

NOTE: SEE SPECIFICATION SECTION 02210 FOR DESCRIPTION OF BACKFILL AND BEDDING MATERIAL.

- NOTES:
- CAUTION MUST BE EXERCISED TO ENSURE PROPER PLACEMENT OF EMBEDMENT MATERIAL UNDER THE HAUNCHES OF THE PIPE. NATIVE SOIL IS ACCEPTABLE UNLESS DIRECTED BY COMPANY.
 - POLYETHYLENE ENCASING ON ALL D.I. PIPE, FITTINGS, VALVES & APPURTENANCES IN CORROSIVE SOILS.

REVISIONS
06-22-09 TEXT TERM "OPTIONAL" REMOVED AND TEXT 5'-0" REPLACED WITH TEXT MIDLINE.

AMERICAN WATER STANDARD CIVIL TRENCH - D.I. PIPE IN SOIL DETAIL

AMERICAN WATER
VOORHEES, NJ 08045

AMERICAN WATER ENG. CENTER
215 CARRIAGE LANE
DELRAN, NJ 08075

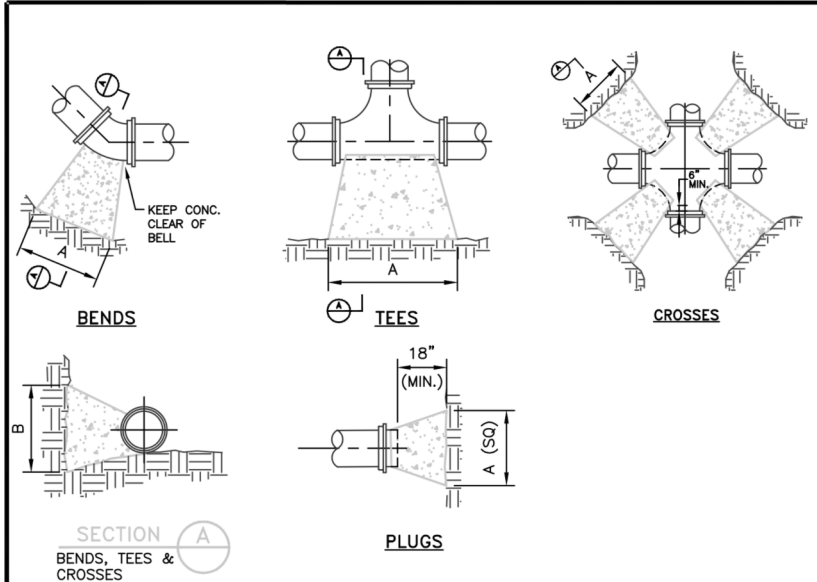
DRAWN BY RJB
PROJECT ENGR APPROVED
DATE 10-03-07
PROJECT #

USE DIMENSIONS ONLY
SCALE N.T.S.

USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES

0201-0601-SD55

SHT. 2



- NOTES:
- COVER OVER TOP OF PIPE SHALL BE BELOW FROST LINE OR 30" MINIMUM, 72" MAXIMUM ACCORDING TO REGULATORY REQUIREMENTS. IF GRADING PLANS RECEIVED BY THE ENGINEER/OWNER WITH THE REQUEST FOR WATER MAIN LAYOUT, INDICATE ADJUSTMENTS TO EXISTING GRADE. THEN PIPE SHALL BE INSTALLED TO MEET MINIMUM AND MAXIMUM COVER FROM PROPOSED GRADES SHOWN ON SAID PLANS.
 - THRUST BLOCKS SHALL BE BUILT AGAINST UNDISTURBED SOIL WITH ADEQUATE BACKING TO PREVENT MOVEMENT OF FITTING.
 - NO THRUST BLOCKS TO BE PLACED IN SEWER LATERAL DITCHES.
 - THRUST BLOCKING MUST FIT IN EASEMENT, IN SOME CASES ADDITIONAL RESTRAINT MAY BE REQUIRED.
 - BASED ON 200 PSI (150 PSI STATIC PRESSURE PLUS 50 PSI WATER HAMMER) AND 2000 PSF SOIL BEARING.
 - POLYETHYLENE ENCASEMENT ON ALL D.I. PIPE AND FITTINGS.
 - PIPE JOINTS AND BOLTS MUST BE ACCESSIBLE.
 - ALLOW SUFFICIENT CLEARANCE BETWEEN CONCRETE AND BOLTS FOR FUTURE MAINTENANCE.
 - ALL ANCHOR BOLTS SHALL BE COR-BLUE, MINIMUM 1/2" DIAMETER. COAT EXPOSED ROD WITH ASPHALT CEMENT AFTER CONCRETE HAS SET.
 - ALL M.J. AND FLG. FITTINGS TO RECEIVE THRUST BLOCKS SHALL HAVE THE FASTENER AREAS FELT WRAPPED AND TAPED PRIOR TO THE CONCRETE POUR TO ALLOW FUTURE ACCESS TO THE FASTENERS AT THE JOINTS.
 - THRUST BLOCKING DETAILS ARE SHOWN HERE FOR TYPICAL INSTALLATIONS. IN SOME CASES, ADDITIONAL RESTRAINT MAY BE REQUIRED.
 - PORTLAND CEMENT CONCRETE USED FOR THRUST BLOCKS SHALL BE MIN 3000 PSI CONCRETE.
 - FOR UNSTABLE SOIL CONDITIONS, CHECK WITH ENGINEER FOR THRUST BLOCK DIMENSIONS.
 - FOR MAIN SIZES GREATER THAN 16", SEE ENGINEER FOR THRUST BLOCK DIMENSIONS.

PIPE SIZE	90 DEGREE BENDS				45 DEGREE BENDS				11.25 DEGREE BENDS				22.5 DEGREE BENDS				TEES/PLUGS			
	AREA (sq ft)	"A"	"B"		AREA (sq ft)	"A"	"B"		AREA (sq ft)	"A"	"B"		AREA (sq ft)	"A"	"B"		AREA (sq ft)	"A"	"B"	
6	5.3	43"	18"		2.9	23"	18"		0.7	6"	18"		1.5	12"	18"		3.7	30"	18"	
8	9.2	55"	24"		5.0	30"	24"		1.3	8"	24"		2.5	15"	24"		6.4	39"	24"	
10	13.9	66"	30"		7.5	36"	30"		1.9	9"	30"		3.8	18"	30"		9.7	46"	30"	
12	19.4	78"	36"		10.6	42"	36"		2.7	11"	36"		5.3	21"	36"		13.8	55"	36"	
14	26.0	89"	42"		14.0	48"	42"		3.8	12"	42"		7.2	25"	42"		18.5	63"	42"	
16	33.7	101"	48"		18.3	55"	48"		4.7	14"	48"		9.4	28"	48"		23.9	72"	48"	

Area in square feet "A" and "B" in inches
Bearing table area is based on 200 psi maximum with soil bearing capacity of 2000 lbs/square foot.
For higher water pressures or lower soil pressures, consult Engineer for adjustments.
Bearing table area does not include a safety factor.
A safety factor and additional bearing area may be required as directed by the Engineer.

AMERICAN WATER STANDARD CIVIL THRUST BLOCK DETAILS

AMERICAN WATER
VOORHEES, NJ 08045

AMERICAN WATER ENGINEERING
3808 CHURCH ROAD
MOUNT LAUREL, NJ 08054

DRAWN BY RJB
PROJECT ENGR APPROVED
DATE 10-23-07
PROJECT #

AMERICAN WATER
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0201-0601-SD6

FOR COMMENTS

SHT. 3

MAURER-STUTZ
ENGINEERS SURVEYORS

FILE NAME	USER NAME	DESIGNED	REVISED
S:\237\2013\23713009.00\11enRdPh11\CADD	jeandrews	-	-
CADD Sheets\0468683-sht-WM detail sheet.dwg		DRAWN -	REVISED -
PLOT SCALE = 20.0000' / in.		CHECKED -	REVISED -
Default		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ALLEN ROAD IMPROVEMENTS
WATER MAIN RELOCATION - DETAIL SHEETS**

SCALE: SHEET 13 OF 17 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6584	105: (72-7HB)BY	PEORIA	487	367
6585				

CONTRACT NO. 68683

ILLINOIS FED. AID PROJECT