

- GENERAL NOTES**
- BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR.
 - HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 85% PROCTOR.
 - INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
 - INITIAL BACKFILL NOT UNDER PAVED AREA CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
 - FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3, AND 4.
 - FINAL BACKFILL NOT UNDER PAVED AREA CAN BE CLASS IV-1 COMPACTED TO 85% STANDARD PROCTOR.
 - ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 1557 - B9.
 - ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
 - FILL ALYSED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
 - ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)
- UTILITY TRENCH AND BEDDING**
 N.T.S.

PLAN N.T.S.
 SECTION A-A N.T.S.
 SECTION B-B N.T.S.
 SECTION C-B N.T.S.

4 MIN. #5 BAR SP. EQ. ACROSS TOP OF BEND
 MIN. #4, #5 BARS
 #5'S BAR @ 6" O.C. E.W.
 #5'S BAR @ 12" O.C.

DETAIL-HORIZONTAL THRUST
 N.T.S.

BEND	SIZE	A (FT)	B (FT)	C (FT)	D (FT)	VOLUME (CU. YD.)
11 1/4"	6"	1.0	2.0	7"	1.0	0.04
	8"	1.0	2.0	7"	1.0	0.05
	12"	1.0	2.0	11"	2.0	0.10
	16"	2.0	3.0	15"	2.0	0.30
22 1/2"	6"	1.0	2.0	7"	1.0	0.04
	8"	1.0	2.0	7"	2.0	0.10
	12"	2.0	3.0	2.0	2.0	0.30
45°	6"	2.0	4.0	3.0	3.0	0.60
	8"	3.0	5.0	3.0	3.0	1.00
	16"	2.0	4.0	19"	3.0	3.00
90°	6"	1.5	2.0	7"	1.5	0.11
	8"	2.0	3.0	7"	2.0	0.30
	12"	2.0	4.0	11"	3.0	0.70
	16"	3.0	5.0	15"	4.0	1.40
TEE BRANCH PLUGS & CAPS	6"	2.0	7.0	7.0	19"	6.0
	8"	2.0	7.0	7.0	19"	6.0
	12"	2.0	7.0	7.0	19"	6.0

DETAIL-DOWNWARD THRUST
 N.T.S.

BEND	SIZE	A (FT)	B (FT)	C (FT)	D (FT)	VOLUME (CU. YD.)
11 1/4"	6"	1.0	1.0	7"	1.0	0.04
	8"	1.0	1.0	7"	1.0	0.05
	12"	1.0	2.0	11"	2.0	0.10
	16"	2.0	3.0	15"	2.0	0.30
22 1/2"	6"	1.0	1.5	7"	1.0	0.05
	8"	1.0	2.0	7"	2.0	0.11
	12"	2.0	3.0	11"	2.0	0.30
45°	6"	1.5	2.0	7"	1.5	0.11
	8"	2.0	3.0	7"	2.0	0.30
	16"	3.0	5.0	15"	4.0	1.40
90°	6"	1.75	2.5	7"	2.0	0.2
	8"	2.0	3.0	7"	3.0	0.4
	16"	4.0	6.0	11"	4.0	2.1
TEE BRANCH PLUGS & CAPS	6"	2.0	7.0	7.0	19"	6.0
	8"	2.0	7.0	7.0	19"	6.0
	12"	2.0	7.0	7.0	19"	6.0

THRUST BLOCKS
 N.T.S.

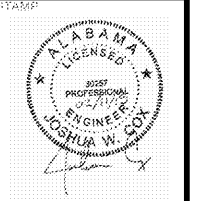
GENERAL NOTES:
 1. THRUST BLOCK DIMENSIONS ARE BASED ON 2000 POUNDS PER SQUARE FOOT SOIL BEARING PRESSURE AND 250 POUNDS PER SQUARE INCH TEST PRESSURE. ACTUAL INSIDE DIAMETER OF DUCTILE IRON PIPE, CLASS 52 USED AS STANDARD.
 2. SOIL CONDITION SHALL BE VERIFIED BY THE ENGINEER BEFORE THRUST BLOCK IS CONSTRUCTED, WHERE SOIL BEARING PRESSURE IS LESS THAN 2000LB/FT² THRUST BLOCK BEARING AREA SHALL BE INCREASED APPROPRIATELY.
 3. ALL CONCRETE SHALL BE CLASS 4000 PSI.
 4. UPWARD THRUST DETAIL IS ONLY ACCEPTABLE FOR SPECIFIC CASES. COORDINATE WITH GOVERNING AUTHORITY.

Order Plans

3471 PRAIRIEVILLE ST
 TRUSSVILLE, AL 35096
 PHONE: 404-567-5701
 FAX: 404-567-5703
 WWW.BDGSSE.COM

BDG

Buckel Design Group, LLC.



PROPOSED COMMERCIAL DEVELOPMENT
 TRUSSVILLE, JEFFERSON COUNTY, AL

FOR: GEMCAP DEVELOPMENT
 WINSTON-SALEM, NORTH CAROLINA

REVISION	BY

DRAWN: GDL
 CHECKED: ADB
 ISSUED DATE: 2/11/2019
 ISSUED FOR PERMIT REVIEW
 PROJECT NO.: 18-188
 FILE: 18-188 Details

UTILITY DETAILS