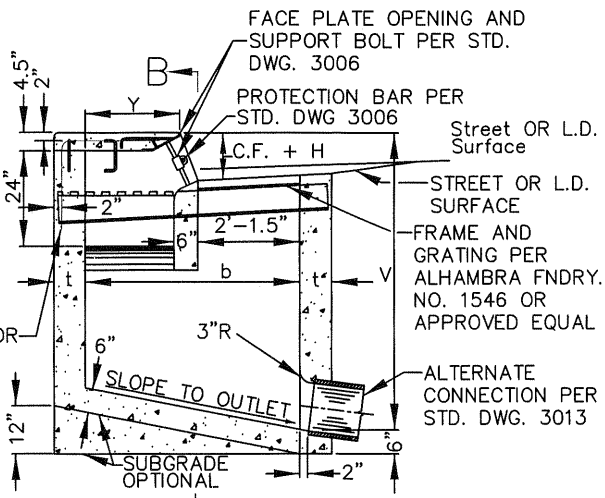
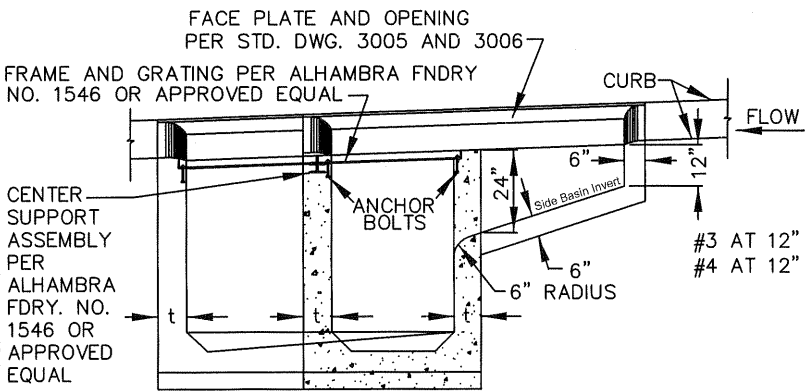
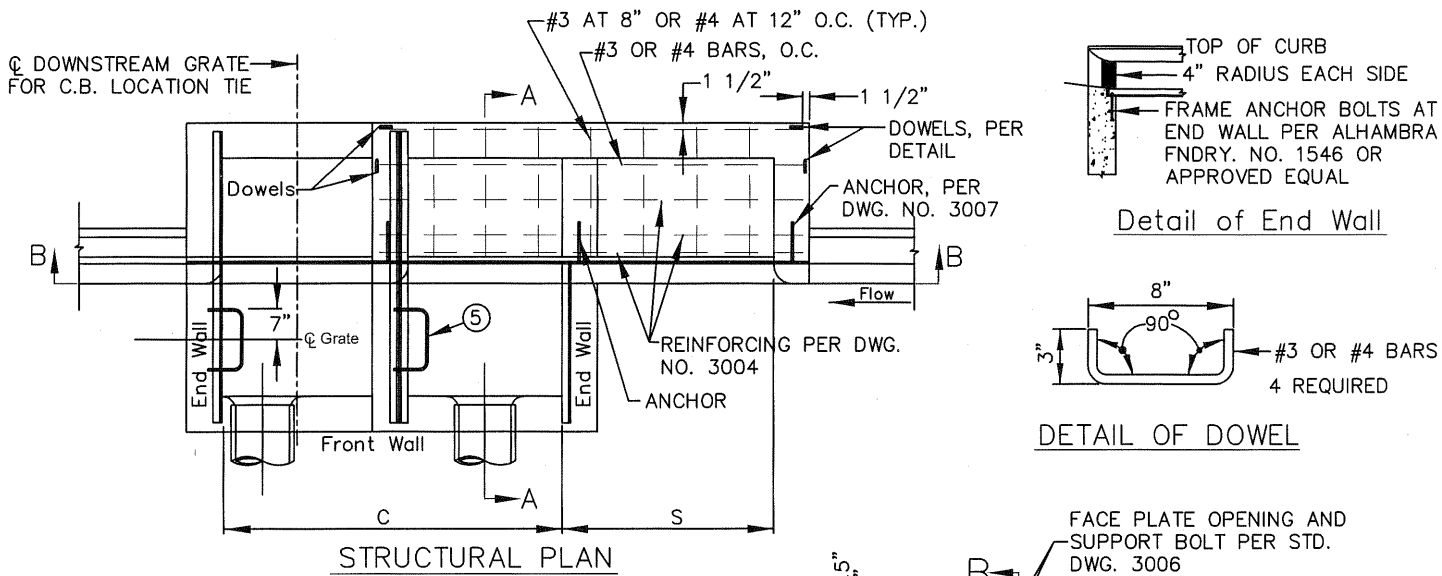




Storm Drain Standard Drawings List

Standard Drawing No.	Details	Approval Date	Page No.
3001	Catch Basin NO. 6	8-Aug-2006	2
3002	Local Depression No. 3	8-Aug-2006	3
3003	Catch Basin No. 2	4-Apr-2015	4
3004	Catch Basin Reinforcement	8-Aug-2006	5
3005	Local Depression For Catch Basin	8-Aug-2006	6
3006	Detail of Catch Basin Opening	8-Aug-2006	7
3007	Detail of Catch Basin Face Plate	8-Aug-2006	8
3008	Manhole No. 1	11-Jun-2015	9
3009	Manhole No. 1 Notes	11-Jun-2015	10
3010	Junction Structure No. 1 Case 1 and Case 2	8-Aug-2006	11
3011	Junction Structure No. 1 Case 3 Saddle Connection	8-Aug-2006	12
3012	Junction Structure No. 2	8-Aug-2006	13
3013	Parkway Drain No. 1	8-Aug-2006	14
3014	Parkway Drain No. 2	11-Jun-2015	15
3015	Connection to Catch Basin	8-Aug-2006	16
3016	Sidewalk Drain No. 2	8-Aug-2006	17
3017	Connector Pipe Screen (CPS)	16-Dec-2019	18
3018	Catch Basin Marker	19-Sep-2022	19



SECTION B-B

Section A-A

NOTES

- ① DESIGNATION - CATCH BASIN No. 6 SHALL BE CASE "A" WITH ONE GRATE, UNLESS OTHERWISE SHOWN ON THE PLAN.
- ② GRATINGS - ADDITIONAL GRATINGS MAY BE SPECIFIED AS REQUIRED. GRATINGS AND SUPPORT ASSEMBLIES ARE TO BE POSITIONED AS REQUIRED BY STD. DWGS 3001 AND 3005.
- ③ CONCRETE - DESIGN $f' = 3250$ psi COMPRESSIVE STRENGTH AT 28 DAYS. FLOOR OF THE BASIN SHALL SLOPE FROM ALL WALLS TO THE OUTLET AND SHALL BE GIVEN A STEEL-TROWELED FINISH SURFACE. CURVATURE OF THE SILL AND SIDE WALLS AT THE GUTTER OPENING SHALL BE FORMED BY CURVED FORMS; AND ALL EXPOSED EDGES, OR CORNERS, AND CONCRETE TO METAL FRAME EDGES SHALL BE GIVEN 1/4" RADIUS EDGER FINISH. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE, GRADE, COLOR, AND FINISH TO THE EXISTING, OR PROPOSED, CURB AND WALK ADJACENT TO THE BASIN.
- ④ REINFORCEMENT IN TOP SLAB - AS REQUIRED ON THE STRUCTURAL PLAN. WALLS AND FLOORS - AS REQUIRED BY STD. DWG. NO. 3004. REINFORCEMENT IN FRONT WALL, END WALLS AND FLOOR SHALL BE PER GRATING BASIN REINFORCEMENT WITH BASIN OPENING = C. REINFORCEMENT IN BACK WALL AND SWEEPER SHALL BE PER CURB OPENING BASIN WITH BASIN OPENING = W AND S, RESPECTIVELY.
- ⑤ INJECTION MOLDED COPOLYMER POLYPROPYLENE MANHOLE STEP, CAST IN PLACE, CENTER OVER THE FLOWLINE
- ⑥ DIMENSIONS - CURB FACE AT THE CATCH BASIN OPENING SHALL BE AS REQUIRED BY STD. DWG No. 3005 OR AS SHOWN ON THE PLAN.

$b = 4'-6"$, OR AS SHOWN ON THE PLAN.
 $H = 0"$ WHEN NO LOCAL DEPRESSION IS USED.
 $C = 2'-11\frac{3}{8}"$ FOR ONE GRATING; ADD $3'-5\frac{3}{8}"$ FOR EACH ADDITIONAL GRATE.
 $t = 6"$ IF $V = 5'-0"$ OR LESS; $t = 8"$ IF $V = 5'-1"$ OR MORE.
 $V = 4'-6"$ OR AS SHOWN ON THE PLAN TO $V = 3'-4"$, MINIMUM.
 $S = 4'-0"$, CASE 'A'; $S = 11'-0"$, CASE 'B', $W = C + S$.
 $Y =$ VARIABLE TO $2'-4"$, MINIMUM.

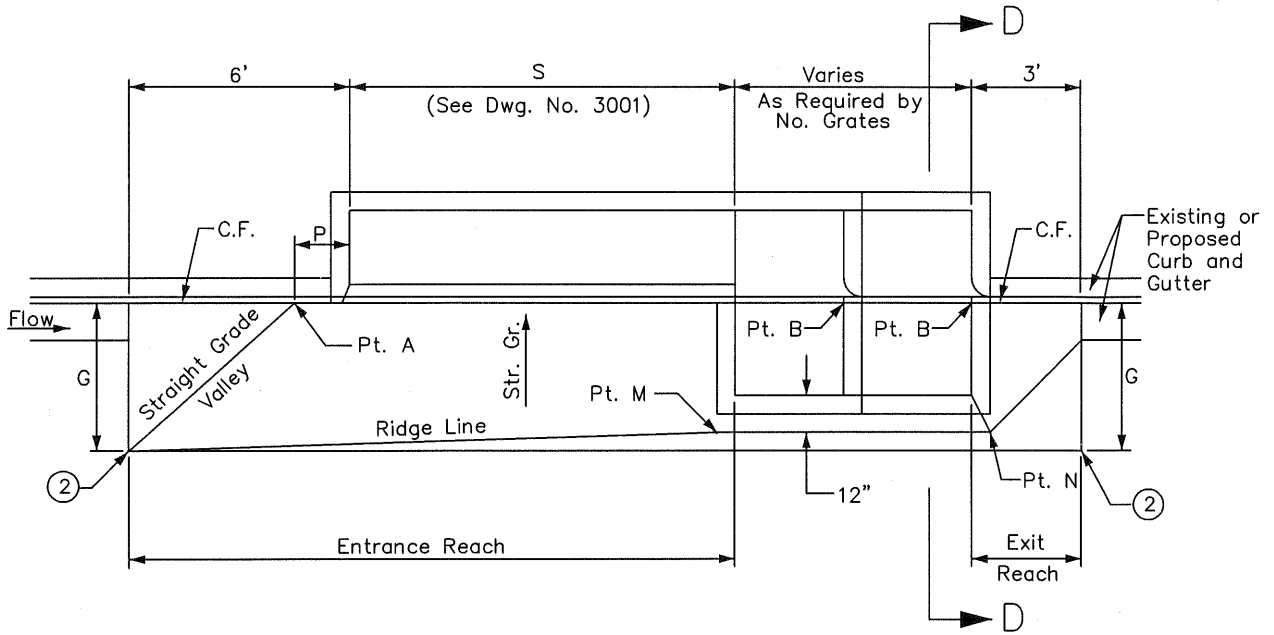


APPROVED BY:		24079 8/08/06	
JOHN P. SULLIVAN CITY ENGINEER		RCE DATE	
RECOMMENDED:		33340 8/07/06	
Liam M. March ASSISTANT CITY ENGINEER		RCE DATE	
REV	DESCRIPTION	BY	APP'D DATE

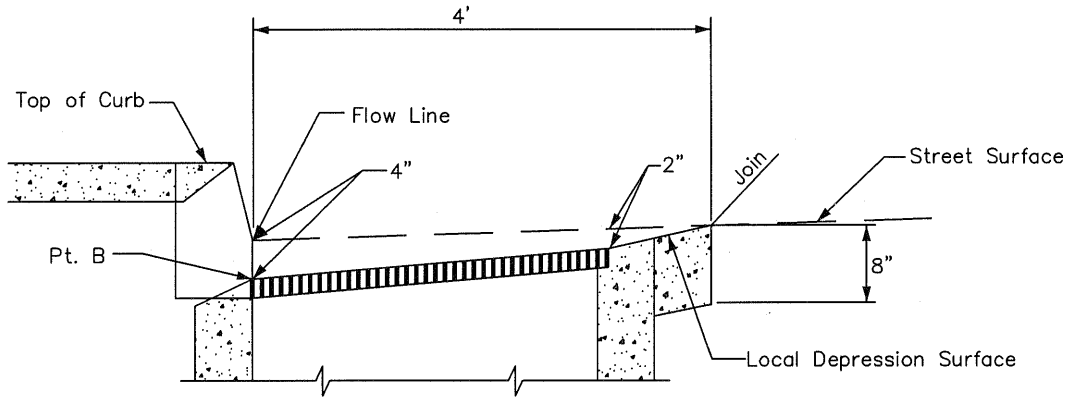
CITY OF ONTARIO

CATCH BASIN NO. 6

STANDARD DRAWING NUMBER
3001



Plan
Case "B"



Section D - D

NOTES

- ① DESIGNATION - LOCAL DEPRESSION FOR CATCH BASIN NO. 6 UNLESS OTHERWISE SHOWN ON THE PLAN.
- ② CONCRETE - DESIGN, $f' = 3,250$ psi COMPRESSIVE STRENGTH AT 28 DAYS WITH A MINIMUM REQUIRED THICKNESS OF 8". THE EXISTING STREET-SIDE EDGES OF THE LOCAL DEPRESSION SHALL CONFORM TO THE EXISTING STREET SURFACE OR TO ELEVATIONS SHOWN ON THE GENERAL PLAN.
- ③ DIMENSIONS - (UNLESS OTHERWISE SHOWN) POINTS A AND B SHALL BE SET AT 4" BELOW THE EXISTING GUTTER GRADE. $P = 12"$ ($S = 4'-0"$); $P = 18"$ ($S = 11'-0"$); $G = 4'-0"$ (FOR DIMENSIONS S, SEE STANDARD DRAWING NO. 3001). POINTS M AND N SHALL BE ON A STRAIGHT GRADE, AND ON THE STREET CROSS-SLOPE.



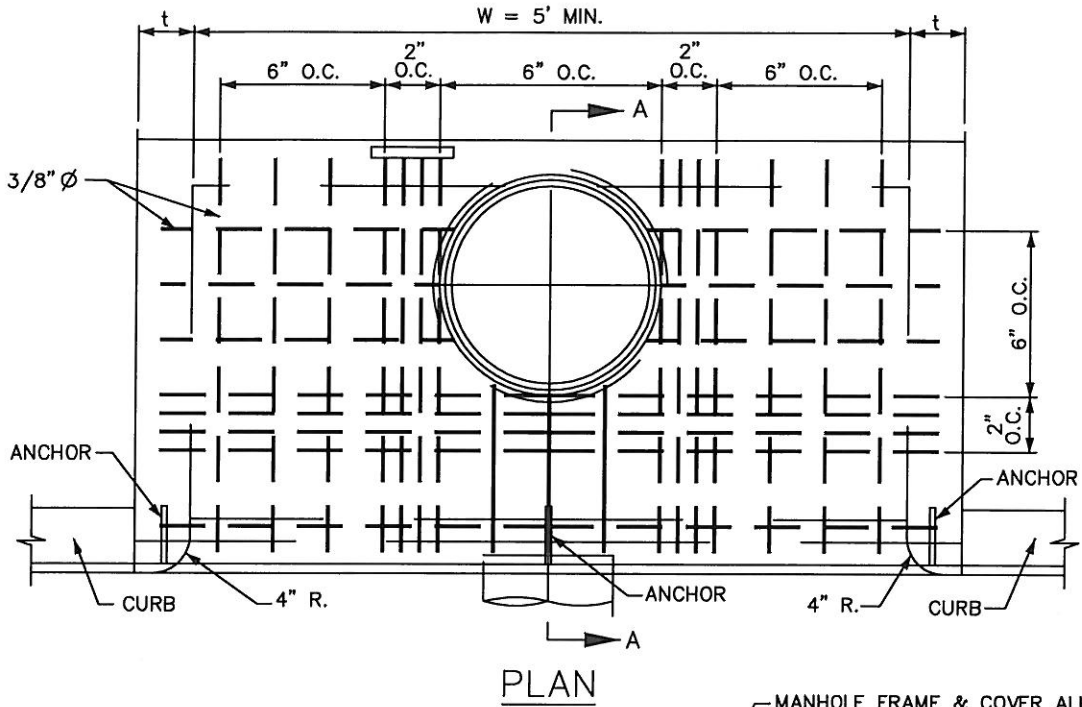
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<i>John P. Sullivan</i>		24079 8/08/06		
JOHN P. SULLIVAN CITY ENGINEER		RCE	DATE	
RECOMMENDED:				
<i>Jim Minnich</i>		33340 8/07/06		
ASSISTANT CITY ENGINEER		RCE	DATE	
REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO

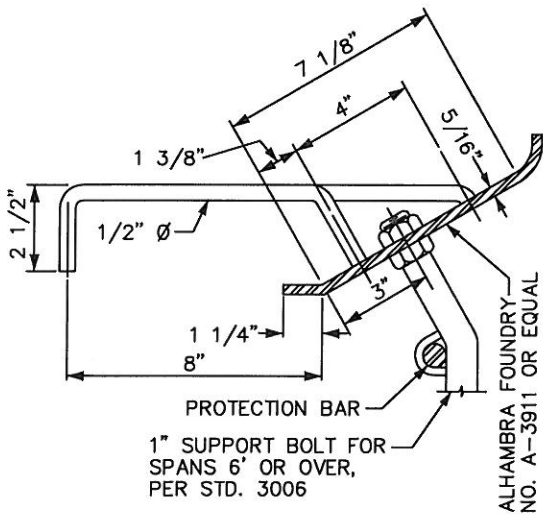
LOCAL DEPRESSION
NO. 3

STANDARD
DRAWING
NUMBER

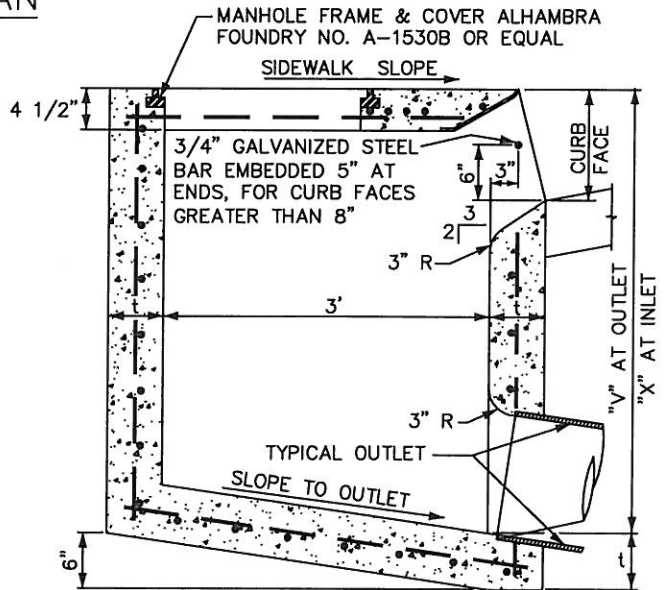
3002



PLAN



ANCHOR DERAIL



SECTION A-A

NOTES

1. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED.
2. "V" = 3.5' UNLESS OTHERWISE SPECIFIED.
3. OUTLET PIPE MAY BE PLACED IN ANY POSITION AROUND WALLS.
4. CURB FACE AT C.B. OPENING SHALL BE THAT OF THE STANDARD CURB PLUS 4" OR AS OTHERWISE SHOWN.
5. CONCRETE SHALL BE CLASS 560-C-3250 PER SSPWC SECTION 201-1.
6. STEEL REINFORCEMENT AND WALL THICKNESS SHALL BE PER STANDARD DRAWING NO. 3004.
7. INSTALL POLYPROPYLENE PLASTIC STEP PER LATEST SPPWC STANDARD PLAN NO. 636.



APPROVED BY:				
<i>Louis Abi-Younes</i>		44485	4.14.15	
LOUIS ABI-YOUNES, PE, CITY ENGINEER		RCE	DATE	
RECOMMENDED:				
<i>Raymond Lee</i>		59059	4/13/15	
RAYMOND LEE, PE, ASST CITY ENGINEER		RCE	DATE	
REV	DESCRIPTION	BY	APP'D	DATE

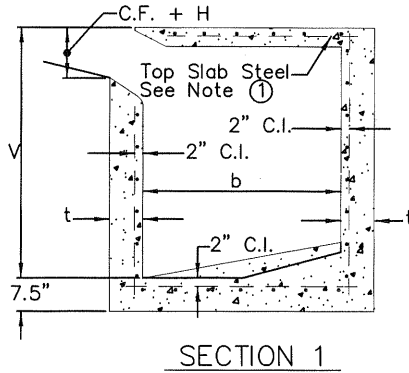
CITY OF ONTARIO

CATCH BASIN NO. 2

STANDARD DRAWING NUMBER

3003

W of C.B.	V (ft.)		t (in.)	Front Wall Steel		Rear & End Walls & Floor Steel Each Way
	From	To (incl.)		Horiz.	Vert.	
to 7'		4	6	#3@6"	#3@6"	#3@6"
to 7'	4	8	8	#4@12"	#4@12"	#4@12"
to 7'	8	12	10	#4@10"	#4@10"	#4@10"
14'		4	6	#3@6"	#3@6"	#3@6"
14'	4	8	8	#4@12"	#4@12"	#4@12"
14'	8	10	10	#4@8"	#4@12"	#4@10"
14'	10	12	10	#4@6"	#4@12"	#4@10"



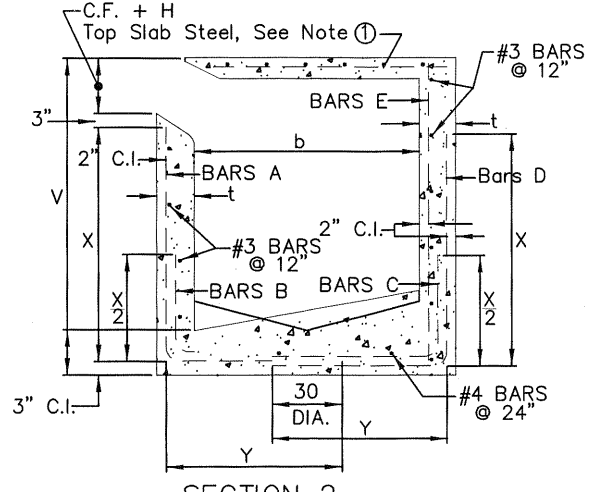
NOTE
NO. 4 BARS MAY BE USED IN LIEU OF NO. 3 BARS AS FOLLOWS.

Tabled Value	Alternative Value
#3@2"	#4@2"
#3@6"	#4@10"
#3@6.5"	#4@12"
#3@7.5"	#4@14"
#3@8.5"	#4@16"
#3@10.5"	#4@18"
#3@11"	#4@18"
#3@12"	#4@18"
#3@14"	#4@24"
#3@18"	#4@24"
#3@20"	#4@24"
#3@24"	#4@24"

WALL AND FLOOR STEEL SEE NOTE ②

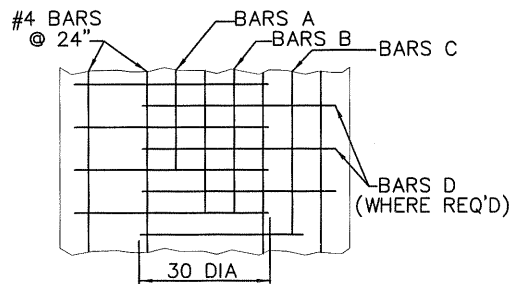
CATCH BASIN REINFORCEMENT
"W" TO 14' (incl.)

V (ft.)		t (in.)	Front Wall Steel		Rear Wall Steel			End Wall Steel
From	To (incl.)		Bars A&B	Bars C	Bars D	Bars E	Horiz. & Vert.	
	4	6	#3@24"	#3@12"		#4@24"	#3@18"	
4	5	8	#3@20"	#3@12"		#4@24"	#3@14"	
5	6	8	#3@12"	#3@10 1/2"		#4@24"	#3@14"	
6	7	8	#4@17"	#3@8"		#4@24"	#3@14"	
7	8	8	#4@13"	#3@6"		#4@24"	#3@14"	
8	9	10	#4@15"	#3@7"		#4@20"	#3@11"	
9	10	10	#4@12"	#4@12"		#4@20"	#3@11"	
10	11	10	#5@15"		#4@11"	#4@18"	#3@11"	
11	11	10	#6@18"		#4@9"	#4@13"	#3@11"	

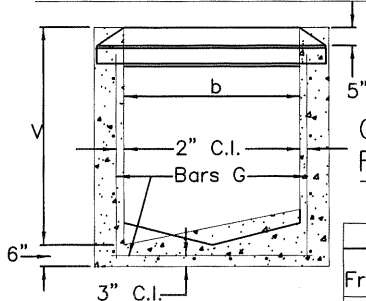


WALL AND FLOOR STEEL

CATCH BASIN REINFORCEMENT
"W" GREATER THAN 14'



FLOOR REINFORCEMENT SECTION 2



GRATING BASIN REINFORCEMENT

V (ft.)		t (in.)	Side & End Wall Steel
From	To (incl.)		Bars G
	4	6	#3@6"
4	8	8	#4@6"
8	12	10	#5@6"

NOTES

- TOP SLAB REINFORCEMENT - FOR DETAILING OF REQUIRED STEEL, SEE CATCH BASIN STD. DWGS. FOR DIMENSIONS "b" GREATER THAN 4'-6", SEE THE SPECIAL DESIGN OF THE TOP SLAB REINFORCEMENT SHOWN ON THE REQUIRED STRUCTURAL PLAN.
- WALL AND FLOOR REINFORCEMENT - THE INDICATED REINFORCING STEEL APPLIES TO CATCH BASIN STD. DWG. 3001 AND 3003. CATCH BASINS CONSTRUCTED ON STREETS NOT DESIGNATED AS STATE HIGHWAYS ONLY REQUIRE WALL AND FLOOR REINFORCEMENT UNDER THE FOLLOWING CONDITIONS.

Basin Opening (W, C or S) TO 7 FEET (INCL.) 7 TO 14 FEET (INCL.) 14 TO 21 FEET (INCL.) OVER 21 FEET	Basin Depth (V) 10 FEET OR MORE 7 FEET OR MORE 6 FEET OR MORE ALL
--	--
- GENERAL - STEEL TO CONCRETE SURFACE, END CLEARANCE, SHALL BE 1 1/2". CONNECTOR PIPE IS ALIGNED TO END WALL OF CATCH BASIN. FOR THE DESIGN OF CATCH BASINS WITH A V-DEPTH EXCEEDING 12 FEET, SEE THE REQUIRED STRUCTURAL PLAN.
- MANHOLE FRAME AND COVER ALHAMBRA FOUNDARY A-15530B OR EQUAL.



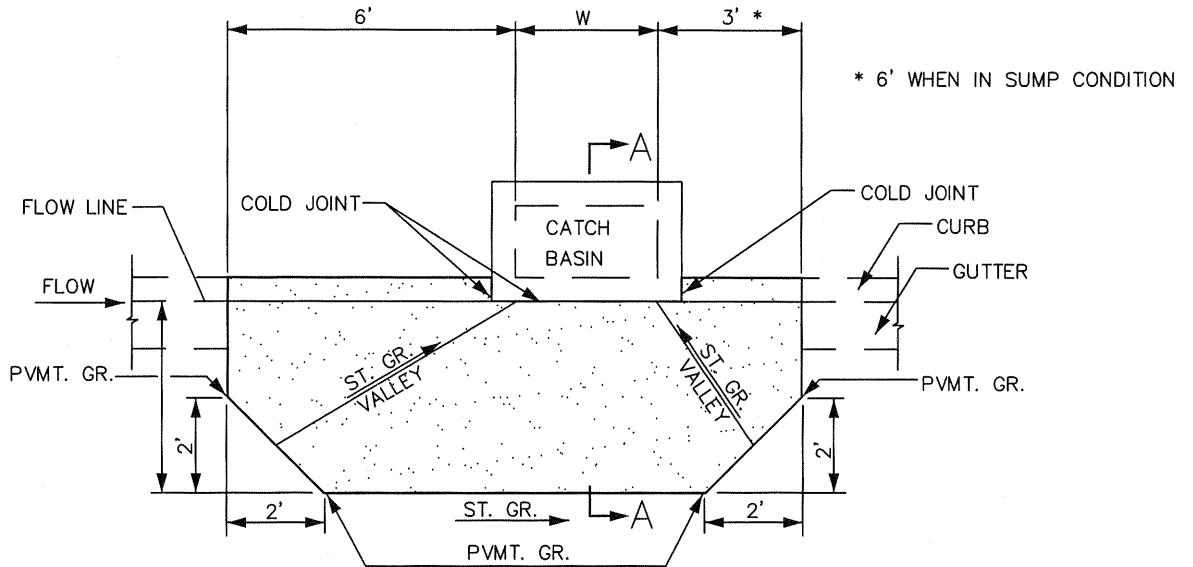
APPROVED BY: <i>John P. Sullivan</i> 24079 8/08/06				
JOHN P. SULLIVAN CITY ENGINEER RCE DATE				
RECOMMENDED: <i>Jim Min Mack</i> 33340 8/07/06				
JIM MIN MACK ASSISTANT CITY ENGINEER RCE DATE				
REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO

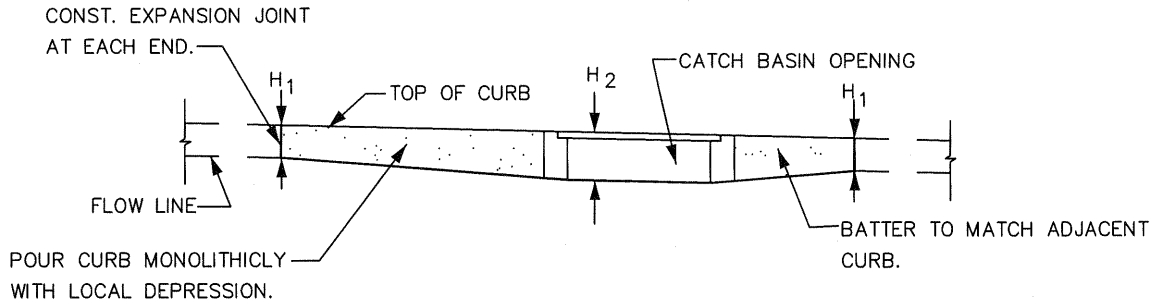
CATCH BASIN REINFORCEMENT

STANDARD DRAWING NUMBER

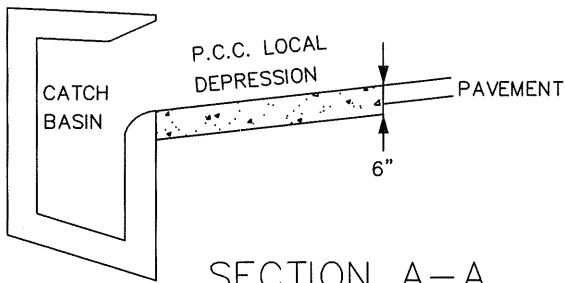
3004



PLAN



ELEVATION AT CURB



SECTION A-A

NOTES

1. H_1 = CURB FACE
2. $H_2 = H_1 + 0.33'$ OR AS SPECIFIED
3. W = LENGTH OF CATCH BASIN OPENING
4. CONCRETE TO BE CLASS 560-C-3250 PER SECTION 201 S.S. PWC
5. MANHOLE FRAME AND COVER ALHAMBRA FOUNDARY A-1530B OR EQUAL



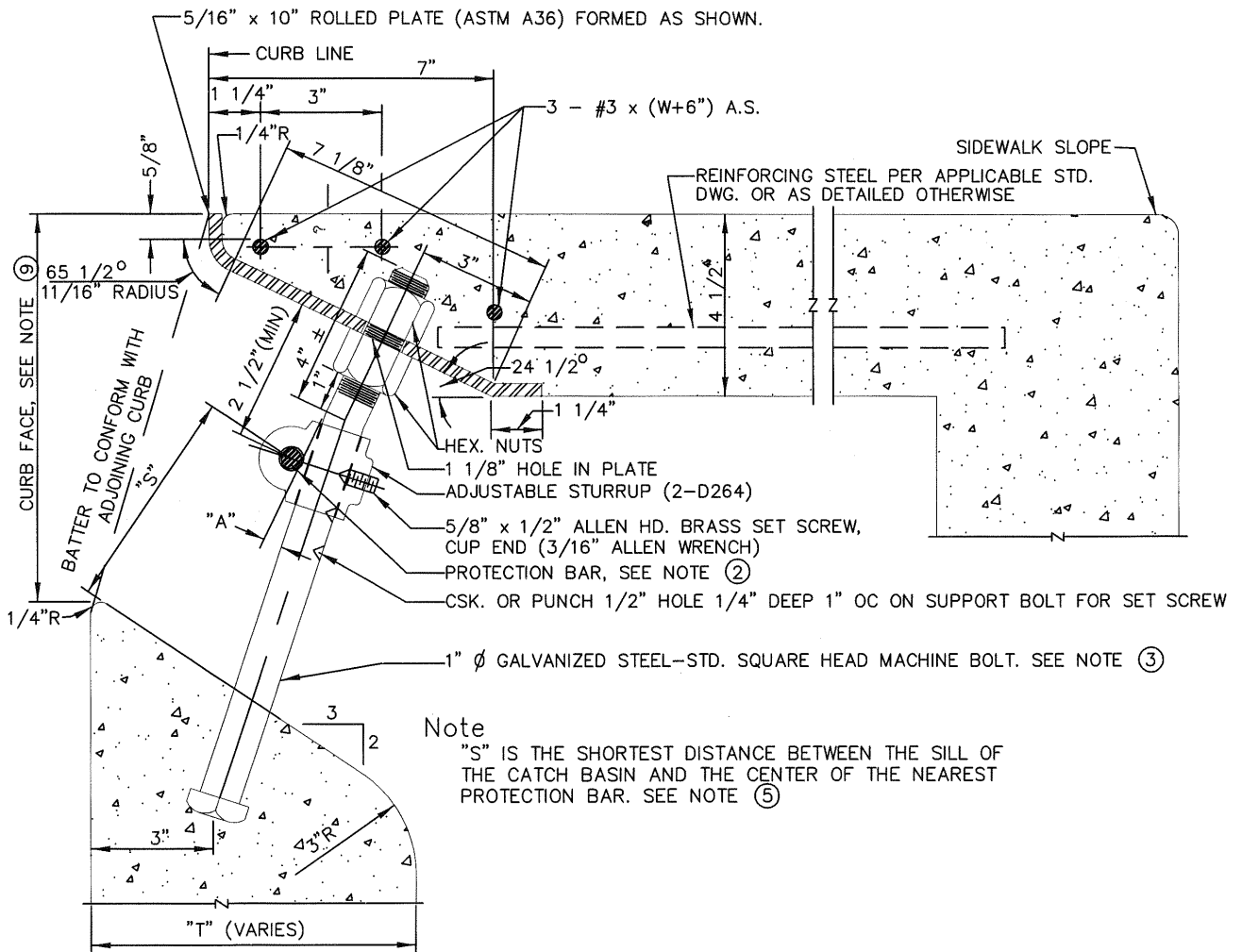
APPROVED BY:				
<i>John P. Sullivan</i>				
JOHN P. SULLIVAN - CITY ENGINEER		RCE	DATE	
			24079	8/08/06
RECOMMENDED:				
<i>Jim Minich</i>				
ASSISTANT CITY ENGINEER		RCE	DATE	
			33340	8/07/06
REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO

LOCAL DEPRESSION
- FOR CATCH BASIN
INLET

STANDARD
DRAWING
NUMBER

3005



Note
 "S" IS THE SHORTEST DISTANCE BETWEEN THE SILL OF THE CATCH BASIN AND THE CENTER OF THE NEAREST PROTECTION BAR. SEE NOTE ⑤

NOTES (SHOWN ON CATCH BASIN STD. DWG.)

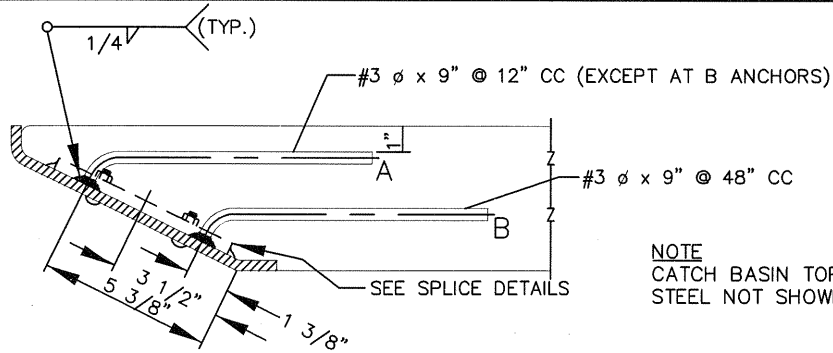
- ① SUPPORT BOLT ANGLE "A" SHALL VARY TO CONFORM WITH BATTER OF ADJOINING CURB.
- ② PROTECTION BAR SHALL BE INSTALLED, AND SUPPORT BOLTS SPACED, ACCORDING TO LACFCO, STD. DWG. 2-D175
- ③ SUPPORT BOLTS SHALL BE EQUAL IN LENGTH TO THE CURB FACE +4"± FOR ALL CURB BATTERS.
- ④ ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AFTER FABRICATION.
- ⑤ PROTECTION BAR SPACING - PROTECTION BAR(S) SHALL BE INSTALLED WHEN THE MINIMUM CLEAR OPENING OF THE CATCH BASIN EXCEEDS 6". BAR(S) SHALL BE PLACED SUCH THAT NO MINIMUM CLEAR OPENING EXCEEDS 6".
 WHEN ONE BAR IS REQUIRED, "S" SHALL BE 6 3/8", HOWEVER, THIS SHALL BE REDUCED, IF NECESSARY, SO THAT THE CENTER OF THE PROTECTION BAR IS NOT LESS THAN 2 1/2" FROM THE ROLLED PLATE.

 WHEN TWO OR MORE BARS ARE REQUIRED, "S" SHALL BE 6 3/8", WITH REMAINING BARS SPACED AT 6 3/4" C.C. THE SPACING OF THE TOP BAR SHALL BE REDUCED, IF NECESSARY, SO THAT THE CENTER OF THE BAR IS NOT LESS THAN 2 1/2" FROM THE ROLLED PLATE.
- ⑥ WHERE CATCH BASINS ARE TO BE CONSTRUCTED ON CURVES, THE MAXIMUM CHORD LENGTH FOR FACE PLATE SHALL BE SUCH THAT THE MAXIMUM DIMENSION FROM SAID CORD (MEASURED PERPENDICULAR THERETO) TO THE TRUE CURVE WILL NOT EXCEED ONE INCH. WHERE MORE THAN ONE CHORD IS REQUIRED, CHORD LENGTHS SHALL BE EQUAL.
- ⑦ WHEN LENGTH OF FACE PLATE IS BETWEEN 22' AND 43', TWO SECTIONS MAY BE USED. WHEN LENGTH EXCEEDS 43', THREE SECTIONS MAY BE USED. SECTIONS SHALL BE SPLICED ACCORDING TO THE SPLICE DETAIL. SPLICES SHALL BE PLACED ONE FOOT FROM SUPPORT BOLT.
- ⑧ LENGTH OF FACE PLATE IS W+12" FOR ALL CATCH BASINS.
- ⑨ CURB FACE SHALL BE AS SHOWN ON THE GENERAL PLAN.
- ⑩ SPACING OF ALL ANCHORAGE
 A. SET END ANCHORS 3" FROM ENDS OF FACE PLATE.
 B. PLACE ONE ANCHOR AT EACH SIDE OF ANY AND ALL SPLICE JOINTS AND WITHIN 6" THEREOF.

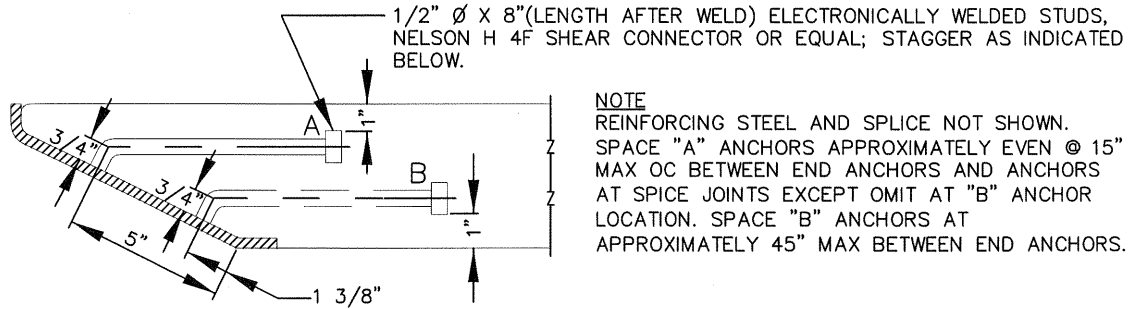


APPROVED BY:		24079 8/08/06	
<i>John P. Sullivan</i>		RCE DATE	
JOHN P. SULLIVAN CITY ENGINEER			
RECOMMENDED:			
<i>Jim Mann Mach</i>		33340 8/07/06	
ASSISTANT CITY ENGINEER		RCE DATE	
REV	DESCRIPTION	BY	APP'D DATE

CITY OF ONTARIO	
DETAIL OF CATCH BASIN OPENING	STANDARD DRAWING NUMBER
3006	

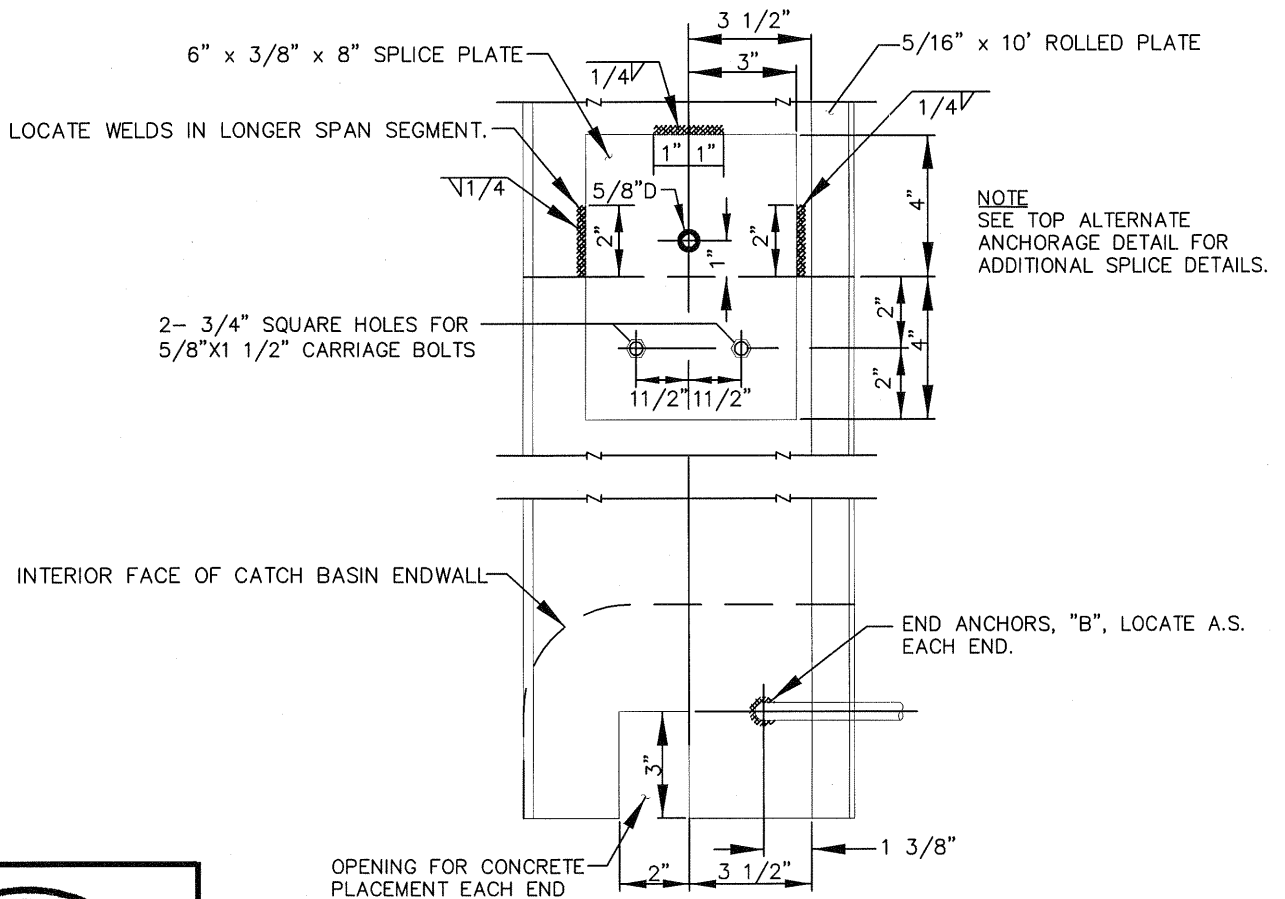


NOTE
CATCH BASIN TOP SLAB REINFORCING
STEEL NOT SHOWN.



NOTE
REINFORCING STEEL AND SPLICE NOT SHOWN.
SPACE "A" ANCHORS APPROXIMATELY EVEN @ 15"
MAX OC BETWEEN END ANCHORS AND ANCHORS
AT SPLICE JOINTS EXCEPT OMIT AT "B" ANCHOR
LOCATION. SPACE "B" ANCHORS AT
APPROXIMATELY 45" MAX BETWEEN END ANCHORS.

ALTERNATE METHODS FOR FACE PLATE ANCHORAGE



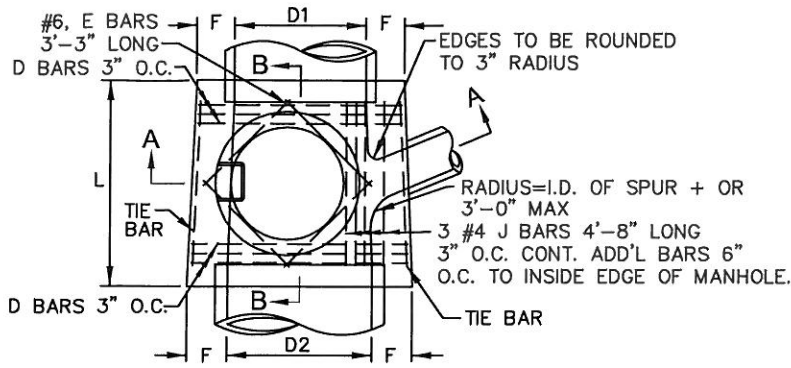
NOTE
SEE TOP ALTERNATE
ANCHORAGE DETAIL FOR
ADDITIONAL SPLICE DETAILS.

FACE PLATE END AND SPLICE DETAILS

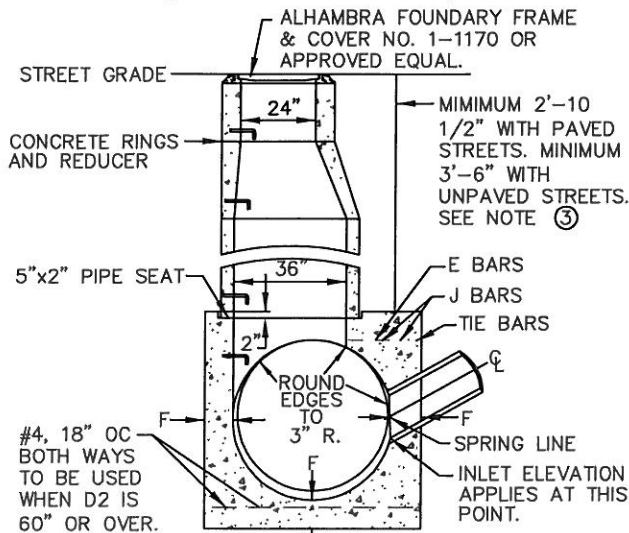


APPROVED BY:				
<i>John P. Sullivan</i>		24079 8/08/06		
JOHN P. SULLIVAN CITY ENGINEER		RCE	DATE	
RECOMMENDED:				
<i>Jim Min Mack</i>		33340 8/07/06		
JIM MIN MACK		RCE	DATE	
REV	DESCRIPTION	BY	APP'D	DATE

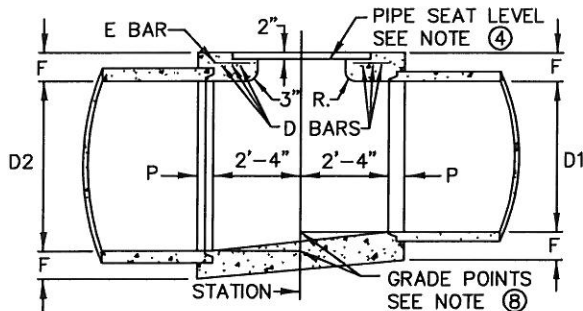
CITY OF ONTARIO	
DETAIL OF CATCH BASIN FACE PLATE	STANDARD DRAWING NUMBER
	3007



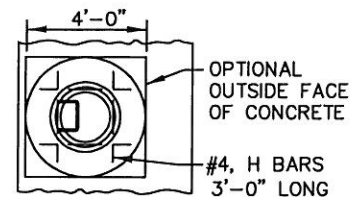
PLAN
(SHAFT NOT SHOWN)



SECTION A-A

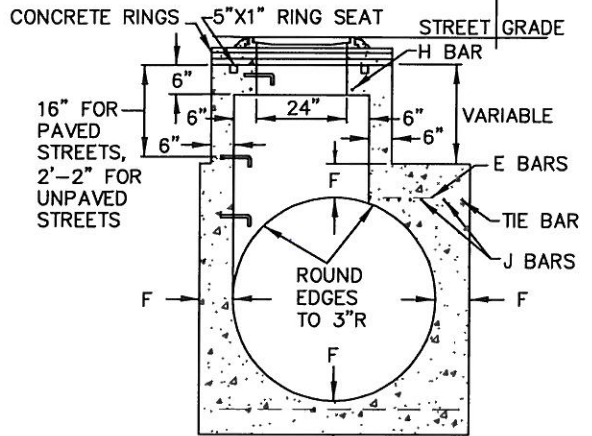


SECTION B-B

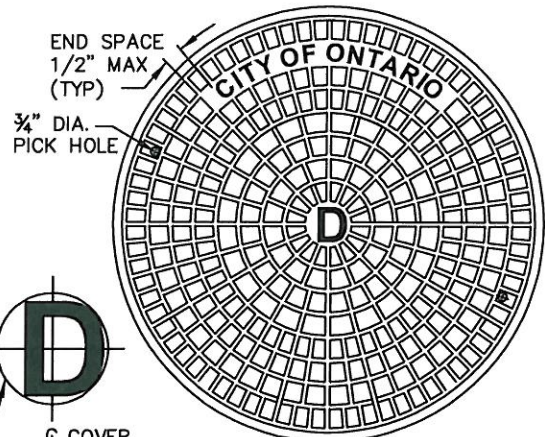


PLAN
(RINGS AND COVER NOT SHOWN)

	MAX	MIN
PAVED STREETS	11"	8 1/2"
UNPAVED STRS.	16"	15"



DETAIL A
SEE NOTE ⑤



PLAN
TOP OF MANHOLE COVER
(TRAFFIC SIDE)

NOTES

- ① THE REFERENCED NOTES AND THE TABLE OF VALUES FOR "F" ARE LOCATED ON STANDARD DRAWING 3009.
- ② ALL MANHOLE COVER MARKINGS SHALL BE RAISED, FLAT FACE LETTERS MARKED BY MEANS OF CAST-IN MOLD LETTERING 1-1/2" X 1/4" X 3/16" (HEIGHT X LINE WIDTH X DEPTH).



APPROVED BY:				
<i>Louis Abi-Younes</i>		44485	6-11-15	
LOUIS ABI-YOUNES, CITY ENGINEER		RCE	DATE	
RECOMMENDED:				
<i>Raymond Lee</i>		59059	6/11/15	
RAYMOND LEE, ASSISTANT CITY ENGINEER		RCE	DATE	
REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO

MANHOLE NO. 1

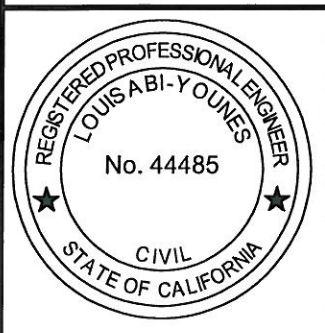
STANDARD
DRAWING
NUMBER

3008

NOTES

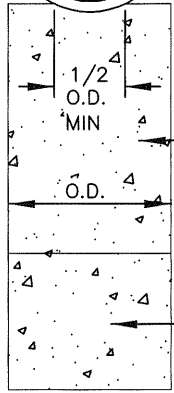
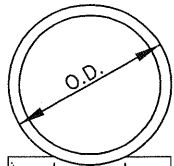
- ① TABLE OF VALUES FOR "F" ARE ON THIS PAGE.
- ② CENTER OF MANHOLE SHAFT SHALL BE LOCATED OVER CENTER LINE OF STORM DRAIN WHEN DIAMETER D1 IS 48" OR LESS, IN WHICH CASE PLACE E BASE SYMMETRICALLY AROUND SHAFT AT 45 DEGREES WITH CENTERLINE AND OMIT J BARS.
- ③ DETAIL A -- WHEN DEPTH OF MANHOLE FROM STREET GRADE TO TOP OF BOX IS LESS THAN 2'-10 $\frac{1}{2}$ " FOR PAVED STREET OR 3'-6" FOR UNPAVED STREET, CONSTRUCT MONOLITHIC SHAFT AS PER DETAIL A. SHAFT FOR ANY DEPTH OF MANHOLE MAY BE CONSTRUCTED AS PER DETAIL A. WHEN DIAMETER D1 IS 48" OR LESS, CENTER OF SHAFT MAY BE LOCATED AS PER NOTE 2.
- ④ THICKNESS OF DECK SHALL VARY WHEN NECESSARY TO PROVIDE LEVEL PIP SEAT, BUT SHALL NOT BE LESS THAN TABULAR VALUES FOR "F" SHOWN ON THIS PLAN.
- ⑤ REINFORCING STEEL TO BE 1 $\frac{1}{2}$ " CLEAR FROM FACE OF CONCRETE UNLESS SHOWN OTHERWISE.
- ⑥ INJECTION MOLDED COPOLYMER POLYPROPYLENE MANHOLE STEP, CAST IN PLACE, CENTER OVER THE FLOWLINE.
- ⑦ RINGS, REDUCER AND PIPE FOR ACCESS SHAFT SHALL BE SEATED IN MORTAR AND NEATLY POINTED OR WIPED INSIDE THE SHAFT.
- ⑧ STATIONS OF MANHOLES SHOWN ON PLAN APPLY AT CENTER OF SHAFT. ELEVATIONS SHOWN AT STATIONS REFER TO PROLONGED INVERT GRADE LINE.
- ⑨ FLOOR OF MANHOLE SHALL BE STEEL-TROWELED TO SPRING LINE.
- ⑩ BODY OF MANHOLE SHALL BE POURED IN ONE CONTINUOUS OPERATION, EXCEPT THAT A CONSTRUCTION JOINT WITH A LONGITUDINAL KEYWAY MAY BE PLACED AT THE SPRING LINE.
- ⑪ LENGTH "L" AND EMBEDMENT "P" SHALL HAVE THE FOLLOWING VALUES UNLESS OTHERWISE SHOWN ON PLAN.
 FOR D2 = 96" OR LESS, L = 5'-6", P = 5"
 D2 OVER 96", L = 6'-0", P = 8"
 L MAY BE INCREASED OR LOCATION OF MANHOLE SHIFTED TO MEET PIPE ENDS. WHEN L IS GREATER THAN THAT SHOWN ABOVE IS SPECIFIED, D BARS SHALL BE CONTINUED 6" O.C.
- ⑫ D BARS SHALL BE #4 FOR D2 = 39" OR LESS, #5 FOR D2 = 42" TO 84" INCLUSIVE, AND #6 FOR D2 = 90" OR OVER. TIE BARS SHALL BE #3 BARS.
- ⑬ CONCRETE SHALL BE CLASS 560-C-3250 PER SECTION 201 S.S. PWC.
- ⑭ CENTERLINE OF INLET PIPE TO INTERSECT INSIDE FACE OF CONE AT SPRING LINE UNLESS OTHERWISE SHOWN.
- ⑮ MANHOLE COVER SHALL BE MARKED WITH THE LETTER 'D' AS MANUFACTURED BY ALHAMBRA FOUNDRY OR APPROVED EQUAL.

TABLE OF VALUES FOR "F"									
D2	F	D2	F	D2	F	D2	F	D2	F
36"	6 1/2"	54"	9"	72"	11"	108"	16"	144"	18"
39"	7"	57"	9 1/4"	78"	11 3/4"	114"	16 1/2"		
42"	7 1/2"	60"	9 1/2"	84"	12 1/2"	120"	17"		
45"	7 3/4"	63"	10"	90"	13 1/4"	126"	17"		
48"	8"	66"	10 1/4"	96"	14"	132"	17 1/2"		
51"	8 1/2"	69"	10 3/4"	102"	15 1/2"	138"	17 1/2"		



APPROVED BY:				
<i>Louis Abi-Younes</i>		44485	6.11.15	
LOUIS ABI-YOUNES, CITY ENGINEER		RCE	DATE	
RECOMMENDED:				
<i>Raymond Lee</i>		59059	6/11/15	
RAYMOND LEE, ASSISTANT CITY ENGINEER		RCE	DATE	
REV	DESCRIPTION	BY	APP'D	DATE

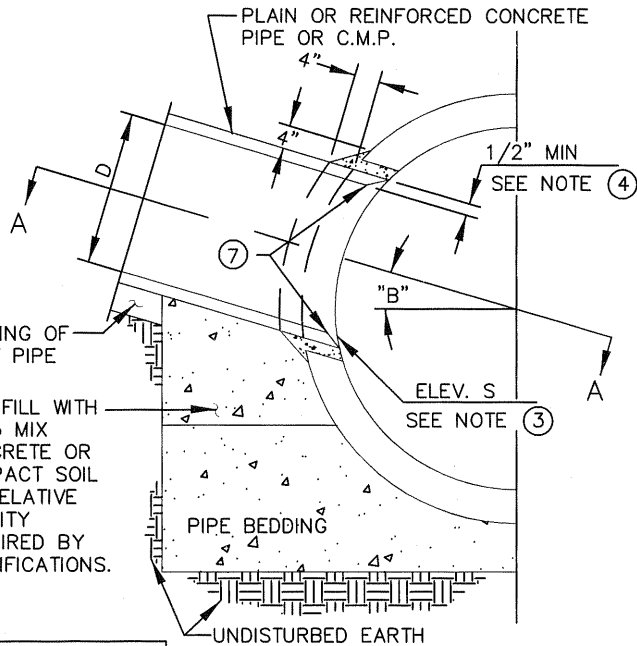
CITY OF ONTARIO	
MANHOLE NO. 1 NOTES	STANDARD DRAWING NUMBER 3009



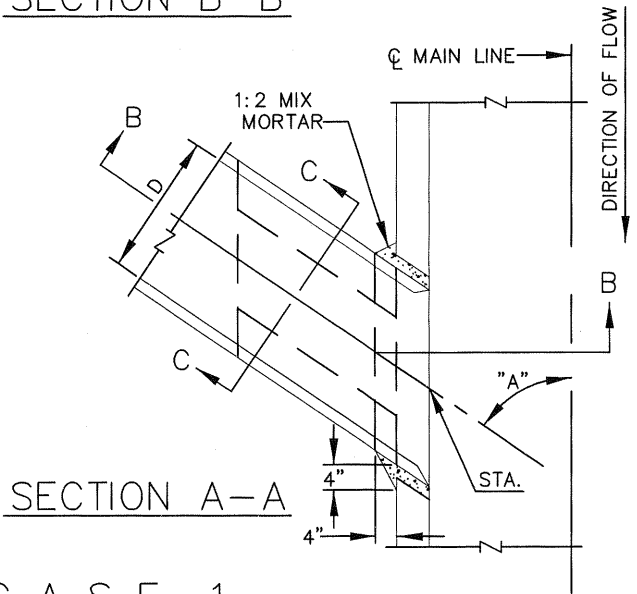
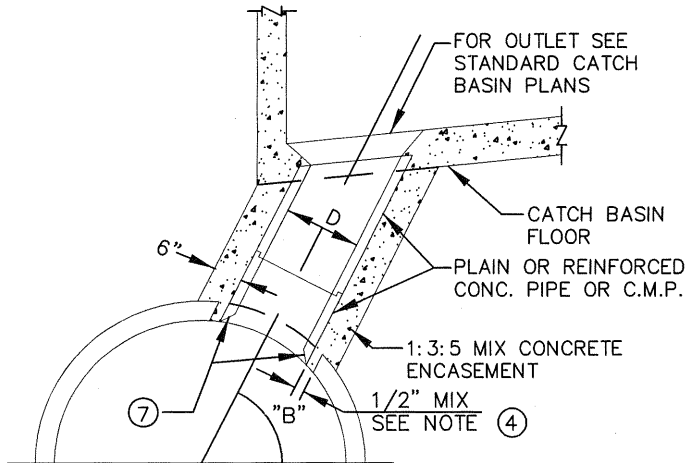
BACKFILL

PIPE BEDDING

SECTION C-C



SECTION B-B



SECTION A-A

NOTE

ALL CONNECTOR PIPES (WITHIN THE ANGLES SPECIFIED FOR CASE 2) SHALL BE ENCASED WHEN LAID WITHIN THE MAIN LINE EXCAVATED TRENCH, OR WHEN LAID ON FILL WHICH HAS NOT BEEN DENSIFIED.

CASE 2 CASE 1

NOTES: CASE 1 AND CASE 2

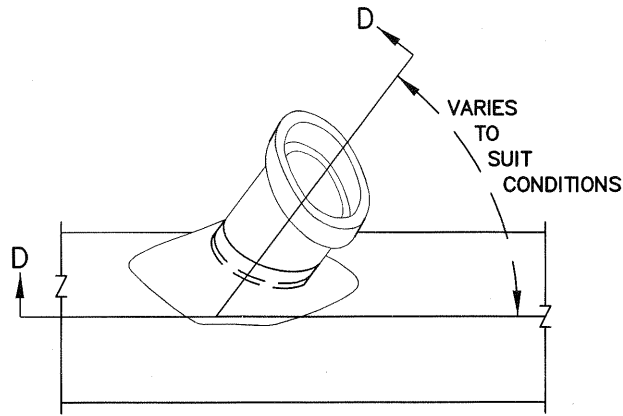
- ① ANGLE "A" SHALL BE BETWEEN 45 DEGREES AND 90 DEGREES AND D SHALL BE 24 INCHES OR LESS. FOR SMALLER VALUES OF "A" AND LARGER VALUES OF D USE APPROPRIATE STANDARD STRUCTURE.
- ② IN NO CASE SHALL THE OUTSIDE DIAMETER OF THE INLET PIPE EXCEED ONE-HALF THE INSIDE DIAMETER OF THE MAIN STORM DRAIN.
- ③ CENTER LINE OF INLET SHALL BE ON RADIUS OF MAIN STORM DRAIN EXCEPT WHERE ELEVATION S IS SHOWN ON PROJECT DRAWINGS.
- ④ THE OPENING INTO THE MAIN STORM DRAIN SHALL BE THE OUTSIDE DIAMETER OF THE INLET PIPE PLUS ONE INCH MINIMUM OR 3 INCH MAXIMUM.
- ⑤ ALL CORRUGATED METAL PIPE AND FITTINGS SHALL BE GALVANIZED.
- ⑥ IF ANGLE "B" IS 45 DEGREES OR LESS USE CASE 1, IF ANGLE "B" IS GREATER THAN 45 DEGREES USE CASE 2.

- ⑦ BURN OR CHIP END OF CONNECTOR PIPE FLUSH WITH INNER SURFACE OF MAINLINE PIPE. ROUND EDGE OF CONCRETE PIPE OR REINFORCED CONCRETE PIPE.
- ⑧ STATION SPECIFIED ON DRAWINGS APPLIES TO THE INTERSECTION OF THE INSIDE WALL OF THE MAIN STORM DRAIN AND CENTER LINE OF INNER PIPE.

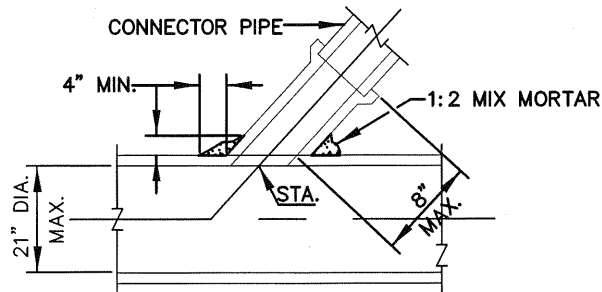


APPROVED BY:				
<i>John P. Sullivan</i>		24079 8/08/06		
JOHN P. SULLIVAN CITY ENGINEER		RCE	DATE	
RECOMMENDED:				
<i>Jim Min March</i>		33340 8/07/06		
JIM MIN MARCH		RCE	DATE	
REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO	
JUNCTION STRUCTURE NO 1	
CASE 1 AND CASE 2	
STANDARD DRAWING NUMBER	3010



PLAN



SECTION D-D

NOTES: CASE 3

- ① CONNECTIONS TO PIPES 21" OR LESS IN DIAMETER WITHOUT JUNCTION STRUCTURES OR PRECAST Y BRANCHES SHALL BE MADE WITH SADDLES.
- ② TRIM OR CUT SADDLE TO FIT SNUGLY OVER THE OUTSIDE OF THE MAIN PIPE, AND SO ITS AXIS WILL BE ON THE LINE AND GRADE OF THE CONNECTING PIPE.
- ③ THE OPENING INTO THE PIPE SHALL BE CUT AND TRIMMED TO FIT THE SADDLE SO THAT NO PART WILL PROJECT WITHIN THE BORE OF THE SADDLE PIPE.
- ④ THE CONNECTING PIPE SHALL BE SUPPORTED AS SHOWN IN CASES 1 AND 2.

CASE 3
SADDLE CONNECTION



APPROVED BY:				
<i>John P. Sullivan</i>				
JOHN P. SULLIVAN		24079	8/08/06	
CITY ENGINEER		RCE	DATE	
RECOMMENDED:				
<i>Jim Min March</i>				
JIM MIN MARCH		33340	8/07/06	
ASSISTANT CITY ENGINEER		RCE	DATE	
REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO	
JUNCTION STRUCTURE NO 1	STANDARD DRAWING NUMBER
CASE 3 SADDLE CONNECTION	3011

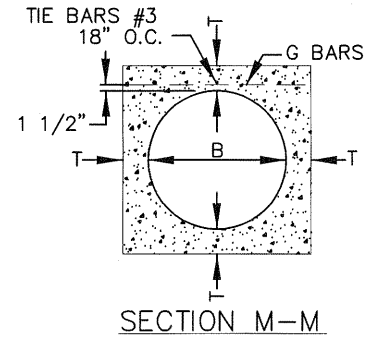
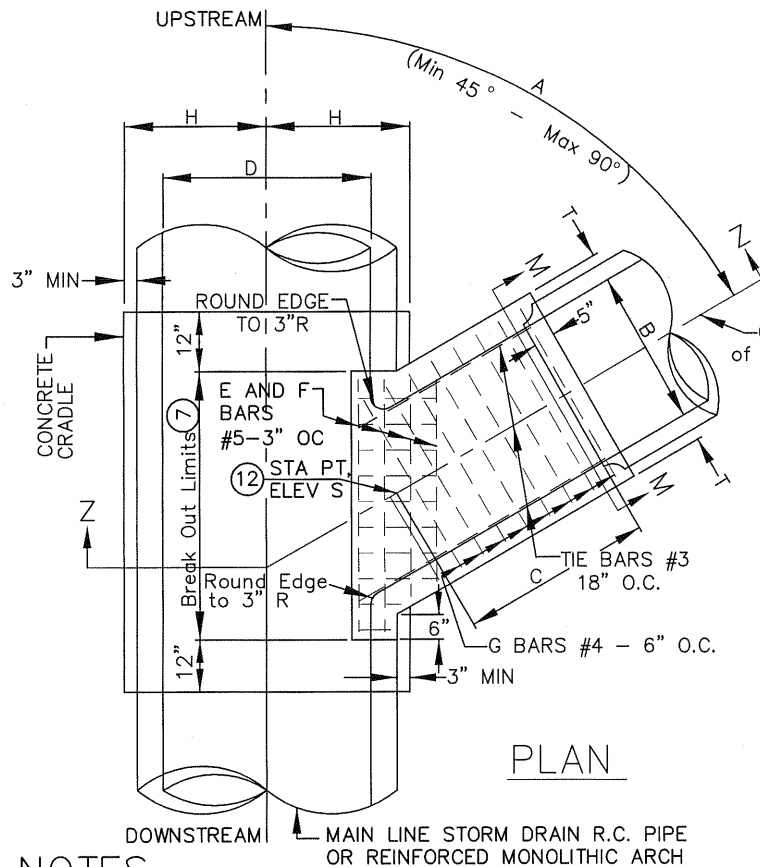
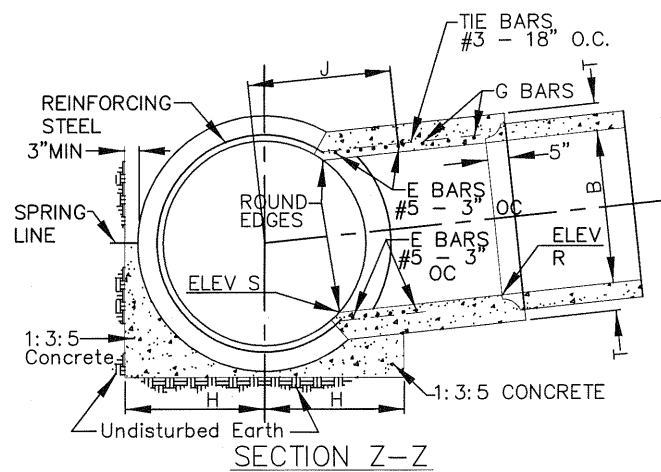


TABLE OF VALUES FOR T	
B	T
12"	5"
15"	5"
18"	5"
21"	5"
24"	5 1/2"
27"	5 1/2"
30"	6"
33"	6 1/2"
36"	6 1/2"
39"	7"



NOTES

- ① E AND F BARS SHALL BE CARRIED TO A POINT NOT LESS THAN J DISTANCE FROM CENTERLINE. $J = 7/12 D + 6$ INCHES.
- ② CONCRETE STRENGTH SHALL BE 3,000 psi AT 28 DAYS EXCEPT AS OTHERWISE NOTED.
- ③ FLOOR OF STRUCTURE SHALL BE STEEL TROWELED TO SPRING LINE.
- ④ JUNCTION STRUCTURE NO 2 IS TO BE USED WHEN O.D. OF B IS GREATER THAN 1/2 THE I.D. OF D, OR B IS GREATER THAN 24 INCHES. B SHALL NOT EXCEED 3/4 D, OR 39 INCHES. NOTE: NO MORE THAN ONE OPENING SHALL BE MADE IN ONE SECTION OF PIPE.
- ⑤ VALUES OF A,B,C AND D ARE SHOWN ON PROJECT DRAWINGS. ELEVATION "R" AND ELEVATION "S" ARE SHOWN WHEN REQUIRED PER NOTE 11.
- ⑥ ELEVATION "S" APPLIES AT INSIDE WALL OF STRUCTURE.
- ⑦ BREAKOUT LIMITS SHALL BE DETERMINED AS FOLLOWS:
 UPSTREAM LIMITS - AT THE INTERSECTION OF THE OUTSIDE OF THE SPUR WALL AND THE MAIN LINE PIPE WALL.
 DOWNSTREAM LIMITS - 6 INCHES DOWNSTREAM OF THE INTERSECTION OF THE SPUR WALL AND THE MAIN LINE PIPE WALL. THE OPENING SHALL BE RECTANGULAR, CUT NORMAL TO PIPE SURFACE AND WITHOUT DAMAGING REINFORCING STEEL. IF A JOINT IN THE MAIN LINE PIPE FALLS WITHIN THE LIMITS OF THE CONCRETE CRADLE, PROVIDE A CONCRETE ENCASEMENT ONE FOOT ABOVE THE TOP OF THE MAIN LINE PIPE TO THE LIMITS OF THE CRADLE.
- ⑧ THE TRANSVERSE REINFORCEMENT IN PIPE SHALL BE CUT AT CENTER OF OPENING AND BENT INTO TOP AND BOTTOM SLABS OF SPUR.
- ⑨ THE MAIN LINE PIPE SHALL BE CRADLED & ENCASED IN 1:3:5 MIX CONCRETE, EXTENDING LONGITUDINALLY 12 INCHES BEYOND THE LIMITS OF BREAKOUT (SEE NOTE 7); AND TRANSVERSELY A DISTANCE OF H ON EACH SIDE OF THE CENTERLINE OF PIPE. $H = 12$ O.D. OF PIPE + 3 INCHES MINIMUM. CRADLE MAY BE OMITTED ON SIDE OPPOSITE LATERAL INLET WHEN CONSTRUCTED IN CONNECTION WITH EXISTING STORM DRAIN.
- ⑩ REINFORCING STEEL SHALL BE PLACED 1 1/2 INCHES CLEAR FROM FACE OF CONCRETE, UNLESS OTHERWISE SHOWN.
- ⑪ WHEN ELEVATION "R" AND ELEVATION "S" ARE NOT SHOWN ON PROJECT DRAWINGS, INLET PIPE SHALL ENTER MAIN LINE RADIALLY. WHEN INLET PIPE ENTERS MAIN LINE OTHER THAN RADIALLY, ELEVATION "S" SHALL BE SHOWN ON PROJECT DRAWINGS, AND INLET PIPE SHALL BE LAID ON A STRAIGHT GRADE FROM ELEVATION "S" TO CATCH BASIN OR GRADE BREAK IN LINE. ELEVATION "R" SHALL BE SHOWN ON PROJECT DRAWING ONLY WHEN STUB IS TO BE PROVIDED IN MAIN LINE.

⑫ STATIONS SPECIFIED ON DRAWINGS APPLY AT THE INTERSECTION OF CENTER LINES OF MAIN LINE AND LATERALS, EXCEPT THAT STATIONS FOR CATCH BASIN CONNECTOR PIPE APPLY AT INSIDE WALL OF STRUCTURE.

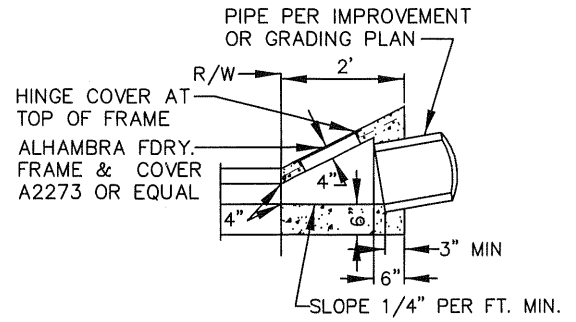
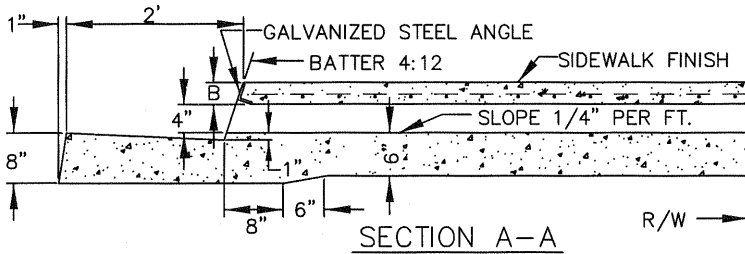


APPROVED BY:				
<i>John P. Sullivan</i>				
24079 8/08/06				
JOHN P. SULLIVAN CITY ENGINEER RCE DATE				
RECOMMENDED:				
<i>Jim Minnoch</i>				
33340 8/07/06				
JIM MINNOCH ASSISTANT CITY ENGINEER RCE DATE				
REV	DESCRIPTION	BY	APP'D	DATE

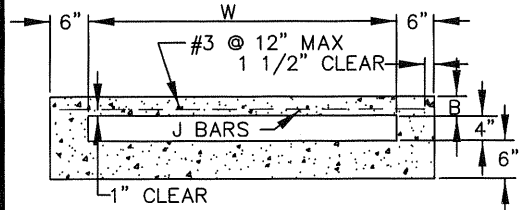
CITY OF ONTARIO

JUNCTION STRUCTURE NO 2

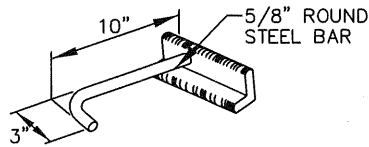
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3012



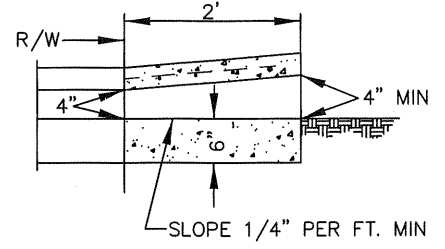
Section - INLET TYPE 1



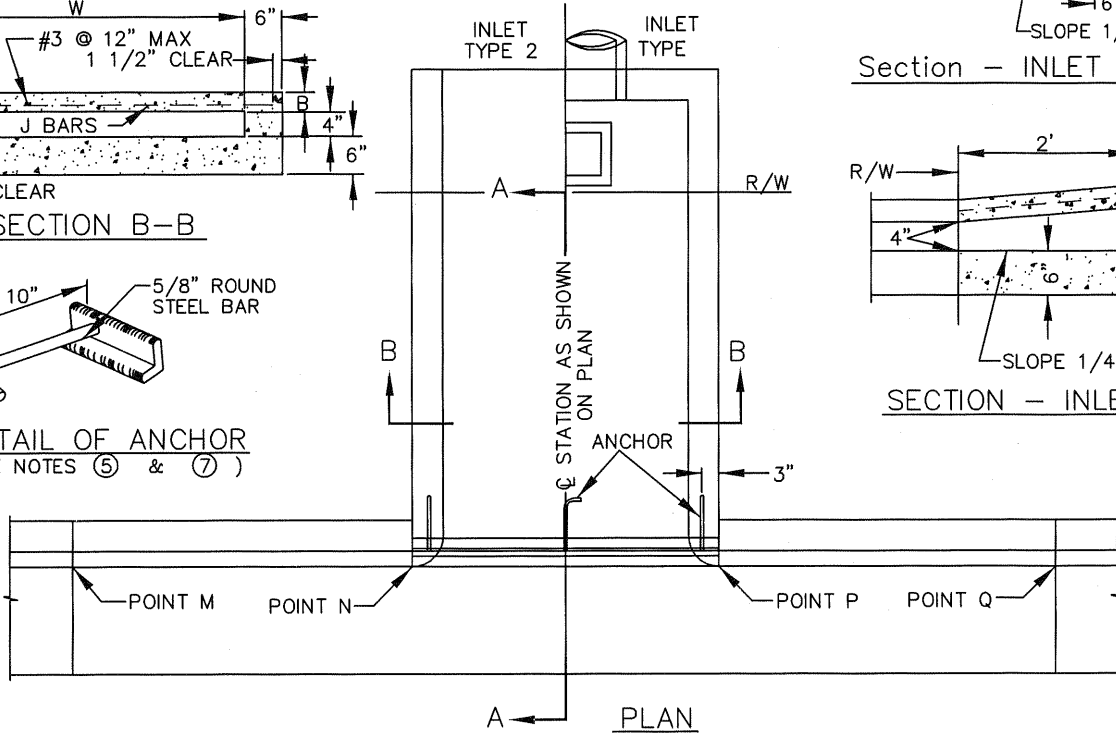
SECTION B-B



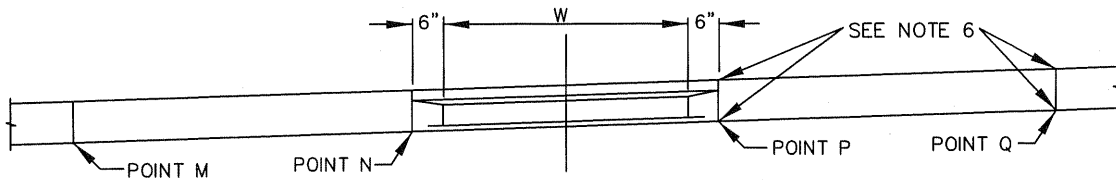
DETAIL OF ANCHOR
(SEE NOTES ⑤ & ⑦)



SECTION - INLET TYPE 2



PLAN



PROFILE

STEEL LIST

W	B	Gavanized Steel Angle	J Bar			
			Anchor	Size	Spacing	Length
1'-0"	3"	2 1/2"x2"x3/8"	2	#3	7"	1'-9"
1'-6"	"	"	"	"	"	2'-3"
2'-0"	"	"	"	"	"	2'-9"
2'-6"	"	"	"	"	"	3'-3"
3'-0"	"	"	3	"	"	3'-9"
3'-6"	"	"	"	"	6"	4'-3"
4'-0"	"	"	"	"	5"	4'-9"

NOTES

- ① FLOOR OF BOX TO BE TROWELED SMOOTH.
- ② WHEN THE TOE OF SLOPE IS WITHIN THE R/W, INLET TYPE I BEGINS AT THE TOE RATHER THAN AT THE R/W LINE.
- ③ FOR OPEN DITCH APPROACH (TYPE 2) THE 2' EXTENSION IS NOT REQUIRED WHEN THE BACK OF WALK IS 2' OR MORE FROM THE R/W LINE.
- ④ TOP OF INLET STRUCTURE (TYPE 1 & 2) TO BE FLUSH WITH ADJACENT SURFACE WHERE PRACTICABLE.
- ⑤ A HEADED STEEL STUD 5/8"x 6 3/8" WITH HEAD D=1" ATTACHED BY A FULL PENETRATION BUTT WELD MAY BE USED AS AN ALTERNATE ANCHOR.
- ⑥ NORMAL CURB FACE AT POINT M & Q, & PLUS 5" AT POINT N AND P.
- ⑦ THE 3" LEG OF THE INTERIOR ANCHORS SHALL BE PARALLEL TO THE TOP OF SIDEWALK.
- ⑧ FOR 'W' IN EXCESS OF 4'-0" A DOUBLE BOX STRUCTURE SHALL BE USED.



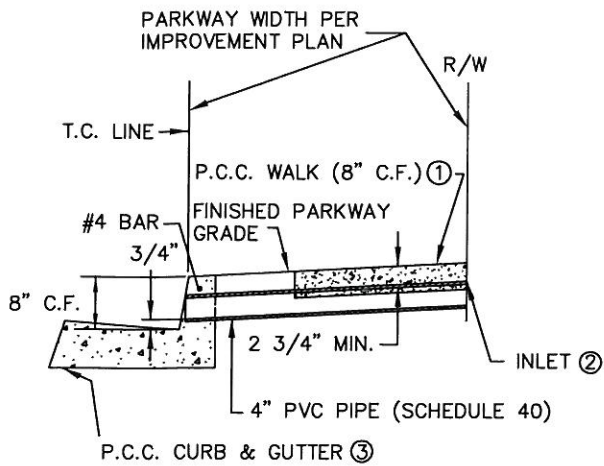
APPROVED BY:			
<i>John P. Sullivan</i>		24079 8/08/06	
JOHN P. SULLIVAN CITY ENGINEER		RCE DATE	
RECOMMENDED:			
<i>Jim Min Mach</i>		33340 8/07/06	
ASSISTANT CITY ENGINEER		RCE DATE	
REV	DESCRIPTION	BY	APP'D DATE

CITY OF ONTARIO

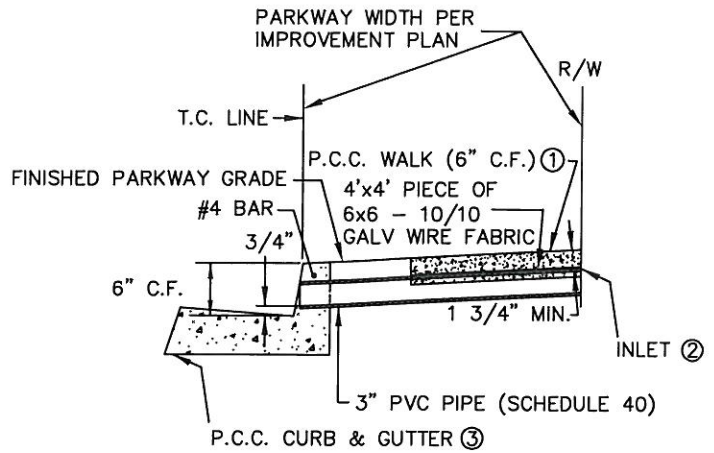
PARKWAY DRAIN NO 1

STANDARD DRAWING NUMBER

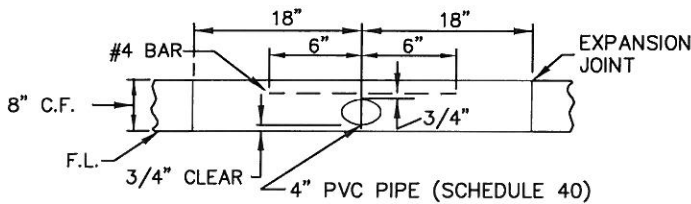
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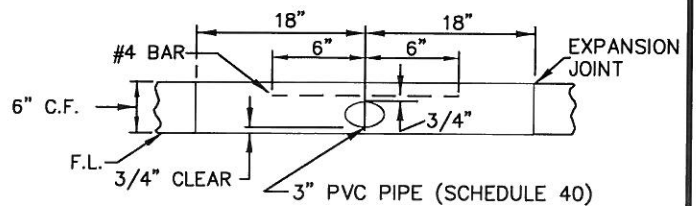
8" CURB SECTION



6" CURB SECTION



8" CURB PROFILE



6" CURB PROFILE

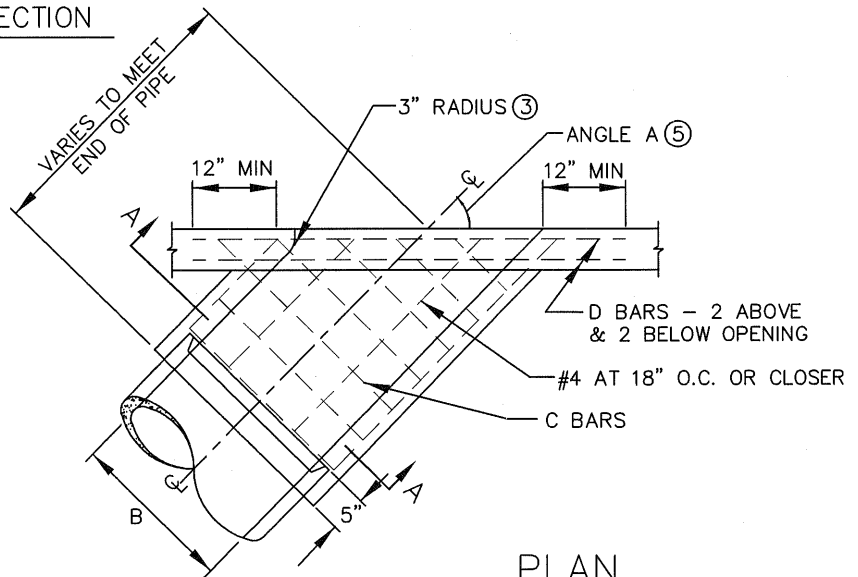
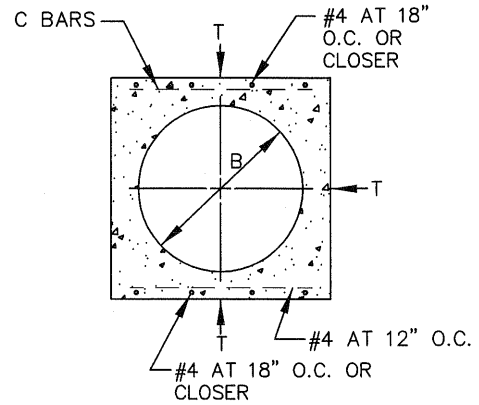
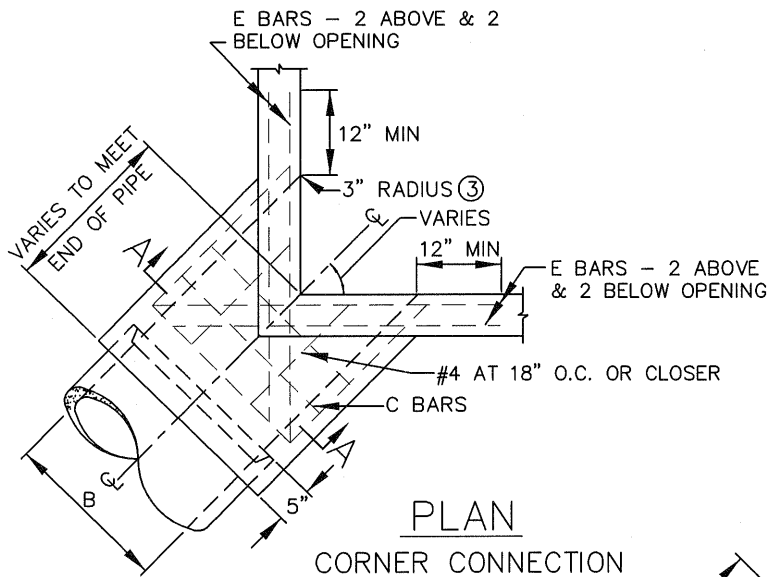
NOTES

- ① CONSTRUCT P.C.C. SIDEWALK WHEN SPECIFIED ON PLAN.
- ② INLET DETAILS TO BE SPECIFIED ON GRADING PLAN.
- ③ TYPE, DIMENSIONS, AND ELEVATIONS OF P.C.C. CURB AND GUTTER PER IMPROVEMENT PLAN.



APPROVED BY:				
<i>[Signature]</i>		44485	6.11.15	
LOUIS ABI-YOUNES P.E./CITY ENGINEER		RCE	DATE	
RECOMMENDED:				
<i>[Signature]</i>		59059	6/11/15	
RAYMOND LEE P.E./ASSISTANT CITY ENGINEER		RCE	DATE	
REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO	
PARKWAY DRAIN NO. 2	STANDARD DRAWING NUMBER 3014



NOTES

- ① REINFORCING STEEL SHALL BE 1 1/2" CLEAR FROM FACE OF CONCRETE UNLESS OTHERWISE SHOWN.
- ② REINFORCING STEEL FOR INSIDE FACE OF CATCH BASIN WALL SHALL BE CUT AT CENTER OF OPENING AND BENT INTO WALLS OF MONOLITHIC CONNECTION. REINFORCING STEEL FOR OUTSIDE FACE OF CATCH BASIN WALL SHALL BE 2" CLEAR CUT OPENING.
- ③ CONNECTION SHALL BE POURED MONOLITHIC WITH CATCH BASIN. THE ROUND EDGE OUTLET SHALL BE CONSTRUCTED BY POURING CONCRETE AGAINST A CURVED FORM WITH A RADIUS OF 3"
- ④ FLOOR OF STRUCTURE SHALL BE STEEL-TROWELED TO SPRING LINE.
- ⑤ CONNECTIONS SHALL BE CONSTRUCTED WHEN-
 - A) PIPES, 12" THROUGH 72" IN DIAMETER, INLET OR OUTLET, THROUGH CORNER OF CATCH BASIN.
 - B) ANGLE A, FOR PIPES 24" THROUGH 30" IN DIAMETER, IS 70 DEGREES OR LESS.

C) PIPES, 15" THROUGH 72" IN DIAMETER, INLET OR OUTLET THROUGH ANY WALL CATCH BASIN IF THE CONNECTOR PIPE DOES NOT EXTEND TO THE WALL PER THE APPLICABLE CATCH BASIN STANDARD.

B	T	C BAR	D&E Bar	B	T	C Bar	D&E BAR
12"	4"	#4 AT 6" O.C.	#5	42"	7 1/2"	#5 AT 6" O.C.	#6
15"	4 1/4"			45"	7 3/4"		
18"	4 1/2"			48"	8"		
21"	5"			51"	8 1/2"		
24"	5 1/4"			54"	9"		
27"	5 1/2"			57"	9 1/4"		
30"	6"			60"	9 1/2"		
33"	6 1/4"			63"	10"		
36"	6 1/2"			66"	10 1/4"		
39"	7"			69"	10 1/2"		
				72"	11"		



APPROVED BY: *John P. Sullivan* 24079 8/08/06
 JOHN P. SULLIVAN CITY ENGINEER RCE DATE

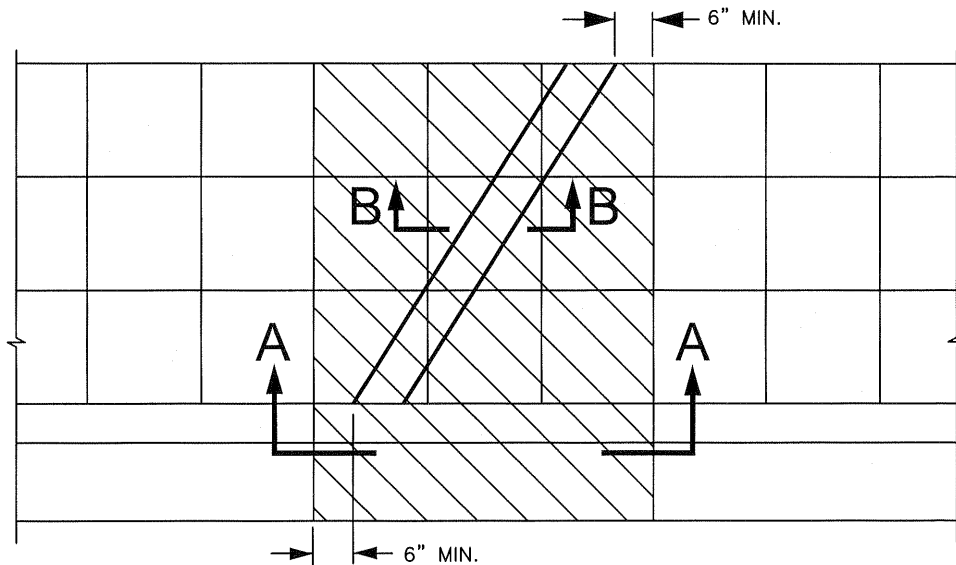
RECOMMENDED: *Jim Min Mack* 33340 8/07/06
 ASSISTANT CITY ENGINEER RCE DATE

REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO

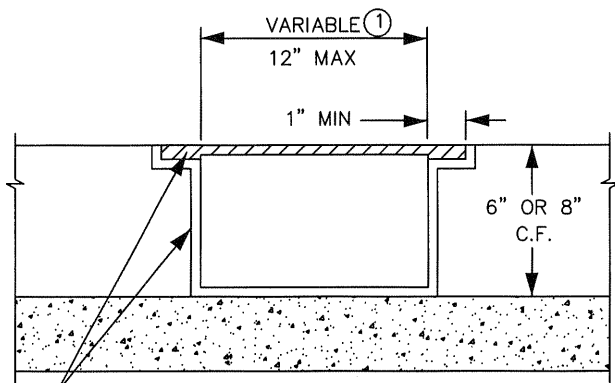
CONNECTION TO CATCH BASIN

STANDARD DRAWING NUMBER
3015



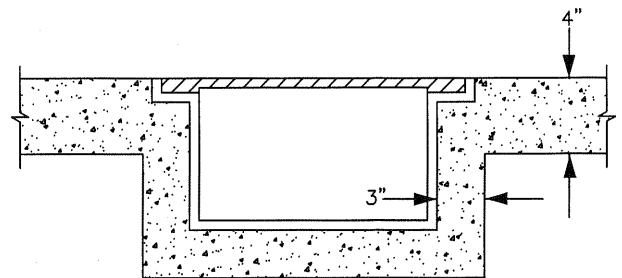
 REMOVE AND REPLACE EXISTING CONCRETE. PLACE EXPANSION JOINTS BETWEEN EXISTING AND NEW CONCRETE. ANGLE SHALL BE DETERMINED BY THE INSPECTOR.

PLAN



ALHAMBRA FOUNDARY NO. A-2442
WITH COVER OR APPROVED EQUAL

SECTION A-A



SECTION B-B

Notes:

- ① MODIFICATION FOR WIDTH GREATER THAN 12" CAN BE MADE WITH APPROVAL OF THE CITY ENGINEER.
- ② FOR USE IN INDUSTRIAL DEVELOPMENTS UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.



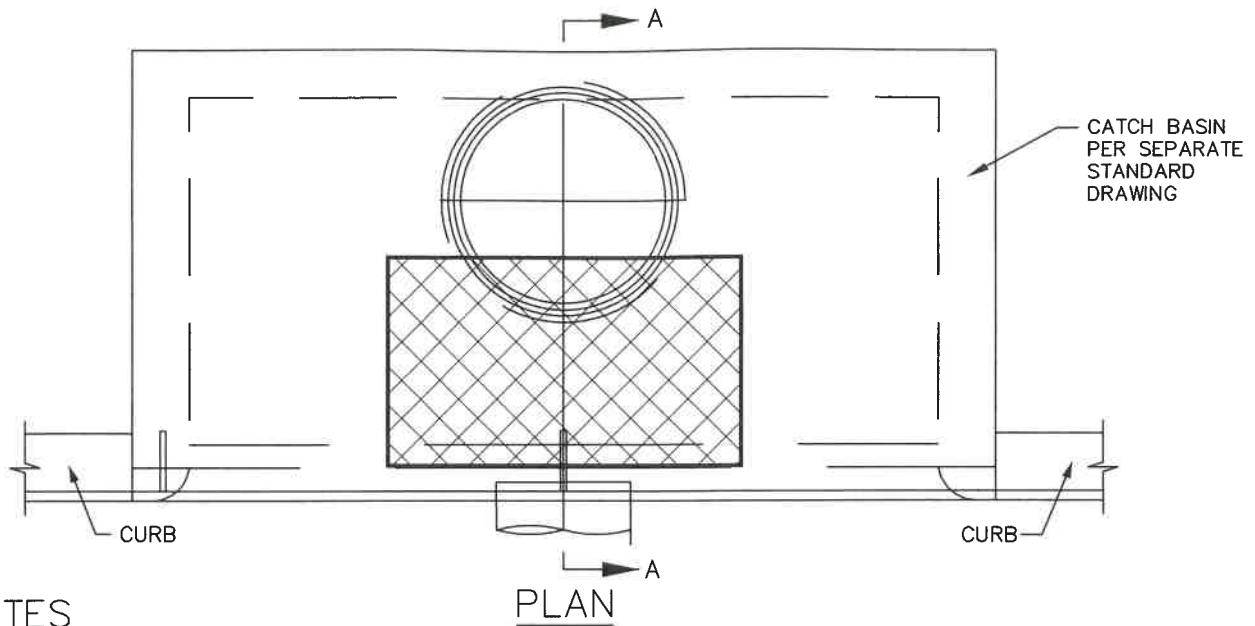
APPROVED BY: <i>John P. Sullivan</i>				
JOHN P. SULLIVAN CITY ENGINEER		24079	8/08/06	
		RCE	DATE	
RECOMMENDED: <i>Jim Minich</i>				
ASSISTANT CITY ENGINEER		33340	8/07/06	
		RCE	DATE	
REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO

SIDEWALK DRAIN NO. 2

STANDARD
DRAWING
NUMBER

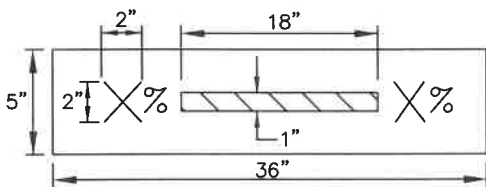
3016



NOTES

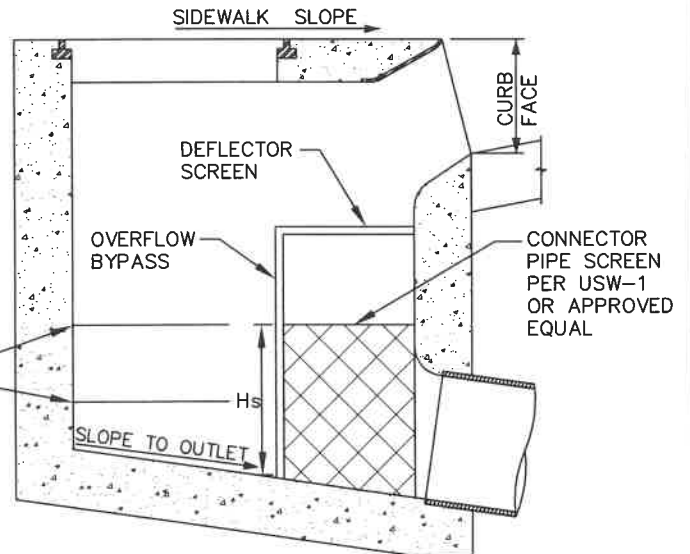
1. PRODUCT MUST BE LISTED ON THE STATE WATER RESOURCES CONTROL BOARD'S CERTIFIED FULL CAPTURE LIST.
2. DIMENSIONS, CLEARANCES, DISTANCES, AND OUTLET DIAMETER LIMITATIONS PER USW-1 OR APPROVED EQUAL MANUFACTURER'S SIZING AND MAINTENANCE ACCESS REQUIREMENTS.
3. CPS DEFLECTOR SCREEN SHALL BE EQUIPPED WITH A STAINLESS STEEL PLATE TO FACILITATE VECTOR CONTROL ACCESS FOR ABATEMENT APPLICATION.
4. CPS TO BE ADDED TO THE STANDARD CATCH BASIN LOCATED WITHIN OR ACCEPTING FLOWS TRIBUTARY TO A PRIORITY LAND USE (PLU) * AREA UNLESS UPSTREAM OF A SUB-REGIONAL CERTIFIED FULL CAPTURE DEVICE WITH HIGH FLOW CAPACITY.
5. THE CONTRACTOR SHALL PAINT RED STRIPES AND NUMBERS ON WHITE BACKGROUND LABELING 40% AND 100% SCREEN HEIGHT (H_s) AS SHOWN BELOW.

* PRIORITY LAND USE (PLU): HIGH-DENSITY RESIDENTIAL, DEFINED AS A LAND USE WITH AT LEAST TEN (10) DWELLING UNITS PER ACRE, INDUSTRIAL, COMMERCIAL, MIXED URBAN, AND PUBLIC TRANSPORTATION STATION LAND USES.



**STAFF GAUGE
X% STRIPE**

(RED STRIPE AND NUMBERS ON WHITE BACKGROUND)



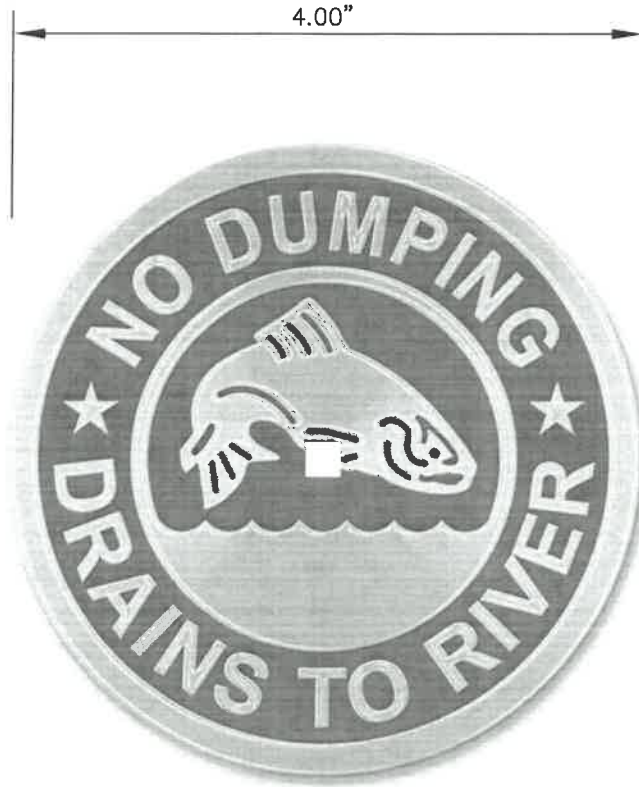
SECTION A-A



APPROVED BY:				
		62809	12-16-19	
KHOI K. DO, PE, CITY ENGINEER		RCE	DATE	
RECOMMENDED BY:				
		70990	12/16/19	
BRYAN LIRLEY, PE, PRINCIPAL ENGINEER		RCE	DATE	
REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO	
CONNECTOR PIPE SCREEN (CPS)	STANDARD DRAWING NUMBER 3017

TOP VIEW



NOTES:

1. CATCH BASIN MARKER SHALL BE MADE OF 304 STAINLESS STEEL.
2. THE COLOR SHALL BE BLUE.
3. THE SYMBOL SHALL BE THE FISH WITH WAVE AND STATE "NO DUMPING DRAINS TO RIVER" AS SHOWN HEREIN.
4. MARKER SHALL BE INSTALLED ON TOP OF THE SURFACE OF THE CATCH BASIN AS CLOSE TO CENTERLINE AS POSSIBLE.
5. MARKER SHALL BE SURFACE MOUNTED ON CENTER WITH A 1/4"x3/4" DRIVE RIVET OR EQUIVALENT AS APPROVED BY THE CITY ENGINEER.
6. THE WAVE SPACE SHALL BE KEPT CLEAR TO ALLOW FOR CATCH BASIN NUMBERING BY THE CITY.
7. CATCH BASIN MARKER SHALL BE ALMATEK OR APPROVED EQUAL.



APPROVED BY:				
		62809	9/19/22	
KHOI K. DO, PE, CITY ENGINEER		RCE	DATE	
RECOMMENDED:				
		70990	9/19/22	
BRYAN LIRLEY, PE, ASSY CITY ENGINEER		RCE	DATE	
REV	DESCRIPTION	BY	APP'D	DATE

CITY OF ONTARIO

CATCH BASIN
MARKER

STANDARD
DRAWING
NUMBER

3018