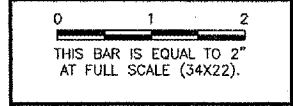


REVISIONS		
NUMBER	BY	DATE



**CHICAGO ROCKFORD INTERNATIONAL AIRPORT
 ROCKFORD, ILLINOIS**

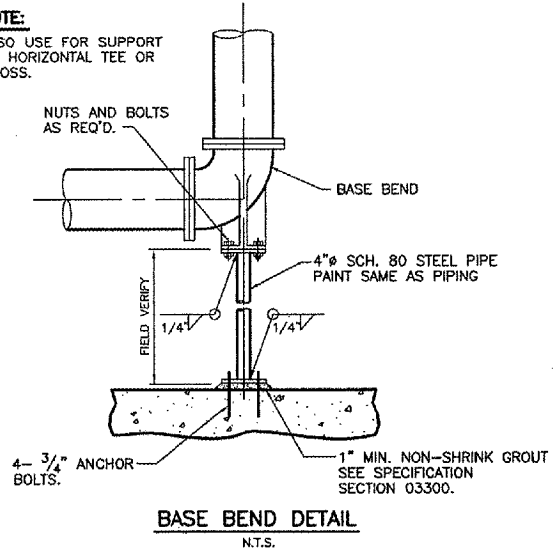
SANITARY FORCEMAIN DETAILS

© Copyright CMT, Inc.
CMT
 CRAWFORD MURPHY & TILLY, INC.
 CONSULTING ENGINEERS
 License No. 184-000683
 Chicago Rockford International Airport

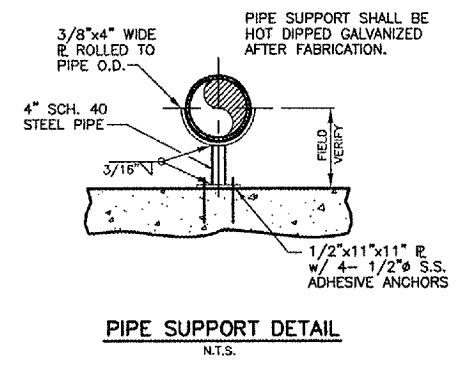
DESIGN BY:	CAL
DRAWN BY:	JRO
CHECKED BY:	CAL
APPROVED BY:	
DATE:	02/29/08
JOB No:	07258-06
ILLINOIS PROJECT:	RFD-3787
A.I.P. PROJECT:	3-17-0088-XX
FINAL SUBMITTAL	
SHEET 72 OF 83 SHEETS	

NOTE:

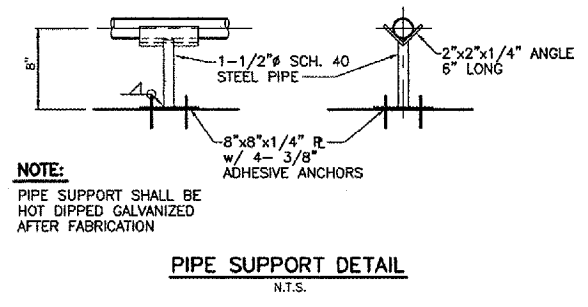
ALSO USE FOR SUPPORT OF HORIZONTAL TEE OR CROSS.



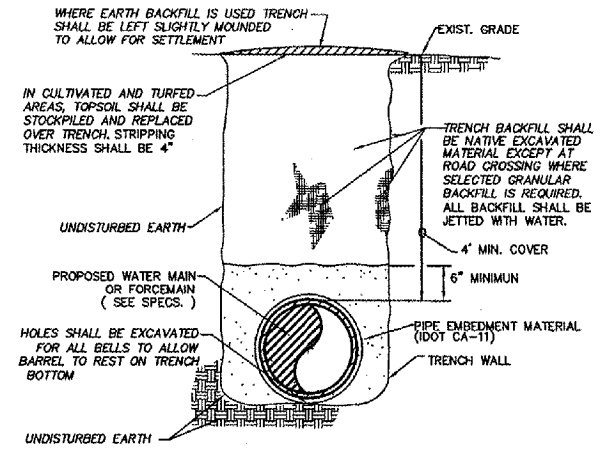
BASE BEND DETAIL
N.T.S.



PIPE SUPPORT DETAIL
N.T.S.



PIPE SUPPORT DETAIL
N.T.S.

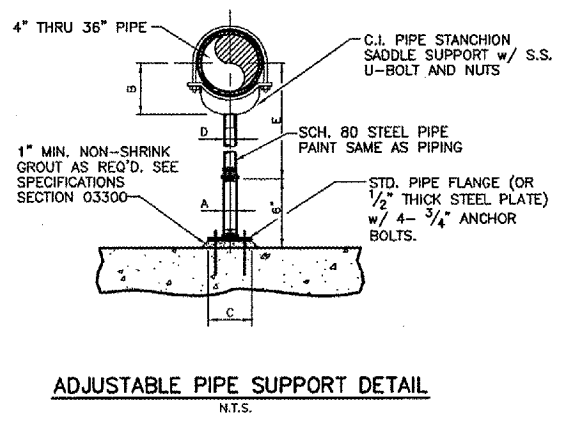


EMBEDMENT METHOD
 BELOW PIPE: LOOSENED NATIVE MATERIAL UP TO 6" OVER PIPE: PIPE EMBEDMENT MATERIAL TO BE FINE EXCAVATED MATERIAL FREE OF CLODS AND FROZEN CHUNKS SHOVELED UNDER SIDES OF PIPE AND TAMPED IN PLACE. USE SELECTED GRANULAR BACKFILL FOR EMBEDMENT MATERIAL WHERE SHOWN ON THE SHEETS, AND TAMPED IN PLACE.

FORCEMAIN INSTALLATION
N.T.S.

**ADJUSTABLE PIPE SUPPORT DETAIL
 DIMENSION TABLE**

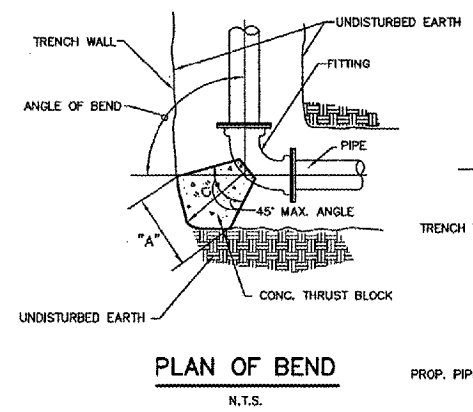
PIPE SIZE	A	B	C	D	E	
					MIN.	MAX.
4"	3"	4-1/4"	9"	2-1/2"	9-1/4"	14"
5"	3"	4-7/8"	9"	2-1/2"	10"	14-3/4"
6"	3"	5-1/2"	9"	2-1/2"	10-1/2"	15-1/4"
8"	3"	6-7/8"	9"	2-1/2"	11-3/4"	16-1/2"
10"	3"	8-1/2"	9"	2-1/2"	13-1/2"	18-1/4"
12"	3"	9-15/16"	9"	2-1/2"	15"	19-3/4"
14"	4"	10-15/16"	11"	3"	16-1/4"	20-3/4"
16"	4"	12-3/8"	11"	3"	17-3/4"	22-1/4"
18"	6"	13-7/8"	13-1/2"	3-1/2"	19-1/2"	24"
20"	6"	15-3/8"	13-1/2"	3-1/2"	21"	25-1/2"
24"	6"	17-15/16"	13-1/2"	4"	23-3/4"	28-1/4"
30"	6"	21-5/16"	13-1/2"	4"	27"	31-1/2"
32"	6"	22-1/2"	13-1/2"	4"	28-1/4"	32-3/4"
36"	6"	24-1/2"	13-1/2"	4"	30-1/4"	34-3/4"



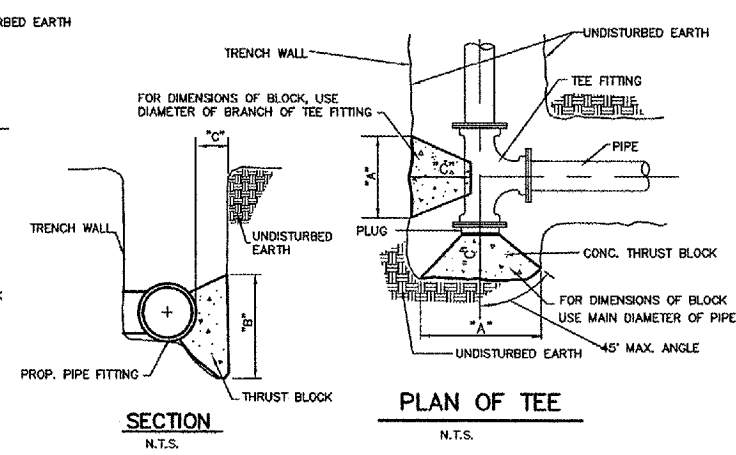
ADJUSTABLE PIPE SUPPORT DETAIL
N.T.S.

NOTES:

1. PROVIDE HALF ROUND RIGID INSULATION AND INSULATION PROTECTION SHIELD WHERE PIPING IS INSULATED.
2. PROVIDE NEOPRENE WAFFLE ISOLATION PAD SIMILAR TO MASON TYPE W OR KORFUND KORPAD 40, UNDER SUPPORT FOOT WHEN PIPING IS ISOLATED OR SUPPORT IS ADJACENT TO MECHANICAL EQUIPMENT.
3. FOR BASE, HEIGHT AND FLANGE DIMENSIONS, SEE TABLE, THIS DETAIL.



PLAN OF BEND
N.T.S.



SECTION
N.T.S.

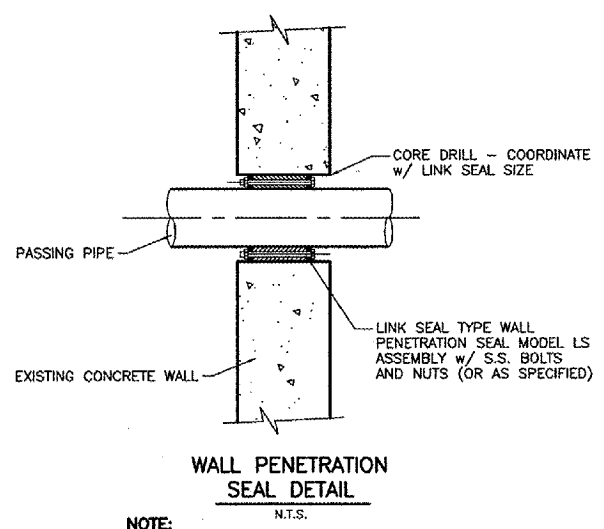
PLAN OF TEE
N.T.S.

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
4" & 6"	1'-4"	1'-0"	6"	1'-1"	0'-8"	6"	0'-9"	0'-6"	6"	0'-6"	0'-6"	6"	1'-8"	1'-2"	7"
8"	2'-0"	1'-2"	8"	1'-3"	1'-0"	8"	1'-0"	0'-8"	8"	0'-8"	0'-8"	8"	2'-6"	1'-4"	11"
10"	2'-5"	1'-7"	10"	1'-9"	1'-2"	8"	1'-3"	0'-10"	8"	0'-11"	0'-10"	8"	2'-10"	1'-10"	1'-0"
12"	4'-0"	2'-8"	1'-6"	3'-0"	2'-0"	1'-0"	2'-2"	1'-5"	8"	1'-8"	1'-0"	8"	4'-10"	3'-2"	1'-11"
18"	5'-0"	2'-8"	1'-9"	3'-6"	2'-0"	1'-6"	2'-5"	1'-8"	1'-8"	1'-8"	1'-8"	1'-8"	6'-0"	3'-1"	2'-3"

THRUST BLOCK DETAILS
N.T.S.

NOTES:

1. ALL FORCEMAIN BENDS, TEES, WYES, PLUGS, FITTINGS OR OTHER SIGNIFICANT CHANGES IN ALIGNMENT SHALL BE BRACED WITH POURED CONCRETE THRUST BLOCKS. FITTINGS CONNECTED TO PVC PIPE WITH RETAINING GLANDS WILL NOT BE ALLOWED.
2. "C" DIMENSION SHALL BE AS REQUIRED TO REACH UNDISTURBED EARTH BUT NOT LESS THAN VALUE LISTED IN TABLE BELOW.
3. DIMENSIONS "A" AND "B" ARE BASED ON INTERNAL PIPE PRESSURE OF 100 P.S.I. AND BEARING ON THE UNDISTURBED SOIL OF 1500 P.S.F.
4. "B" = HEIGHT OF THRUST BLOCK
5. ALL FITTINGS SHALL BE SEPARATED FROM THE CONCRETE THRUST BLOCKING WITH A LAYER OF 10 MIL. POLYETHYLENE



WALL PENETRATION SEAL DETAIL
N.T.S.

NOTE:
 CONTRACTOR TO COORDINATE CORE CUT AND LINK SEAL SIZES.