GENERAL NOTES

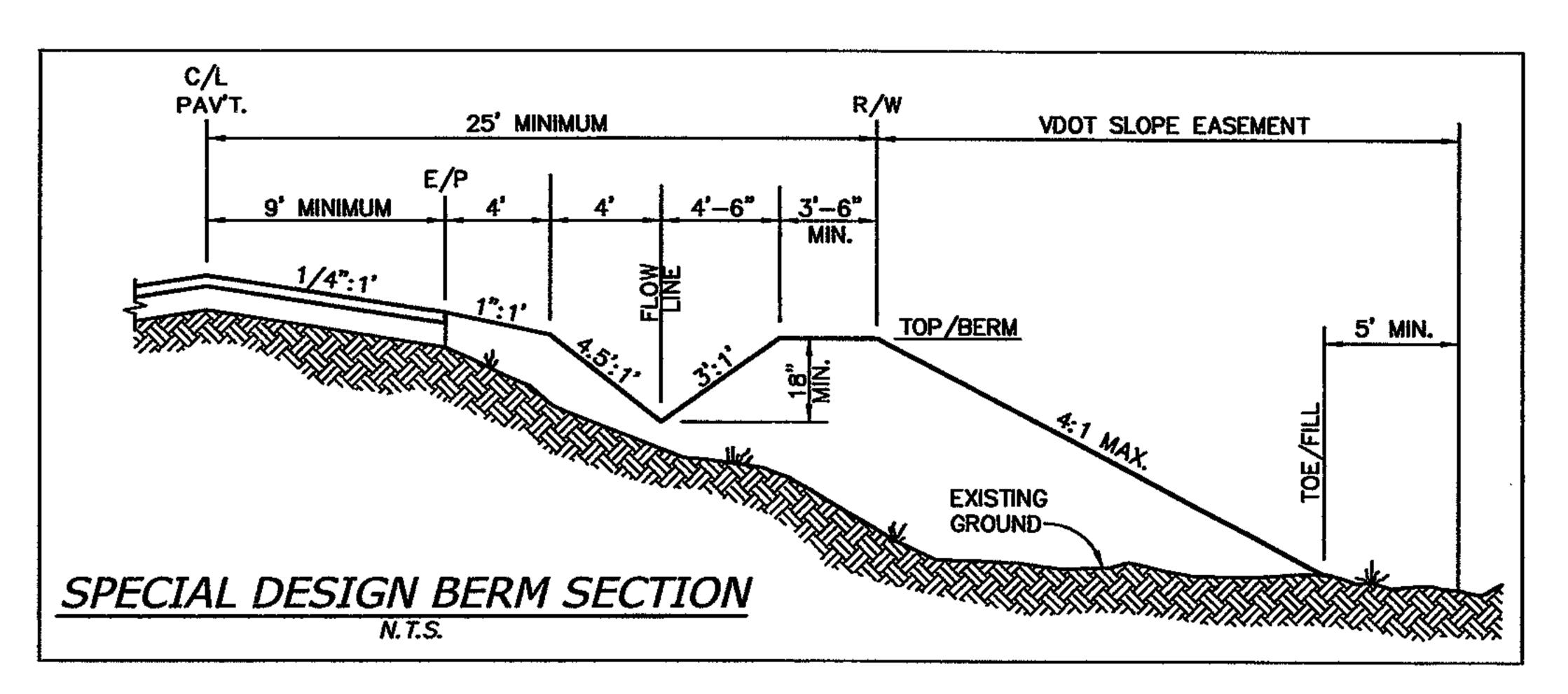
- FEBRUARY 1, 2001 EDITION OF ROAD AND BRIDGE SPECIFICATIONS AND FEBRUARY 1, 2001 EDITION OF THE ROAD DESIGNS AND STANDARDS OF THE VIRGINIA DEPARTMENT OF HIGHWAYS SHALL GOVERN THE FOLLOWING: A. POURING, CURING, FORMS, WORKMANSHIP, ETC. OF ALL CONCRETE USED ON THIS PROJECT.
- . STABILIZED BASE COURSE MATERIAL. MATERIALS AND INSTALLATION OF ALL PIPE CULVERTS.
- 2. THE VDOT APPROVAL OF THESE PLANS WILL EXPIRE THREE (3) YEARS FROM DATE OF APPROVAL.
- . OWNER WILL FURNISH SURVEY CONTROL OFF SET HUBS FOR ALL ROADS AND EASEMENTS FOR ALIGNMENT AND GRADE. ROADS WILL BE STAKED ON ONLY ONE SIDE. REPLACEMENT OF THESE HUBS AND ANY OTHER STAKING WILL BE DONE BY THE CONTRACTOR AT HIS EXPENSE. THE CONTRACTOR SHALL INSPECT THE CONTROL STAKING MENTIONED ABOVE AND VERIFY BEFORE CONSTRUCTION.
- 4. ALL GRADE STAKES DESTROYED BY THE CONTRACTOR, SHALL BE REPLACED AT HIS EXPENSE.
- 5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PRESERVE THE EXISTING RIGHT OF WAY STONES. ANY MARKERS DAMAGED SHALL BE REPLACED AT HIS EXPENSE.
- 6. CLEARING AND GRUBBING SHALL BE COMPLETE WITHIN THE RIGHT OF WAYS AS INDICATED ON LAYOUT PLAN.
- 7. ALL DRAINAGE EASEMENTS TO BE CLEARED, GRUBBED, AND GRADED TO CONTAIN WATER FROM PIPE CULVERTS AND TO EXTEND TO A NATURAL WATERCOURSE.
- 8. EXCESS EXCAVATION TO BE DISPOSED OF AS DIRECTED BY THE ENGINEER.
- 9. ALL FILLETS AT INTERSECTIONS TO HAVE 35' RADII UNLESS OTHERWISE NOTED.
- 10. GRADE LINES ON PROFILES DENOTE FINISHED GRADE OF CENTER LINE OF ROAD.
- '1. BASE MUST BE APPROVED BY VDOT FOR DEPTH, TEMPLATE, AND COMPACTION BEFORE SURFACE TREATMENT IS APPLIED.
- 12. SLOPE EASEMENTS FOR FILL SLOPES ARE REQUIRED WHERE SLOPES EXCEED PROPOSED RIGHT-OF-WAY LIMITS SHOWN.
- 13. PERMIT TO TIE INTO EXISTING ROADS, SHALL BE OBTAINED FROM RESIDENT ENGINEER PRIOR TO ROAD CONSTRUCTION.
- 14. ALL UTILITIES TO BE IN PLACE PRIOR TO LAYING BASE MATERIAL.
- ON ROAD CONSTRUCTION PLANS APPROVED BY VDOT OR SUCH STRUCTURES ARE COVERED BY A VDOT LAND USE PERMIT (OR BY A LETTER OF INTENT FROM THE RESIDENT ENGINEER TO ISSUE SAID PERMIT AT THE TIME OF STATE ACCEPTANCE).

SEWER AND WATER NOTES

- ALL MATERIALS FOR SEWER AND WATER SYSTEMS SHOWN SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST APPLICABLE SPECIFICATION OF PRINCE GEORGE COUNTY.
- ALL WORK SHALL BE SUBJECT TO INSPECTION BY UTILITY DEPARTMENT OFFICIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF APPROPRIATE COUNTY OFFICIALS 48 HOURS PRIOR TO START OF WORK.
- MINIMUM CLEAR COVER FOR ALL WATER PIPE SHALL BE 3.5 FEET.
- 4. THE UTILITY CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY HIGHWAY PERMITS AND SEND A COPY TO THE COUNTY PRIOR TO START OF CONSTRUCTION.
- ANY LOT WITH LESS THAN 50 FEET OF FRONTAGE SHALL HAVE FRONT CORNERS OR END OF 6' CONNECTION STAKED PRIOR TO CONSTRUCTION OF A 6' SEWER SERVICE.
- 6. SEWER PIPE SHALL BE PVC. ALL SEWER JOINTS SHALL BE CLASS A. BEDDING SHALL BE CLASS B MINIMUM; BEDDING SHALL BE AS SHOWN IN DETAIL ON SHEET 2.
- SEWER GRADES ARE BASED ON U.S.C. AND G. S. DATUM.
- 8. CONTRACTOR SHALL INSTALL 6" SEWER SERVICE CONNECTIONS TO ALL LOTS (R/W LINE OR EDGE OF EASEMENT)
- 9. ALL WATER SERVICES ARE TO BE COPPER, TYPE K, DRAWN TUBING.
- 10. THE CONTRACTOR WILL INSTALL ALL WATER CONNECTIONS AND METER BOXES.
- FIRE HYDRANT PUMPER CONNECTIONS SHALL FACE IN THE DIRECTION OF THE ARROW.
- 12. THE EXACT MANHOLE TOP SHALL BE ON THE SAME GRADE AS THE FINISHED ROAD GRADE AND AS NOTED ON SEWER CUT SHEETS.
- IT SHALL BE REMOVED AND ACCEPTABLE MATERIAL USED FOR BACKFILLING THE TRENCH.
- 14. THE ENGINEER WILL CERTIFY THAT THE ROADS ARE WITHIN 6" OF SUBGRADE BEFORE WATERLINE CONSTRUCTION CAN BEGIN.
- 15. FOR SEWER AND WATER INSTALLATION WITHIN EXISTING VDOT R/W; UTILITY CONTRACTORS MUST NOTIFY VDOT WHEN INSTALLATION BEGINS SO THAT DENSITY CAN BE TESTED (95% & OPTIMUM MOISTURE +20%).
- . CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY, IF: LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLAN, OR IF: THERE APPEARS TO BE A CONFLICT, AND UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLAN. TO MISS THE UTILITY CALL "MISS UTILITY" OF CENTRAL VIRGINIA: 1-800-552-7001 (TOLL FREE).
- 17. THE INSTALLATION OF BACK FLOW DEVICE IS REQUIRED IN ALL HOUSES WHERE THE FINISHED FLOOR ELEVATION IS LOWER THAN UPGRADE MANHOLES. THIS DEVICE WILL BE INSPECTED BY THE COUNTY BUILDING INSPECTOR.
- 8. INDIVIDUAL WATER SERVICES TO BE 3/4".
- 19. ALL WATERLINE VALVES MUST BE LOCATED ON THE TEE OR CROSS WHEN APPLICABLE.
- 20. ALL MANHOLES IN UTILITY EASEMENTS ARE TO HAVE THE CONCRETE SECTION EXTENDED ONE FOOT ABOVE THE GROUND.
- 21. A SMOOTH TRANSITION OF DROP MANHOLE MUST BE PROVIDED FOR EACH LATERAL OR SANITARY SEWER ENTERING A SANITARY MANHOLE.
- 22. ALL FIRE HYDRANTS SHALL BE O.S.H.A. RED IN COLOR.
- 23. METER BOXE'S PROVIDED SHALL BE CAST IRON 12"x18"x24" HIGH WITH CAST IRON LIDS. THE METER ASSEMBLIES ARE TO BE SUPPLIED WITH NEPTUNE PROREAD ARB SYSTEMS ATTACHED TO THE LID. METERS ARE TO BE COMPATIBLE WITH THE PROPOSED SYSTEM. A WAND TYPE VISUAL READER COMPATIBLE WITH ARB SYSTEM WILL BE SUPPLIED TO THE UTILITY DEPARTMENT WITH THE WATER METERS.
- 24. FIRE HYDRANTS ARE TO BE MUELLER TYPE BE INSTALLED USING TEES.
- 25. ALL SANITARY LATERALS THAT ARE LOCATED OUTSIDE OF THE RIGHT OF WAY ARE TO HAVE THE CLEANOUT INSTALLED TO THE EDGE OF THE EASEMENT. A CARSONITE MARKER SHALL ALSO BE INSTALLED TO INDICATE
- 26. ALL HYDRANTS SHALL BE EQUIPPED WITH A MUELLER HYDRANT DEFENDER, SECURING THE OPERATING NUT AND IT SHALL BE SUPPLIED WITH 4 CODED KEYS THAT WILL WORK WITH THEALL NOZZLE CAPS. THE CODED LOCK/KEY COMBINATION. KEYS SHALL BE SENT DIRECTLY TO THE COUNTY ENGINEER AT PRINCE GEORGE COUNTY.
- 27. ALL HYDRANTS AND BENDS SHALL BE EQUIPPED WITH MEGA LUGS.

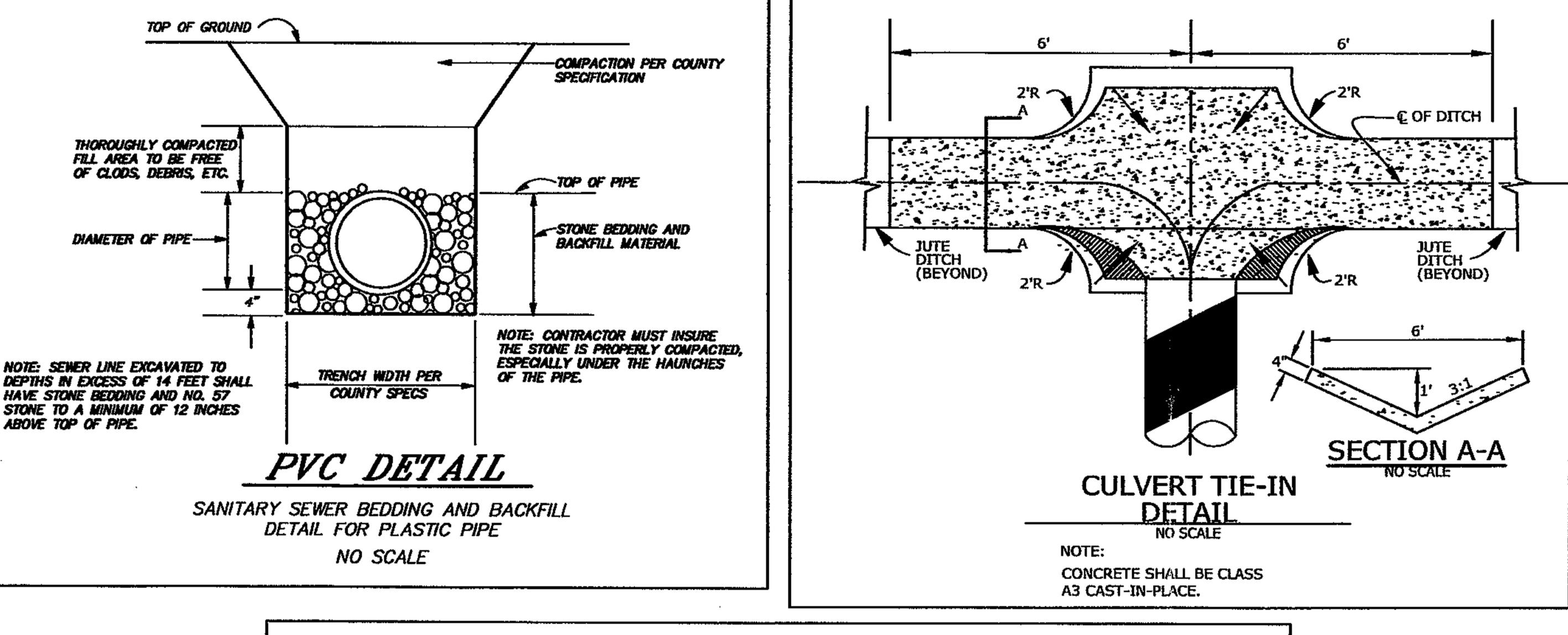
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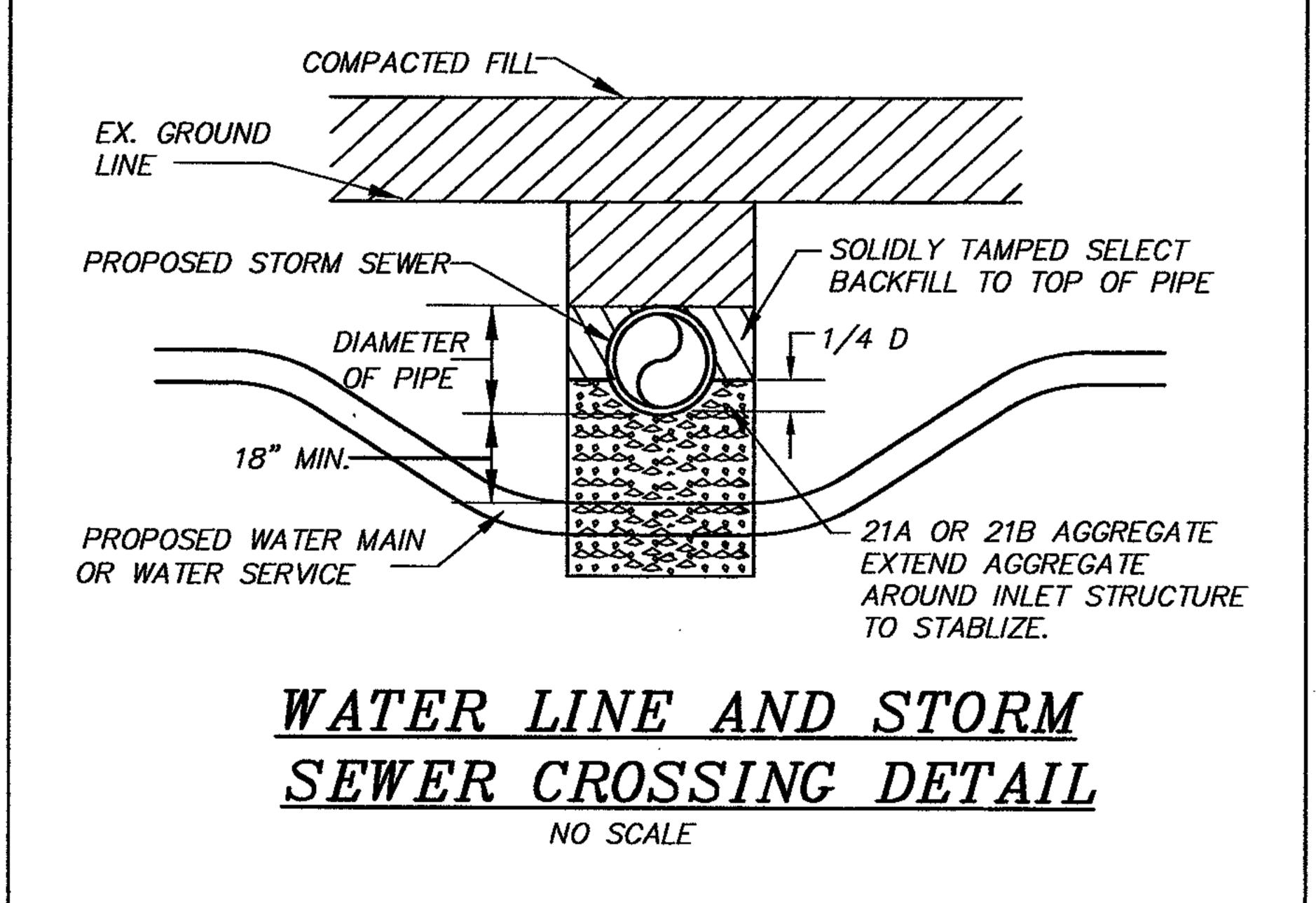
FROM THE UTILITY DEPARTMENT. IF ANY CHANGES ARE APPROVED, REVISED WATER AND/OR SEWER PLANS WILL BE SUBMITTED WITHIN 48 HOURS AFTER APPROVAL.



"X" Dimension to be maintained to the top of pipe. "X" Dimension to be maintained to the top of pipe. NORMAL EARTH FOUNDATION FOUNDATION SOFT, YIELDING, OR OTHER- May be eliminated under entrance pipe where directed by Engineer. ROCK FOUNDATION **WISE UNSUITABLE MATERIAL** PIPE PROJECTING ABOVE GROUND LINE FOUNDATION SOFT, YIELDING, OR OTHER-ROCK FOUNDATION WISE UNSUITABLE MATERIAL Culverts less than d=36" Filis up to 30' (No projection above ground line) Culverts where d=36" and over Bedding material in accordance with Section 302.02 of the Road and Bridge Specifications. Fills up to 30' (No projection of pipe above INSTALLATION OF PIPE CULVERTS AND STORM SEWERS PIPE BEDDING - METHOD "A" (FILLS UP TO 30')

NO PROJECTION OF PIPE ABOVE GROUND LINE





SANITARY SEWER SCHEDULE

	LINE TABLE		LINE TABLE (CON'T)				
LINE	DIRECTION	DISTANCE	17-16	S13°07'04"W	133.31		
2-1	N7817'21"W	392.95'	18–17	S06*30'14"E	304.75		
3-2	N05*01'34"W	221.68'	19-18	S83'29'46"W	200.00'		
4-3	N24°50'07"W	253.78'	20-18	N83°29'46"E	233.59'		
5-4	N47'29'24"W	174.11'	21-20	N83°29'46"E	166.41		
6-5	N76'17'43"W	174.11'	22-21	N83°29'46"E	206.21		
7-6	S74'53'57"W	248.23'	23-16	N71*51'57"W	305.03		
8-7	S19°20'44"E	127.15'	24-23	N69°53'04"W	262.76		
9-8	S08°50'37"E	204.17	25-24	S79°31'00"W	340.27		
10-9	S13'33'29"W	321.38'	26-25	S10°29'00"E	373.32		
11-7	S70°39'16"W	366.26	27-25	N10°29'00"W	234.50'		
12-2	S11"14'22"W	160.18'	28-27	N10°29'00"W	165.50'		
13-12	S18°34'03"W	400.00'	29-28	N10°28'18"W	400.00'		
14-13	S71°25'43"E	100.00'	30-29	N05"19"15"E	150.00'		
15-14	S71°25'43"E	305.59	31-30	N29°14'37"E	98.46'		
16-13	S18*34'17"W	322.79					

STORM SEWER SCHEDULE

- 1. PIPE LENGTHS ARE MEASURED FROM CENTER TO CENTER OF STRUCTURE
- 2. VDOT STD. ST-1 STEPS ARE REQUIRED FOR ALL STRUCTURES WITH A HEIGHT GREATER THAN OR EQUAL TO 4.0 FT.
- 3. ALL DI-5 GRATE TOPS ARE TO BE TYPE A III

71.00 LF OF 15" CLASS IV RCP @ 0.50 %

36.00 LF OF 15" CLASS IV RCP @ 0.50 %

40.00 LF OF 18" CLASS III RCP @ 1.20 %

345.61 LF OF 24" CLASS III RCP @ 0.50 % INV. IN=99.42, INV. OUT=97.69

406.66 LF OF 24" CLASS III RCP @ 1.28 %

40.00 LF OF 18" CLASS III RCP @ 1.80 %

225.00 LF OF 18" CLASS III RCP @ 3.10 %

154.93 LF OF 18" CLASS III RCP @ 3.22 %

225.00 LF OF 24" CLASS III RCP @ 3.18 %

INV. IN=83.6, INV. OUT=76.45, W/ES-1

50 LF OF 18" CLASS III RCP @ 1.00 %

INV. IN=108.09, INV. OUT=107.75

INV. IN=108.11, INV. OUT=107.93

INV. IN=100.00, INV. OUT=99.52

DI-5, TOP=103.00, H=3.00

DI-5, TOP=103.00, H=3.58

MH-1, TOP=102.50, H=7.00'

DI-5, TOP=100.40, H=3.80'

DI-5, TOP=100.40, H=4.62'

MH-1, TOP=95.50, H=6.80

DI-7, TOP=89.00, H=5.40

DI-5, TOP=96.78, H=7.85

INV. IN=88.93, INV. OUT=88.43

INV. IN=96.60 INV. OUT=95.88

INV. IN=95.78, INV. OUT=88.80

INV. IN=88.70, INV. OUT=83.70

INV. IN=95.50, INV. OUT=90.30

116.00 LF OF 24" CLASS III RCP @ 0.50 % INV. IN=88.33, INV. OUT=87.75 DI-5, TOP=96.30, H=10.70

> INV. IN=85.60, INV. OUT=80.00 MH-1, TOP=85.50, H=7.10

60 LF OF 15" CLASS III RCP @ 8.33 % INV. IN=78.40, INV. OUT=73.40

28.24 LF OF 18" CLASS III RCP @ 0.32 % INV. IN=101.87, INV. OUT=101.78 NO STRUCTURE

81.07 LF OF 15" CLASS III RCP @ 6.91 %

DI-5, TOP=91.30, H=4.68

46.89 LF OF 15" CLASS III RCP @ 8.15% DI-7, TOP=94.00, H=3.80INV. IN=86.62 INV. OUT=82.80 235.00 LF OF 24" CLASS III RCP @ 2.00 % INV. IN=90.20, INV. OUT=85.50, W/ ES-1

83.27 LF OF 18" CLASS III RCP @ 3.00 % INV. IN=97.34, INV. OUT=94.84

DI-5, TOP=98.50, H=8.85

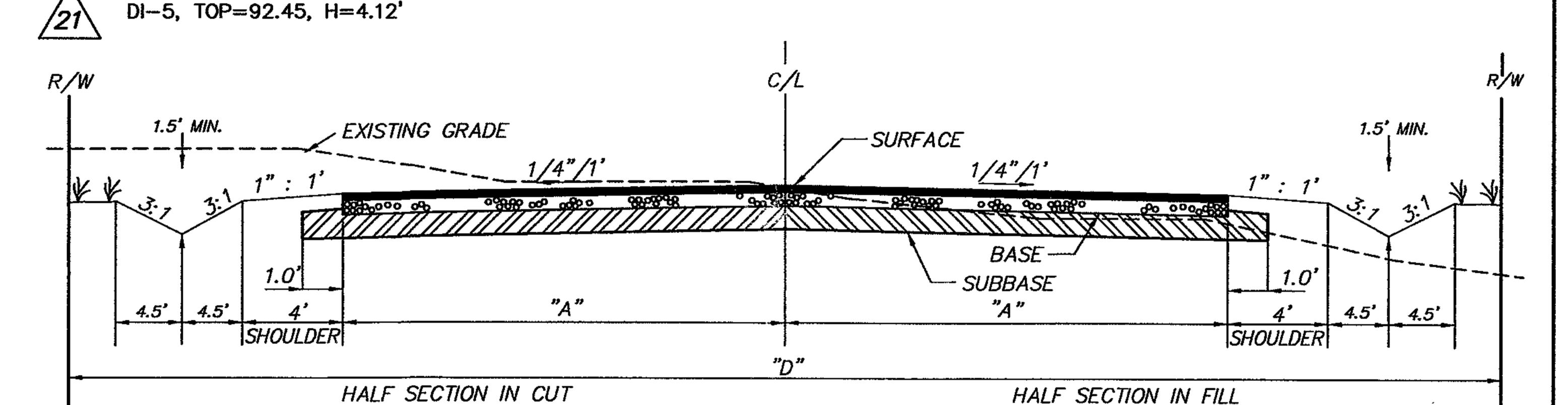
55.00 LF OF 24" CLASS III RCP @ 0.69 % INV. IN=89.65 INV. OUT=89.27

DI-5, TOP=95.62, H=6.45'

60.00 LF OF 18" CLASS III RCP @ 11.37 % INV. IN=96.20 INV. OUT=89.38 134.00 LF OF 24" CLASS III RCP @ 2.24 %

INV. IN=89.17 INV. OUT=85.92 44.00 LF OF 24" CLASS IV RCP @ 0.50 % INV. IN=106.81 INV. OUT=106.59

83.00 LF OF 15" CLASS III RCP @ 0.50 % INV. IN=108.83 INV. OUT=108.44



NOTE: WHERE DITCHES ARE DEEPENED 1 TYPICAL ROAD SECTION ACCOMODATE CULVERTS, THE SLOPE SHALL BE MAINTAINED @ 7:1, THEREBY ALL OTHER ROADS MOVING THE DITCH LOCATION FURTHER THAN 20' FROM C/L.

BE INSTALLED WHERE REQUIRED BY VDOT HALF SECTION IN CUT HALF SECTION IN FILL

* 1:1/2:1 SLOPES REQUIRES VDOT WITH ADEQUATE SLOPE PRO— TECTION, SUITABLE SOILS AND WHERE A HARDSHIP IS DEMON—

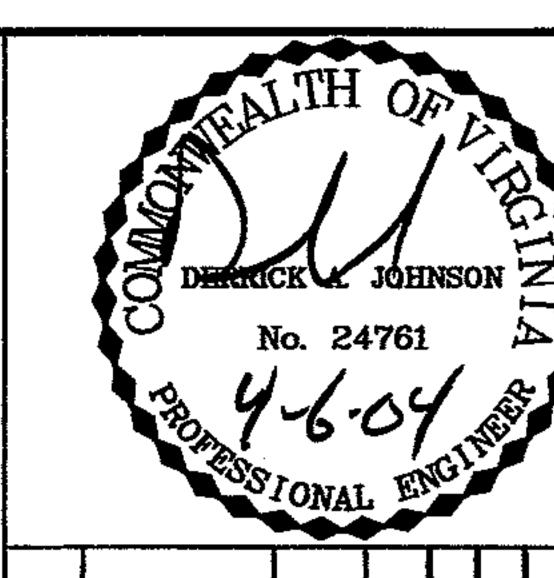
TYPICAL ROAD SECTION BRICKHOUSE BLVD

NOTE: V.D.O.T. STANDARD CD-1 & CD-2 UNDERDRAINS SHALL BE INSTALLED

CD-1 & CD-2 UNDERDRAINS SHALL

			RO	DAD CLASSI	IFICATIONS		
ROAD	VPD	CATEGORY		PAVEMENT DESI	GN	"A"	"C"
STA. TO STA.	VI D	CAILGONI	SUBBASE	BASE	SURFACE	PVM'T. WIDTH (C/L - E/P)	R/W WIDTH
BRICKHOUSE BOULEVARD STA. 0+00 TO STA. 4+00	820	Ш	6" 21-B	4" BM-25.0	1-1/2" SM-9.5A	SEE SECTION (ABOVE)	80'
BRICKHOUSE WAY STA. 30+00 TO STA. 41+00	360			8" 21-B	2" SM-9.5A	11'	50'
BRICKHOUSE WAY STA. 41+00 TO STA. 51+50	190	T		6* 21-B	2" SM-9.5A	11'	50'
BRICKHOUSE CIRCLE STA. 57+25 TO STA. 59+75	50	1		6" 21-B	2" SM-9.5A	11'	50'
BRICKHOUSE LANDING STA. 59+75 TO STA. 65+75	100	I		6" 21-B	2" SM-9.5A	11'	50'
BRICKHOUSE COURT STA. 0+00 TO STA. 3+40	30	T		6" 21-B	2" SM-9.5A	11'	50'
BRICKHOUSE LANE STA. 6+00 TO STA. 13+50	250	I		6" 21-B	2" SM-9.5A	11'	50*
BRICKHOUSE LANE STA. 13+50 TO STA. 30+00	390	II		8" 21-B	2" SM-9.5A	11'	50'
BRICKHOUSE PLACE STA. 0+00 TO STA. 4+00	50	I		6" 21-B	2" SM9.5A	11'	50'
BRICKHOUSE TERRACE STA. 4+00 TO STA. 10+50	80	I		6" 21-B	2" SM-9.5A	11'	50'

NOTES: 1) ALL ROADS TO HAVE A MAXIMUM POSTED SPEED LIMIT OF 25 M.P.H.



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07-10-2003 DRAWN BY

L. GILLIAM DESIGNED BY D. JOHNSON CHECKED BY D. JOHNSON