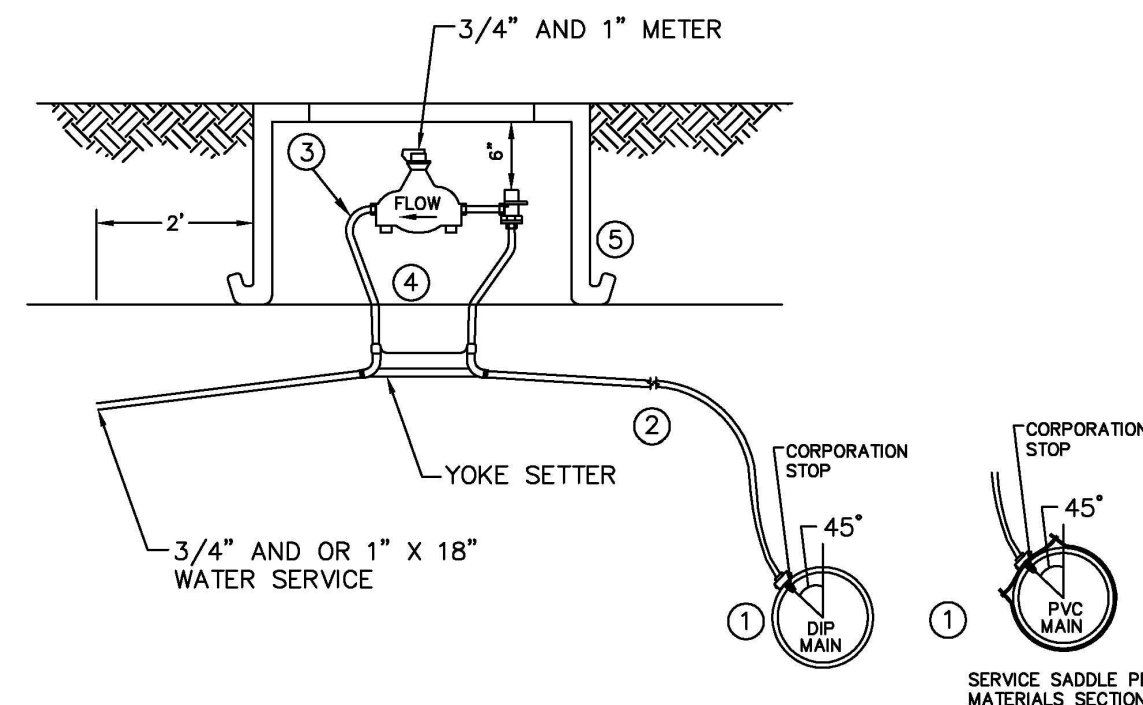


NOTES:

- METER TO BE FURNISHED AND INSTALLED BY CITY OF NEWTON.
- WATER METER IN ACCORDANCE WITH THE STANDING SPECIFICATIONS PER WATER DISTRIBUTIONS. ALL FITTINGS TO BE COMPRESSION JOINT TYPE AS APPROVED BY THE DIRECTOR OF UTILITIES.
- MINIMUM TAP SPACING SHALL BE 8" O.C.
- DIRECT TAPS 3/4-INCH AND 1-INCH CAN BE MADE TO 6-INCH OR LARGER DUCTILE IRON PIPE, PRESSURE CLASS 350. ALL OTHER APPLICATIONS SHALL INCORPORATE A SERVICE SADDLE.



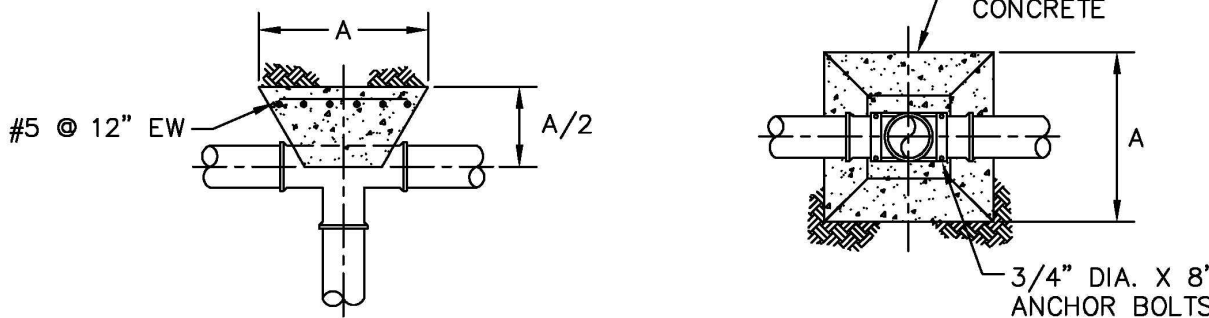
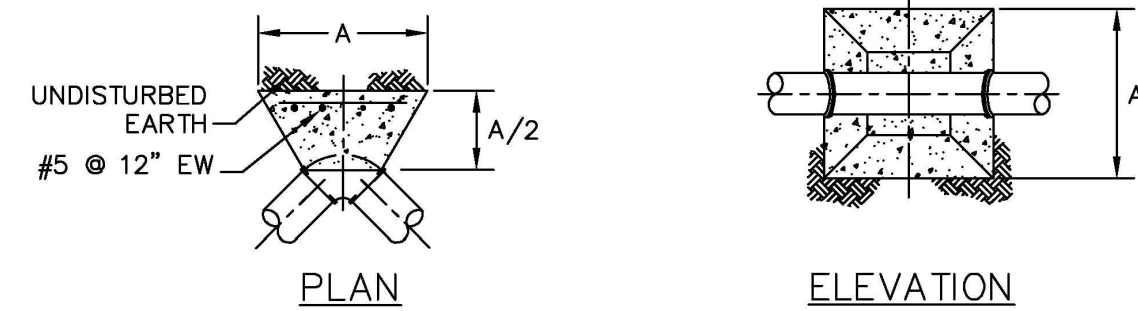
LEGEND:

- ① COMPRESSION CORPORATION STOP PER MATERIALS SECTION.
- ② COPPER TUBING, TYPE K, WITH COMPRESSION JOINTS AND/OR 3/4" TYPE K SOFT COPPER PIPE OR 200 PSI POLY TUBING CTS PARR PE - 3408 OR EQUAL
- ③ COMPRESSION YOKE 90° ANGLE BALL VALVE, WITH LOCK OUT WING, PER MATERIALS SECTION.
- ④ COPPER SETTER OUTLET PIECE GROOVED FOR WASHER, 90° OUTLET PER MATERIALS SECTION.
- ⑤ BLACK POLYETHYLENE OR CAST IRON METER BOX PER THE MATERIALS SECTION.



WATER SYSTEMS
3/4" & 1"
SERVICE CONNECTION

OCTOBER 2008
NTS W - 3.0



NOTES:

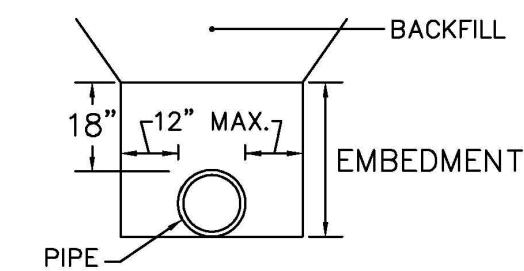
- ALL FACES OF THE BLOCK SHALL REST AGAINST UNDISTURBED SOIL.
- PIPE JOINTS, BOLTS, NUTS, RETAINER GLANDS ARE NOT TO BE ENCASED IN CONCRETE.
- DIMENSIONS BASED ON 150 PSI TEST PRESSURE 1,000 PSF BEARING CAPACITY.
- THRUST BLOCKS ARE ALLOWED ONLY WHEN THERE IS NOT ENOUGH PIPE LENGTH TO PROVIDE SUFFICIENT THRUST RESTRAIN VIA RESTRAINED JOINT PIPE, OR WHEN CONNECTING TO AN EXISTING PIPE THAT IS NOT A RESTRAINED JOINT.

FITTING	DIMENSION "A"			
	PIPE SIZE			
	4"	6"	8"	12"
11 1/4" BEND	1'-6"	1'-6"	1'-6"	2'-0"
22 1/2" BEND	1'-6"	1'-6"	2'-0"	2'-8"
45° BEND	1'-6"	2'-0"	2'-6"	3'-8"
90° BEND	1'-8"	2'-6"	3'-4"	5'-0"
TEE	1'-8"	2'-6"	3'-4"	5'-0"

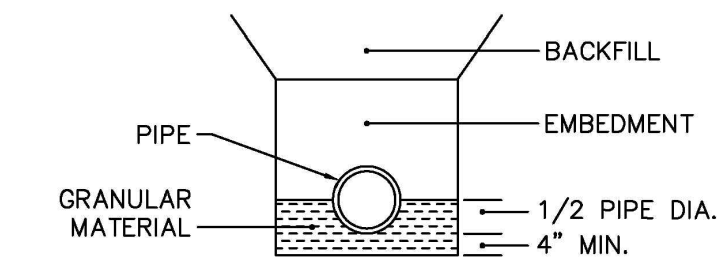


WATER SYSTEMS
THRUST BLOCK

OCTOBER 2008
NTS W - 6.0



ORDINARY PIPE BEDDING



TYPE "A" BEDDING

BEDDING	LIMITING INVERT DEPTHS			
	PIPE DIAMETER			
	6"	8"	10"	12"
ORDINARY	4'-20'	4'-15'	4'-10'	4'-10'
TYPE "A"	-	15'-20'	10'-20'	10'-20'

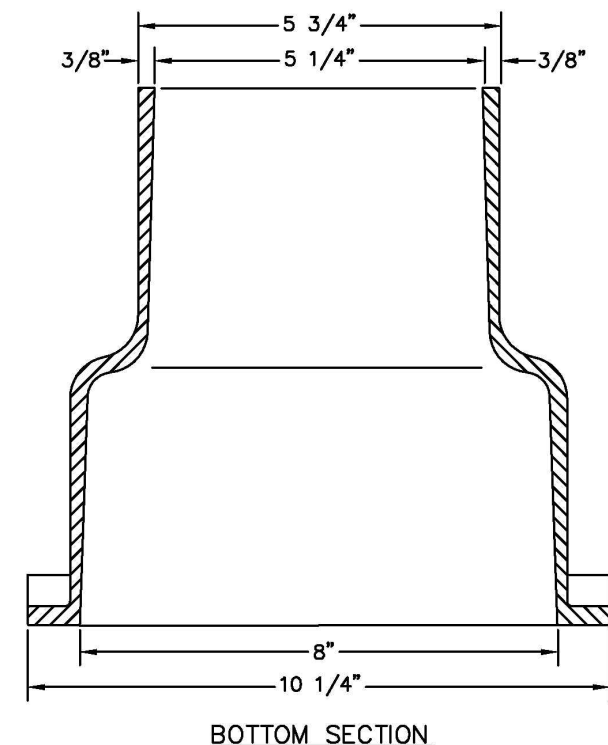
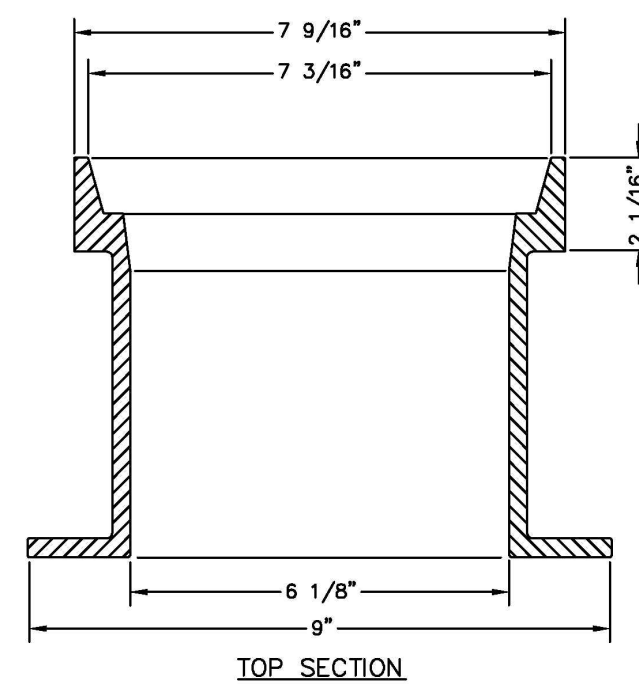
NOTES:

- PIPES AT DEPTHS GREATER THAN 12' MUST BE APPROVED BY THE DIRECTOR OF UTILITIES.
- PIPE BEDDING SHALL BE DESIGNED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS, DUCTILE IRON PIPE RESEARCH ASSOCIATION OR OTHER APPLICABLE DESIGN STANDARDS.
- PIPE EMBEDMENT SHALL BE PLACED IN A MAXIMUM OF 6" LAYERS & COMPACTED TO 95% OF THE MAXIMUM LABORATORY DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD.
- PIPE EMBEDMENT SHALL EXTEND TO FINISHED GRADE FOR PIPELINES WITHIN ROAD RIGHT-OF-WAY.



WATER SYSTEMS
DUCTILE IRON PIPE
TRENCHING & BACKFILLING
(UP TO 20' DEEP)

APRIL 2008
NTS W - 8.0



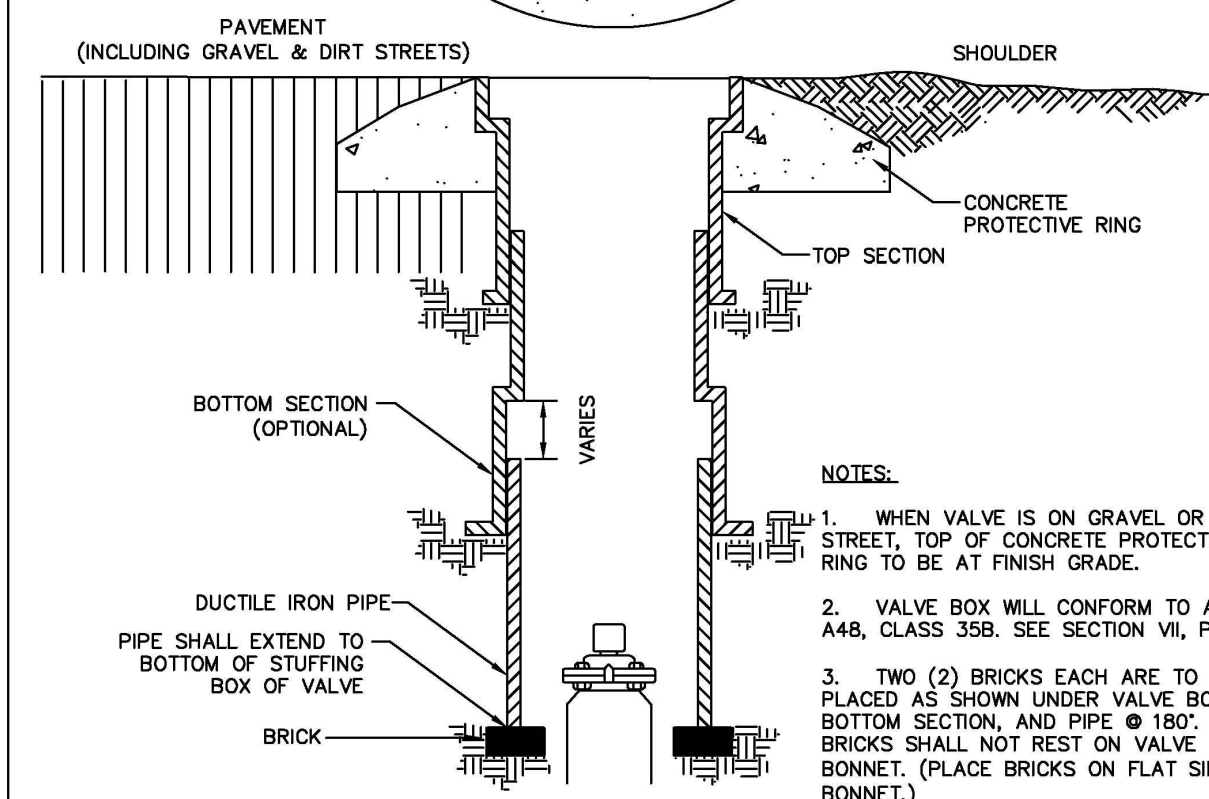
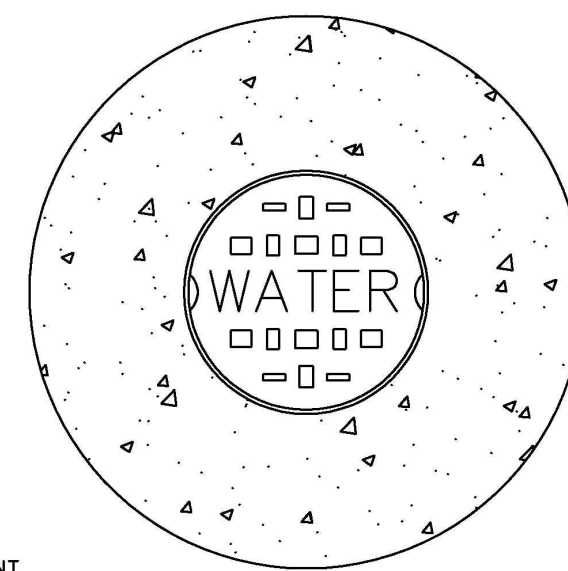
NOTES:

- VALVE BOX WILL CONFORM TO ASTM A48, CLASS 35 B.
- MINIMUM WEIGHTS:
COVER.....13 LBS
TOP SECTION.....60 LBS
BOTTOM SECTION.....49 LBS
TOTAL.....122 LBS
- COVERS LOCATED IN CONCRETE OR PAVEMENT SHALL HAVE SKIRTS MIN. 4" DEEP AND COVERS SHALL WEIGH MIN. OF 24 LBS.



WATER SYSTEMS
CAST IRON
VALVE BOX

APRIL 2008
NTS W - 13.0



NOTES:

- WHEN VALVE IS ON GRAVEL OR DIRT STREET, TOP OF CONCRETE PROTECTIVE RING TO BE AT FINISH GRADE.
- VALVE BOX WILL CONFORM TO ASTM A48, CLASS 35B. SEE SECTION VI, PG. 33.
- TWO (2) BRICKS EACH ARE TO BE PLACED AS SHOWN UNDER VALVE BOX, BOTTOM SECTION, AND PIPE @ 180°. BRICKS SHALL NOT REST ON VALVE BONNET. (PLACE BRICKS ON FLAT SIDE OF BONNET.)



WATER SYSTEMS
ROUND TOP VALVE
BOX INSTALLATION

APRIL 2008
NTS W - 14.0

PROJECT REFERENCE NO. R-3100B	SHEET NO. UC-3B
DESIGNED BY: RJM	
DRAWN BY: RAB	
CHECKED BY: DGC	
APPROVED BY:	
REVISED:	UTILITY CONSTRUCTION PLANS ONLY
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

UTILITY CONSTRUCTION

Prepared by



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UNTIL ALL SIGNATURES COMPLETE