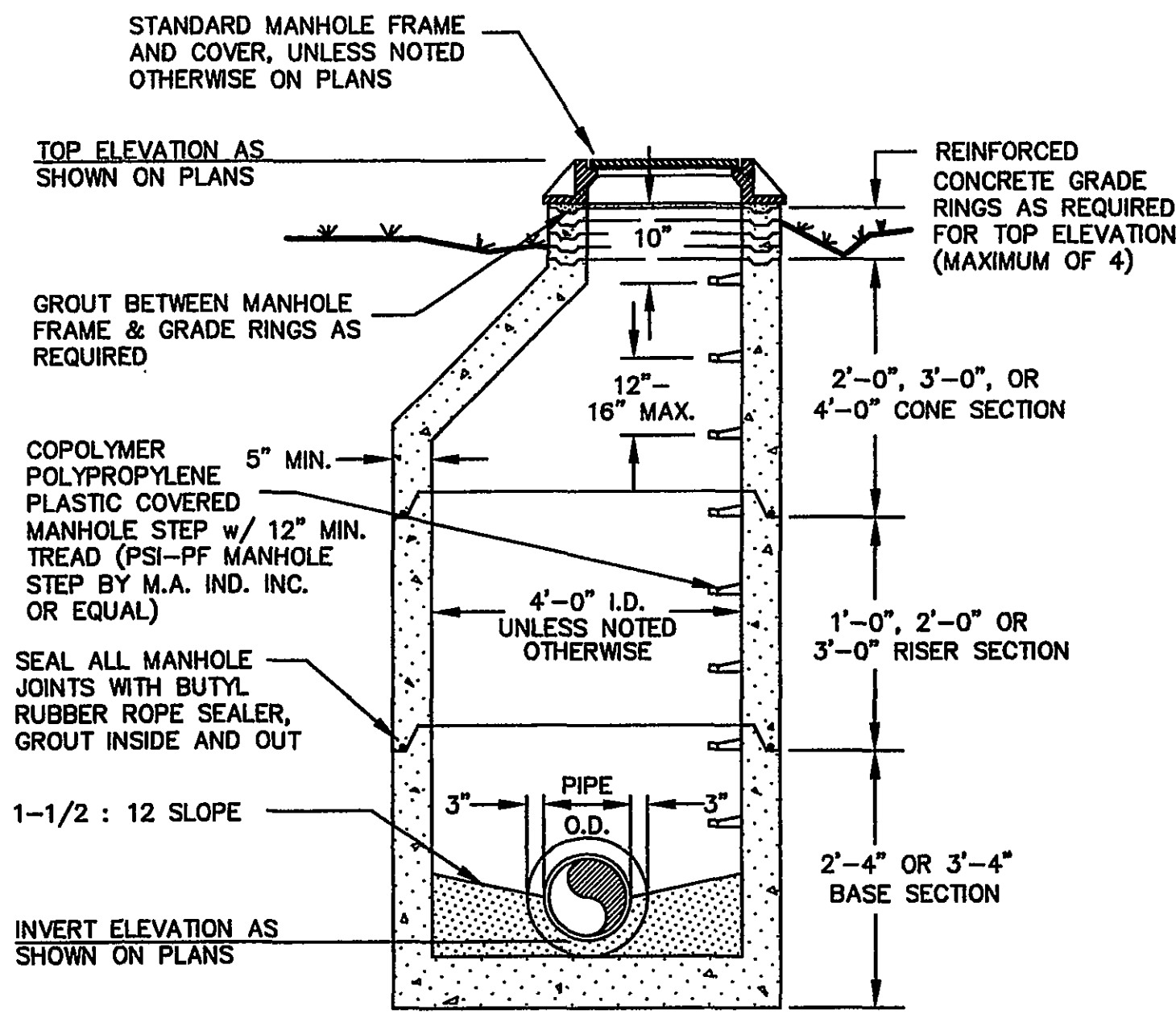


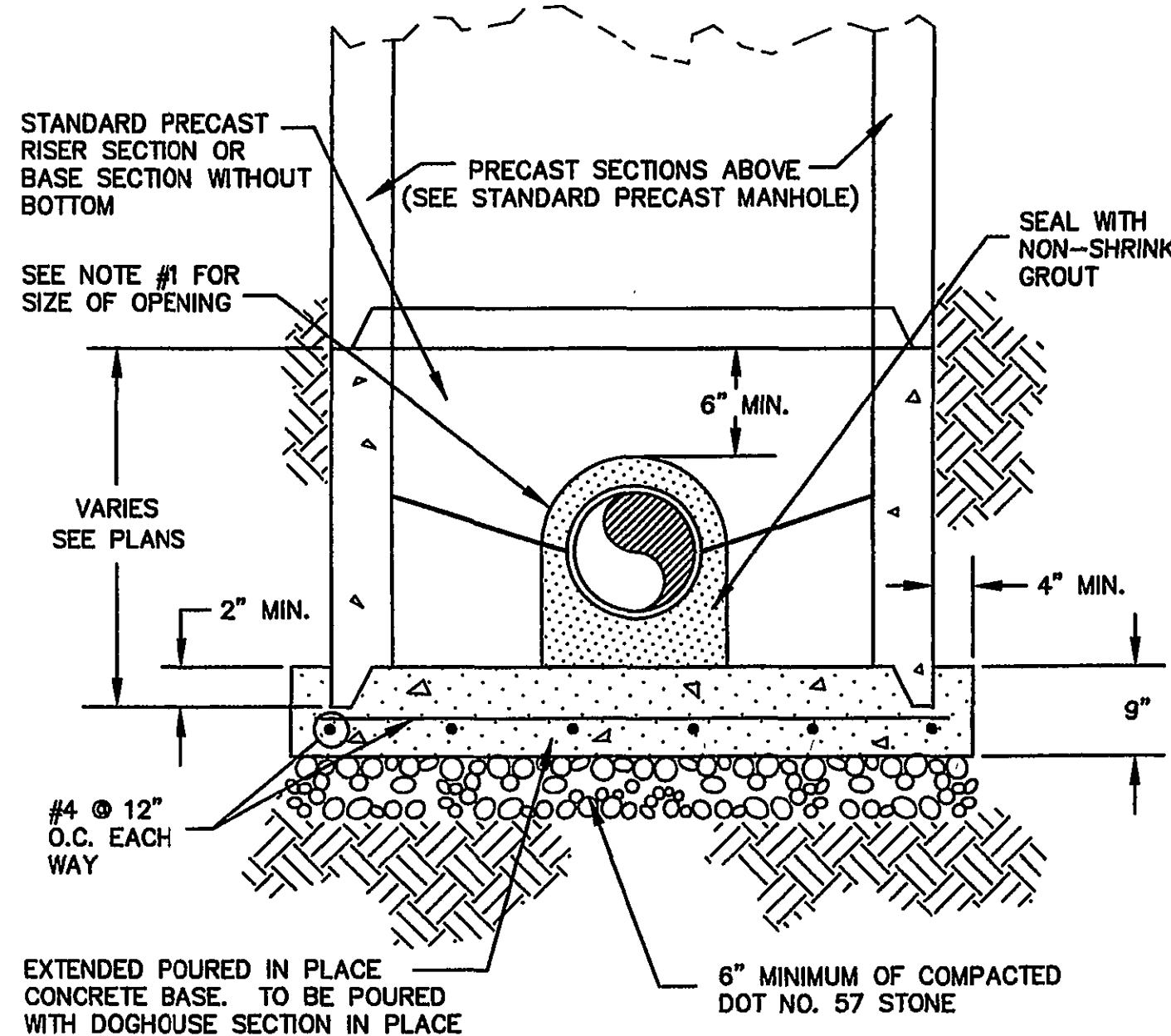


NOTE: MINIMUM REINFORCING SHALL BE 0.12 SQ. INCHES PER LINEAR FOOT IN EACH DIRECTION

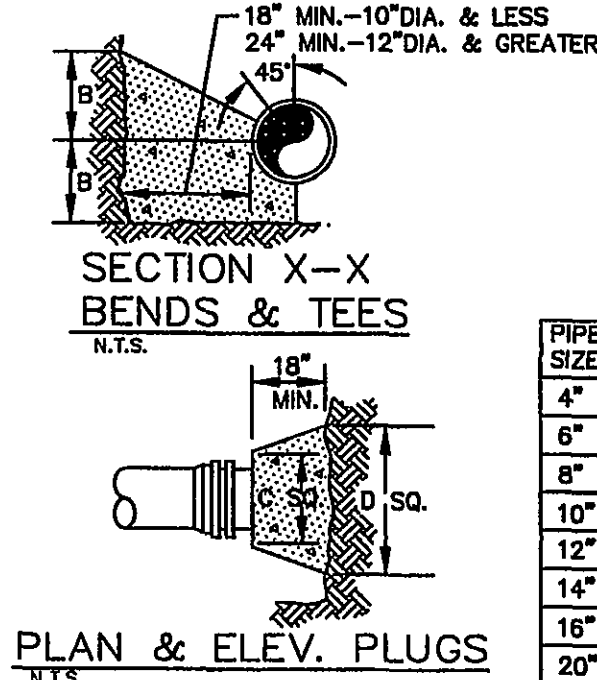
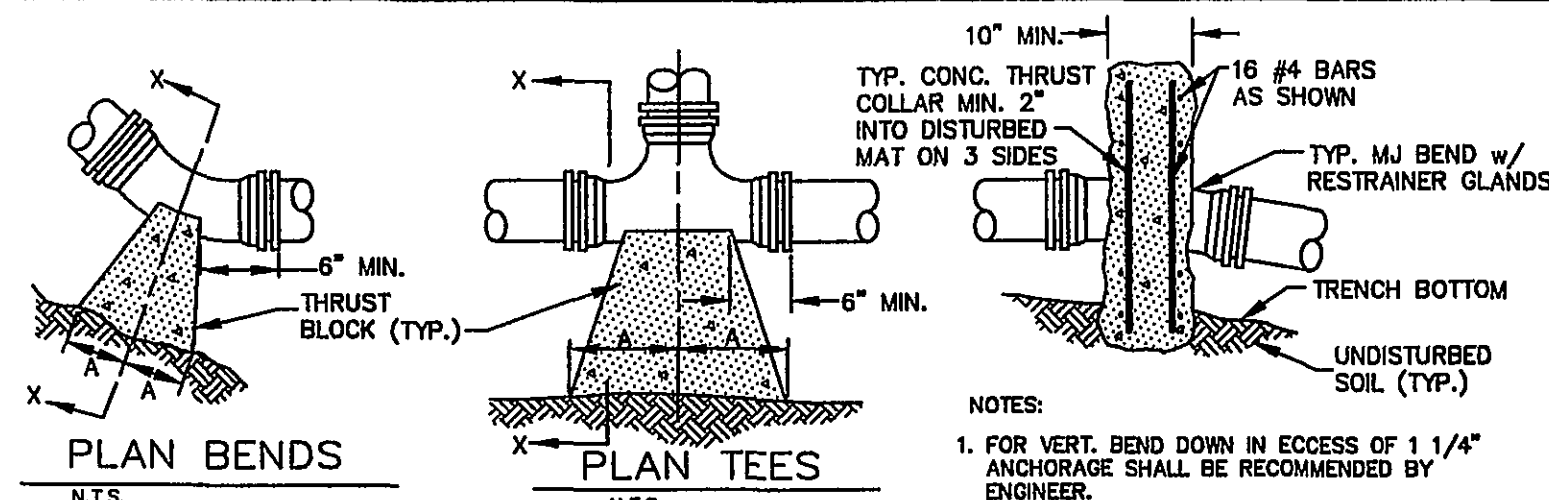
STANDARD PRECAST MANHOLE WITH MONOLITHIC BASE NOT TO SCALE

NOTES:

- HOLES IN PRECAST UNIT ARE TO BE 4" MINIMUM TO 8" MAXIMUM LARGER THAN THE OUTSIDE DIAMETER OF THE EXISTING PIPE.
- DOGHOUSE OPENING TO BE USED ONLY WHEN PLACING A NEW MANHOLE OVER AN EXISTING LINE. SIZE, LOCATION, AND ANGLE OF ENTRY TO BE AS SHOWN ON PLANS

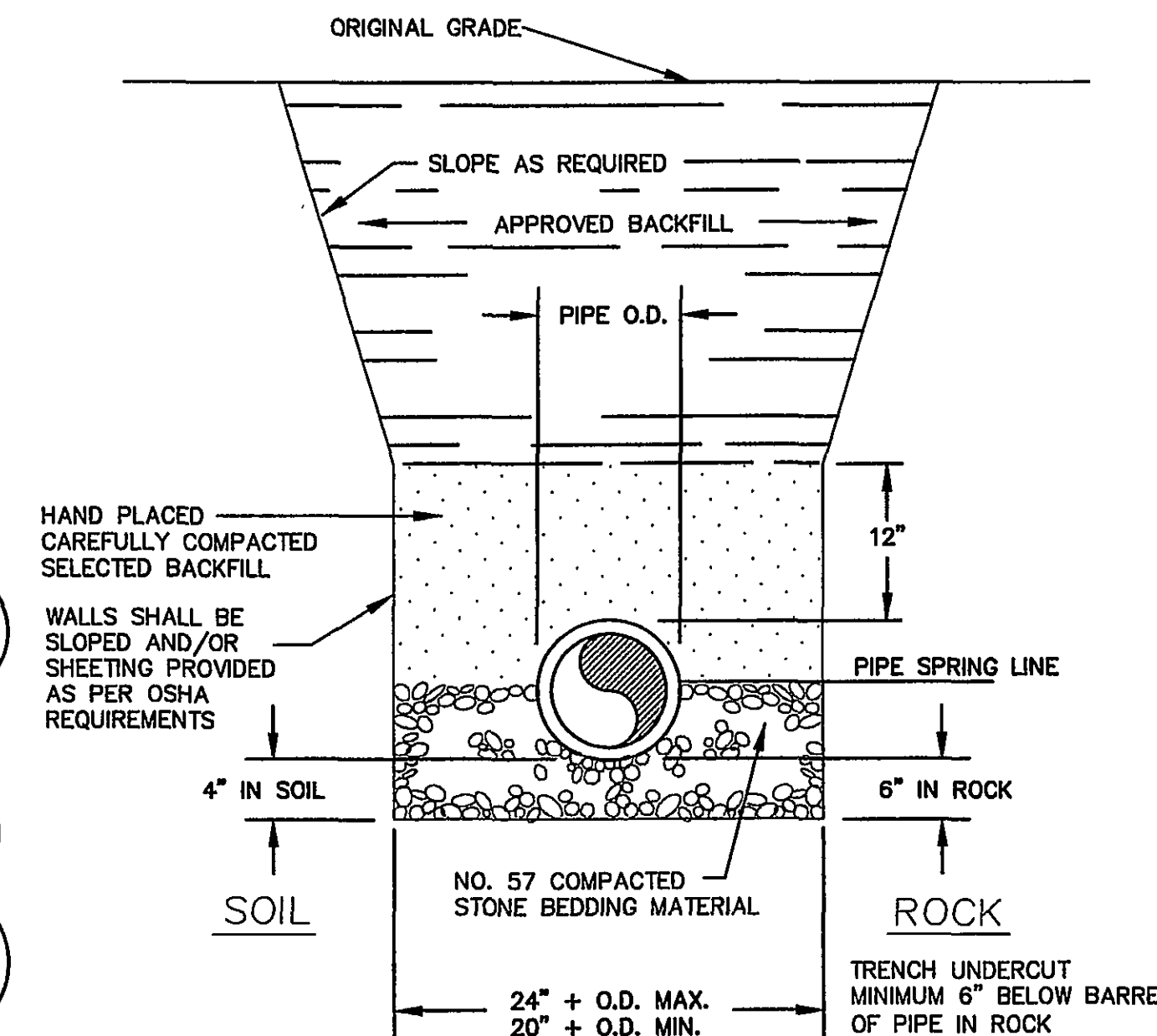


TYPICAL DOGHOUSE MANHOLE NOT TO SCALE

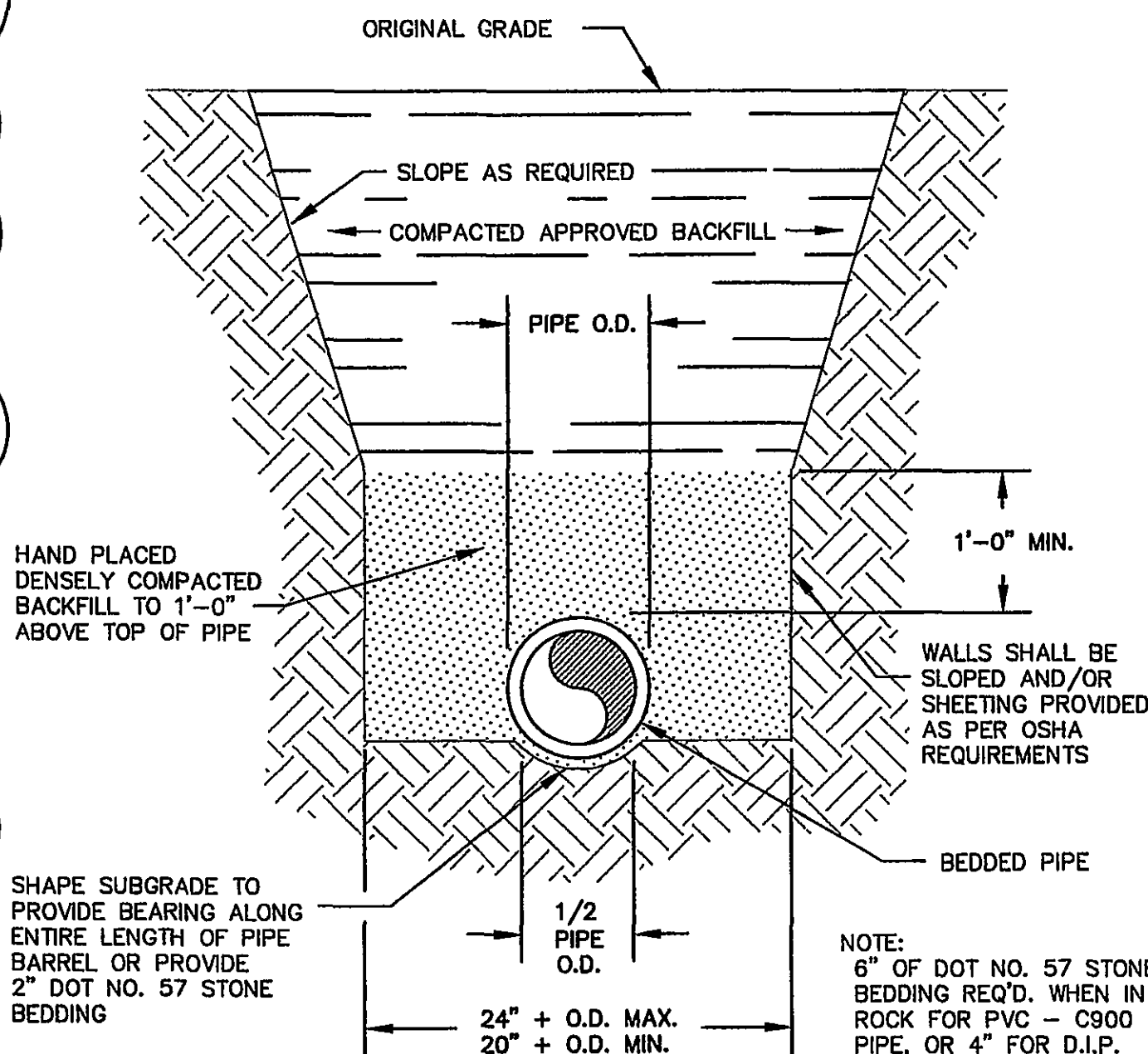


THRUST BLOCK DETAILS

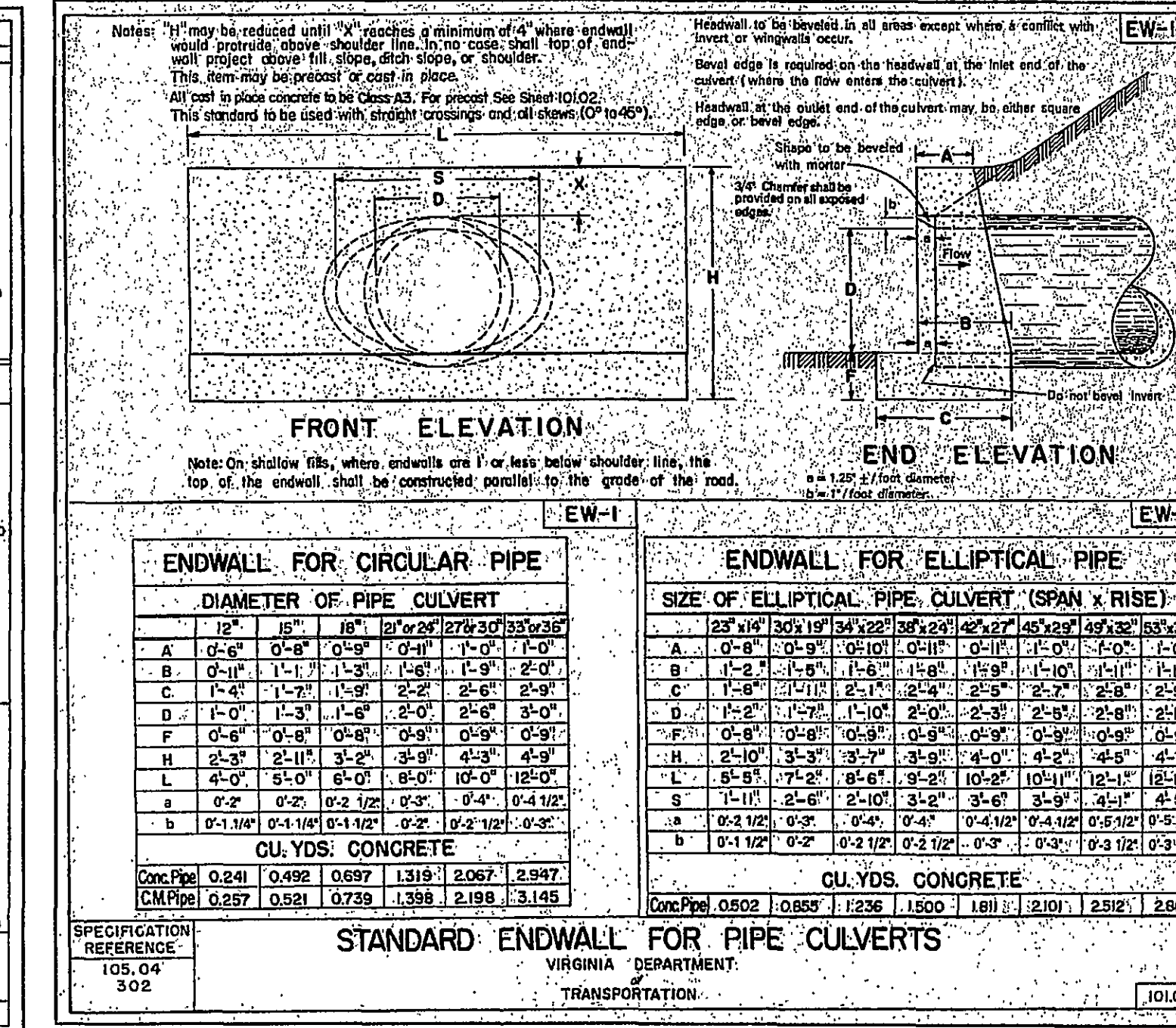
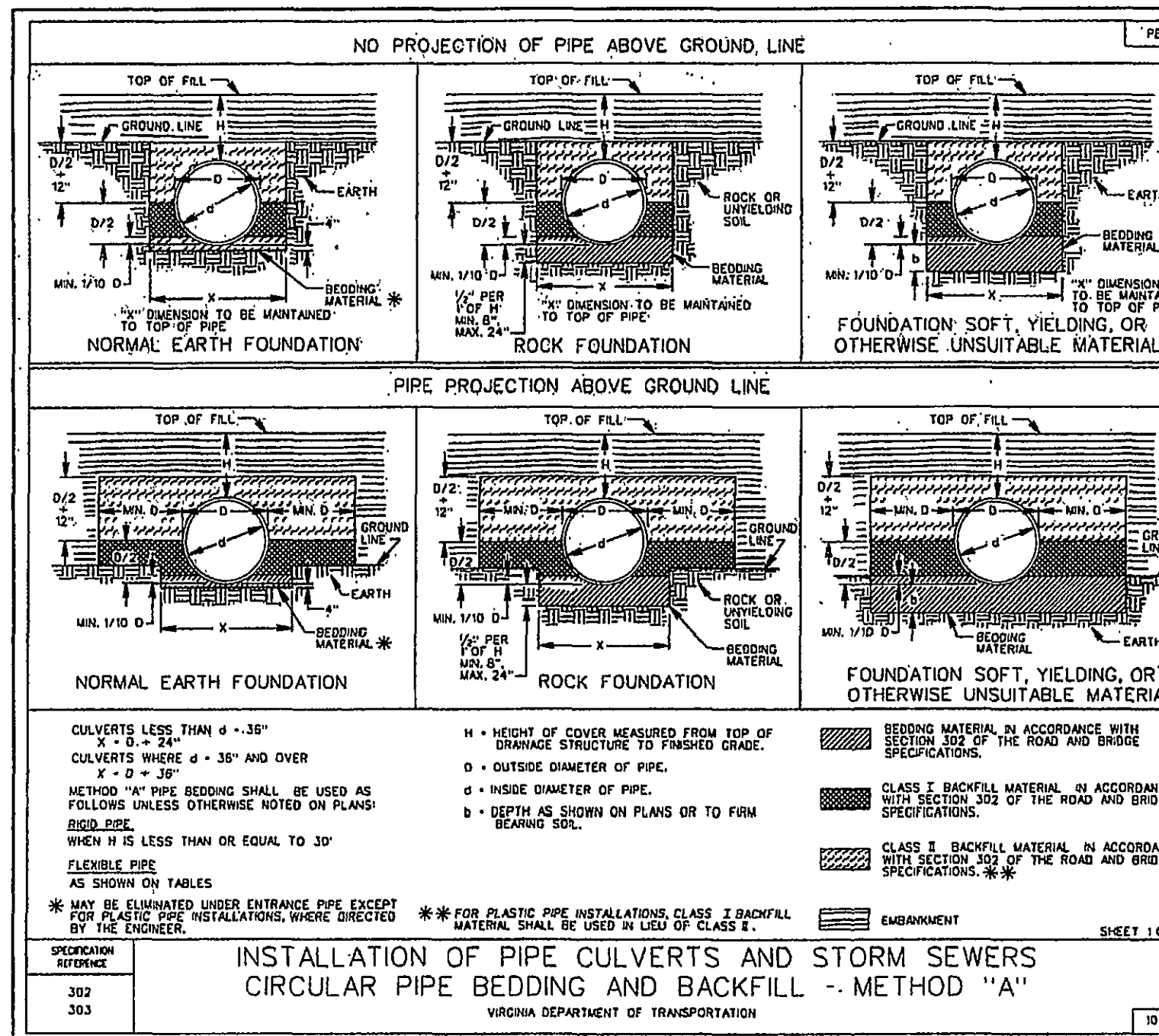
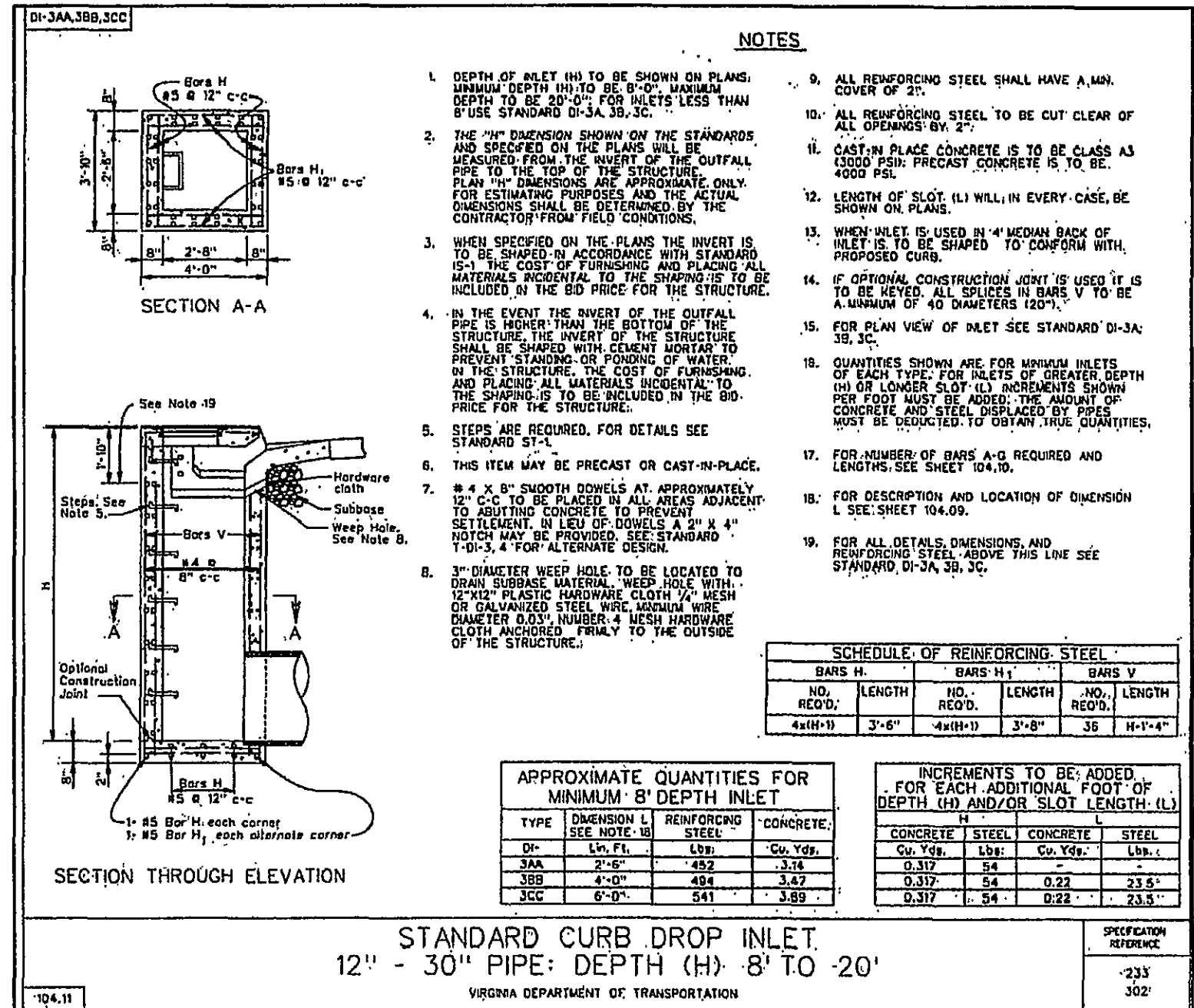
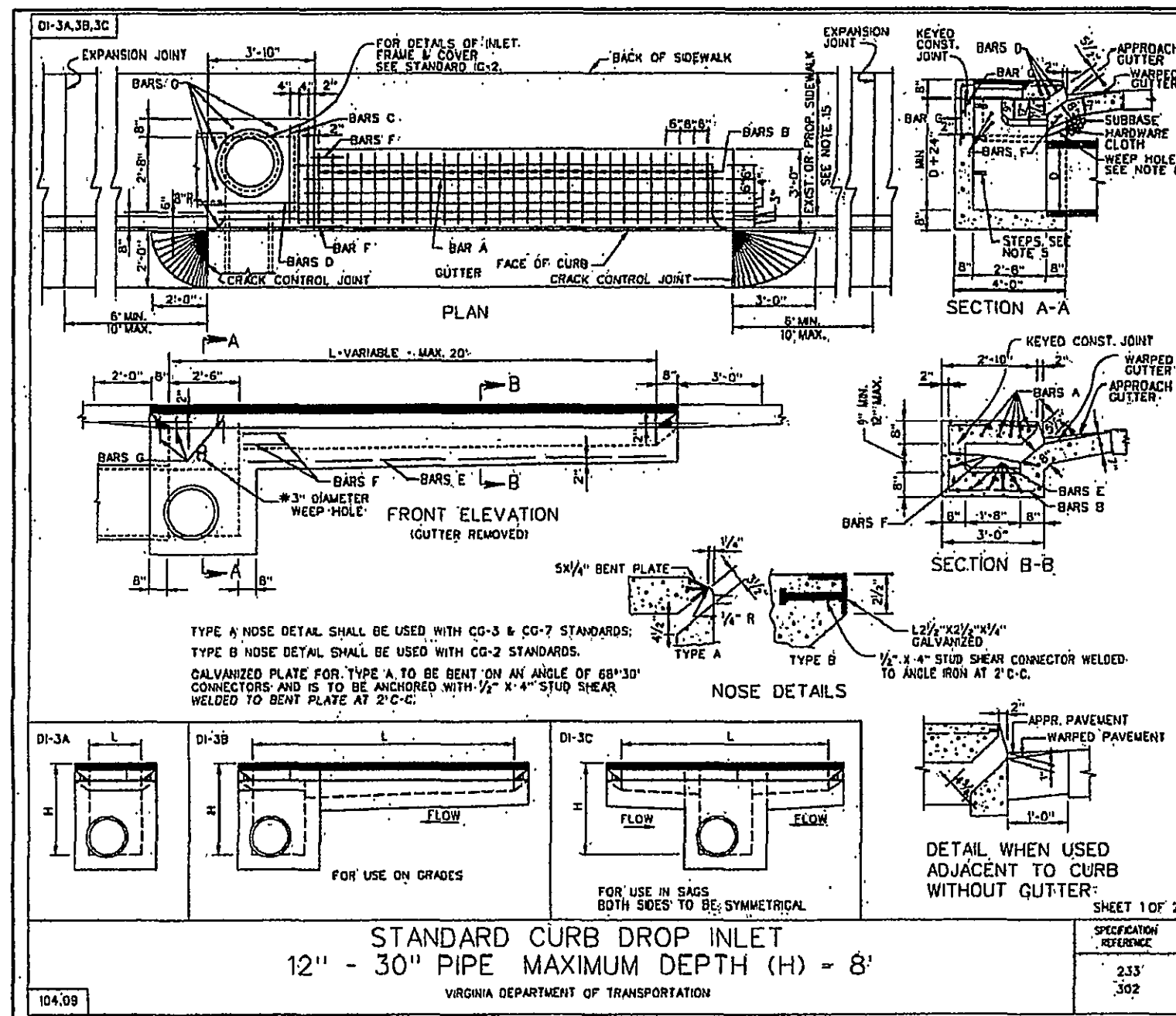
PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		TEE		FLUG	
	A	B	A	B	A	B	A	B	A	B	C	D
4"	8"	12"	8"	8"	6"	6"	6"	6"	8"	9"	10"	6"
6"	10"	12"	8"	10"	8"	8"	8"	8"	10"	10"	12"	18"
8"	15"	13"	10"	10"	8"	8"	8"	8"	10"	12"	12"	24"
10"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"
12"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"
14"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"
16"	26"	20"	16"	18"	11"	13"	11"	13"	16"	20"	20"	36"
20"												



PIPE LAYING CONDITION GRAVITY SEWER SDR - 35 PVC NOT TO SCALE



PIPE LAYING CONDITION D.I.P. & PVC C-900 NOT TO SCALE



- #### VIRGINIA EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS
- SOIL STABILIZATION - ALL DENUDDED AREAS THAT WILL BE PAVED WITHIN A YEAR SHALL BE TEMPORARILY SEEDED. SODDING WILL BE PLACED ON ALL DENUDDED AREAS THAT WILL NOT BE PAVED. ANY AREA OF THE SITE THAT IS DENUDDED FOR SEVEN DAYS WILL BE EITHER TEMPORARILY OR PERMANENTLY SEEDED TO ENSURE SOIL STABILIZATION.
 - SOIL STOCKPILE STABILIZATION - SOIL STOCKPILES WILL BE SURROUNDED WITH SILT FENCE.
 - PERMANENT STABILIZATION - SODDING SHALL BE PLACED ON ALL PERMANENTLY NON-PAVED AREAS TO ENSURE SOIL STABILIZATION.
 - SEDIMENT BASINS & TRAPS - TWO SEDIMENT TRAPS WILL BE INSTALLED TO COLLECT SEDIMENT-LADEN RUNOFF AS GRADING OCCURS. DIVERSION DITCHES WILL GUIDE RUNOFF TO THE TRAPS. TRAP ONE WILL BE INSTALLED ON-SITE AND WILL PRIMARILY COLLECT ON-SITE RUNOFF. TRAP TWO WILL BE INSTALLED ON THE ADJACENT SITE (SONIC'S PROPERTY) TO COLLECT ON-SITE RUNOFF AND RUNOFF GENERATED FROM ROAD GRADING ON THE ADJACENT SITE.
 - STABILIZATION OF EARTHEN STRUCTURES - DIVERSION DITCHES SHALL BE SEEDED IMMEDIATELY AFTER INSTALLATION.
 - SEDIMENT TRAPS AND SEDIMENT BASINS - SEE ITEM #4 ABOVE.
 - CUT & FILL SLOPES DESIGN & CONSTRUCTION - SLOPES ARE DESIGNED AND SHALL BE CONSTRUCTED TO MINIMIZE EROSION. IF EXCESSIVE EROSION OCCURS WITHIN ONE YEAR OF PERMANENT STABILIZATION, ADDITIONAL MEASURES WILL BE APPLIED TO REDUCE EROSION.
 - CONCENTRATED RUNOFF DOWN SLOPES - STORMWATER RUNOFF FROM THE SITE WILL BE COLLECTED BY A NEW STORMDRAIN SYSTEM. THE SYSTEM WILL RELEASE RUNOFF AT THE BOTTOM OF THE ON-SITE SLOPE, WHICH WILL PREVENT CONCENTRATED FLOW DOWN THE SLOPE.
 - SLOPE MAINTENANCE - WATER SEEPAGE FROM SLOPE FACES IS NOT ANTICIPATED. IF SEEPAGE OCCURS, THE PROJECT ENGINEER WILL BE CONTACTED AND PROPER MEASURES TO STOP SEEPAGE WILL BE TAKEN.
 - STORM SEWER INLET PROTECTION - ALL STORM SEWER INLETS WILL HAVE INLET PROTECTION TO FILTER SEDIMENT-LADEN RUNOFF BEFORE IT ENTERS INTO THE NEW STORMDRAIN SYSTEM.
 - STORMWATER CONVEYANCE PROTECTION - THE TWO STORMDRAIN OUTFALLS WILL HAVE RIPRAP OUTLET PROTECTION.
 - WORK IN LIVE WATERCOURSE - N/A (NO WORK TO BE PERFORMED IN A LIVE WATERCOURSE).
 - CROSSING LIVE WATERCOURSE - N/A (NO VEHICLES WILL CROSS A LIVE WATERCOURSE).
 - REGULATION OF WATERCOURSE CROSSING - N/A (NO VEHICLES WILL CROSS A LIVE WATERCOURSE).
 - STABILIZATION OF WATERCOURSE - N/A (NO WORK TO BE PERFORMED IN A LIVE WATERCOURSE).
 - UNDERGROUND UTILITY LINE INSTALLATION - UNDERGROUND UTILITY LINES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS OF THIS SECTION.
 - VEHICULAR SEDIMENT TRAPPING - CONSTRUCTION ENTRANCES SHALL BE GRAVELED TO MINIMIZE SEDIMENT TRANSPORT. IF SEDIMENT IS TRACKED INTO THE STREET, IT WILL BE SWEEPED AND TRANSPORTED TO A DISPOSAL AREA AND THE STREET WASHED.
 - REMOVAL OF TEMPORARY MEASURES - TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF SITE STABILIZATION OR AFTER THE MEASURES ARE NO LONGER NEEDED.
 - STORMWATER MANAGEMENT - STORMWATER RUNOFF FROM THE SITE WILL BE COLLECTED BY A NEW STORMDRAIN SYSTEM. THE SYSTEM WILL RELEASE RUNOFF INTO AN EXISTING CHANNEL. STORMWATER MANAGEMENT REQUIREMENTS FOR THE DEVELOPMENT OF THE SITE WERE MET AS PART OF THE ADJACENT LOWE'S DEVELOPMENT.

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OVERLAND PARK, KANSAS 66207
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Neighborhood Grill & Bar
ROANOKE, VIRGINIA

PROJECT NUMBER: 80321900
ISSUED FOR PERMIT & BID: March, 2006

REVISIONS:

NO.	DESCRIPTION:	DATE:
1	OTB PLANS	3/15/06
2	PER CO. COMMENTS	4/26/06

PROJECT MANAGER:
BKB
DRAWN BY:
BRA
DRAWING TITLE:
SITE DETAILS
DRAWING NUMBER:
C5.2