MISS UTILITY OF VIRGINIA:

THE CONTRACTOR SHALL CALL "MISS UTILITY" 48 HOURS PRIOR TO THE START OF EXCAVATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL WITHIN THE EXISTING AND/OR RIGHT OF WAY REQUIRED BY THE DEVELOPMENT. CONTACT MISS UTILITY OF VIRGINIA: 1-800-552-7001 (TOLL FREE)

GENERAL NOTES

THE CONTRACTOR SHALL INSPECT THE CONTROL STAKING MENTIONED ABOVE AND VERIFY BEFORE CONSTRUCTION.

ALL GRADE STAKES DESTROYED BY THE CONTRACTOR, SHALL BE REPLACED AT HIS EXPENSE.

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.

ALL DRAINAGE EASEMENTS TO BE CLEARED, GRUBBED, AND GRADED TO CONTAIN WATER FROM PIPE CULVERTS AND TO EXTEND TO A NATURAL WATERCOURSE.

EXCESS EXCAVATION TO BE DISPOSED OF AS DIRECTED BY THE OWNER.

7. ALL FILLETS AT INTERSECTIONS TO HAVE 35' RADII UNLESS OTHERWISE NOTED

GRADE LINES ON PROFILES DENOTE FINISHED GRADE OF CENTER LINE OF ROAD.

BASE MUST BE APPROVED BY VDOT FOR DEPTH, TEMPLATE, AND COMPACTION BEFORE SURFACE TREATMENT IS APPLIED.

PERMIT TO TIE INTO EXISTING ROADS. SHALL BE OBTAINED FROM RESIDENT ENGINEER PRIOR TO ROAD CONSTRUCTION.

11. ALL UTILITIES TO BE IN PLACE PRIOR TO LAYING BASE MATERIAL.

(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.

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 OWNER IS RESPONSIBLE FOR OBTAINING ANY HIGHWAY PERMITS AND FOR SENDING 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.

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 ARIAL PHOTOGRAPHY BY LOUISA AERIAL SURVEYS USING NAVD88 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 PVC ROLL PLASTIC, CTS.

10. THE CONTRACTOR WILL INSTALL ALL WATER CONNECTIONS AND METER BOXES.

11. 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. THE USE OF HEIGHT ADJUSTMENT RINGS IS PROHIBITED.

14. THE ENGINEER WILL CERTIFY THAT THE ROADS ARE WITHIN 6" OF SUBGRADE BEFORE WATERLINE CONSTRUCTION CAN BEGIN.

IT SHALL BE REMOVED AND ACCEPTABLE MATERIAL USED FOR BACKFILLING THE TRENCH.

15. FOR SEWER AND WATER INSTALLATION WITHIN EXISTING VDOT R/W; UTILITY CONTRACTORS SHALL NOTIFY VDOT 48 HOURS IN ADVANCE WHEN INSTALLATION BEGINS SO THAT DENSITY CAN BE TESTED (95% @ OPTIMUM MOISTURE +20%)

S 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 I LOWER THAN UPGRADE MANHOLES. THIS DEVICE WILL BE INSPECTED BY THE COUNTY BUILDING INSPECTOR. 18. 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. . 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 BOXES PROVIDED SHALL BE CAST IRON 12"x18"x24" HIGH WITH CAST IRON LIDS. THE METER ASSEMBLIES SYSTEM WILL BE SUPPLIED TO THE UTILITY DEPARTMENT WITH THE WATER METERS.

24. FIRE HYDRANTS ARE TO BE MUELLER TYPE BE INSTALLED USING TEES.

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

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, TEES AND BENDS SHALL BE EQUIPPED WITH MEGA LUGS, KICKERS AND THRUST BLOCKS. PRESSURE REDUCING VALVES SHALL BE USED ON LOTS WHERE THE STATIC PRESSURE IN THE SYSTEM EXCEEDS

80 PSI. FOR SECTION THREE, LOTS 8-30 WILL NEED PRESSURE REDUCING VALVES.

29. CLEANOUTS SHALL BE INSTALLED ON ALL SANITARY LATERALS IN ACCORDANCE WITH PRINCE GEORGE COUNTY SPECIFICATIONS. THESE CLEANOUTS SHOULD BE INSTALLED AT THE EDGE OF THE RIGHT OF WAY.

30. 2" AND 3" FORCE MAIN PIPING TO BE HDPE SDR II PRESSURE CLASS 160 WITH FUSED CONNECTIONS. 31. LOTS 8-30 AND 37-40 ARE TO HAVE INDIVIDUAL GRINDER PUMPS FOR EACH HOUSE AND A FORCE MAIN HOUSE

CONNECTION PROVIDED AS DETAILED ON SHEET C1.2.

32. UTILITY INSPECTOR SHALL BE CONTACTED BEFORE INDIVIDUAL SERVICE CONNECTIONS ARE COVERED

ALL MANHOLES WITHIN 1,000 FT OF A FORCE MAIN DISCHARGE SHALL BE COATED AS MANUFACTURED BY RAVEN. FOR SECTION 3, THIS INCLUDES PROPOSED MANHOLES 1—7 AND EXISTING MANHOLES 11 AND 12.. 34. ALL INDIVIDUAL WATER SERVICES AND SEWER CONNECTIONS SHALL BE MADE USING DOUBLE BANDED EPOXY COATED

THE ACTUAL LOCATION OF THE WATER AND SEWER CONNECTIONS FOR EACH LOT. WRAP AS MANUFACTURED BY SEALING SYSTEMS, INC. THE SEAL SHALL BE MADE OF EPDM (ETHYLENE PROPYLENE DIE MONOMER) RUBBER WITH A MINIMUM THICKNESS OF 65 MILS. EACH UNIT SHALL HAVE A 2—INCH WIDE MASTIC STRIP (

THE BOXES FOR THE SEWER CONNECTIONS MUST BE MARKED AS SEWER CONNECTIONS RATHER THAN WATER METER.

38. ALL INDIVIDUAL GRINDER PUMPS SHALL BE EONE PUMPS OF LIKE TYPE AND HORSEPOWER. PUMPS MUST BE CAPABLE OF A MINIMUM OF 11GPM AT 150' OF HEAD.

40. ALL WATER LINE VALVES LOCATED OUTSIDE THE PAVEMENT NEED TO BE ENCLOSED IN A 12"X12"X6" CONCRETE

41. A GEOTECHNICAL ENGINEER WILL BE REQUIRED TO TEST ALL UTILITY TRENCHES.

42. ALL GRAVITY SEWER LINES SHALL HAVE FILTER FABRIC INSTALLED ON TOP OF THE STONE OR PIPE AS REQUIRED.

WE HEREBY CERTIFY THAT THE LOT LINES, LOT NUMBERS, BLOCK NUMBERS AND THE STREET NAMES SHOWN ON THESE PLANS ARE IDENTICAL TO THOSE SHOWN ON THE OFFICIAL RECORDED PLAT, AND NO CHANGES WILL BE MADE WITHOUT PRIOR APPROVAL FROM THE UTILITY DEPARTMENT. IF ANY CHANGES ARE APPROVED, REVISED WATER AND/OR SEWER PLANS WILL BE SUBMITTED WITHIN 48 HOURS AFTER APPROVAL.

STORM SEWER SCHEDULE

WITH A HEIGHT GREATER THAN OR EQUAL TO 4.0 FT. 3. INSTALL GEOTEXTILE FILTER FABRIC AROUND THE WEEP HOLE FOR ALL SAG

DI-3A; TOP = 94.96, H = 3.96

MH-1, TOP = 86.62, H = 8.36

DI-3C; L=8', TOP = 94.64, H = 6.64'

120.00 L.F. 15" CLASS III RCP 6 6.37% INV. IN = 88.00, INV. OUT = 80.36

20.00 L.F. 15" CLASS III RCP @ 1.00% INV. IN = 78.26. INV. OUT = 78.06

DI-3B; L=6', TOP = 114.19, H = 6.19'

84.50 L.F. 15" CLASS III RCP @ 8.18% INV. IN = 108.00. INV. OUT = 101.09

32.00 L.F. 15" CLASS III RCP @ 6.75% INV. IN = 100.99, INV. OUT = 98.83

MH-1, TOP = 103.09, H = 5.13'

MH-1, TOP = 87.29, H = 5.13

DI-3A; TOP = 98.82, H = 5.22

DI-3CC; L=4', TOP = 112.13, H = 11.14'

D1-3CC; L=4', TOP = 112.13, H = 13.40'

100.00 L.F. 15" CLASS III RCP @ 10.40% INV. IN = 98.73, INV. OUT = 88.33

68.00 L.F. 15" CLASS III RCP @ 8.78% INV. IN = 88.23, INV. OUT = 82.26

20.00 L.F. 15" CLASS III RCP @ 1.00% INV. IN = 82.16, INV. OUT = 81.96

DI-3C; L=10', TOP = 99.98, H = 7.56'

85.70 L.F. 15" CLASS III RCP @ 0.50% INV. IN = 92.42, INV. OUT = 91.99

31.94 L.F. 15" CLASS III RCP @ 5.04% INV. IN = 93.60, INV. OUT = 91.99

DI-3B; L=6', TOP = 98.82, H = 6.93'

DI-3B; L=6', TOP = 98.64, H = 5.61'

128.62 L.F. 15" CLASS III RCP @ 1.77% INV. IN = 93.03, INV. OUT = 90.75

DI-3C, L=8', TOP = 98.07, H = 7.42'

DI-3CC; L=6', TOP = 98.07, H = 8.82'

196.00 L.F. 18" CLASS III RCP @ 2.12% INV. IN = 89.25, INV. OUT = 85.10

120.00 L.F. 18" CLASS III RCP @ 3.58% INV. IN = 85.00, INV. OUT = 80.71

MH-1, TOP = 99.64, H = 19.03, W/SL-1

MH-1; TOP = 87.89, H = 20.98, W/SL-1

DI-3B; L=8', TOP = 103.39, H = 4.39'

95.24 L.F. 15" CLASS III RCP @ 4.61% INV. IN = 99.00, INV. OUT = 94.61

DI-3B; L=10', TOP = 99.21, H = 4.70'

40.00 L.F. 15" CLASS III RCP @ 1.03% NV. IN = 94.51, INV. OUT = 94.10

DI-3B; L=10', TOP = 99.21, H = 5.21'

66.80 L.F. 15" CLASS III RCP @ 6.00% INV. IN = 94.00, INV. OUT = 89.99

DI-3B; L=10', TOP = 84.47, H = 4.77'

DI-3B; L=10', TOP = 106.98, H = 4.00'

40.00 L.F. 15" CLASS III RCP @ 5.25% INV. IN = 79.70, INV. OUT = 77.60

40.00 L.F. 15" CLASS III RCP @ 1.20% INV. IN = 102.98, INV. OUT = 102.50

DI-3B; L=6', TOP = 106.98, H = 4.58'

225.11 L.F. 15" CLASS III RCP @ 11.02% INV. IN = 102.40, INV. OUT = 77.60

DI-3B; L=8', TOP = 84.47, H = 6.97'

DI-3B; L=10', TOP = 77.48, H = 5.15'

DI-3B; L=8', TOP = 86.15, H = 5.15'

|NV.|N = 81.00, INV. OUT = 74.50

145.00 L.F. 15" CLASS III RCP @ 4.48%

DI-3B; L=10', TOP = 80.13, H = 5.73'

116.15 L.F. 15" CLASS III RCP @ 3.27% INV. IN = 74.40, INV. OUT = 70.60

DI-3C; L=10', TOP = 76.10, H = 5.60'

32.00 L.F. 18" CLASS III RCP @ 4.38% INV. IN = 70.50, INV. OUT = 69.10

DI-3C; L=4', TOP = 76.10, H = 7.10'

55.49 L.F. 18" CLASS III RCP @ 3.60% INV. IN = 69.00, INV. OUT = 67.00

DI-3BB; L=6', TOP = 76.73, H = 9.83'

160.00 L.F. 18" CLASS III RCP @ 9.96% INV. IN = 66.90, INV. OUT = 50.96

32.00 L.F. 18" CLASS III RCP @ 12.00% INV. IN = 46.96, INV. OUT = 43.12

24.00 L.F. 24" CLASS III RCP @ 1.00% INV. IN = 39.82, INV. OUT = 39.58

MH-1, TOP = 57.14, H = 10.18

MH-1, TOP = 47.12, H = 7.30'

DI-3A; TOP = 98.13, H = 7.13

DROP INLETS (DI-3CS).

MH-MH BEARING DISTANCE

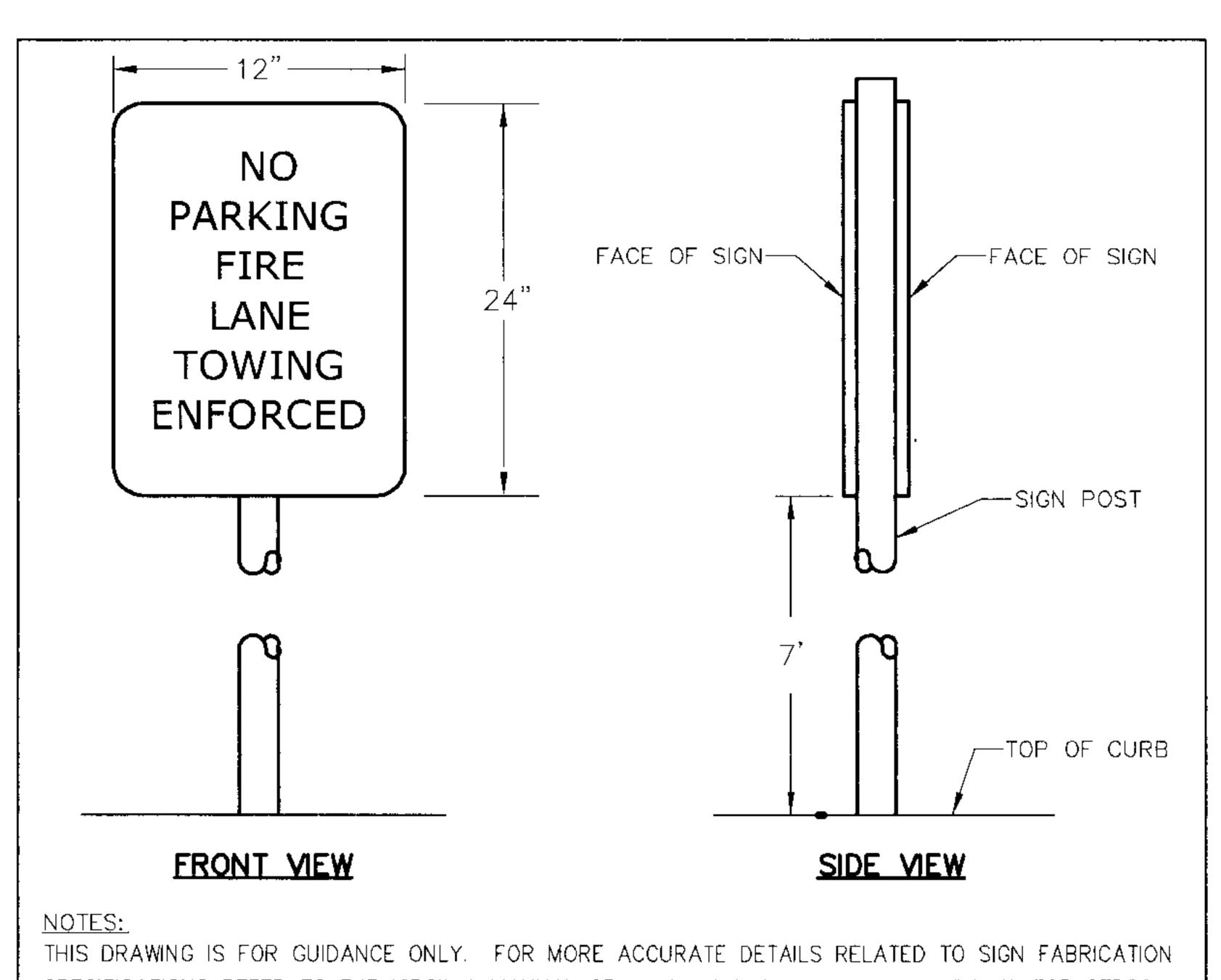
SANITARY SEWER

<u>SCHEDULE</u>

ROAD C/L DATA

		
Ē	NE TABL	L
BEARING	LENGTH	LINE
N88'45'42"E	224.98	L1
N16'39'56"E	205.92	L2
S47'39'33"E	39.45	L3
N72'53'30"W	694.82	L 4
N22'36'16"W	164.41	L5
S17"20"56"W	283.46	L6
N45'08'34"W	339.95	L7

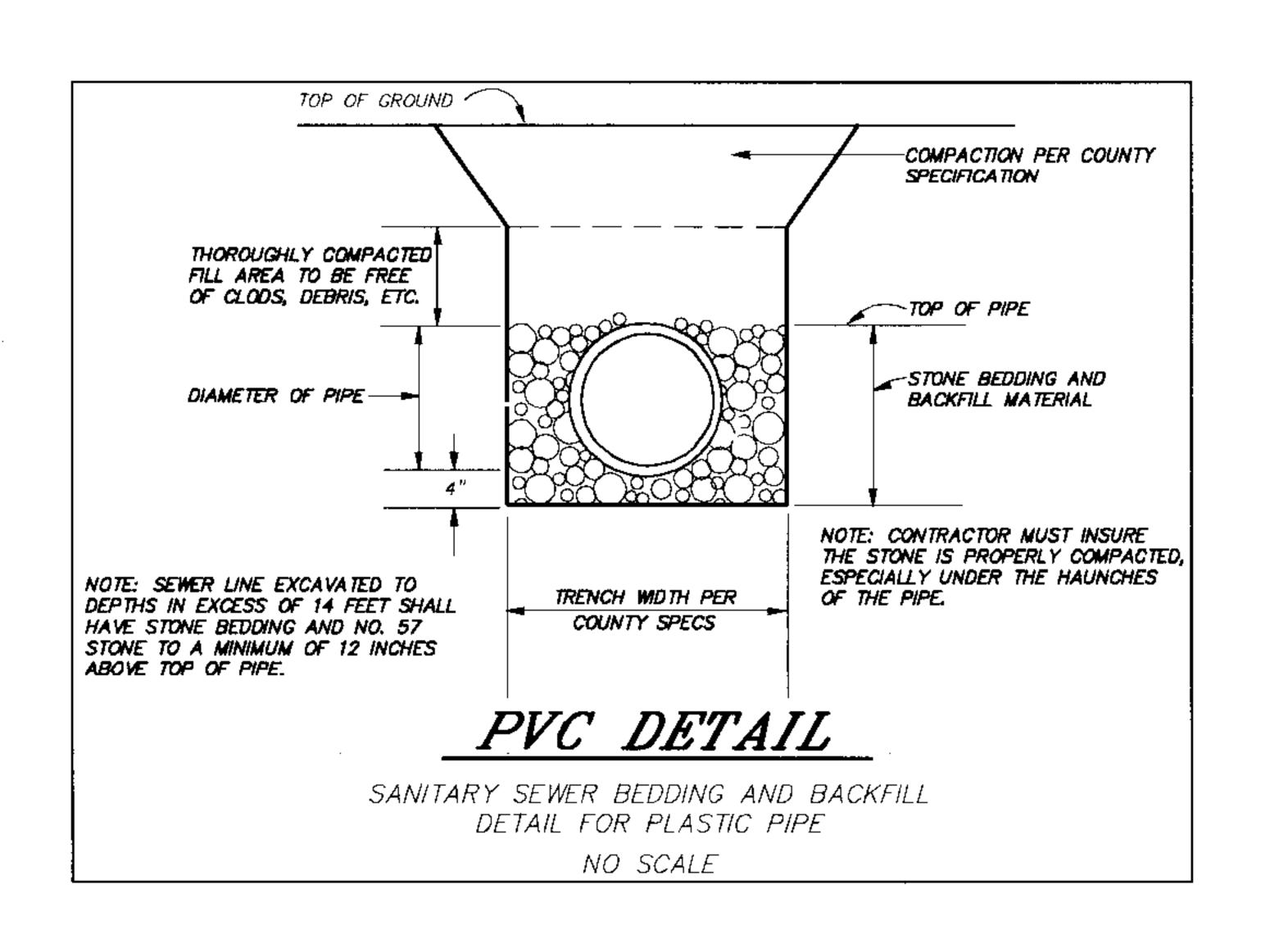
CURVE TABLE										
CURVE	LENGTH	RADIUS	TANGENT	DELTA	CHORD BEARING	CHORD				
C1	440.41	350.00	254.74	72'05'47"	N52'42'49"E	411.93				
C2	184.40	400.00	93.87	26°24'51"	S34'27'08"E	182.78				
C3	450.70	500.00	241.96	51'38'48"	N47*04'06"W	435.60				
C4	334.36	400.00	177.64	47*53'35"	S01°20'32"W	324.7				
C5	218.14	200.00	121.34	62*29'31"	S13'53'49"E	207.48				

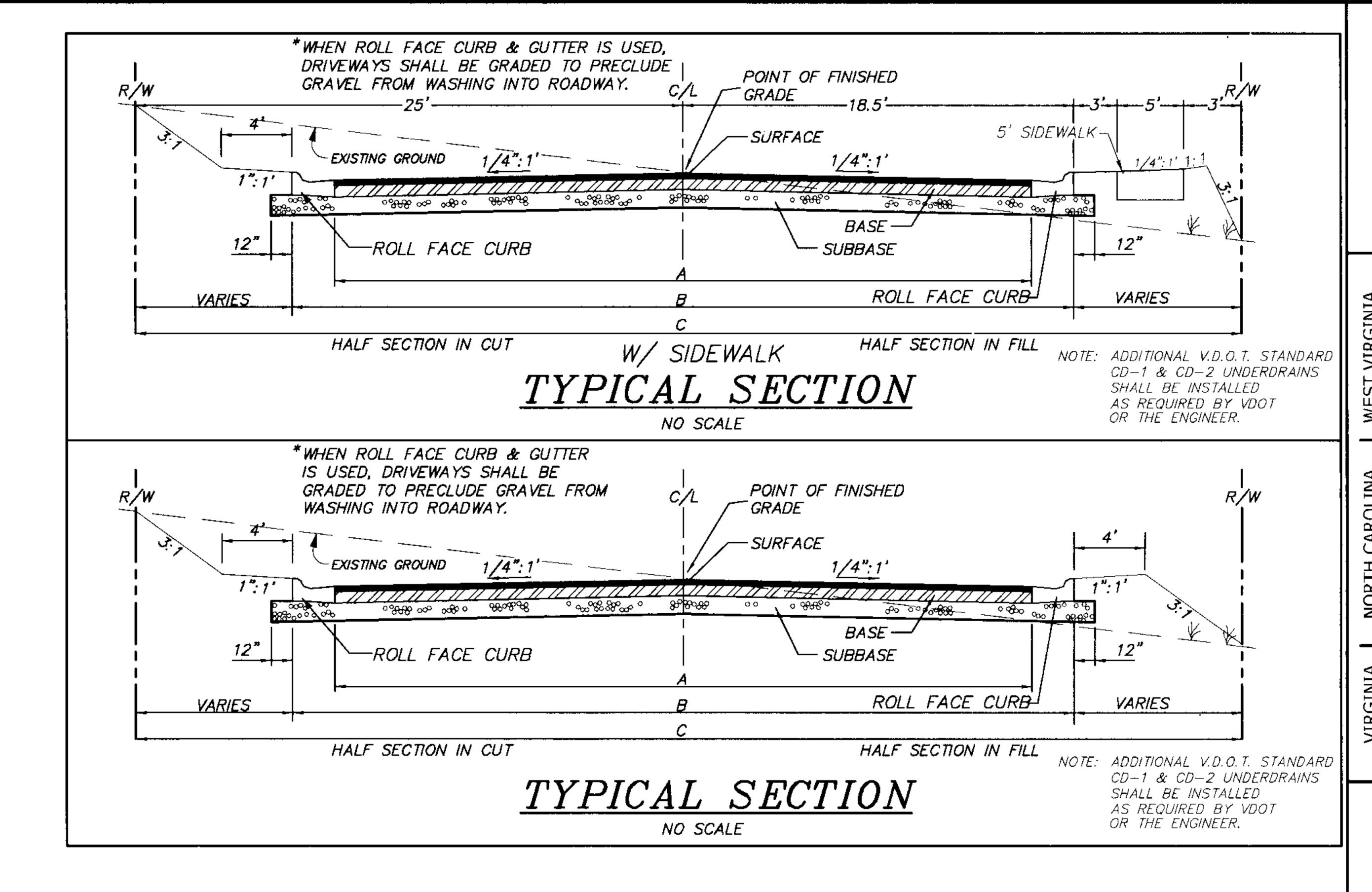


AND HIGHWAYS. RED LETTERS AND BORDER ON A REFLECTORIZED WHITE BACKGROUND.

FIRE LANE SIGN

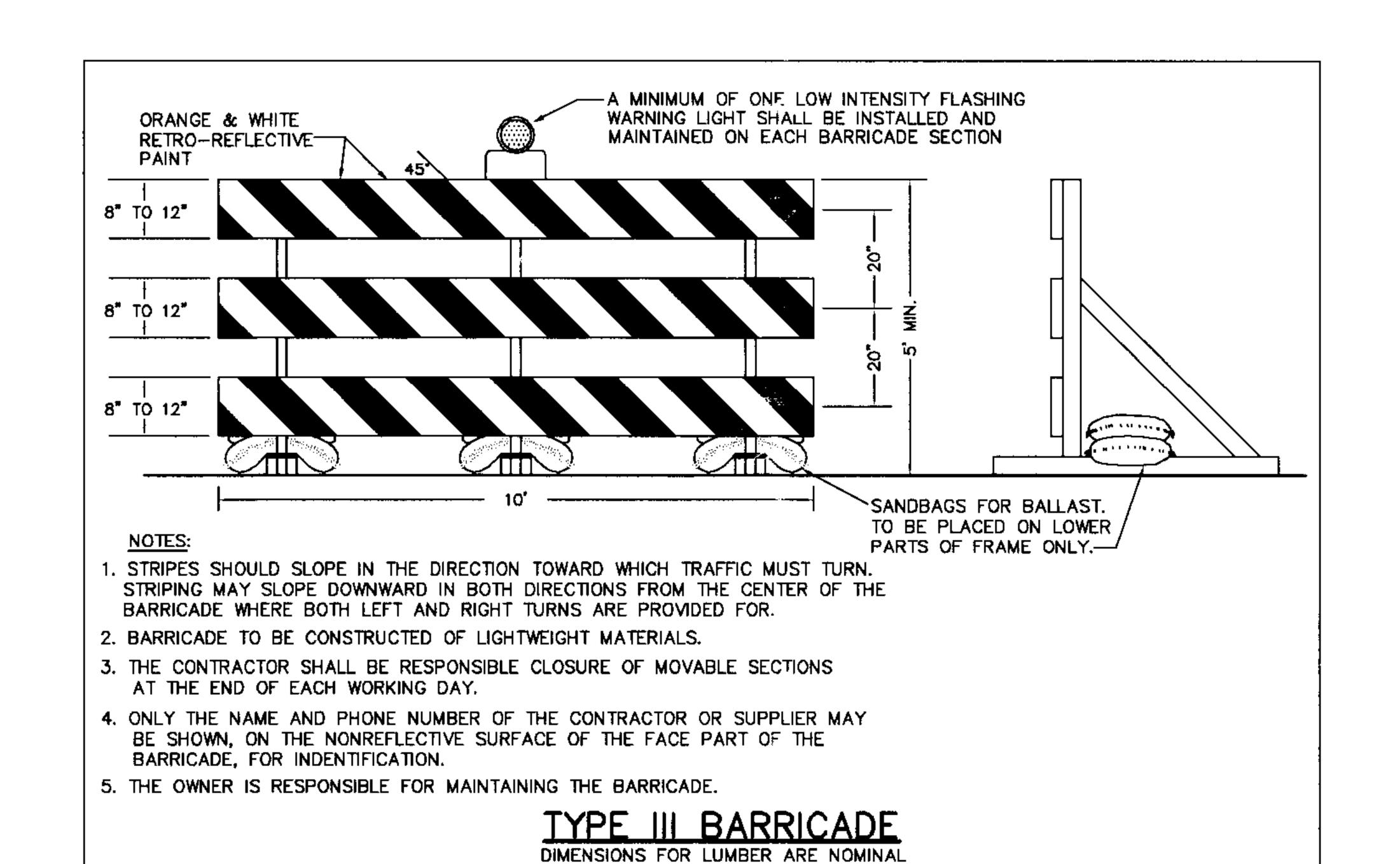
TWO (2) INCH "C" SERIES.





ROAD CLASSIFICATION SCHEDULE									
ROAD NAMES ③ STA. TO STA.	L/O	PAVEMENT DESIGN (1) (2)			"A"	"B"	"C"		
	VPD	SUBBASE	BASE	SURFACE	PVM'T. WIDTH E/P — E/P	B/C-B/C	R/W WIDTH		
HIGH PEAK BLVD. STA. 19+50 TO STA. 26+00	1360	6" 21-B	3.0" BM-25.0	2" SM-9.5A	31	<i>37</i>	54.5		
WYNNE PEAK ROAD STA. 0+25 TO STA. 9+00	240		6" 21-B	2" SM-9.5A	23	29	50.5		
BUTTERCUP DRIVE STA. 0+25 TO STA. 8+00	60		6" 21-B	2" SM-9.5A	23	29	50.5		
BUTTERCUP DRIVE STA. 9+50 TO STA. 14+00	390		6" 21-B	2" SM-9.5A	31	<i>37</i>	54.5		
JADEN DRIVE STA. 0+00 TO STA. 8+25	190		6" 21-B	2" SM-9.5A	23	29	50		

(2) A PRIME COAT SHALL BE APPLIED BETWEEN THE AGGREGATE BASE AND ASPHALT COURSES IN ACCORDANCE WITH V.D.O.T. STANDARDS. REFER TO PLAN SHEET FOR THE END OF CURB AND GUTTER.



DRAWN BY K. HALPAUS

DESIGNED BY K. HALPAUS CHECKED BY