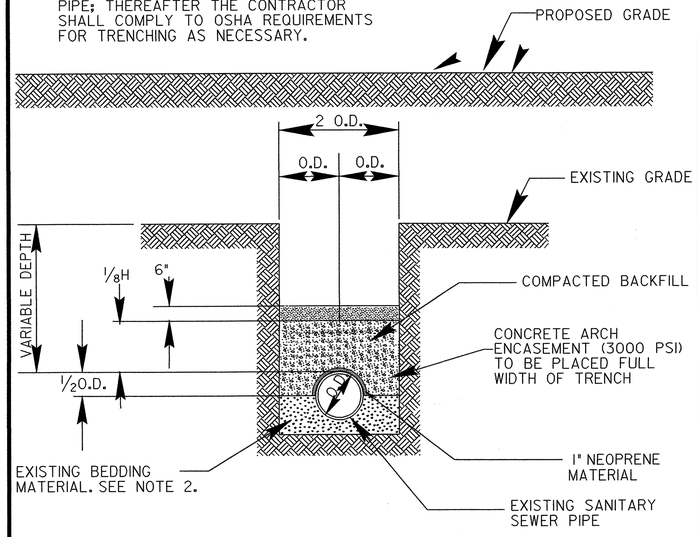
8/17/99

NOTE:

1. CONTRACTOR SHALL MAINTAIN THE GEOMETRY OF THE TRENCH TO A MINIMUM OF 14 INCHES ABOVE THE TOP OF PIPE; THEREAFTER THE CONTRACTOR SHALL COMPLY TO OSHA REQUIREMENTS FOR TRENCHING AS NECESSARY.



2. IF EXISTING BEDDING MATERIAL IS NOT IN PLACE, CONTRACTOR SHALL PLACE SUITABLE BEDDING MATERIAL AS PER TRENCH DETAIL SHOWN BELOW.
3. H= PROPOSED COVER ABOVE TOP OF PIPE.
4. O.D. = OUTSIDE DIAMETER OF PIPE.

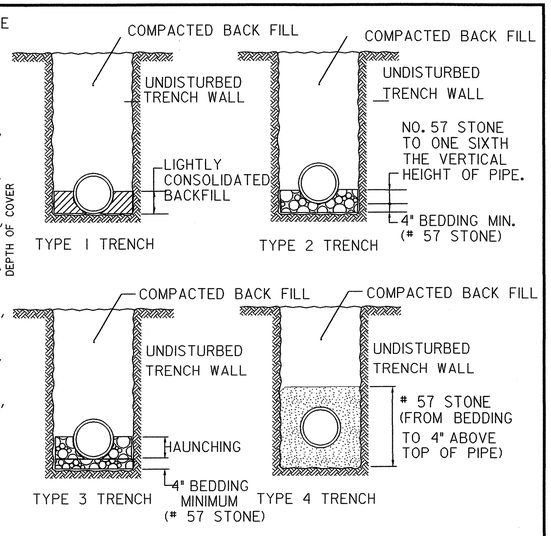
CONCRETE ARCH ENCASEMENT FOR SANITARY SEWER PIPE

MAXIMUM TRENCH WIDTH AT TOP OF PIPE

NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)	NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		

TABLE FOR PRESSURE CLASS 350 DUCTILE IRON PIPE

DEPTH OF COVER	PIPE SIZE 8"	10"	12"	14"	16"	18"	20"	24"
3'–5'	TYPE 1 TRENCH	TYPE 1 TRENCH	TYPE 1 TRENCH	TYPE 1 TRENCH	TYPE 1 TRENCH	TYPE 1 TRENCH	TYPE 1 TRENCH	TYPE 1 TRENCH
5'–10'								
10'–15'	TYPE 2 TRENCH	TYPE 2 TRENCH	TYPE 2 TRENCH	TYPE 2 TRENCH	TYPE 2 TRENCH	TYPE 2 TRENCH	TYPE 2 TRENCH	TYPE 2 TRENCH
15'–20'		TYPE 3 TRENCH	TYPE 3 TRENCH	TYPE 3 TRENCH	TYPE 3 TRENCH	TYPE 3 TRENCH	TYPE 3 TRENCH	TYPE 3 TRENCH
20'–25'	TYPE 3 TRENCH							
25'–30'		TYPE 4 TRENCH	TYPE 4 TRENCH	TYPE 4 TRENCH	TYPE 4 TRENCH	TYPE 4 TRENCH	TYPE 4 TRENCH	TYPE 4 TRENCH
30'–35'	TYPE 4 TRENCH							
35'–40'								

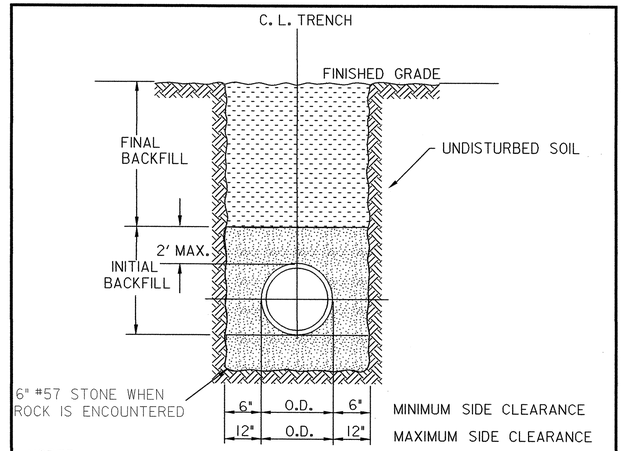


NOTES:

SEE DETAIL FOR TRENCH BOTTOM DIMENSIONS.

OTHER PRESSURE CLASS PIPES AND BEDDING MUST BE APPROVED BY THE ENGINEER.

BEDDING FOR DUCTILE IRON PIPES

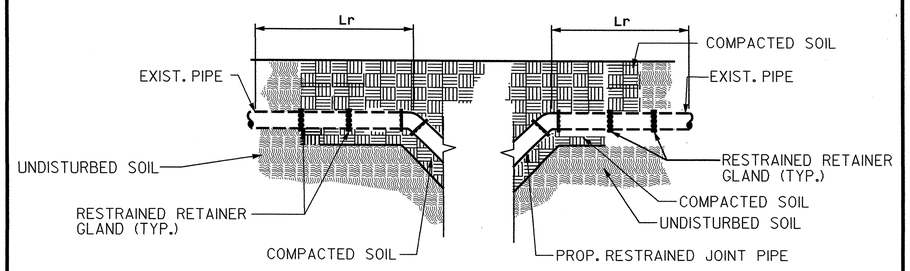


NOTES:

1. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN THE INITIAL BACKFILL.
3. ALL BACKFILL MATERIAL SHALL BE ENGINEER APPROVED
4. BACKFILL SHALL BE TAMPED IN 6" LAYERS .

TRENCH BOTTOM DIMENSIONS FOR DUCTILE IRON PIPE

Lr = LENGTH TO BE RESTRAINED. LENGTH TO BE CALCULATED BY A LICENSED ENGINEER. RESTRAINED RETAINER GLANDS SHALL BE USED ON EXISTING PIPE TO COMPLETE THE REQUIRED LENGTH OF RESTRAINT.



PIPE RELOCATION DETAIL

PROJECT REFERENCE NO.	SHEET NO.
B-3424	UC-3
DESIGNED BY: ABB	
DRAWN BY: JCP	
CHECKED BY: RDL	
APPROVED BY:	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN SERVICES UNIT
PHONE:(919)250-4128
FAX:(919)250-4119

NORTH CAROLINA PROFESSIONAL SEAL 023090 ENGINEER AUDREY B. BURNETTE
2/11/03

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

TRANSYSTEMS CORPORATION 4917 Waters Edge Drive, Suite 235 Raleigh, NC 27606 (919) 233-8125

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