

PIPE DIAMETER (INCHES)	FULL THRUST CONDITION	45° BEND IN HORIZONTAL OR VERTICAL UP POSITION	22 ½° BEND IN HORIZONTAL OR VERTICAL UP POSITION	11 ¼° BEND IN HORIZONTAL OR VERTICAL UP POSITION	FULL THRUST CONDITION
	90° BENDS IN HORIZONTAL OR VERTICAL DOWN POSITION				DEAD END AND VALVES (INLINE OR BRANCH)
	ALL BRANCH AND THROUGH SIDES OF TEES, CROSSES AND REDUCERS				
4"	2 L	1 L	1 L	1 L	3 L
6"	3 L	2 L	1 L	1 L	4 L
8"	4 L	2 L	1 L	1 L	5 L
10"	5 L	2 L	1 L	1 L	6 L
12"	5 L	2 L	1 L	1 L	7 L
16"	6 L	3 L	2 L	1 L	8 L

L = ONE PIPE LENGTH (18FT MIN.)

NOTES:

1. THE ABOVE TABLE SHALL SERVE AS A GUIDE ONLY. THE ENGINEER OF RECORD SHALL BE RESPONSIBLE FOR THE DESIGN AND SHALL SPECIFY THE MINIMUM LENGTHS OF RESTRAINED PIPE WITH CONSIDERATION TO SOIL TYPE AND LBR, AND PIPE LAYING CONDITIONS.
2. PIPES SHALL BE TESTED TO A MINIMUM OF 150 PSIG WITH A 2.5 SAFETY FACTOR.
3. SUBAQUEOUS CROSSINGS REQUIRE SPECIFIC RESTRAINT SYSTEMS. SEE DRAWING W-13 "SUBAQUEOUS WATER MAIN CROSSING".

WATER MAIN RESTRAINT SYSTEM TABLE

JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED:
1/2015
DRAWING No. W-14