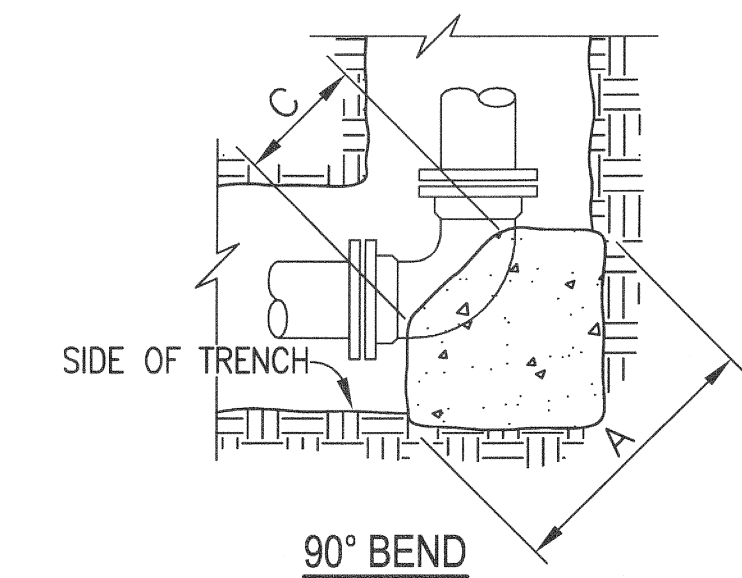
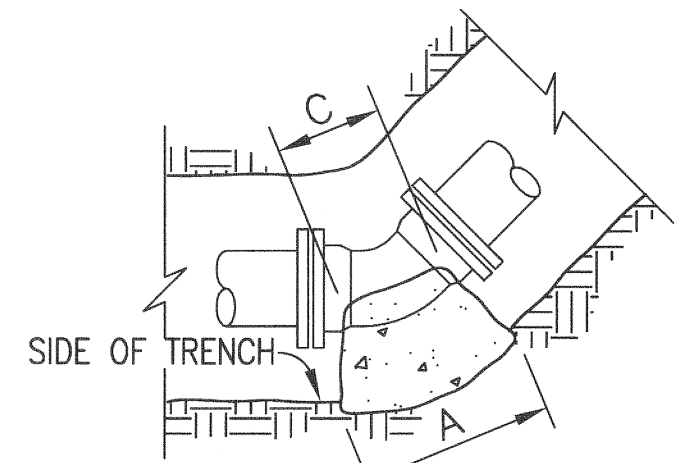
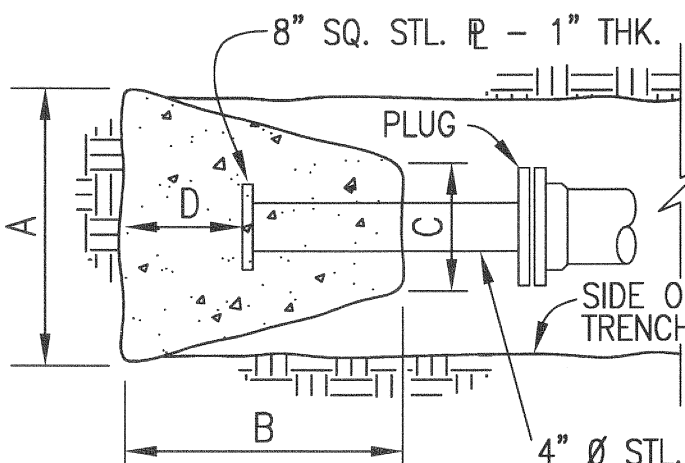




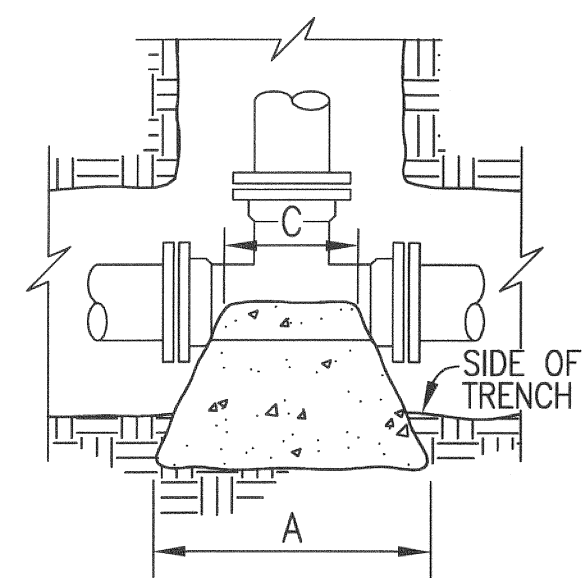
90° BEND



45° — 22 1/2° — 11 1/4° BEND



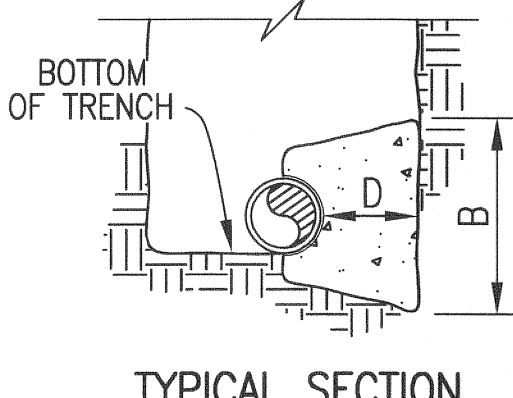
PLUG



TEE

NOTES:

1. THRUST BLOCKS DESIGNED FOR 200 PSI PRESSURE AND 2000 PSF SOIL BEARING. FOR GREATER PRESSURE OR LESS SOIL BEARING, QUANTITIES WILL HAVE TO BE RECALCULATED.
2. THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
3. IF EXACT SIZE PIPE BLOCKING IS NOT SHOWN, USE NEXT LARGER SIZE.
4. THRUST BLOCKING TO BE POURED IN PLACE CLASS C CONC.



TYPICAL SECTION

THRUST BLOCKING DETAIL

NOT TO SCALE

90° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	84	60	51	42	32	24	18
B	72	60	51	42	32	24	18
C	30	18	16	12	12	9	9
D	34	30	24	17	13	9	9

45° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	58	43	38	32	24	18	12
B	58	43	38	32	24	18	12
C	24	16	14	12	12	8	8
D	24	18	15	12	9	6	6

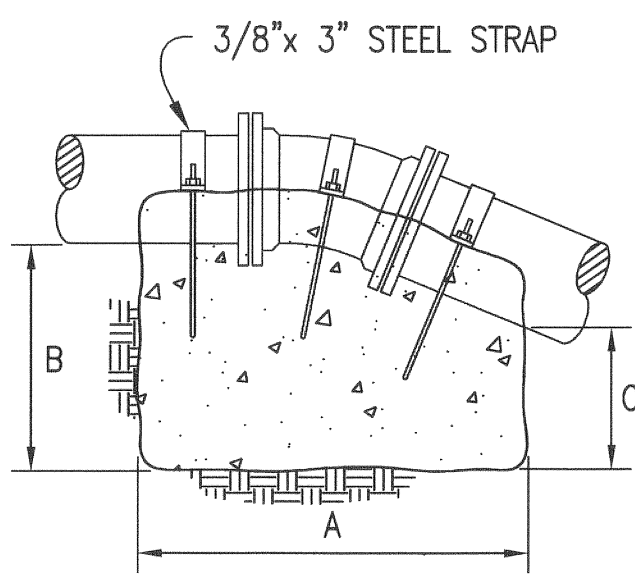
22 1/2° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	42	32	27	24	18	12	9
B	42	32	27	24	18	12	9
C	18	16	14	12	10	8	8
D	18	13	11	9	6	4	4

11 1/4° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	30	24	21	17	12	9	9
B	30	24	21	17	12	9	9
C	18	16	14	12	10	8	8
D	12	9	8	6	5	4	4

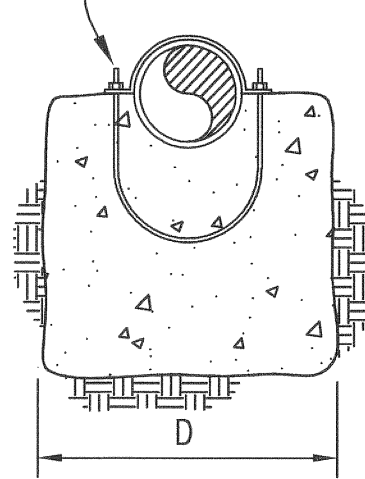
PLUG							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	66	52	43	34	27	20	18
B	66	52	43	34	27	20	18
C	12	12	12	12	12	12	12
D	44	32	22	15	11	11	11

TEE							
SIZE	MAIN BRANCH	16"	12"	10"	8"	6"	4"
A	16"	66	52	43	34	27	20
B	12"	66	52	43	34	27	20
C	10"	30	12	12	12	12	12
D	8"	30	26	21	14	21	13

DIMENSIONS ARE IN INCHES



3/8" U-BOLT



NOTES:

1. THRUST BLOCKS DESIGNED FOR 150 PSI PRESSURE. FOR GREATER PRESSURE QUANTITIES WILL HAVE TO BE RECALCULATED.
2. THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
3. IF EXACT SIZE PIPE BLOCKING IS NOT SHOWN, USE NEXT LARGER SIZE.
4. THRUST BLOCKING TO BE POURED IN PLACE - CLASS "C" CONCRETE.

VERTICAL CONCRETE ANCHOR

NOT TO SCALE

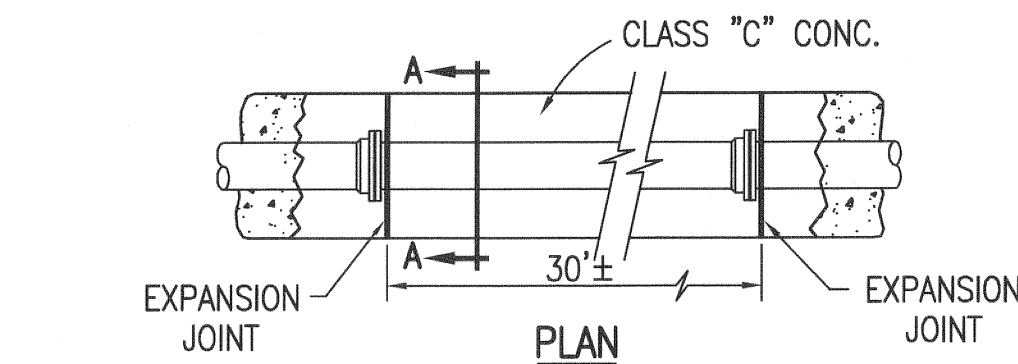
90° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	85	67	60	54	42	34	30
B	85	67	60	54	42	34	18
C	80	63	56	50	38	30	16
D	76	66	60	48	48	36	24

45° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	72	60	50	46	35	30	24
B	72	60	50	46	35	28	24
C	68	56	46	42	30	24	18
D	72	60	60	48	48	36	24

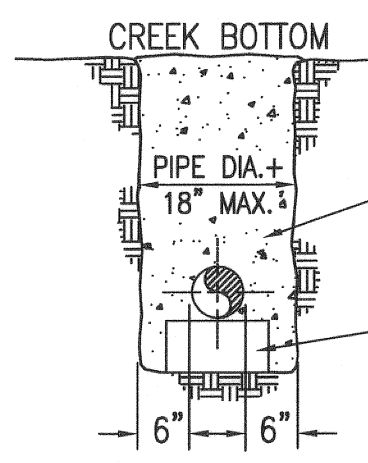
22 1/2° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	58	50	42	38	30	24	18
B	58	48	42	38	30	24	18
C	54	44	38	34	26	20	14
D	60	48	48	36	36	30	24

11 1/4° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	42	36	30	29	24	20	18
B	42	36	30	29	24	20	18
C	38	32	26	24	20	16	14
D	60	48	48	36	36	30	24

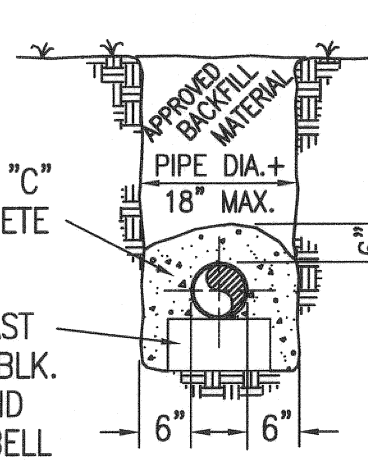
DIMENSIONS ARE IN INCHES



PLAN



SECTION A-A
(ENCASEMENT WITH CONCRETE BACKFILL)

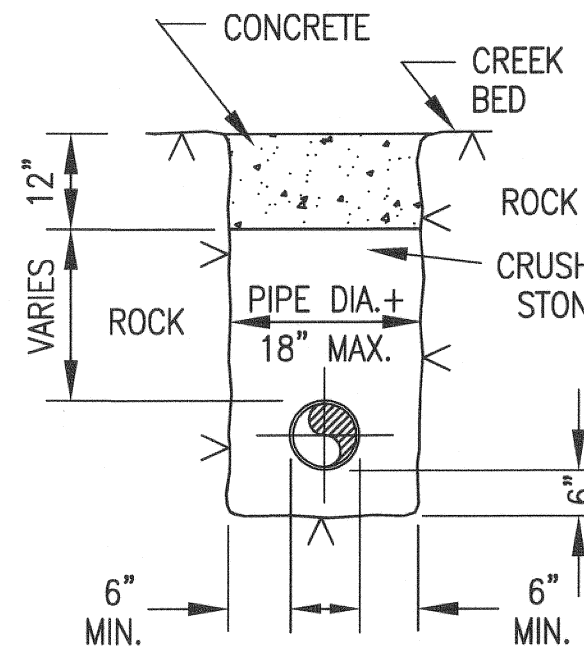


SECTION A-A
(ENCASEMENT WITH APPROVED BACKFILL)

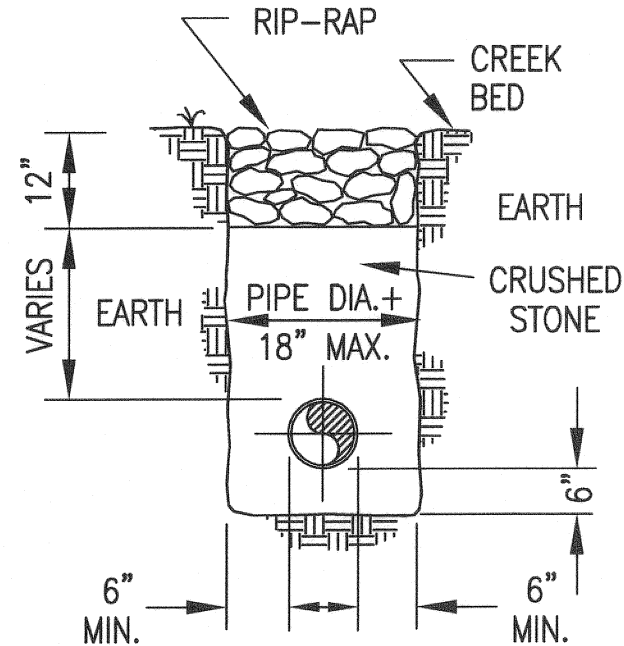
NOTE:
FOR ENCASEMENT OVER 30' LONG PLACE 3/4" FIBERBOARD EXPANSION JOINT AT PIPE JOINTS BETWEEN POURS APPROX. EVERY 30'

STANDARD CONCRETE ENCASEMENT

NOT TO SCALE



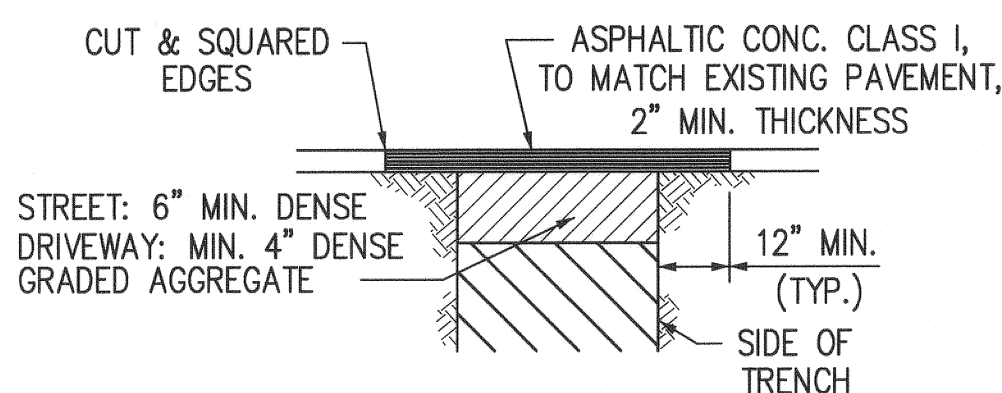
IN ROCK BED



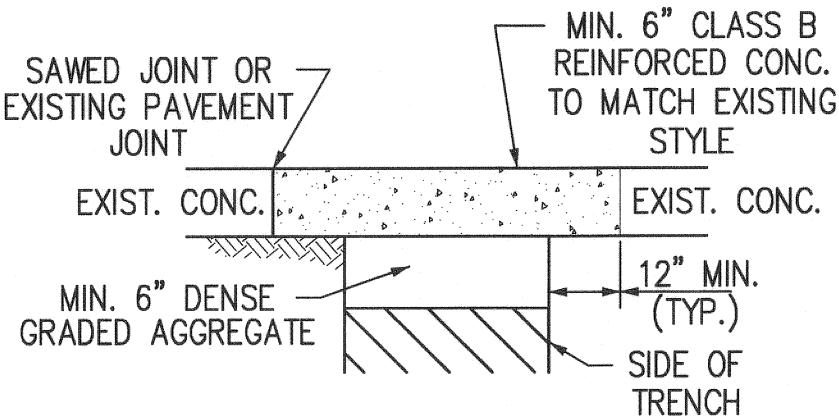
IN EARTH BED

DITCH/CREEK CROSSING DETAIL

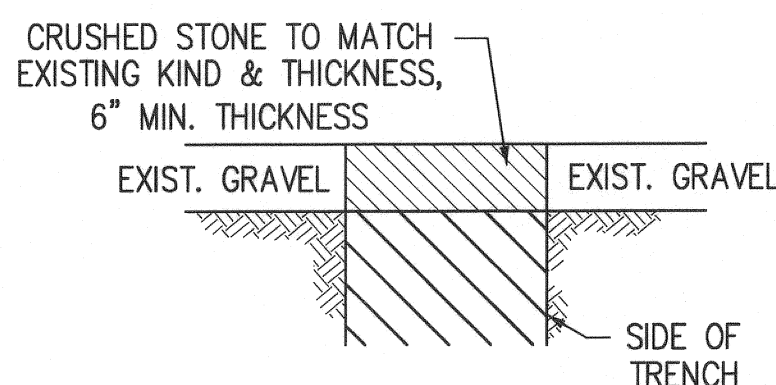
NOT TO SCALE



ASPHALT



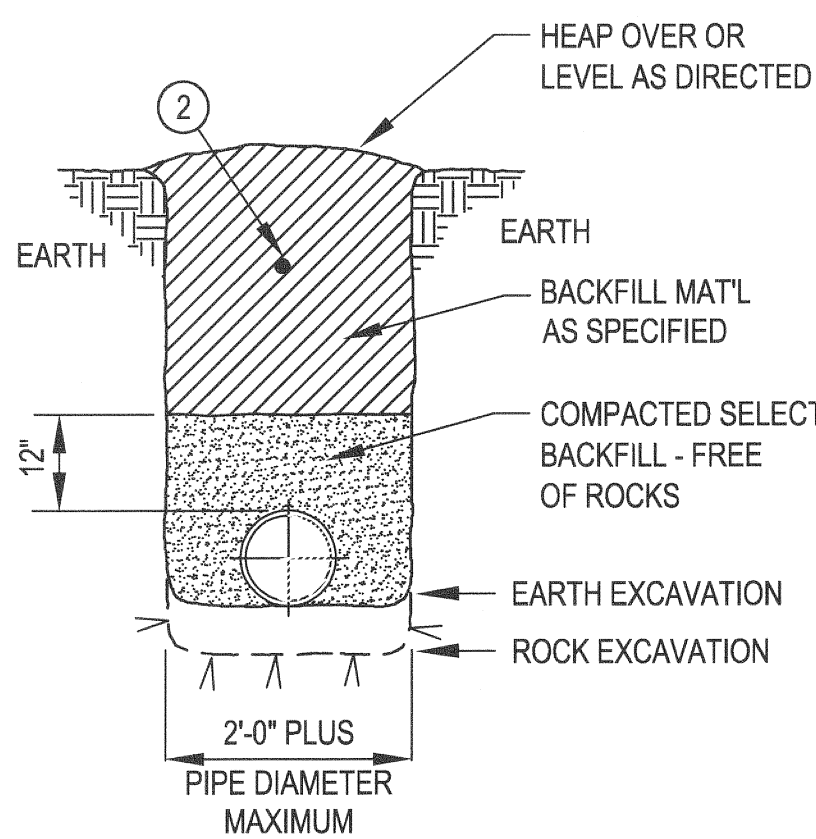
CONCRETE



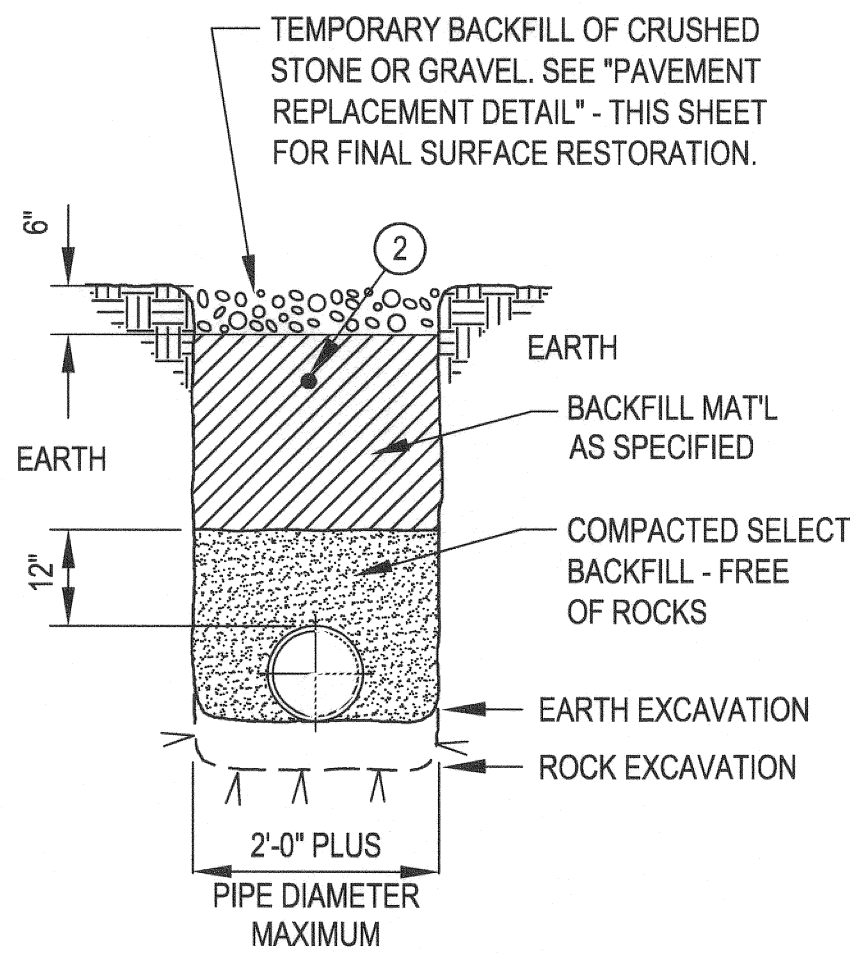
GRAVEL

PAVEMENT REPLACEMENT

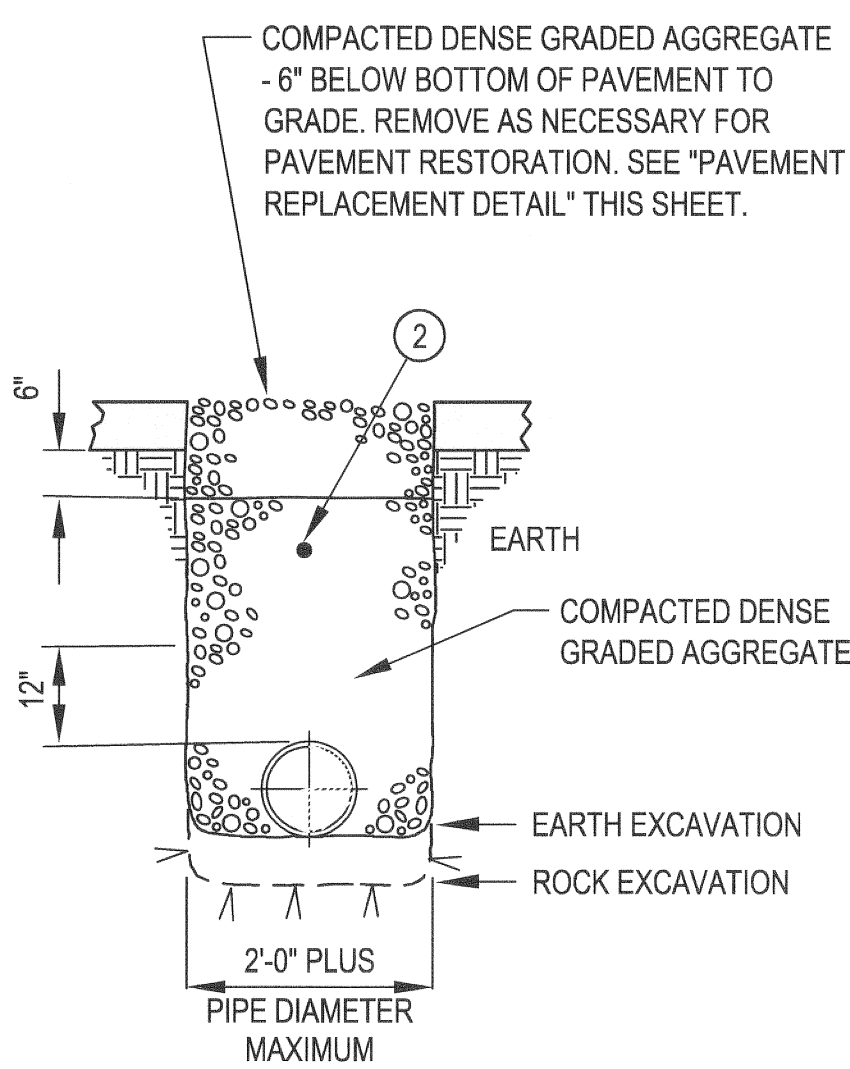
NOT TO SCALE



METHOD "A"
(IN OPEN TERRAIN)



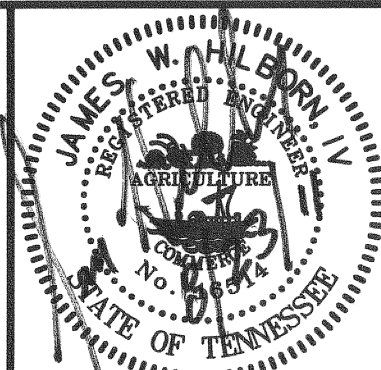
METHOD "B"
(UNDER SIDEWALKS & UNPAVED DRIVEWAYS)



METHOD "C"
(UNDER PAVED STREETS, ROADS & DRIVEWAYS)

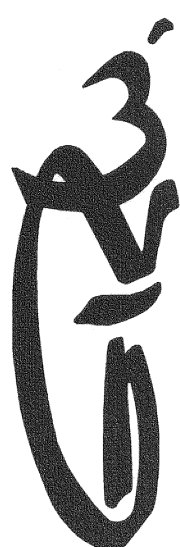
PRESSURE PIPE BEDDING & BACKFILLING DETAILS

NOT TO SCALE



GRW PROJECT NO. 3827-00

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ENGINEERS - ARCHITECTS - PLANNERS
CITY OF LOBELVILLE, TENNESSEE
WWW.G&BINC.COM

STANDARD WATER LINE DETAILS

WATER LINE EXTENSIONS
CITY OF LOBELVILLE, TENNESSEE

DESIGNED	JWH
DRAWN	DM
REVIEWED	JWH
APPROVED	JWH

REVISIONS	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

DATE:	AUGUST 2011
SCALE:	AS NOTED
SHEET NO.	

C-05

STATE SUBMITTAL