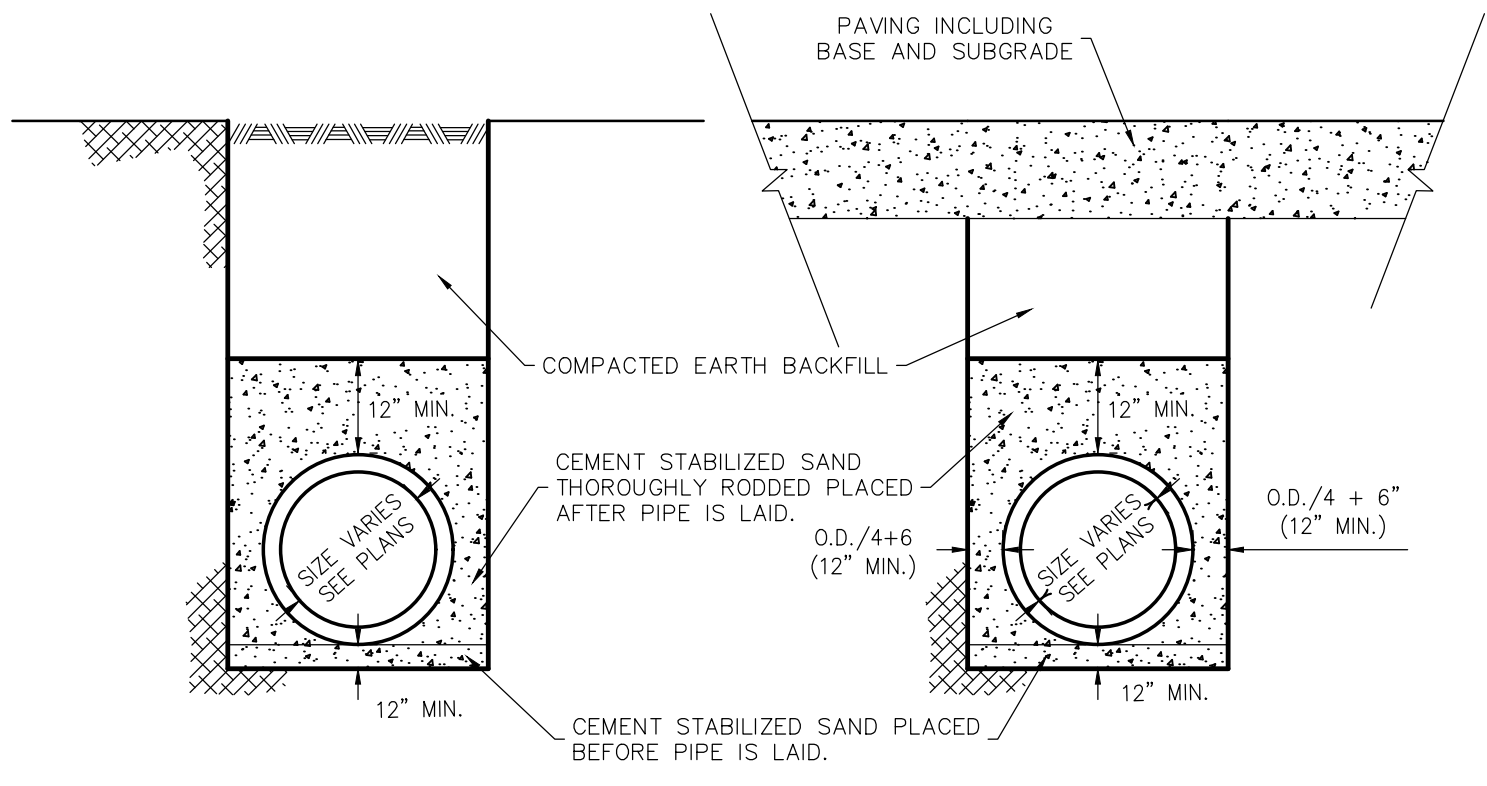
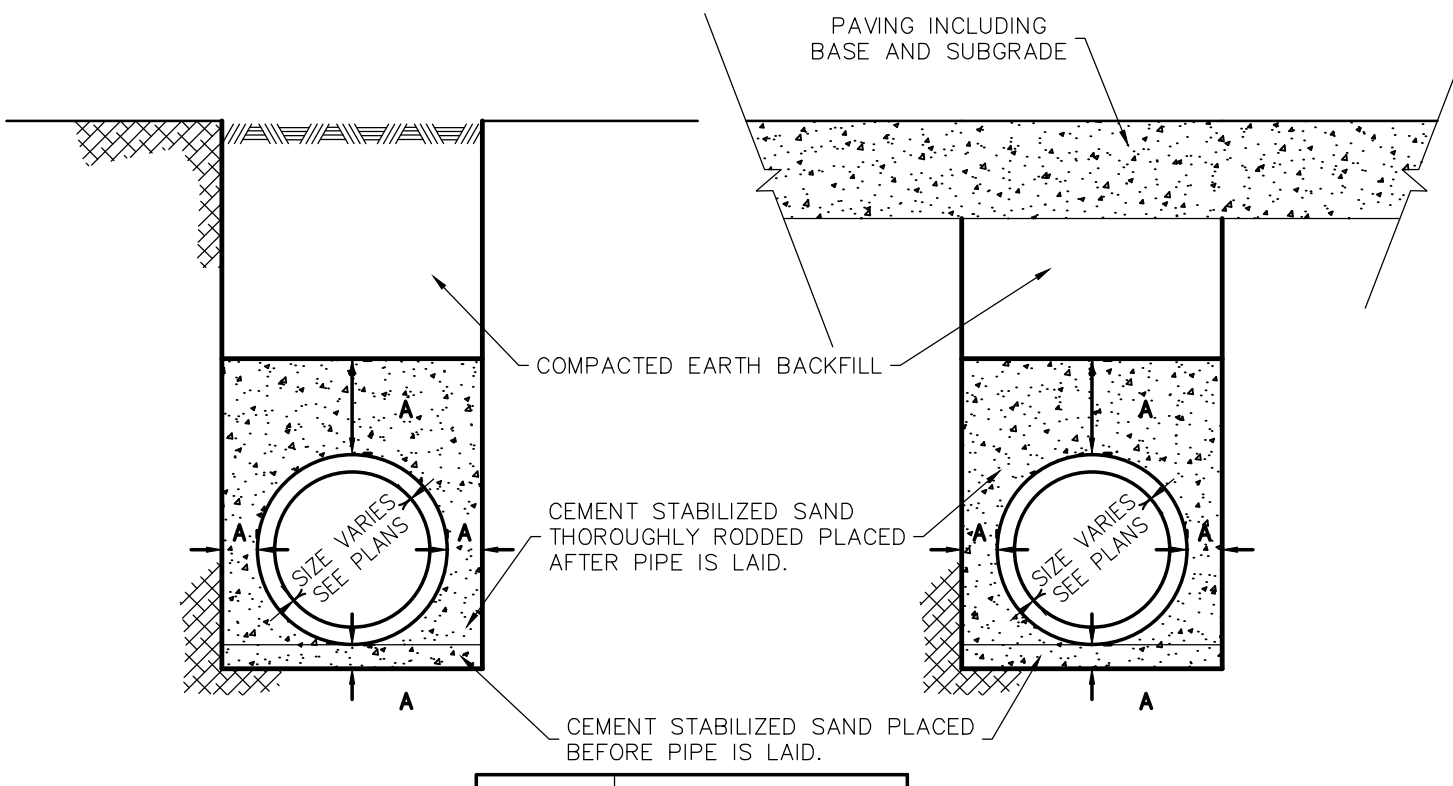


GRATE SCHEDULE	
GRATE NO. 220 LBS @ 2'	MODEL NO. 220
GRATE NO. 240 LBS @ 2'	MODEL NO. 240
GRATE NO. 260 LBS @ 2'	MODEL NO. 260



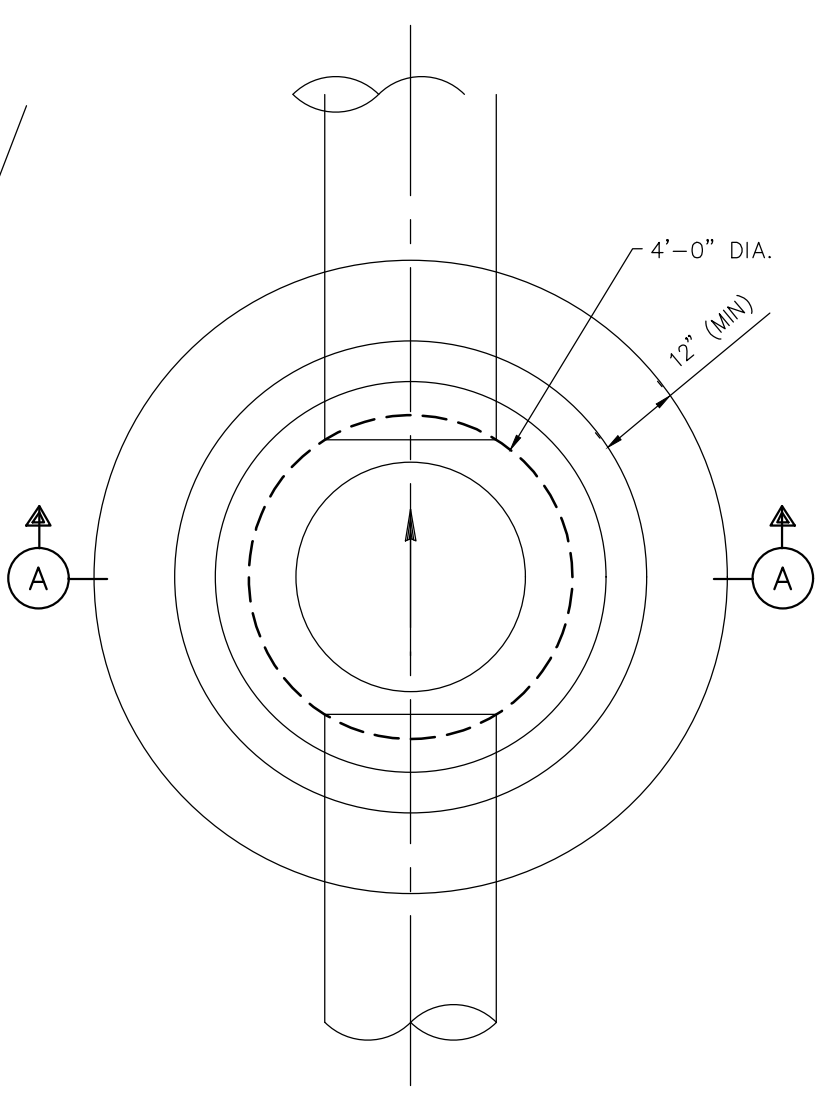
STANDARD BACKFILL BENEATH PAVED AREAS



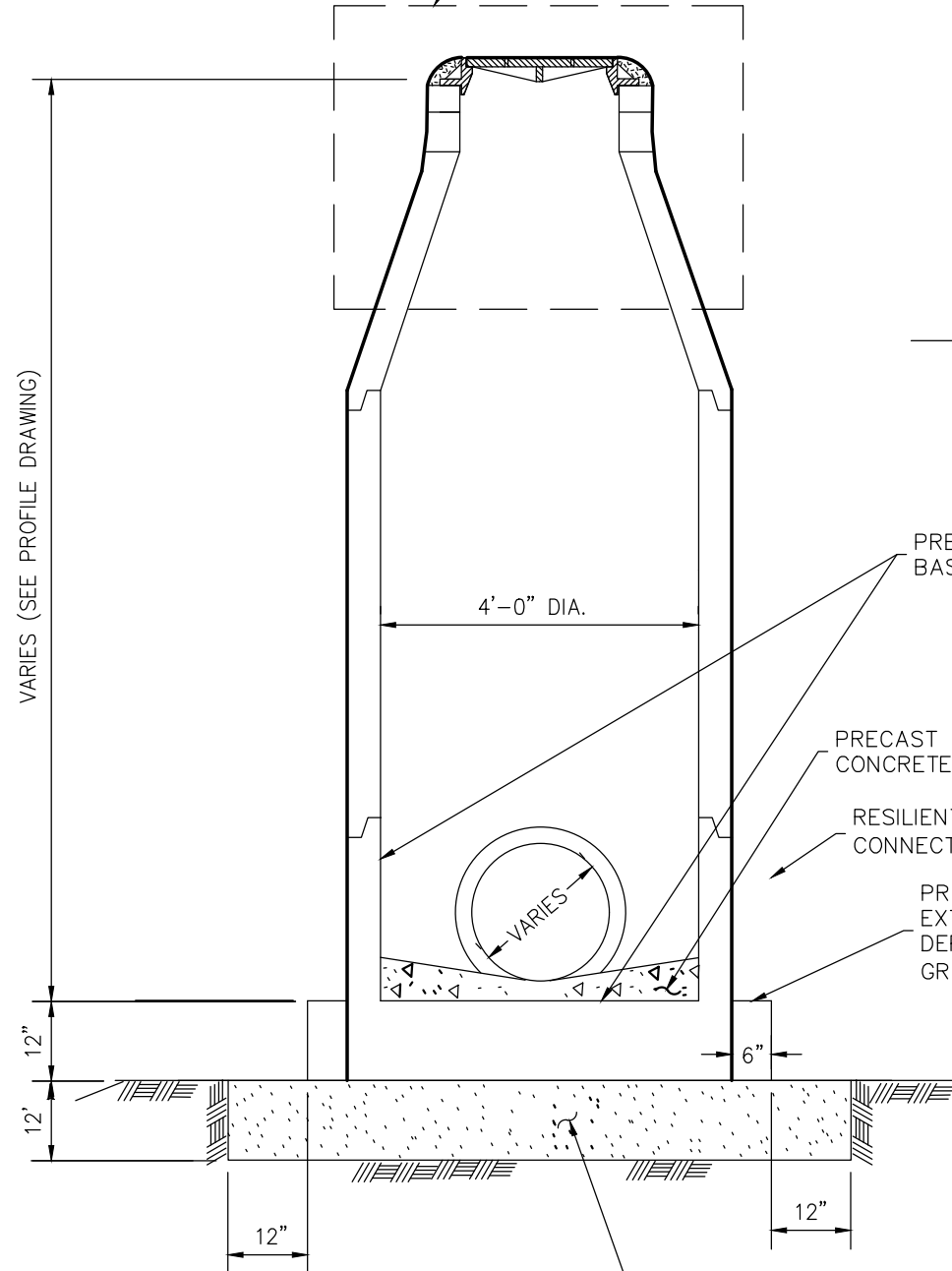
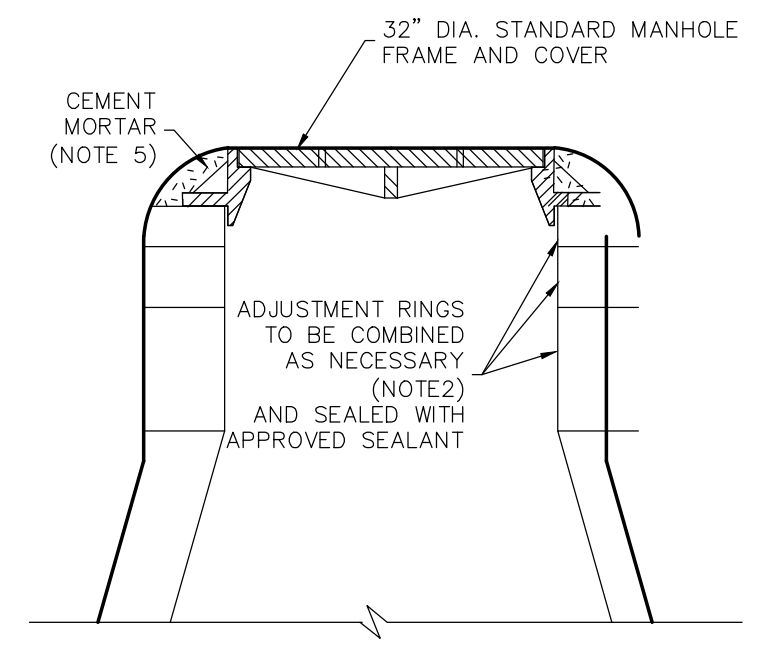
STANDARD BACKFILL BENEATH PAVED AREAS

A	STORM SEWER DIAMETER
6"	36" OR LESS
12"	42" OR GREATER

DETAIL RCP STORM SEWER BEDDING & BACKFILL N.T.S.

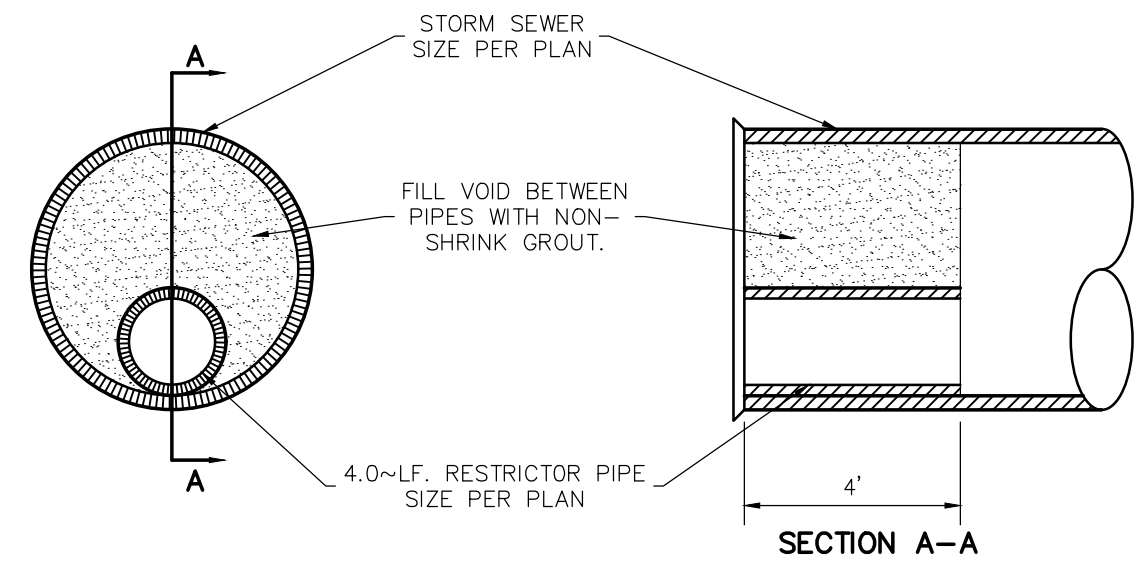


- NOTES:
- DEPTH OF MANHOLE DETERMINES SECTIONS REQUIRED
 - PRECAST CONCRETE RING SHALL BE PROVIDED FOR A COMBINED ADJUSTMENT HEIGHT OF AT LEAST 12". THE TOTAL HEIGHT OF THE ADJUSTMENT RINGS SHALL NOT EXCEED 1'-6".
 - MANHOLE WALL THICKNESS FOR DEPTH EXCEEDING 12'-0" SHALL BE DETERMINED TO MEET LOADING CONDITIONS, MIN. THICKNESS 5".
 - ECCENTRIC PRECAST CONCRETE MANHOLE MAY BE USED.
 - OMIT CEMENT MORTAR WHEN MANHOLE IS LOCATED IN PAVED AREAS.
 - MIN. REINFORCING IN THE PRECAST CONCRETE BASE SHALL BE # 5 @ 8 EW.
 - PROVIDE BACKFILL TO MATCH ADJACENT PIPE TRENCH BACKFILL.

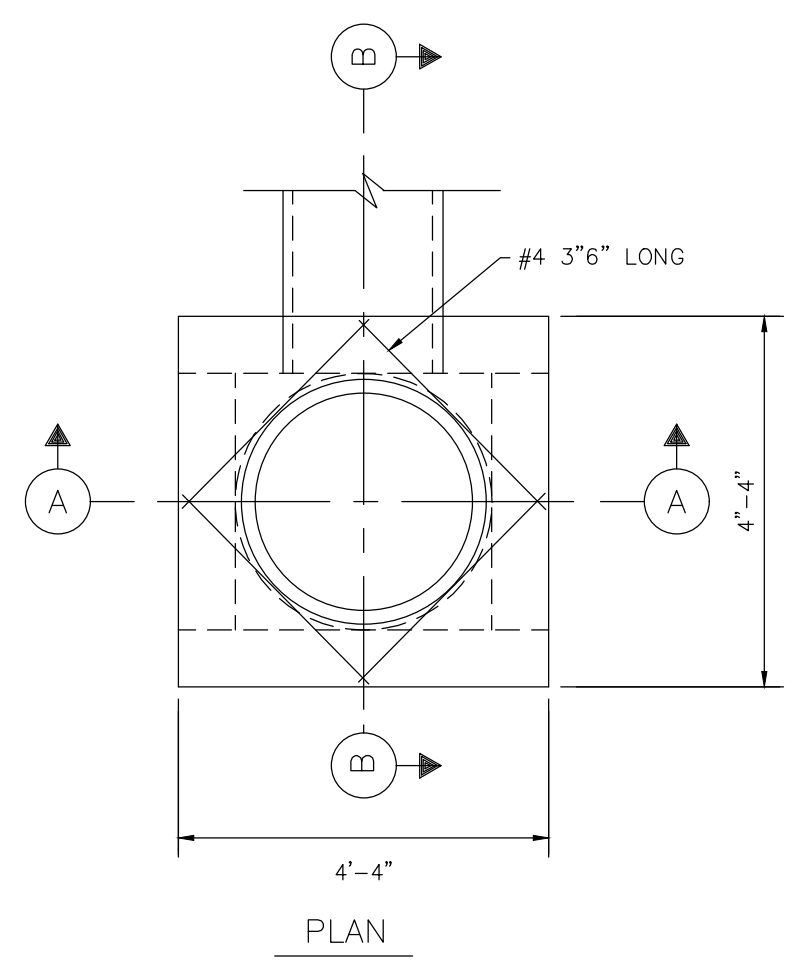


DETAIL 4'-0" DIAMETER PRECAST CONCRETE MANHOLE N.T.S.

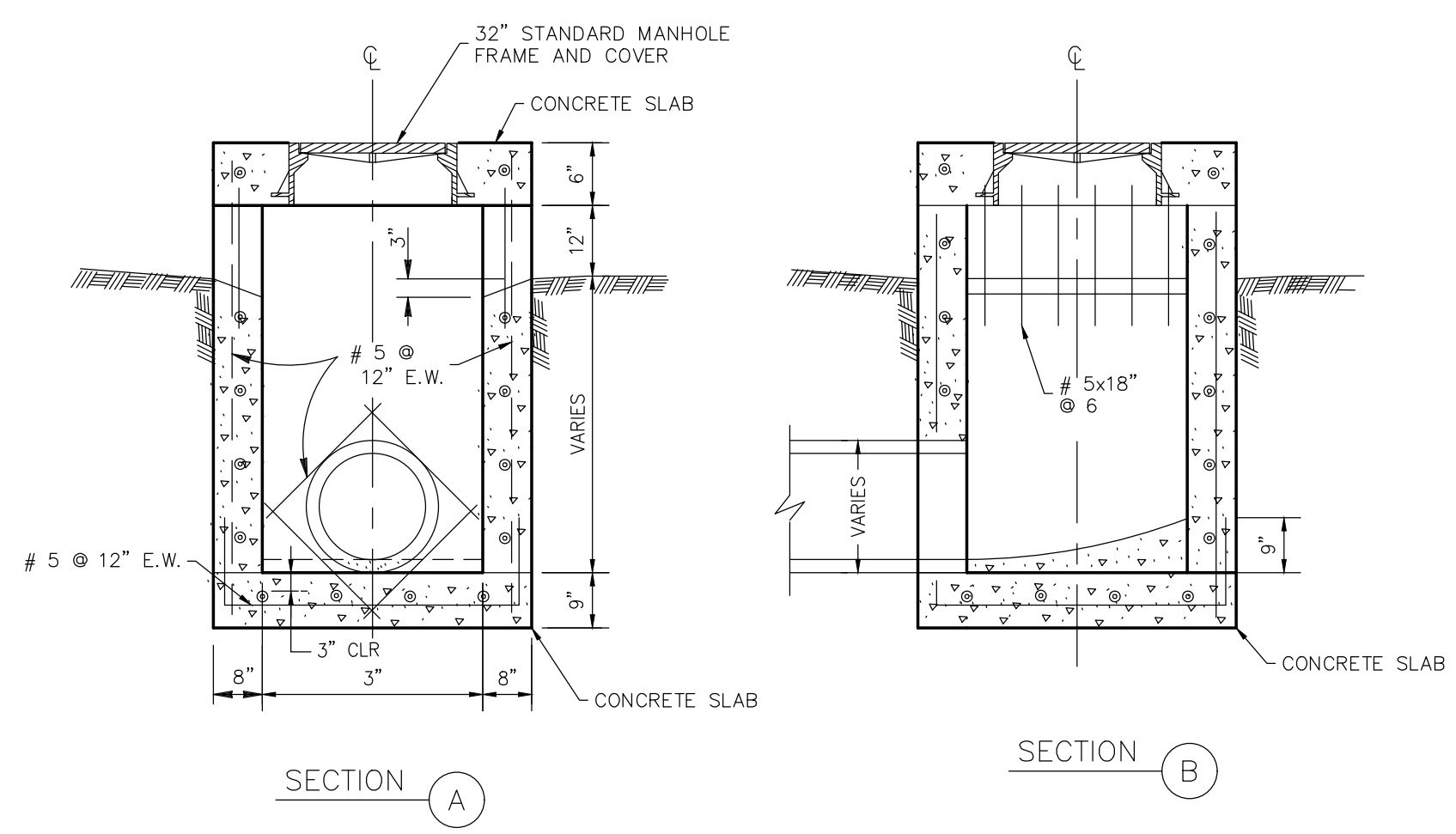
DETAIL HDPE STORM SEWER BEDDING & BACKFILL N.T.S.



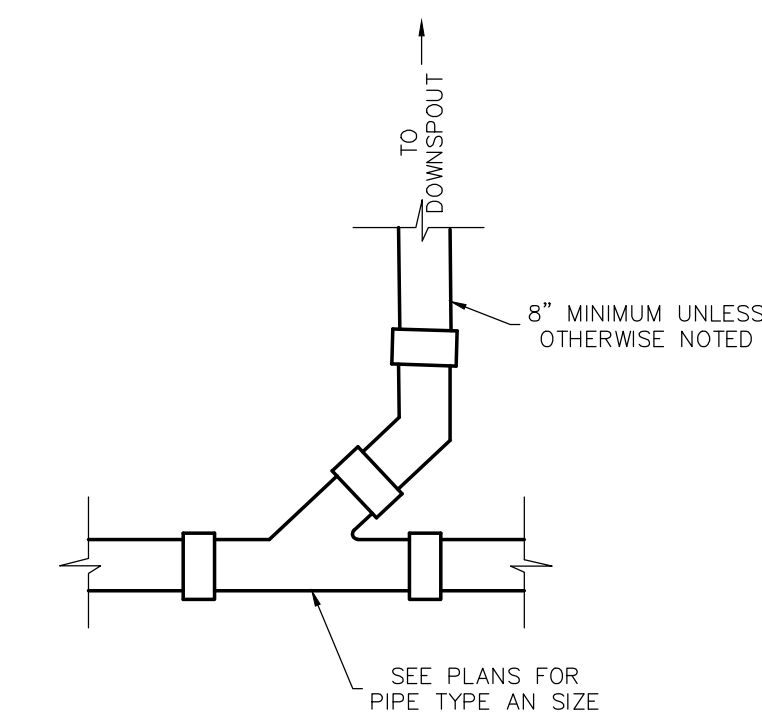
DETAIL RESTRICTOR PIPE DETAIL N.T.S.



- NOTE:
- TYPE "E" INLET TOP CAN BE CONSTRUCTED ON A STANDARD "C" MANHOLE.

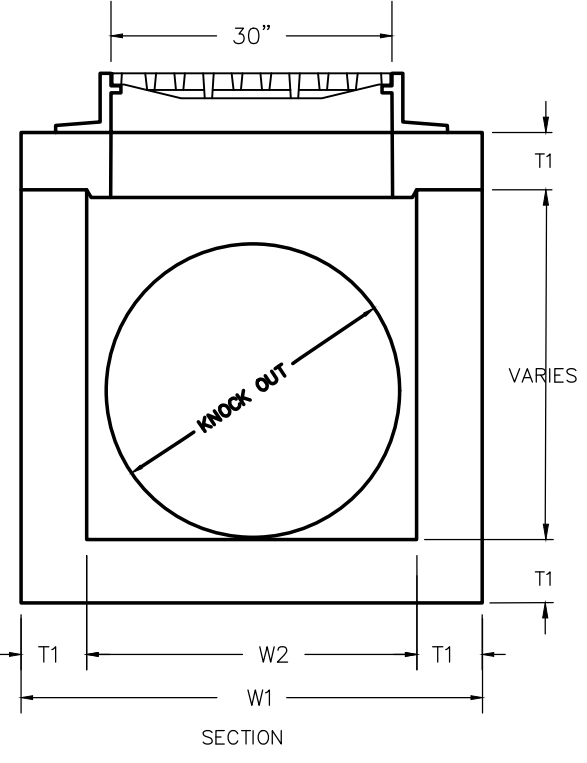


DETAIL STORM SEWER TYPE 'E' INLET N.T.S.



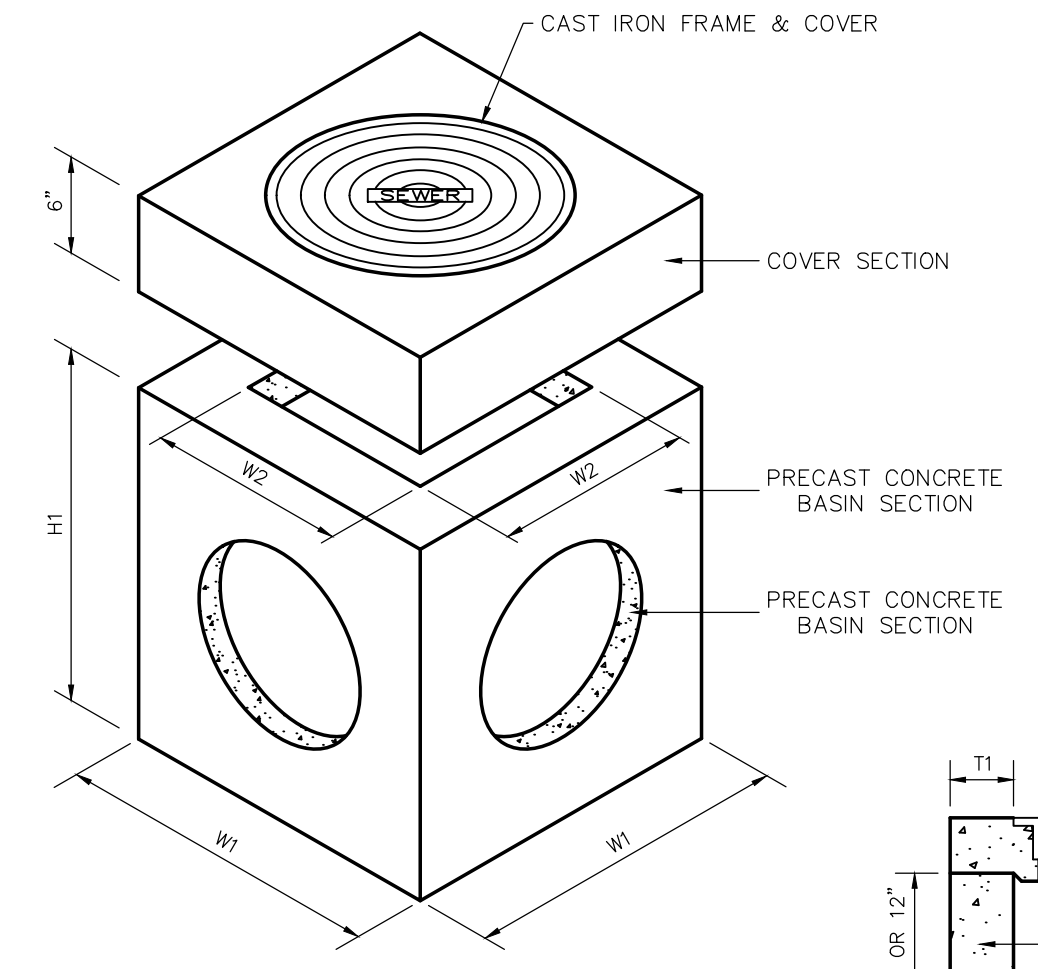
DETAIL DOWNSPOUT CONNECTION N.T.S.

MODEL	W1	W2	H1	H2	T1	KO	GRATE SIZE	WEIGHT LBS
COHTAI-24	42"	30"	V	XX	N/A	30"	30"x30"	3,300
CBTA-36	48"	36"	V	36"	6"	36"	30"x30"	4,588
CBTA-48	60"	48"	V	48"	6"	48"	30"x30"	8,900
CBTA-60	72"	60"	V	60"	6"	60"	30"x30"	16,650
CBTA-72	84"	72"	V	72"	6"	72"	30"x30"	19,000
CBTA-84	96"	84"	V	72"	8"	84"	30"x30"	23,000



- NOTES:
- CONCRETE: CLASS II CONCRETE WITH DESIGN STRENGTH OF 4,500 P.S.I. AT 28 DAYS. MONOLITHIC CONSTRUCTION OF FLOOR AND FIRST STAGE WALL WITH SECTIONAL RISER TO REQUIRED DEPTH. RATED FOR H=20 LOADING.
- REINFORCEMENT: GRADE 60 REINFORCING WITH STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.
- C.I. CASTING: CAST IRON FRAME AND GRATES ARE MANUFACTURED OF GREY IRON CASTING TO ASTM A48-76 CLASS 30

DETAIL TYPE A GRATE INLET MODEL COHTAI-24" AND CBTA-36" THRU 84" N.T.S.



PIPE DIA.	W1	W2	H1	H2	T1	KO	COVER SIZE(D)
18"	24"	16"	34"	30"	4"	15"	15"
20"	26"	18"	34"	30"	4"	17"	15"
24"	32"	22"	41"	36"	5"	22"	18"
27"	37"	25"	42"	36"	5"	24"	24"
30"	42"	30"	42"	36"	5"	30"	24"
36"	48"	36"	42"	36"	5"	36"	24"
48"	60"	48"	54"	48"	6"	44"	24"
60"	72"	60"	66"	60"	6"	56"	24"

- NOTES:
- CLASS II CONCRETE WITH DESIGN STRENGTH OF 4,500 P.S.I. AT 28 DAYS. MONOLITHIC CONSTRUCTION OF FLOOR AND FIRST STAGE WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.
 - GRADE 60 REINFORCING WITH STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.
 - CAST IRON FRAME AND COVER CONFORMING TO ASTM A48-76 CLASS 30

DETAIL PRECAST JUNCTION BOX W/ MANHOLE TOP N.T.S.

NO.	DATE	REVISIONS	APP.

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STORM SEWER DETAILS

FBC Engineering Approval

DAVID L. RANDOLPH
 93813
 LICENSED PROFESSIONAL ENGINEER

5-21-2019

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