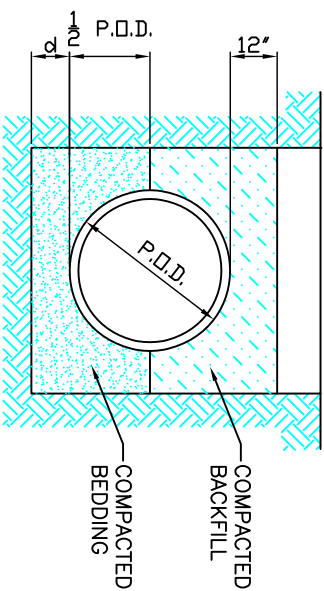
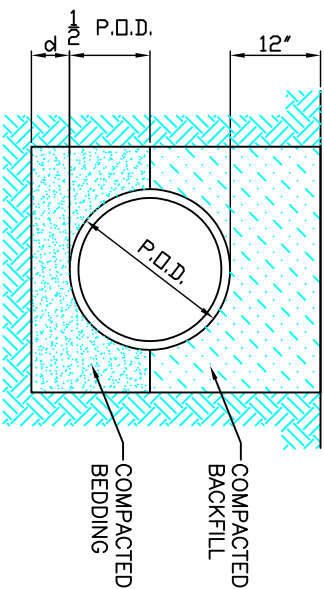




HDPE STORM SEWERS PVC SANITARY SEWERS

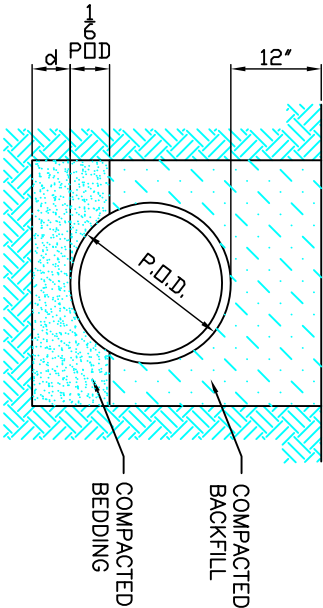
CLASS A



PVC TRUSS SANITARY SEWERS
PVC STORM SEWERS
RCP AND ESOVP SANITARY SEWER
WATER MAINS 20-INCH DIA. AND LARGER
PVC SANITARY SERVICE LINES

CLASS B

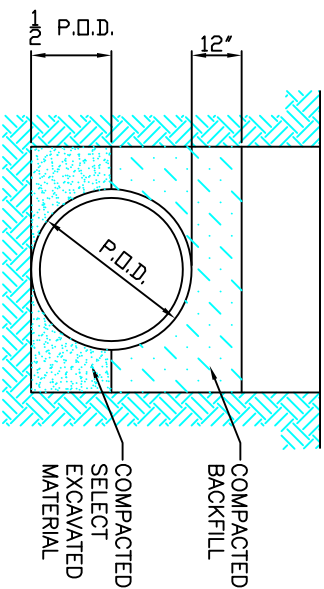
(COMPARES TO AWWA C150, TYPE 5 BEDDING)



RCP STORM SEWERS
RCP AND ESWCP SANITARY SEWERS

CLASS C

(COMPARES TO AWWA C150, TYPE 4 BEDDING)



WATER MAINS UP TO AND INCLUDING 16-INCH DIA.

CLASS D

(COMPARES TO AWWA C150, TYPE 2 BEDDING)

DEPTH OF BEDDING MATERIAL BELOW PIPE	
D	d (MIN)
27" & SMALLER	4"
30" TO 60"	6"
66" & LARGER	8"

P.O.D. = OUTSIDE DIAMETER
d = DEPTH OF BEDDING MATERIAL BELOW PIPE

- NOTES:
1. FOR CLASS C AND CLASS B BEDDING, COMPACTED BACKFILL IN PIPE ENVELOPE MAY BE SUITABLE EXCAVATED MATERIAL, UNLESS GRANULAR BACKFILL OR DRAINABLE BACKFILL ARE SPECIFIED.
 2. TRENCH BACKFILL ABOVE PIPE ENVELOPE SHALL BE ACCORDING TO SECTION 02200.
 3. BACKFILL SHALL BE POROUS FOR STORM SEWER INSTALLATION.

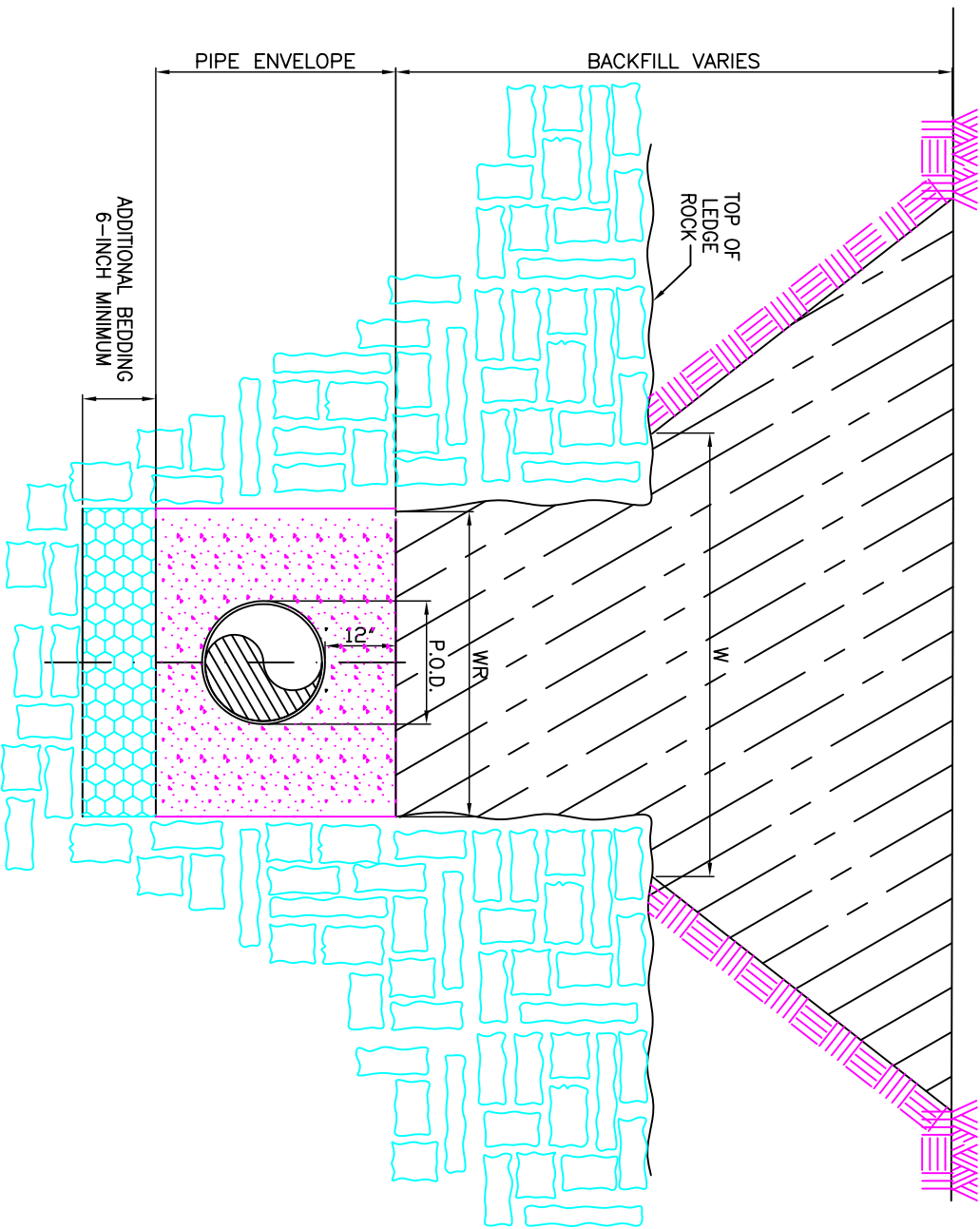
FILE NO.: 2200-020	CEDAR RAPIDS METROPOLITAN AREA STANDARD DETAILS FOR PUBLIC IMPROVEMENTS	
APPROVAL DATE: AUG 1999		
REVISION NO.:		
REVISION DATE:		
	STANDARD PIPE ENVELOPES FOR CIRCULAR PIPE	NO. 2200-020

PROJECT NO: HX0789

DRAWN BY: BGA
APPROVED BY: GMH
DATE: 10/10/2012

NO.	REVISION	DESCRIPTION	APPROVED	DATE
				11/11
				11/11
				11/11
				11/11

NOMINAL PIPE DIA. (INCHES)	6	8	10	12	15	16	18	21	24	30	36	42	48	54	60	72	84	96
	WR (FEET)	4	4	4	4	4	4	5	5	6	6	7	7	8	8	10	11	12



- NOTES:
1. PIPE ENVELOPE WIDTH IN ROCK, WR, EQUALS PIPE O.D. (P.O.D.) PLUS 2-FOOT WITH A 4-FOOT MINIMUM.
 2. PIPE ENVELOPE WIDTH IN SOIL, W, EQUALS PIPE O.D. (P.O.D.) PLUS 3-FOOT WITH A 5-FOOT MINIMUM.
 3. EXCAVATED ROCK SHALL NOT BE PLACED WITHIN PIPE ENVELOPE.
 4. BEDDING AND BACKFILL WITHIN PIPE ENVELOPE, AND BACKFILL ABOVE PIPE ENVELOPE SHALL BE ACCORDING TO SECTION 02200.

FILE NO.:	2200-030
APPROVAL DATE:	AUG 1999
REVISION NO.:	
REVISION DATE:	
CEDAR RAPIDS METROPOLITAN AREA STANDARD DETAILS FOR PUBLIC IMPROVEMENTS	
STANDARD TRENCH SECTION IN ROCK	
NO.	2200-030

ALLTRANS, INC.

City of Holy Cross Subdivision No.3
Dubuque County, Iowa

Legend, Standard Details, And Bench Mark Information