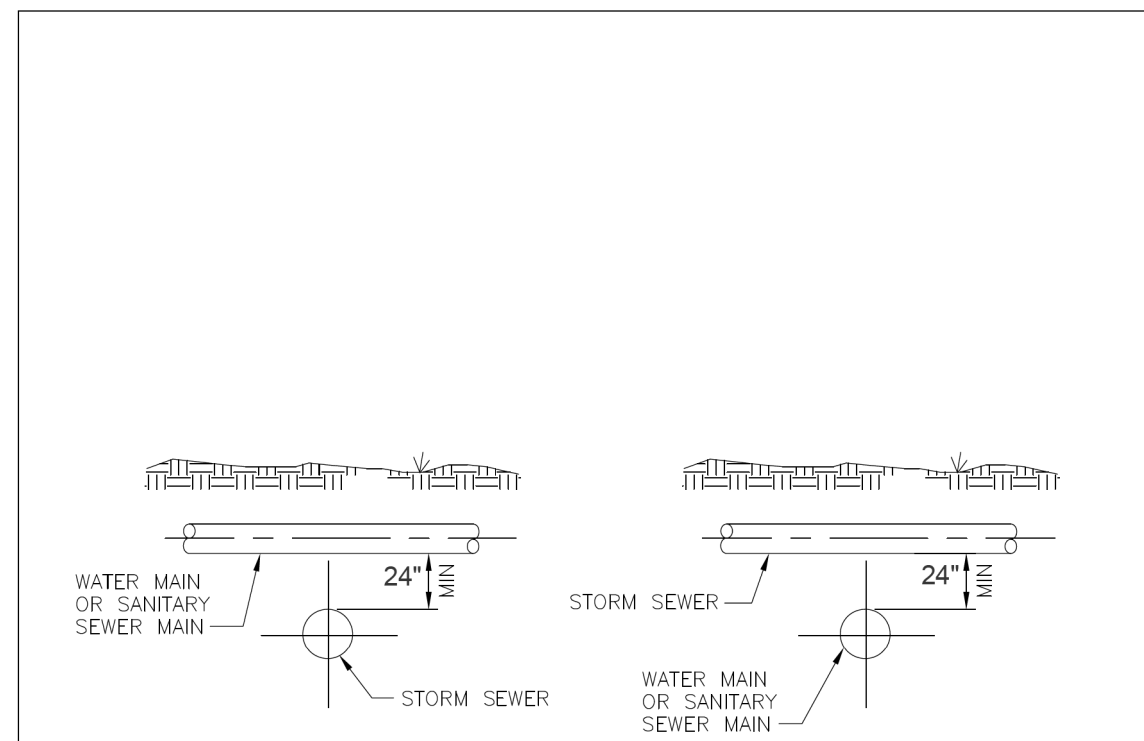
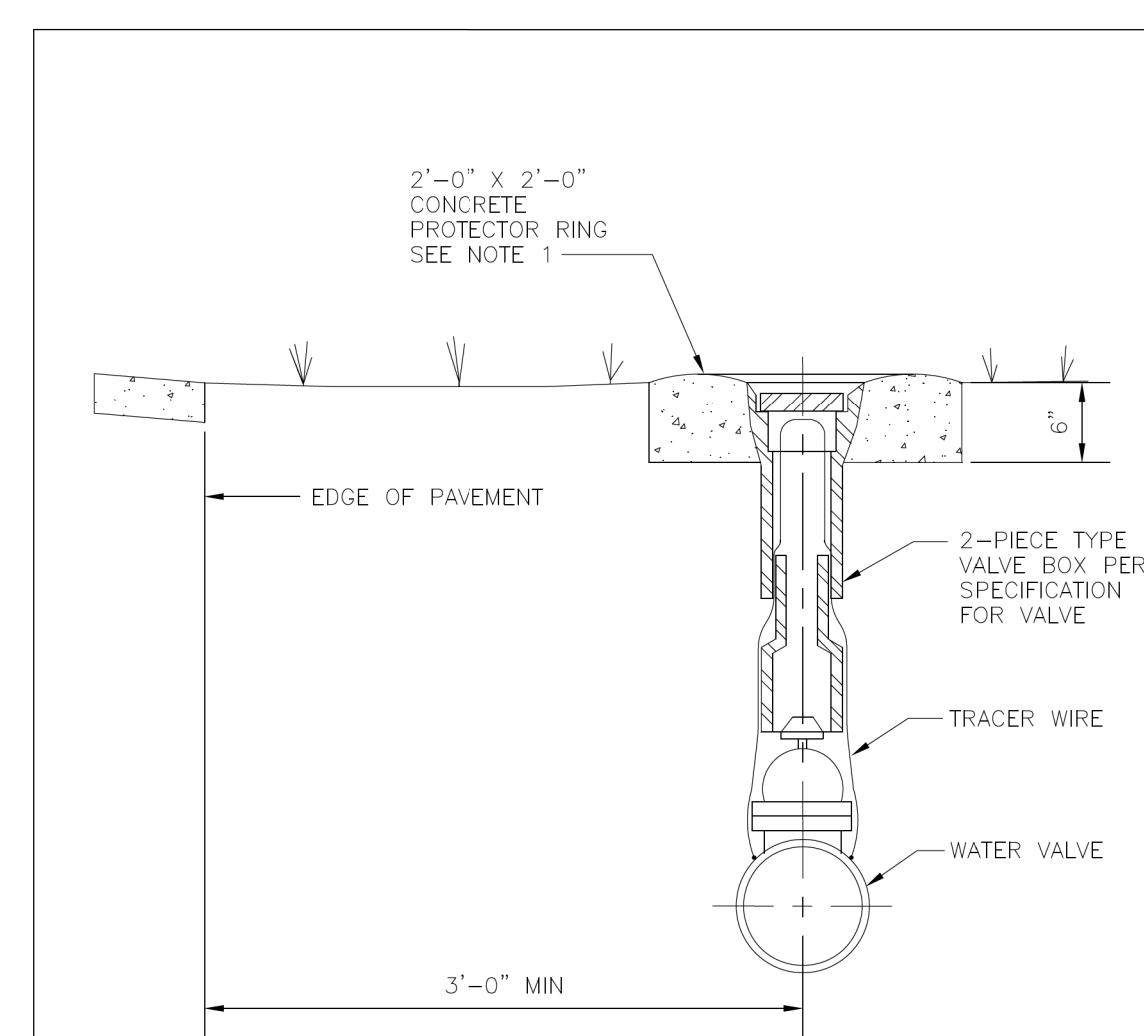


PROJECT REFERENCE NO.	SHEET NO.
B-5123	UC-3B
DESIGNED BY: BCH	
DRAWN BY: BCH	
CHECKED BY: JLT	
APPROVED BY: MRB	
REVISED:	1/29/2016
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151 TGS ENGINEERS 804-C N. LAFAYETTE ST. SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO. C-0275	



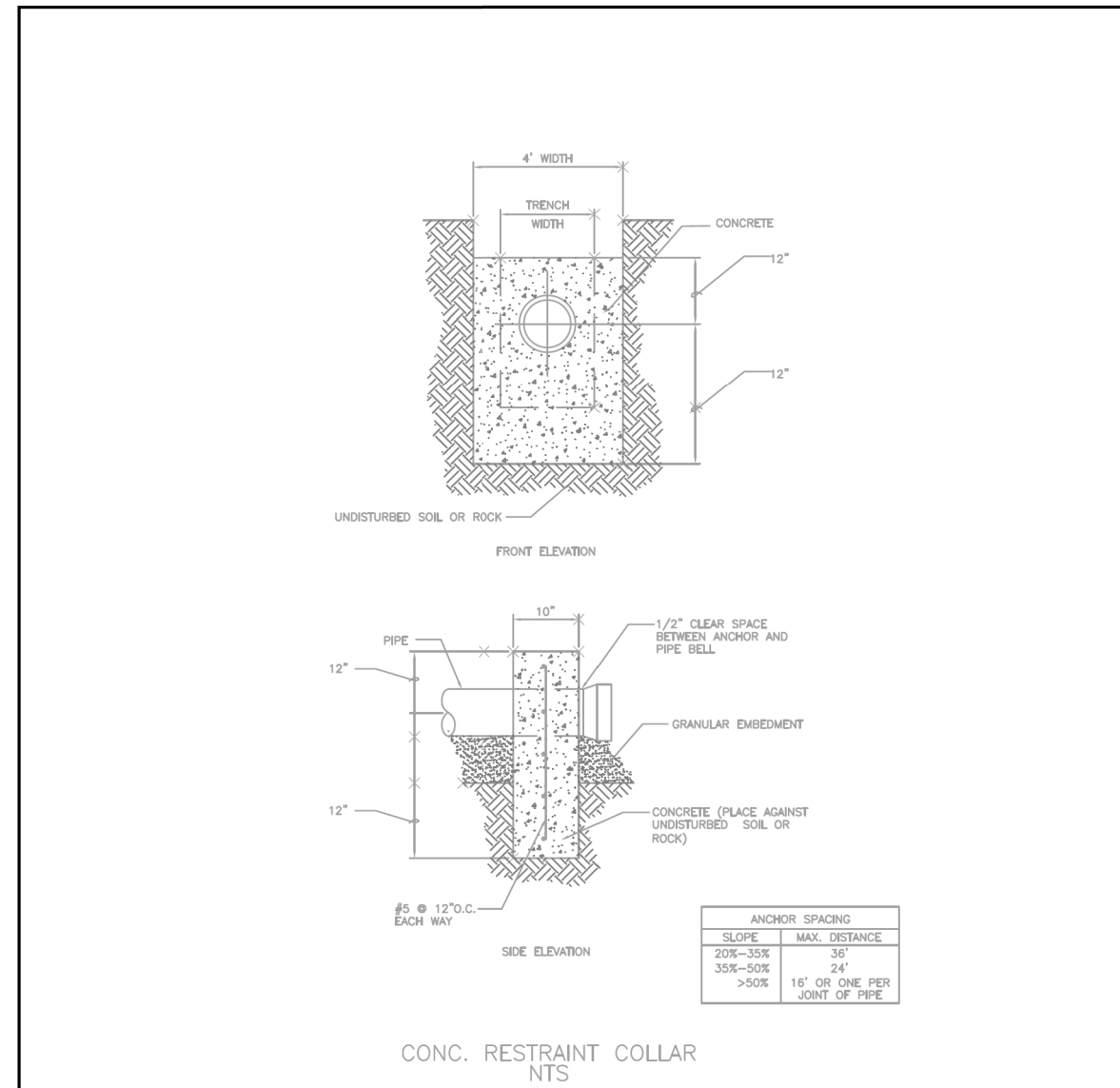
NOTE:
WHEN A WATER MAIN OR SANITARY SEWER MAIN CROSSES OVER OR UNDER A STORM SEWER AND CONDITIONS PREVENT THE REQUIRED 24" MIN VERTICAL SEPARATION, THE WATER MAIN OR SANITARY SEWER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSINGS.

WSACC				RELATION OF WATER MAINS AND SANITARY SEWER MAINS TO STORM SEWERS
WATER AND SEWER AUTHORITY OF CABARRUS COUNTY				FILE NAME: W4.0 DATE: 8/06
REVISION NO.	DATE	BY	CHKD	

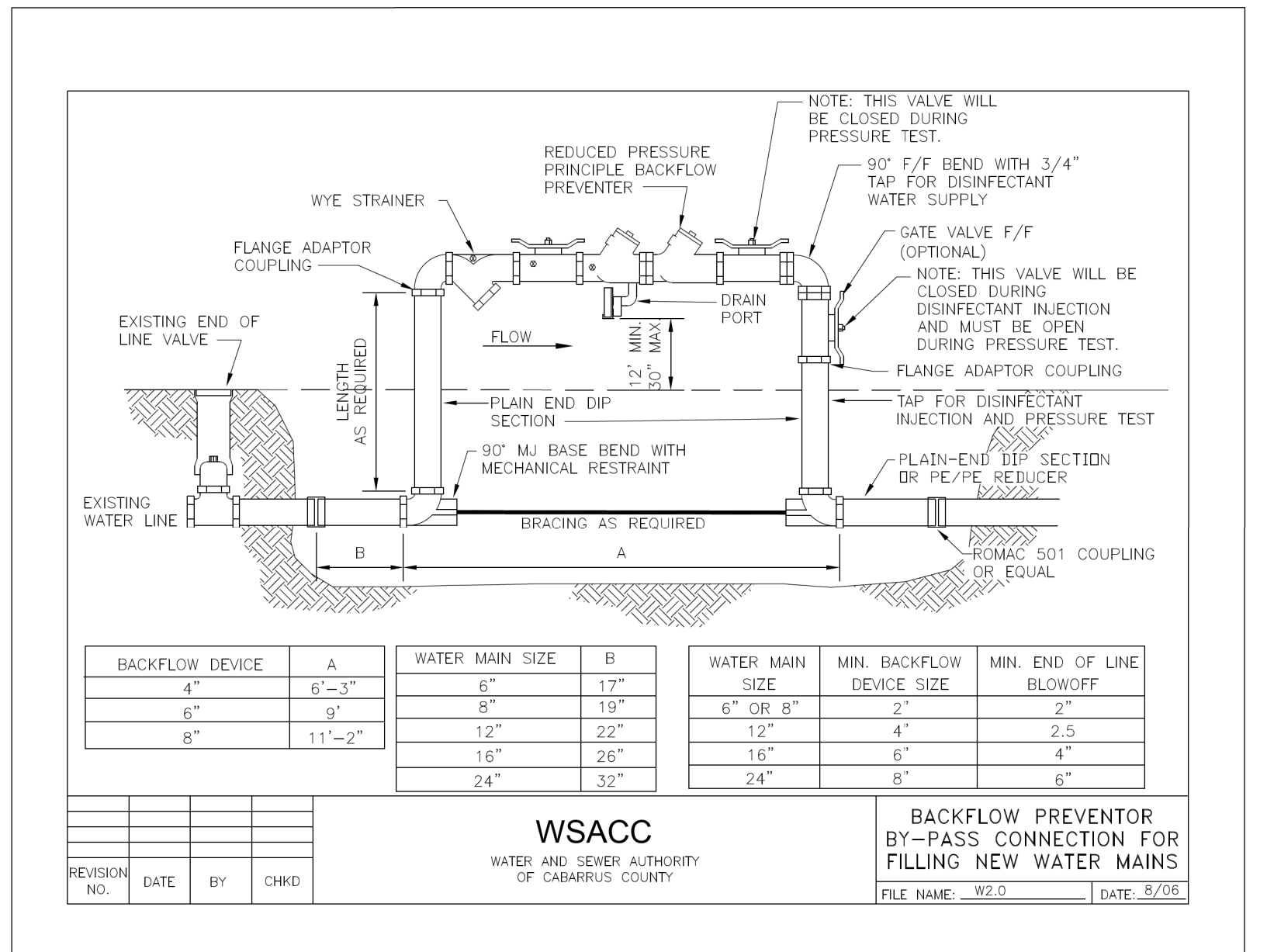


NOTE:
1. USE PROTECTION RING IN SHOULDER OF ROAD.

WSACC				VALVE BOX INSTALLATION
WATER AND SEWER AUTHORITY OF CABARRUS COUNTY				FILE NAME: W1.0 DATE: 8/06
REVISION NO.	DATE	BY	CHKD	

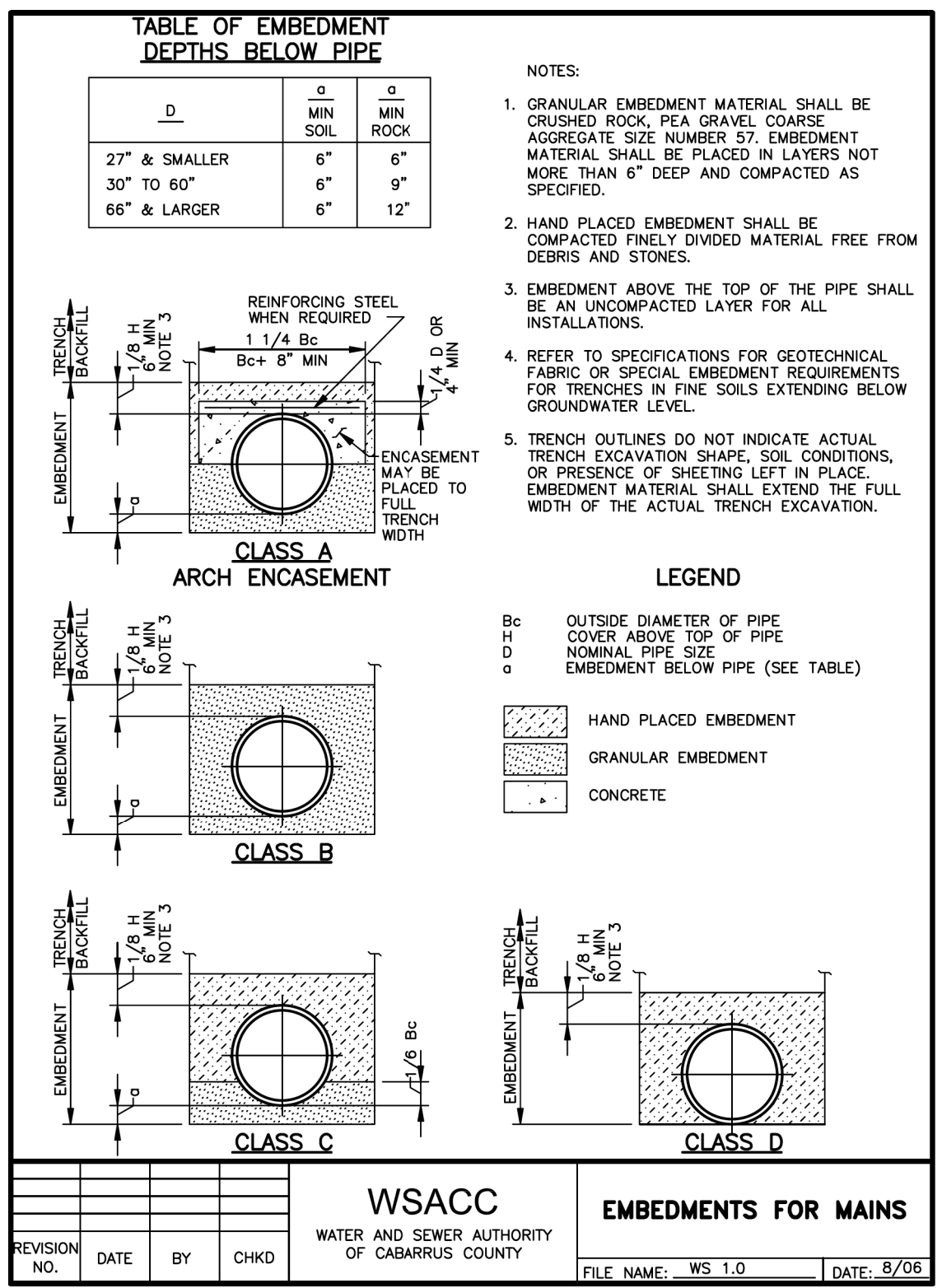


CITY OF CONCORD		STANDARDS DETAIL	
TYPICAL CONCRETE		RESTRAINT COLLAR	
Drawn By: SVM	Checked By:	Approved By: 08/15	Sheet of 1

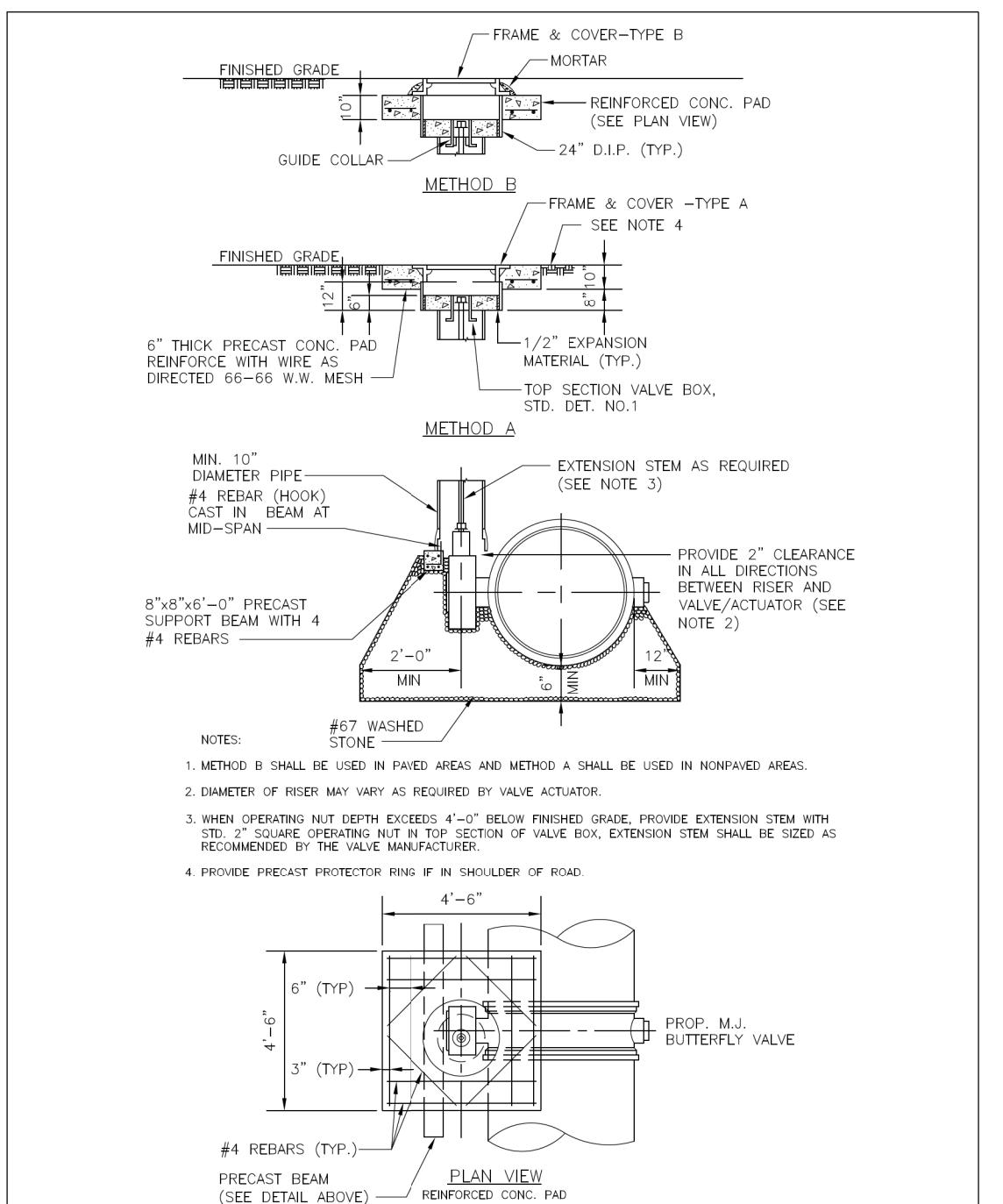


BACKFLOW DEVICE	A	WATER MAIN SIZE	B	WATER MAIN SIZE	MIN. BACKFLOW DEVICE SIZE	MIN. END OF LINE BLOWOFF
4"	6"-3"	6"	17"	6" OR 8"	2"	2"
6"	9"	12"	22"	12"	4"	2.5"
8"	11'-2"	16"	26"	16"	6"	4"
		24"	32"	24"	8"	6"

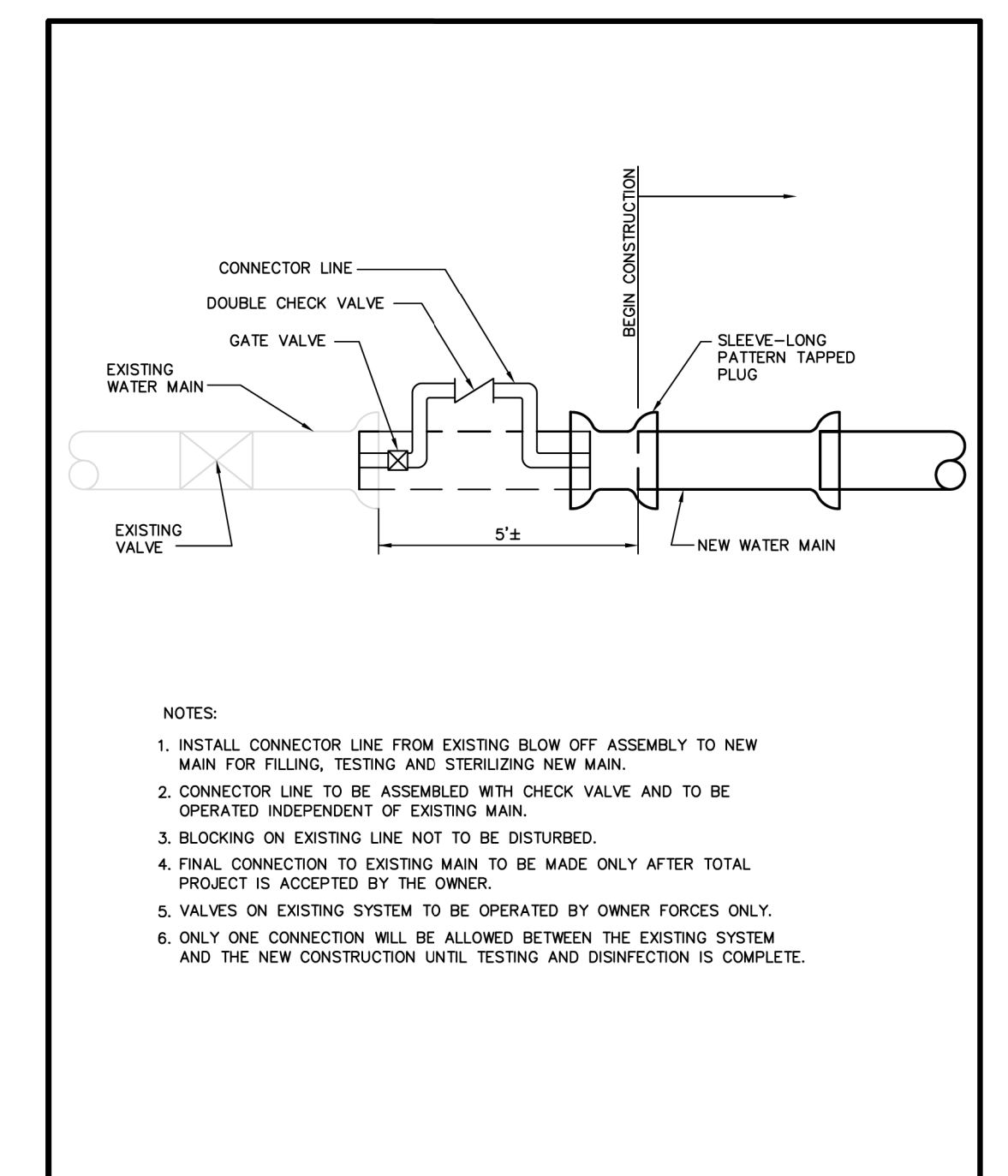
WSACC				BACKFLOW PREVENTER BY-PASS CONNECTION FOR FILLING NEW WATER MAINS
WATER AND SEWER AUTHORITY OF CABARRUS COUNTY				FILE NAME: W2.0 DATE: 8/06
REVISION NO.	DATE	BY	CHKD	



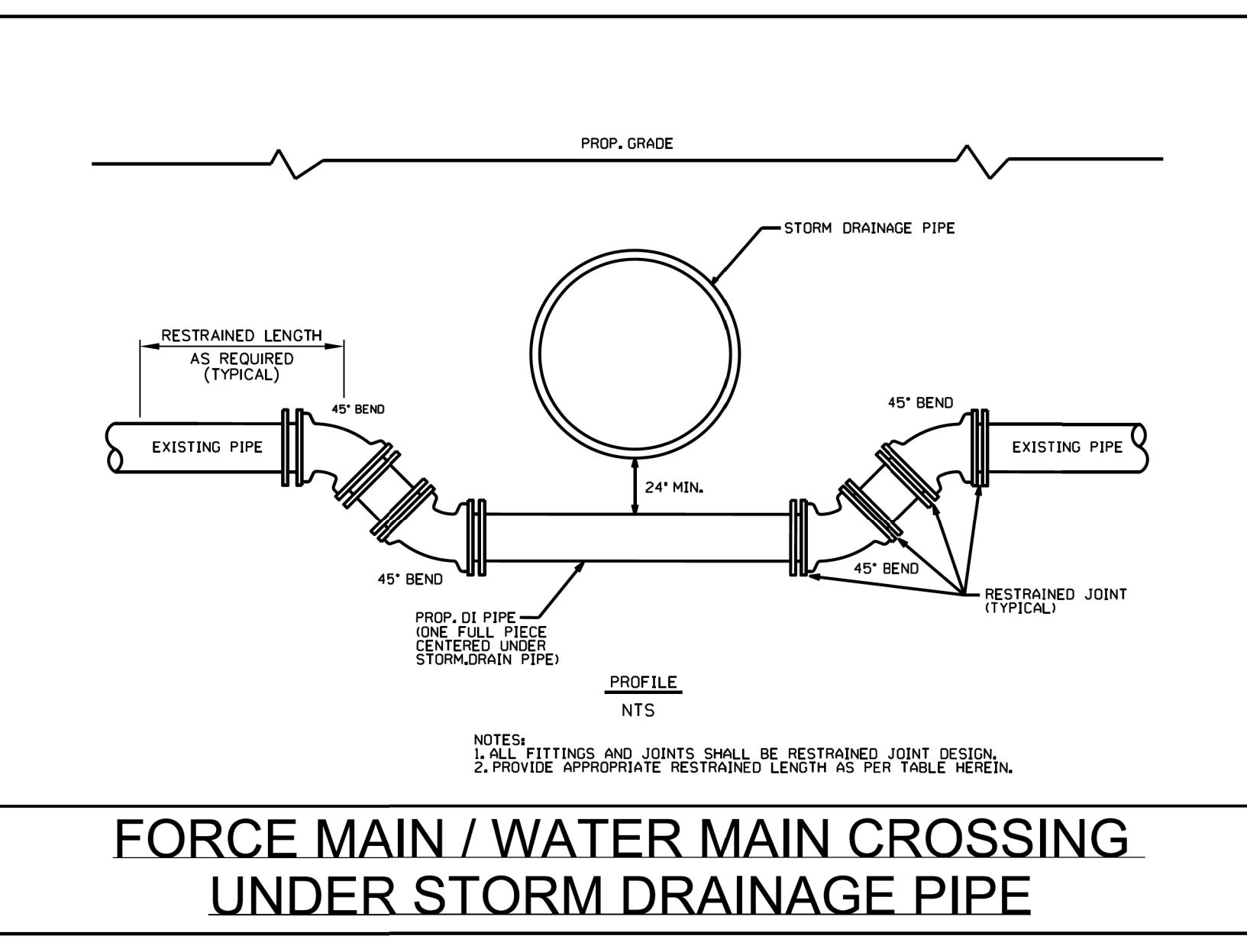
WSACC				EMBEDMENTS FOR MAINS
WATER AND SEWER AUTHORITY OF CABARRUS COUNTY				FILE NAME: WS.1.0 DATE: 8/06
REVISION NO.	DATE	BY	CHKD	



WSACC				DIRECT BURY BUTTERFLY VALVE INSTALLATION
WATER AND SEWER AUTHORITY OF CABARRUS COUNTY				FILE NAME: WS.0 DATE: 8/06
REVISION NO.	DATE	BY	CHKD	



WSACC				JUMPER CONNECTION
WATER AND SEWER AUTHORITY OF CABARRUS COUNTY				FILE NAME: W.13.0 DATE: 2/08
REVISION NO.	DATE	BY	CHKD	



WSACC		FORCE MAIN / WATER MAIN CROSSING UNDER STORM DRAINAGE PIPE		
WATER AND SEWER AUTHORITY OF CABARRUS COUNTY		FILE NAME: W.13.0 DATE: 2/08		
REVISION NO.	DATE	BY	CHKD	

UTILITY DETAILS