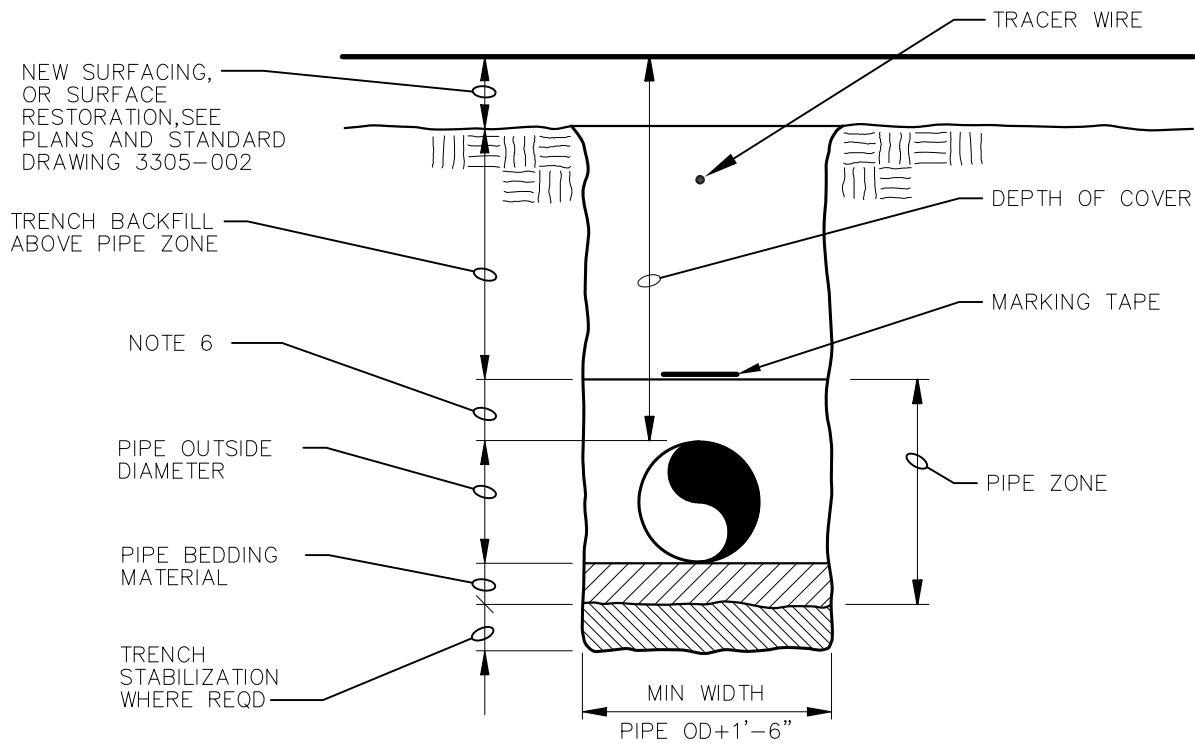


SECTION 8 STANDARD DRAWING INDEX

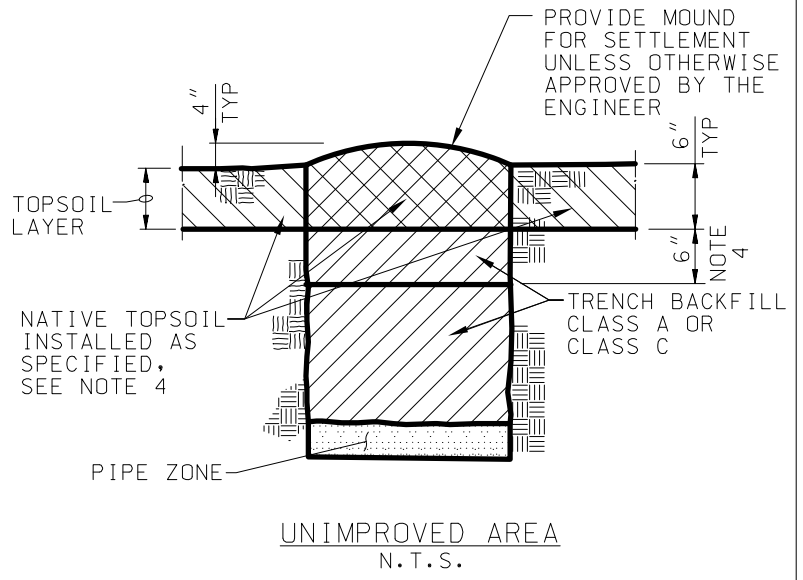
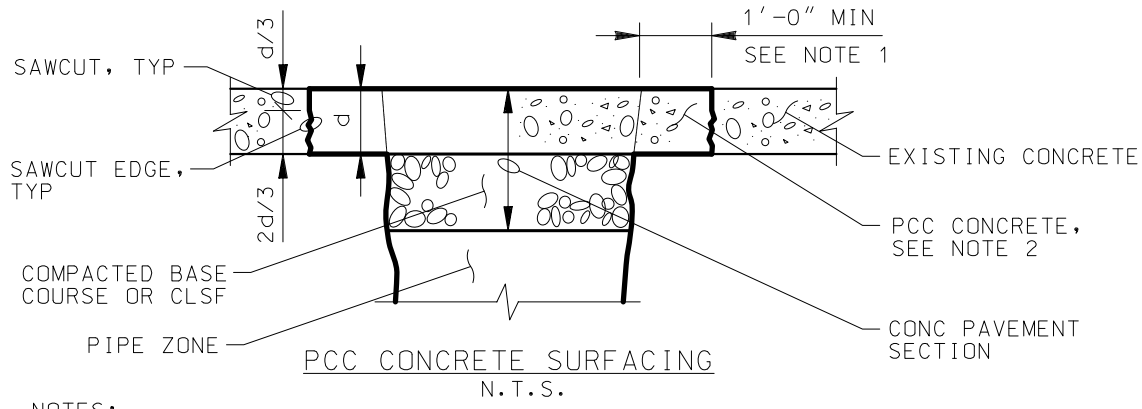
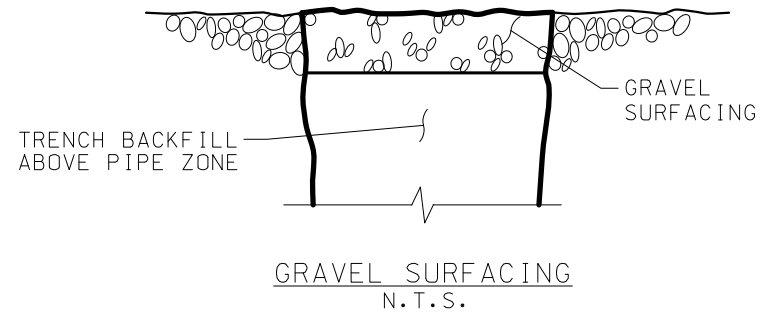
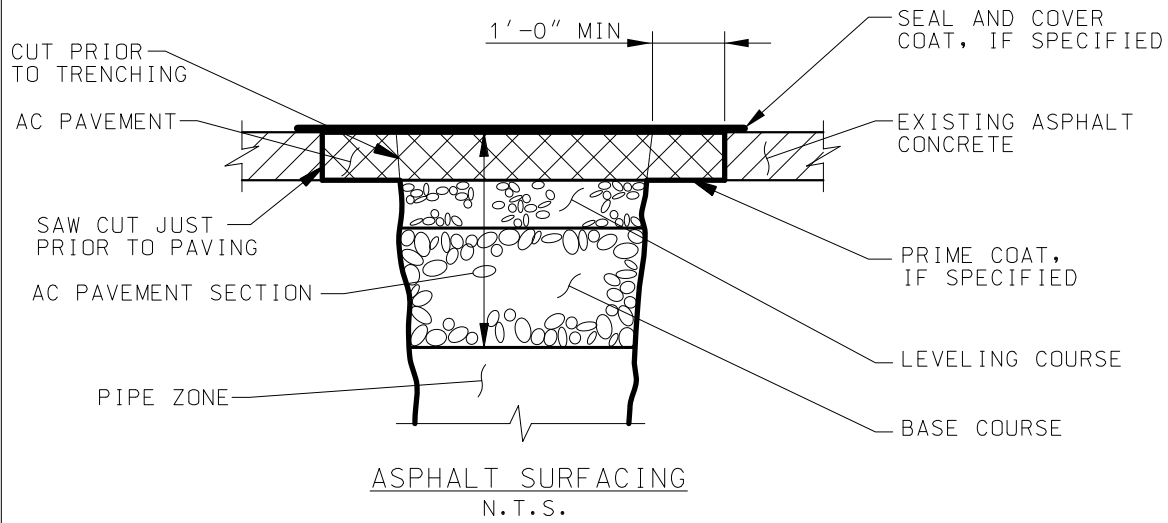
DWG NO.	TITLE
3305-001	TYPICAL TRENCH
3305-002	SURFACE RESTORATION
3305-715	THRUST BLOCK NOTES AND DETAILS
3305-720	AIR AND VACUUM VALVE ASSEMBLY



NOTES:

1. CONTRACTOR SHALL SLOPE TRENCH WALLS OR SHORE EXCAVATIONS FOR CONSTRUCTION AND SAFETY AND IN ACCORDANCE WITH CURRENT OSHA REQUIREMENTS.
2. FOUNDATION STABILIZATION MATERIAL SHALL BE INSTALLED ONLY AS APPROVED AND DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH THE SPECIFICATION.
3. SEE SPECIFICATION SECTION 31 23 16 EXCAVATION AND 31 23 23 TRENCH BACKFILL.
4. COORDINATE LOCATION OF MARKING TAPE WITH SPECIFICATIONS. PROVIDE NEW SURFACING AS SHOWN ON THE DRAWINGS.
5. WHERE TRENCHES ARE IN AREAS NOT DESIGNATED TO RECEIVE NEW ASPHALT, GRAVEL OR PCC CONCRETE SURFACING, RESTORE EXISTING SURFACE USING SEED OR SOD AS DIRECTED.
6. MINIMUM DEPTH OVER PIPE IS BY SIZE AND SERVICE AS FOLLOWS:
 - a. 4" AND 6" GRAVITY SERVICE: 6" MIN.
 - b. 8" GRAVITY SERVICE AND LARGER AND ALL FORCE MAINS: 12" MIN.
7. PROVIDE TRACER WIRE PER SPECIFICATION FOR ALL FORCE MAINS.

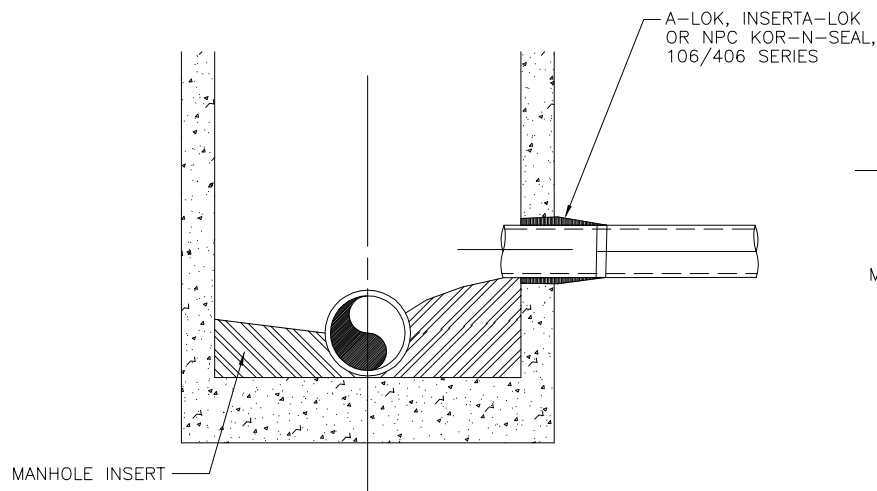
DATE		REVISIONS		JEFFERSON COUNTY ALABAMA ENVIRONMENTAL SERVICES DEPARTMENT	
01/15		TEXT UPDATE		TYPICAL TRENCH	
MAY 2015					
APPROVED: _____					



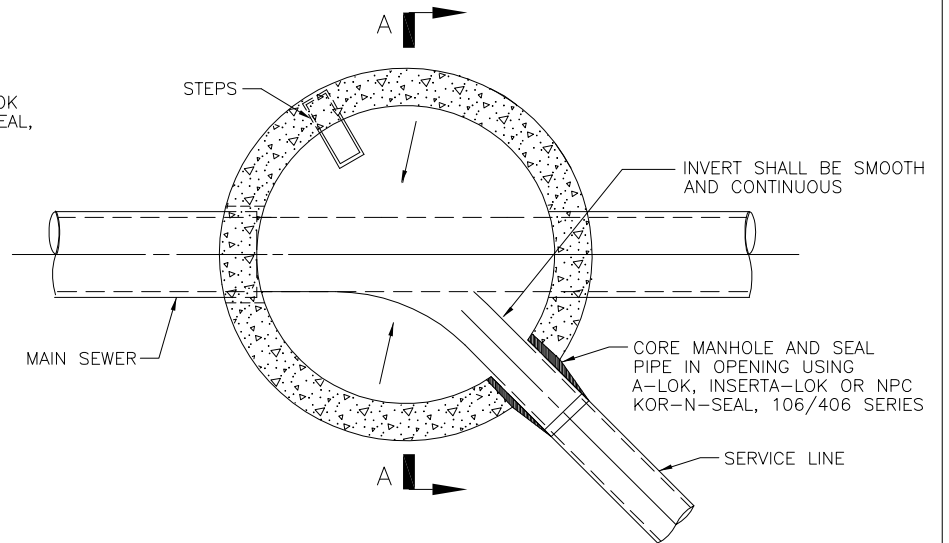
NOTES:

1. IF LOCATION OF TRENCH SAW CUT IS WITHIN 2 FEET OF AN EXISTING JOINT OR EDGE OF CONCRETE, REPLACE ENTIRE CONCRETE SECTION TO THE JOINT OR EDGE.
2. CONSTRUCT JOINTS ACROSS NEW CONCRETE TO MATCH EXISTING JOINT TYPES AND LOCATIONS.
3. SURFACE RESTORATION MUST BE COMPATIBLE WITH TYPE OF BACKFILL USED. COMPACTED CRUSHED ROCK AND LEVELING COURSE BASE SHOULD NOT BE PLACED ON NATIVE MATERIAL.
4. THE TOP 6" OF TRENCH BACKFILL, BENEATH THE TOPSOIL LAYER, SHOULD BE INSTALLED, SMOOTHED, BUT LEFT UN-COMPACTED.
5. TOPSOIL SHALL EXTEND BEYOND TOP OF TRENCH A MINIMUM OF 12".
6. SOD OR SEED AS DIRECTED.

DATE	REVISIONS	JEFFERSON COUNTY ALABAMA ENVIRONMENTAL SERVICES DEPARTMENT
01/15	TEXT UPDATE	SURFACE RESTORATION
MAY 2015		
APPROVED: _____		STANDARD DRAWING NO. <u>3305-002</u>



A-A SECTION
N.T.S.



MANHOLE BASE PLAN
N.T.S.

NOTES:

1. CONNECTION TO A MANHOLE REQUIRES APPROVAL OF THE ENVIRONMENTAL SERVICES DEPARTMENT.

DATE	REVISIONS	JEFFERSON COUNTY ALABAMA ENVIRONMENTAL SERVICES DEPARTMENT
04/14	UPDATE TO MATCH MANUAL AND NEW MATERIALS	MANHOLE SERVICE LINE CONNECTION
05/14	TEXT UPDATE	
01/15	TEXT UPDATE	
MAY 2015		
APPROVED: _____		STANDARD DRAWING NO. <u>3305-545</u>

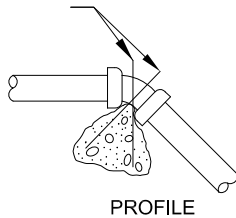
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FITTING SIZE	ROD SIZE	EMBEDMENT
12" AND LESS	#6	30"

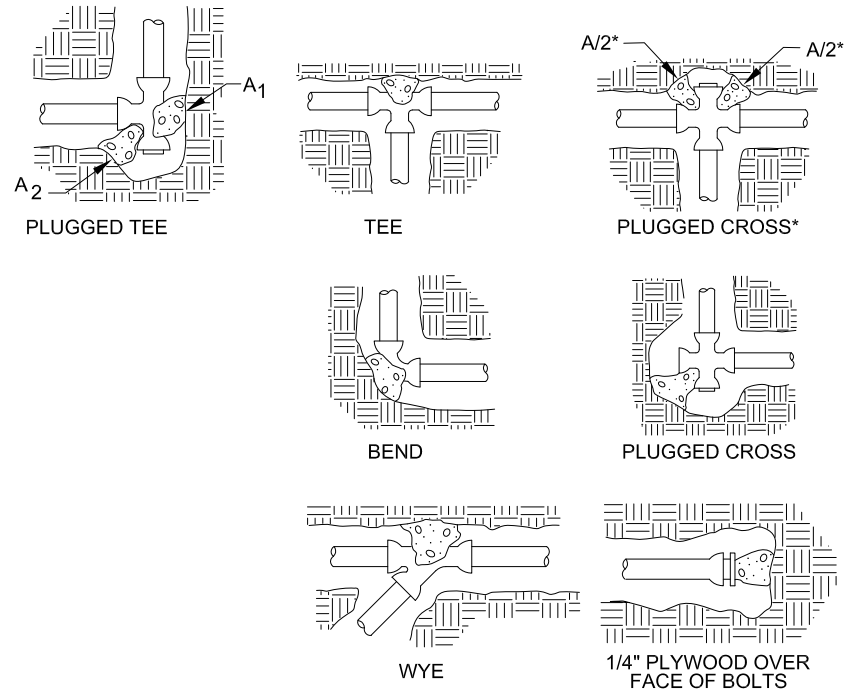
BEARING AREA OF THRUST BLOCKS IN SQ. FT. (HORIZONTAL BENDS)								
FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED RUN		BEND ANGLE			
			A1	A2	45°	22 1/2°	11 1/4°	
4	1.0	1.4	1.9	1.4	1.0	-	-	
6	2.1	3.0	4.3	3.0	1.6	1.0	-	
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0	
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2	
12	8.5	12.0	17.0	12.0	6.6	3.4	1.7	

(VERTICAL BENDS)			
FITTING SIZE	BEND ANGLE		
	45°	22 1/2°	11 1/4°
4	1.1	0.4	0.2
6	2.7	1.0	0.4
8	4.0	1.5	0.6
10	6.0	2.3	0.9
12	8.5	3.2	1.3

GALVANIZED RODS OVER FITTING AND EMBEDDED IN CONCRETE (SEE TABLE FOR SIZES)



* EACH AREA (A/2) IS 1/2 OF TABULATED TOTAL AREA



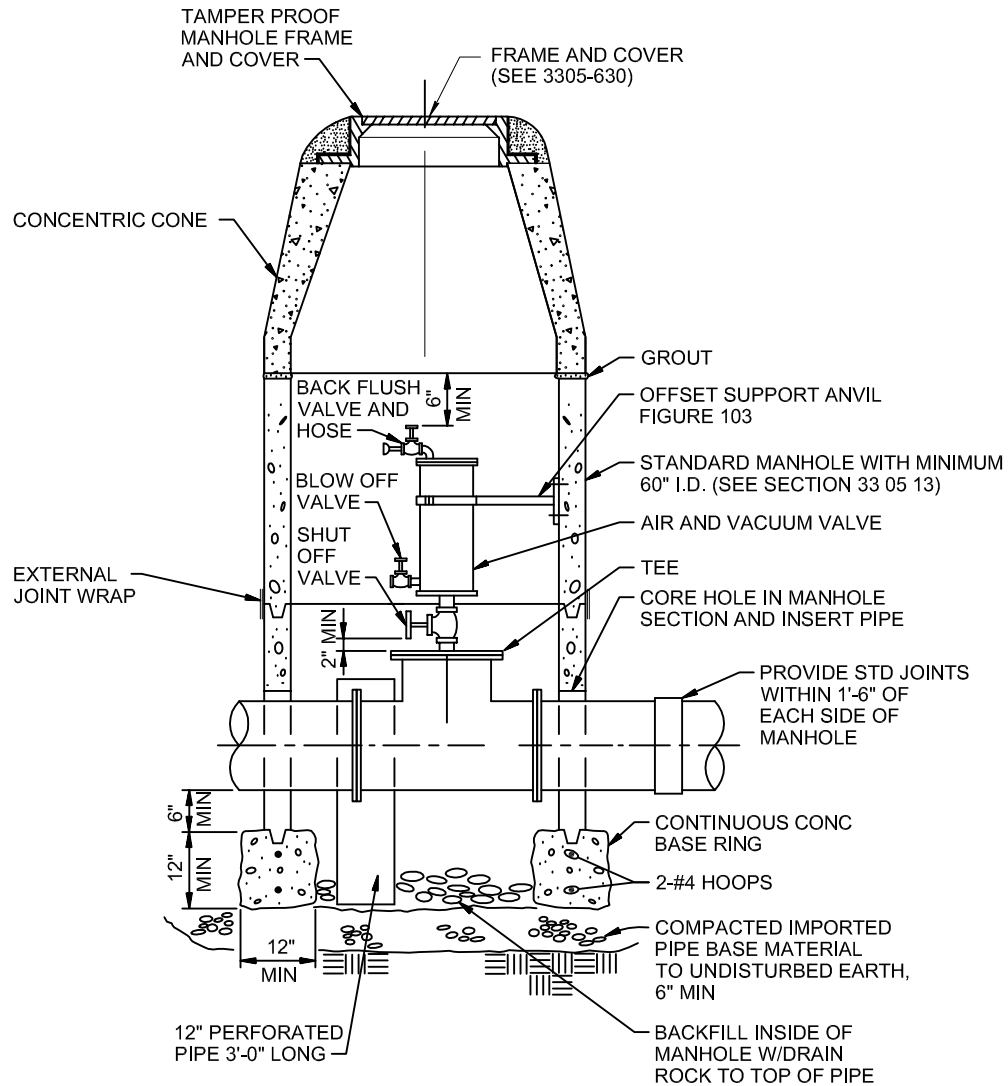
THRUST BLOCK NOTES

- KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.
- CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
- REQUIRED VOLUMES OR BEARING AREAS AT FITTINGS SHALL BE AS INDICATED BELOW, ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.
- THRUST BLOCK VOLUMES FOR VERTICAL BENDS HAVING UPWARD RESULTANT THRUSTS ARE BASED ON TEST PRESSURE OF 150 PSIG AND THE WEIGHT OF CONCRETE = 4050 LBS/CU YD. TO COMPUTE VOLUMES FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION: VOLUME = (TEST PRESS./150) x (TABLE VALUE).
- BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 150 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS/SQ FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, MULTIPLY TABLE VALUES BY THE FACTOR $(13.33)(P'/S'_b)$, WHERE:

P' = ACTUAL TEST PRESSURE, PSIG
 S'_b = ACTUAL SOIL BEARING PRESSURE, PSF.

- THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUSTS SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
- BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD
- BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ FT.
- VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS. SEE PLANS FOR VOLUMES SHOWN TO LEFT OF SOLID LINE IN TABLE.
- TEST PRESSURES ARE SHOWN IN THE PIPING SCHEDULE.
- ALLOWABLE SOIL BEARING STRESS IS 2000 LBS/SQ FT

DATE	REVISIONS	JEFFERSON COUNTY ALABAMA ENVIRONMENTAL SERVICES DEPARTMENT
MAY 2015		THRUST BLOCK NOTES AND DETAILS
APPROVED: _____		STANDARD DRAWING NO. <u>3305-715</u>



DATE	REVISIONS	JEFFERSON COUNTY ALABAMA ENVIRONMENTAL SERVICES DEPARTMENT
		AIR AND VACUUM VALVE ASSEMBLY
	MAY 2015	
APPROVED: _____		STANDARD DRAWING NO. <u>3305-720</u>