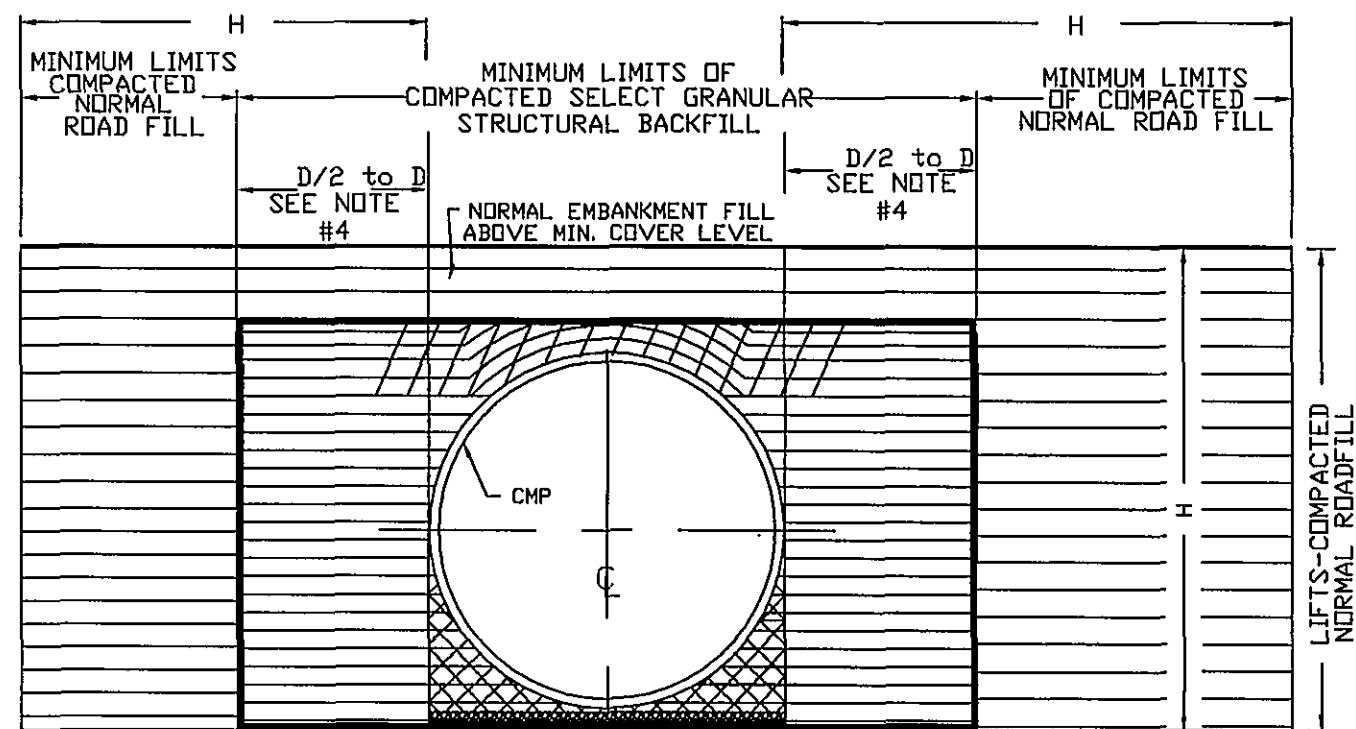
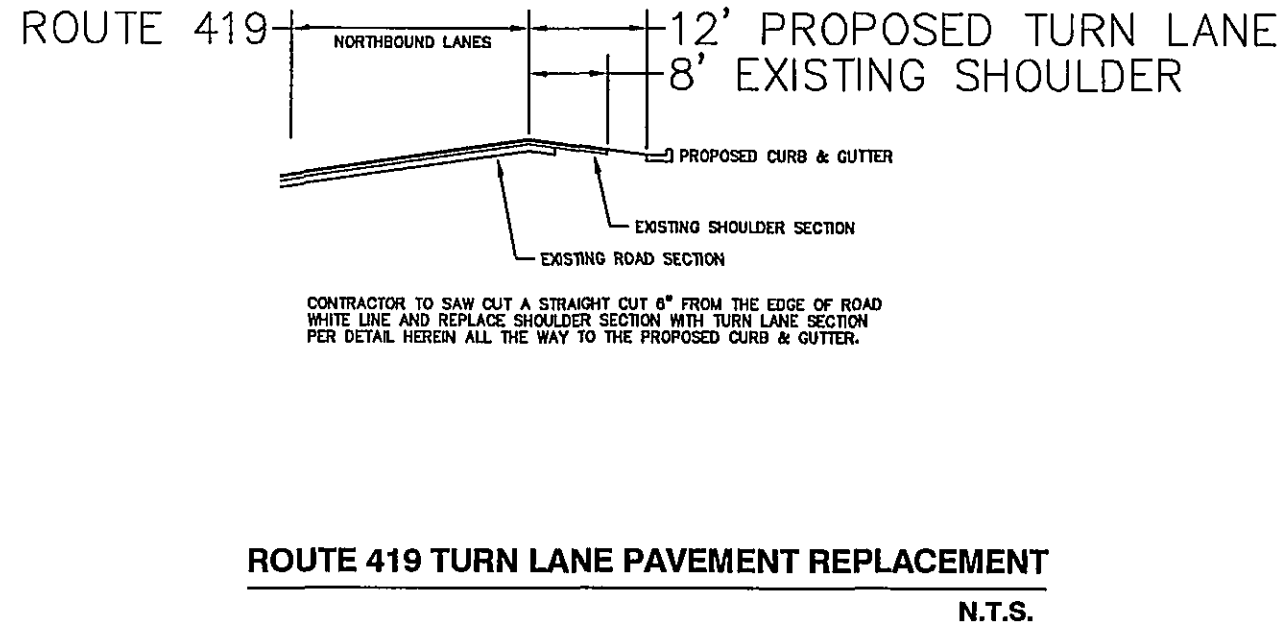
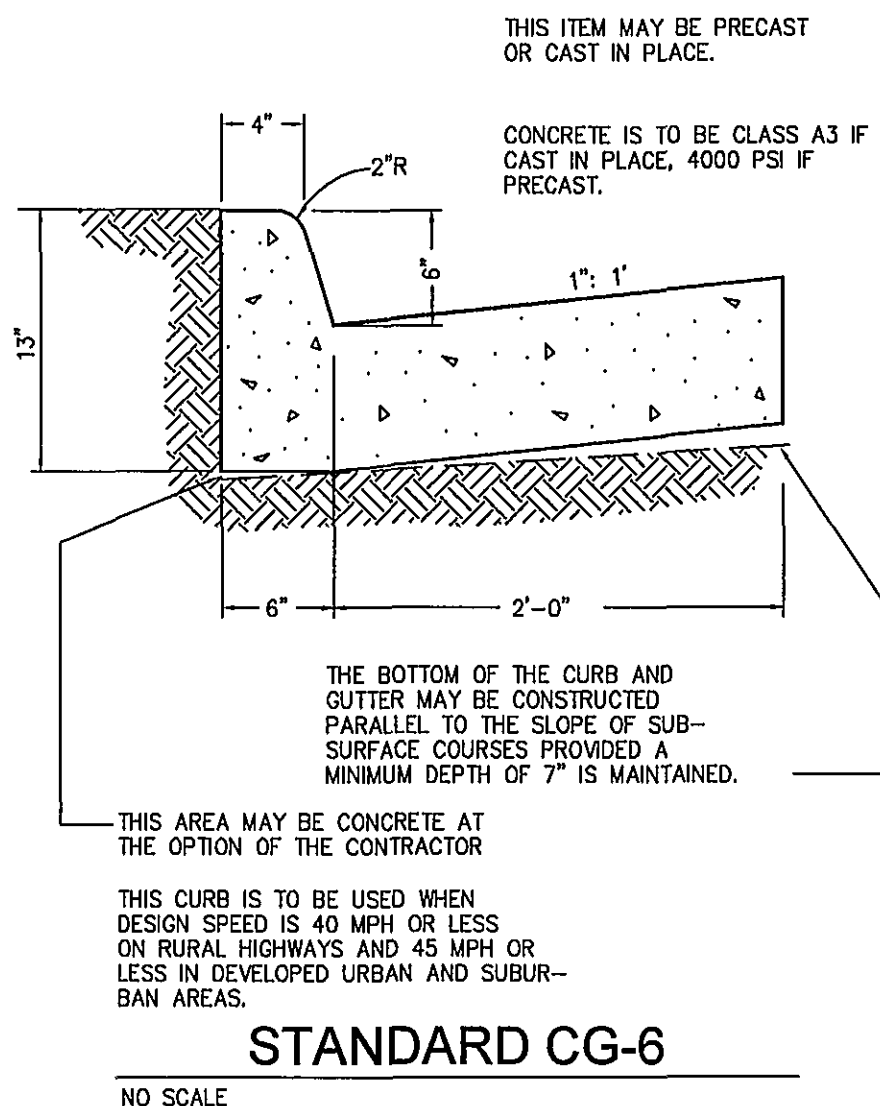
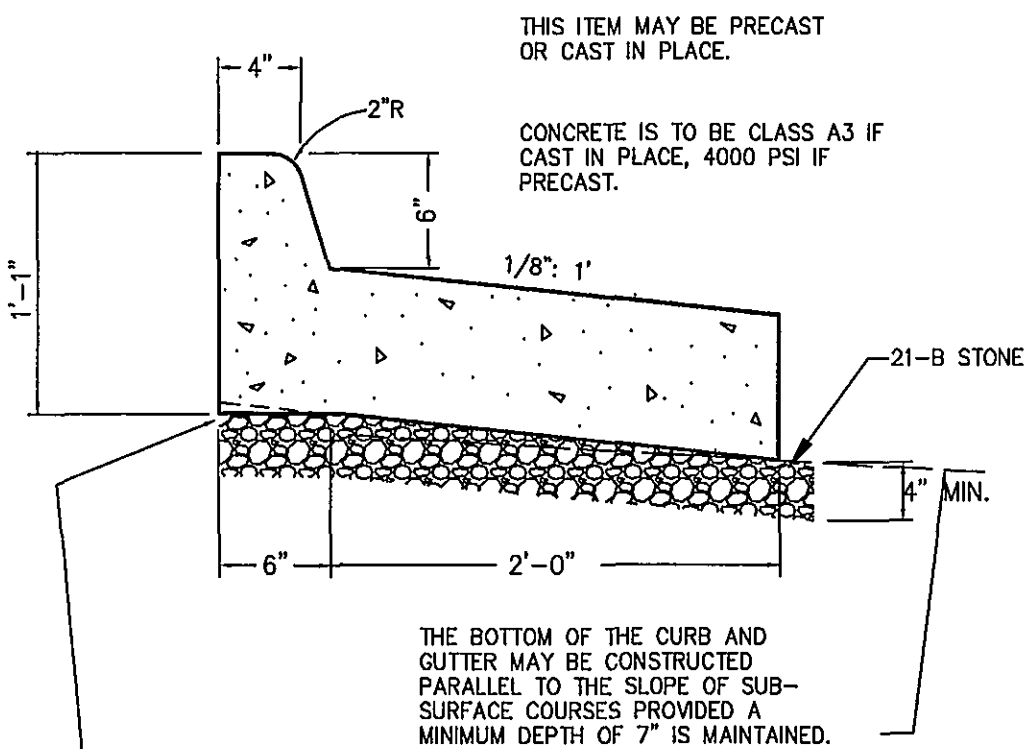
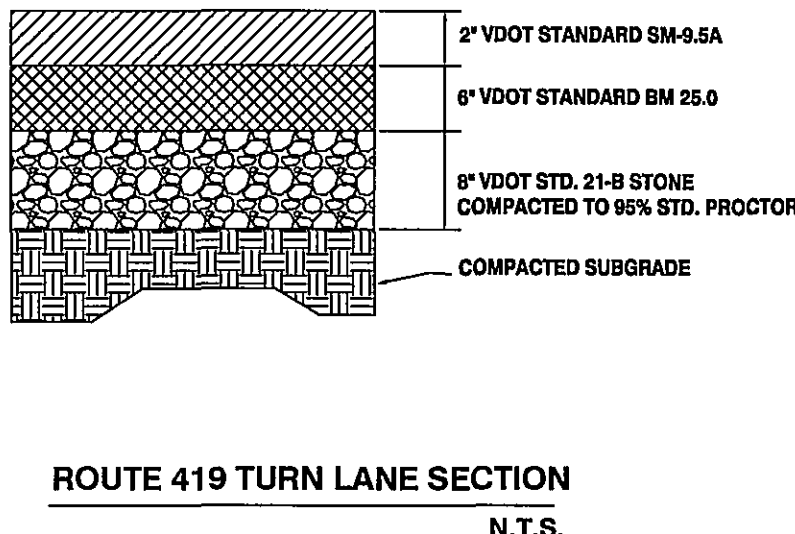
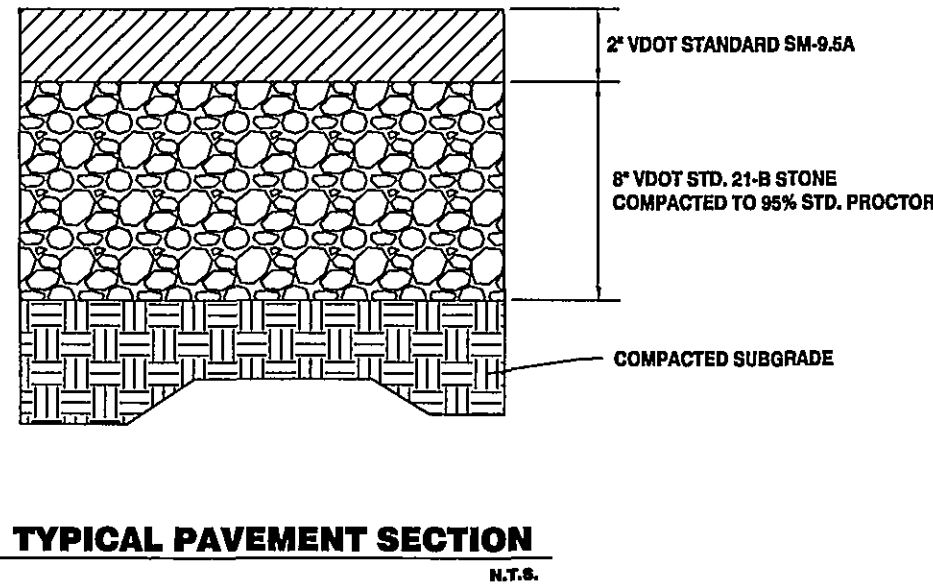
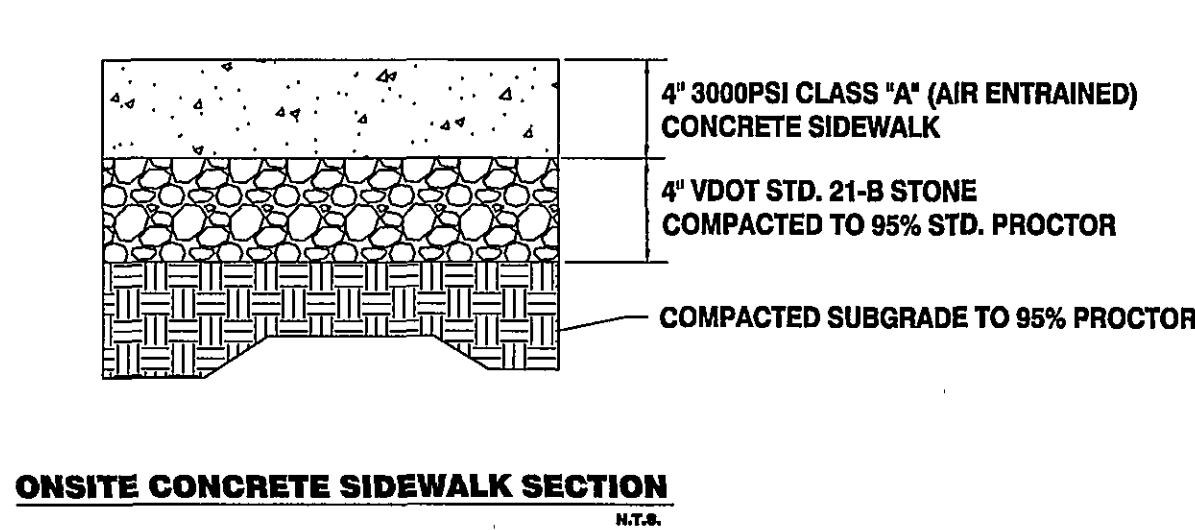
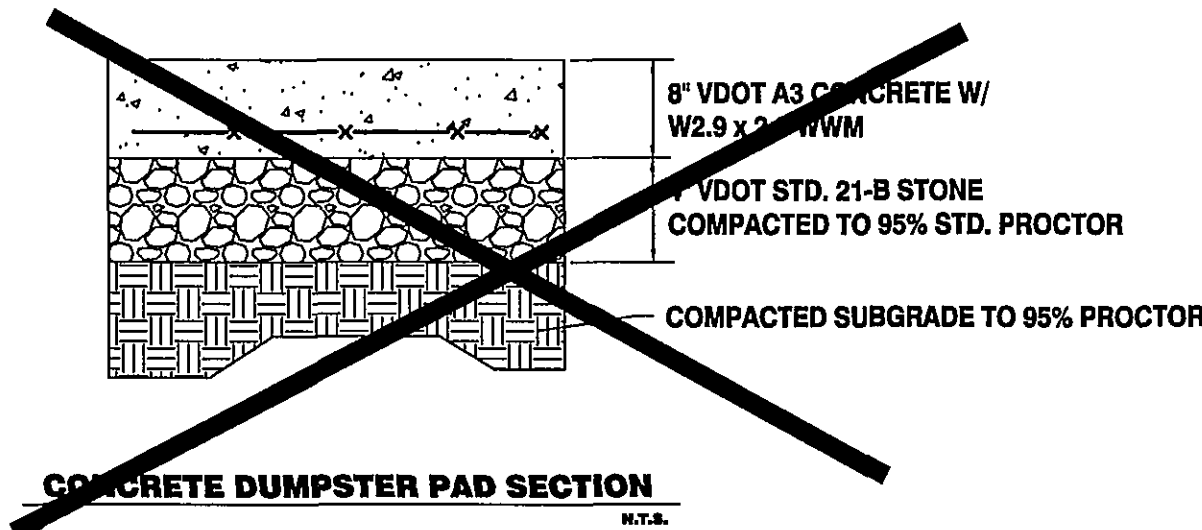


S:\2004 Projects\504009 419-Bower Member One\Site Plan\dwg\Site Plan (C)dwg, C09-DETAILS, 5/19/2005 11:07:15 AM

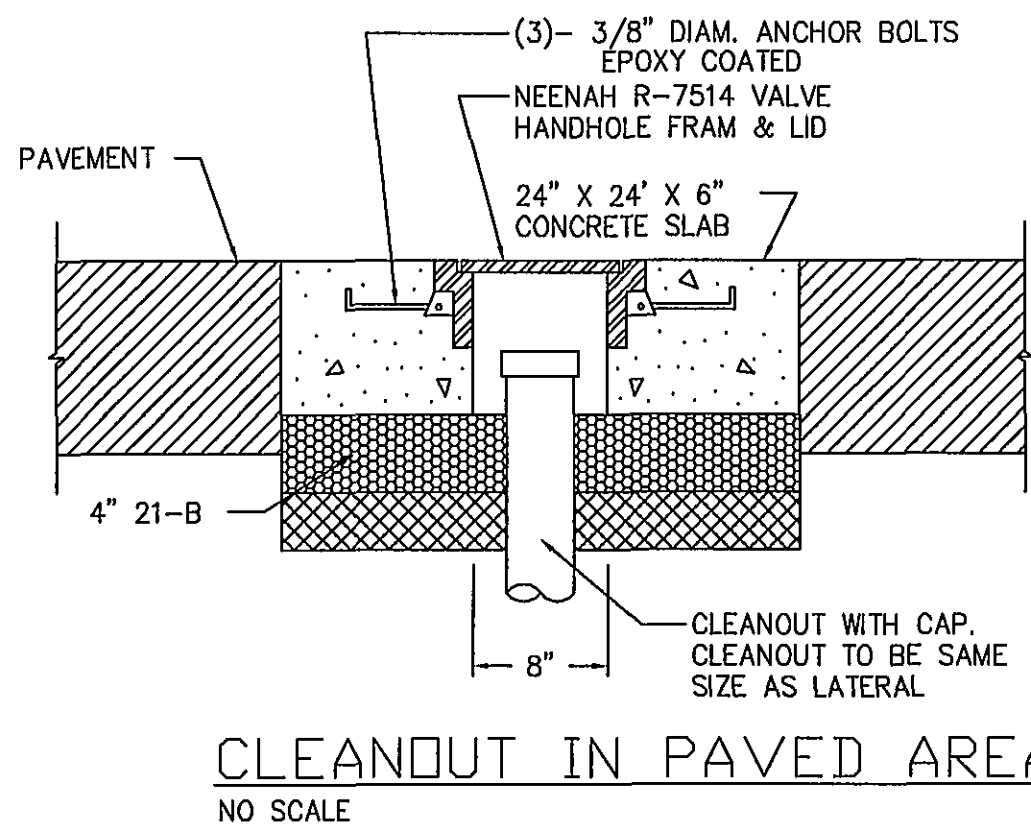
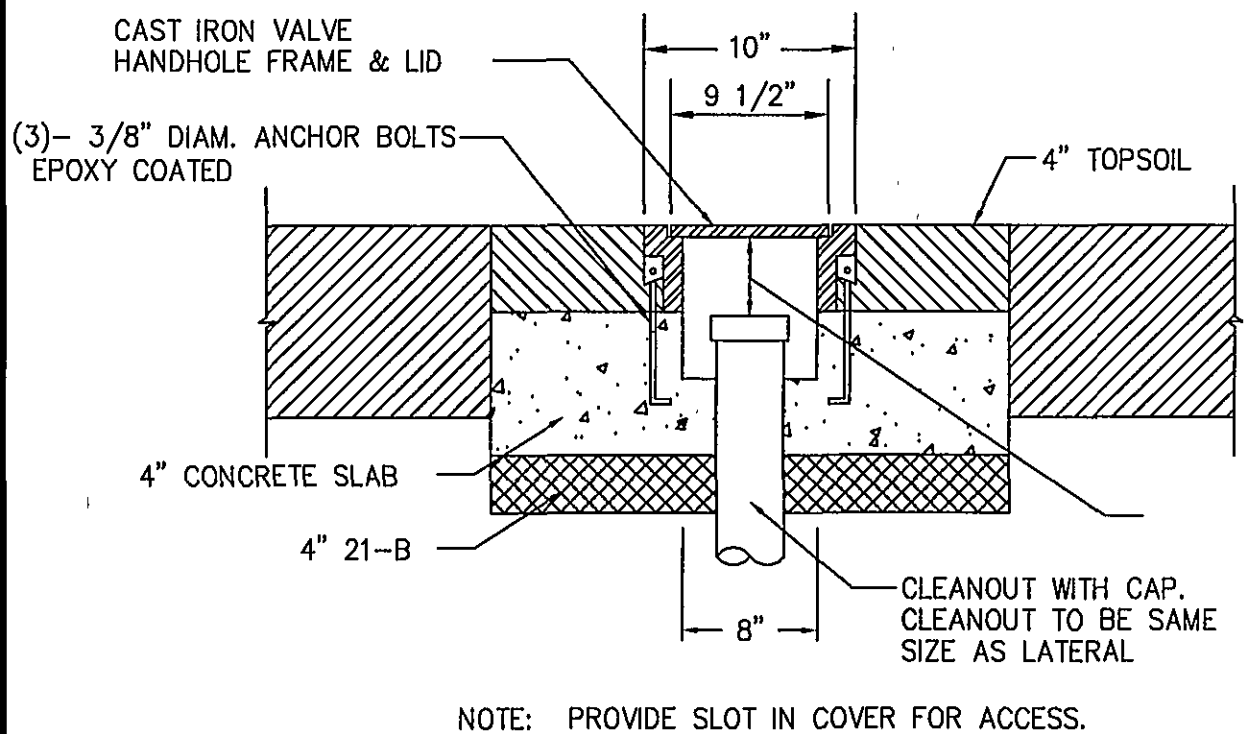


- NOTES:**
- ALL SELECT GRANULAR BACKFILL TO BE PLACED IN A BALANCED FASHION IN THIN LIFTS (6\"/>
 - COMPLETE AND REGULAR MONITORING OF THE CSP SHAPE IS NECESSARY DURING ALL BACKFILLING OF THE STRUCTURE.
 - PREVENT EXCESSIVE DISTORTION OF SHAPE AS NECESSARY BY VARYING COMPACTION METHODS AND EQUIPMENT.
 - THIS WIDTH SHOULD BE EQUAL TO 1/2 DIA. TO ONE DIA. WIDTH TYPICALLY. GREATER OR LESSER DISTANCE MAY BE REQUIRED. DISTANCE DEPENDS ON BEARING LOAD FOR ANY GIVEN LOADING. STRUCTURE SHAPE AND BACKFILL MATERIAL. THIS MUST BE EVALUATED BY THE PROJECT ENGINEER FOR EACH SPECIFIC SITUATION.
 - BEDDING ZONE SHOULD BE FREE OF DEBRIS. PLACE BEDDING MATERIAL AT MIN. THICKNESS EQUAL TO TWICE THE CORRUGATION DEPTH.
 - EMBANKMENT WIDTH H TO BE SUCH THAT A STABLE EMBANKMENT CAPABLE OF RESISTING SIDE PRESSURES FROM CSP PIPE-ARCH SHAPE WILL BE MAINTAINED THROUGHOUT THE LIFE OF INSTALLATION. THIS WIDTH TO BE DETERMINED BY THE PROJECT ENGINEER.

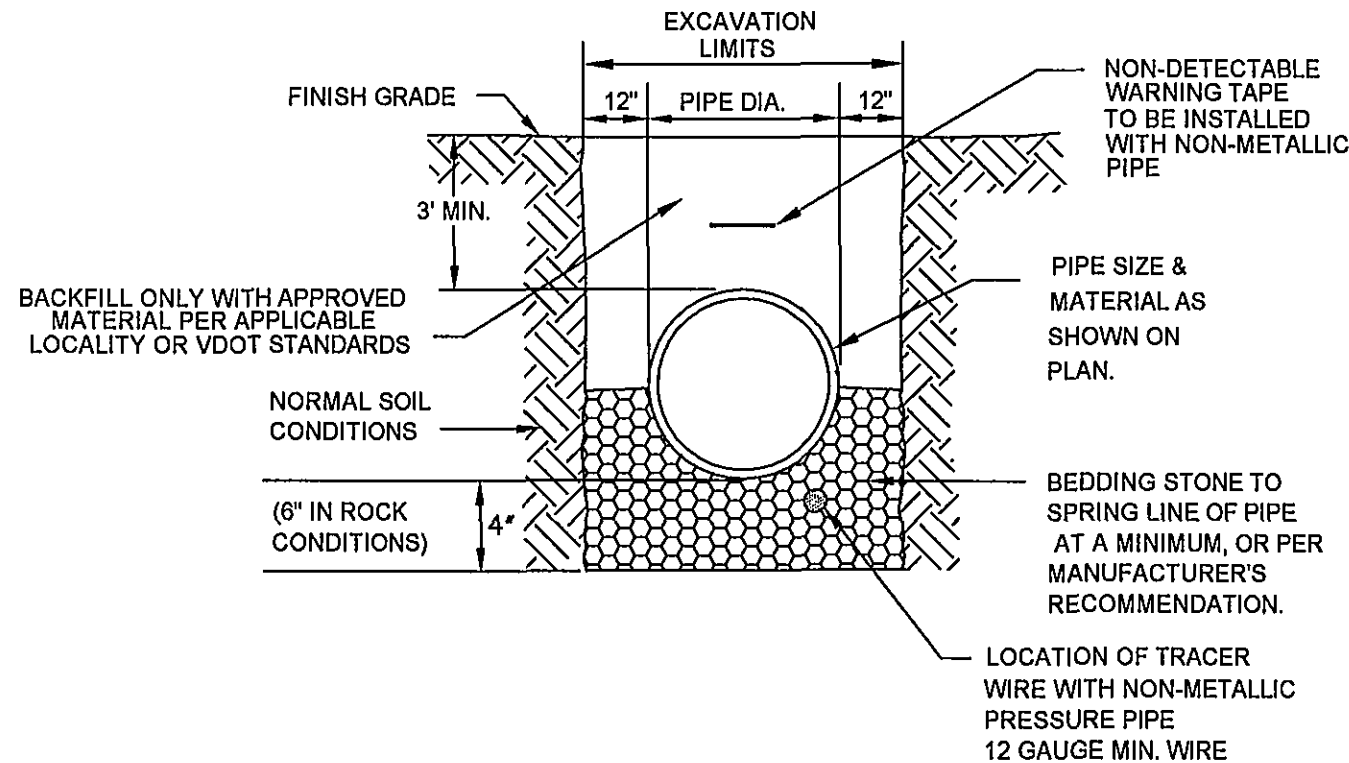


CORRUGATED METAL PIPE
TYPICAL BACKFILL SECTION

DRAWN BY: CMD REV. BY: XX SCALE: N/A
DATE: 12/04/03 DATE: XX 1



- NOTES:**
- BEDDING, HAUNCHING AND INITIAL BACKFILL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
 - WHEN INSTALLING NON-METALLIC PIPE, NON-DETECTABLE WARNING TAPE SHALL BE BURIED AT A MINIMUM 6\"/>
 - ALL PVC PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL WHICH SHALL BE CRUSHED STONE MEETING VDOT STANDARDS FOR GRADUATION 57 OR 88 STONE.
 - IN AREAS NOT SUBJECTED TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 10\"/>
 - ALL SEWER LINE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL. BEDDING REQUIREMENTS FOR DUCTILE WATER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.

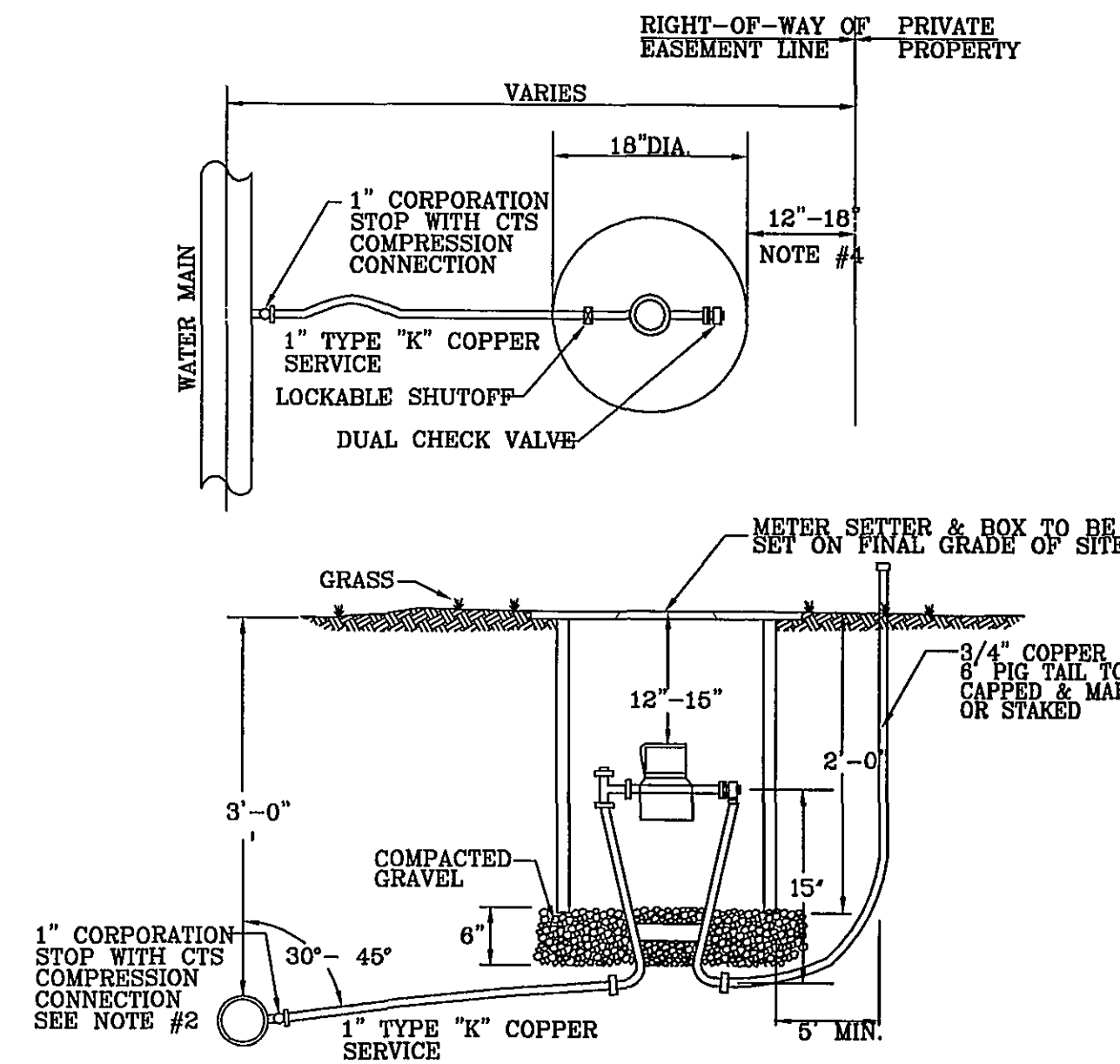


WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS			
REVISION	DATE	DESCRIPTION	BY
07/01/04			

BEDDING AND BACKFILL
OUTSIDE OF PAVED AREAS

G-01

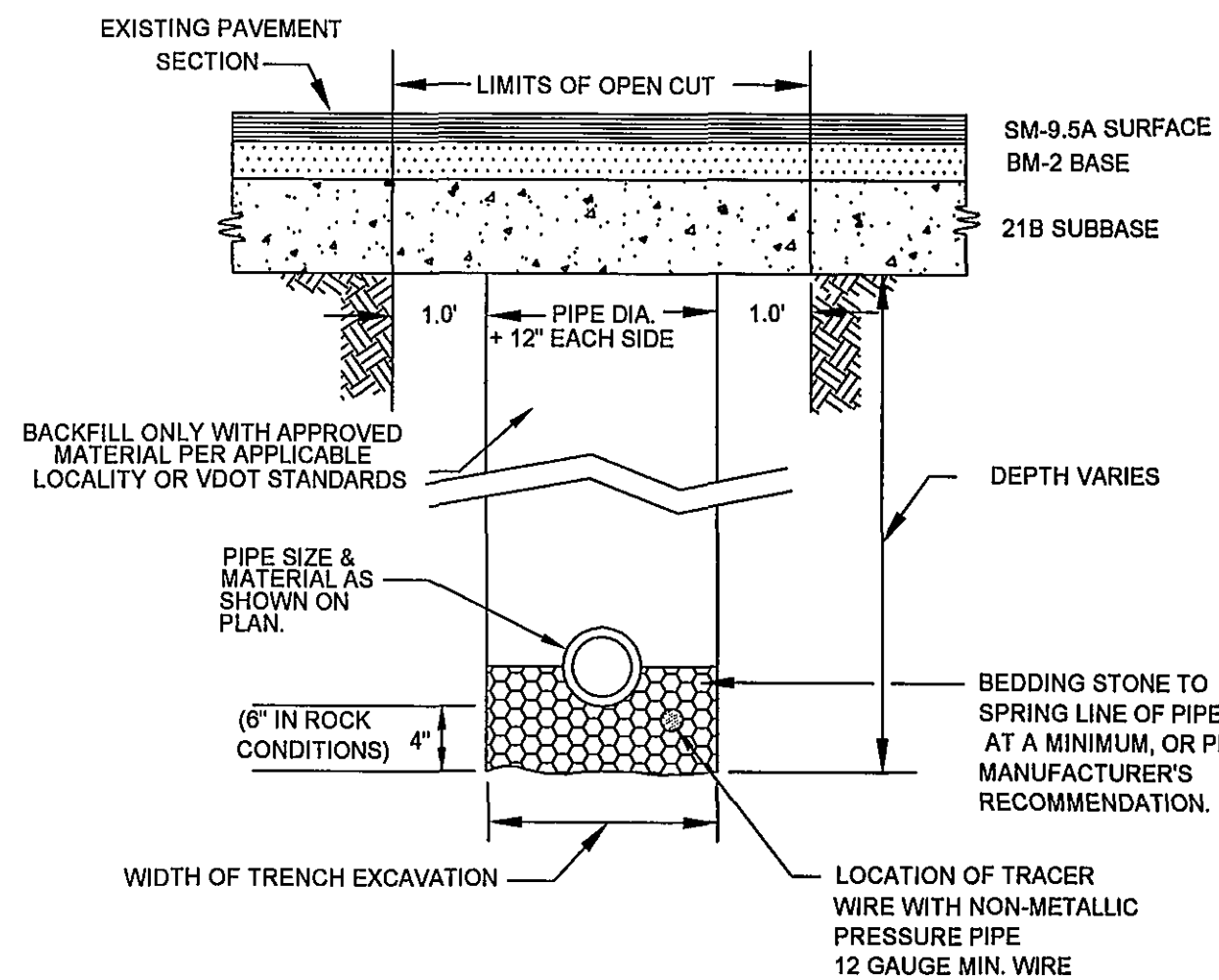
- SETTER TO BE A.Y. McDONALD #20-215 WDL133, FORD VBH72-15W-1133 OR APPROVED EQUAL.
- SADDLES MUST BE USED WITH ALL PLASTIC & CLASS 50 DUCTILE IRON PIPE. SERVICE SADDLES SHALL BE USED IN ACCORDANCE WITH SECTION 2605 OF THE WATER STANDARDS. SERVICE SADDLES FOR PLASTIC PIPE SHALL BE POWERSEAL 3417, OR 3412AS, ROMAC 202S, OR 306, OR FORD METER PS202 OR PS303. FOR DUCTILE IRON PIPE USE THE ABOVE OR POWERSEAL 3413, ROMAC 202 OR FORD METER F202.
- METER BOX MUST BE MID-STATES PLASTICS, INC. PLASTIC BOX WITH FORD A32-T (ELECTRONIC READ LID) OR A.Y. McDONALD MODEL 74M322-TC CAST IRON BASE & COVER OR APPROVED EQUAL.
- WHENEVER SIDEWALK EXISTS OR IS PROPOSED, MODIFY METER LOCATION AS DIRECTED.
- CORPORATION STOP MUST BE FORD F1000-4-8 OR APPROVED EQUAL.



WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS			
REVISION	DATE	DESCRIPTION	BY
07/01/04			

TYPE "A"
SINGLE RESIDENTIAL
WATER SERVICE
(LINE PRESSURE UNDER 80 PSI)

W-01



- NOTES:**
- IN ROANOKE COUNTY, THE CONTRACTOR SHALL BEDDING THE OPEN CUT WITH A MINIMUM TOP COURSE OF 2\"/>
 - ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE AS SPECIFIED BY VDOT OR APPLICABLE LOCALITY.
 - PRIOR TO CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS FROM VDOT AND/OR APPLICABLE LOCALITY.
 - ALL WATER LINES BENEATH PAVEMENT SHALL BE DUCTILE IRON UNLESS INSTALLED IN CASING PIPE OR BY DIRECTIONAL BORING.
 - IN AREAS SUBJECTED TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 6\"/>
 - ALL SEWER LINE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL. BEDDING REQUIREMENTS FOR DUCTILE WATER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.

WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS			
REVISION	DATE	DESCRIPTION	BY
07/01/04			

BEDDING AND BACKFILL
UNDER PAVEMENT

G-02

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Member One Federal Credit Union
Route 419, Roanoke County
Prepared for Thor, inc.
Windsor Hills Magisterial District
Roanoke County, Virginia

REVISIONS:	
County & VDOT Comments	March 29, 2005
County, VDOT, & WVWA Comments	May 3, 2005
County Comments	May 19, 2005

DESIGNED BY: GST

DRAWN BY: GST

CHECKED BY: SRB

SCALE: As Noted

DATE: November 16, 2004

SHEET TITLE:
**Miscellaneous
Details**

C09
09 OF 12
PROJECT NUMBER:
S04009-02