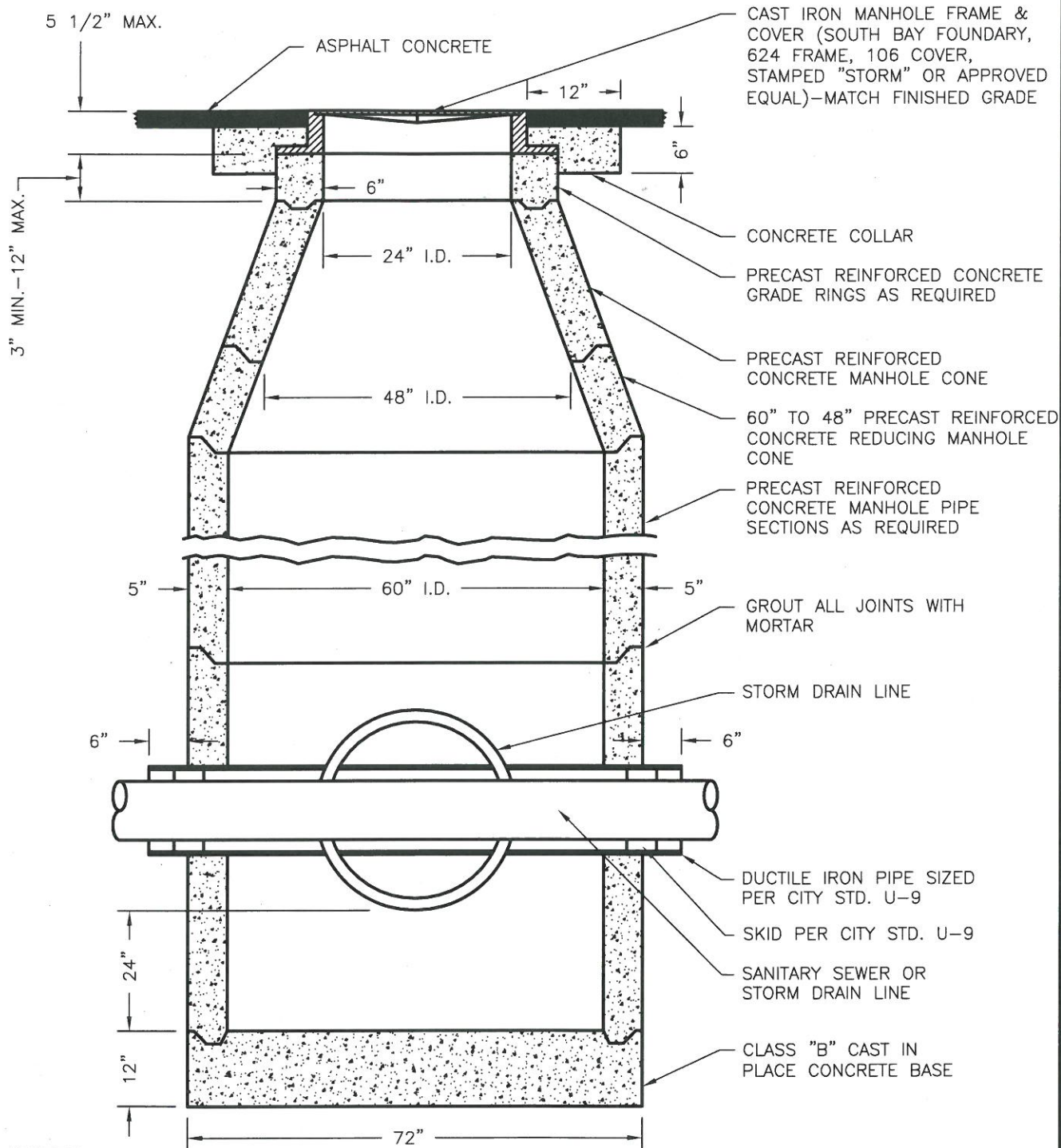


### NOTES

1. PRECAST REINFORCED CONCRETE MANHOLE UNIT SHALL CONFORM TO A.S.T.M. C-478.
2. PIPE JOINT SHALL BE WITHIN 6 INCHES OF OUTER WALLS OF MANHOLE.
3. MANHOLE BASE TO BE TROWELED SMOOTH INSIDE.
4. MANHOLE SHALL BE CLEANED IN ACCORDANCE WITH CITY OF MANTECA SPECIFICATIONS.
5. SHORT CONE TO BE USED ONLY WHEN MANHOLE DEPTH JUSTIFIES.
6. COLLAR SHALL BE CLASS "B" CONCRETE AND CONSTRUCTED 2 1/2 INCHES BELOW FINISHED GRADE.

DATE:	JAN. 2012	<b>STORM DRAIN MANHOLE 12" THRU 33" DIA. PIPES</b>	APPROVED:	3-6-13
DRAWN BY:	S. FOX		<i>Mark Houghton</i> DIRECTOR OF PUBLIC WORKS	
CHECKED BY:	K. KIM	<b>CITY OF MANTECA</b>	<b>D-1</b>	
SCALE:	NOT TO SCALE	PUBLIC WORKS DEPARTMENT		



**NOTES**

1. PRECAST REINFORCED CONCRETE MANHOLE UNIT SHALL CONFORM TO A.S.T.M. C-478.
2. MANHOLE BASE TO BE TROWELED SMOOTH INSIDE.
3. MANHOLE SHALL BE CLEANED IN ACCORDANCE WITH CITY OF MANTECA SPECIFICATIONS.
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5. COLLAR SHALL BE CLASS "B" CONCRETE AND CONSTRUCTED 2 1/2 INCHES BELOW FINISHED GRADE.

DATE:	JAN. 2012
DRAWN BY:	S. FOX
CHECKED BY:	K. KIM
SCALE:	NOT TO SCALE

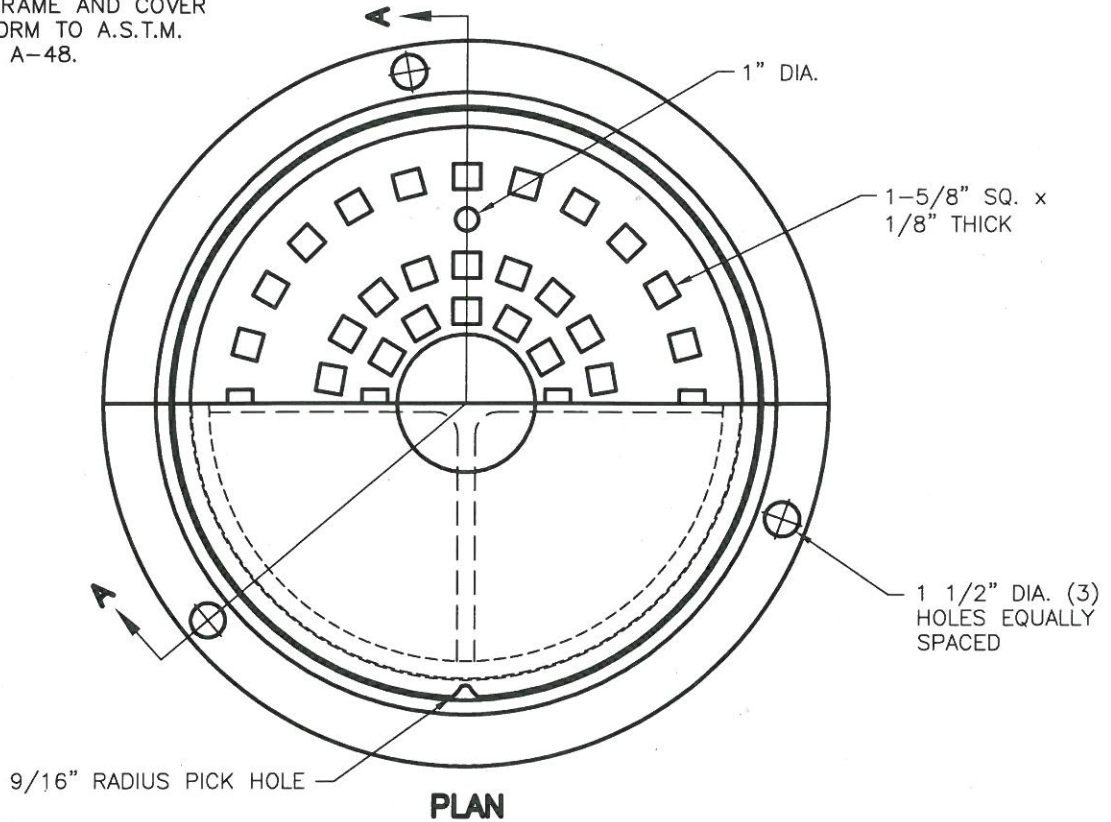
**SEPARATION  
MANHOLE**  
CITY OF MANTECA  
PUBLIC WORKS DEPARTMENT

APPROVED: *3-6-13*  
*Mark Houghton*  
DIRECTOR OF PUBLIC WORKS

**D-2**

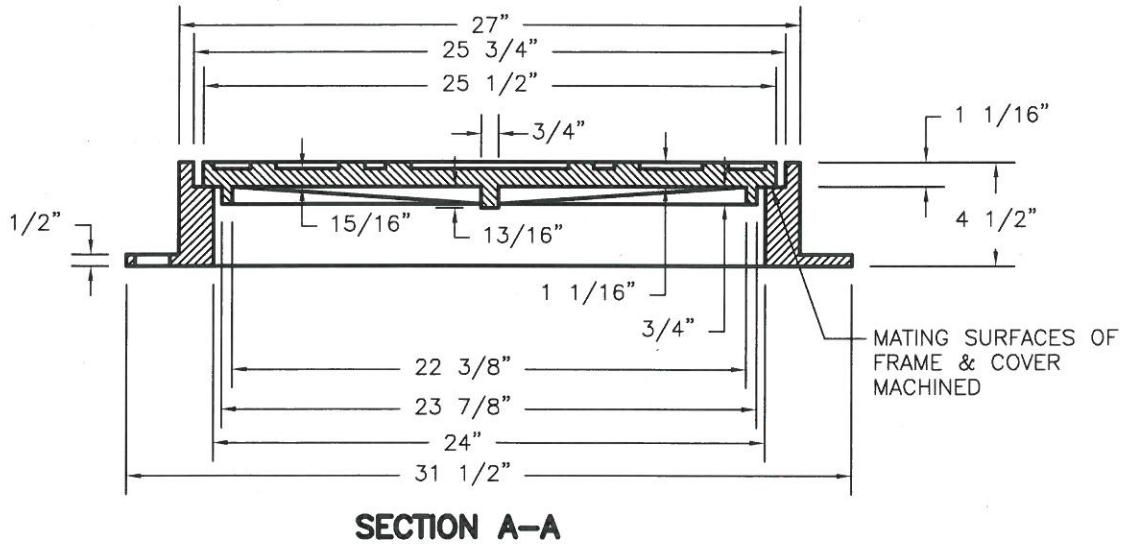


CAST IRON FRAME AND COVER SHALL CONFORM TO A.S.T.M. DESIGNATION A-48.



SOUTH BAY FOUNDRY  
 624 FRAME, APPROX. WT. 140 LBS  
 106 COVER, APPROX. WT. 163 LBS.  
 OR APPROVED EQUAL FRAME AND COVER.

THE WORD "SEWER" FOR SANITARY SEWER OR THE WORD "STORM" FOR STORM DRAIN AS APPROPRIATE SHALL BE EMBOSSED ON CENTER DISC.

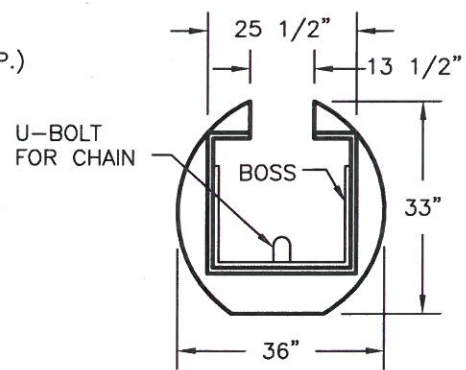
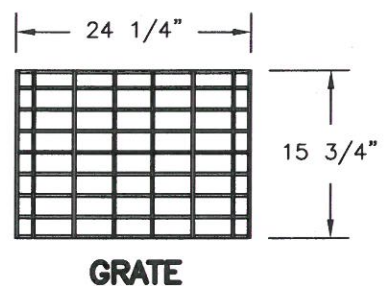
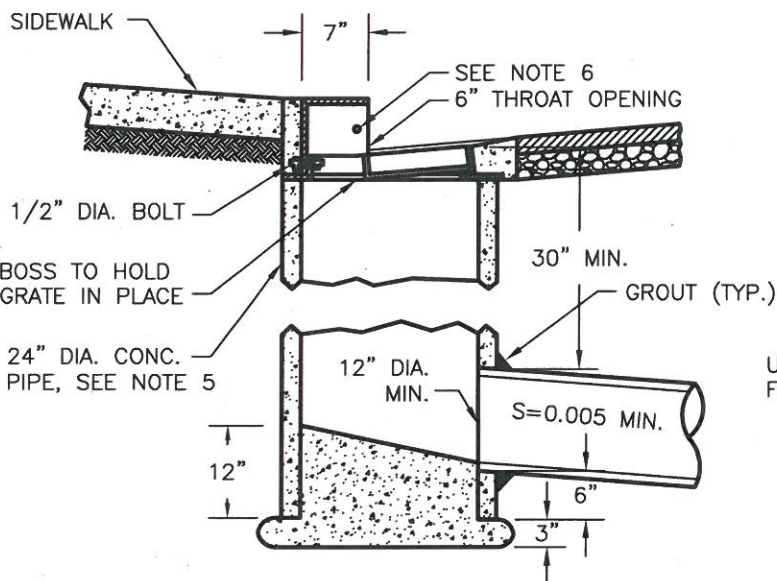
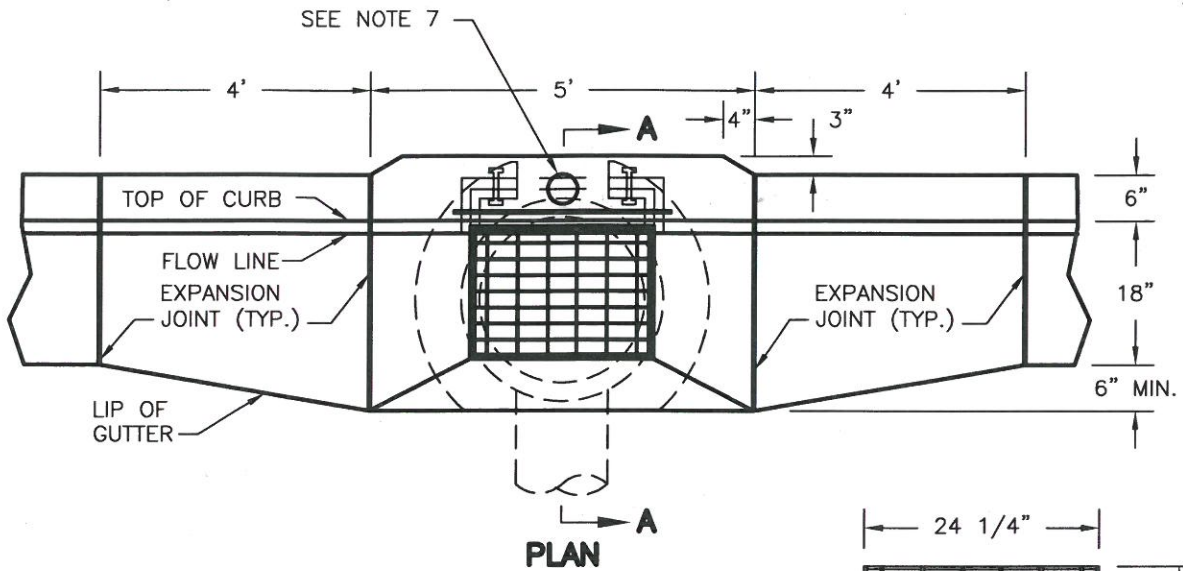


DATE:	JAN. 2012
DRAWN BY:	S. FOX
CHECKED BY:	K. KIM
SCALE:	NOT TO SCALE

**MANHOLE FRAME  
 AND COVER ASSEMBLY**  
 CITY OF MANTECA  
 PUBLIC WORKS DEPARTMENT

APPROVED: *3-6-13*  
*Mark Houghton*  
 DIRECTOR OF PUBLIC WORKS

**D-3**



**SECTION A-A**

**PLAN OF FRAME**

**NOTES**

1. EXPOSED SURFACES OF THE FRAMES, HOODS, AND GRATES, WITH THE PARTS ASSEMBLED AND DISASSEMBLED, SHALL BE PAINTED WITH COMMERCIAL QUALITY ASPHALT PAINT AFTER TESTING AND ASSEMBLY, OR GALVANIZED.
2. FRAME, SIDE INLET, AND GRATE SHALL CONFORM TO SOUTH BAY FOUNDRY 645 FRAME, 645-8 HOOD, AND 1903 GRATE WITH CHAIN, OR APPROVED EQUAL.
3. GRATE SHALL BE CHAINED TO FRAME.
4. GRATE SHALL BE DEPRESSED 1" BELOW GUTTER PROFILE GRADE.
5. 24" PIPE BARREL SHALL BE CLASS III R.C.P.
6. 3/4" HOT DIPPED GALVANIZED STEEL BAR.
7. INSTALL STORM DRAIN MARKER PER CITY STANDARD D-7.

DATE:	JAN. 2012
DRAWN BY:	S. FOX
CHECKED BY:	K. KIM
SCALE:	NOT TO SCALE

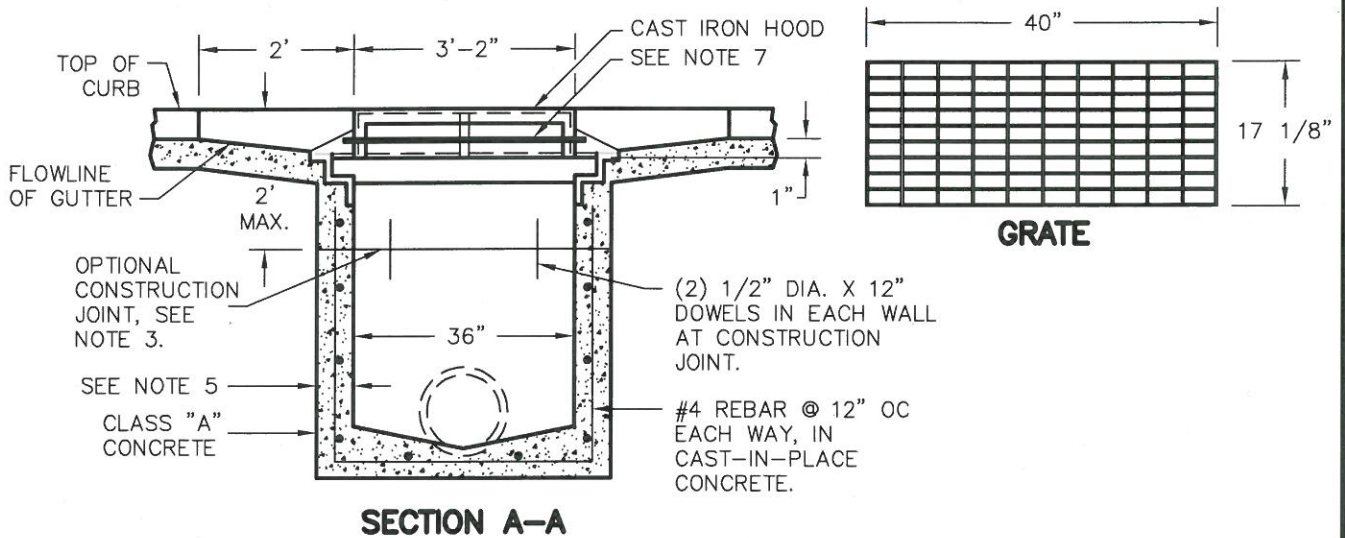
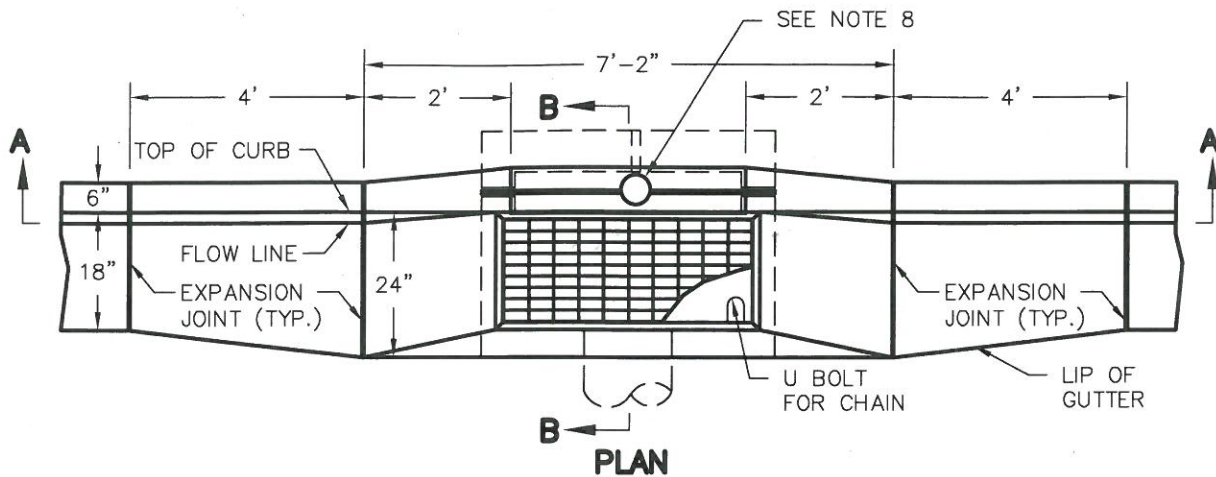
**CURB INLET TYPE I**

**CITY OF MANTECA**  
PUBLIC WORKS DEPARTMENT

APPROVED: *3-6-13*  
*Mark Houghton*  
DIRECTOR OF PUBLIC WORKS

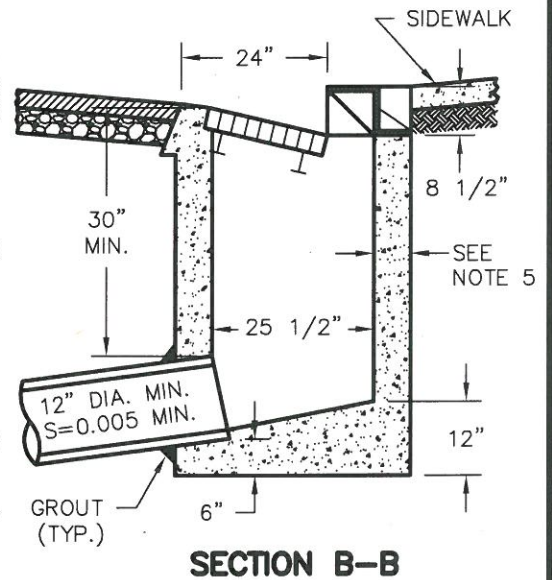
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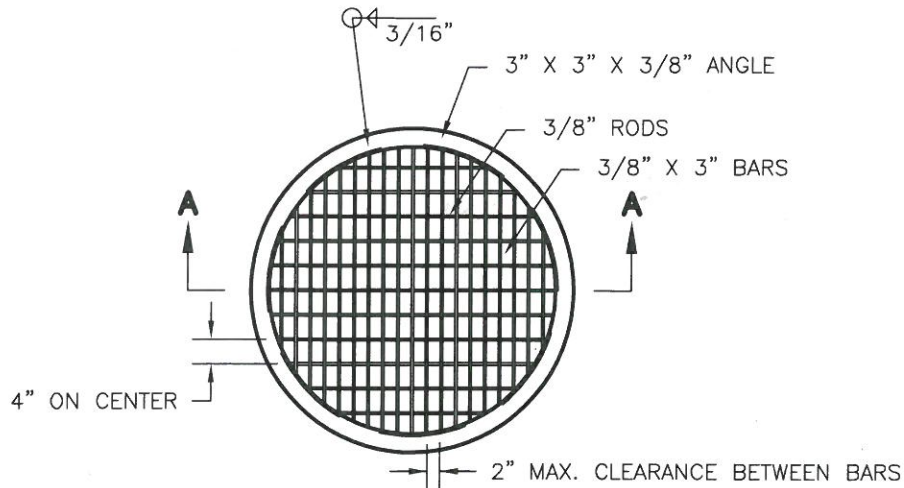


**NOTES**

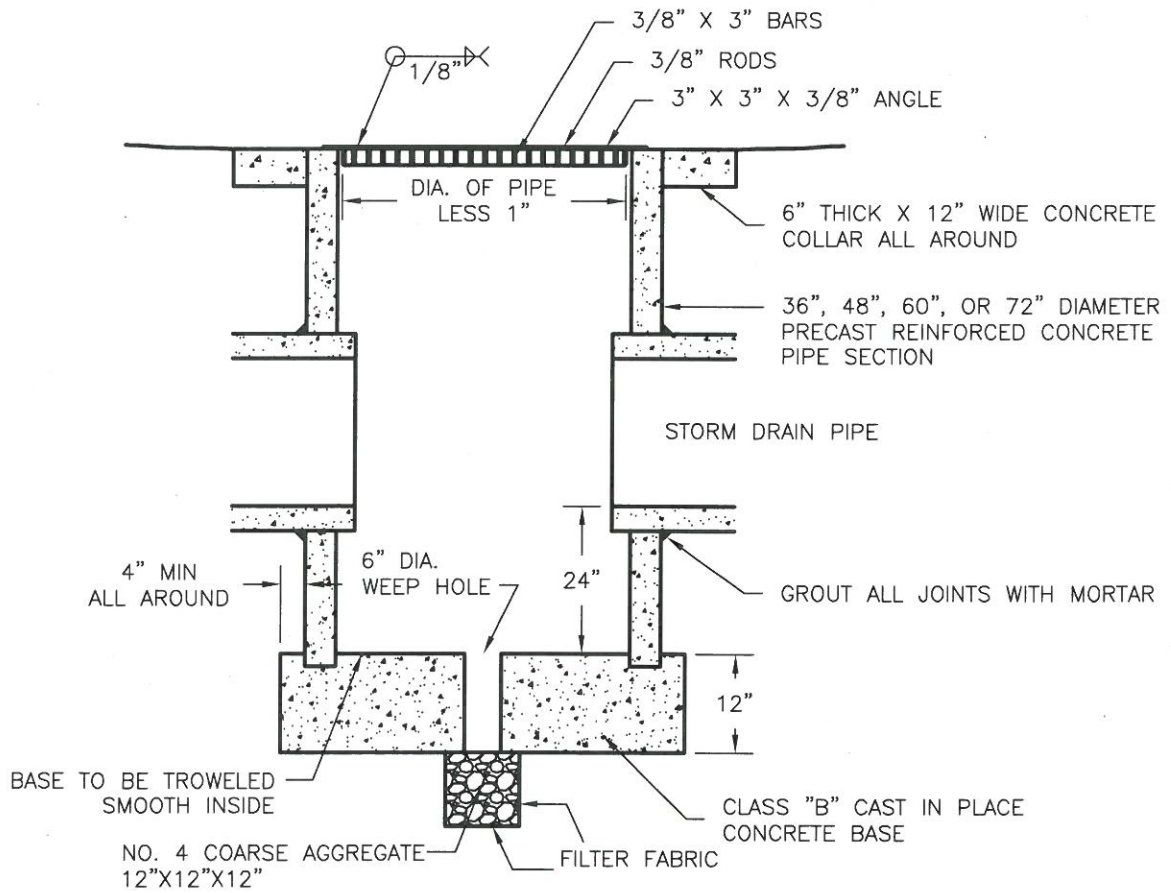
1. EXPOSED SURFACES OF THE FRAME, HOOD, AND GRATE, WITH THE PARTS ASSEMBLED AND DISASSEMBLED, SHALL BE PAINTED WITH COMMERCIAL QUALITY ASPHALT PAINT AFTER TESTING AND ASSEMBLY, OR GALVANIZED.
2. FRAME, SIDE INLET, AND GRATE SHALL CONFORM TO SOUTH BAY FOUNDARY 1904 FRAME, 1902 HOOD, AND 1904 GRATE WITH CHAIN, OR APPROVED EQUAL.
3. PRECAST CONCRETE INLET MAY USED SUBJECT TO THE WRITTEN APPROVAL OF THE THE DIRECTOR OF PUBLIC WORKS.
4. INLET WALLS MAY BE POURED TO AN ELEVATION NOT LESS THAN 2' BELOW TOP OF CURB. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FRAME IN AND POUR THE UPPER 2' OF THE INLET MONOLITHICALLY WITH THE CURB AND GUTTER.
5. MINIMUM WALL THICKNESS TO BE 6". IF TOP OF CURB TO FLOW LINE OF PIPE EXCEEDS 4', WALL THICKNESS TO BE 8" MIN.
6. CALTRANS 'GO' INLET SHALL BE INSTALLED IN ARTERIAL ROADS.
7. 3/4" HOT-DIPPED GALVANIZED STEEL BAR.
8. INSTALL STORM DRAIN MARKER PER CITY STANDARD D-7.



DATE:	JAN. 2012	<b>CURB INLET TYPE II</b>	APPROVED:	3-6-13 <i>Mark Houghton</i>
DRAWN BY:	S. FOX		CITY OF MANTECA PUBLIC WORKS DEPARTMENT	DIRECTOR OF PUBLIC WORKS
CHECKED BY:	K. KIM			
SCALE:	NOT TO SCALE			



**PLAN**



**SECTION A-A**

**NOTE**

GRATE SHALL BE GALVANIZED AFTER FABRICATION.

DATE:	JAN. 2012	<b>STORM DRAIN BASIN INLET/OUTLET STRUCTURE</b>	APPROVED:	3-6-13
DRAWN BY:	S. FOX		<i>Mervyn Houghton</i>	
CHECKED BY:	K. KIM	<b>CITY OF MANTECA</b>	DIRECTOR OF PUBLIC WORKS	
SCALE:	NOT TO SCALE	PUBLIC WORKS DEPARTMENT	<b>D-6</b>	

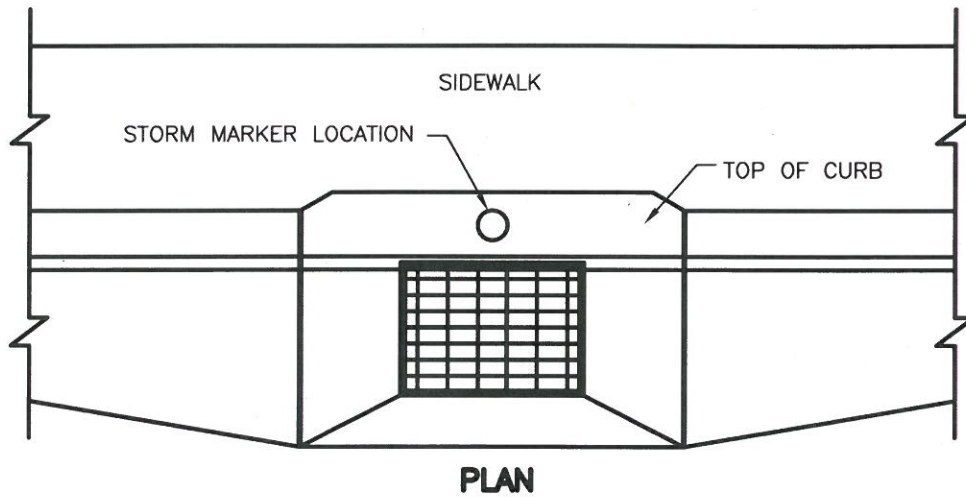




**FRONT  
STORM MARKER**



**BACK  
ADHESIVE PATTERN**



**NOTES**

1. ALL STORM DRAIN INLETS SHALL BE MARKED "NO DUMPING – DRAINS TO RIVER."
2. STORM MARKERS AND ADHESIVE MUST BE PURCHASED FROM THE CITY OF MANTECA.
3. ALTERNATE MARKERS MUST BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS.

**INSTALLATION**

1. READ THE ADHESIVE'S CAUTIONARY STATEMENT AND FIRST AID PROCEDURES BEFORE BEGINNING INSTALLATION AS IT IS EXTREMELY FLAMMABLE.
2. MARKERS SHALL BE INSTALLED ON THE CURB AND CENTERED ON THE GRATE AS SHOWN ABOVE.
3. APPLICATION SURFACE MUST BE FLAT.
4. CLEAN APPLICATION SURFACE WITH WIRE BRUSH. SURFACE MUST BE CLEAN, DRY AND FREE OF ANY LOOSE DEBRIS.
5. APPLY ADHESIVE TO THE BACK OF THE MARKER. START 1/8" IN FROM THE OUTSIDE EDGE APPLYING AN EVEN BEAD AROUND THE ENTIRE EDGE AND THEN SPIRAL INWARD TOWARD THE CENTER AS SHOWN ABOVE.
6. PLACE MARKER ON APPLICATION SURFACE. PUSH DOWN HARD WITH A TWISTING MOTION FORCING ADHESIVE OUT FROM THE EDGE. IT IS IMPORTANT THAT ADHESIVE SEALS THE ENTIRE OUTER EDGE OF THE MARKER.

DATE: JAN. 2012	<b>STORM WATER POLLUTION PREVENTION</b>	APPROVED: <i>3-6-13</i>
DRAWN BY: S. FOX		<i>Mark Woughton</i>
CHECKED BY: K. KIM	<b>STORM DRAIN INLET MARKER</b>	DIRECTOR OF PUBLIC WORKS
SCALE: NOT TO SCALE	<b>CITY OF MANTECA</b> PUBLIC WORKS DEPARTMENT	<b>D-7</b>