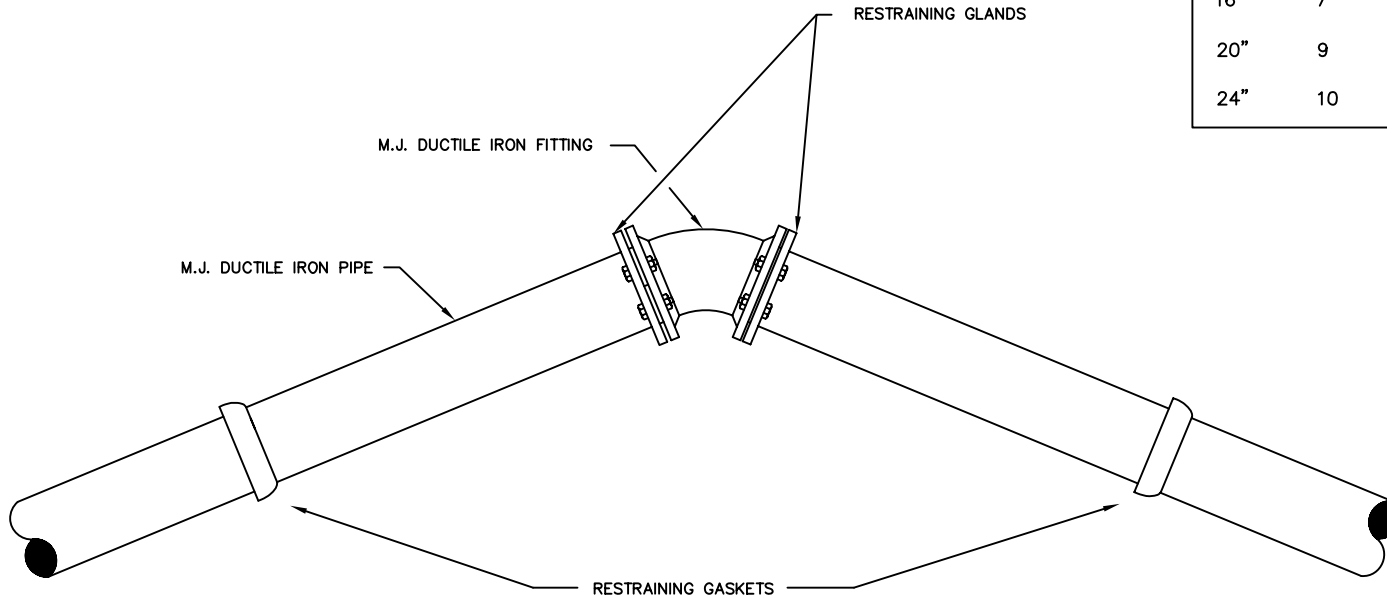


NOTES:

- 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 CONDITIONS MUST BE BASED ON THE ABOVE PARAMETERS.
- REFER TO THE MINIMUM STANDARDS FOR APPROVED PRODUCTS FOR THE RESTRAINING GLANDS AND GASKETS.

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



RESTRAINED JOINT FITTING  
(HORIZONTAL PIPE ONLY)

CHARLESTON WATER SYSTEM		
RESTRAINED JOINT FITTING		
APPROVED BY: CWS	DATE: MAR 2000	DRAWING NO. 4
SCALE: NTS	REVISED: FEB 2010	