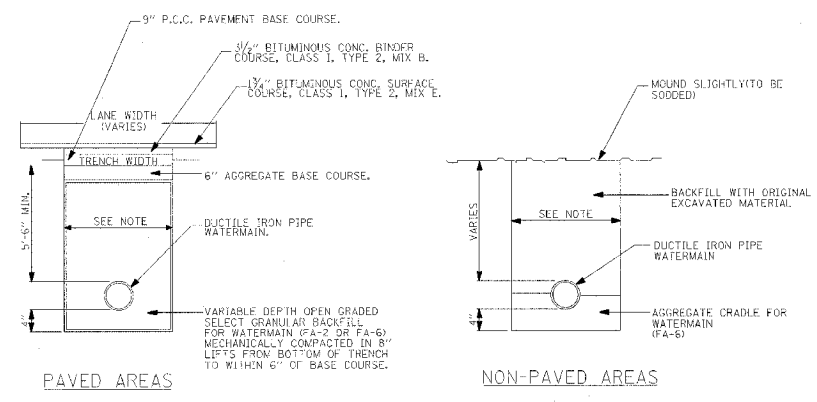
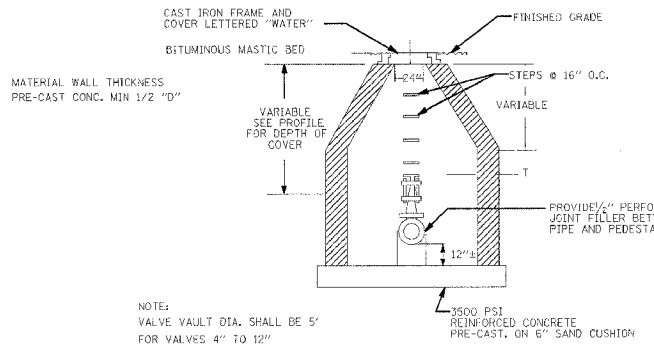


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	5Y-R-3	DUPAGE	392	160
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62295				



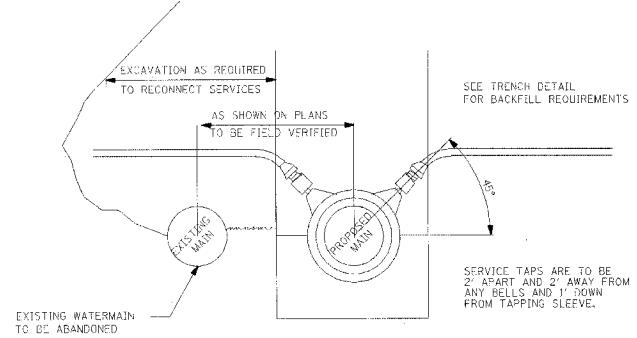
NOTE: TRENCH WIDTH SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.

TRENCH DETAILS



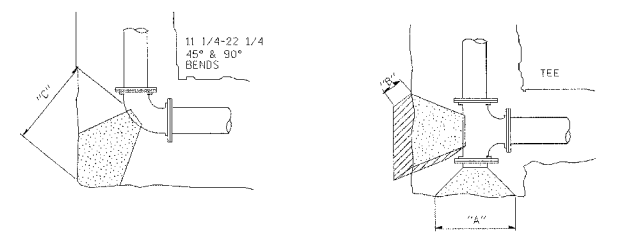
NOTE: VALVE VAULT DIA. SHALL BE 5' FOR VALVES 4\"/>

VALVE VAULT DETAIL
N.T.S.



TYPICAL SECTION-WATERMAIN REPLACEMENT
N.T.S.

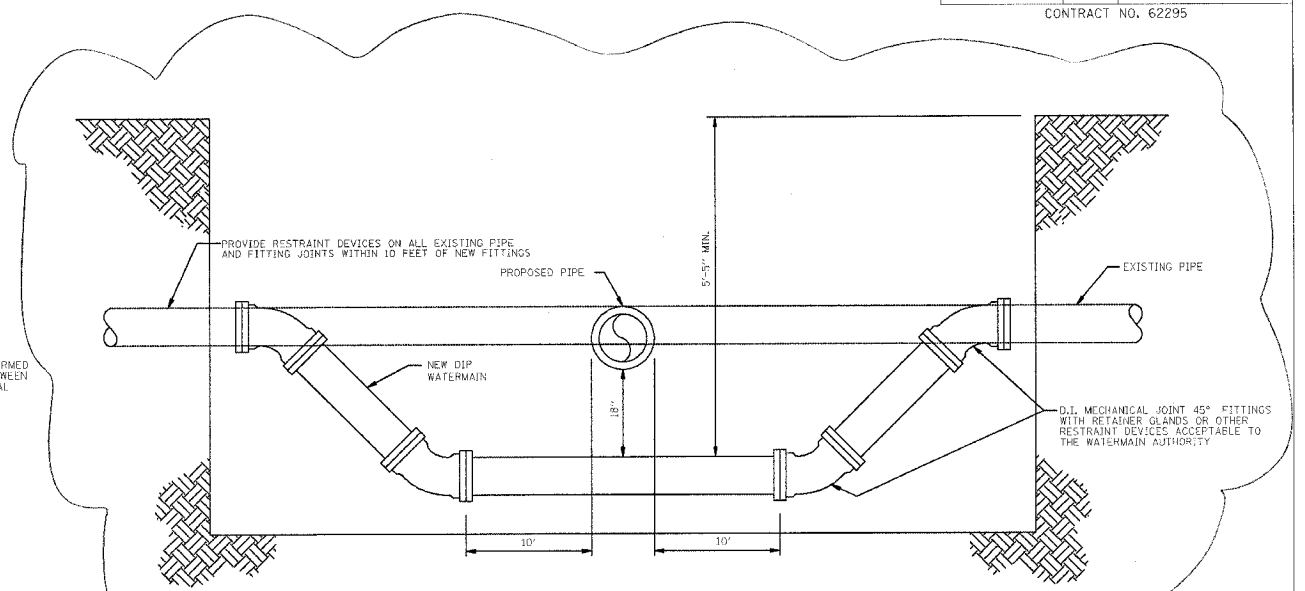
NOTE: 45° CORPORATION STOP NOT REQUIRED IF 10' RADIUS PLACED IN SERVICE



THRUST BLOCK DETAIL
N.T.S.

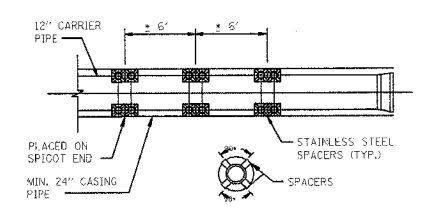
SIZE	90° BEND			45° BEND			22-1/2° BEND			11-1/4° BEND			TEE OR PLUG		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
6"	2'-3"	1'-2"	8"	1'-3"	1'-2"	8"	0'-8"	1'-2"	8"	0'-6"	1'-2"	7"	1'-8"	1'-2"	8"
8"	3'-7"	1'-4"	9"	2'-3"	1'-4"	9"	1'-4"	1'-4"	9"	0'-7"	1'-4"	8"	3'-2"	1'-4"	9"
10"	5'-0"	1'-6"	10"	2'-8"	1'-6"	10"	1'-5"	1'-6"	10"	0'-8"	1'-6"	8"	3'-6"	1'-6"	10"
12"	5'-10"	1'-10"	1'-0"	3'-2"	1'-10"	11"	1'-10"	1'-8"	11"	0'-8"	1'-8"	8"	4'-2"	1'-0"	1'-10"

- NOTES:
- ALL BENDS, TEES, PLUGS, FITTINGS OR OTHER SIGNIFICANT CHANGES SHALL BE BRACED WITH MEGALUGS AND PRECAST CONCRETE THRUST BLOCKS AS SHOWN ON THIS DETAIL.
 - DIMENSIONS A, B, C APPLY TO ALL BEND CONDITIONS SHOWN.
 - ALL B & C DIMENSIONS TO BE AS REQUIRED TO REACH UNDISTURBED EARTH BUT NOT LESS THAN LISTED ON THRUST BLOCK TABLE.
 - INSTALL PLUGS AT ALL RUNS OR BRANCHES DISCONTINUED FOR FUTURE SERVICE.



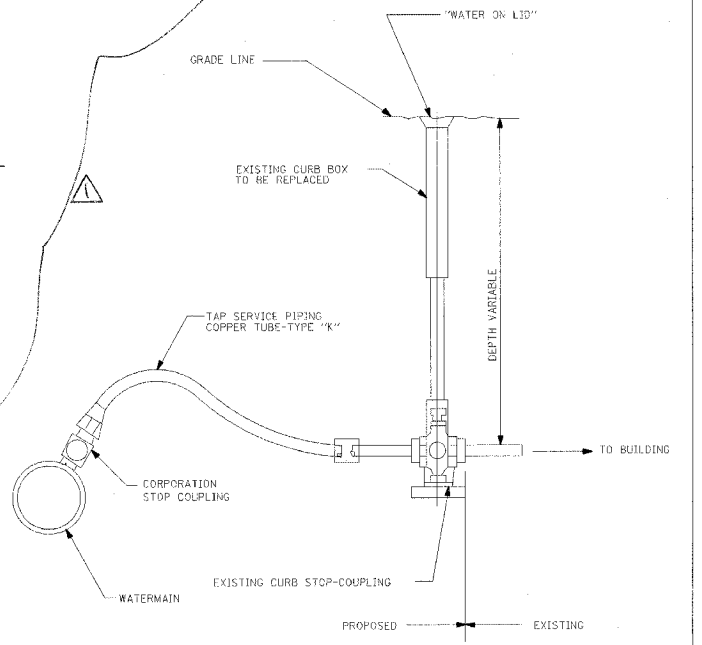
WATERMAIN LOWERING

- NOTES:
- REMOVE ALL WATERMAIN PIPE TO THE LIMITS OF EXCAVATION. REPLACE WITH DUCTILE IRON PIPE.
 - WRAP NEW WATERMAIN PIPE WITH POLYETHYLENE.
 - MEGALUG JOINTS SHALL BE USED FOR ALL MECHANICAL JOINT FITTINGS.
 - COMPACT TO REQUIREMENTS OF SPECIFICATION SECTION 550.07.

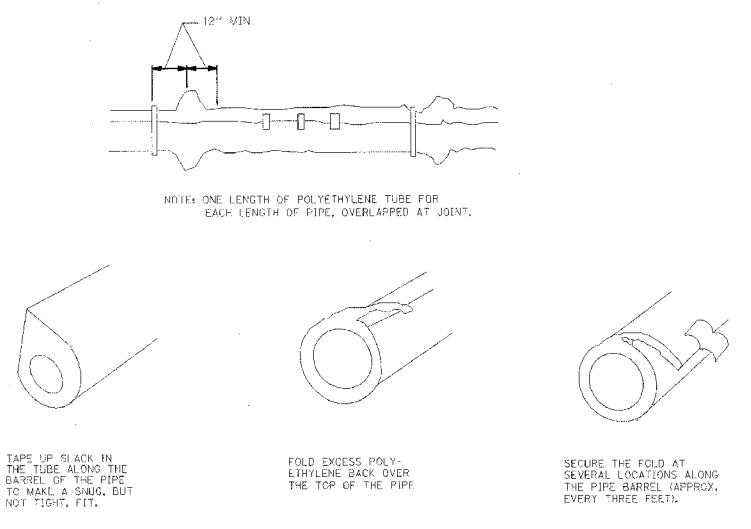


- NOTES:
- SPACERS TO BE SIZED TO ALLOW CARRIER PIPE TO BE CENTERED IN CASING. LOCATE SPACERS 2" FROM END OF CASING. MINIMUM 2 SPACERS PER PIPE.
 - CASING TO BE SEALED AT BOTH ENDS WITH CASCADE WATERWORKS MANUFACTURING CO. RUBBER END SEALS SECURED IN PLACE WITH STAINLESS STEEL BANDS.

CASING SPACER
NOT TO SCALE

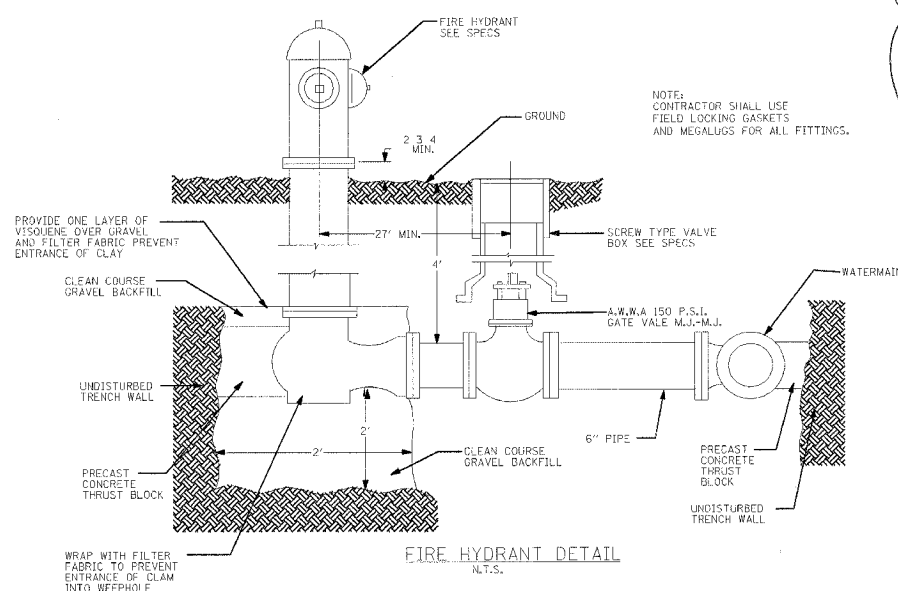


TAP SERVICE PIPING (COPPER)
N.T.S.



NOTE: REPAIR ALL SMALL RIPS, TEARS OR OTHER TUBE DAMAGE WITH ADHESIVE TAPE.

POLYETHYLENE ENCASUREMENT
N.T.S.



FIRE HYDRANT DETAIL
N.T.S.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p>DETAILS AND NOTES U.S. ROUTE 20 (LAKE STREET) WATERMAIN REPLACEMENT</p> <p>SCALE: NONE DATE: 03/01/05</p> <p>DRAWN BY: JRH CHECKED BY: RFS</p>



Rev. sect 6/3/05