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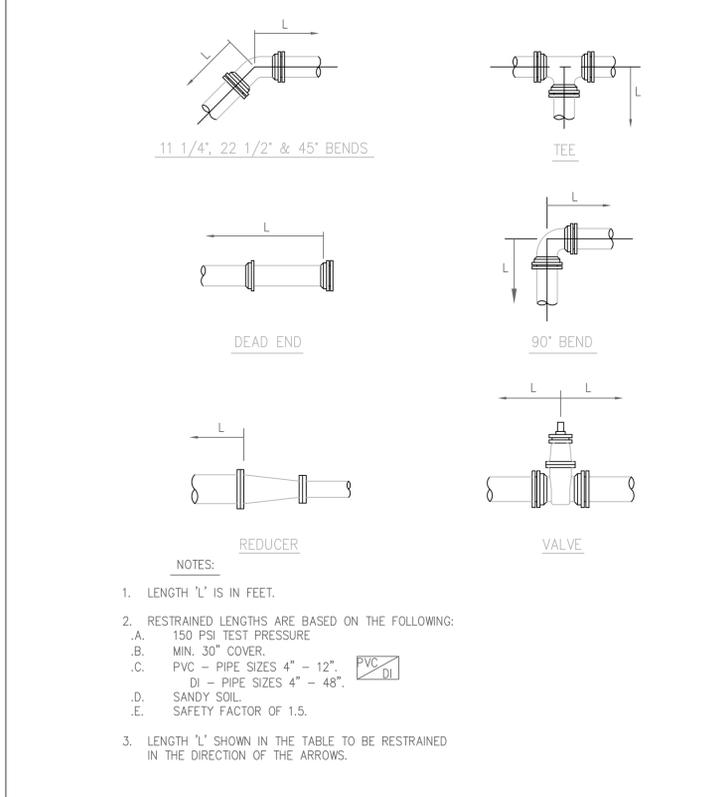
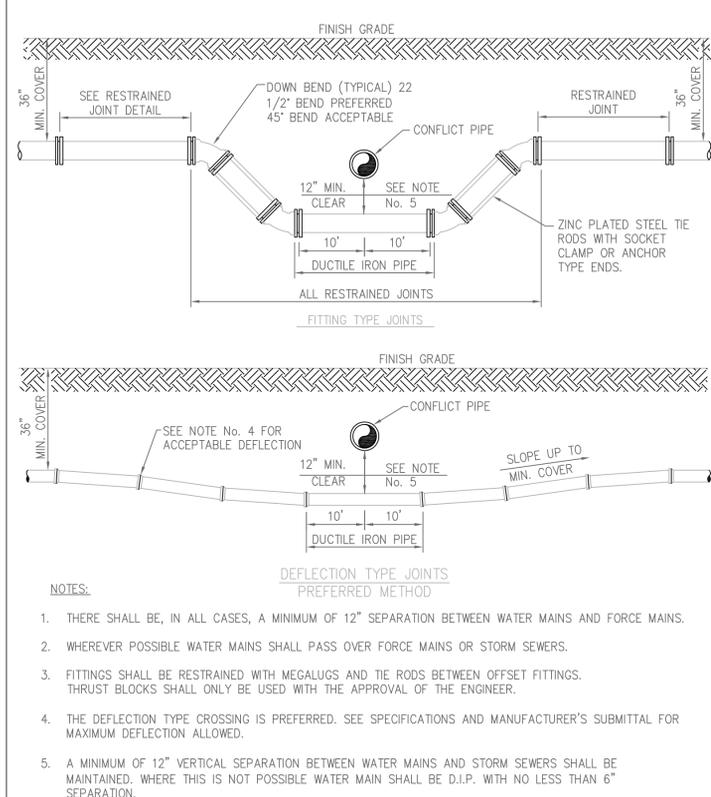
MARKER STAKE 4

HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATERMANS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES AND ON SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

- NEW OR RELOCATED UNDERGROUND WATERMANS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED SEWER, STORMWATER FORCEMAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 2-610, F.A.C.
- NEW OR RELOCATED UNDERGROUND WATERMANS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
- NEW OR RELOCATED UNDERGROUND WATERMANS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCEMAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMANS AND GRAVITY TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATERMAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
- NEW OR RELOCATED UNDERGROUND WATERMANS SHALL BE LAID TO PROVIDE A MINIMUM HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATERMAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED ON SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM AS DEFINED IN SECTION 381.0065(2), F.S. AND RULE 64E-6.002, F.A.C.

VERTICAL SEPARATION BETWEEN UNDERGROUND WATERMANS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCEMANS, AND RECLAIMED WATER PIPELINES.

- NEW OR RELOCATED UNDERGROUND WATERMANS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM TYPE SANITARY OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATERMAIN IS AT LEAST SIX INCHES, AND PREFERABLY TWELVE INCHES ABOVE, OR AT LEAST TWELVE INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATERMAIN ABOVE THE OTHER PIPELINE.
- NEW OR RELOCATED UNDERGROUND WATERMANS CROSSING ANY EXISTING OR PROPOSED PRESSURE TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPE LINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATERMAIN IS AT LEAST TWELVE INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATERMAIN ABOVE THE OTHER PIPELINE.
- AT THE UTILITY CROSSING DESCRIBED IN PARAGRAPH 1 AND 2 ABOVE, ONE FULL LENGTH OF WATERMAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATERMAIN JOINTS SHALL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATERMAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM TYPE SANITARY SEWER, STORM SEWERS, STORMWATER FORCEMANS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCEMANS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER III 62-610, F.A.C.



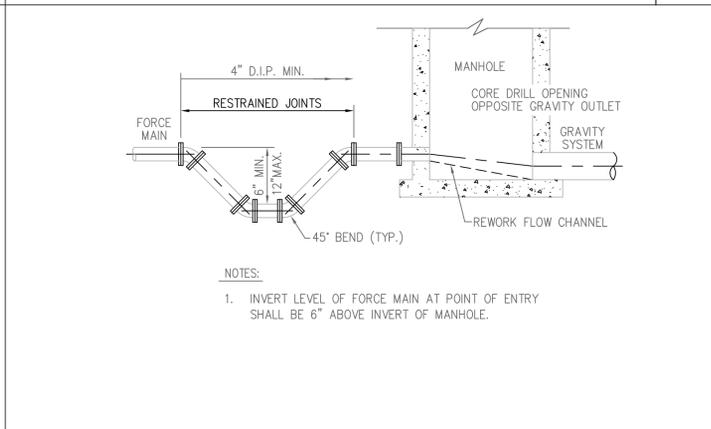
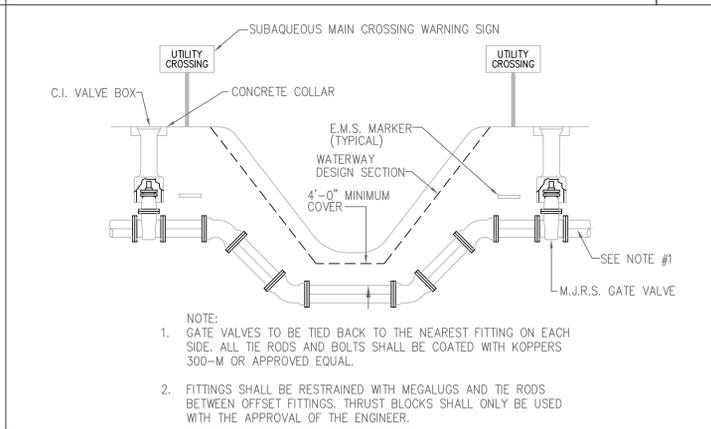
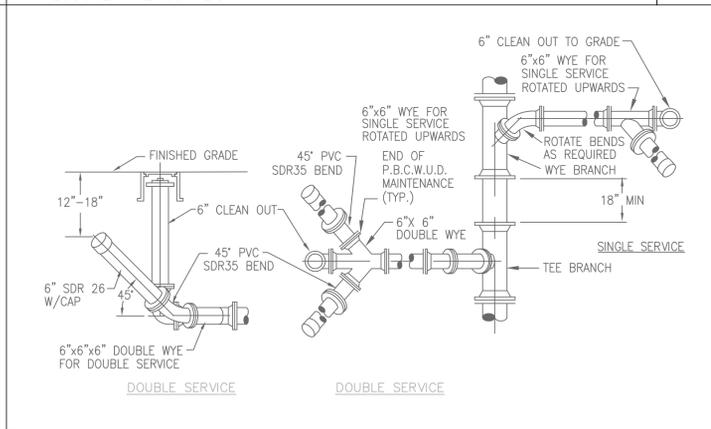
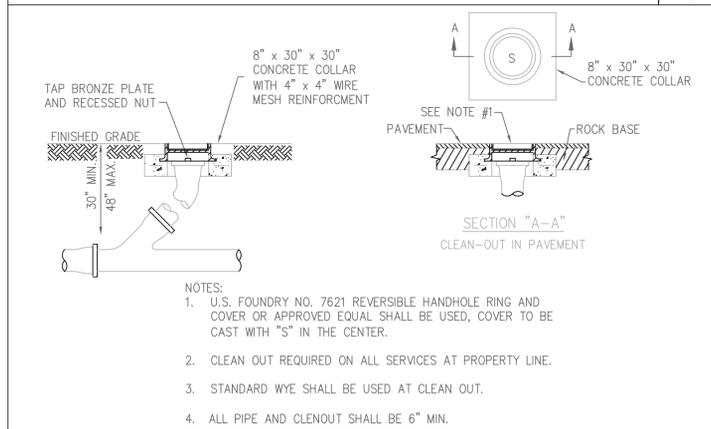
FITTING TYPE	PIPE SIZE																			
	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"						
90° HORIZ. BEND	17	18	21	23	25	27	29	31	33	40	44	49	53	61	71	80	89	96		
45° HORIZ. BEND	2	3	4	5	6	7	8	9	10	12	14	16	18	20	22	25	29	33	37	40
22.5° HORIZ. BEND	3	4	5	6	7	8	9	10	11	13	15	17	19	21	23	26	30	34	38	41
11.25° HORIZ. BEND	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
45° VERT. OFFSET	UPPER BEND	19	27	35	42	50	57	65	72	80	88	96	104	112	120	128	136	144	152	160
	LOWER BEND	5	7	9	11	13	15	17	19	21	23	26	29	32	35	38	41	44	47	50
22.5° VERT. OFFSET	UPPER BEND	9	13	17	20	24	27	31	35	40	44	49	53	58	63	68	73	78	83	88
	LOWER BEND	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
11.25° VERT. OFFSET	UPPER BEND	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
	LOWER BEND	1	2	2	3	3	3	3	4	4	5	5	6	7	8	8	9	9	10	10
TEE (BRANCH RESTRAINT)	DEAD END	46	65	85	105	125	145	165	185	205	225	245	265	285	305	325	345	365	385	405
	90° BEND	21	31	41	51	61	71	81	91	101	111	121	131	141	151	161	171	181	191	201
	14"x	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	16"x	-	-	-	-	-	23	17	12	6	1	1	1	1	1	1	1	1	1	1
	18"x	-	-	-	-	-	40	35	31	26	17	1	1	1	1	1	1	1	1	1
	20"x	-	-	-	-	-	55	52	48	44	36	23	8	1	1	1	1	1	1	1
	24"x	-	-	-	-	-	69	66	63	59	53	41	29	15	1	1	1	1	1	1
	30"x	-	-	-	-	-	79	76	74	68	58	47	35	23	14	1	1	1	1	1
	36"x	-	-	-	-	-	89	86	81	73	63	53	42	31	21	1	1	1	1	1
REDUCER (LARGER PIPE RESTRAINT)	4"x	34	44	54	64	74	84	94	104	114	124	134	144	154	164	174	184	194	204	214
	6"x	61	71	81	91	101	111	121	131	141	151	161	171	181	191	201	211	221	231	241
	8"x	83	93	103	113	123	133	143	153	163	173	183	193	203	213	223	233	243	253	263
	10"x	104	114	124	134	144	154	164	174	184	194	204	214	224	234	244	254	264	274	284
	12"x	125	135	145	155	165	175	185	195	205	215	225	235	245	255	265	275	285	295	305
	14"x	146	156	166	176	186	196	206	216	226	236	246	256	266	276	286	296	306	316	326
	16"x	167	177	187	197	207	217	227	237	247	257	267	277	287	297	307	317	327	337	347
	18"x	188	198	208	218	228	238	248	258	268	278	288	298	308	318	328	338	348	358	368
	20"x	209	219	229	239	249	259	269	279	289	299	309	319	329	339	349	359	369	379	389

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