

DROP INLET NOTES:

1. All concrete shall be 6 Sack PCC per CU per Section 90 of the STATE STANDARD SPECIFICATIONS.
2. The curb opening shall be as shown on plan, but not less than 4 feet for Type 1, 10 feet for Type 2.
3. Provide 3 inch radius rounded edge at pipe inlet.
4. Manhole cover shall be lettered with the words "Storm Drain" unless otherwise specified in plans.
5. Top slab surface shall be a light broom finish.
6. See Standard Detail STM-4 for drop inlet throat.
7. Gutter depression shall be Type B OR Type B1, Standard Detail STM-5 or Standard Detail STM-6 unless otherwise specified on plans.
8. Reinforcing steel in the top slab shall be #4 @12 inches on center.
9. Wall thickness (T) and reinforcing requirements shall be per Table A, Standard Details STM-2 and STM-3.
10. Clear drying fugitive dye curing compound shall be applied to all exposed surfaces immediately after finishing.
11. Aggregate base shall be placed 6 inches deep and compacted to 95% minimum relative compaction on undisturbed native soil before placing concrete.
12. Manhole shall be set 6 inches from inside wall of inlet.
13. All interior walls, floor, and top shall be sacked and patched upon completion.
14. Extend top slab rebar 4" into walls of drop inlet and 12" into adjacent curbs and sidewalks.
15. Install "Drains to Ocean" medallion on top slab per Standard Details STM-2 and STM-3.
16. An American Storm Water "Surf Gate" catch basin debris screen may be required at discretion of Public Works Director/City Engineer.
17. Drain inlet openings may vary in length, as determined by the Engineer/Designer.
18. Manhole frame and cover shall be GMI Composites 2400 Series lockable, non-metallic, AASHTO H-20 load rated, or approved equivalent. Label as "Storm Drain."

DROP INLET NOTES



APPROVED BY:

 CITY ENGINEER

8-18-14
 DATE

DRAWN BY: CSC

CHECKED BY:

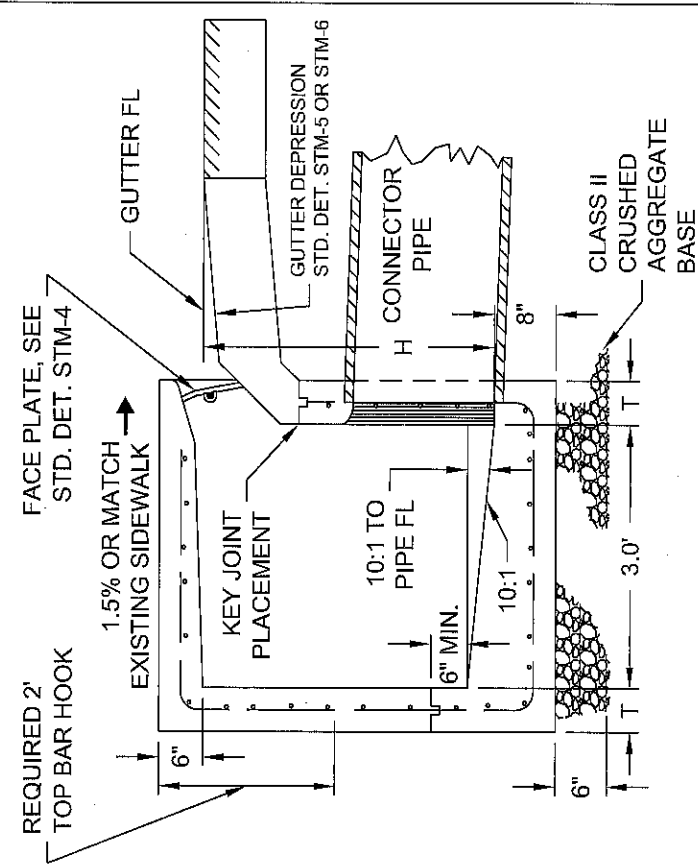
LAST REVISED: 8/6/14

SCALE:

N.T.S.

SECTION: STORM DRAIN

DRAWING NO.: STM-1

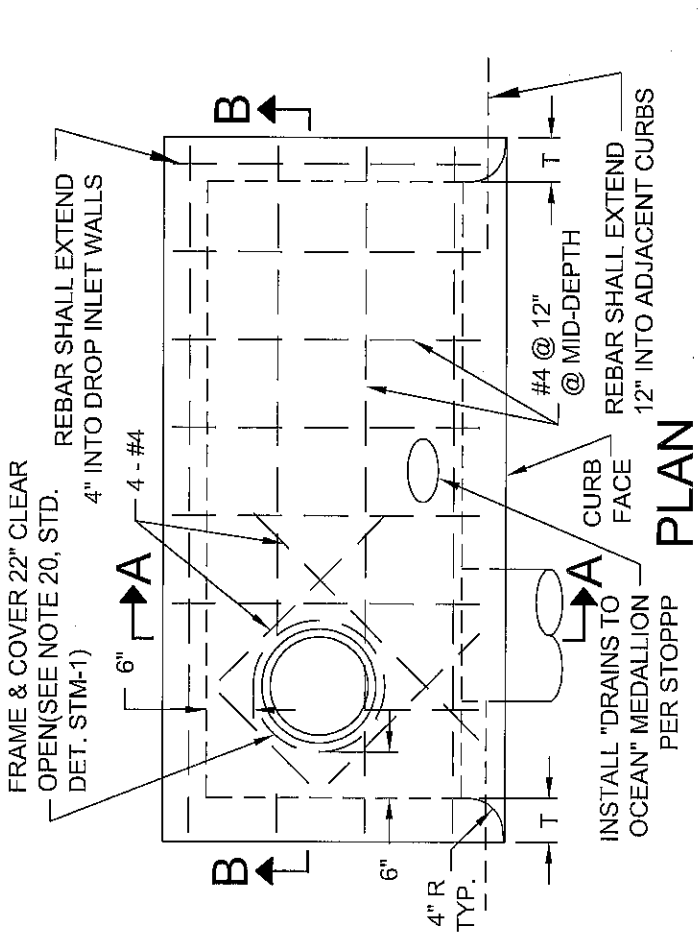


SECTION A-A

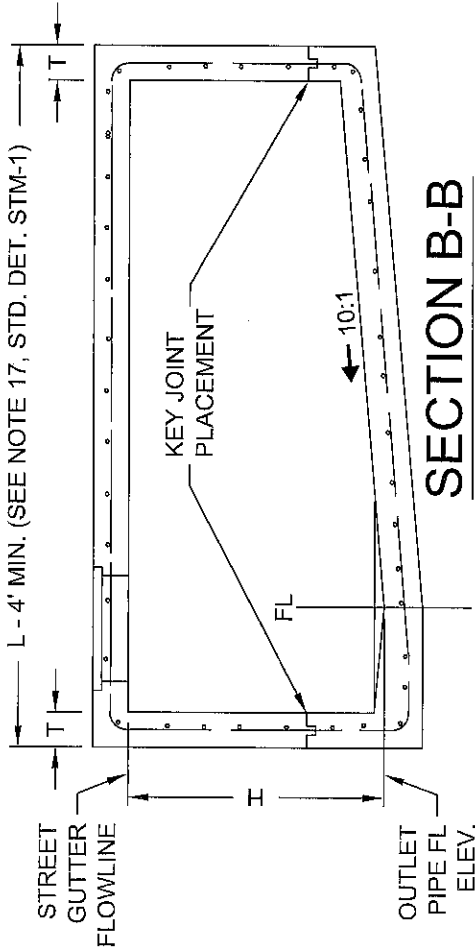
CONCRETE		REINFORCING		
H RANGE	T (TYP.)	BOTTOM	SIDES	TOP
LESS THAN 4'	6"	NONE	NONE	#4@12"
4' - 8'	8"	NONE	NONE	#4@12"
*4' - 8'	6"	#4@18"	#4@18"	#4@12"
GREATER THAN 8'	8"	#4@12"	#4@12"	#4@12"

*OPTIONAL

TABLE A



PLAN



SECTION B-B

DROP INLET - TYPE 1

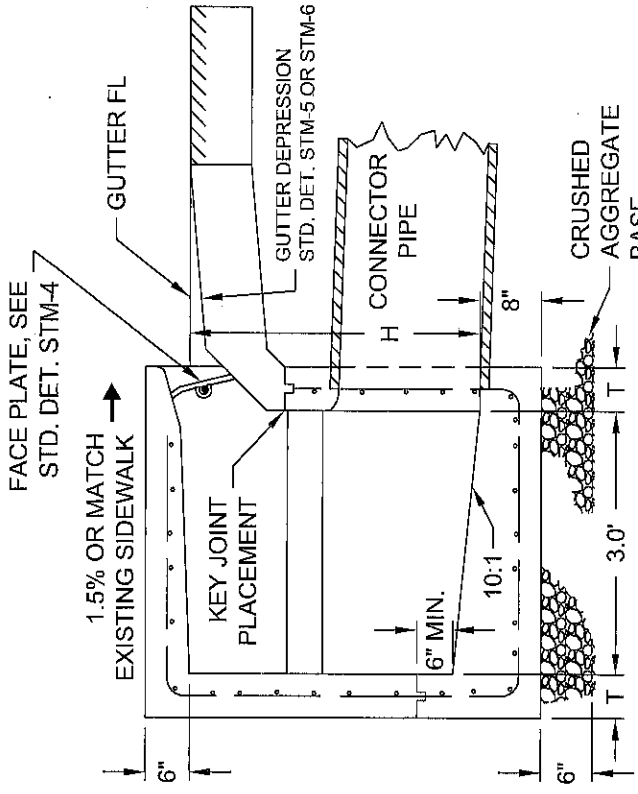
DRAWN BY: CSG
 CHECKED BY:
 LAST REVISED: 8/6/14
 SCALE: N.T.S.

SECTION: **STORM DRAIN**

DRAWING NO.: **STM-2**

APPROVED BY: *[Signature]*
 CITY ENGINEER
 DATE: **8-18-14**



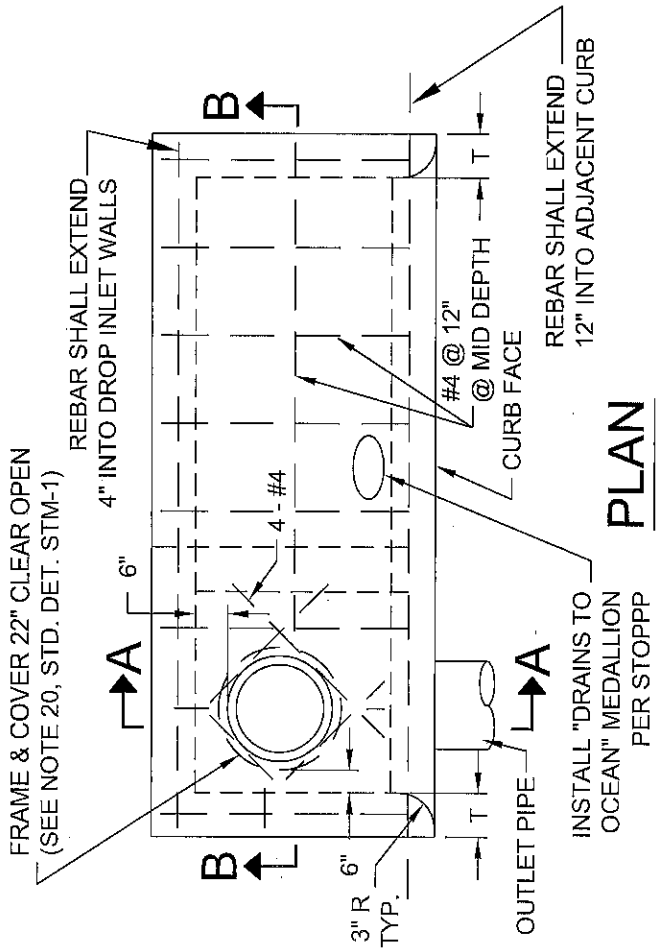


SECTION A-A

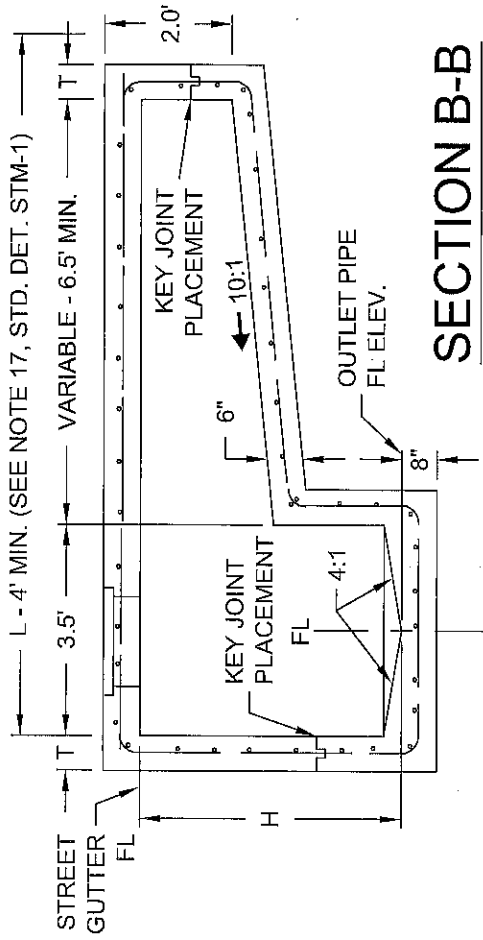
CONCRETE		REINFORCING		
H RANGE	T (TYP.)	BOTTOM	SIDES	TOP
*LESS THAN 5'	8"	NONE	NONE	#4@12"
5' - 8'	8"	NONE	NONE	#4@12"
**5' - 8'	6"	#4@18"	#4@18"	#4@12"
GREATER THAN 8'	8"	#4@12"	#4@12"	#4@12"

*REQUIRES SPECIAL APPROVAL BY CITY ENGINEER/DPW
 **OPTIONAL

TABLE A



PLAN



SECTION B-B

DROP INLET - TYPE 2

DRAWN BY: CSG
 CHECKED BY: DS
 LAST REVISED: 8/6/14

SCALE: N.T.S.

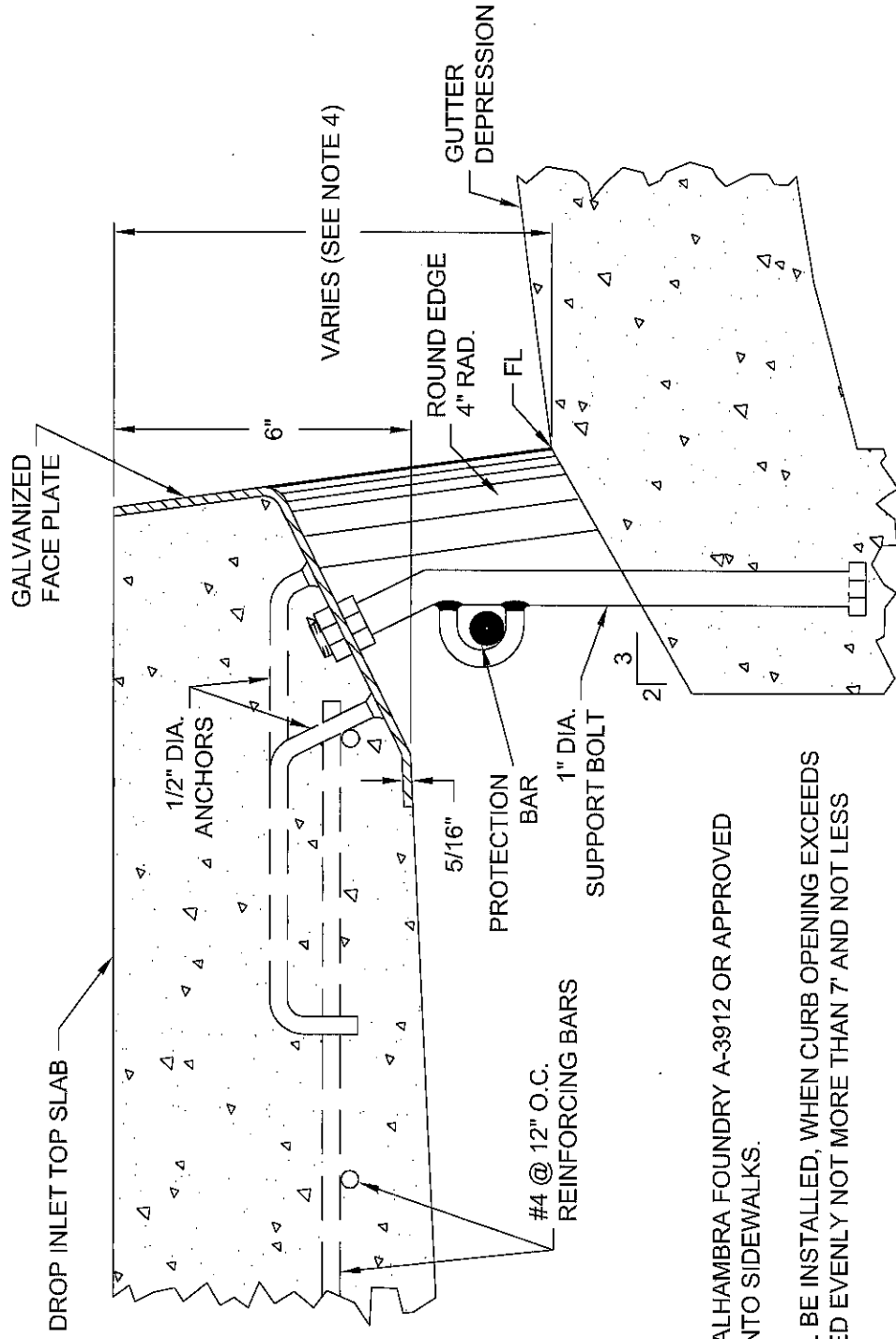
APPROVED BY: *[Signature]*
 CITY ENGINEER

SECTION: **STORM DRAIN**
 DRAWING NO.: **STM-3**

8-18-14

DATE





**TYPICAL SECTION OF
DROP INLET THROAT**

NOTES:

1. FACE PLATE SHALL BE ALHAMBRA FOUNDRY A-3912 OR APPROVED EQUAL, EMBEDDED 3" INTO SIDEWALKS.
2. SUPPORT BOLTS SHALL BE INSTALLED, WHEN CURB OPENING EXCEEDS 7' AND SHALL BE SPACED EVENLY NOT MORE THAN 7' AND NOT LESS THAN 5' ON CENTER.
3. 3/4" DIAMETER LONGITUDINAL PROTECTION BAR ASSEMBLY SHALL BE INSTALLED WHEN INLET CURB OPENING IS MORE THAN 4". THE PROTECTION BAR SHALL BE FITTED TO EACH SUPPORT BOLT.
4. INLET OPENING SHALL BE EQUAL TO THE EXISTING CURB HEIGHT PLUS 3".

DRAWN BY: CSG	SCALE:
CHECKED BY:	N.T.S.
LAST REVISED: 8/6/14	
SECTION: STORM DRAIN	
DRAWING NO.: STM-4	

DROP INLET THROAT

APPROVED BY: *[Signature]*
CITY ENGINEER



8-18-14
DATE

L (SEE NOTE 17, STD. DET. STM-1)

6'

3'

2%

1'

STD. GUTTER
DET. STR-14

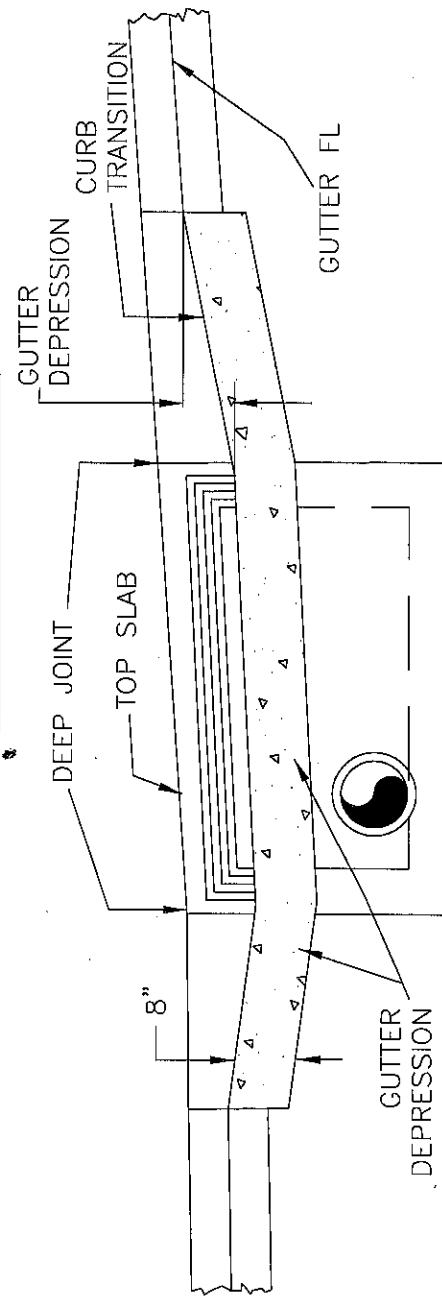
FLOW

FLOW

STRAIGHT GRADE

GUTTER WIDTH

PLAN-INLET ON GRADE



SECTION AT GUTTER FL

NOTES:

1. GUTTER DEPRESSION, CURB TRANSITION AND STRUCTURE'S TOP SLAB SHALL BE POURED MONOLITHIC.
2. SURFACE FINISH OF GUTTER DEPRESSION SHALL BE LIGHT BROOM FINISH.
3. THE WIDTH OF THE DEPRESSED GUTTER SHALL MATCH STREET GUTTER WIDTH.
4. CONCRETE STRENGTH AND CURING COMPOUND PER STANDARD DETAIL STM-1.
5. GUTTER DEPRESSION SHALL BE 3".
6. DEEP JOINT SHALL BE 2" DEEP.

GUTTER DEPRESSION - TYPE B

DRAWN BY: CSG	SCALE: N.T.S.
CHECKED BY:	
LAST REVISED: 06/14	
SECTION: STORM DRAIN	
DRAWING NO.: STM-5	

APPROVED BY:
Paul S. [Signature]
CITY ENGINEER

8-18-14

DATE



L (SEE NOTE 17, STD. DET. STM-1)

6'

3'

2%

1'

STD. GUTTER
DET. STR-14

FLOW

FLOW

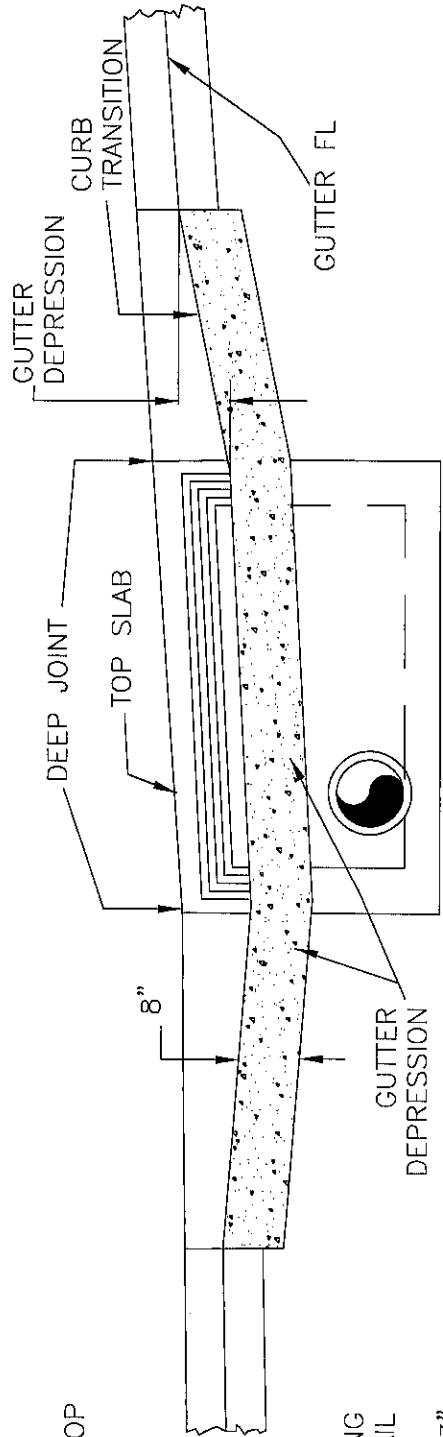
STRAIGHT GRADE

GUTTER WIDTH

PLAN-INLET ON GRADE

NOTES:

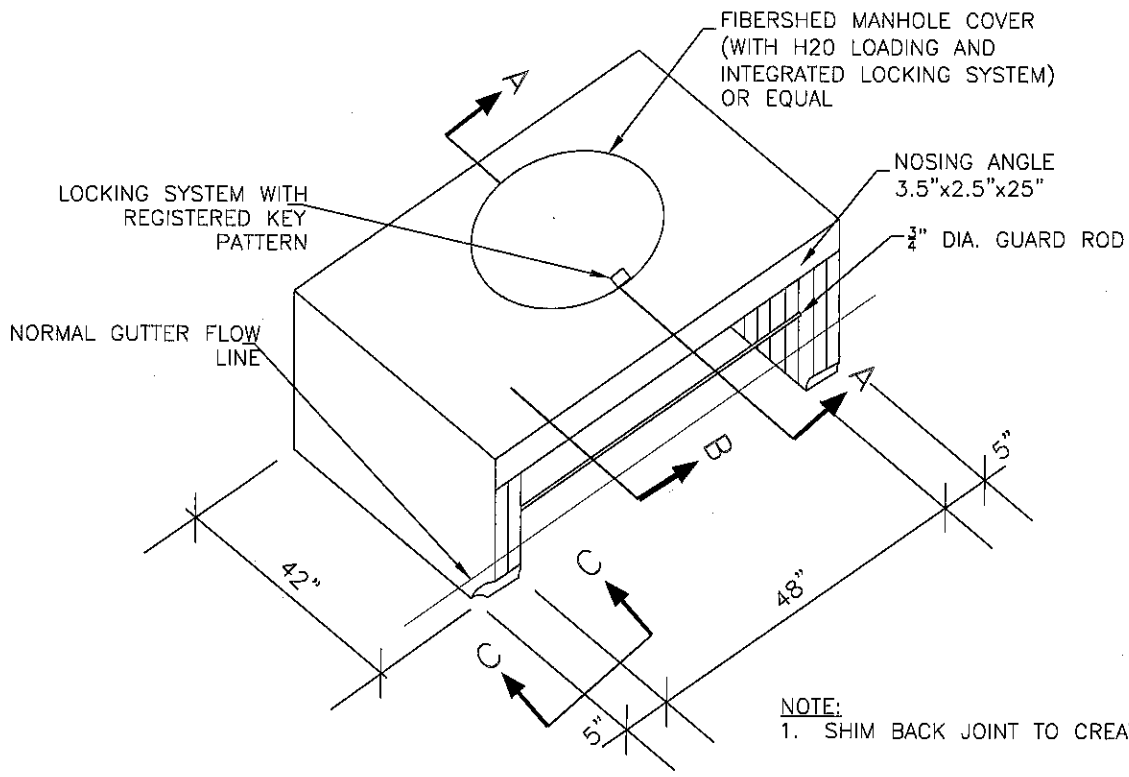
1. GUTTER DEPRESSION, CURB TRANSITION AND STRUCTURE'S TOP SLAB SHALL BE POURED MONOLITHIC.
2. SURFACE FINISH OF GUTTER DEPRESSION SHALL BE LIGHT BROOM FINISH.
3. THE WIDTH OF THE DEPRESSED GUTTER SHALL MATCH STREET GUTTER WIDTH.
4. CONCRETE STRENGTH AND CURING COMPOUND PER STANDARD DETAIL STM-1.
5. GUTTER DEPRESSION SHALL BE 3".
6. DEEP JOINT SHALL BE 2" DEEP.



SECTION AT GUTTER FL

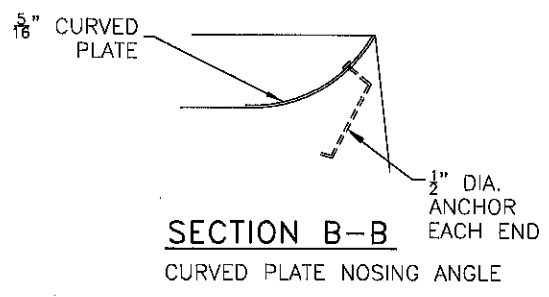
<p>GUTTER DEPRESSION - TYPE B1</p>	<p>DRAWN BY: CSG</p>	<p>SCALE:</p>
	<p>CHECKED BY:</p>	<p>N.T.S.</p>
	<p>LAST REVISED: 8/6/14</p>	
<p>SECTION:</p> <p>STORM DRAIN</p>		
<p>DRAWING NO.: STM-6</p>		
<p>APPROVED BY:</p> <p><i>Paul S. [Signature]</i></p> <p>CITY ENGINEER</p>		
<p>DATE: 8-18-14</p>		





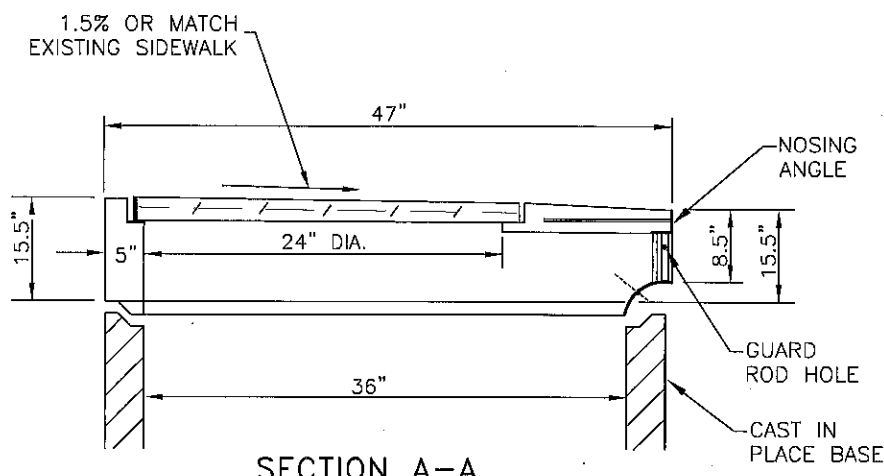
NOTE:
1. SHIM BACK JOINT TO CREATE TOP SLOPE

ISOMETRIC

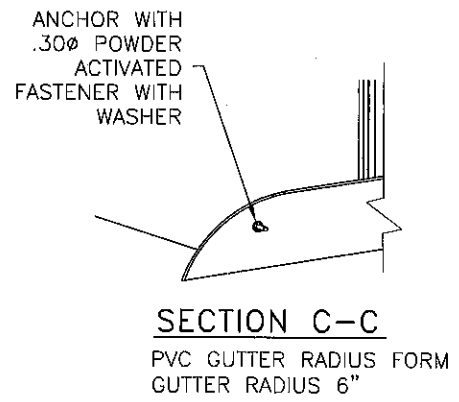


SECTION B-B

CURVED PLATE NOSING ANGLE



SECTION A-A



SECTION C-C

PVC GUTTER RADIUS FORM
GUTTER RADIUS 6"

PRE-CAST DROP INLET
(UP TO 24" PIPE)

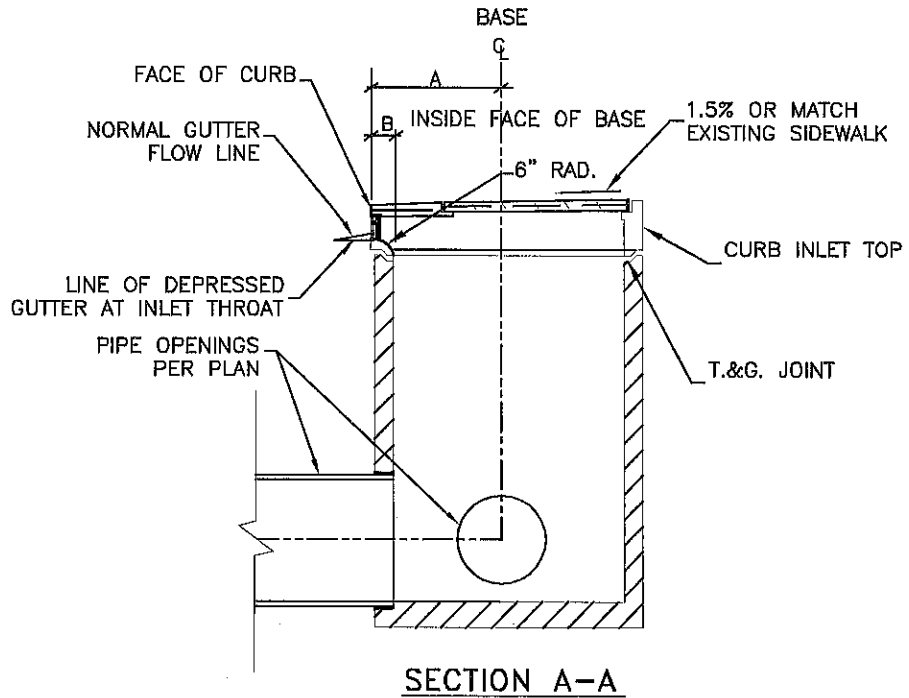
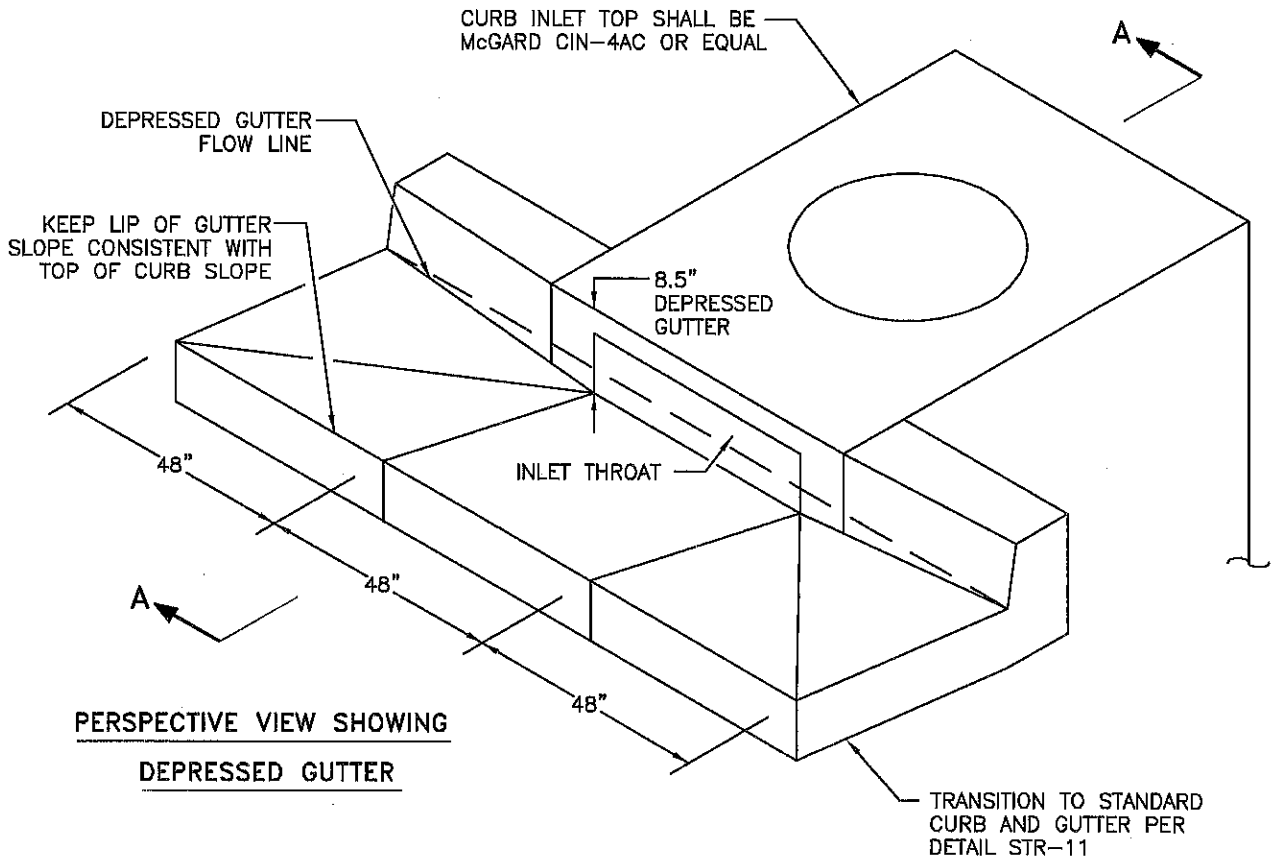


APPROVED BY: *Paul Jordan*
CITY ENGINEER
DATE: 8-18-14

DRAWN BY: CSG
CHECKED BY:
LAST REVISED: 8/6/14
SCALE: N.T.S.

SECTION:
STORM DRAIN

DRAWING NO.: **STM-7A**



PRE-CAST DROP INLET

(UP TO 24" PIPE)

DRAWN BY: CSG
 CHECKED BY:
 LAST REVISED: 10/9/14
 SCALE: N.T.S.

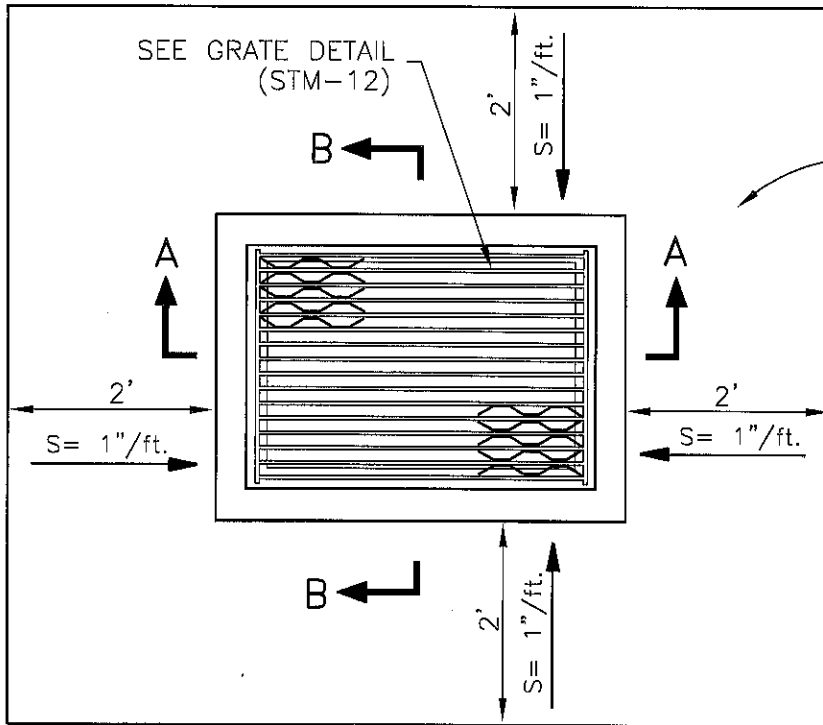


APPROVED BY: *[Signature]*
 CITY ENGINEER
 DATE: 8-18-14

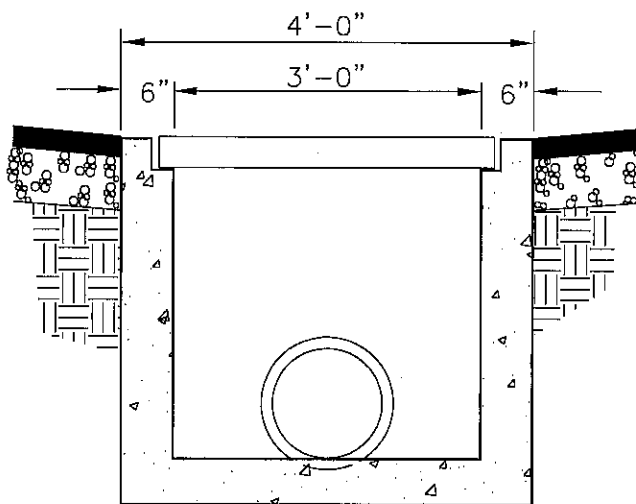
SECTION:
STORM DRAIN
 DRAWING NO.: STM-7B

NOTE:

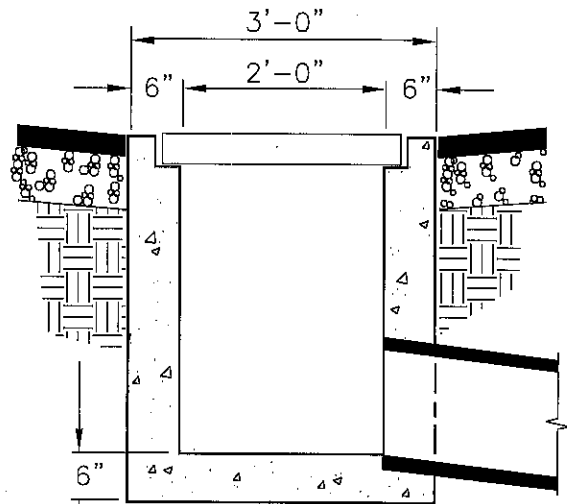
REINFORCING STEEL SHALL BE REQUIRED IN WALLS OF DROP INLETS WHICH ARE GREATER THAN 6' IN DEPTH. HORIZONTAL AND VERTICAL BARS SHALL BE #4, SPACED 12" O.C. AND PLACED BETWEEN 1 1/2" AND 2 1/2" FROM SURFACE OF INSIDE WALL.



PLAN



SECTION A-A



SECTION B-B

STANDARD FIELD INLET (24" X 36")

DRAWN BY: CSG	SCALE:
CHECKED BY:	N.T.S.
LAST REVISED: 8/6/14	



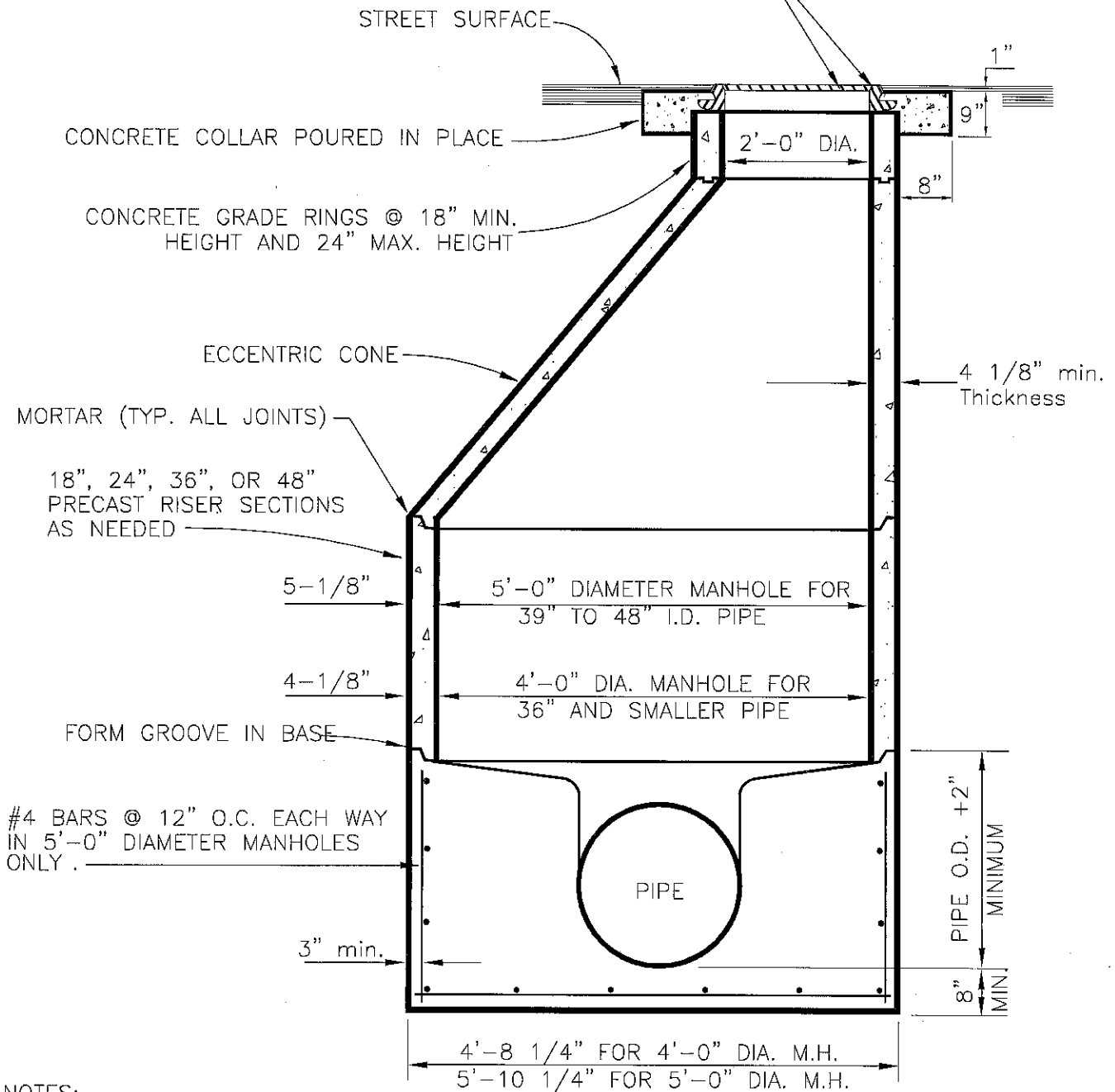
APPROVED BY:

Rick Sorenson
CITY ENGINEER
DATE 8-18-14

SECTION:
STORM DRAIN

DRAWING NO.: STM-8

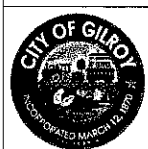
INSTALL MANHOLE FRAME AND COVER
TO FINISH GRADE BEFORE PLACING
LAST LIFT OF PAVING.
SEE STM-1 NOTE 18.



- NOTES:
1. MANHOLE STEPS ARE NOT REQUIRED.
 2. 500' MAX. SPACING BETWEEN MANHOLES.

STANDARD STORM DRAIN MANHOLE

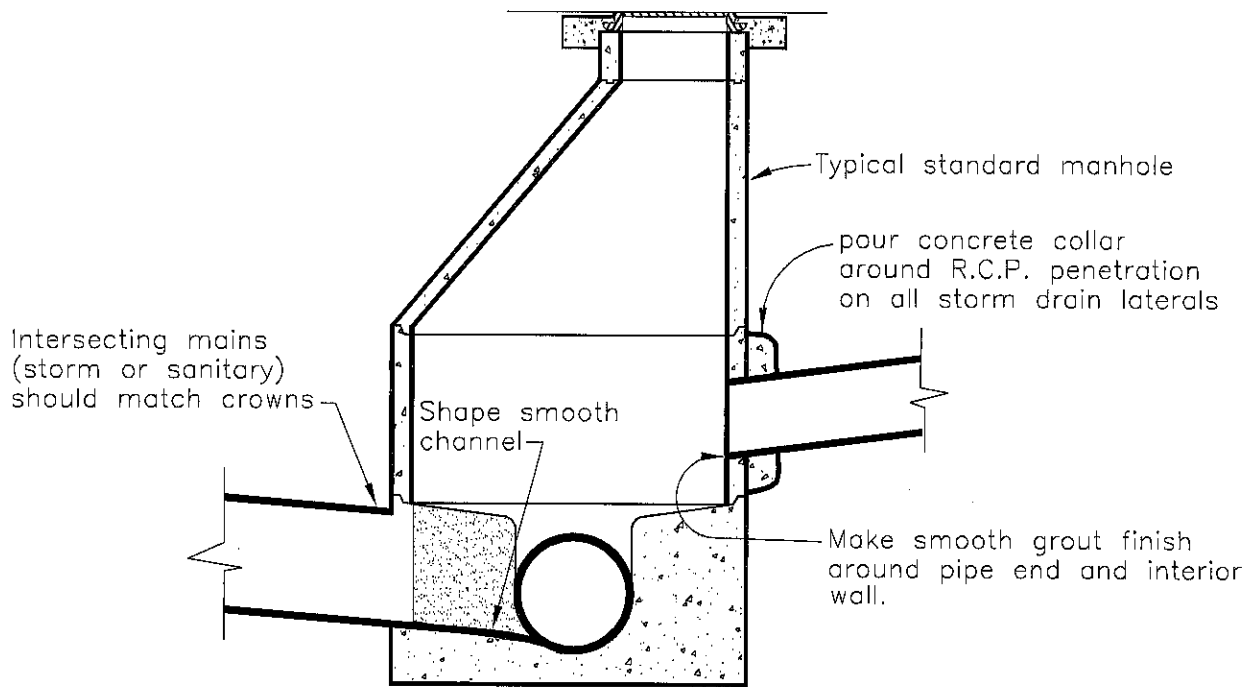
DRAWN BY: CSG	SCALE:
CHECKED BY:	N.T.S.
LAST REVISED: 8/6/14	



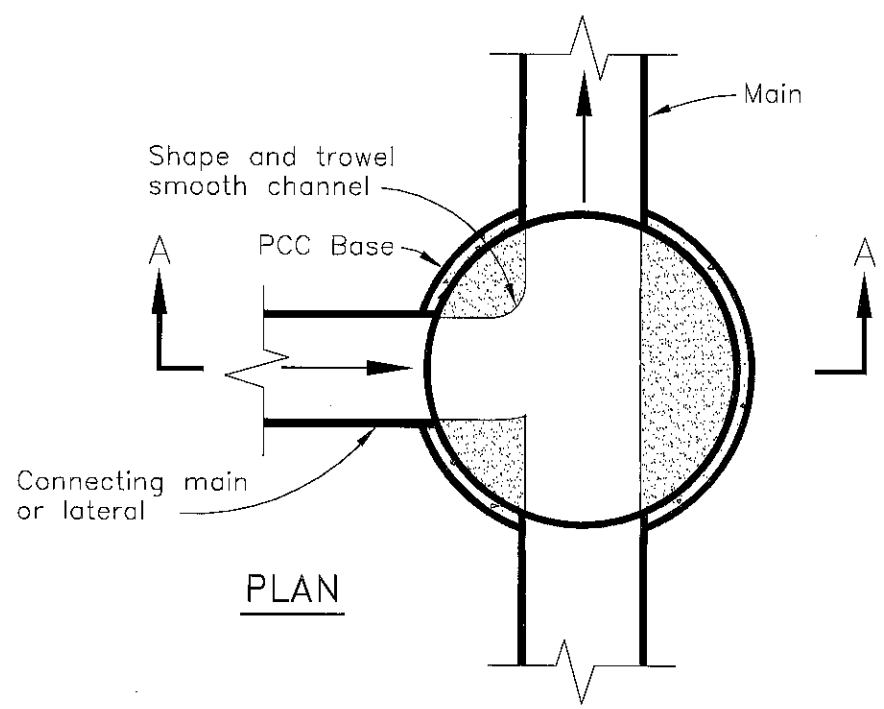
APPROVED BY: *Paul S. ...* 8-18-14
CITY ENGINEER DATE

SECTION:
STORM DRAIN

DRAWING NO.: **STM-9**



SECTION A-A



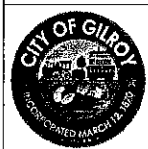
PLAN

TYPICAL MANHOLE CONNECTION

DRAWN BY: CSG	SCALE:
CHECKED BY:	N.T.S.
LAST REVISED: 6/19/14	

SECTION:
STORM DRAIN

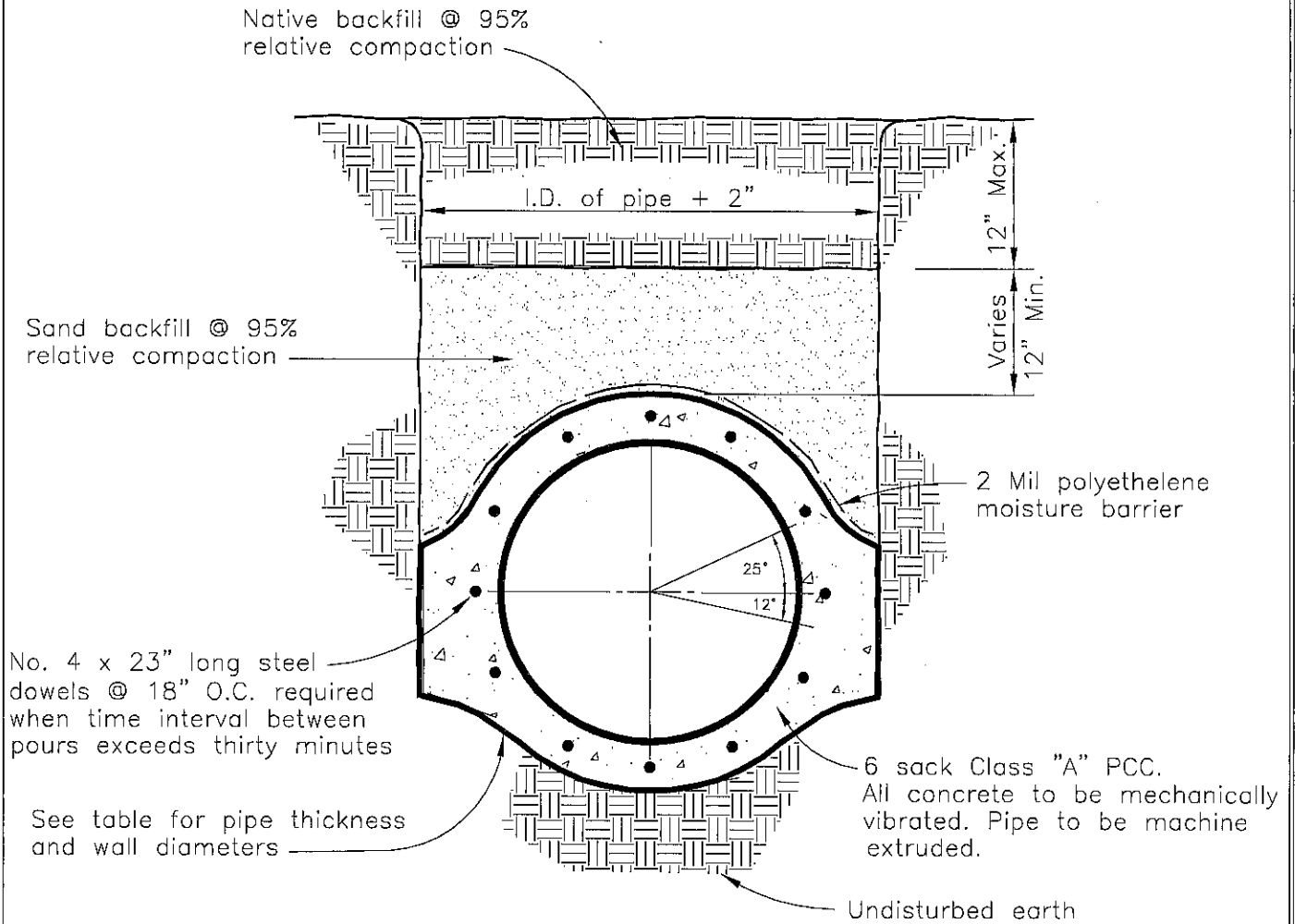
DRAWING NO.: **STM-10**



APPROVED BY:
Paul Sorenson
 CITY-ENGINEER 8-18-14
 DATE

TABLE OF INTERNAL DIAMETERS AND WALL THICKNESS

Nominal internal diameter in inches	Minimum wall thickness in inches	"T" in inches
24 to 30	3	3 3/4
33 or 36	3 1/2	4 1/4
42	4	4 3/4
48	5	6 1/2
54	5 1/2	7 1/2
60	6	9
66	6 1/2	9
72	7	9
84	8	9
96	9	10 1/2



CAST IN PLACE CONCRETE PIPE

DRAWN BY: CSG
 CHECKED BY:
 LAST REVISED: 06/14
 SCALE: N.T.S.



APPROVED BY: *Paul Sander*
 CITY ENGINEER
 DATE: 8-18-14

SECTION: STORM DRAIN
 DRAWING NO.: STM-11