### GENERAL NOTES

- . POURING, CURING, FORMS, WORKMANSHIP, ETC. OF ALL CONCRETE USED ON THIS PROJECT. STABILIZED BASE COURSE MATERIAL.
- MATERIALS AND INSTALLATION OF ALL PIPE CULVERTS.
- THE VOOT APPROVAL OF THESE PLANS WILL EXPIRE THREE (3) YEARS FROM DATE OF APPROVAL.
- 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.
- . 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.
- CLEARING AND GRUBBING SHALL BE COMPLETE WITHIN THE RIGHT OF WAYS AS INDICATED ON LAYOUT PLAN.
- ". ALL DRAINAGE EASEMENTS TO BE CLEARED, GRUBBED, AND GRADED TO CONTAIN WATER FROM PIPE CULVERTS AND TO EXTEND TO A NATURAL WATERCOURSE.
- 3. EXCESS EXCAVATION TO BE DISPOSED OF AS DIRECTED BY THE ENGINEER.
- P. ALL FILLETS AT INTERSECTIONS TO HAVE 35' RADII UNLESS OTHERWISE NOTED.
- 10. GRADE LINES ON PROFILES DENOTE FINISHED GRADE OF CENTER LINE OF ROAD.
- 11. 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.
- 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

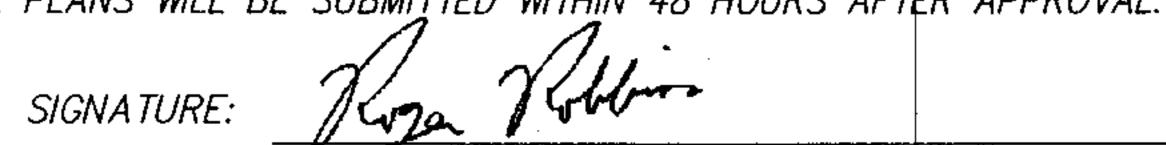
- ALL MATERIALS FOR SEWER AND WATER SYSTEMS SHOWN SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST APPLICABLE SPECIFICATION OF PRINCE GEORGE COUNTY.
- ALL WORK SHALL BE SUBJECT TO INSPECTION BY UTILITY DEPARTMENT OFFICIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF APPROPRIATE COUNTY OFFICIALS 48 HOURS PRIOR TO START OF WORK.
- MINIMUM CLEAR COVER FOR ALL WATER PIPE SHALL BE 3.5 FEET.
- . 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.
- 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.
- 3. CONTRACTOR SHALL INSTALL 6" SEWER SERVICE CONNECTIONS TO ALL LOTS (R/W LINE OR EDGE OF EASEMENT) AS SHOWN.
- 9. ALL WATER SERVICES ARE TO BE COPPER, TYPE K, DRAWN TUBING.
- 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
- THE ROAD ENGINEER. IF THE MATERIAL IS TAKEN FROM THE DITCH IS NOT SUITABLE FOR BACKFILLING 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%). INSPECTION OF UTILITY BACKFILL SHALL BE PROVIDED BY A THIRD PARTY INSPECTOR PER VDOT REQUIREMENTS AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN 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.
- 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.
- 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.
- . METER BOXES PROVIDED SHALL BE CAST IRON 12"x18"x24" HIGH WITH CAST IRON LIDS. THE METER ASSEMBLIES ARE TO BE SUPPLIED WITH NEPTUNE PRO-READ ENCODERS AND R900 PIT MIU (RF). A WAND TYPE VISUAL READER COMPATIBLE WITH PRO-READ 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.

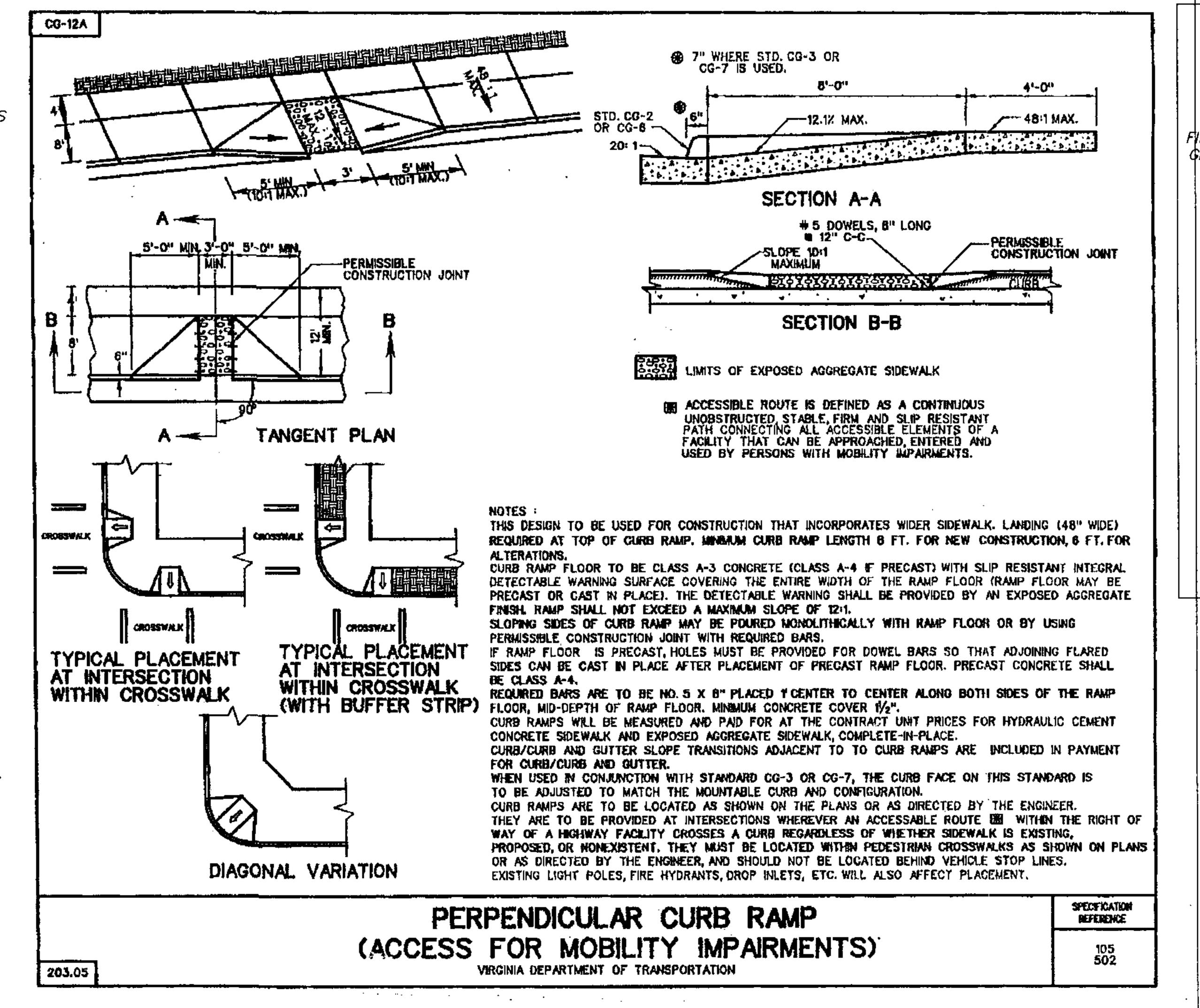
### MISS UTILITY OF VIRGINIA:

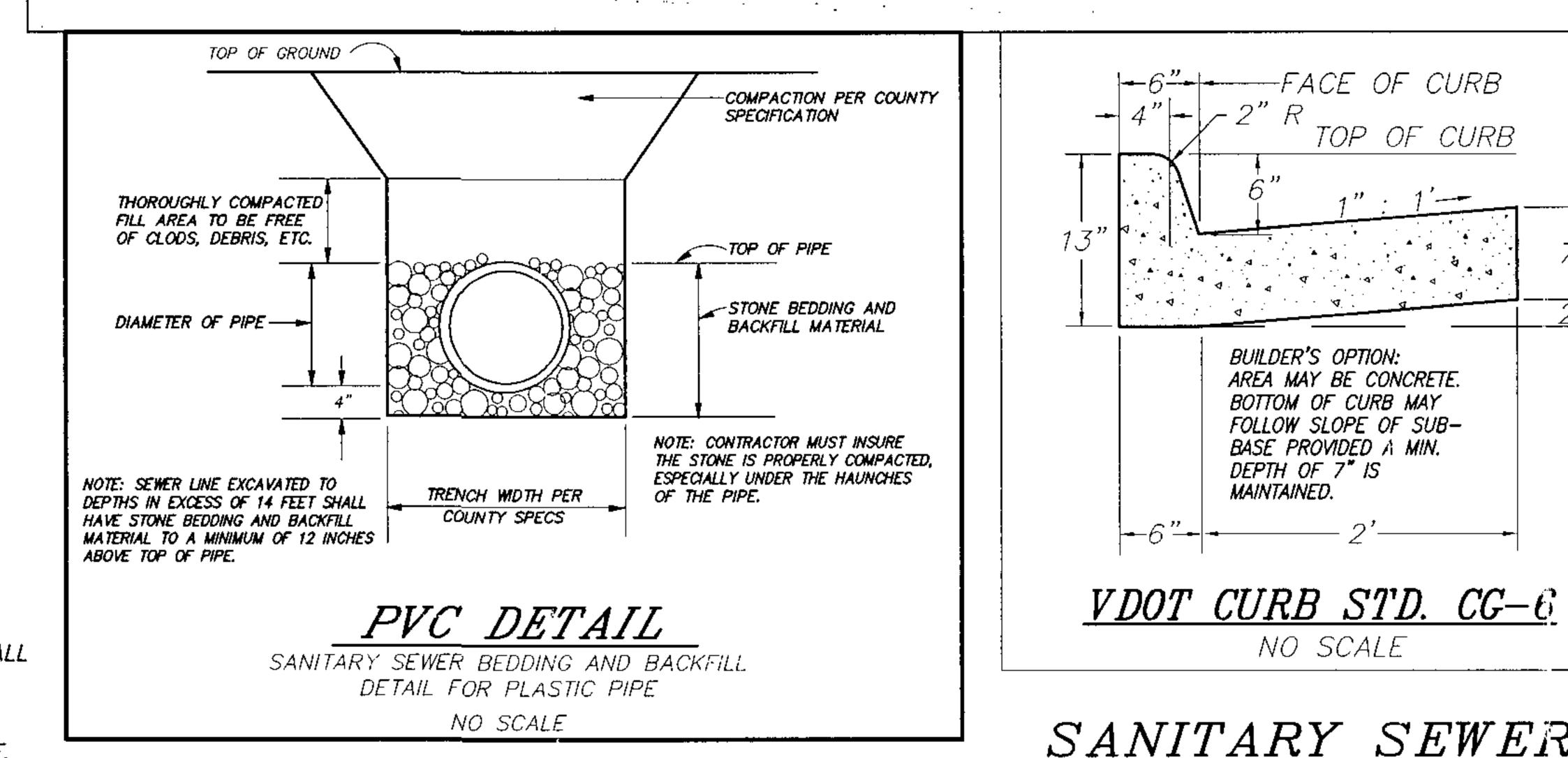
THE CONTRACTOR SHALL CALL "MISS UTILITY" 48 HOURS PRIOR TO THE START OF EXCAVATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT THE ENGINEER IMMEDIATELY IF THE LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLAN, IF THERE APPEARS TO BE A CONFLICT, AND OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON PLAN. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE RELOCATION OF ANY UTILITY WITHIN THE EXISTING AND/OR RIGHT OF WAY REQUIRED BY THE DEVELOPMENT. CONTACT MISS UTILITY OF VIRGINIA: 1-800-552-7001 (TOLL FREE)

### CERTIFICATION

WE HER<del>eby certify that the lot lines, lot numbers, block</del> 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 \$EWER PLANS WILL BE SUBMITTED WITHIN 48 HOURS AFTER APPROVAL.

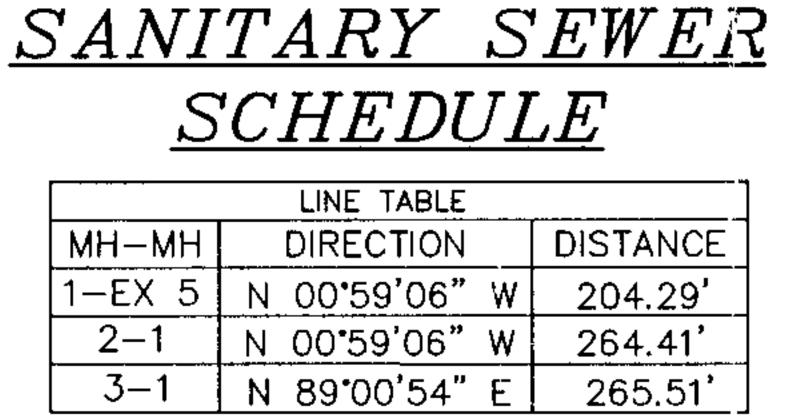




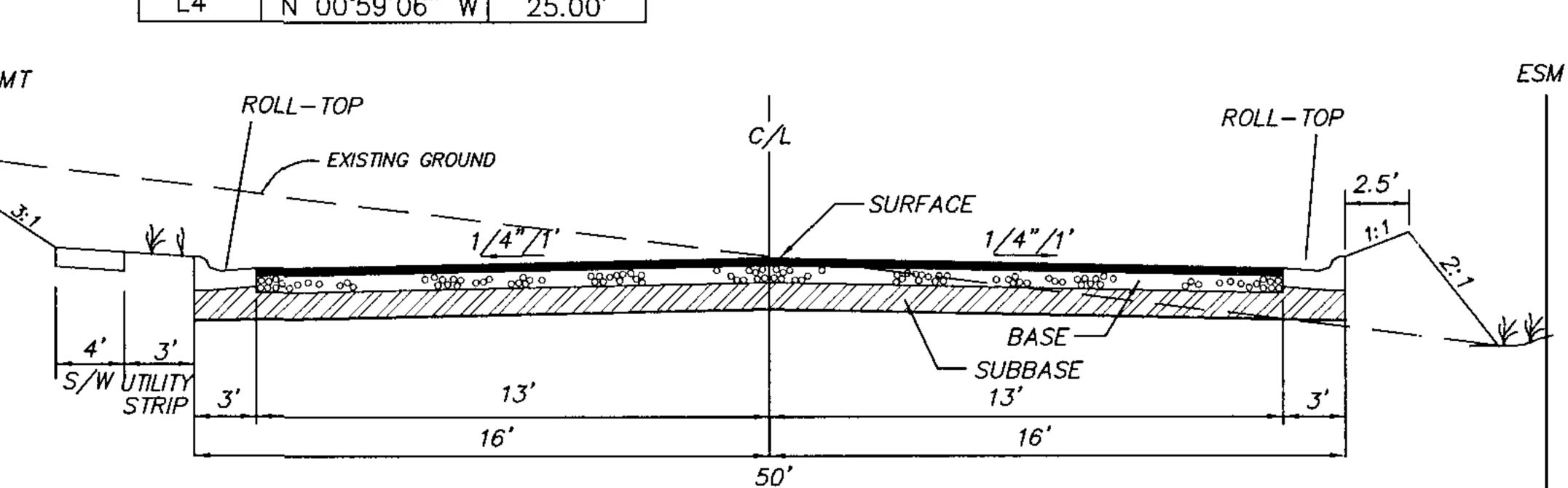


# ROAD CENTERLINE

	LINE TABLE	
LINE	DIRECTION	DISTANCE
L1	N 00'59'06" E	628.67
L2	N 89'00'54" E	22.00'
L3	N 89'00'54" E	265.21'
14	N 00*50'06" W	25.00'

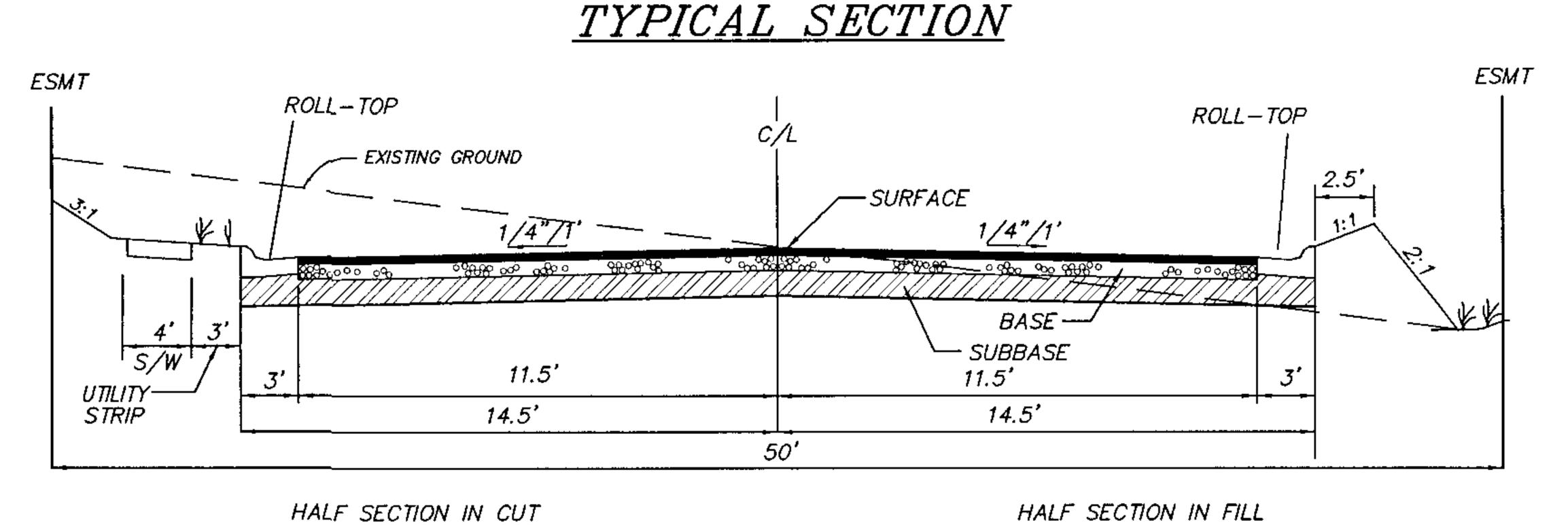


HALF SECTION IN FILL



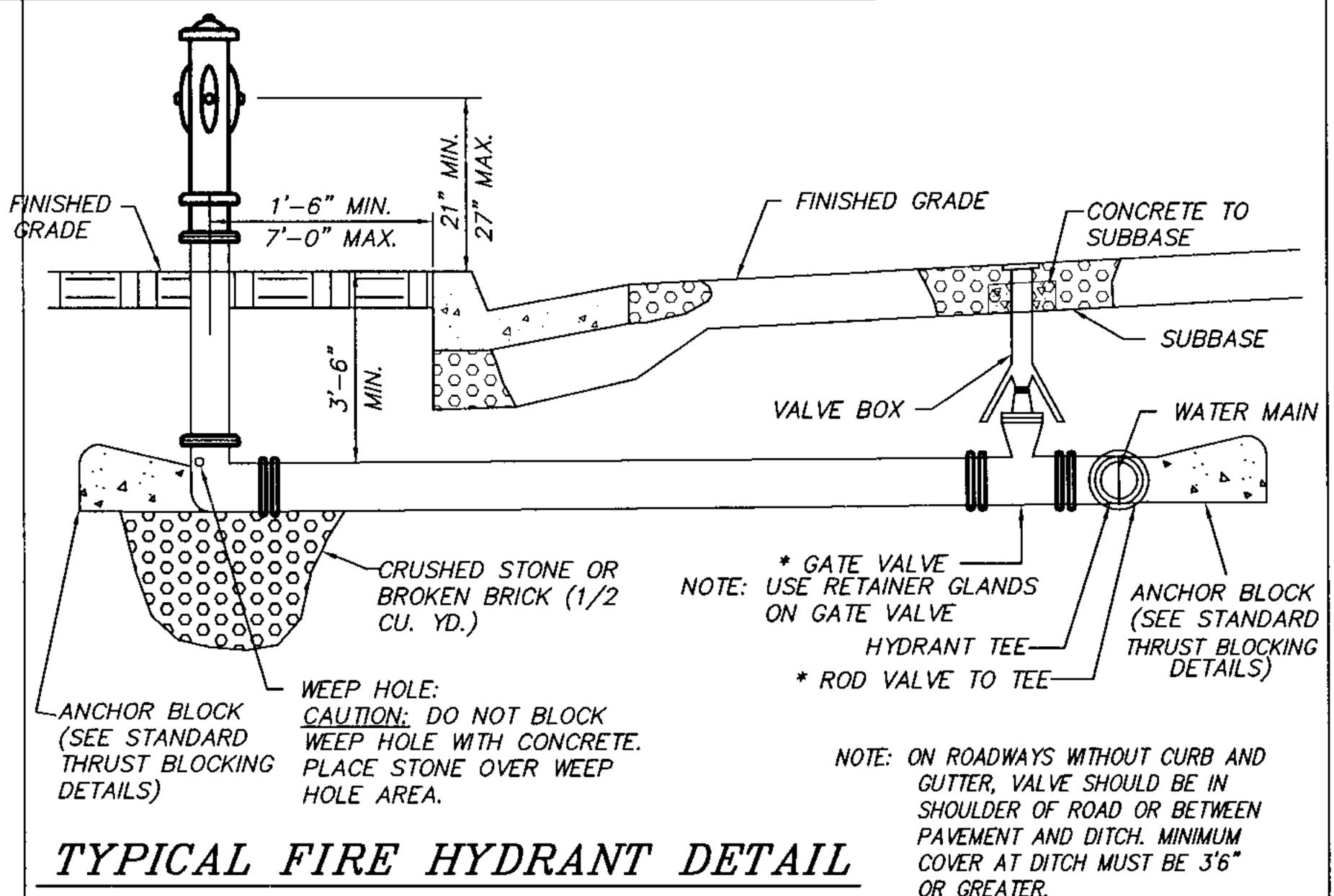
HALF SECTION IN CUT

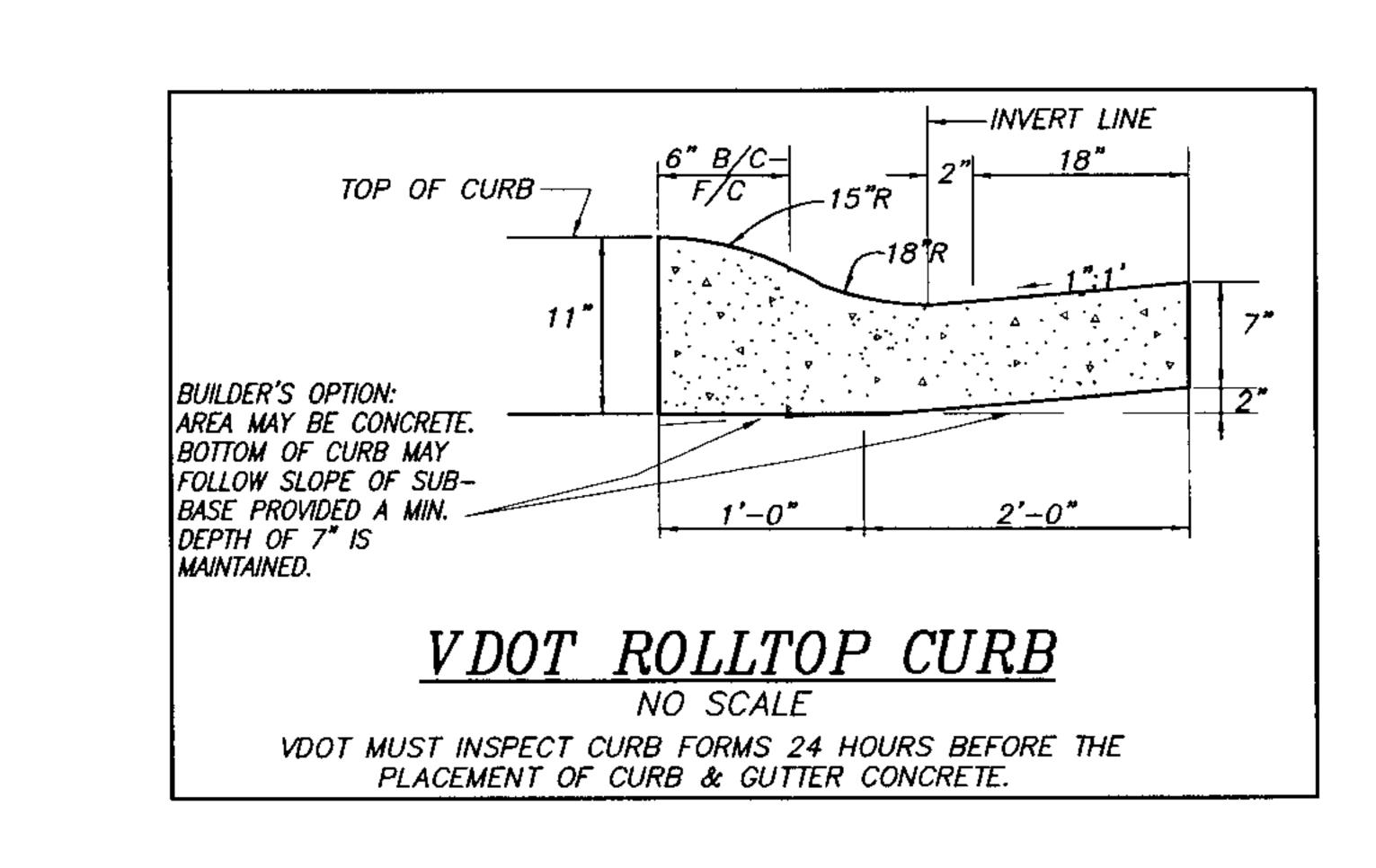
# ST. LAURENCE DRIVE -

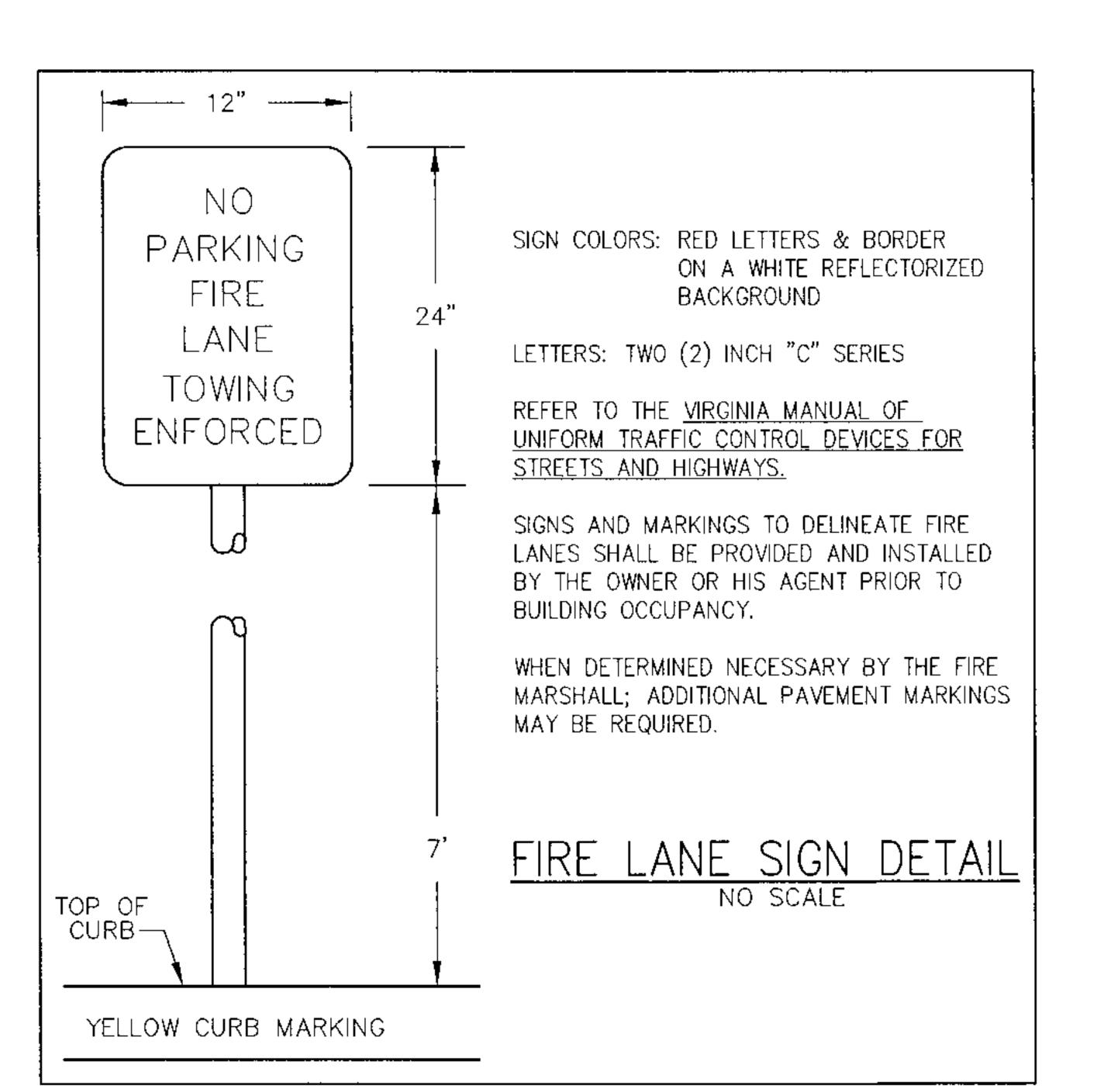


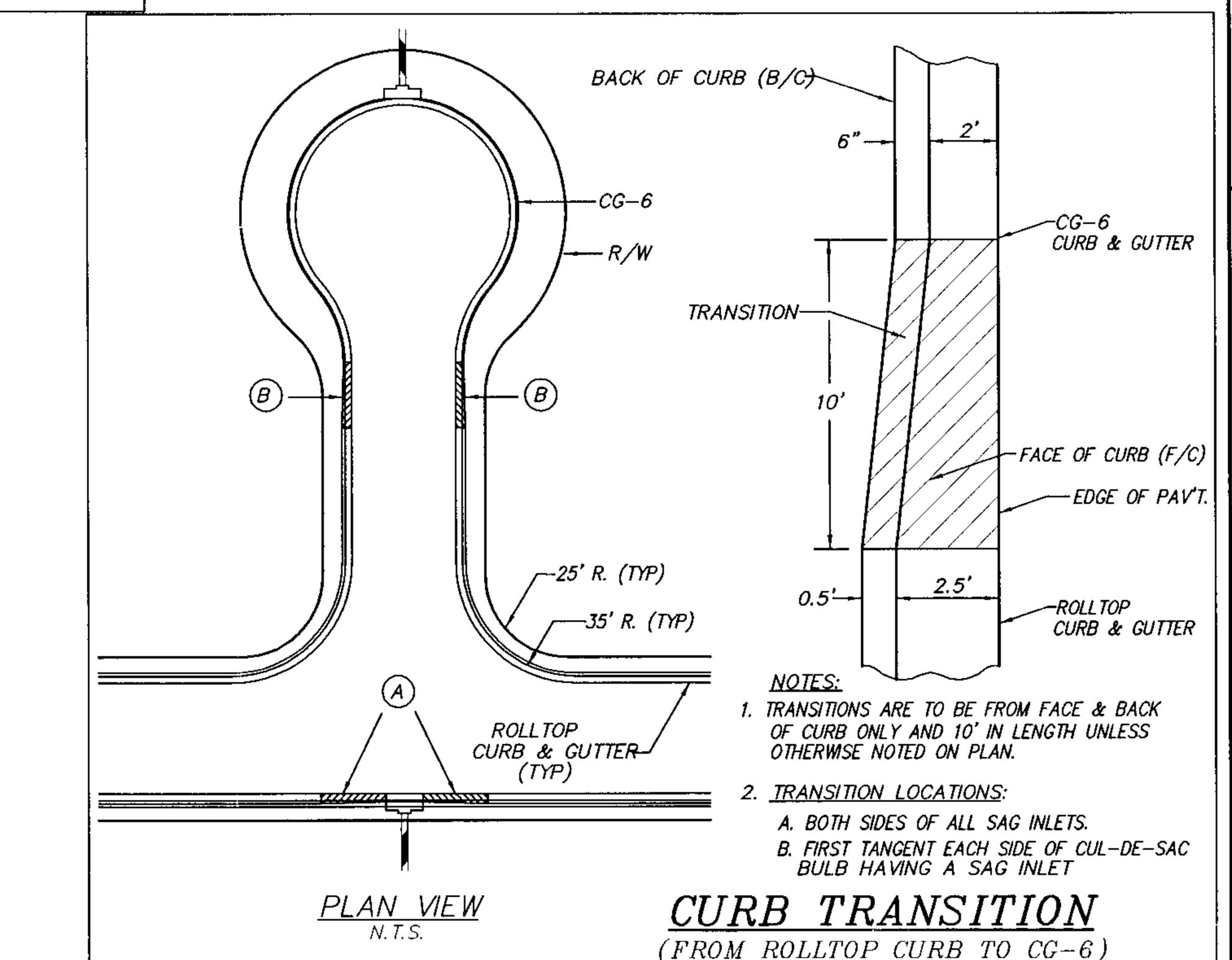
### ST. LAURENCE COURT -TYPICAL SECTION

ROAD STA. TO STA.	VPD	PAVEMENT DESIGN (1) (2)		DIAL'T MIDTH	, "B"		"C"	
		SUBBASE	BASE	SURFACE	PVM'T. WIDTH (C/L - E/P)	C/L - F/C	C/L - B/C	R/W
ST. LAURENCE DRIVE STA 0+00 TO STA 6+28.67	190		6" 21-B	2" SM-9.5A	13'	15.5'	16'	50'
ST. LAURENCE COURT STA 0+00 TO STA 2+65.21	90		6" 21-B	2" SM-9.5A	11.5'	14'	14.5'	50'









	EXISTING	PAVEMENT	PROPOSED PAVEMENT
MOVE EXIST IRFACE COU		12"	SAWCUT THROUGH EXISTING SURFACE COURSE PROPOSED SURFACE COUR
		1111	
BEN	CHED PAVEME	זאד 🕇	INTERMEDIATE ASPHAL
JOINT V	V/ ASPH. TAC	K COAT	BASE ASPHALT
			AGGR. BASES
			VEMENT MUST
$P_{\perp}$	<i>VEME</i>	NT JO	INT DETAIL

STORM SEWER SCHEDULE

DI-3B, L=8', TOP=132.86, H=8.7'179.43 LF OF 15" CL III CONC. PIPE @ 0.50% INV IN=124.16, INV OUT=123.26 DI-3C, L=10', TOP=130.33, H=7.17'

162.22 LF OF 18" CL III CONC. PIPE @ 0.50% INV IN=123.16, INV OUT=122.35

MH-1, TOP=125.36, H=3.11'75.38 LF OF 18" CL III CONC. PIPE @ 1.66% INV IN=122.25, INV OUT=121.00

PLUGGED CROSS PLUG OR BEARING AREA OF THRUST BLOCKS IN SQ. FT.

CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED 2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES. . BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN ON THIS STANDARD DETAIL.

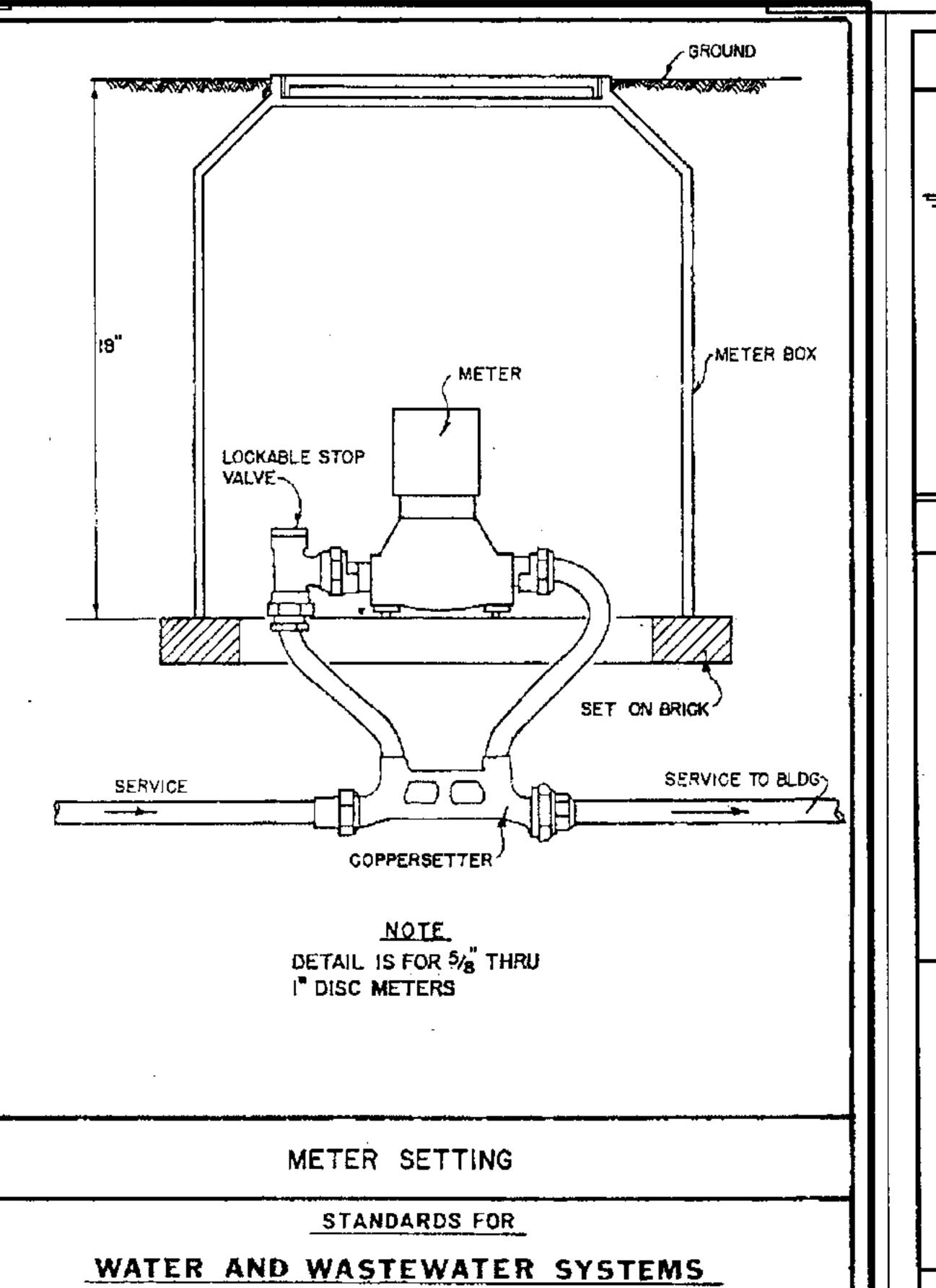
PLUGGED

FITTING FOR BLOCKING CONCRETE SHALL BE A-3 CONCRETE MEETING REQUIREMENTS OF ASTM C9

FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE / 200) x (3500 / SOIL BEARING STRESS) x (TABLE VALUE)

## STANDARD THRUST BLOCKING DETAILS

NO PROJECTION OF PIPE ABOVE GROUND LINE



COUNTY OF PRINCE GEORGE

PLATE NO. 8

NORMAL EARTH FOUNDATION CULVERTS LESS THAN & - 36" X - D + 24" CULVERTS WHERE d - 38" AND OVER METHOD "A" PIPE BEDDING SHALL BE USED AS FOLLOWS UNLESS OTHERWISE NOTED ON PLANS: RIGHD, PIPE WHEN H IS LESS THAN OR EQUAL TO 30' \* MAY BE ELIMINATED UNDER ENTRANCE PIPE EXCEPT
FOR PLASTIC PIPE INSTALLATIONS, WHERE DIRECTED \*\* FOR PLASTIC PIPE INSTALLATIONS, CLASS I BACKFILL
EMBANKMENT
BY THE ENGINEER.

1'OF H "X" DIMENSION TO BE MAINTAINED

NIN. 8", TO TOP OF PIPE FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL ROCK FOUNDATION NORMAL EARTH FOUNDATION PIPE PROJECTION ABOVE GROUND LINE I ROCK FOUNDATION FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL BEDDING MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

D . OUTSIDE DIAMETER OF PIPE. d - INSIDE DIAMETER OF PIPE. b - DEPTH AS SHOWN ON PLANS OR TO FIRM BEARING SOIL.

CLASS I BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS. CLASS I BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS. \*\*\*

9/26/05 DRAWN BY R. ROBBINS

DESIGNED BY R. ROBBINS CHECKED BY D. JOHNSON SCALE

N.T.S.

JOB NO. 22658 SHEET NO.