

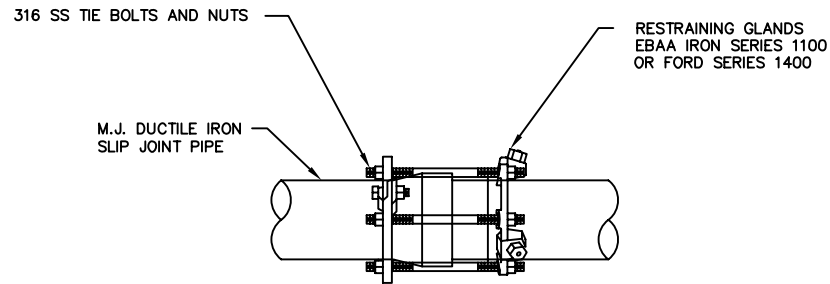
**NOTES:**

THE FOLLOWING CONDITIONS WERE USED TO CALCULATE THE RESTRAINED LENGTHS:

- LAYING CONDITION IS TYPE 3;
- SOIL DESIGNATED AS SAND-SILT;
- DEPTH IS 3 FT.;
- DESIGN PRESSURE (TEST) IS 150 PSI;
- SAFETY FACTOR IS 1.5.

FOR THE TEE BRANCH AND REDUCER, LENGTHS ARE BASED ON BRANCHING AND REDUCING FROM THE NEXT LARGER SIZE IN THE TABLE. DEVIATIONS FROM THESE CONFIGURATIONS MUST BE RECALCULATED BASED ON THE ABOVE PARAMETERS.

RESTRAINT JOINT TABLE							
RESTRAIN ALL JOINTS WITHIN THESE LENGTHS							
(IN L.F. EACH SIDE OF THE BEND)							
SIZE	11 1/4'	22 1/2'	45'	90'	TEE BRANCH	DEAD END	REDUCER
4"	2	5	10	24	37	60	44
6"	3	7	14	33	64	85	46
8"	4	9	18	43	90	110	44
10"	5	10	21	51	113	133	45
12"	6	12	25	60	133	155	84
16"	7	15	31	76	177	198	83
20"	9	18	37	90	217	238	83
24"	10	21	43	104	255	277	115



NOTE: CLAMP ASSEMBLY TO BE POLYWRAPPED AND TAPED.

TYPICAL BELL JOINT CLAMP  
(FOR RESTRAINING EXISTING PIPE ONLY)

CHARLESTON COMMISSIONERS  
OF PUBLIC WORKS

TYPICAL BELL JOINT CLAMP

APPROVED BY:  
CPW

DATE:  
MAR 2002

DRAWING NO.

SCALE:  
NTS

REVISED:  
NOV 2007

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