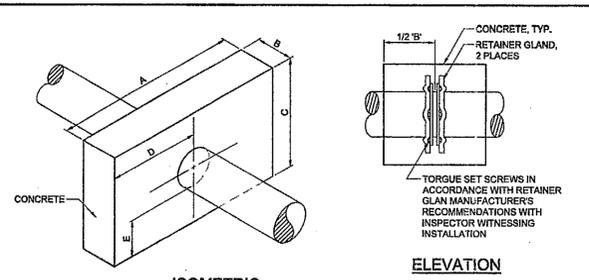


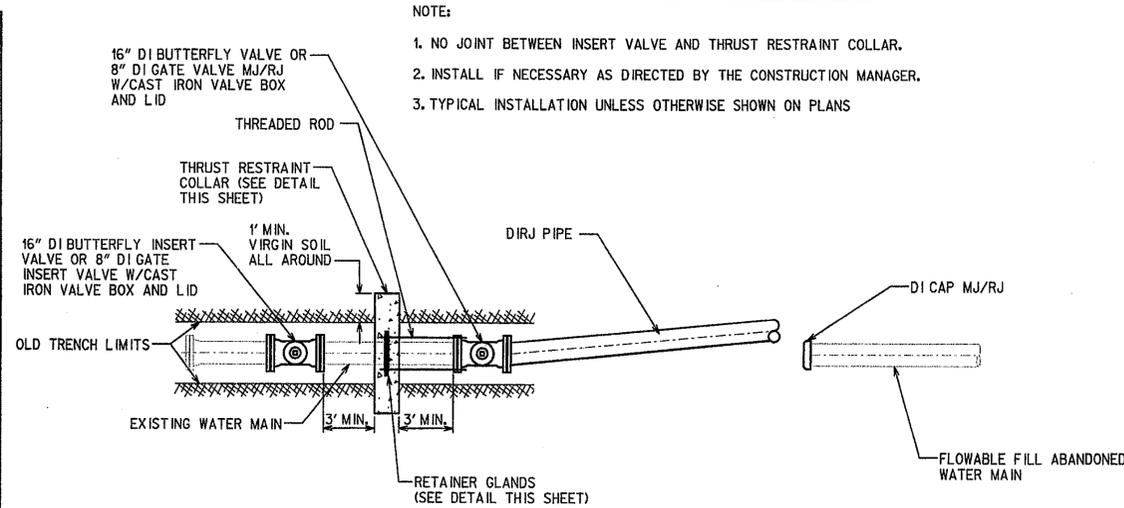
# VOID



ISOMETRIC

ELEVATION

PIPE SIZE	A	B	C	D	E	VOLUME CU.YDS.	CONC. WT.	THRUST
4"	3'-6"	12'-18"	1'-6"	1'-6"	1'-0"	0.55	2230	3150
6"	4'-0"	12'-18"	2'-7"	2'-0"	1'-0"	1.15	4650	7070
8"	4'-6"	12'-18"	3'-0"	2'-3"	1'-3"	1.50	6075	12,670
10"	5'-2"	12'-18"	3'-2"	2'-7"	1'-3"	1.81	7330	19,635
12"	5'-9"	24'-36"	3'-8"	2'-10"	1'-8"	2.34	9475	28,775
14"	6'-6"	24'-36"	4'-0"	3'-3"	1'-9"	2.89	11,700	38,490
16"	6'-9"	24'-36"	4'-9"	3'-3"	2'-3"	3.56	14,410	50,270



CONNECTION TO EXISTING WATER MAIN

NOTES:

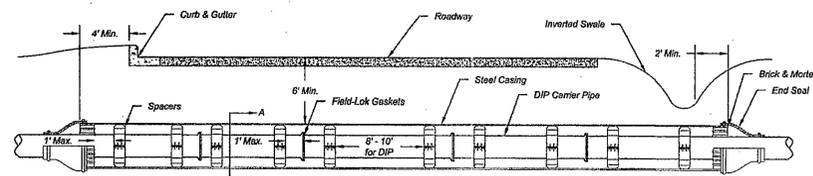
- CONCRETE SHALL BE POURED AGAINST UNDISTURBED EARTH EXCEPT WHERE FORMWORK IS A MUST. AFTER CONCRETE IS CURED THE FORMWORK SHALL BE REMOVED.
- WATER MAINS GREATER THEN 16" DIAMETER SHALL BE INDIVIDUALLY CALCULATED BY ENGINEERING DEPARTMENT.
- PIPE MUST BE DUCTILE IRON.
- DIMENSIONS MAY INCREASE IF VIRGIN SOIL IS NOT LOCATED. INSPECTOR SHALL VERIFY UNDISTURBED SOIL LOCATION. IF PLACED IN FILL, ENGINEER SHOULD BE CONTACTED TO DETERMINE THRUST COLLAR LIMITS.

DESIGN CRITERIA:

- FOR WATER MAINS AT A RATED TEST PRESSURE OF 250 PSI.
- COLLAR DIMENSIONS ARE BASED ON A SOIL BEARING CAPACITY OF 2000 PSF, A RATED TEST PRESSURE OF 250 PSI, PRESSURE CLASS DUCTILE IRON PIPE, 3000 PSI CLASS 'B' CONCRETE.
- UNDER ADVERSE CONSTRUCTION CONDITIONS, CONCRETE SHALL BE 'HIGH EARLY' TYPE.

THRUST RESTRAINT COLLAR

- Note:
- Casing to extend 4' beyond curb & gutter or edge of pavement in fill section.
  - Casing to extend 2' beyond the back edge of the bottom of the ditch or 2' beyond the bottom of a V-ditch.
  - For water and/or sanitary sewer only.



Under Railroads

Pipe Diameter	Casing Diameter	Min. Wall Thickness
8"	12"	.315"
10"	20"	.344"
12"	22"	.375"
14"	24"	.407"
16"	30"	.459"

SECTION A-A



Under Highways

Pipe Diameter	Casing Diameter	Min. Wall Thickness
8"	16"	.250"
10"	18"	.250"
12"	18"	.250"
16"	24"	.250"
20"	30"	.315"
30"	42"	.375"

Casing and Spacer Detail  
NTS

Standard Specification and Detail for:

Casing and Spacer

G-2



Know what's below  
Call before you dig

REVISION DATES


STATE OF GEORGIA DEPARTMENT OF  
TRANSPORTATION OFFICE: PROGRAM DELIVERY  
UNIFIED GOVERNMENT OF ATHENS-CLARKE COUNTY  
WATER RELOCATION PLANS  
CR 481/ COLLEGE STATION ROAD

DETAILS 11

CSBRG-0006-00(320)  
CLARKE COUNTY

DRAWING No.  
44-11



GRESHAM  
SMITH AND  
PARTNERS