

NOTE:
 SEE SPECIFICATIONS SECTION 4(TRENCH
 EXCAVATION AND BACKFILL) AND DETAIL
 G-2 FOR DIMENSIONS AND MATERIALS

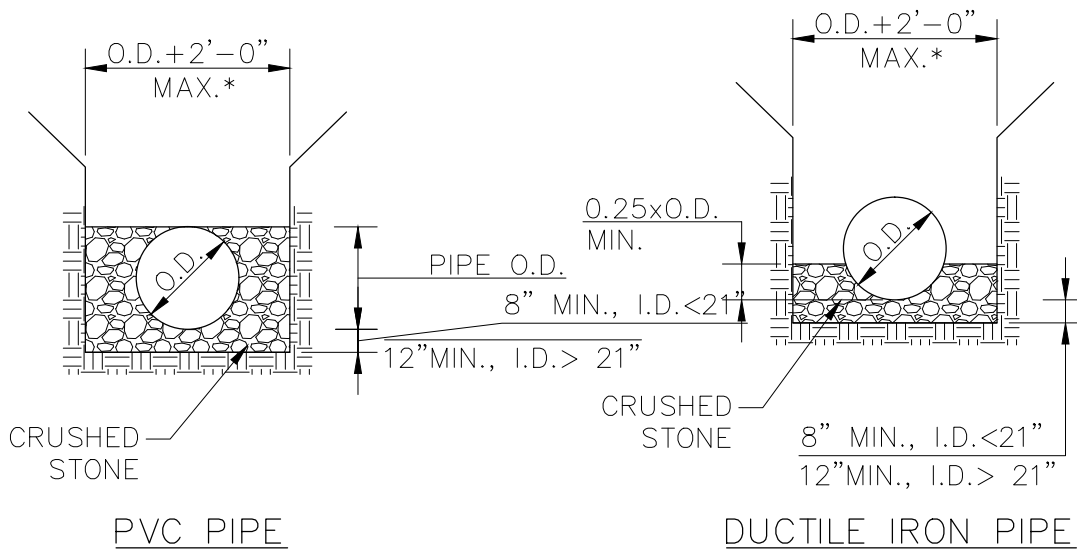


STANDARD DETAILS

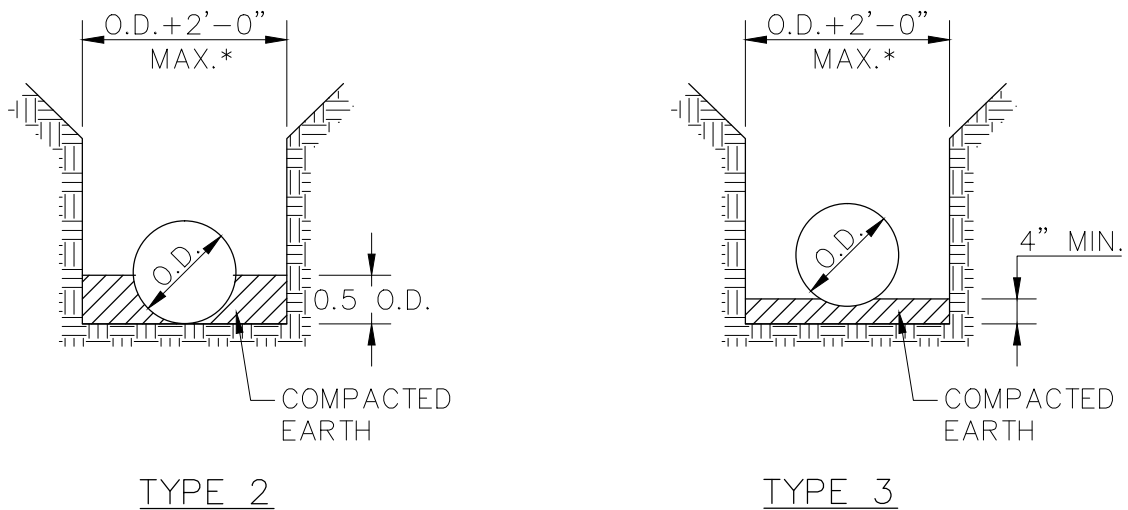
TRENCH TERMINOLOGY

DATE: FEB 2008
 SCALE: NONE

DETAIL NO. G-1



GRAVITY SEWERS



FORCE MAIN

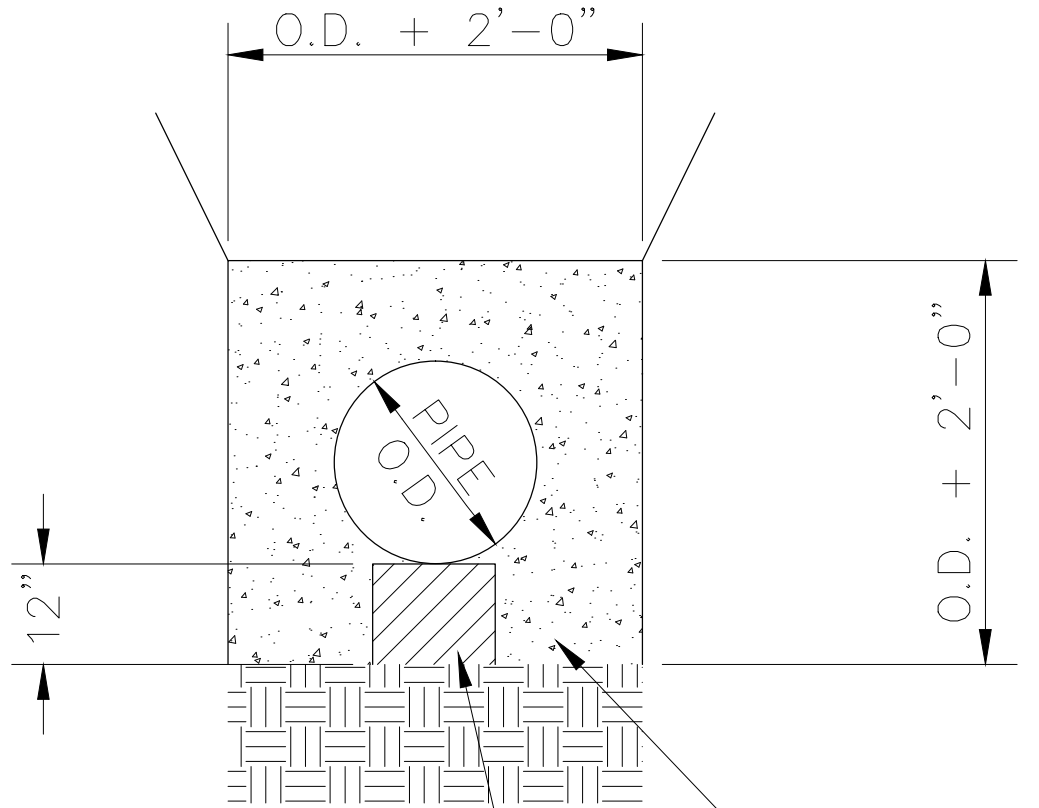


STANDARD DETAILS

PIPE BEDDING
AND HAUNCHING

DATE: FEB 2008
SCALE: NONE

DETAIL NO. G-2



SOLID BRICK OR
 SOLID CONC. BLOCK
 (ONE PER PIPE JOINT, MIN.)

CONCRETE

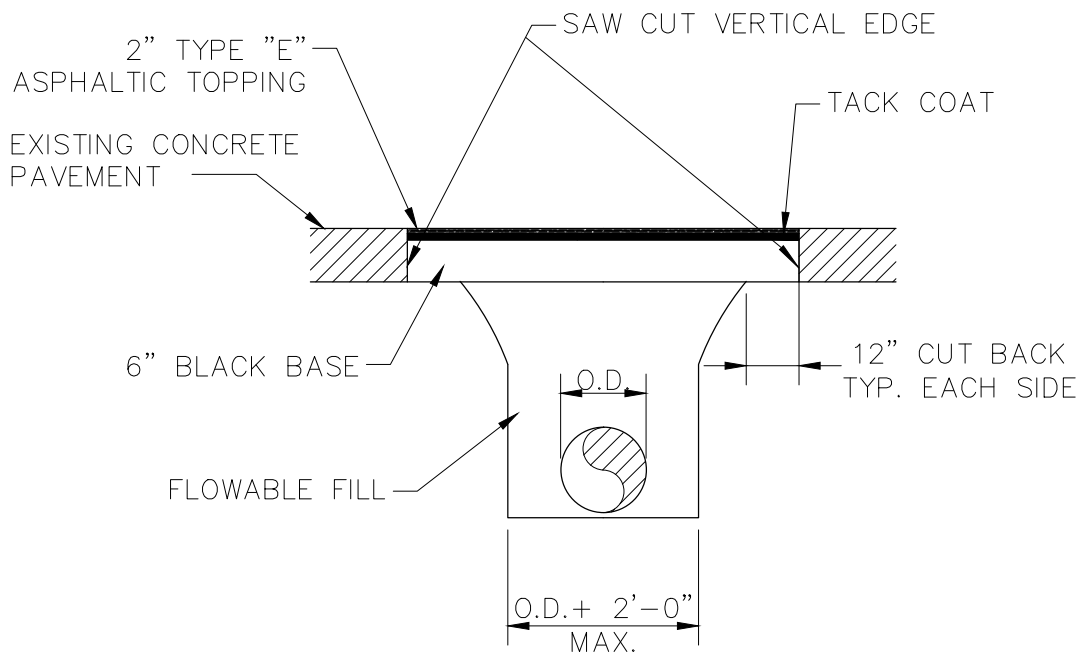


STANDARD DETAILS

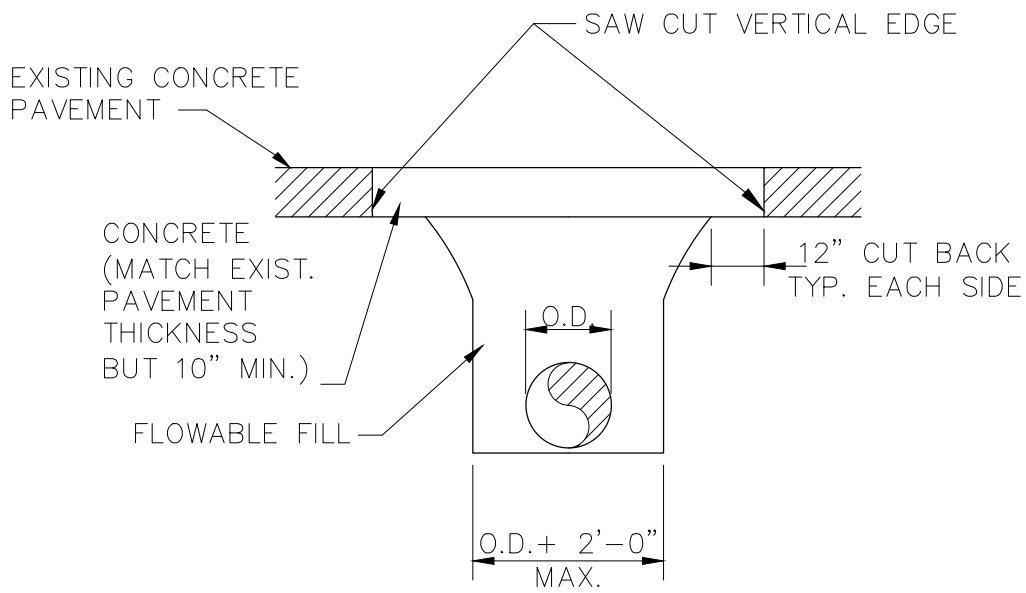
CONCRETE ENCASEMENT

DATE: FEB 2008
 SCALE: NONE

DETAIL NO. G-3



ASPHALT PAVEMENT



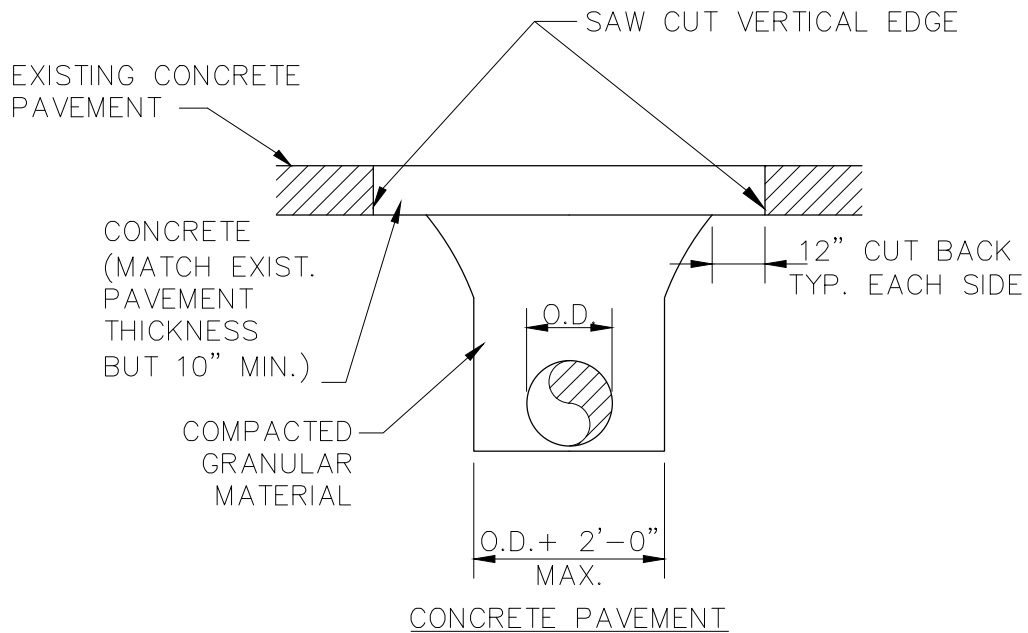
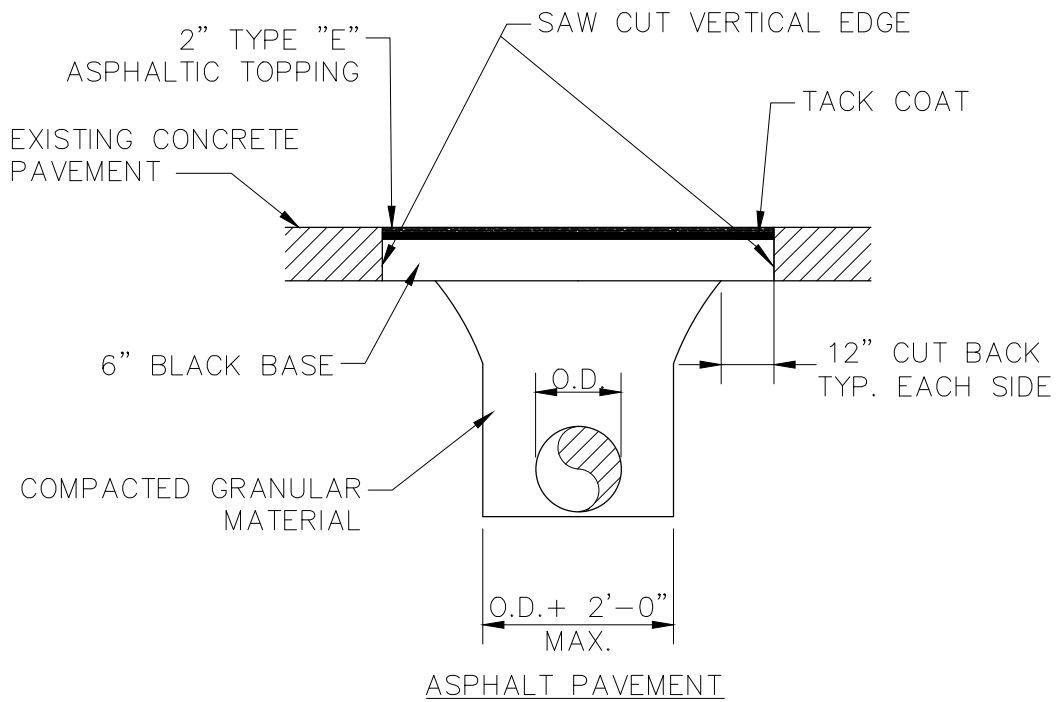
CONCRETE PAVEMENT



STANDARD DETAILS
 TYPE I PAVEMENT
 REPLACEMENT

DATE: FEB 2008
 SCALE: NONE

DETAIL NO. G-4

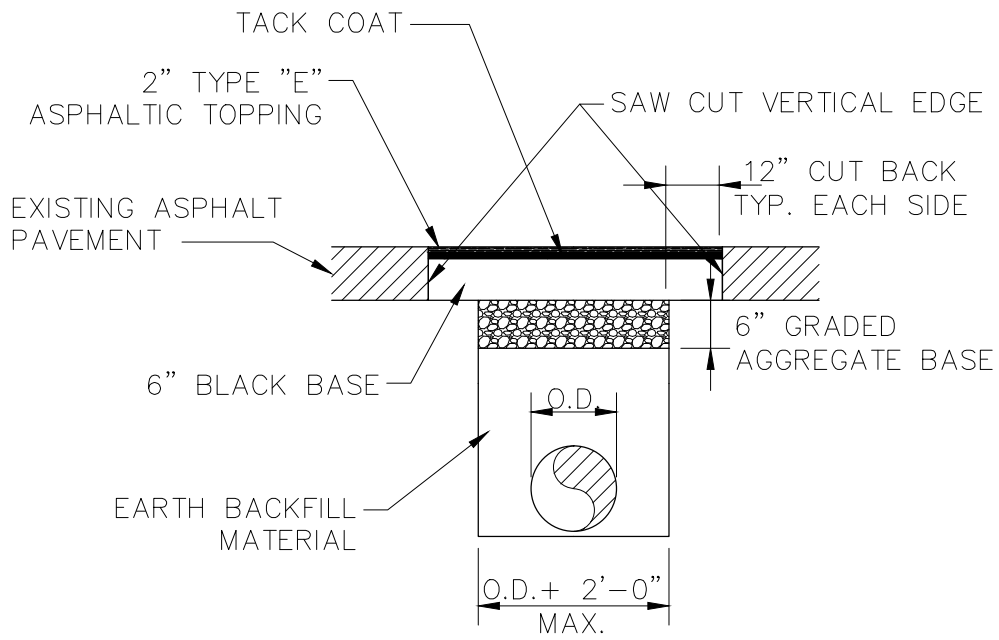


STANDARD DETAILS

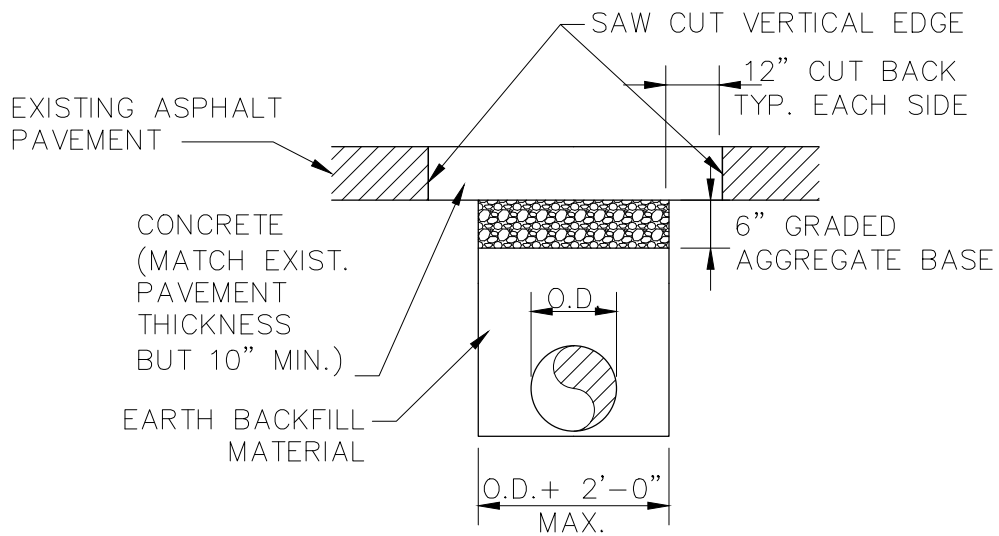
TYPE II PAVEMENT
REPLACEMENT

DATE: FEB 2008
SCALE: NONE

DETAIL NO. G-5



ASPHALT PAVEMENT



CONCRETE PAVEMENT

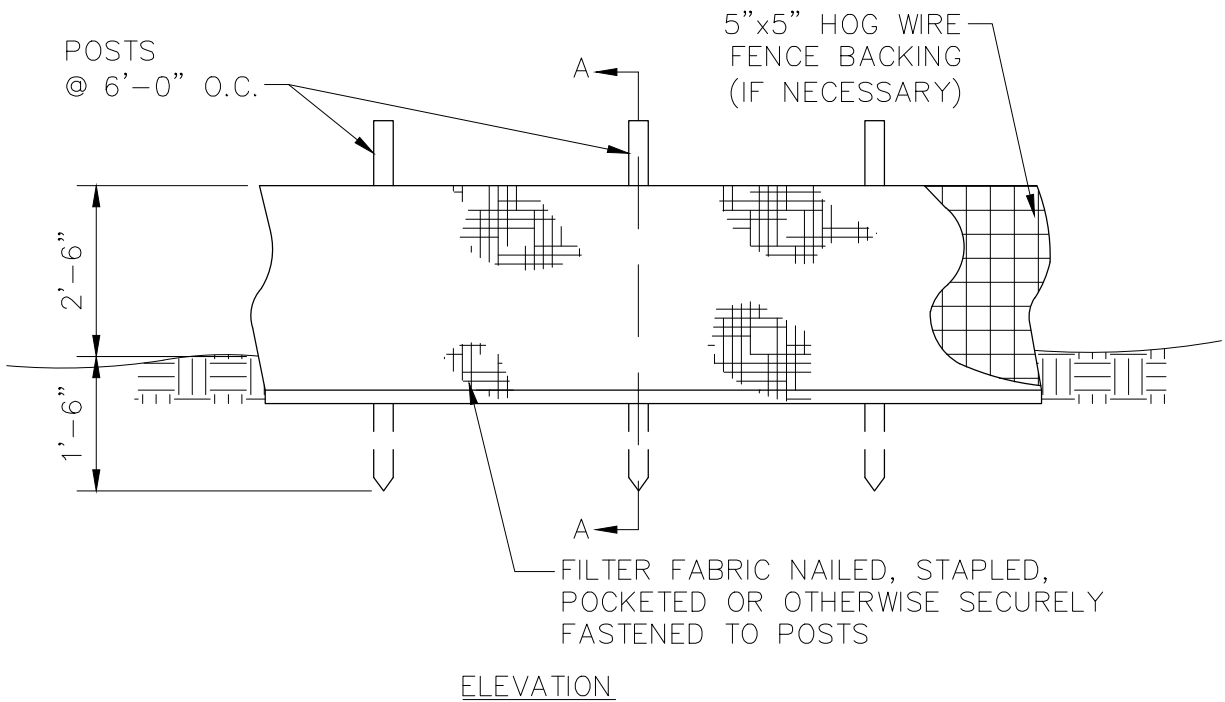
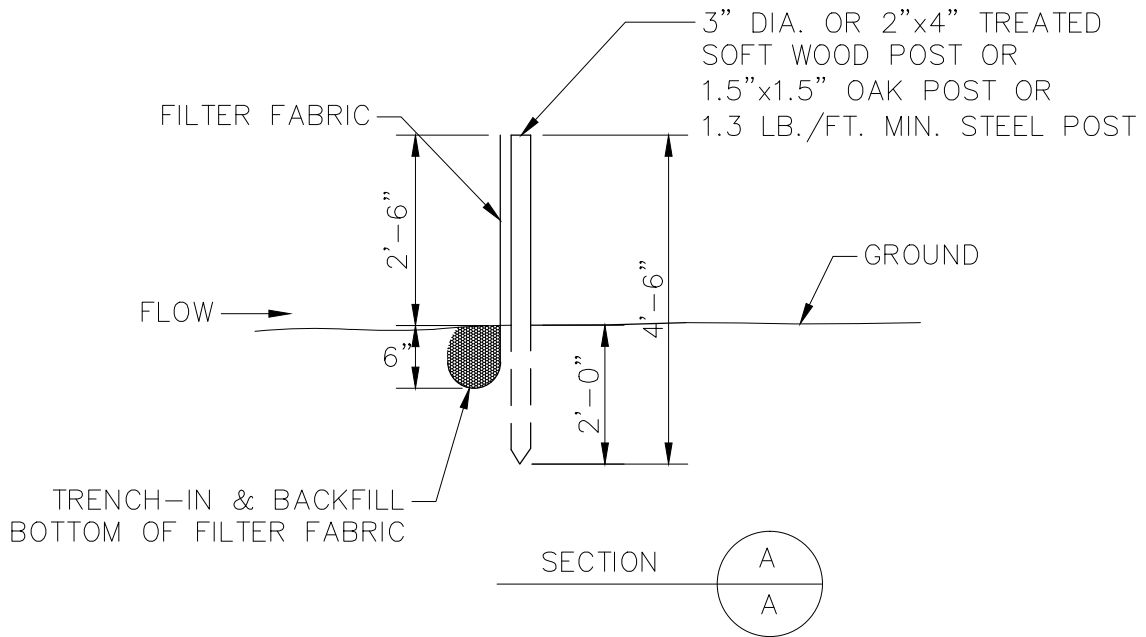


STANDARD DETAILS

TYPE III PAVEMENT
REPLACEMENT

DATE: FEB 2008
SCALE: NONE

DETAIL NO. G-6

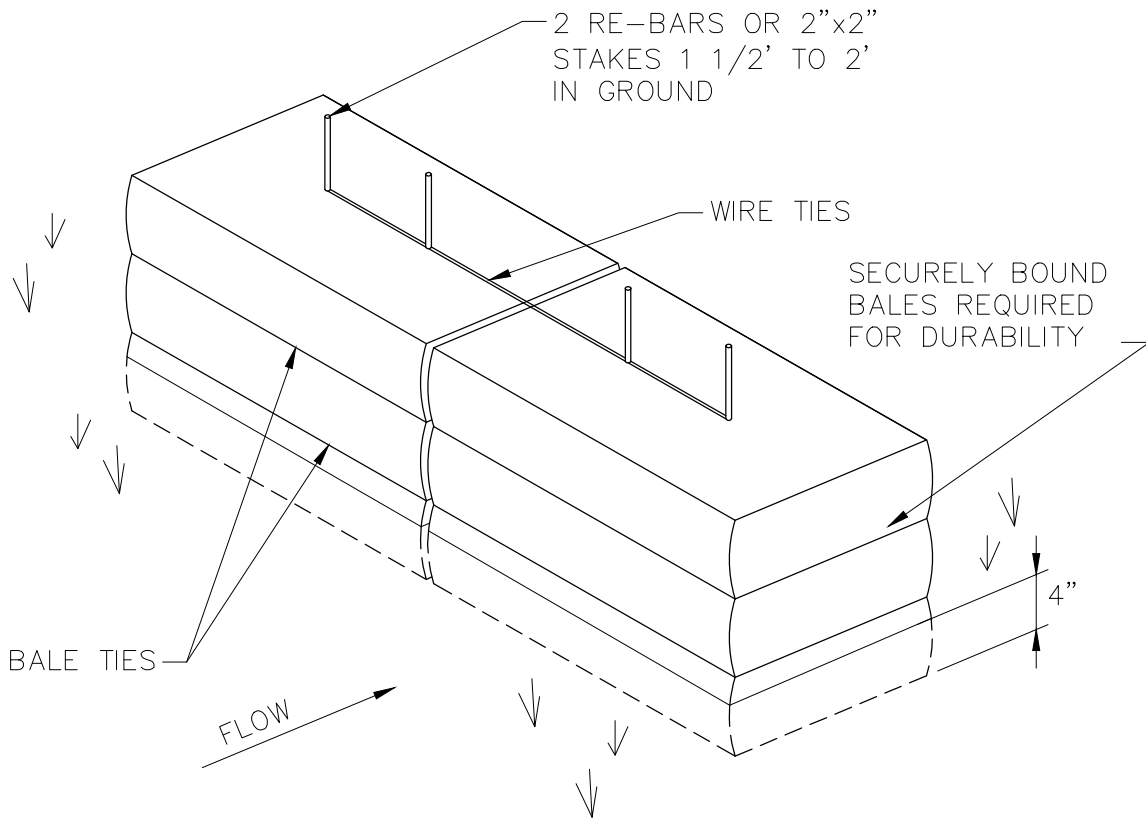


STANDARD DETAILS

SILT FENCE
SEDIMENT BARRIER

DATE: FEB 2008
SCALE: NONE

DETAIL NO. G-7

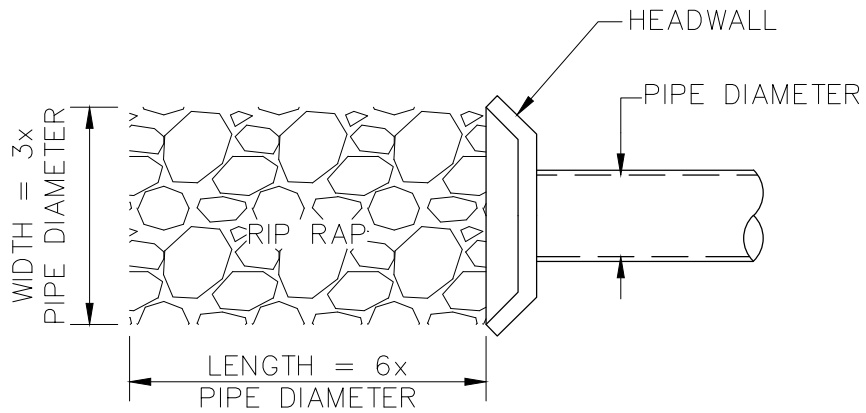


STANDARD DETAILS

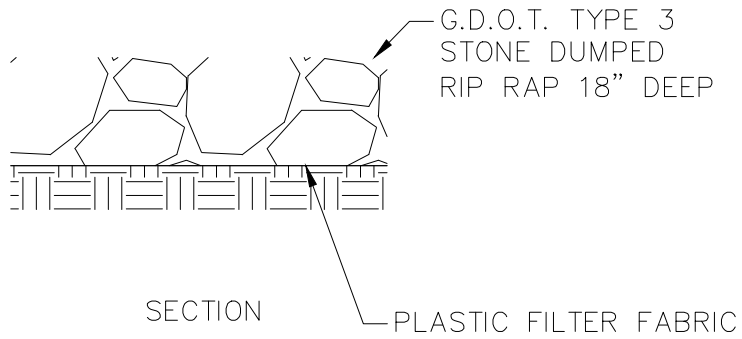
HAY BALE
SEDIMENT BARRIER

DATE: FEB 2008
SCALE: NONE

DETAIL NO. G-8



PLAN

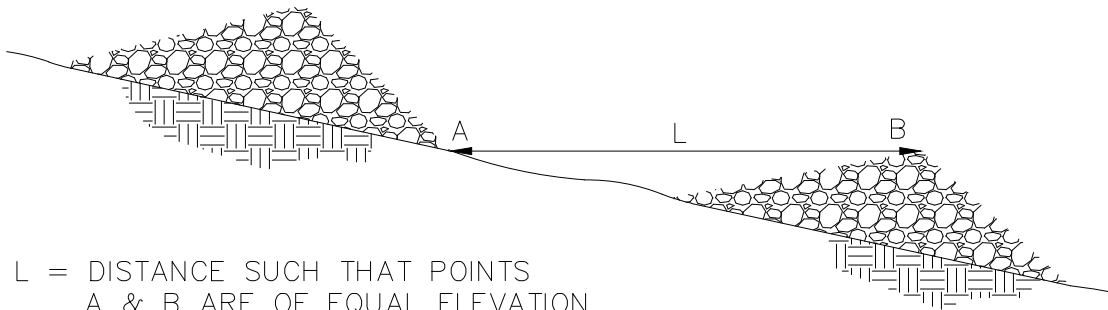
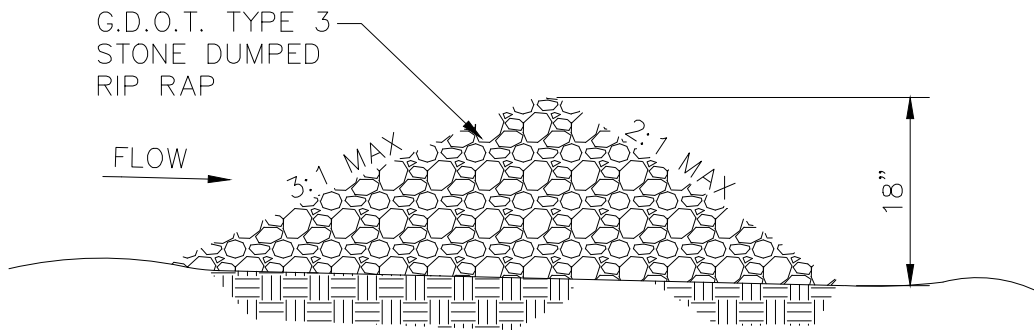
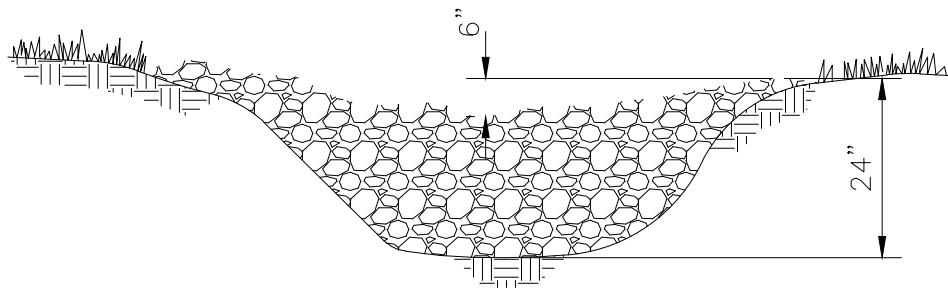


STANDARD DETAILS

STORM DRAIN
OUTLET PROTECTION

DATE: FEB 2008
SCALE: NONE

DETAIL NO. G-9



L = DISTANCE SUCH THAT POINTS
A & B ARE OF EQUAL ELEVATION

*** NOTE TO THE DESIGNER: SHOW CHECK DAMS AT
APPROXIMATE LOCATIONS ON THE LAN BASED UPON
LENGTH (L). ***

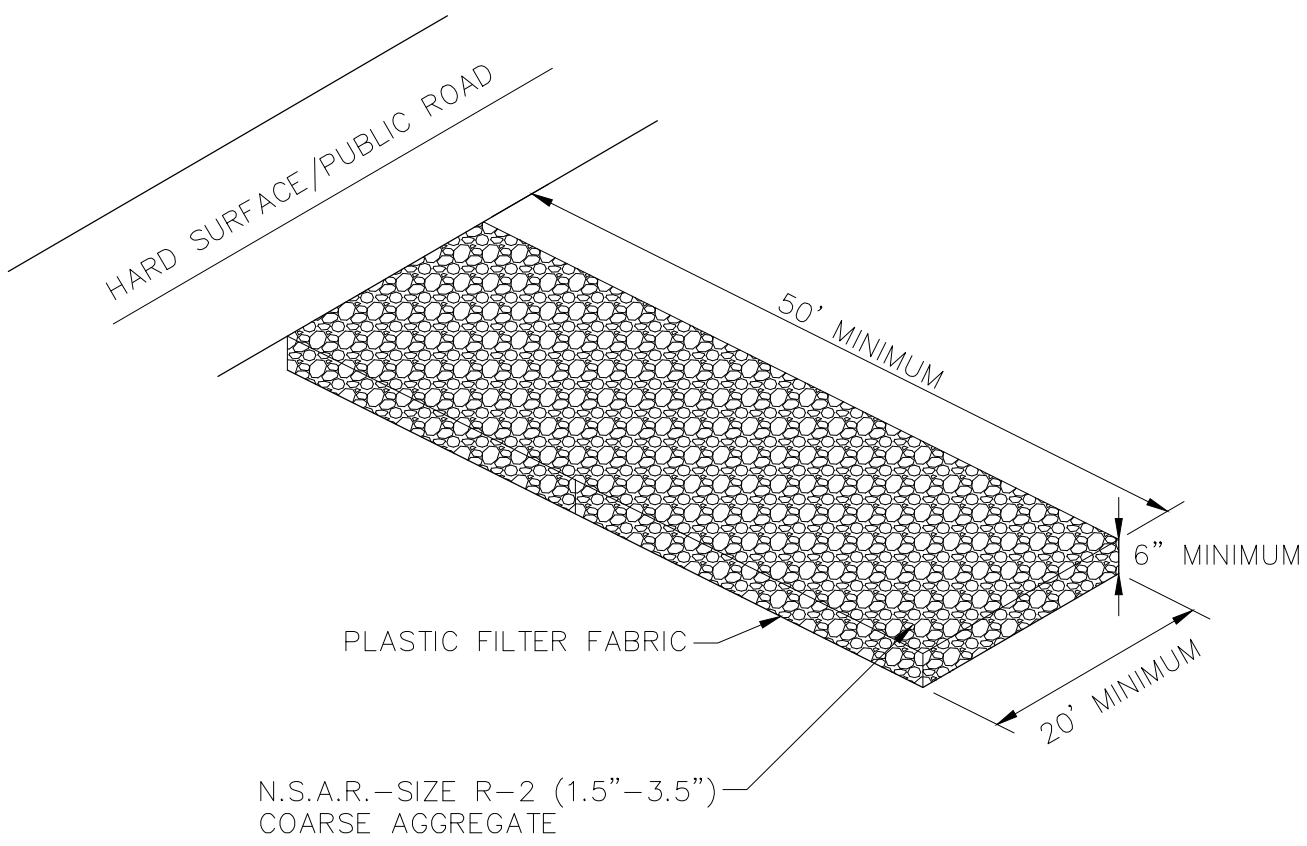


STANDARD DETAILS

STONE CHECK DAM

DATE: FEB 2008
SCALE: NONE

DETAIL NO. G-10



STANDARD DETAILS

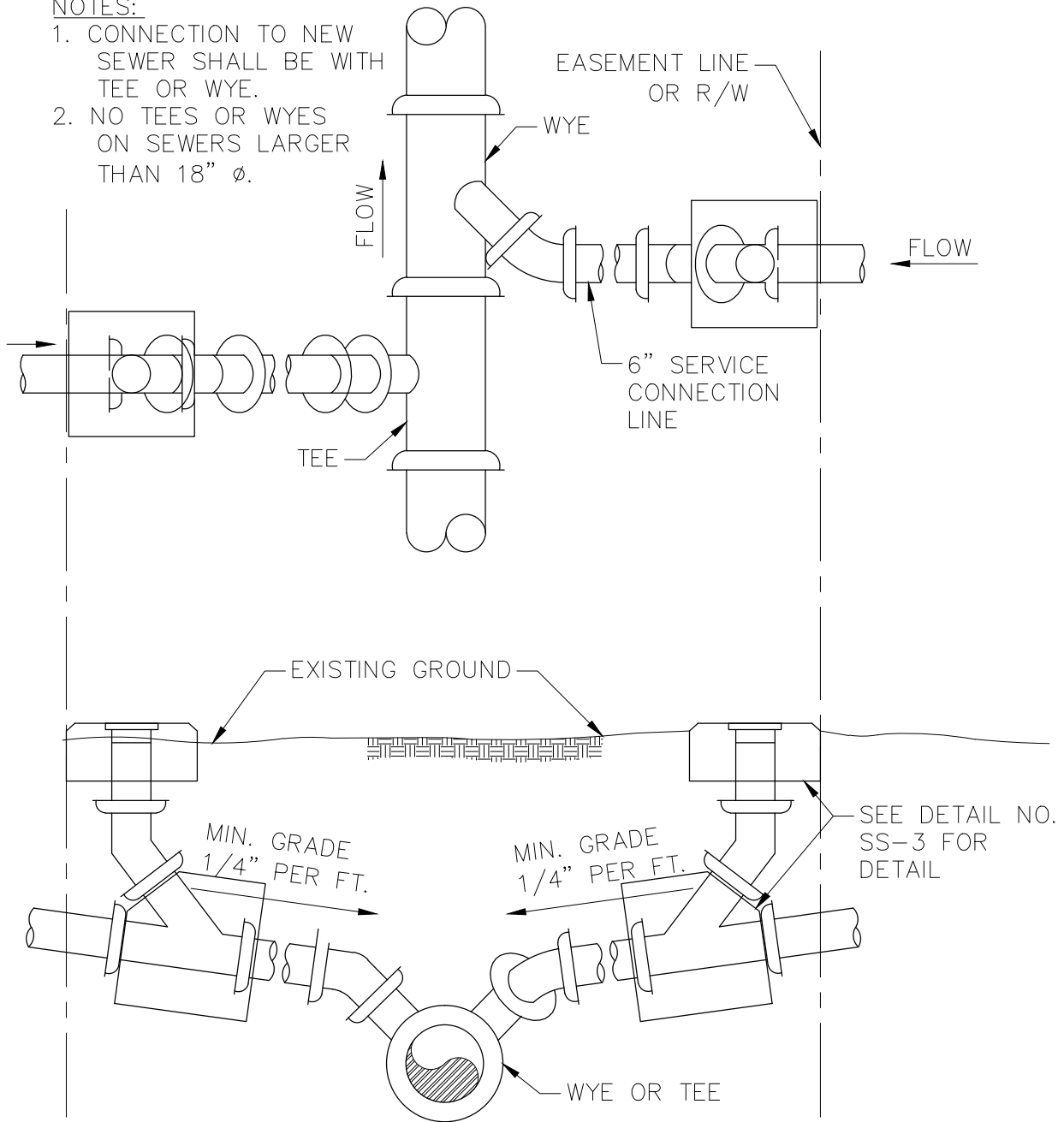
CONSTRUCTION EXIT

DATE: FEB 2008
SCALE: NONE

DETAIL NO. G-11

NOTES:

1. CONNECTION TO NEW SEWER SHALL BE WITH TEE OR WYE.
2. NO TEES OR WYES ON SEWERS LARGER THAN 18" ϕ .



STANDARD DETAILS

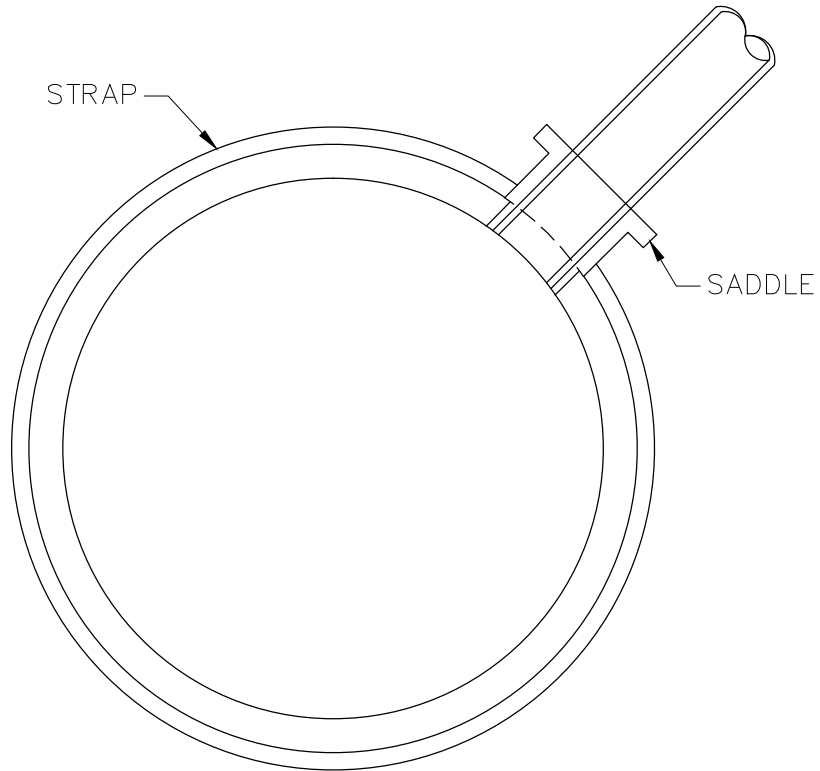
SERVICE CONNECTION
ON NEW SEWERS

DATE: FEB 2008
SCALE: NONE

DETAIL NO. SS-1

NOTE:

- 1.) HOLE IN EXISTING SEWER SHALL BE CORED.
- 2.) CONNECT SERVICE TO SEWER WITH:
 - TAPPING SADDLE ON DIP SEWERS
 - MANUFACTURED SADDLE ON PVC PIPE SEWERS



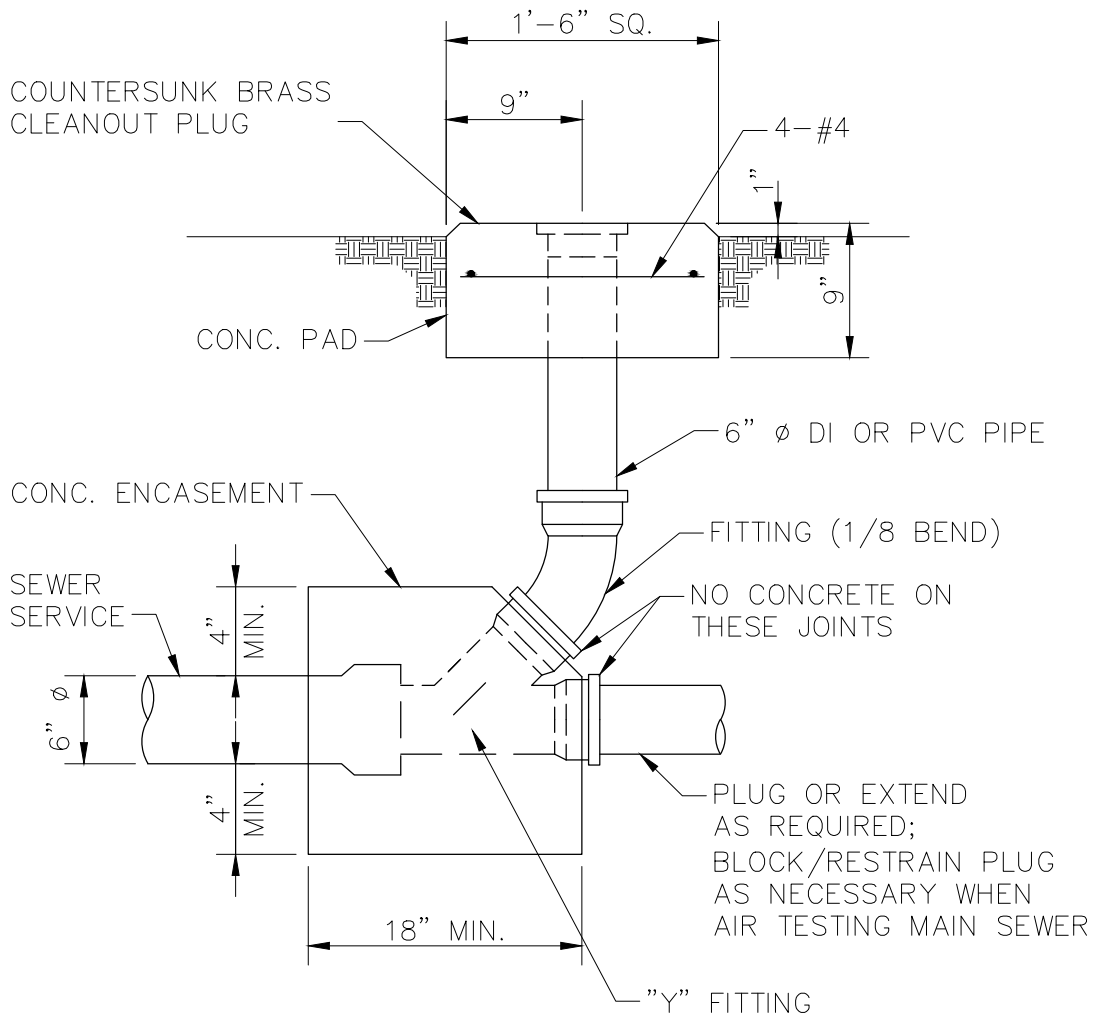
STANDARD DETAILS

SERVICE CONNECTION
ON EXISTING SEWERS

DATE: FEB 2008
SCALE: NONE

DETAIL NO. SS-2

NOTE: TOP OF CONCRETE PAD SHALL BE FLUSH WITH FINAL SURFACE IN SIDEWALKS AND PAVED AREAS

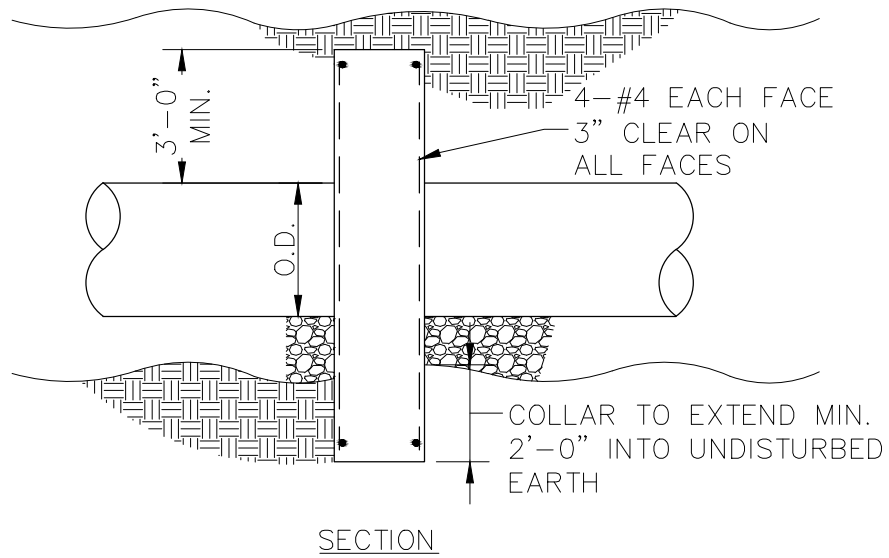
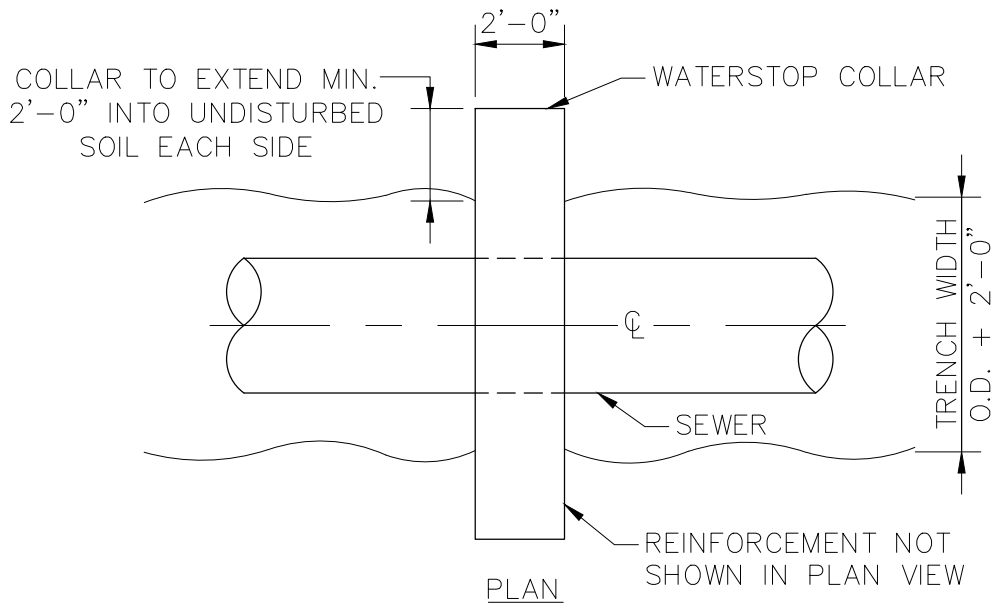


STANDARD DETAILS

SERVICE CONNECTION
CLEANOUT

DATE: FEB 2008
SCALE: NONE

DETAIL NO. SS-3

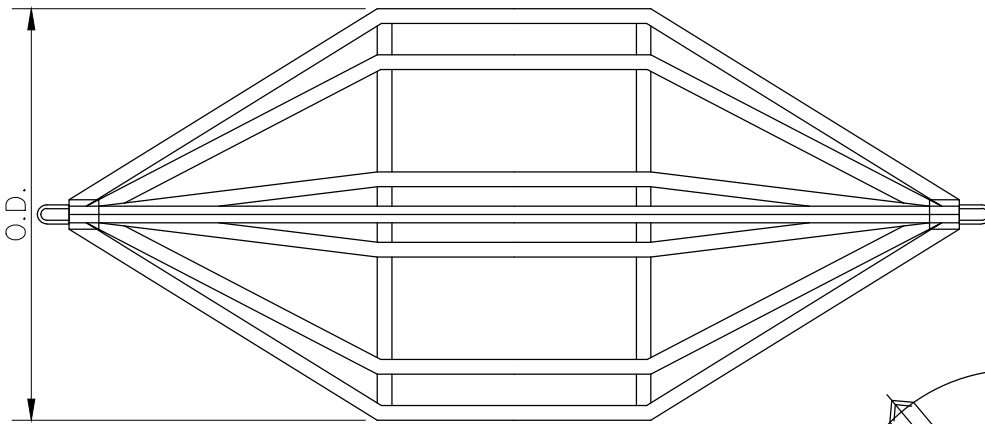


STANDARD DETAILS

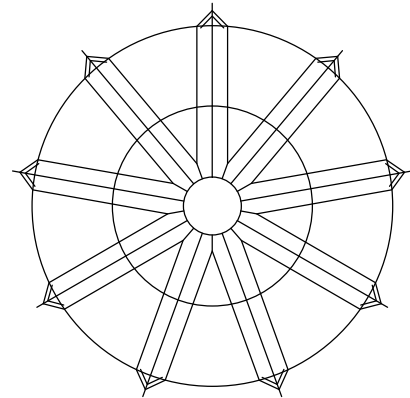
WATER COLLAR

DATE: FEB 2008
SCALE: NONE

DETAIL NO. SS-4



SIDE OR TOP VIEW



END VIEW

MINIMUM MANDREL DIAMETER		
SEWER SIZE	ASTM D3034 SDR35	ASTM F679 T-1
6	5.46	N/A
8	7.28	N/A
10	9.09	N/A
12	10.79	N/A
15	13.20	N/A
18	N/A	16.13
21	N/A	19.00
24	N/A	21.36

EQUAL TO 95% OF BASE INSIDE DIAMETER

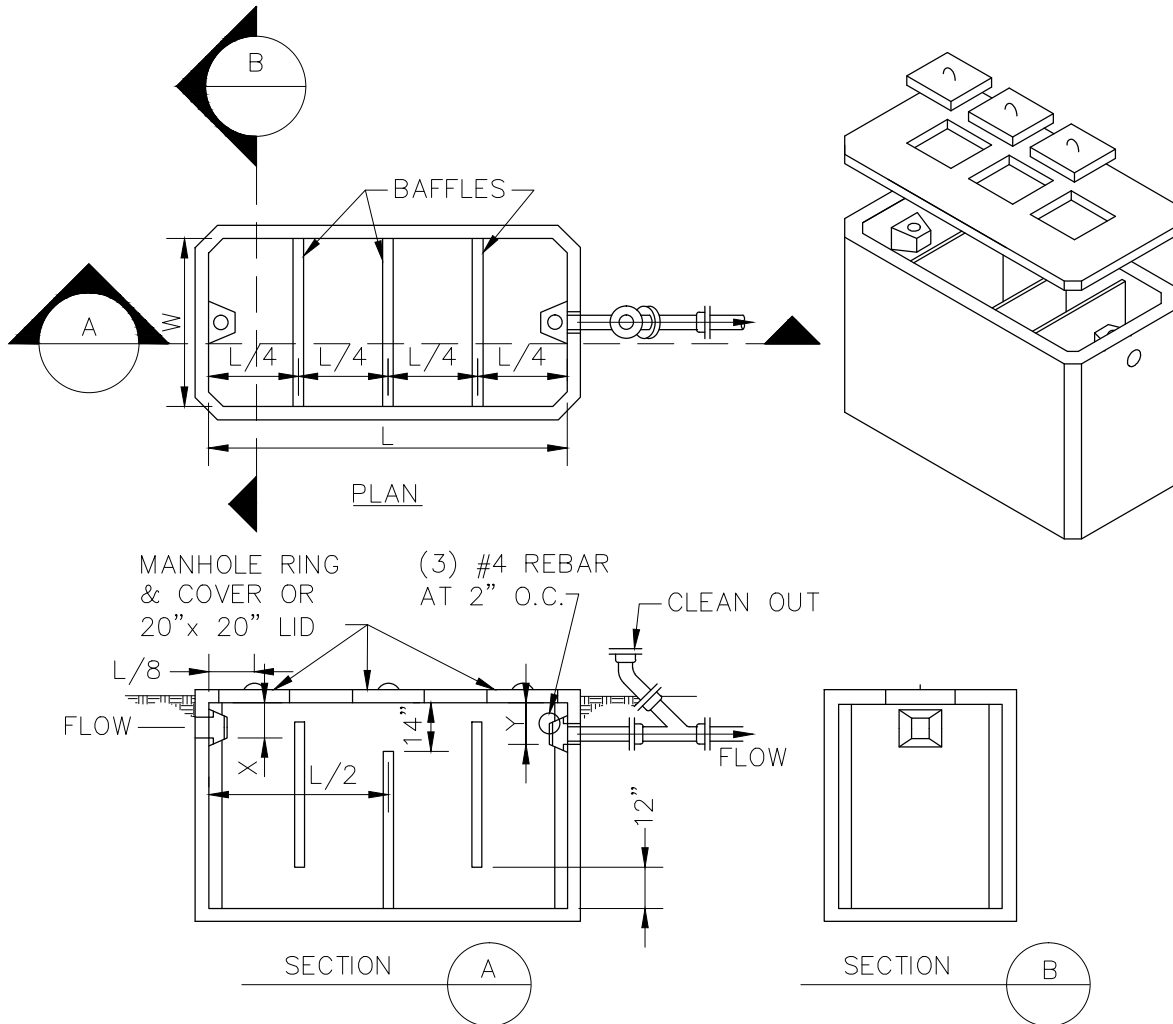


STANDARD DETAILS

DEFLECTION TEST
MANDREL

DATE: FEB 2008
SCALE: NONE

DETAIL NO. SS-5



TANK CAPACITY IN GAL.	L	W	D	INLET INVERT	OUTLET INVERT	APPROX. WT. OF TANK IN LBS.	MIN. DIMENSIONS FOR EXCAVATION LENGTH x WIDTH x DEPTH	NO. LIDS
1000	8'-6"	4'-0"	5'-0"	10"	12"	9431	9'-6" x 5'-0" x 6'-0"	3
1500	10'-0"	5'-6"	5'-0"	10"	12"	13088	12'-0" x 7'-0" x 6'-0"	3

NOTE: DIMENSIONS SHOWN ARE SUGGESTED FOR TANK CAPACITIES SHOWN. DESIGN SHOWN IS FOR NON-TRAFFIC AREAS. PROVIDE STRUCTURAL DESIGN ADEQUATE FOR PARTICULAR INSTALLATION.

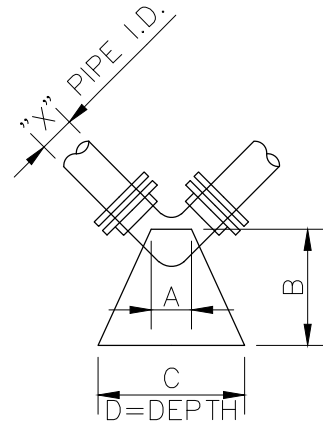
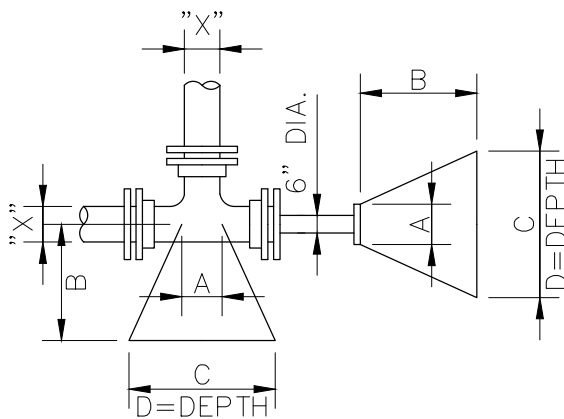


STANDARD DETAILS

GREASE TRAP

DATE: FEB 2008
SCALE: NONE

DETAIL NO. SS-6



BLOCKING DIMENSIONS						
DEAD END & TEES	X*	A	B	C	D	
	12"	1'-0"	3'-0"	5'-6"	3'-6"	
	10"	1'-0"	2'-6"	4'-9"	3'-0"	
	8"	0'-10"	2'-0"	4'-0"	2'-6"	
	6"	0'-8"	1'-6"	2'-9"	1'-9"	
BENDS	90°	12"	1'-0"	4'-0"	6'-9"	4'-3"
		10"	1'-0"	3'-0"	5'-9"	3'-6"
		8"	0'-10"	2'-6"	4'-9"	3'-0"
		6"	0'-8"	1'-6"	3'-6"	2'-9"
	45°	12"	1'-0"	2'-3"	5'-3"	3'-3"
		10"	1'-0"	2'-3"	4'-6"	2'-9"
		8"	0'-10"	1'-6"	3'-6"	2'-3"
		6"	0'-8"	1'-3"	2'-6"	1'-6"
	22 1/2°	12"	1'-0"	1'-6"	3'-6"	2'-3"
		10"	1'-0"	1'-3"	3'-0"	2'-0"
		8"	0'-10"	1'-0"	2'-6"	1'-6"
		6"	0'-8"	1'-0"	1'-9"	1'-3"
	11 1/4°	12"	1'-0"	1'-6"	2'-6"	1'-6"
		10"	1'-0"	1'-0"	2'-3"	1'-3"
		8"	0'-10"	1'-0"	1'-9"	1'-0"
		6"	0'-8"	1'-0"	1'-6"	0'-6"

150 PSI TEST PRESSURE
2000 PSI SOIL BEARING

X* = DIAMETER OF PIPE TO BE BLOCKED

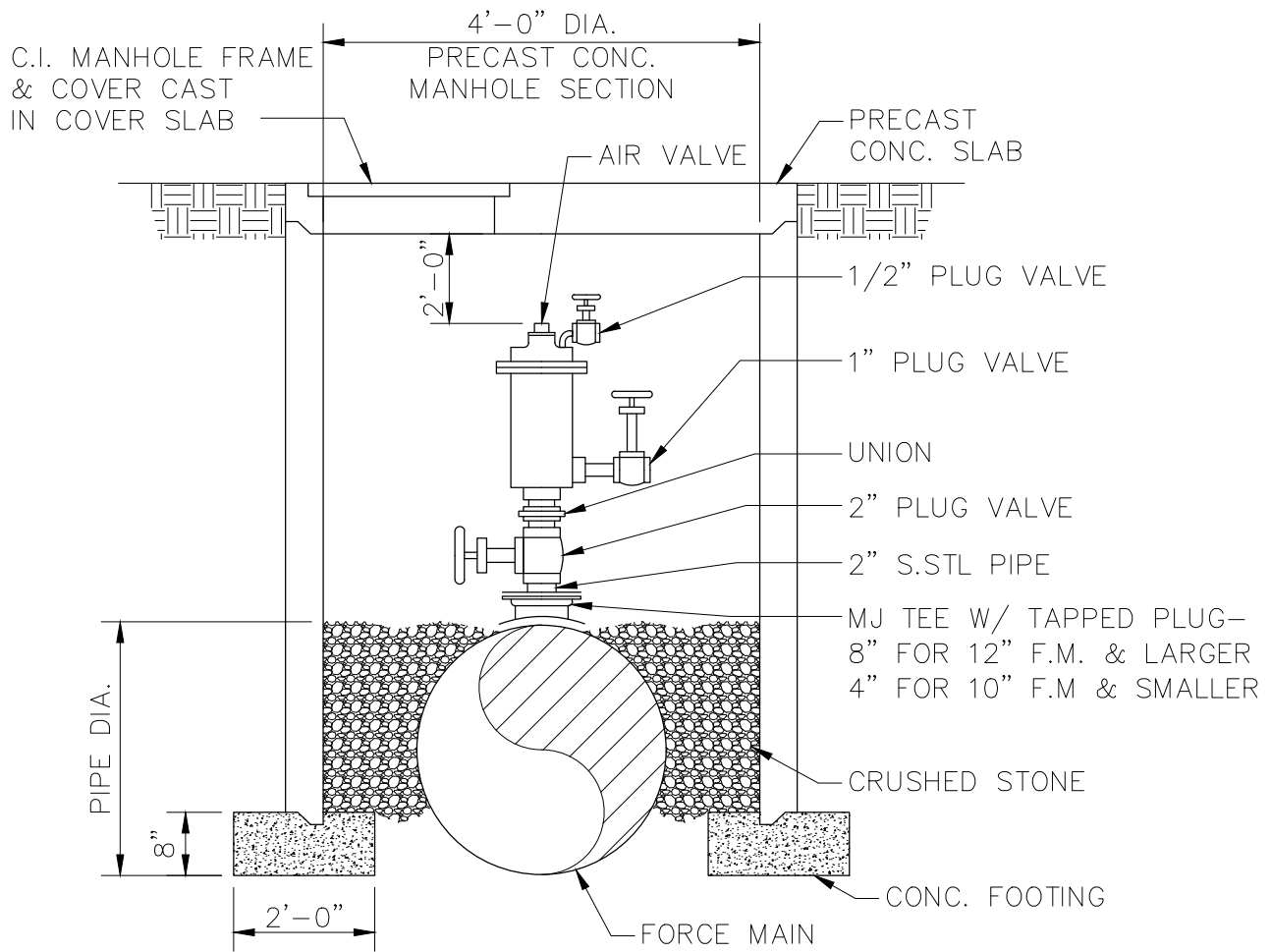


STANDARD DETAILS

TYPICAL BLOCKING

DATE: FEB 2008
SCALE: NONE

DETAIL NO. SS-7



COMBINATION AIR/VACUUM VALVE ASSEMBLY TO BE:

APCO MODEL 445 OR

VALMATIC MODEL 802A

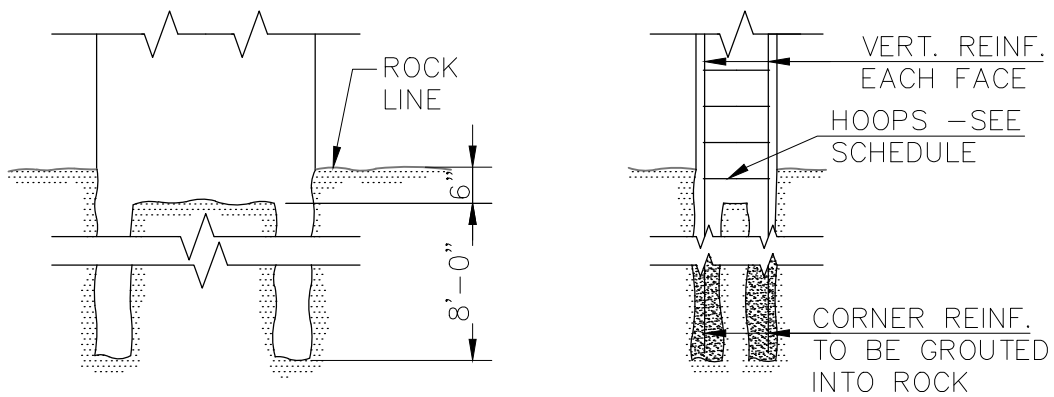
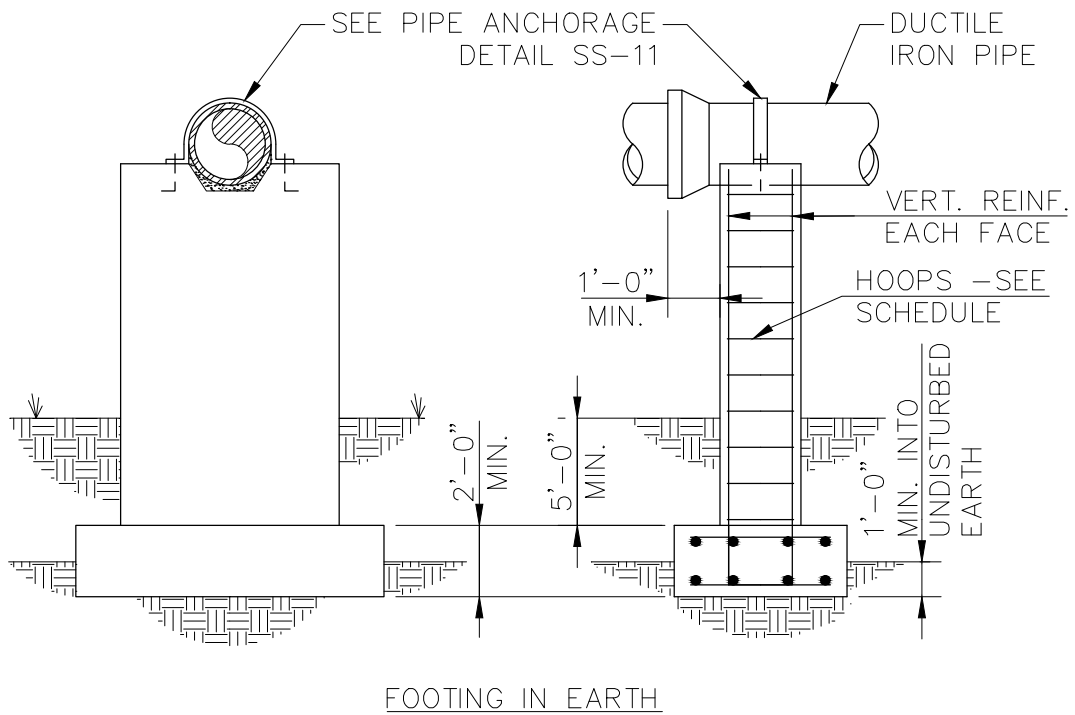


STANDARD DETAILS

AIR VALVE MANHOLE

DATE: FEB 2008
SCALE: NONE

DETAIL NO. SS-8



NOTE: MAXIMUM PIER
SPACING IS 20'.

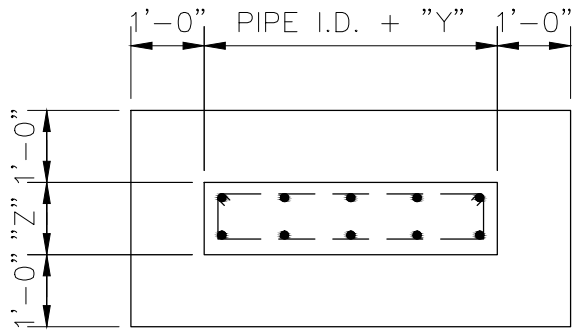


STANDARD DETAILS

CONCRETE PIER

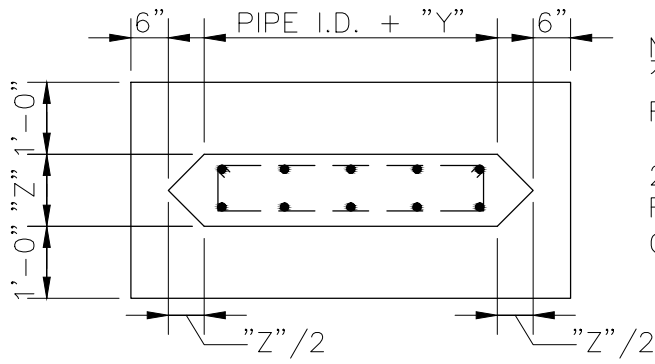
DATE: FEB 2008
SCALE: NONE

DETAIL NO. SS-9



PLAN - OVERLAND

PIPE I.D.	"Y"	"Z"	VERT. REINF. @12" O.C.	HOOPS @12" O.C.
8" TO 16"	24"	12"	#5	#3



PLAN - IN STREAM

NOTES:

1. FOOTING REINF. SAME AS VERT. REINF. EA. WAY TOP & BOTTOM
2. WHEN BASE IS IN ROCK OMIT FOOTING & GROUT VERTICAL CORNER BARS 8' INTO ROCK

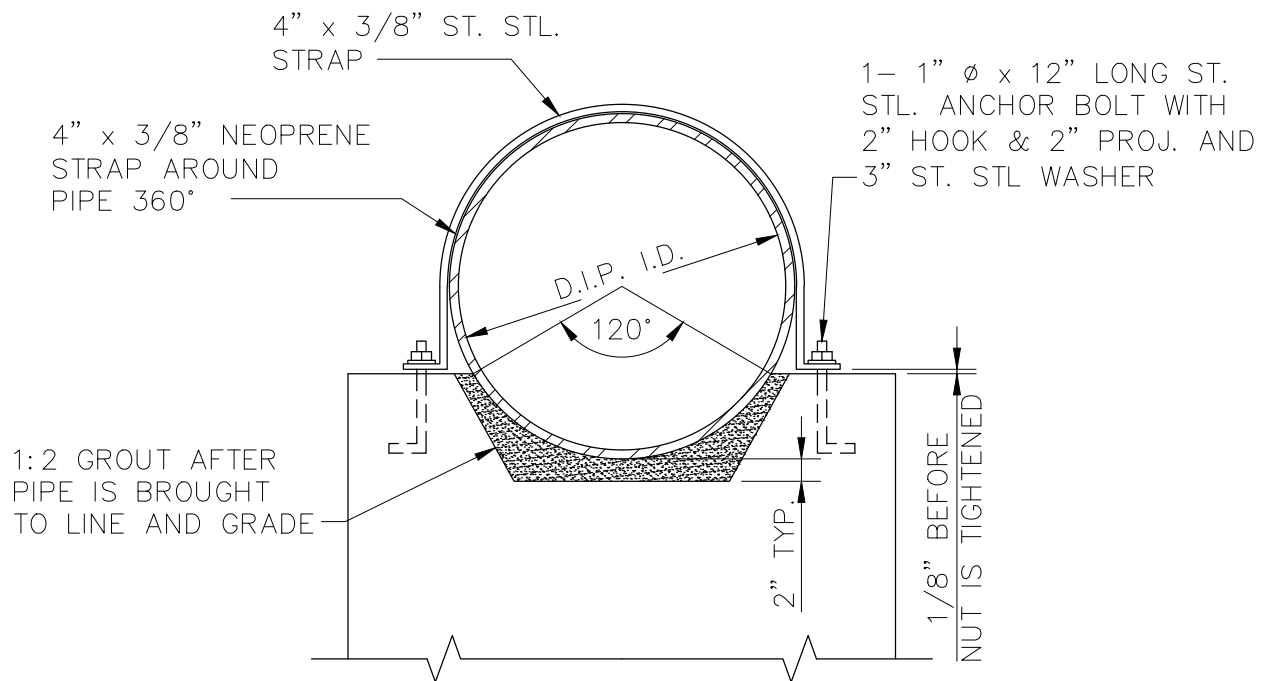


STANDARD DETAILS

CONCRETE PIER

DATE: FEB 2008
SCALE: NONE

DETAIL NO. SS-10

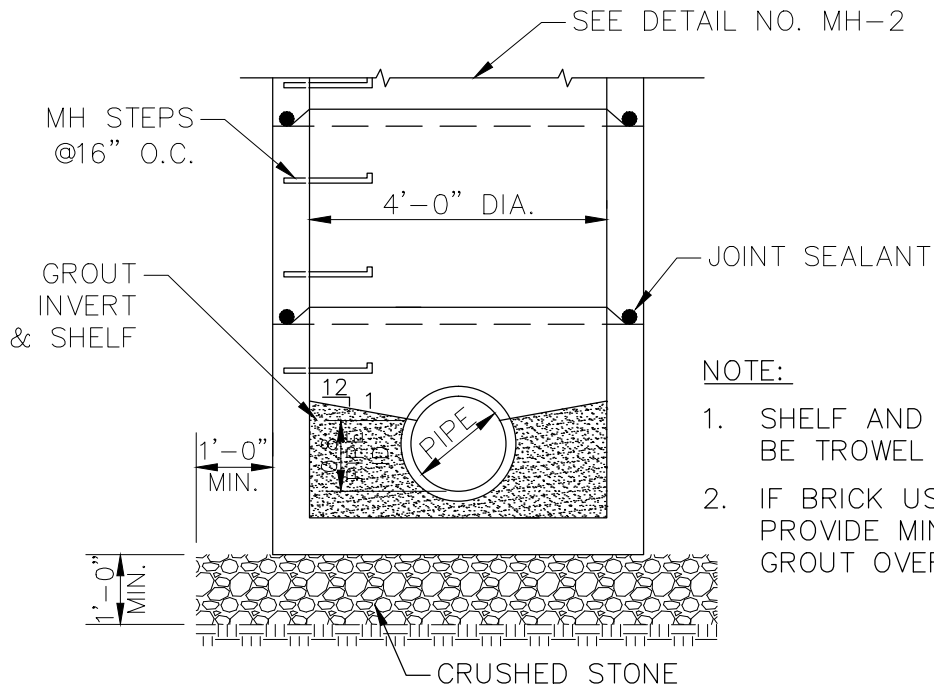
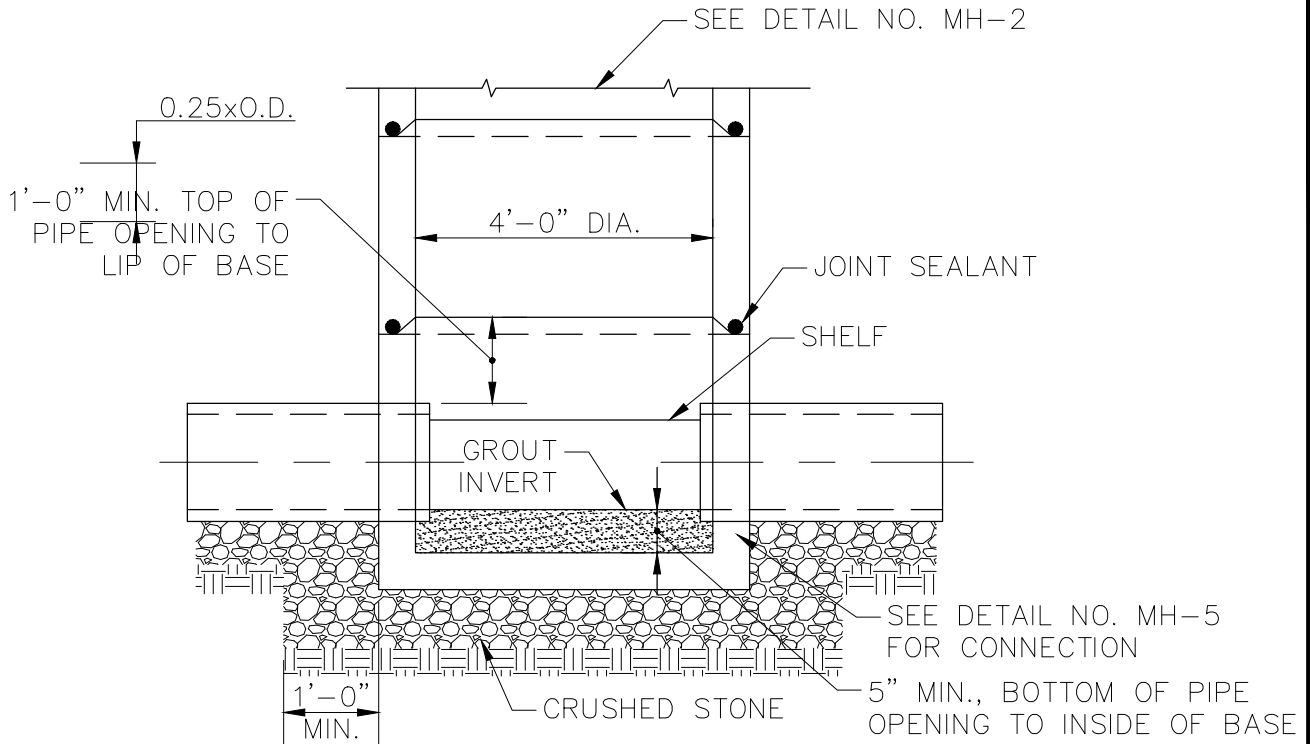


STANDARD DETAILS

PIPE ANCHORAGE

DATE: FEB 2008
SCALE: NONE

DETAIL NO. SS-11



NOTE:

1. SHELF AND INVERT SHALL BE TROWEL FINISHED
2. IF BRICK USED AS FILLER, PROVIDE MINIMUM 2 INCHES GROUT OVER BRICK



STANDARD DETAILS

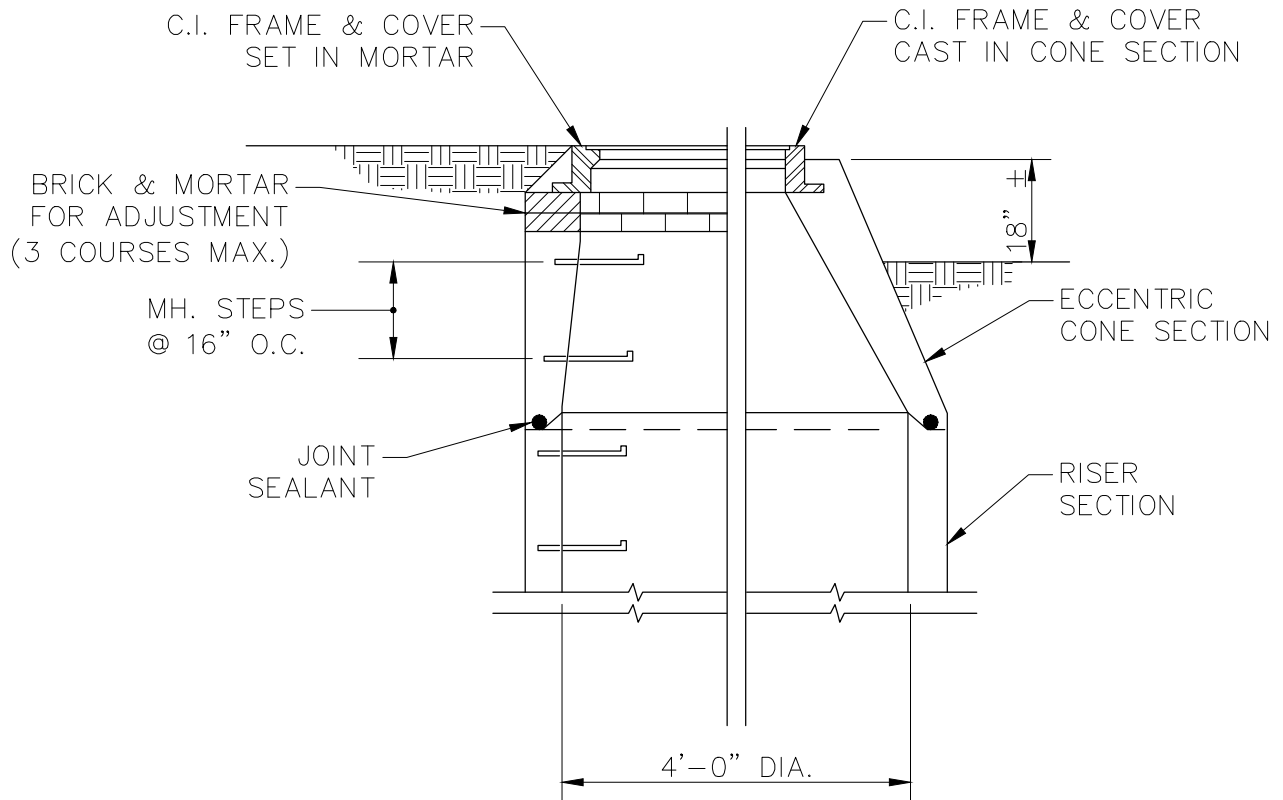
MANHOLE BASE

DATE: FEB 2008
SCALE: NONE

DETAIL NO. MH-1

TOP AT GRADE

TOP ABOVE GRADE



NOTE:

FRAME & COVER SHALL BE CAST IN ALL CONE SECTIONS
UNLESS FRAME & COVER IS TO BE FLUSH WITH FINAL GRADE

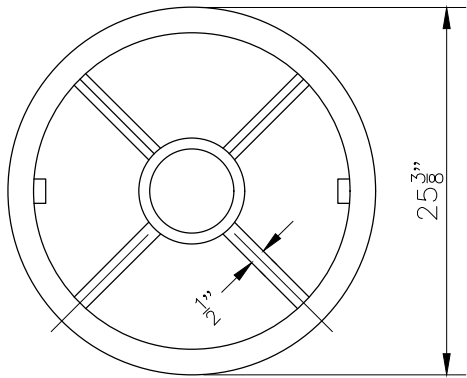


STANDARD DETAILS

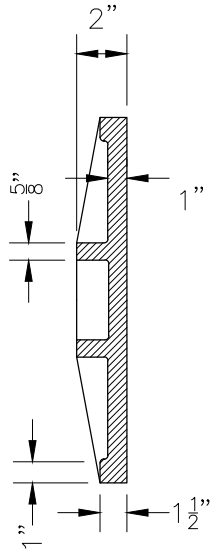
MANHOLE RISER
AND CONE

DATE: FEB 2008
SCALE: NONE

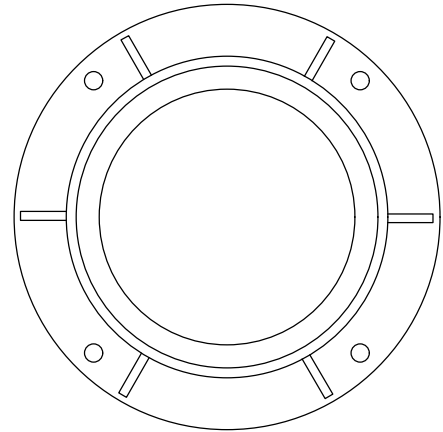
DETAIL NO. MH-2



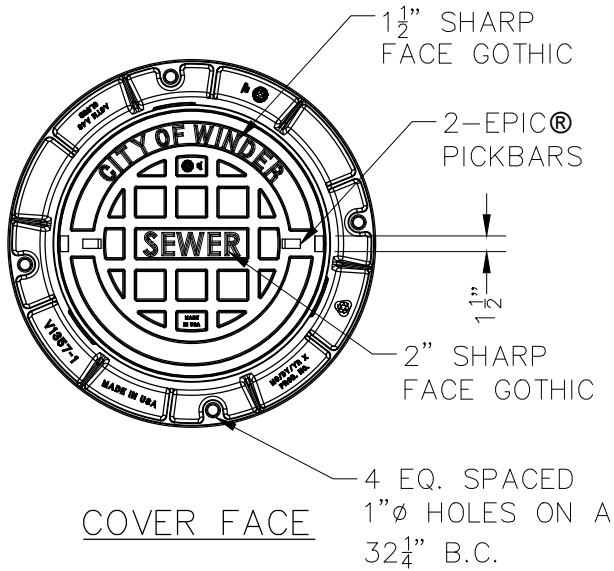
COVER BACK



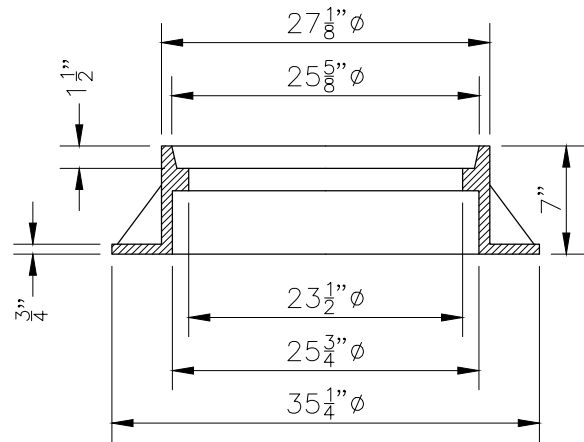
COVER SECTION



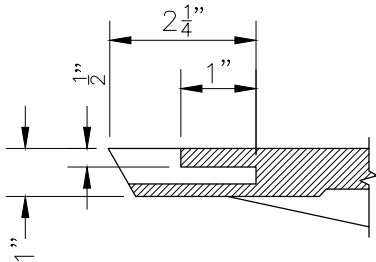
FRAME PLAN



COVER FACE



FRAME SECTION



PICKHOLE DETAIL

NOTES:

1. PICKHOLE SHALL BE MIN 1 1/2" WIDE, TWO PER COVER
2. CITY OF WINDER MH COVER AVAILABLE FROM EAST JORDAN IRON WORKS MODEL V1357-1

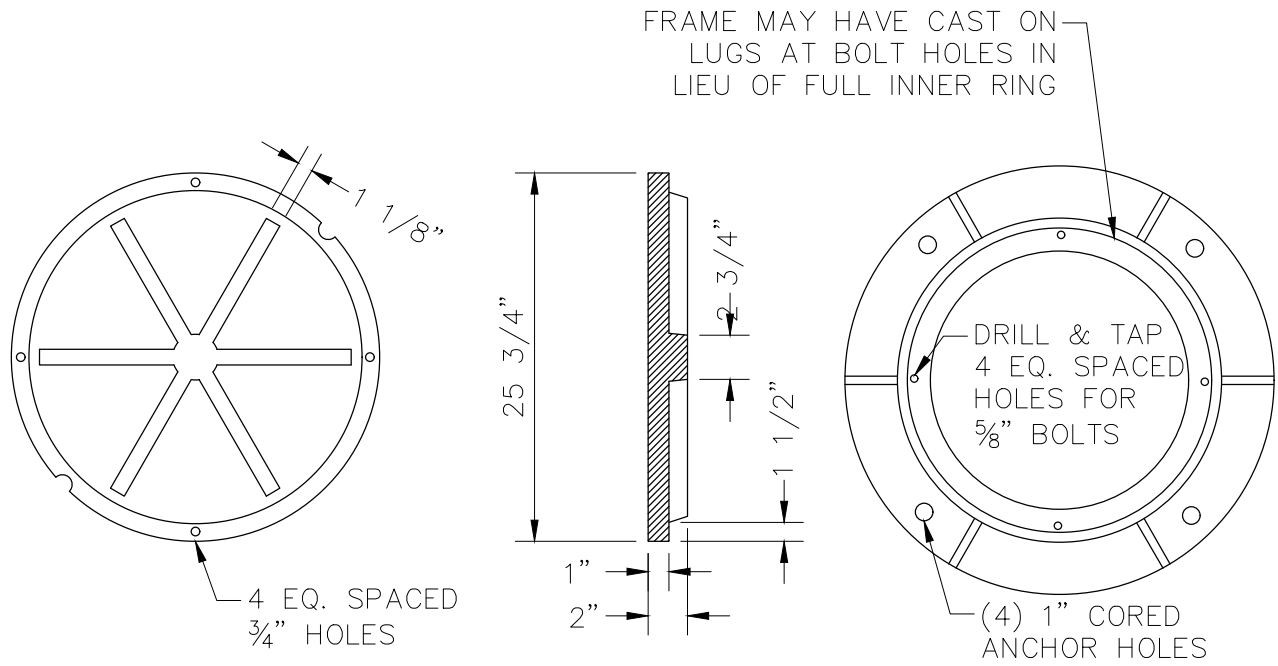


STANDARD DETAILS

STANDARD FRAME AND COVER

DATE: FEB 2008
SCALE: NONE

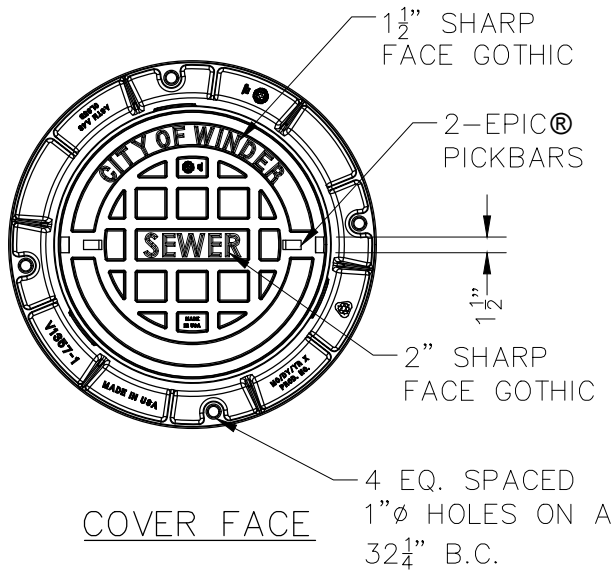
DETAIL NO. MH-3



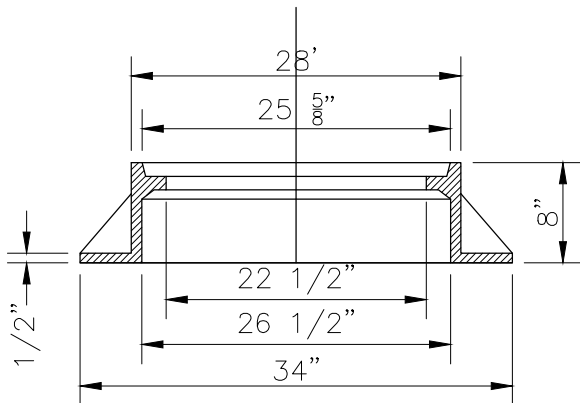
COVER BACK

COVER SECTION

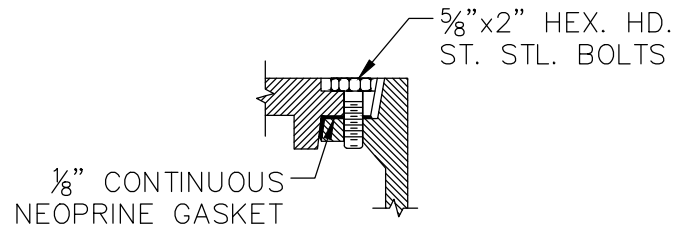
FRAME PLAN



COVER FACE



FRAME SECTION



NOTES:

1. NON-PENETRATING PICKHOLE SHALL BE MIN 1 1/2" WIDE, TWO PER COVER
2. CITY OF WINDER MH COVER AVAILABLE FROM EAST JORDAN IRON WORKS MODEL

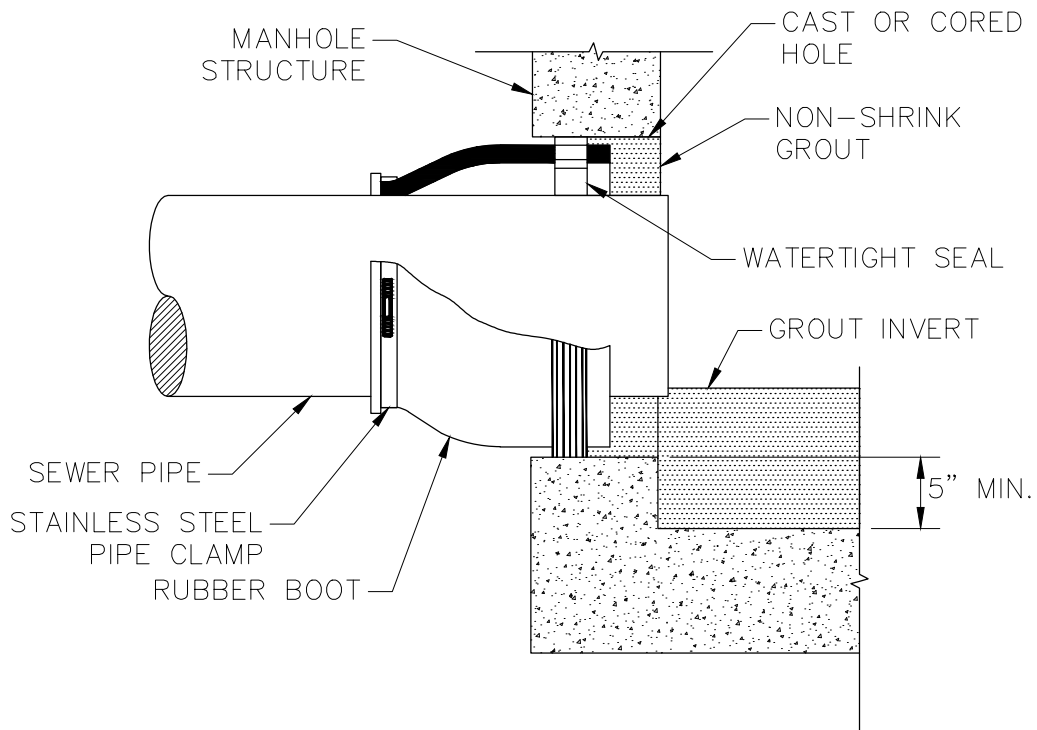


STANDARD DETAILS

WATERTIGHT FRAME AND COVER

DATE: FEB 2008
SCALE: NONE

DETAIL NO. MH-4

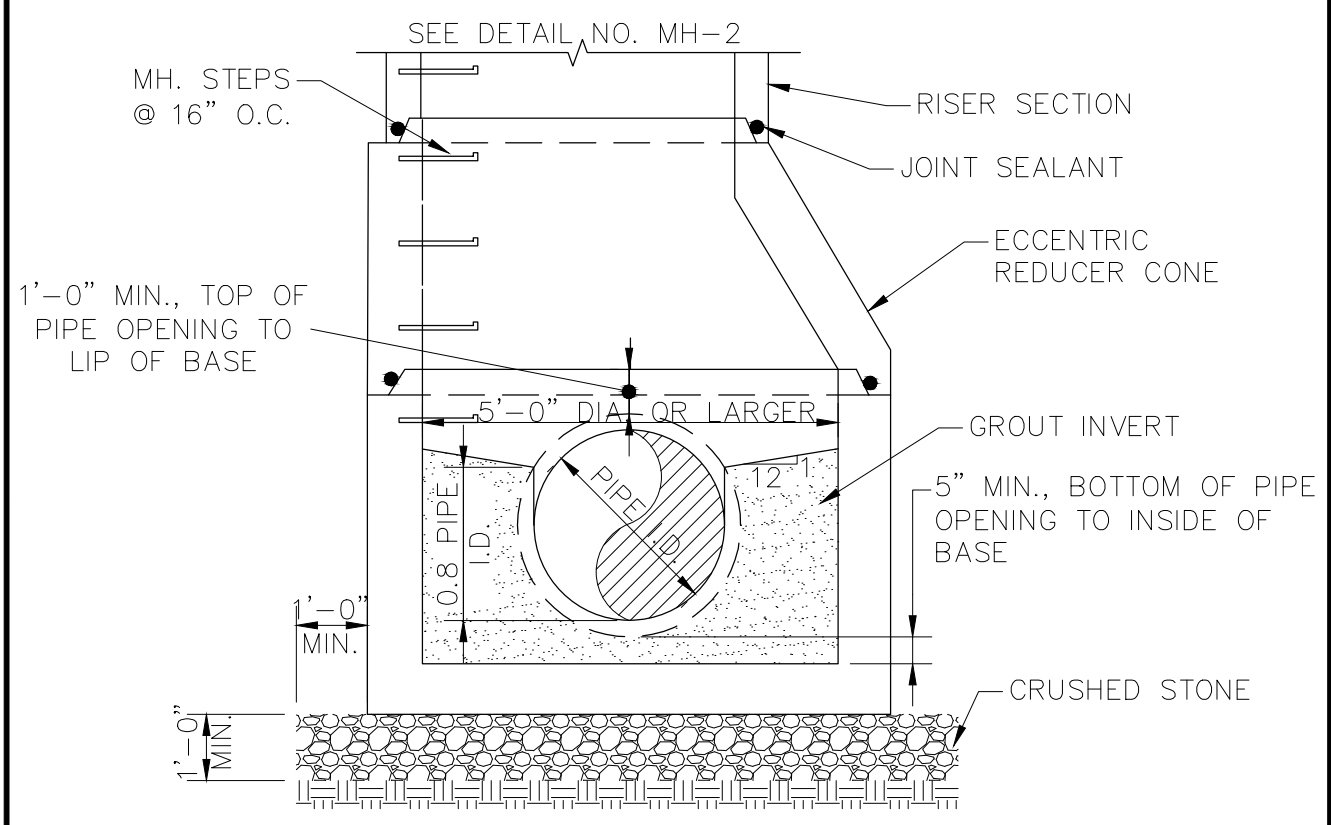
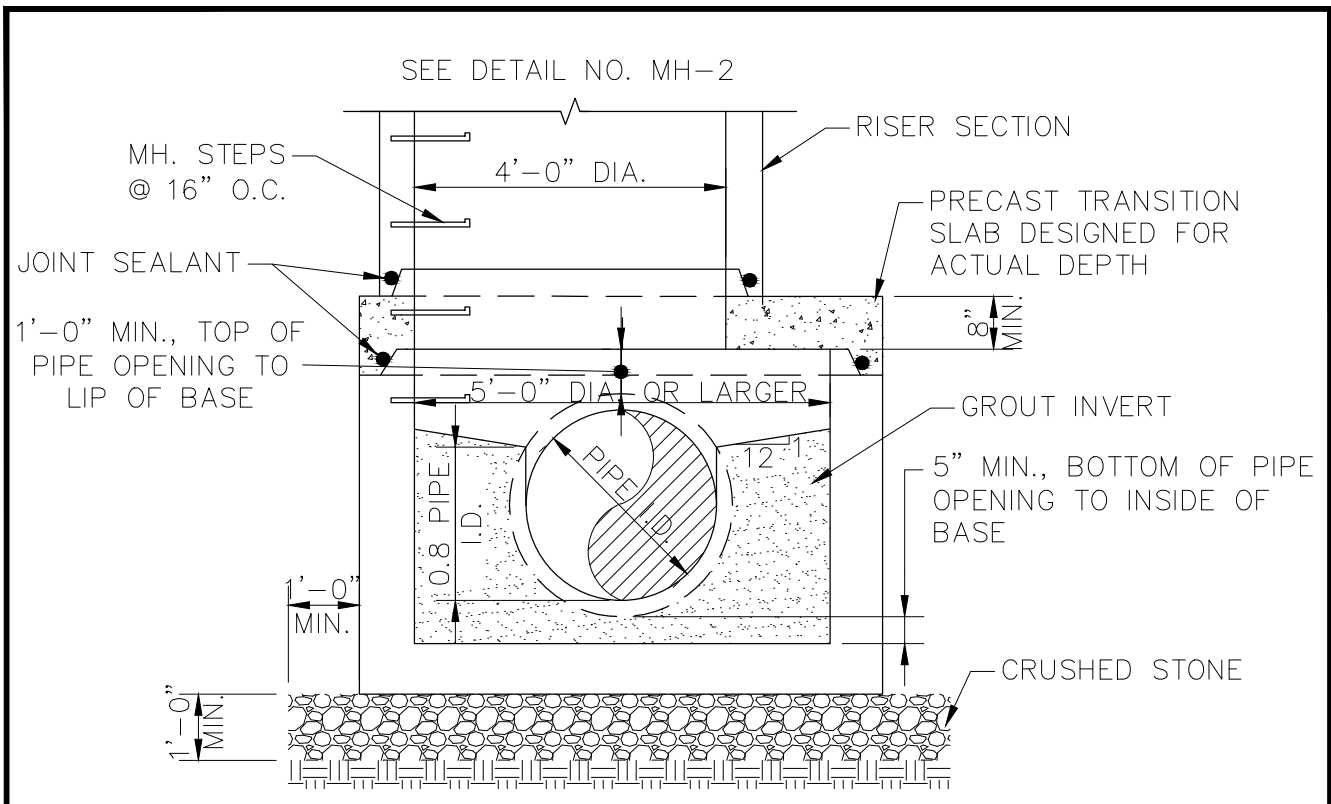


STANDARD DETAILS

BOOT CONNECTION

DATE: FEB 2008
SCALE: NONE

DETAIL NO. MH-5



STANDARD DETAILS

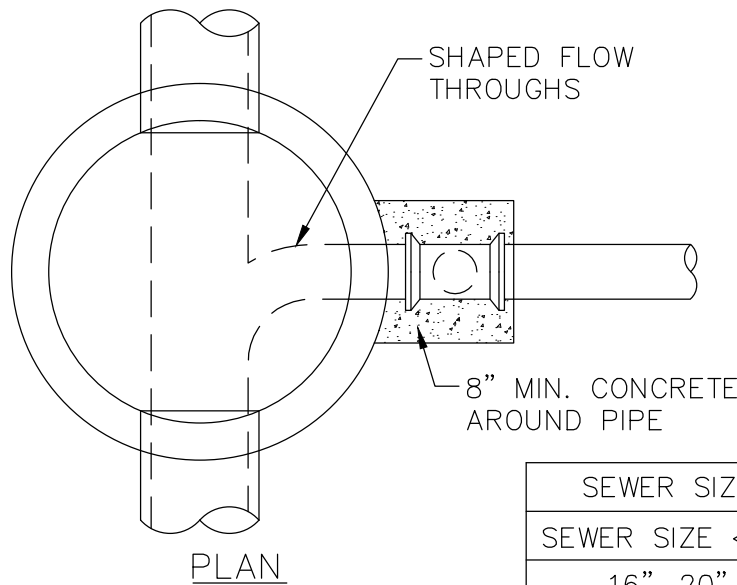
LARGE DIAMETER

MANHOLE BASE

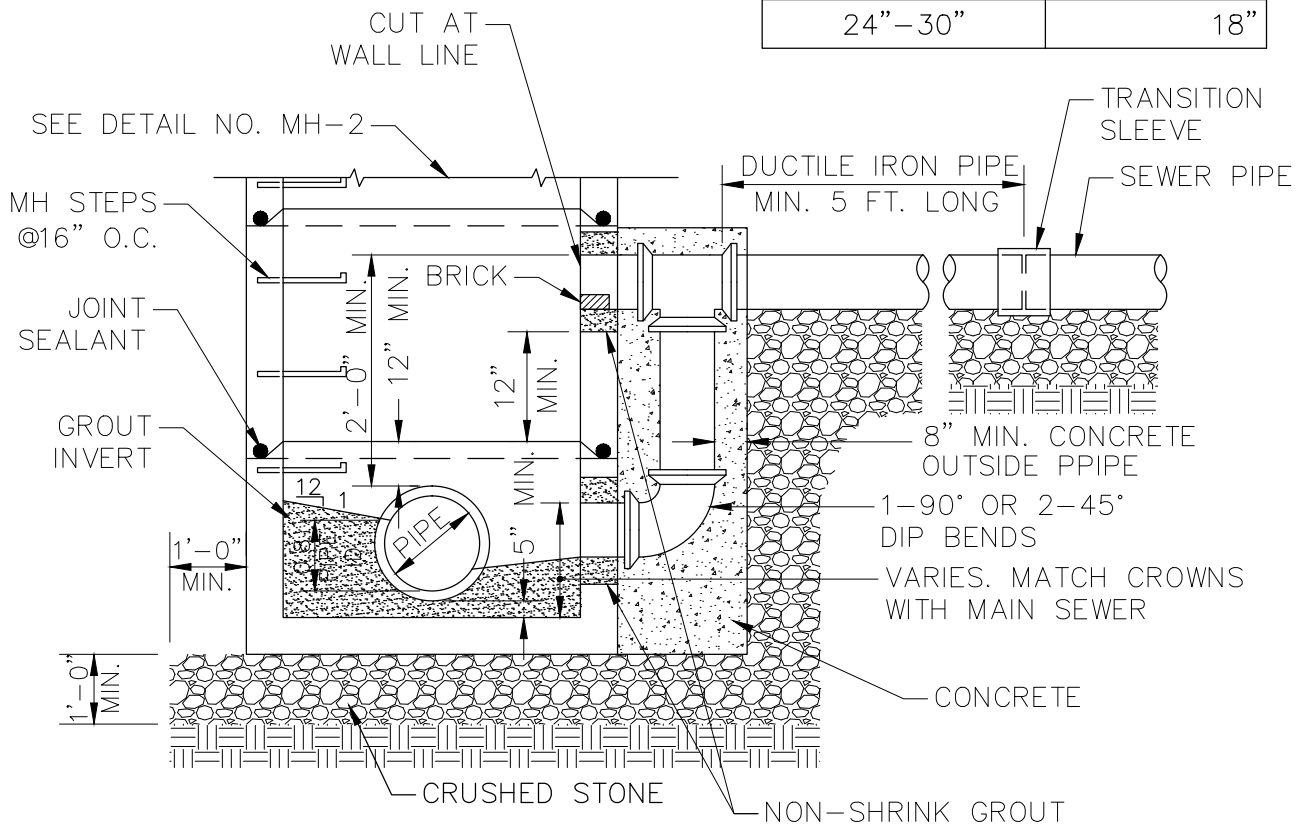
DATE: FEB 2008

SCALE: NONE

DETAIL NO. MH-6



SEWER SIZE	DROP SIZE
SEWER SIZE <12"	SEWER SIZE
16"-20"	12"
24"-30"	18"

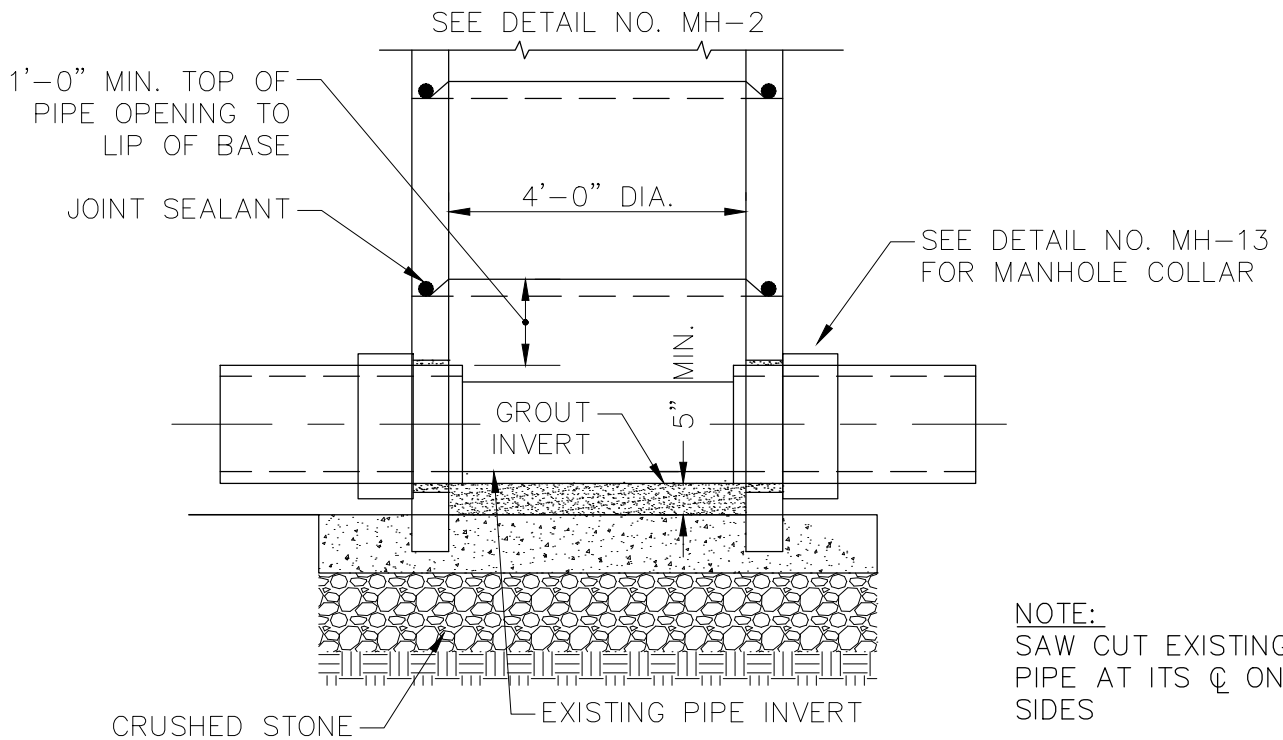
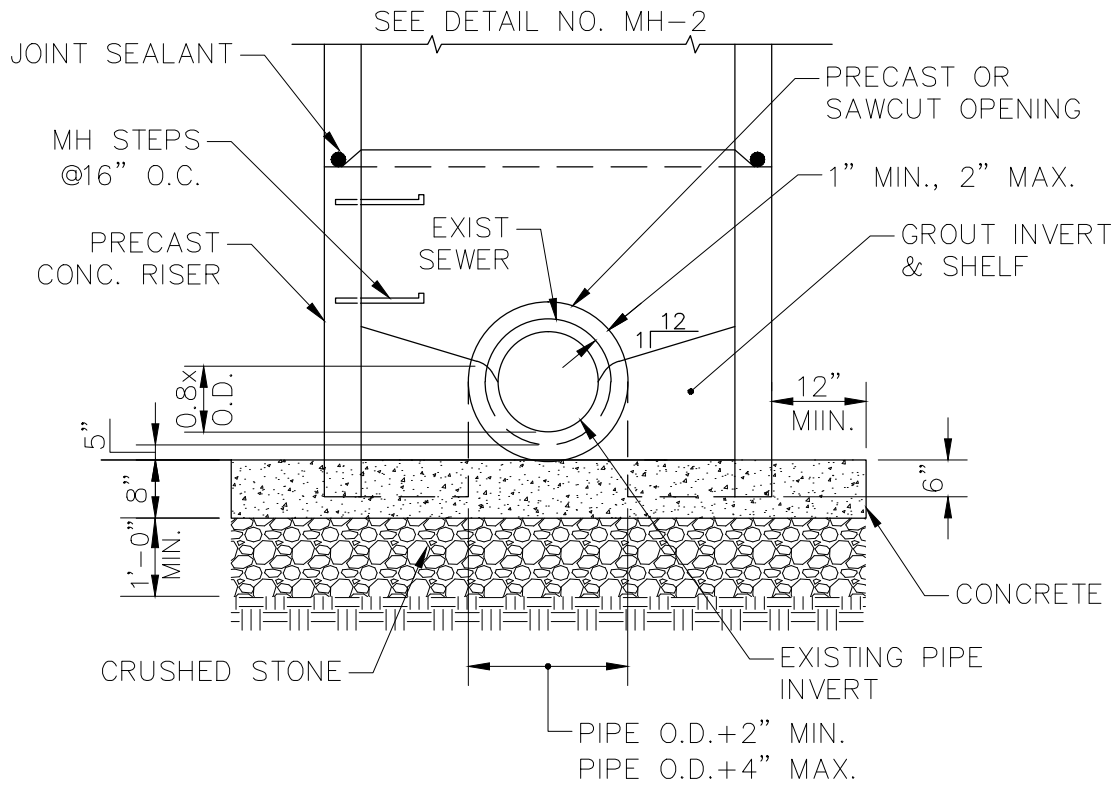


NOTE:
 POUR CONCRETE AGAINST UNDISTURBED EARTH
 OR FORM. IF FORMED, FILL VOID UNDER PIPE WITH
 CRUSHED STONE



STANDARD DETAILS
 MANHOLE BASE
 WITH DROP CONNECTION

DATE: FEB 2008
 SCALE: NONE
 DETAIL NO. MH-7



NOTE:
SAW CUT EXISTING PIPE AT ITS ϕ ON SIDES

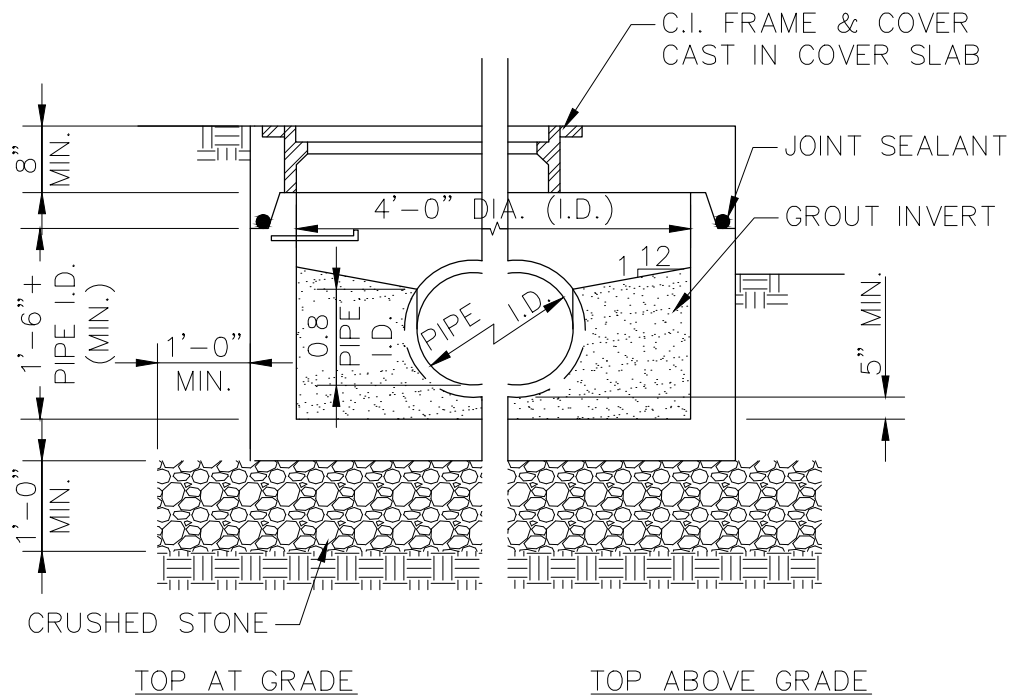


STANDARD DETAILS

MANHOLE OVER EXISTING SEWER

DATE: FEB 2008
SCALE: NONE

DETAIL NO. MH-8

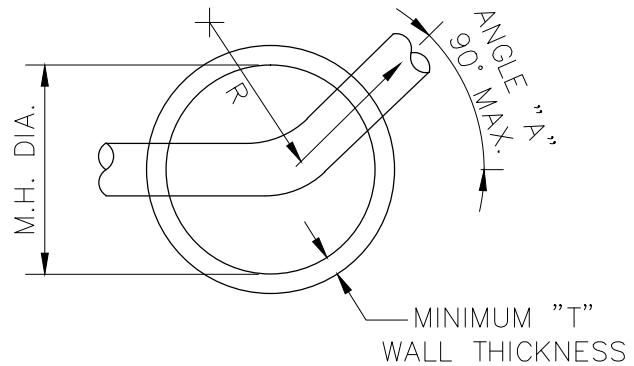
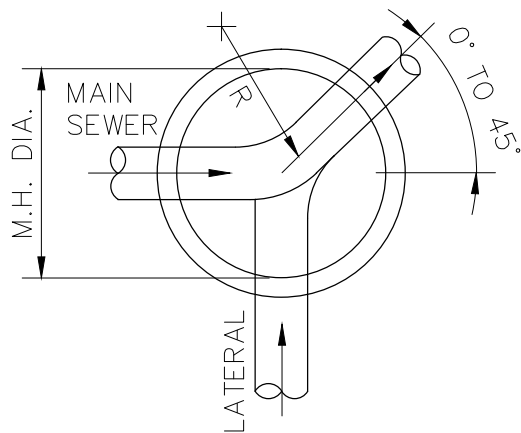


STANDARD DETAILS

SHALLOW MANHOLE

DATE: FEB 2008
 SCALE: NONE

DETAIL NO. MH-9



STANDARD MANHOLE SCHEDULE OF GOVERNING DIMENSIONS			
PIPE SIZE	ANGLE "A"	MH. DIA.	"T"
8" TO 15"	0° TO 90°	4'-0"	5"
18" TO 24"	0° TO 60°	4'-0"	5"
18" TO 24"	60° TO 90°	5'-0"	6"

NOTE:

MINIMUM \varnothing RADIUS (R) OF M.H. INVERT = 1.5 x PIPE DIAMETER

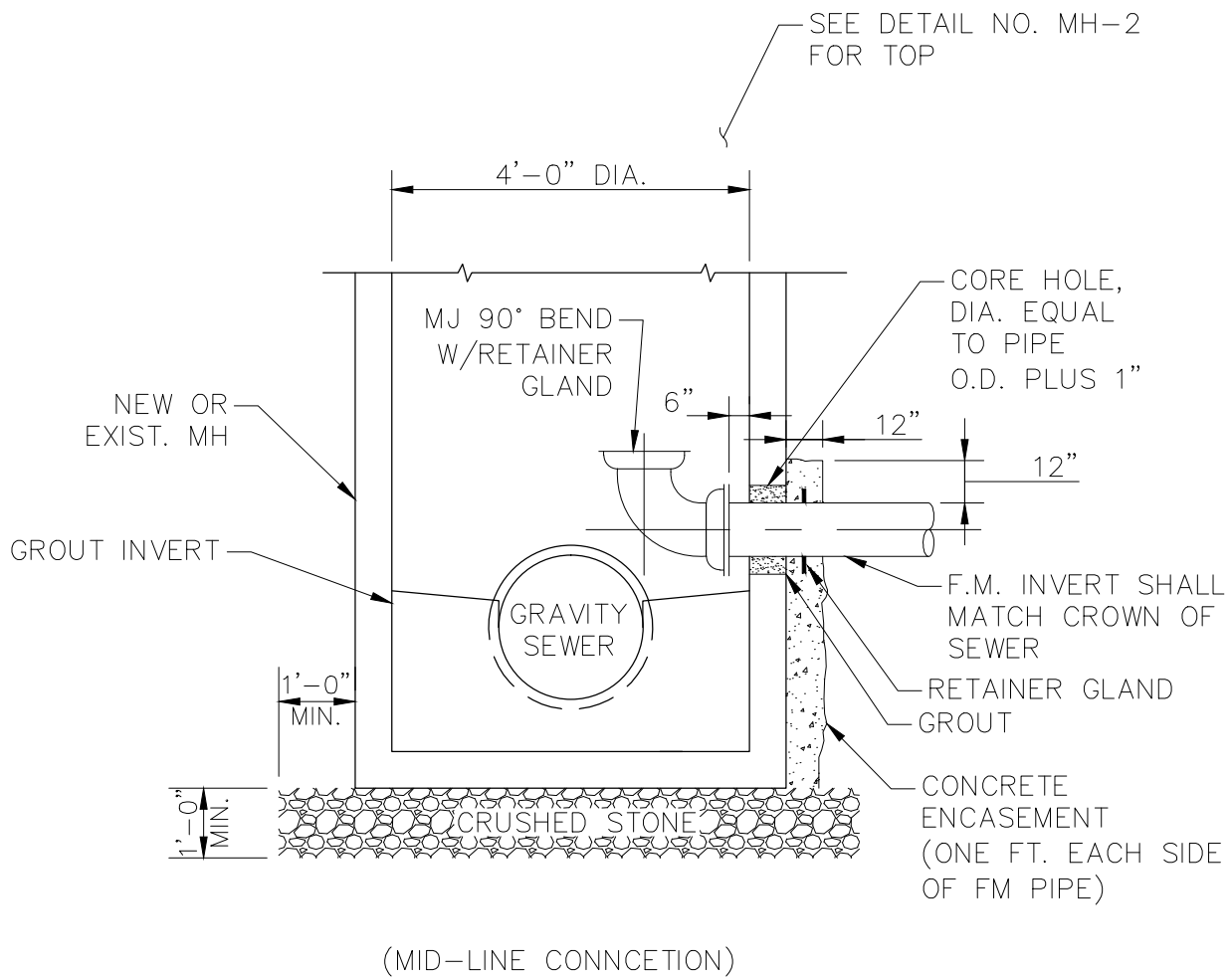


STANDARD DETAILS

MANHOLE
PLAN AND DIAMTERS

DATE: FEB 2008
SCALE: NONE

DETAIL NO. MH-10

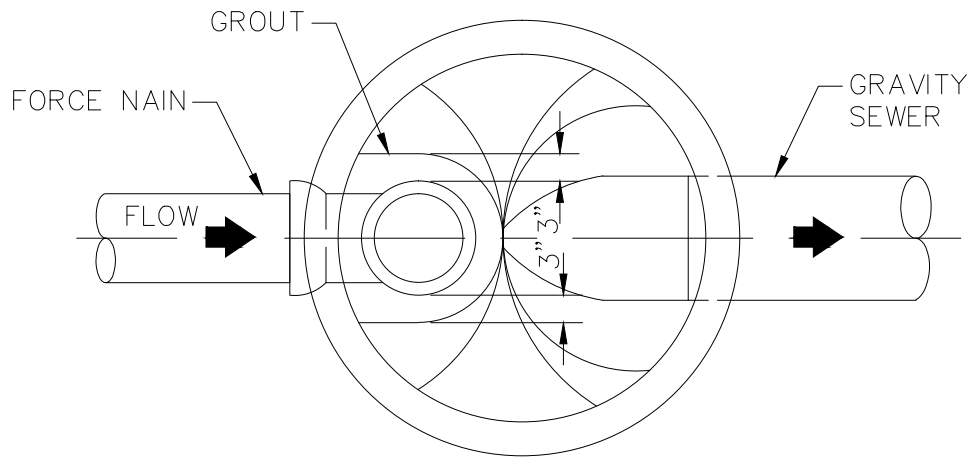


STANDARD DETAILS

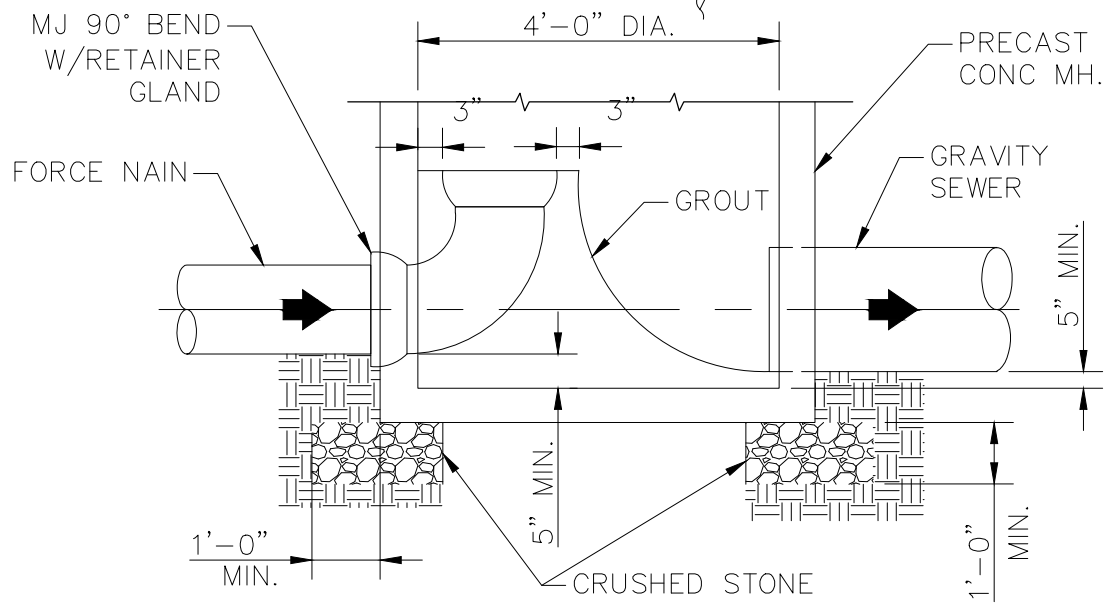
FORCE MAIN DISCHARGE
MANHOLE TYPE 1

DATE: FEB 2008
SCALE: NONE

DETAIL NO. MH-11



PLAN SEE DETAIL NO. MH-2 FOR TOP



SECTION

END OF LINE CONNCTION)



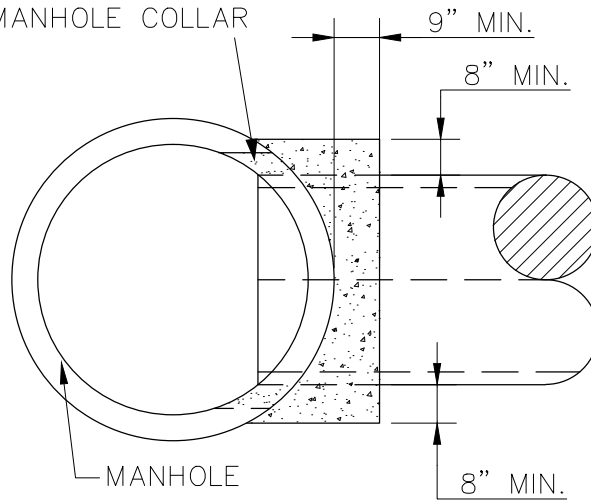
STANDARD DETAILS

FORCE MAIN DISCHARGE
MANHOLE TYPE 2

DATE: FEB 2008
SCALE: NONE

DETAIL NO. MH-12

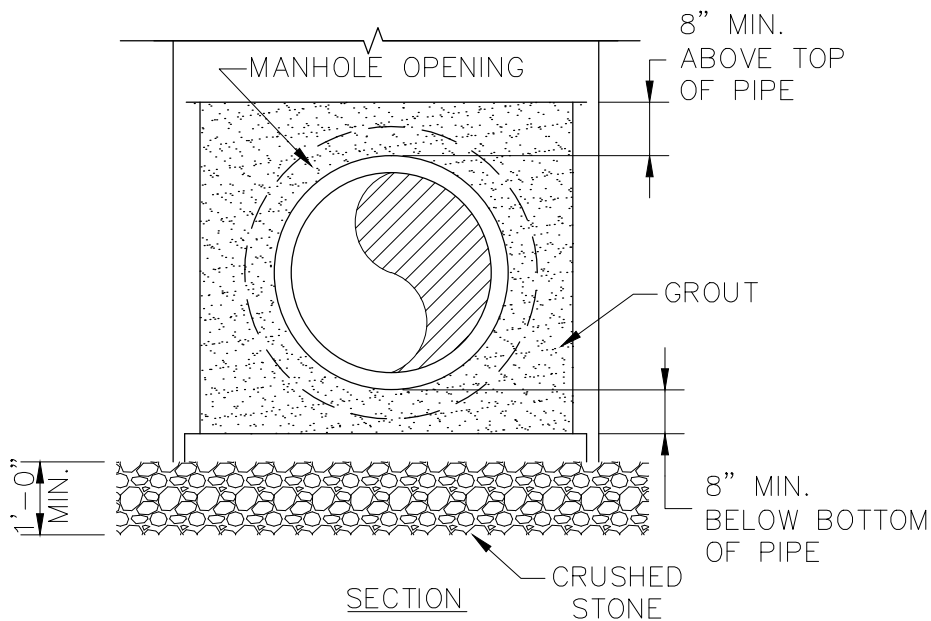
FILL VOID BETWEEN PIPE AND
MANHOLE WALL WITH NON-SHRINK GROUT
BEFORE FORMING MANHOLE COLLAR



PLAN

MANHOLE COLLARS SHALL
BE USED FOR SEWER
CONNECTIONS TO MANHOLES"

- 1.) IF EXIST. MANHOLE IS BRICK
- 2.) IF MANHOLE IS CONSTRUCTED
OVER EXIST. SEWER



SECTION

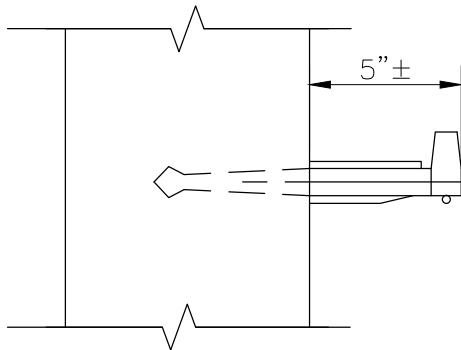
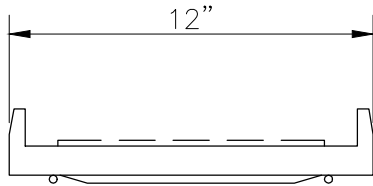


STANDARD DETAILS

MANHOLE COLLAR

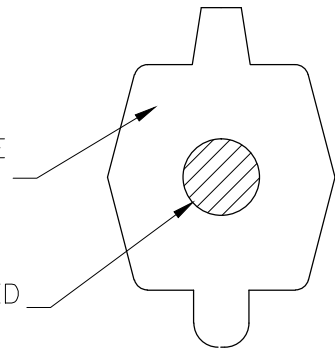
DATE: FEB 2008
SCALE: NONE

DETAIL NO. MH-13



POLYPROPYLENE
PLASTIC

1/2" ϕ OR
NO. 3 DEFORMED
GRADE 60
STEEL ROD



SECTION

STEPS SHALL BE PLACED INTO WET
CONCRETE WALL DURING MANUFACTURE
OR MORTARED INTO HOLES AFTER
CONCRETE HAS SET

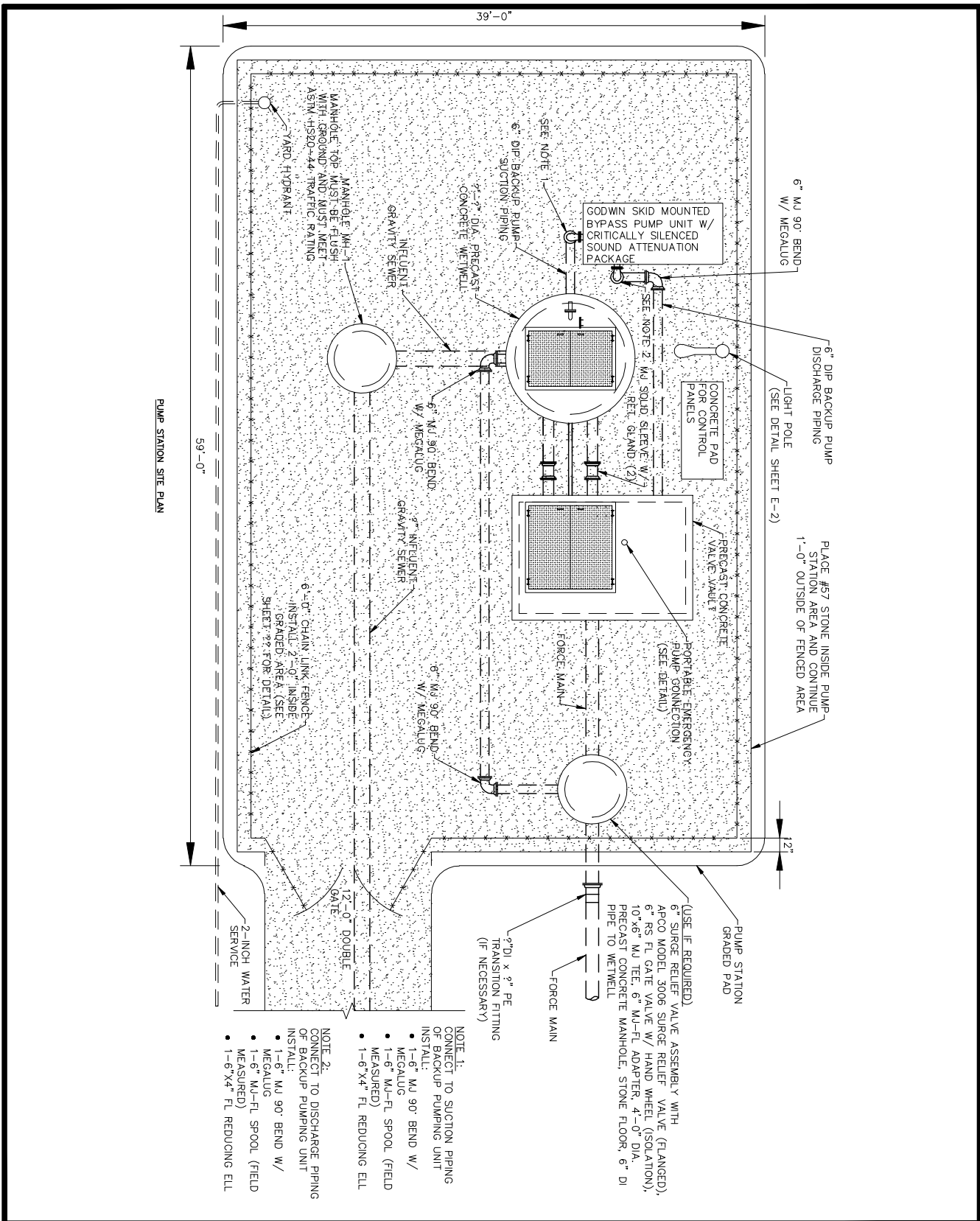


STANDARD DETAILS

MANHOLE STEP

DATE: FEB 2008
SCALE: NONE

DETAIL NO. MH-14

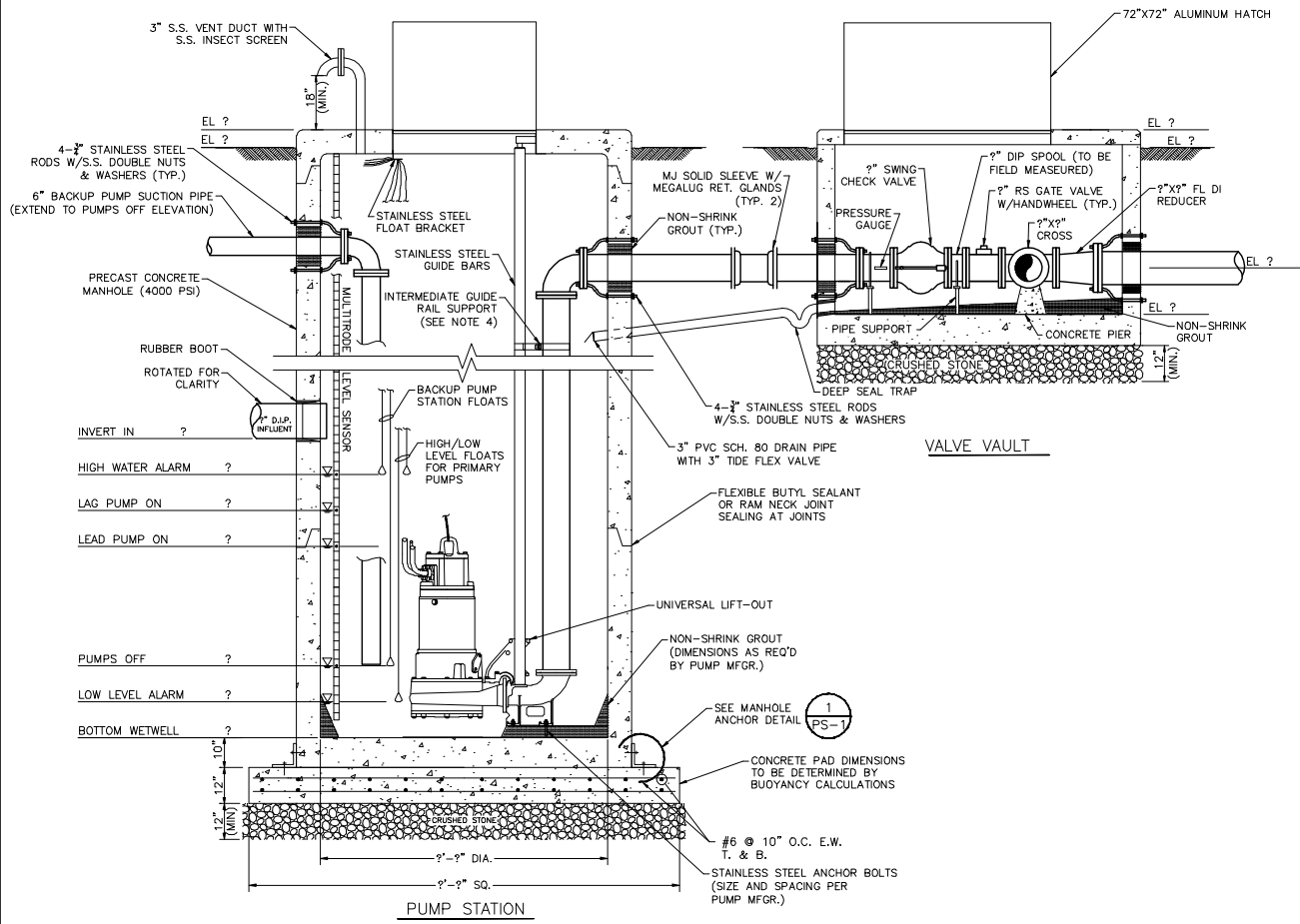


STANDARD DETAILS

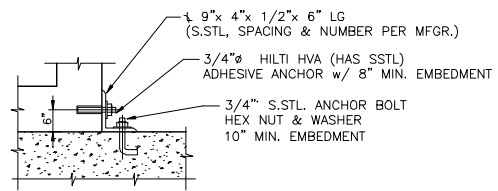
PUMPING STATION TYPICAL SITE LAYOUT

DATE: FEB 2008
SCALE: NONE

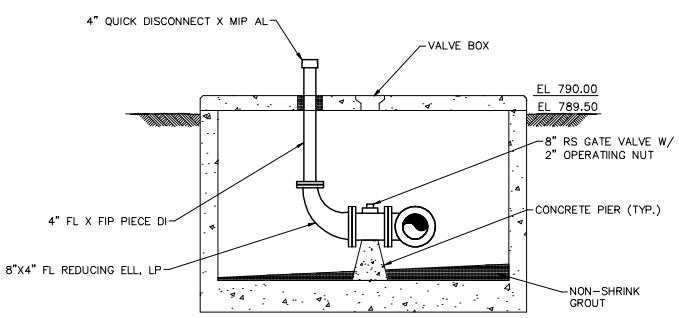
DETAIL NO. PS-1



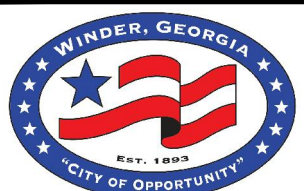
SECTION VIEW A
N.T.S. PS-1



MANHOLE ANCHOR DETAIL 1 PS-2



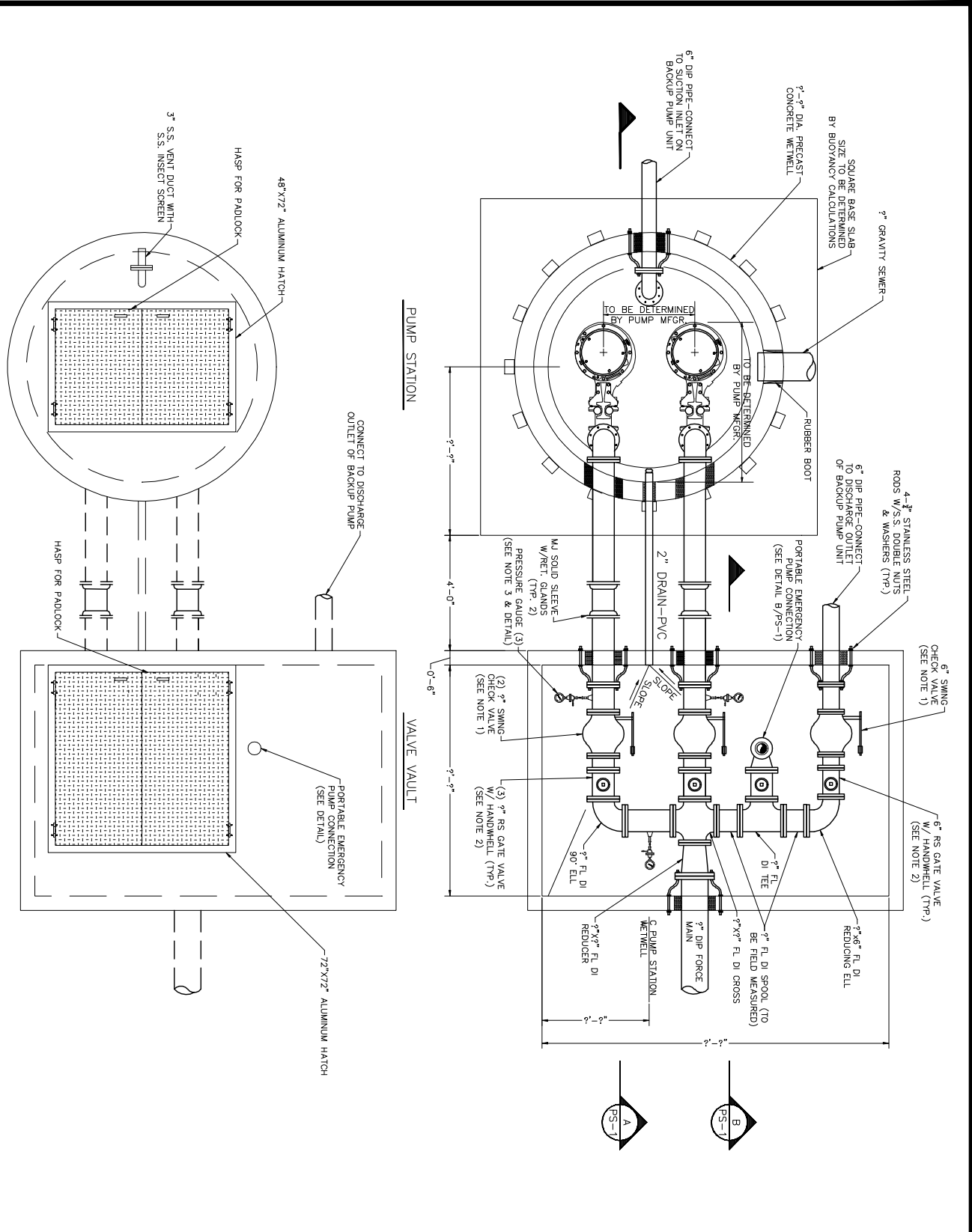
SECTION VIEW B
3/8" = 1'-0" PS-2



STANDARD DETAILS
PUMPING STATION
TYPICAL SECTION VIEW

DATE: FEB 2008
SCALE: NONE

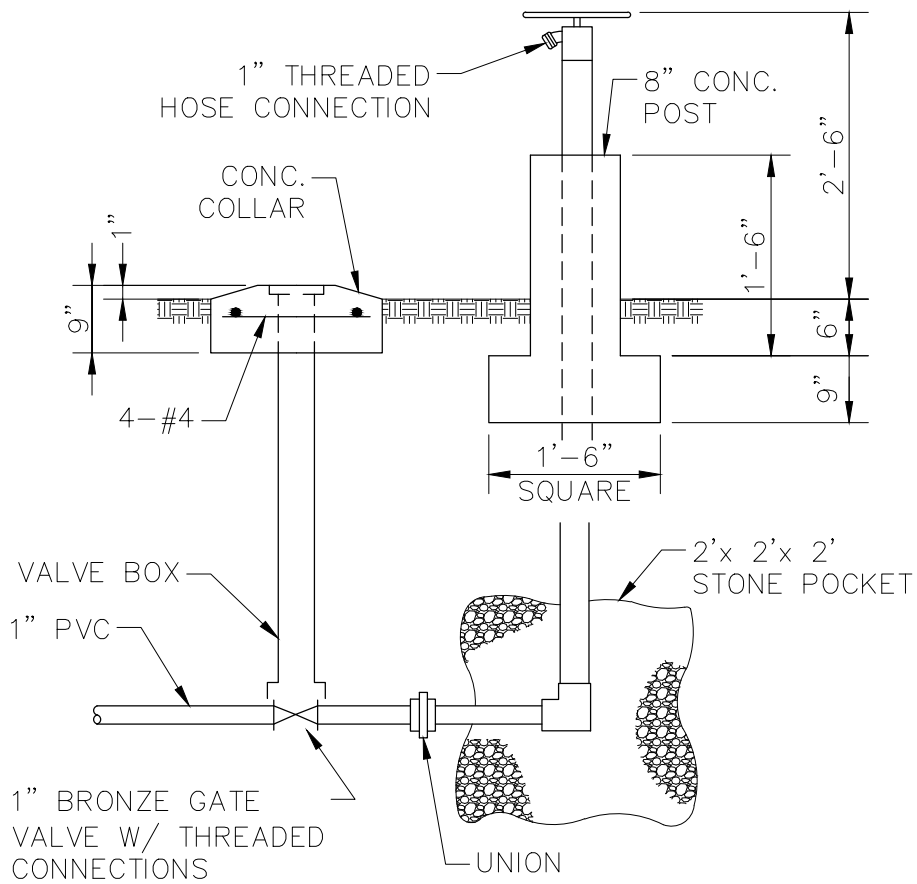
DETAIL NO. PS-2



STANDARD DETAILS
PUMPING STATION
TYPICAL PLAN VIEW

DATE: FEB 2008
SCALE: NONE

DETAIL NO. PS-3

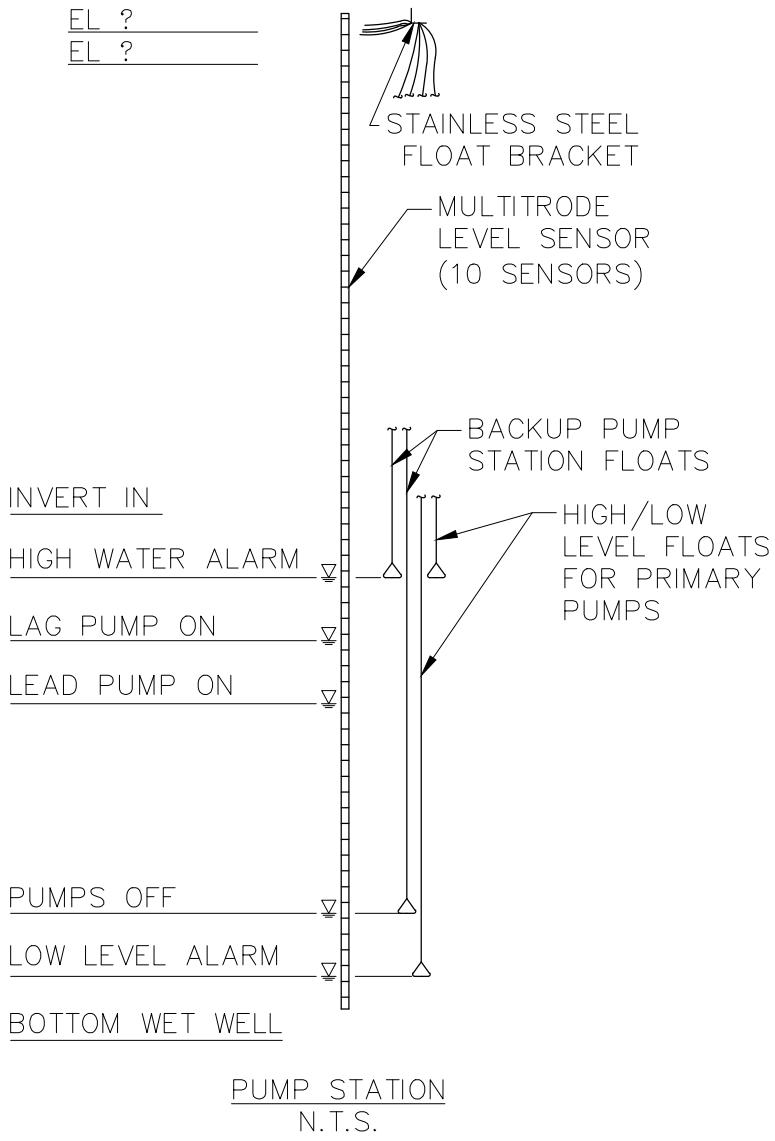


STANDARD DETAILS

NON-FREEZE
POST HYDRANT

DATE: FEB 2008
SCALE: NONE

DETAIL NO. PS-4

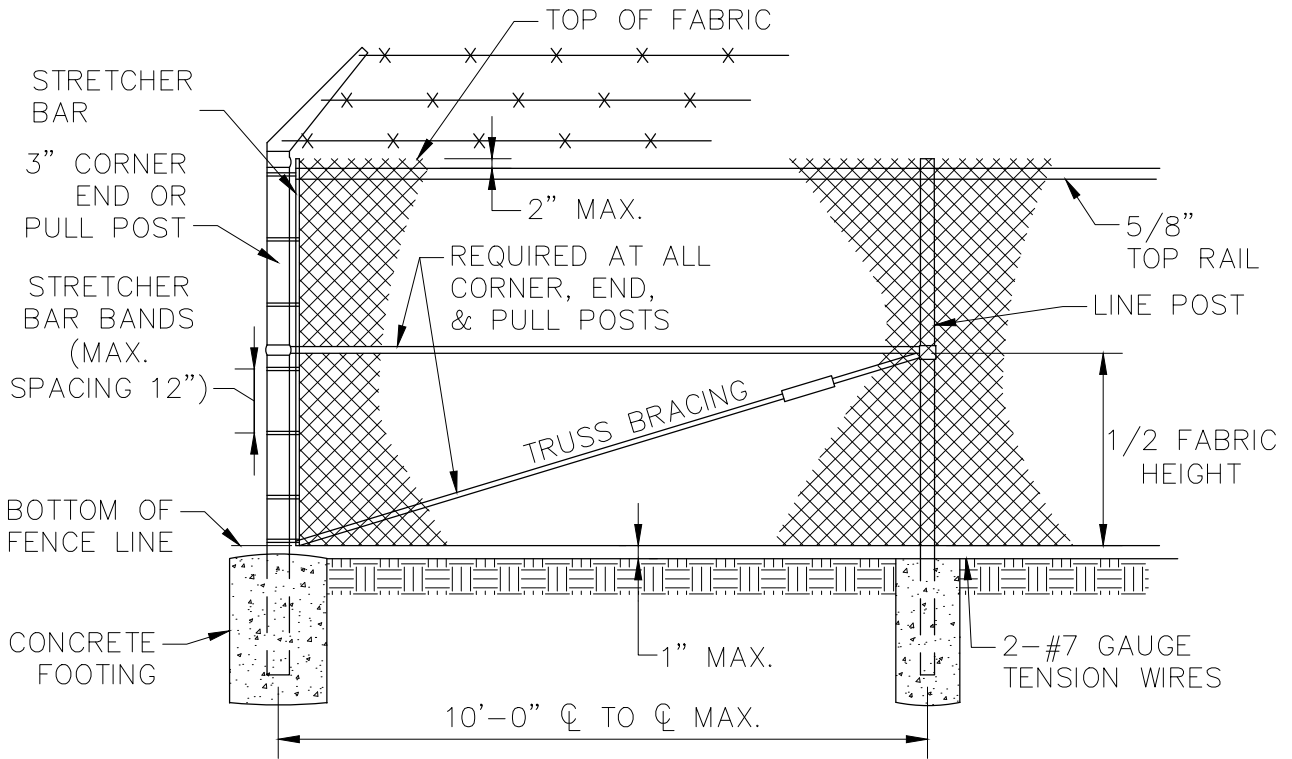


STANDARD DETAILS

MULTITRODE LEVEL
 SENSOR

DATE: FEB 2008
 SCALE: NONE

DETAIL NO. PS-5

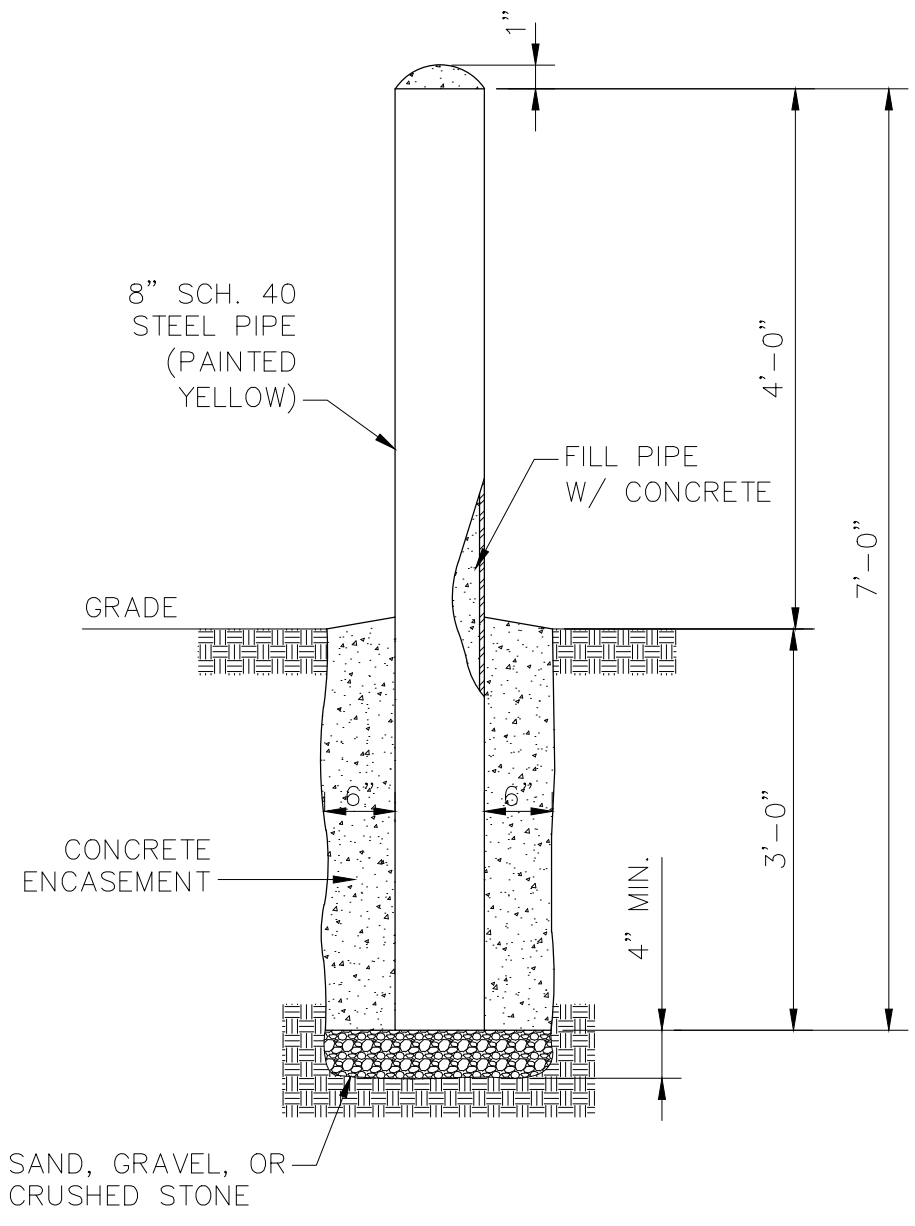


STANDARD DETAILS

CHAIN LINK FENCE

DATE: FEB 2008
SCALE: NONE

DETAIL NO. PS-6

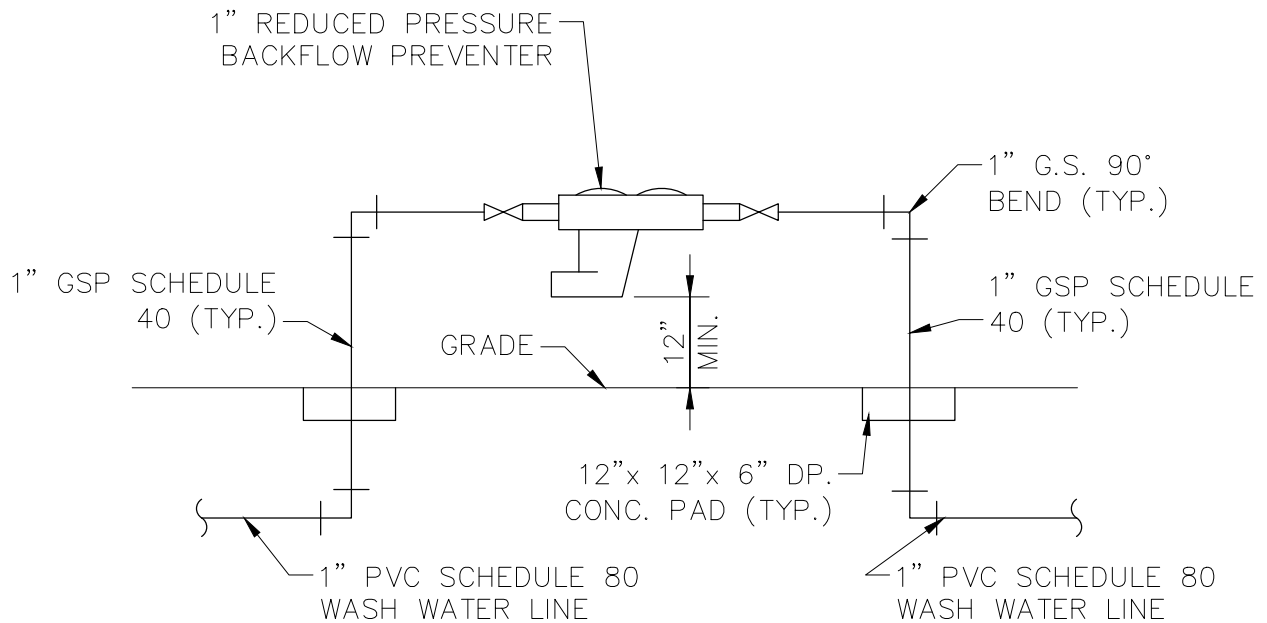


STANDARD DETAILS

BOLLARD

DATE: FEB 2008
SCALE: NONE

DETAIL NO. PS-7



STANDARD DETAILS

BACKFLOW PREVENTER

DATE: FEB 2008
SCALE: NONE

DETAIL NO. PS-8