MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)									
TYPE	PIPE SIZE								
	4"	6"	8"	10"	12"	14"	16"	18"	20"
TEES, VALVES AND DEAD ENDS	34	49	54	78	92	106	120	134	148
90° BEND	27	37	49	59	69	79	89	97	107
45° BEND	12	16	21	25	29	33	37	41	45
22-1/2° BEND	6	8	10	12	14	16	18	20	22
11-1/4° BEND	3	4	5	6	7	8	9	10	11

NOTES:

1. ALL FITTINGS SHALL BE MECHANICAL JOINT TYPE AND SHALL BE INSTALLED WITH MEG-A-LUGS (OR EQUAL).
2. RESTRAIN ALL PIPE WITHIN THE LENGTH SHOWN ON THE TABLE MEASURED FROM THE POINT OF CONNECTION.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTINGS WHICH YIELD THE GREATEST LENGTH OF RESTRAINED PIPE.
4. FOR PIPE ENCASED IN POLYETHELENE, INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
5. USE TWO 45 DEGREE BENDS FOR A 90 DEGREE BEND WHERE POSSIBLE. INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
6. ISOLATION VALVES SHALL BE TREATED AS DEAD ENDS WITH RESTRAINT ON BOTH SIDES OF THE VALVE.
7. IF LARGER PIPES ARE PROPOSED, THEN DESIGN ENGINEER SHALL PROVIDE CALCULATIONS FOR PROPER RESTRAINT LENGTH.

JOINT RESTRAINT SCHEDULE

JACKSON TOWNSHIP M.U.A.

NO.	DATE REVISED
5	
4	
3	
2	
1	APRIL 2011
DRAWN FEB 2003	
SHEET	19 OF 20

JACKSON TOWNSHIP MUNICIPAL UTILITIES AUTHORITY