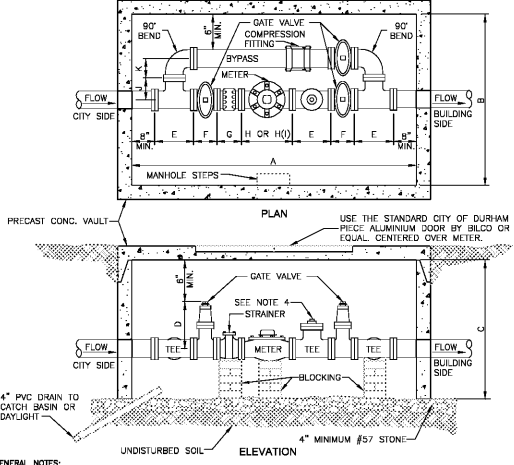


**DIMENSIONS**

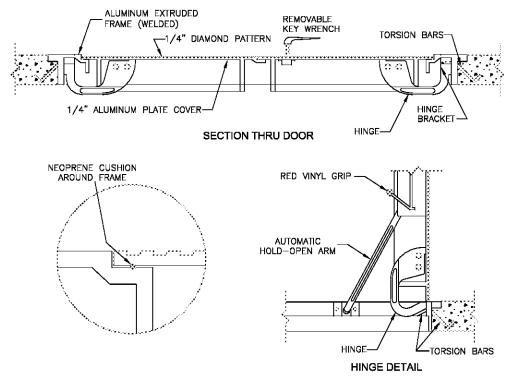
METER SIZE	A	B	C	D	E	F	G	H	I	J	K		
3"	6"	4"	8"	3"	4"	12 3/8"	11"	8"	8"	12"	17"	5 1/2"	5 1/2"
4"	10"	0"	8"	0"	4"	10 3/8"	13"	9"	7 1/2"	14"	20"	6 1/2"	6 1/2"
6"	10"	0"	14"	0"	18"	11 1/8"	18"	10 1/2"	9"	18"	24"	8"	8"
8"	12"	0"	18"	0"	22"	11 1/2"	18"	11 1/2"	10"	20"	26 3/8"	9"	9"



**GENERAL NOTES:**

- PIPES, BENDS, TEES, AND GATE VALVES ARE THE SAME SIZE AS THE METER SIZE. (I.E. 8" METER HAS 8" PIPE, 6" 90° BENDS, 6" TEES AND 6" GATE VALVES.)
- ALL DIMENSIONS ARE BASED UPON STANDARD SIZES FOR PIPES, BENDS, TEES, GATE VALVES AND METERS. STRAINER SIZE VARYING DEPENDING ON MANUFACTURER. DIMENSION "D" IS BASED UPON NEPTUNE STRAINERS. IF ANOTHER MANUFACTURER IS USED THIS DIMENSION WILL VARY AND THE METER INSTALLATION MAY NOT FIT INTO THE VALVE BOX SHOWN. THIS SHOULD BE CHECKED BEFORE ORDERING THE VALVE BOX. COORDINATE WITH CITY OF DURHAM WATER & SEWER MAINTENANCE DIVISION.
- DIMENSION "H" IS FOR STANDARD METERS. DIMENSION "H(1)" IS FOR COMPOUND METERS.
- USE APPROPRIATE SIZE FLAT FLANGE ON THE TEE WITH A 2" BEND TAPPING PLUG.
- USE ONLY METERS, STRAINERS AND GATE VALVES APPROVED BY THE CITY OF DURHAM. SEE SPECIFICATIONS.
- FOR 3" METER VALVES USE THE STANDARD SINGLE HINGE-TYPE ALUMINUM DOOR, CENTERED OVER THE METER. FOR 4", 6" AND 8" METER VALVES USE 5"x5" STANDARD CITY OF DURHAM ACCESS DOORS. (SEE DETAIL NO. W-5.0 OR W-5.1).

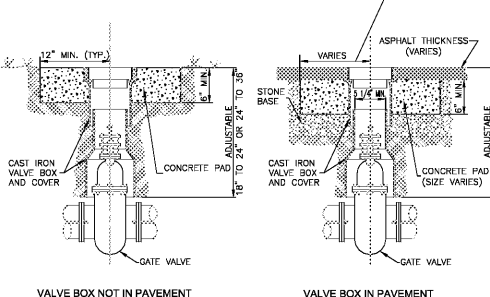
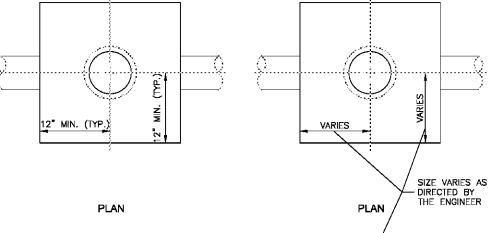
**DURHAM**  
 REVISION DATE: 12/07/2009  
 3" 4", 6", 8" STND. AND COMPOUND WATER METER INSTALLATION  
 CITY OF DURHAM, NORTH CAROLINA  
 DEPARTMENT OF PUBLIC WORKS  
 SCALE: NTS  
 DETAIL NO. W-4.2



**NOTES:**

- ACCESS DOOR SHALL BE A TYPE KD-4 MANUFACTURED BY THE BILCO COMPANY, NEW HAVEN, CONN. OR APPROVED EQUAL.
- FRAME SHALL BE 1/4" EXTRUDED ALUMINUM WITH BUILT-IN NEOPRENE CUSHION AND WITH STRAP ANCHORS BOLTED TO EXTERIOR.
- DOOR LEAF SHALL BE 1/4" ALUMINUM DIAMOND PLATE REINFORCED WITH ALUMINUM STIFFENERS AS REQUIRED.
- CAST STEEL HINGES SHALL BE BOLTED TO UNDERSIDE AND PIVOT ON TORSION BARS THAT COUNTERBALANCE THE DOOR FOR EASY OPERATION.
- THE DOOR SHALL OPEN 90° AND LOCK AUTOMATICALLY IN THAT POSITION.
- A VINYL GRIP HANDLE SHALL BE PROVIDED TO RELEASE AND CLOSE THE COVER WITH ONE HAND.
- DOORS SHALL BE BUILT TO WITHSTAND A LIVE LOAD OF 150 POUNDS PER SQUARE FOOT, AND EQUIPPED WITH A SNAP LOCK AND REMOVABLE HANDLE.
- FACTORY FINISH SHALL BE ALUMINUM LACQUER, AND BITUMINOUS COATING SHALL BE APPLIED TO THE EXTERIOR FRAME BY THE MANUFACTURER.

**DURHAM**  
 REVISION DATE: 03/18/2009  
 5' X 5' ALUMINUM ACCESS DOOR FOR 4" TO 8" WATER METER VALVES  
 CITY OF DURHAM, NORTH CAROLINA  
 DEPARTMENT OF PUBLIC WORKS  
 SCALE: NTS  
 DETAIL NO. W-5.1



**DURHAM**  
 REVISION DATE: 09/24/2010  
 WATER VALVE BOX INSTALLATION FOR 4", 6", 8", AND 12" GATE VALVES  
 CITY OF DURHAM, NORTH CAROLINA  
 DEPARTMENT OF PUBLIC WORKS  
 SCALE: NTS  
 DETAIL NO. W-6.0

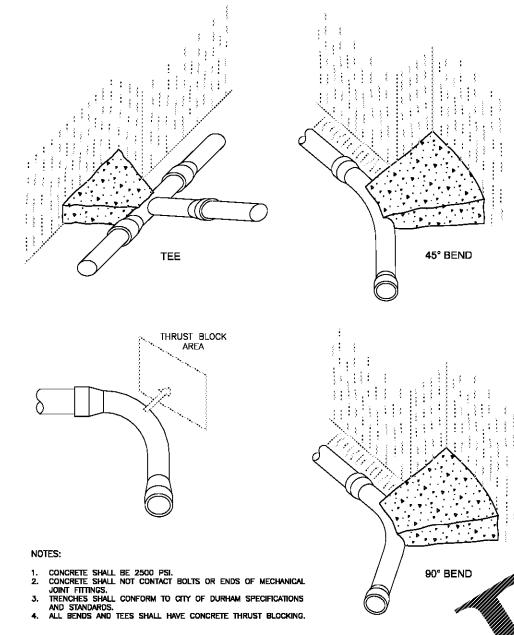
**VALVE PREFERENCE TABLE**

THE FOLLOWING TABLE SUMMARIZES VALVE TYPES AND ACCESS ALLOWED FOR DIFFERENT SIZED VALVES.

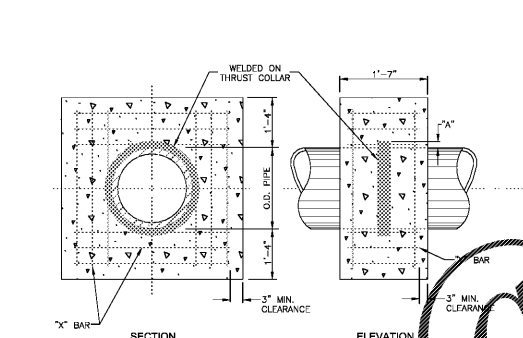
VALVE SIZE (INCHES)	VALVE TYPE	TYPE OF ACCESS	SIZE OF ACCESS (FEET)
12 AND UNDER	RESILIENT WEDGE GATE	VALVE BOX, 2-PIECE SCREW TYPE	STANDARD
14	BUTTERFLY	MANHOLE	4
16	BUTTERFLY	MANHOLE	4
18	BUTTERFLY	MANHOLE	5
20	BUTTERFLY	MANHOLE	5
24	BUTTERFLY	MANHOLE	5
30	BUTTERFLY	MANHOLE	6
36	BUTTERFLY	MANHOLE	6
42	BUTTERFLY	MANHOLE	6

GATE VALVES MAY BE DEEMED NECESSARY BY THE ENGINEER'S DIVISION.

**DURHAM**  
 REVISION DATE: 12/07/2009  
 VALVE PREFERENCE TABLE  
 CITY OF DURHAM, NORTH CAROLINA  
 DEPARTMENT OF PUBLIC WORKS  
 SCALE: NTS  
 DETAIL NO. W-6.1



**DURHAM**  
 REVISION DATE: 12/07/2009  
 HORIZONTAL THRUST BLOCKING ISOMETRIC SCHEDULE  
 CITY OF DURHAM, NORTH CAROLINA  
 DEPARTMENT OF PUBLIC WORKS  
 SCALE: NONE  
 DETAIL NO. W-6.0



**WELDED ON THRUST COLLAR**

LD. PIPE	"A"	THRUST COLLAR REINFORCING	"Y" BAR
6"-16"	2"	2"-2" + 0.5" DIA. REBAR	1"-1"
20"-24"	3"	REBAR	#5
30"-36"	3"	NUMBER REBAR	12

**NOTES:**

- CONCRETE SHALL BE 3000 PSI.
- CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
- THRUSTS SHALL CONFORM TO CITY OF DURHAM SPECIFICATIONS AND STANDARDS.
- ALL BENDS AND TEES SHALL HAVE CONCRETE THRUST BLOCKING.

**DURHAM**  
 REVISION DATE: 12/07/2009  
 CONCRETE THRUST BLOCK  
 CITY OF DURHAM, NORTH CAROLINA  
 DEPARTMENT OF PUBLIC WORKS  
 SCALE: NTS  
 DETAIL NO. W-6.1

**MAXIMUM TAP SIZES FOR DUCTILE IRON PIPES**

THE FOLLOWING TABLE SUMMARIZES THE MAXIMUM TAP SIZES FOR VARIOUS CLASSES OF DUCTILE IRON PIPE:

PIPE DIAMETER (INCHES)	MAXIMUM TAP SIZE FOR CLASS 50 /B1 PIPE (INCHES)	MAXIMUM TAP SIZE FOR CLASS 250 /B50 PIPE (INCHES)
4	3/4	3/4
6	3/4	3/4
8	1-1/2	1
10	1-1/2	1-1/2
12	1-1/2	1-1/2
14	2	1-1/2
16	2	2

THIS TABLE IS BASED ON INFORMATION FROM TABLES 50.16 AND 50.5 OF ANSI / AWWA C150/A21 51-91 FOR CLASS 50 /B50 AND CLASS 250 /B50 PIPE, RESPECTIVELY, AND FROM TABLE A.2 OF APPENDIX A FROM ANSI / AWWA C151/A21 51-91 FOR TAPS WITH TWO THREADS USING STANDARD CORPORATION STOPS. IF TAP REQUIREMENTS EXCEED TWO THREADS, OR IF THE REQUIRED TAP SIZES EXCEED THE MAXIMUM TAP SIZES LISTED IN THIS TABLE, TAPPING SADDLES MAY BE USED TO MAKE THE TAP. TAPPING SADDLES SHALL BE AS MANUFACTURED BY AMERICAN PIPE COMPANY, OR EQUAL.

REVERSE TAPS REQUIRE PLAN APPROVAL FROM DEVELOPMENT REVIEW MANAGER.

**DURHAM**  
 REVISION DATE: 12/07/2009  
 HORIZONTAL THRUST BLOCKING SCHEDULE  
 CITY OF DURHAM, NORTH CAROLINA  
 DEPARTMENT OF PUBLIC WORKS  
 SCALE: NTS  
 DETAIL NO. W-6.2

**DURHAM**  
 REVISION DATE: 12/07/2009  
 MAXIMUM TAP SIZES FOR DUCTILE IRON PIPES  
 CITY OF DURHAM, NORTH CAROLINA  
 DEPARTMENT OF PUBLIC WORKS  
 SCALE: NTS  
 DETAIL NO. W-10.0

Order Plans @

FINAL DESIGN  
 NOT RELEASED  
 FOR CONSTRUCTION

CITY OF DURHAM  
 PUBLIC WORKS DEPARTMENT  
 APPROVED

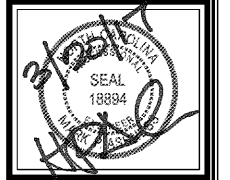
ENGINEERING	DATE
STORM WATER	DATE
TRANSPORTATION	DATE

NO.	REVISIONS	DATE

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 FAX: 919-322-0032

www.cegroupinc.com  
 License # C-1739



LOT 6 CONSTRUCTION PLANS  
 FOR  
 WESTPOINT AT 751  
 UTILITY DETAILS

NC HIGHWAY 751 SOUTH, TRIANGLE TOWNSHIP, DURHAM, NC 27713

Date: MARCH, 2017

Scale: N/A

Drawn: JPD

Checked: MPA

Project No: 200-103

Computer Dwg. Name: 200-103\_Sht-10-13-Details-031617