ALL DRAINAGE STRUCTURES DEEPER THAN 4.0 FEET SHALL HAVE STEPS (VDOT STD. ST-1) INSTALLED.
9. SAFETY SLABS (VDOT STD. SL-1) ARE REQUIRED IN ALL DRAINAGE STRUCTURES WITH A DEPTH OF 12.0 FEET OR GREATER. THE SPACING OF THE SLABS SHOULD BE 8 TO 12 FEET WITH NO SAFETY SLAB LOCATED WITHIN 6 FEET FROM THE TOP OR BOTTOM OF THE STRUCTURE.
10. ALL NEW STORM DRAIN PIPE SHOWN ON THIS PLAN SHALL BE ADS N-12 HDPE EXCEPT WHERE OTHER CLASSIFICATIONS AND/OR MATERIALS ARE INDICATED.



RIP RAP TO BE PLACED FROM THE TOP OF THE SPILLWAY TO THE OUTSIDE TOE OF THE BERM (VIRGIN GROUND).