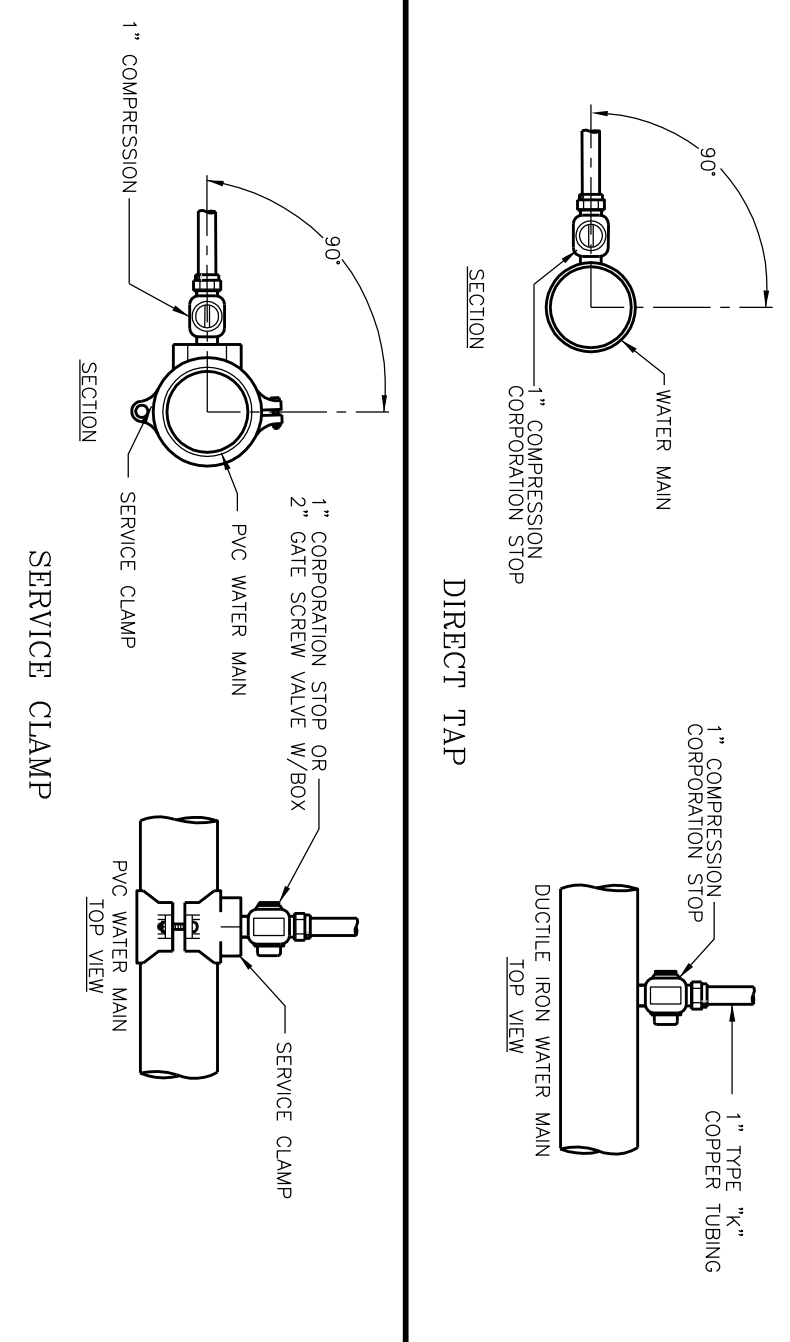


SERVICE LINE DETAILS



SERVICE LINE NOTES

1. O.U.C. SHALL FINISH/INSTALL ALL WATER METERS.
2. O.U.C. SHALL FINISH WATER BOXES. DEVELOPER'S CONTRACTOR TO INSTALL.
3. METER SHOULD BE ON THE CUSTOMER SIDE OF THE RIGHT-OF-WAY AND ON THE SAME SIDE OF THE SERVICE LINE AND ALWAYS WITH THE BACK SIDE OF THE SERVICE LINE.

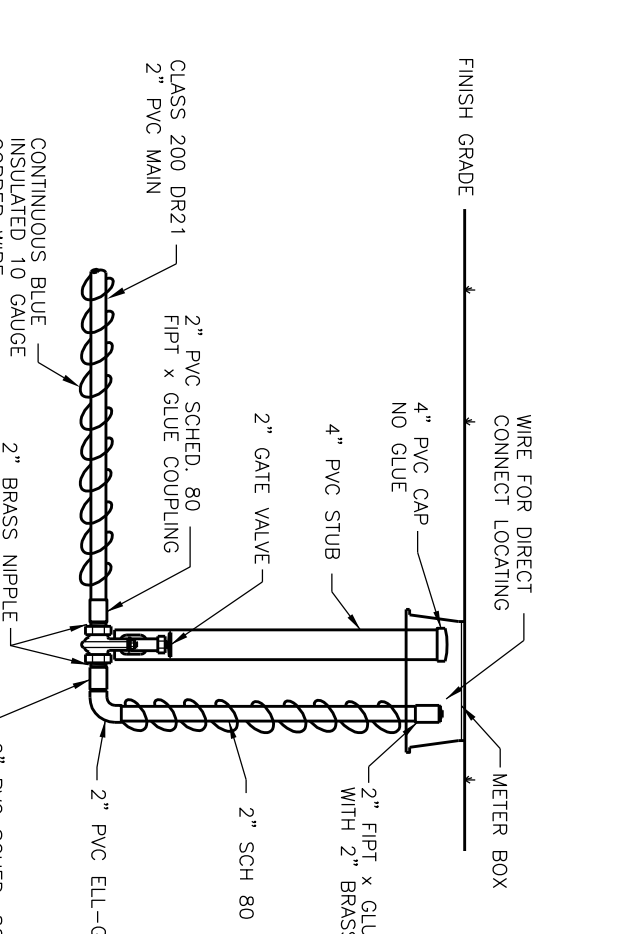
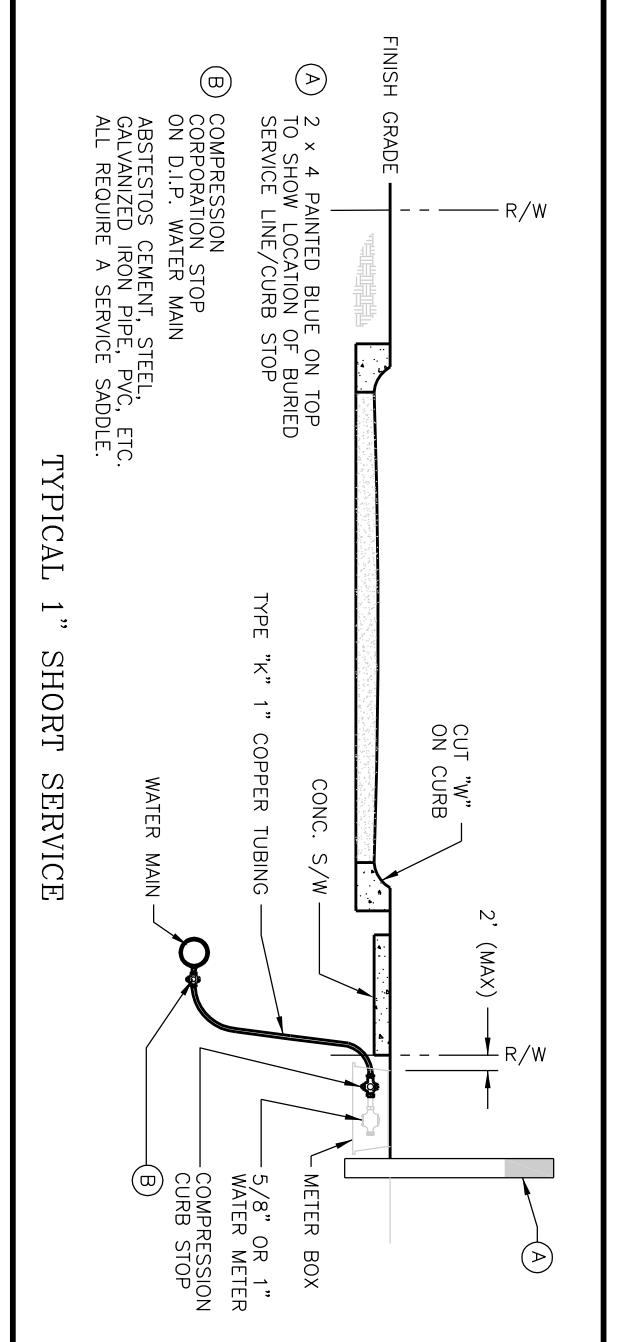
LEGEND

PVC	SIZE	1"	2"
O1	12"	01	02
O2	10"	03	04
O3	8"	05	06
O4	6"	07	08
O5	4"	09	10
O6	3"	11	12
O7	2"	13	14
O8	1 1/2"	15	16
O9	1"	17	18

TAPPING FOR 1" CORP. STOP, & 2" GATE VALVE

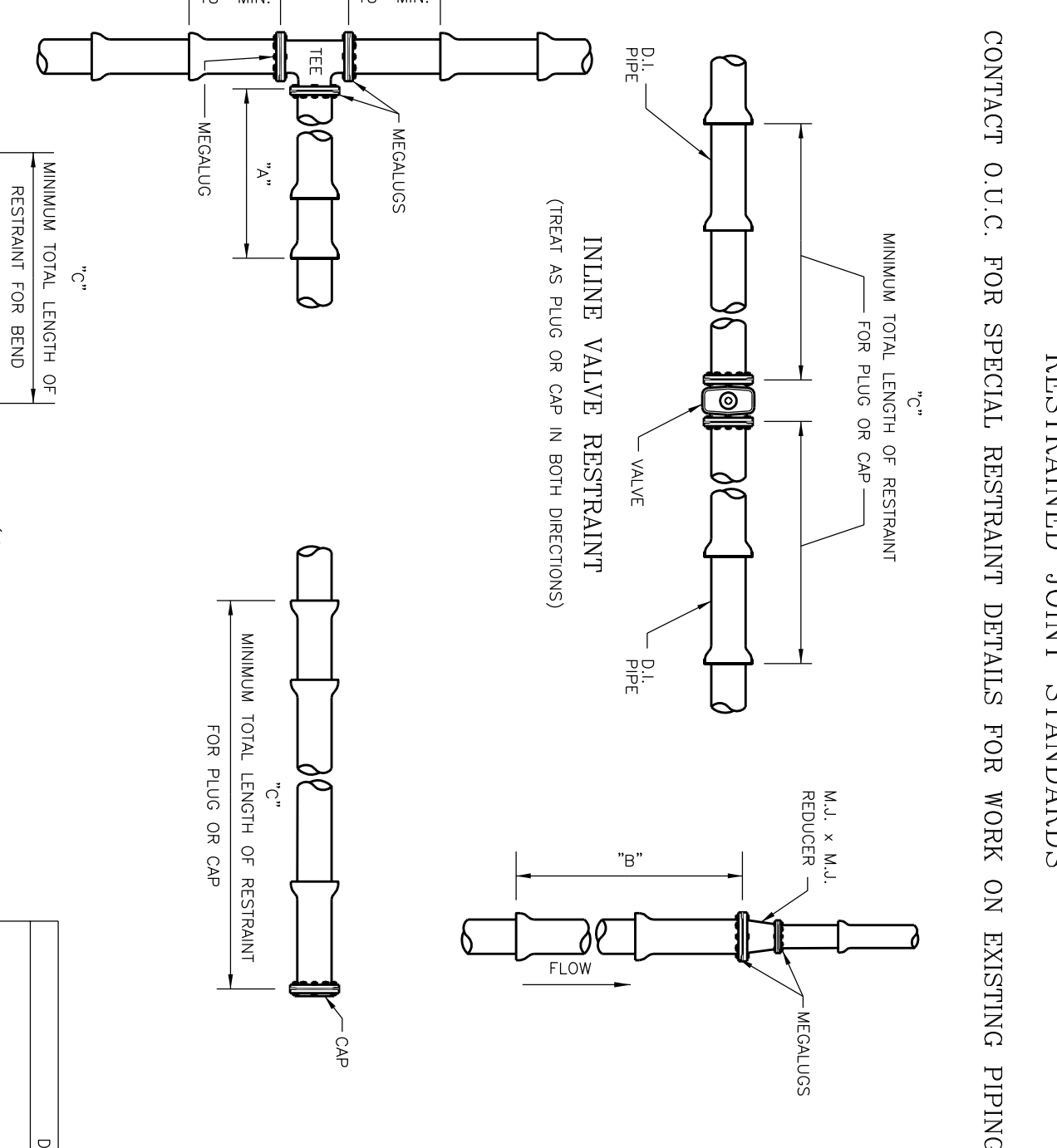
SPECIAL NOTICE:
 AN O.U.C. SINGLE FAMILY HOME HAVING RECLAIM WATER SERVICE WHERE RECLAIM WATER IS PROVIDED TO A PROPERTY O.U.C.'S PORTABLE WATER SYSTEM MUST BE PROTECTED BY AN APPROVED TOP ACCESS FOR TESTING AND MAINTENANCE. INSTALLED, OWNED AND MAINTAINED BY O.U.C. ALLOWED BETWEEN THE METER AND THE BACKFLOW PREVENTER.
 PRIOR TO ANY RECLAIM WATER SERVICE INSTALLATION, INSPECTION AND TESTING WILL BE CONDUCTED BY A REPRESENTATIVE OF THE RECLAIM WATER PROVIDER TO MAKE SURE THAT THE RECLAIM WATER SERVICE HAS BEEN INSTALLED ON THE DOMESTIC WATER SERVICE.

BLOW OFF DETAILS



NOTE: ALL FITTINGS ARE SCHEDULE 80 PVC. GUE LAST 3 JOINTS OR ALL IF SHORTER. INSTALL ON ALL DEAD ENDS UNLESS OTHERWISE NOTED.

RESTRAINED JOINT STANDARDS

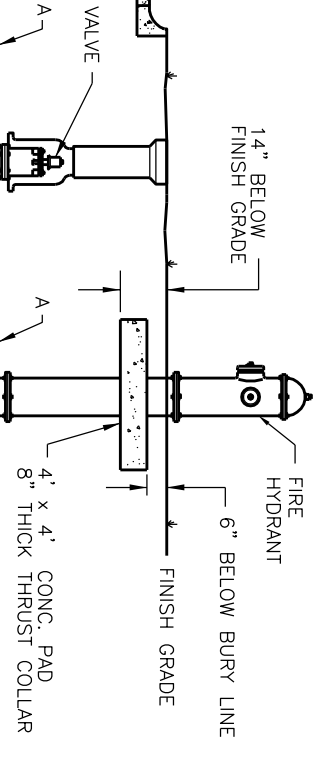


PIPE SIZE	RESTRAINED JOINT LENGTH OF PIPE TO BE RESTRAINED
1/2"	1.0
3/4"	1.5
1"	2.0
1 1/2"	3.0
2"	4.0
3"	5.0
4"	6.0
6"	8.0
8"	10.0
10"	12.0
12"	15.0
16"	20.0
20"	25.0
24"	30.0
30"	35.0
36"	40.0
42"	45.0
48"	50.0
54"	55.0
60"	60.0
66"	65.0
72"	70.0
78"	75.0
84"	80.0
90"	85.0
96"	90.0
102"	95.0
108"	100.0
114"	105.0
120"	110.0
126"	115.0
132"	120.0
138"	125.0
144"	130.0
150"	135.0
156"	140.0
162"	145.0
168"	150.0
174"	155.0
180"	160.0
186"	165.0
192"	170.0
198"	175.0
204"	180.0
210"	185.0
216"	190.0
222"	195.0
228"	200.0
234"	205.0
240"	210.0
246"	215.0
252"	220.0
258"	225.0
264"	230.0
270"	235.0
276"	240.0
282"	245.0
288"	250.0
294"	255.0
300"	260.0

GENERAL SPECIFICATIONS

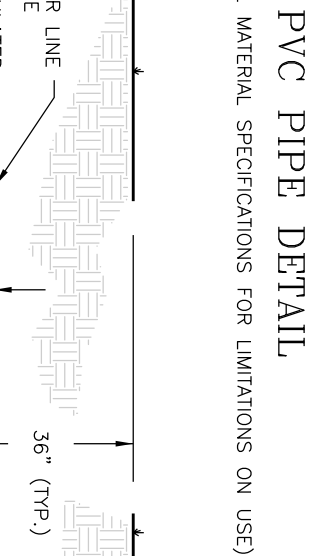
1. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR TO ENSURE THAT ALL REQUIRED PERMITS ARE IN-PLACE BEFORE ANY CONSTRUCTION.
2. EXISTING UTILITIES PRIOR TO CONSTRUCTION, AND FOR NOTING THE VARIATIONS, TO BE SHOWN ON THE CONSTRUCTION PLANS BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DEPTH AND DEGREE OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES. THE CONTRACTOR SHALL COMPLY WITH ANY NECESSARY ADVISORIES AND COOPERATE WITH THE OWNER'S REPRESENTATIVE.
3. ALL CONSTRUCTION OF THE WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
4. ALL CONSTRUCTION OF THE WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
5. ALL MATERIAL AND EQUIPMENT SHALL BE STORED, INSTALLED AND USED IN ACCORDANCE WITH THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
6. ALL WATER ACQUIRES WILL BE IN COMPLIANCE WITH THE CONDITIONS OF FIFP WATER MAIN SEPARATION FROM STREETS, STORM, AND RECLAIM LINES WILL BE IN COMPLIANCE WITH FIFP GUIDELINES.
7. THE METER SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600 AND APPROPRIATE STANDARDS.
8. PROVISIONS ARE REQUIRED TO PROTECT EXISTING ACTIVE WATER MAINS FROM BACKLOG CONTAMINATION DURING FILLING, FLUSHING, TESTING, AND MAINTENANCE OPERATIONS IN THE NEW PIPING UNLESS A GOOD LETTER OF CLEARANCE IS OBTAINED.
9. THE DISTRIBUTION OF WATER MAINS SHALL BE IN COMPLIANCE WITH THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
10. THE DISTANCE FROM THE WATER MAIN TO THE PROPERTY LINE SHALL BE A MINIMUM OF 3 FEET (EDGE TO EDGE) FROM THE DOUBLE WATER MAIN. A MINIMUM VERTICAL SEPARATION OF 12" FROM DOUBLE WATER MAINS SHALL BE MAINTAINED.
11. ALL HYDRAULIC TESTING SHALL BE IN ACCORDANCE WITH ANSI/AWWA C600 AND APPROPRIATE STANDARDS.
12. THE DISTANCE FROM THE WATER MAIN TO THE PROPERTY LINE SHALL BE A MINIMUM OF 3 FEET (EDGE TO EDGE) FROM THE DOUBLE WATER MAIN. A MINIMUM VERTICAL SEPARATION OF 12" FROM DOUBLE WATER MAINS SHALL BE MAINTAINED.
13. ALL HYDRAULIC TESTING SHALL BE IN ACCORDANCE WITH ANSI/AWWA C600 AND APPROPRIATE STANDARDS.
14. BACKLOG PREVENTERS SHALL BE LOCATED NO MORE THAN 10 FEET FROM POINT OF SERVICE AND SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600 AND APPROPRIATE STANDARDS.
15. ALL O.C. OWNED SERVICES ASSEMBLIES SHALL HAVE A MINIMUM OF 10" SEPARATION FROM THE PROPERTY LINE.
16. ALL O.C. OWNED SERVICES ASSEMBLIES SHALL HAVE A MINIMUM OF 10" SEPARATION FROM THE PROPERTY LINE.

FIRE HYDRANT ASSEMBLY



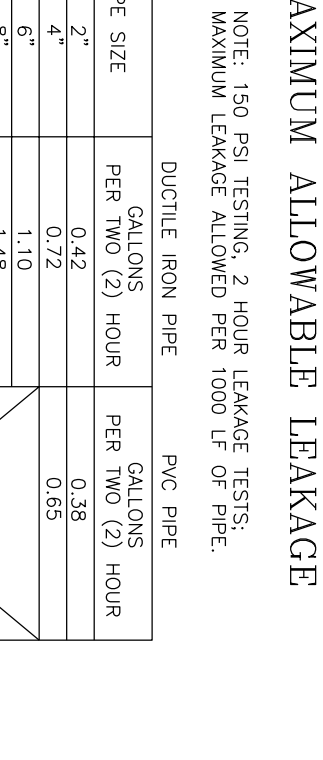
NOTE: ALL FITTINGS SHALL HAVE APPROPRIATE MECHANICAL THROAT RESTRAINT (MERCER-SEAL) OR RESTRAINT MECHANISMS FOR PUSH-ON OR MECHANICAL JOINTS. ALL COMPONENTS OF RESTRAINT MECHANISMS FOR PUSH-ON OR MECHANICAL JOINTS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. RESTRAINT MECHANISMS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. RESTRAINT MECHANISMS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

PVC PIPE DETAIL



NOTE: REFER TO GENERAL MATERIAL SPECIFICATIONS FOR DIMENSIONS ON USE. RESTRAINT REQUIRED FOR RIGID VALVES (SEE RESTRAINED JOINT STANDARDS).

VALVE SETTING



NOTE: RESTRAINT REQUIRED FOR RIGID VALVES (SEE RESTRAINED JOINT STANDARDS). SET VALVE BOX PLUMB (SLOPE THE GROUND CENTERED ON VALVE).

MAXIMUM ALLOWABLE LEAKAGE

PVC SIZE	PER TWO (2) HOUR TEST	PER TWO (2) HOUR TEST
4"	0.42	0.38
6"	0.72	0.65
8"	1.40	
10"	1.84	
12"	2.20	
16"	2.94	
20"	4.42	
24"	5.52	
30"	6.92	
36"	8.32	
48"		

NOTE: PER 150 PSI TESTING, 2 HOUR LEAKAGE TESTS. MAXIMUM LEAKAGE ALLOWED PER 1000 LF OF PIPE.

GENERAL MATERIAL SPECIFICATIONS

MATERIAL USED IN THE CONSTRUCTION OF THE WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS UNLESS OTHERWISE SPECIFIED. GENERAL GUIDANCE IN THE PREPARATION OF CONSTRUCTION PLANS AND SPECIFICATIONS OF RESTRAINTS: MOST GENERAL FEDERAL UTILITY SERVICE COMPANIES HAVE A COPY OF O.U.C. SPECIFICATION STANDARDS MANUAL.

REVISIONS

No.	DATE	DESCRIPTION	APP'D BY
1	03-31-09	CITY OF ORLANDO COMM.	QTL
2	05-11-09	ADD OUC NOTES	QTL
3	08-04-09	CITY OF ORLANDO COMM. (BLD2009-03635)	QTL
4	09-18-09	CITY OF ORLANDO BLD2009-00444 COMM.	QTL
5	10-02-09	FDOT UTILITY PERMIT	QTL

FIRST HAITIAN FREE CHURCH OF NAZARENE BY FAITH RENOVATION

POTABLE WATER DETAILS

Civil Engineering, Inc.
 2504 E. JACKSON STREET
 ORLANDO, FL 32803
 OFFICE: 407-228-9540
 FAX: 407-228-9541

CERTIFICATE OF AUTHORIZATION No. 27340

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NOT FOR CONSTRUCTION UNLESS SIGNED AND SEALED

ORLANDO UTILITIES COMMISSION
WATER BUSINESS UNIT
 100 West Anderson Street, Orlando, FL 32801

WATER DETAIL SHEET
INSTALLATION INSTRUCTIONS

DATE: 2008.999.07
 PROJECT No.: 2008.999.07
 DATE: 11-05-09
 DRAWN BY: LCE
 APPROVED BY: QTL
 SHEET C6