THE CITY OF POMONA

PUBLIC WORKS DEPARTMENT

STANDARD DRAWINGS

AUGUST 2011

PUBLIC WORKS CITY STANDARDS

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PUBLIC WORKS CITY STANDARDS

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FOR STANDARD SPECIFICATIONS FOR THE CITY OF POMONA SEE:

Standard Specifications for Public Works Construction Latest Edition, plus any supplements, published, herein referred to as "STANDARD SPECIFICATIONS,"

Written and Promulgated by the Southern California Chapter of the American Public Works Association and the Southern California District of the Associated General Contractors of California Joint Cooperative Committee.

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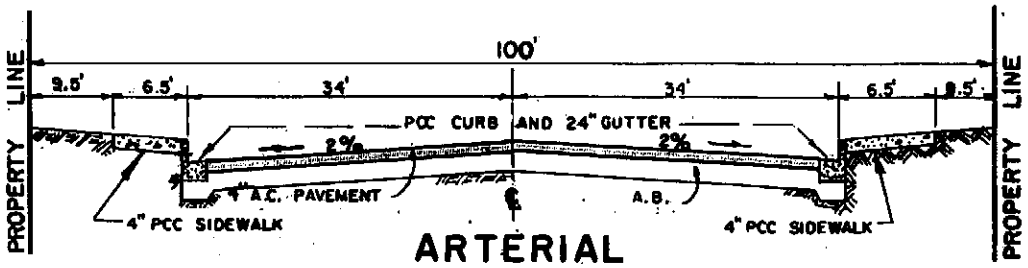

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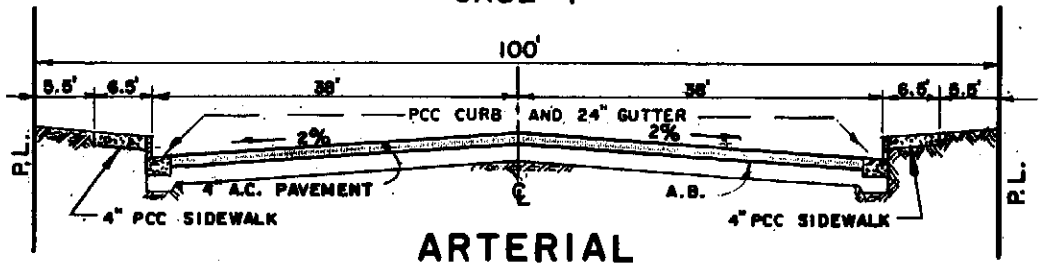

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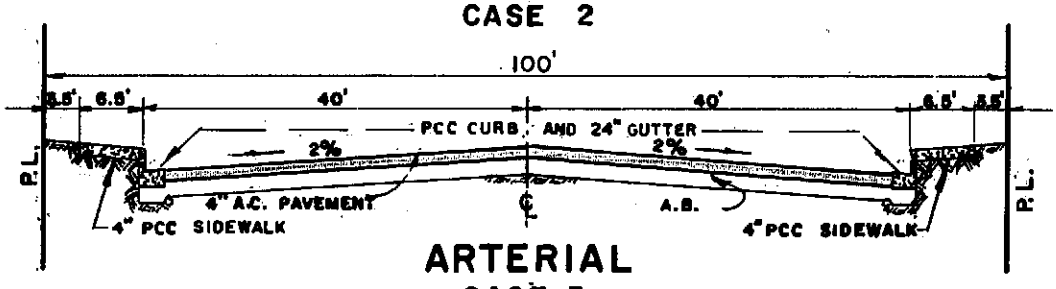
CASE 2



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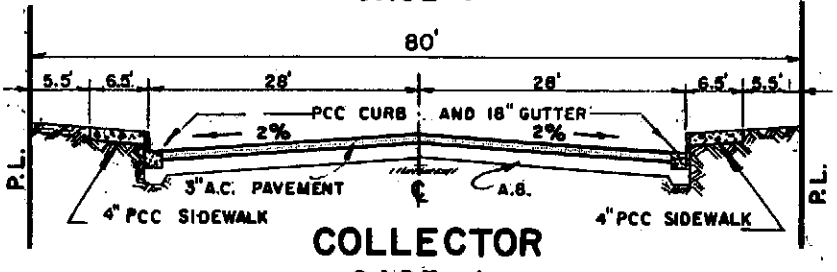
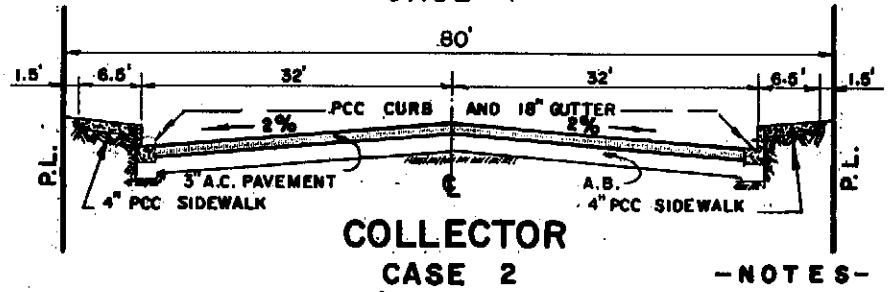


COLLECTOR
CASE 1



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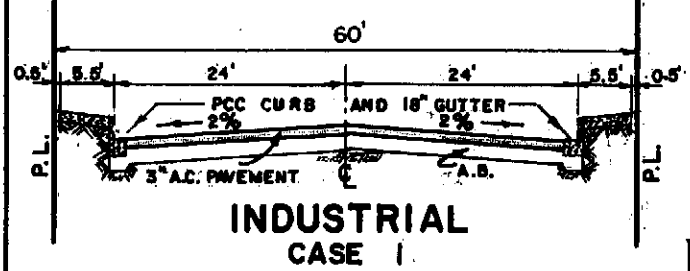
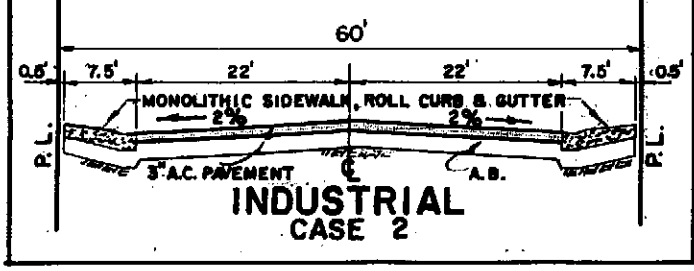
CASE 2



INDUSTRIAL
CASE 1



INDUSTRIAL
CASE 2

-NOTES-

1. In all cases the slope from the top of curb to property line is 1/4" per foot.
2. Sidewalk shall be constructed adjacent to curb unless approved by City Engineer.
3. Full parkway sidewalk shall be constructed in commercial zones, with tree wells as required.
4. Aggregate base requirement shall be determined by R-value & T.I. City Engineer shall assign T.I. No.
5. Base shall be CAB or CMB per Std. Specs. (rev. Oct. 06)

CITY OF POMONA
ENGINEERING DEPARTMENT

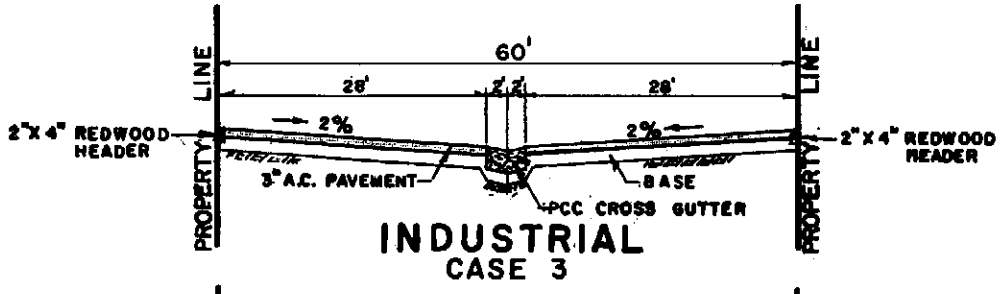
STANDARD

ROADWAY CROSS SECTIONS

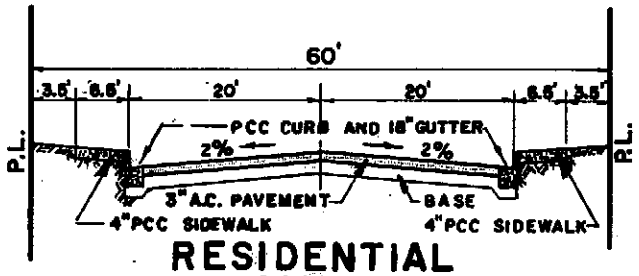
DWN.	CKD.	APPROVED
M.W.	L.B.	James J. Hudak 4/7/71

CITY ENGINEER R.E. 16550 DATE

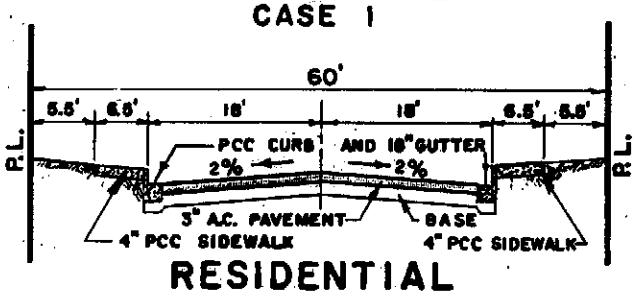
STD. Nº A-1 [illegible]



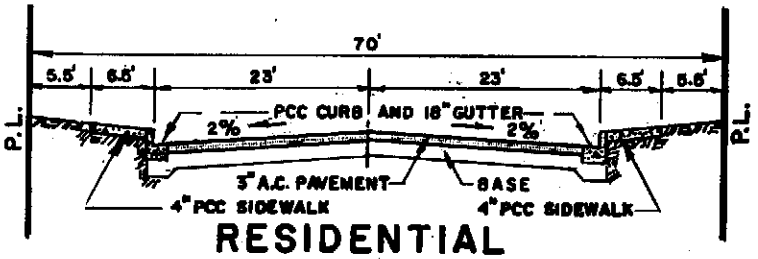
INDUSTRIAL
CASE 3



RESIDENTIAL
CASE 1

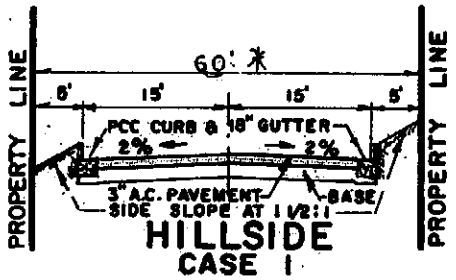


RESIDENTIAL
CASE 2

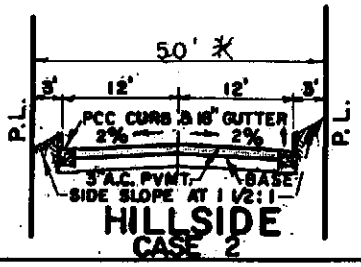


RESIDENTIAL
CASE 3

✳SEE ORD. 2202



HILLSIDE
CASE 1



HILLSIDE
CASE 2

—NOTES—

1. In all cases except HILLSIDE streets, the slope from top of curb to property line is 1/4" per foot.
2. Sidewalk shall be constructed adjacent to curb, unless approved by City Engineer.
3. Base requirement shall be determined by R-value & T.I. City Engineer shall assign T.I. number. T.I. = 4.5 in all RESIDENTIAL cases.
4. Base shall be CAB or CMB per Std. Specs. (rev. Oct. 2006)

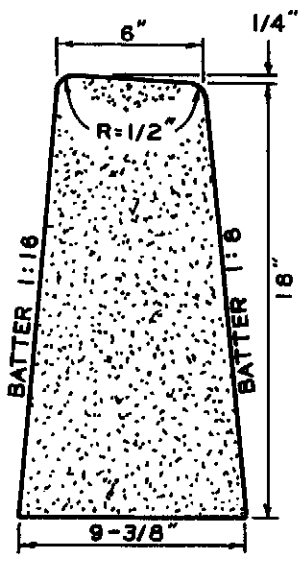
CITY OF POMONA
ENGINEERING DEPARTMENT

STANDARD

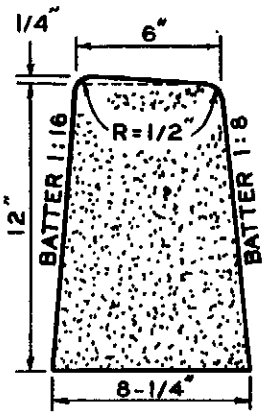
ROADWAY CROSS SECTIONS

DWN.	CKD.	APPROVED	
M.W.	L.B.	James J. Hudak CITY ENGINEER R.E. 16550	4/7/71 DATE

STD. Nº A-1-71-II



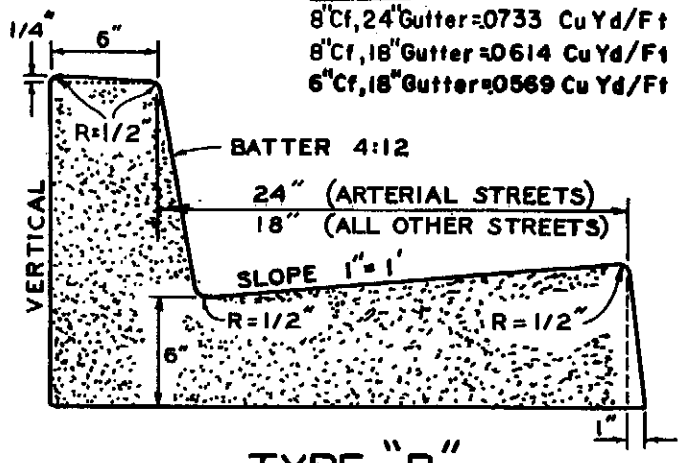
TYPE "A-1"
CURB ONLY



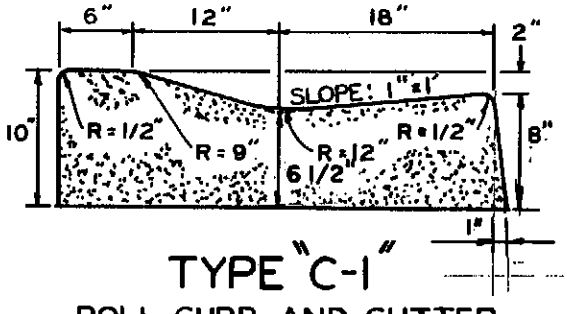
TYPE "A-2"
CURB ONLY

Type A-1 = .0360 Cu Yd/Ft
Type A-2 = .0223 Cu Yd/Ft

Type B
8"Cf, 24"Gutter = .0733 Cu Yd/Ft
8"Cf, 18"Gutter = .0614 Cu Yd/Ft
6"Cf, 18"Gutter = .0569 Cu Yd/Ft

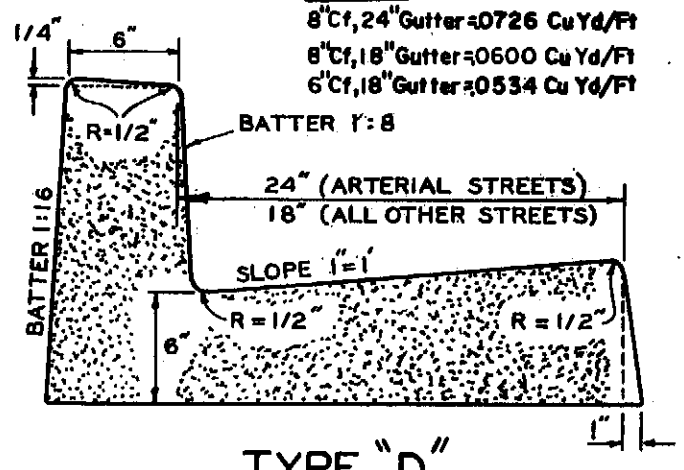


TYPE "B"
INTEGRAL CURB AND GUTTER
TO BE USED ON ALL NEW STREETS



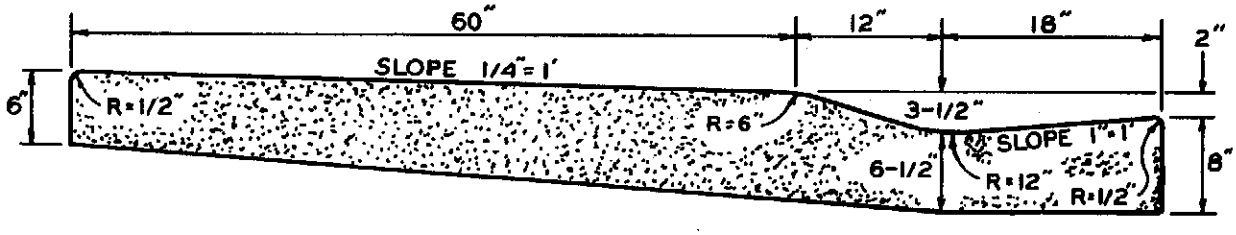
TYPE "C-1"
ROLL-CURB AND GUTTER
Type C-1 = .0877 Cu. Yd./ Ft.

Type D
8"Cf, 24"Gutter = .0726 Cu Yd/Ft
8"Cf, 18"Gutter = .0600 Cu Yd/Ft
6"Cf, 18"Gutter = .0534 Cu Yd/Ft



TYPE "D"
INTEGRAL CURB AND GUTTER

INDUSTRIAL AREAS ONLY



TYPE "C-2"
MONOLITHIC SIDEWALK, ROLL-CURB AND GUTTER
Type C-2 = .1786 Cu Yd/Ft

MARK	DATE	REVISION DESCRIPTION	APP.
1	12-21-69	SEE NOTE 2	

- NOTES -

1. Class 517-C-2500 concrete shall be used unless otherwise specified.
2. Base thickness shall be 6", unless otherwise determined by "R" value soils test.
3. Base shall be CAB or CMB per Std. Specs. (rev. Oct. 06)

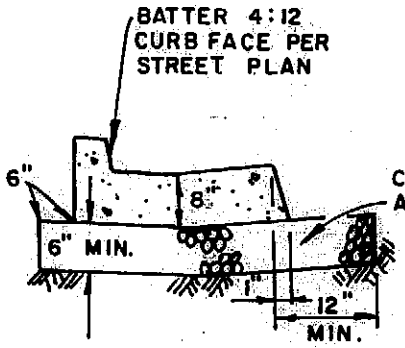
CITY OF POMONA
ENGINEERING DEPARTMENT

STANDARD
CURB DETAILS

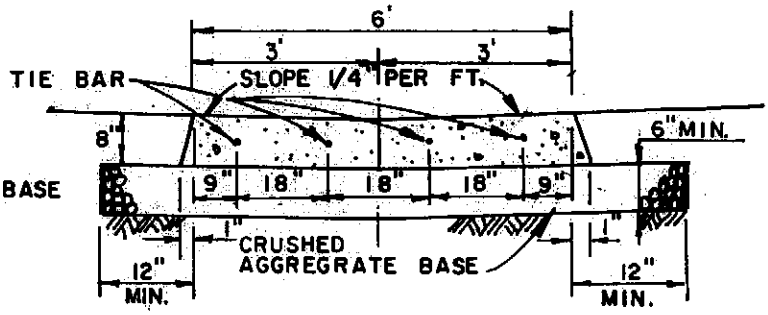
DRWN BY	CHKD BY	APPROVED BY	DATE
E	EM	Glenn A. Crawford	2/6/64

CITY ENGINEER R.E. NO. 8281

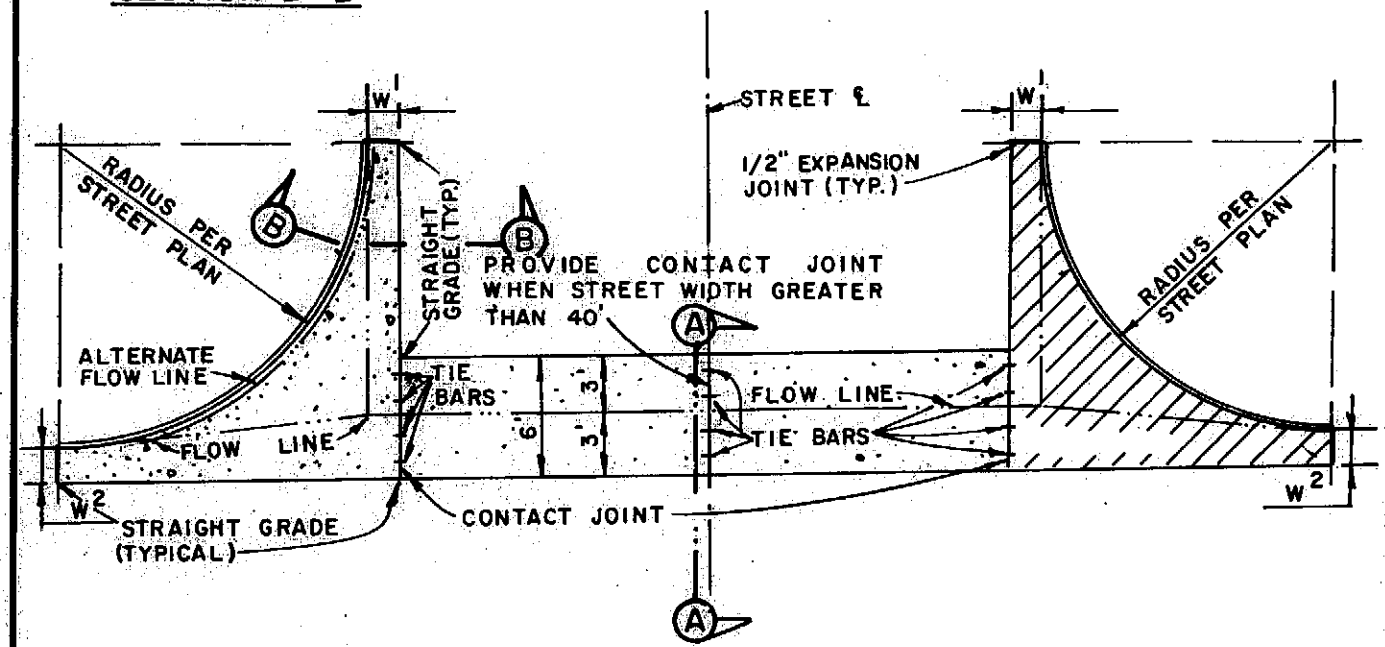
STD. NO. A-3-64



SECTION B-B



SECTION A-A



W^1 & W^2 = GUTTER WIDTH PER STREET PLAN

⚠1 PLAN
NO SCALE

AREA OF SPANDREL (CROSS-HATCHED) ' Δ = 90°				
W^1	W^2	R = 27'	R = 32'	R = 36'
18"	18"	239.69 SQ FT.	318.00 SQ FT.	–
18"	24"	253.94 SQ FT.	334.75 SQ FT.	–
24"	18"	253.94 SQ FT.	334.75 SQ FT.	–
24"	24"	268.44 SQ FT.	351.75 SQ FT.	426.12 SQ FT.

NOTES:

1. WEAKEN PLANE JOINT TOOLED 1 1/2" DEEP SHALL BE SUBSTITUTED FOR CONTACT JOINT WHERE MONOLITHIC CONSTRUCTION IS APPROVED BY THE CITY ENGINEER
2. CROSS GUTTERS SHALL BE CONSTRUCTED OF CLASS 517 C 2500 PORTLAND CEMENT CONCRETE EIGHT (8") THICK.
3. TIE BARS SHALL BE 3/4" Ø X 18" LONG SMOOTH STL. BARS @ 18" CENTERS, GREASE ONE END.
4. Base shall be CAB or CMB per Std. Specs. (rev. October 2006)

NO.	REVISIONS	DATE	BY
⚠1	REDRAWN	6-11-74	G.A.G.

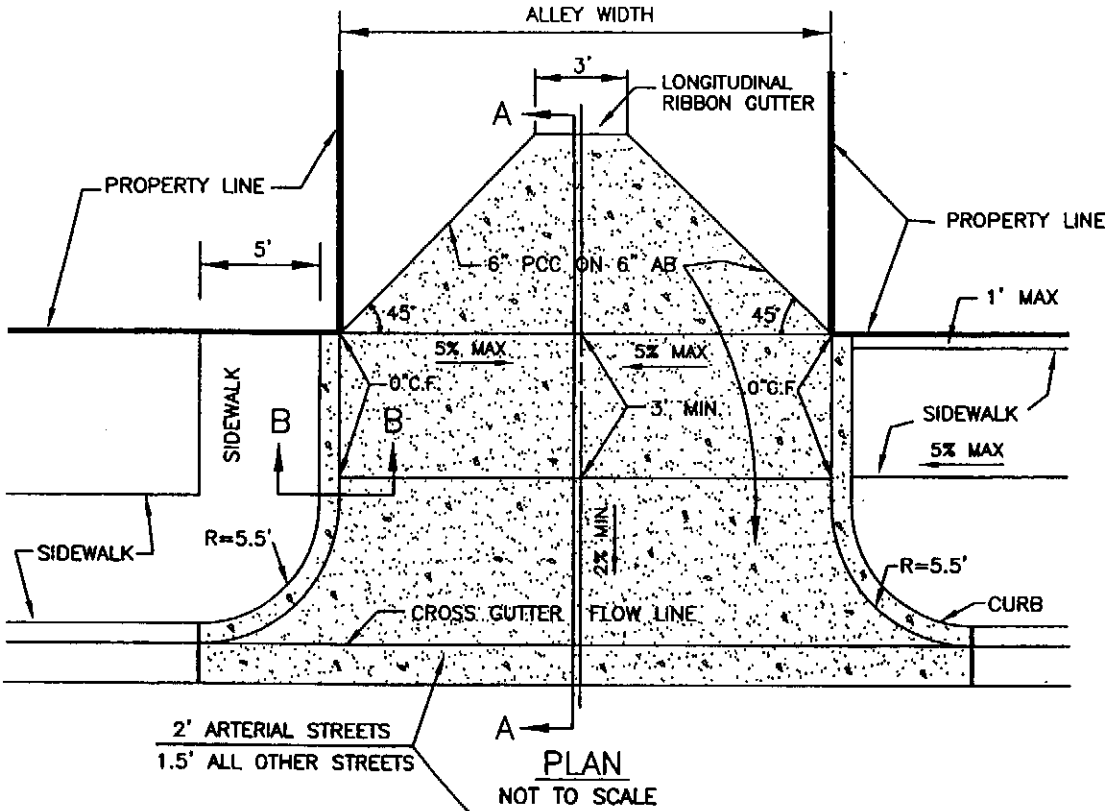
CITY OF POMONA
ENGINEERING DEPARTMENT

STANDARD

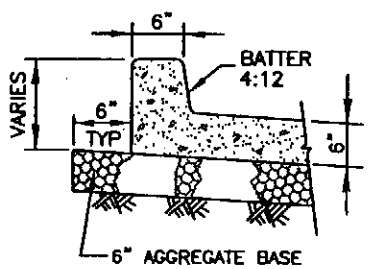
STREET CROSS GUTTER

DWN BY	CKD BY	APPROVED BY	DATE
G.A.G.	L.L.F.	Edward R. James, CITY ENGINEER R.E. 17993	5-24-74

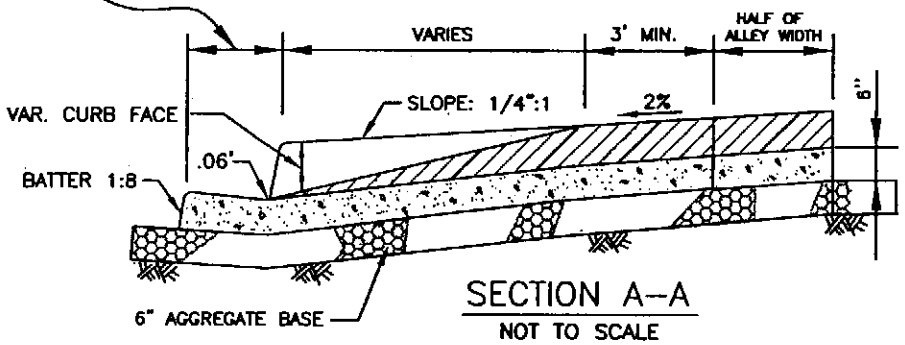
STD. NO. A-4-74



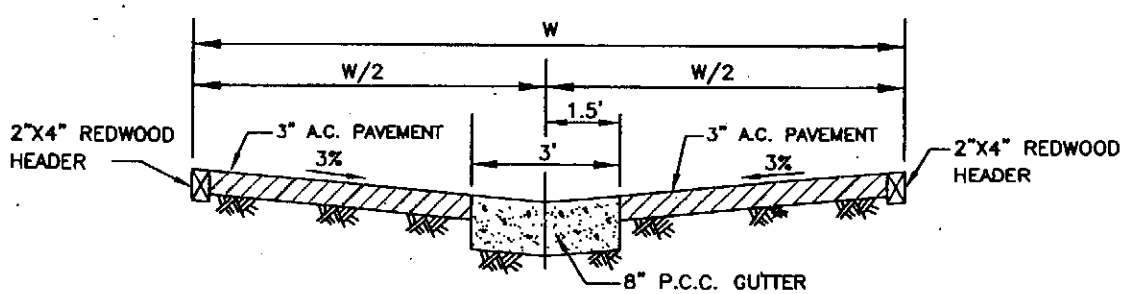
PLAN
NOT TO SCALE



SECTION B–B
NOT TO SCALE



SECTION A–A
NOT TO SCALE



TYPICAL ALLEY SECTION
NOT TO SCALE

NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" LATEST EDITION, INCLUDING AMMENDMENTS.
2. P.C.C. SHALL BE 520–C–2500
3. BASE SHALL BE CAB OR CMB.

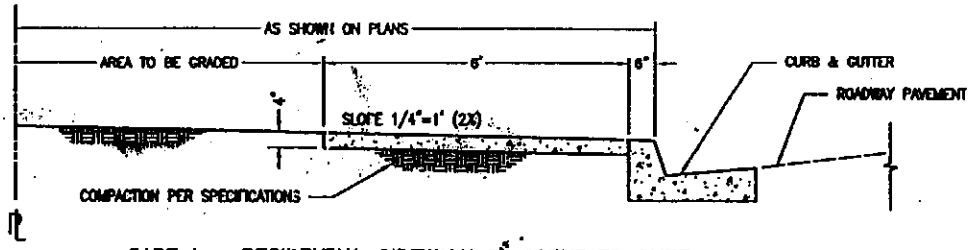
CITY OF POMONA
PUBLIC WORKS DEPARTMENT

STANDARD
ALLEY INTERSECTION & ALLEY CROSS SECTION

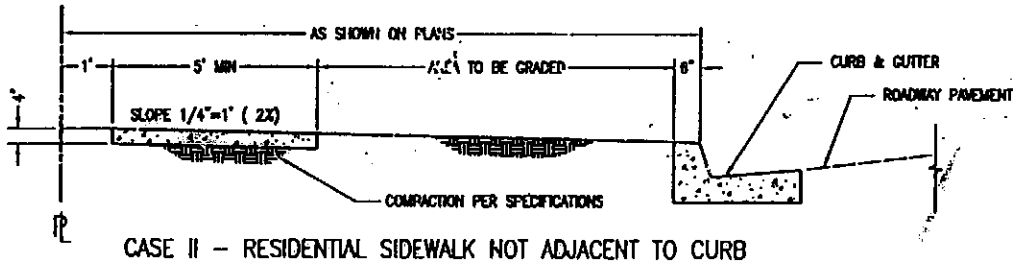
DRAWN BY: M. LAM	APPROVED BY: CITY ENGINEER R.C.E. 45607	DATE 11/28/06	1 OF 1
CHECKED BY: H.W.			

△	REVISIONS	DATE	INITIAL

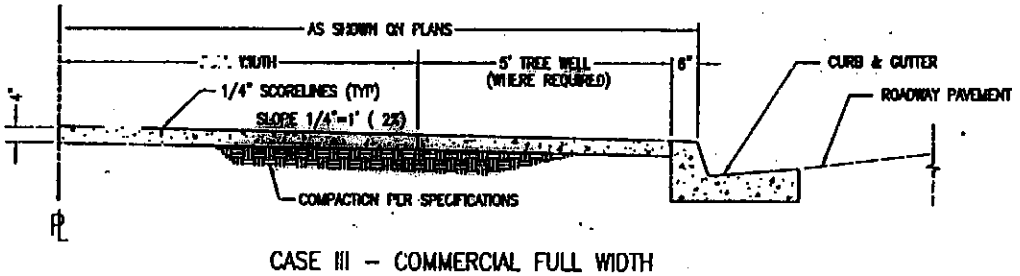
STD No. A–5–06



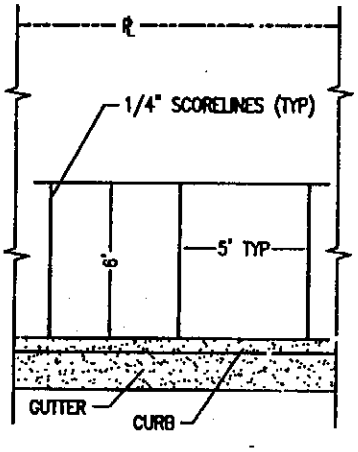
CASE I – RESIDENTIAL SIDEWALK ADJACENT TO CURB



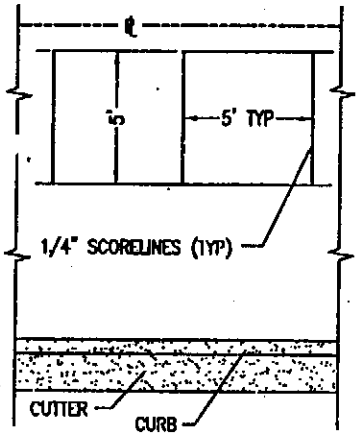
CASE II – RESIDENTIAL SIDEWALK NOT ADJACENT TO CURB



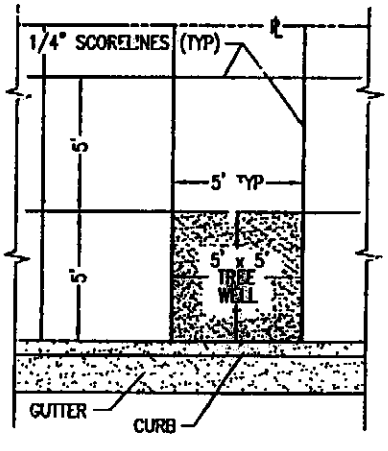
CASE III – COMMERCIAL FULL WIDTH



CASE I



CASE II



CASE III

1. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADOPTED STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. CONCRETE SHALL BE CLASS 520-C-2500.
3. MISSING SIDEWALK & SIDEWALK REPAIRS SHALL BE PLACED TO MATCH ADJACENT SIDEWALK WIDTH & FINISH.
4. A LIGHT BROOM FINISH SHALL BE APPLIED PERPENDICULAR TO STREET.
5. COMPACT SOIL BENEATH SIDEWALK TO 90% (MIN) RELATIVE COMPACTION PER APWA SPECIFICATIONS. PROVIDE SOIL AMENDMENT IF REQUIRED BY CITY ENGINEER.
6. 1/2" THICK FULL DEPTH TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT CURB RETURNS & AROUND DRAINAGE STRUCTURES, POLES, PIPES, ETC.

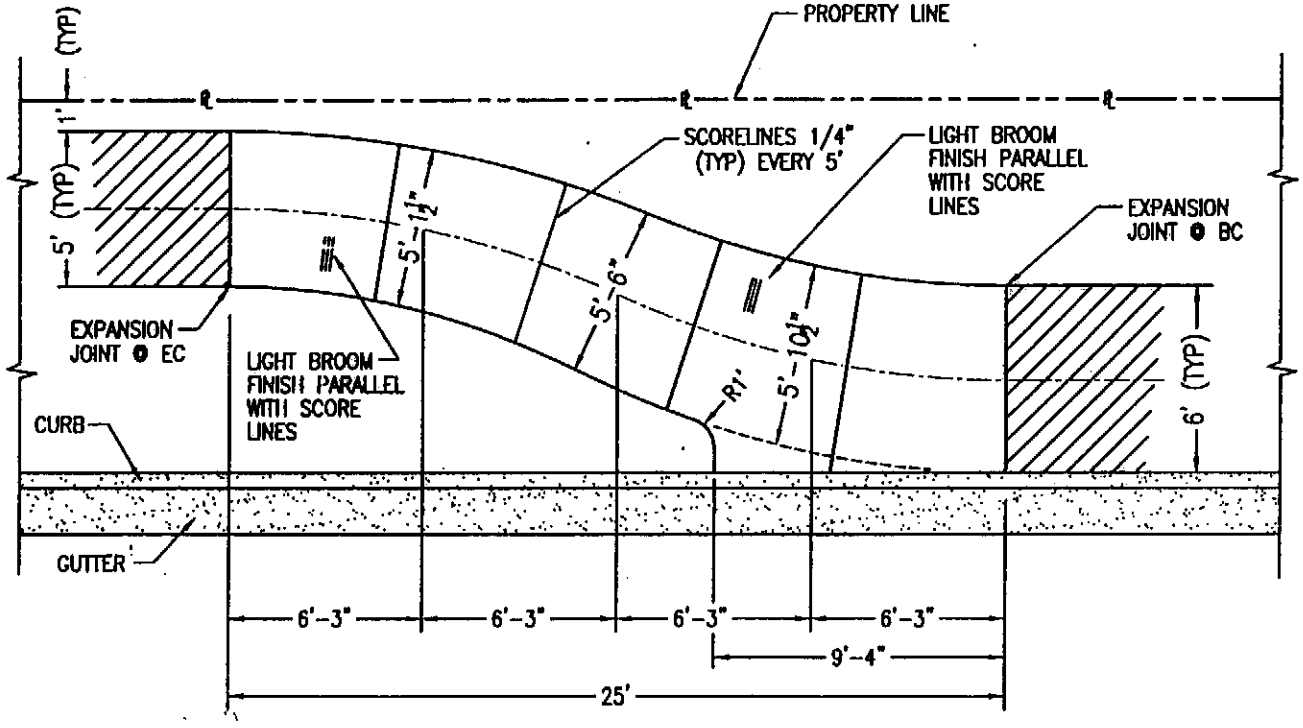
CITY OF POMONA

PUBLIC WORKS DEPARTMENT

STANDARD
SIDEWALK DETAILS

DWN BY	CHK BY	APPROVED	DATE
TED LENGEL		CITY ENGINEER	2/7/02

STD. No. A-7-02



1. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADOPTED STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

2. CONCRETE SHALL BE CLASS '520-C-2500.

3. MISSING SIDEWALK & SIDEWALK REPAIRS SHALL BE PLACED TO MATCH ADJACENT SIDEWALK WIDTH & FINISH.

4. A LIGHT BROOM FINISH SHALL BE APPLIED PARALLEL TO SCORE LINES.

5. COMPACT SOIL BENEATH SIDEWALK TO 90% (MIN) RELATIVE COMPACTION PER APWA SPECIFICATIONS. PROVIDE SOIL AMENDMENT IF REQUIRED BY CITY ENGINEER.

CITY OF POMONA

PUBLIC WORKS DEPARTMENT

STANDARD

SIDEWALK TRANSITION DETAIL

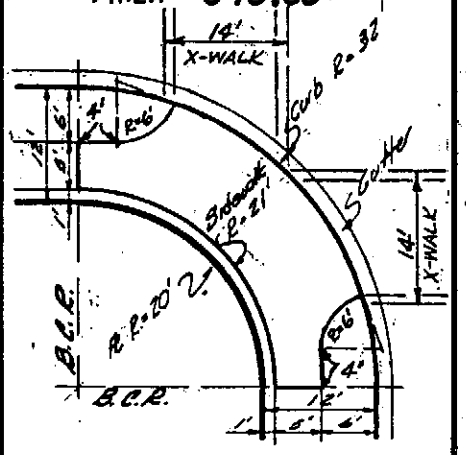
DWN BY	CHK BY	APPROVED	DATE
TED LENGEL		CITY ENGINEER	2/7/02

STD. No. A-7-61

12' PARKWAY TO 12' PARKWAY

CURB RETURN RADIUS = 32'

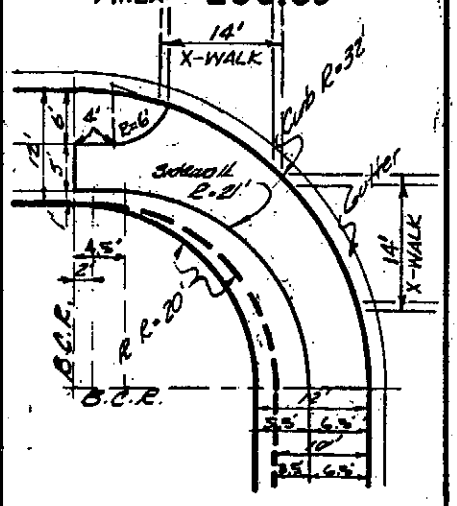
AREA = 348.65 SQ. FT.



12' PARKWAY TO 12' PARKWAY
12' PARKWAY TO 10' PARKWAY

CURB RETURN RADIUS = 32'

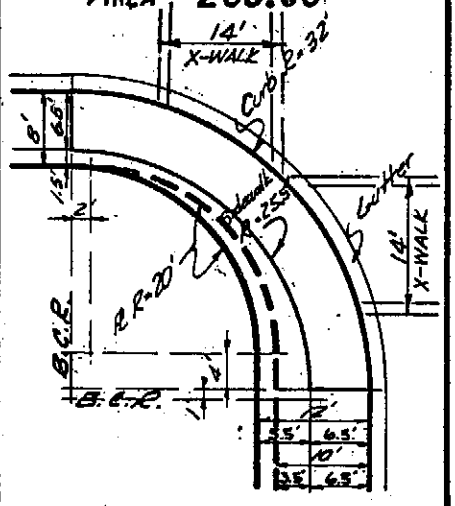
AREA = 296.30 SQ. FT.



8' PARKWAY TO 12' PARKWAY
8' PARKWAY TO 10' PARKWAY

CURB RETURN RADIUS = 32'

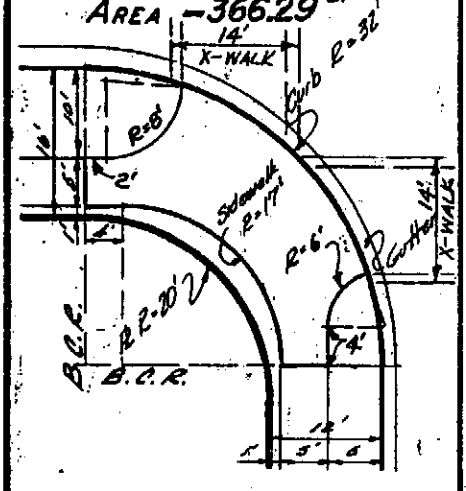
AREA = 268.60 SQ. FT.



16' PARKWAY TO 12' PARKWAY

CURB RETURN RADIUS = 32'

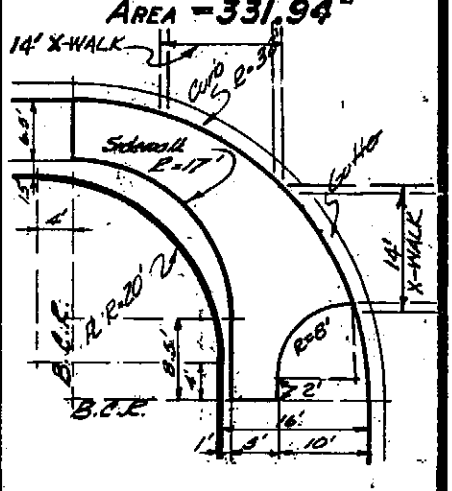
AREA = 366.29 SQ. FT.



8' PARKWAY TO 16' PARKWAY

CURB RETURN RADIUS = 32'

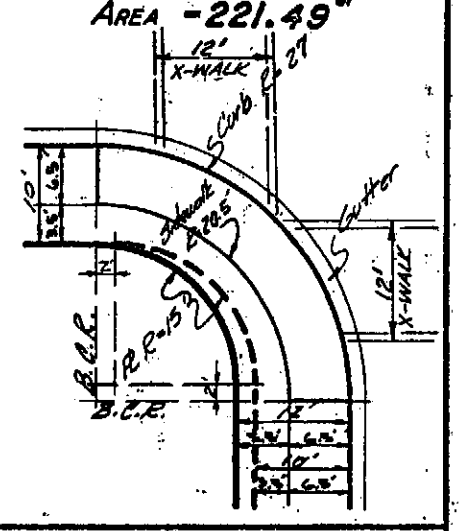
AREA = 331.94 SQ. FT.



10' PARKWAY TO 12' PARKWAY
10' PARKWAY TO 10' PARKWAY

CURB RETURN RADIUS = 27'

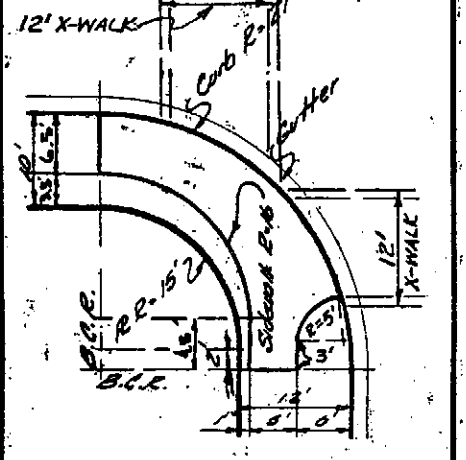
AREA = 221.49 SQ. FT.



10' PARKWAY TO 12' PARKWAY

CURB RETURN RADIUS = 27'

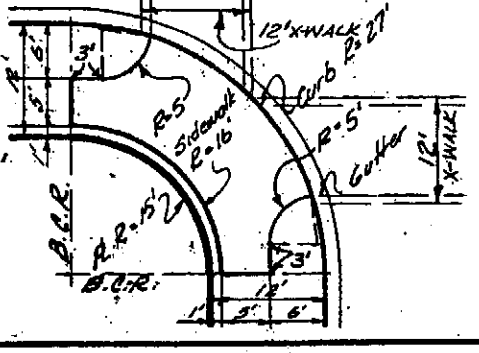
AREA = 243.10 SQ. FT.



12' PARKWAY TO 12' PARKWAY

CURB RETURN RADIUS = 27'

AREA = 279.71 SQ. FT.



Revision: Approved By Date 4-14-66

CITY OF POMONA

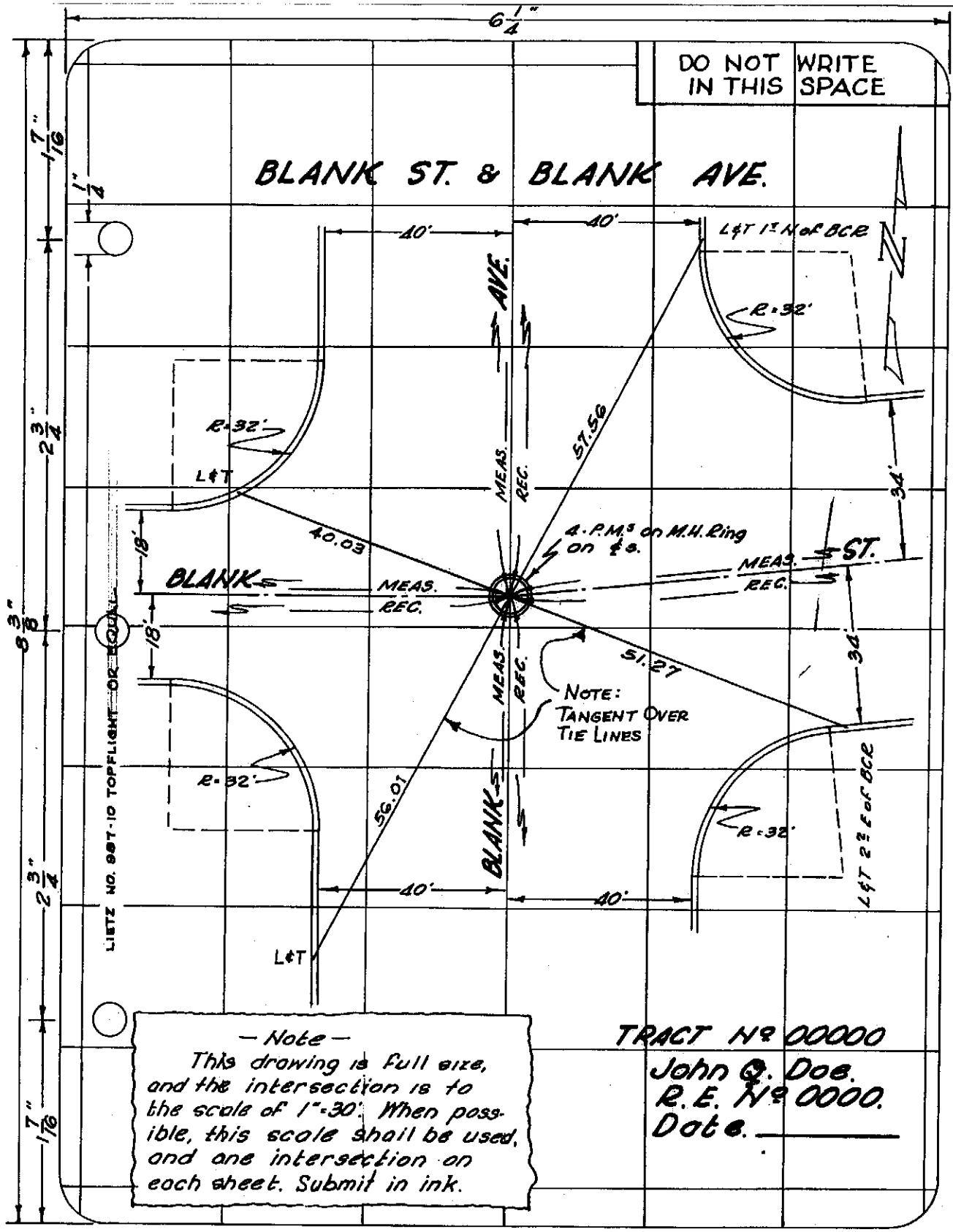
ENGINEERING DEPARTMENT

STANDARD

SIDEWALK INTERSECTIONS
27' & 32' RADII CURB RETURNS

DWN BY	CKD BY	APPROVED BY	DATE
GM / W.H.B.	B / L.O.	Glenn A. Crawford CITY ENGINEER RE 8281	5/15/58

STD No. A-7-66



— Note —

This drawing is full size, and the intersection is to the scale of 1"=30'. When possible, this scale shall be used, and one intersection on each sheet. Submit in ink.

TRACT Nº 00000
John Q. Doe.
R.E. Nº 0000.
Date. _____

-NOTES-

1- Reference points shall be L&Ts in sidewalks or in the tangent portion of the curb.

2- Centerline monuments, where no manhole exists, shall be:
(a) Cement concrete paving - Lead & Tack.
(b) Macadam or aspholtic conc. - 6" Spike.
(c) Oil, gravelled or other - 2" I.P. - 12" dwn.

3- Tangent ties ℄ & Prods. are desirable.

RAD	9-01-03	TANGENT OVER TIE LINES

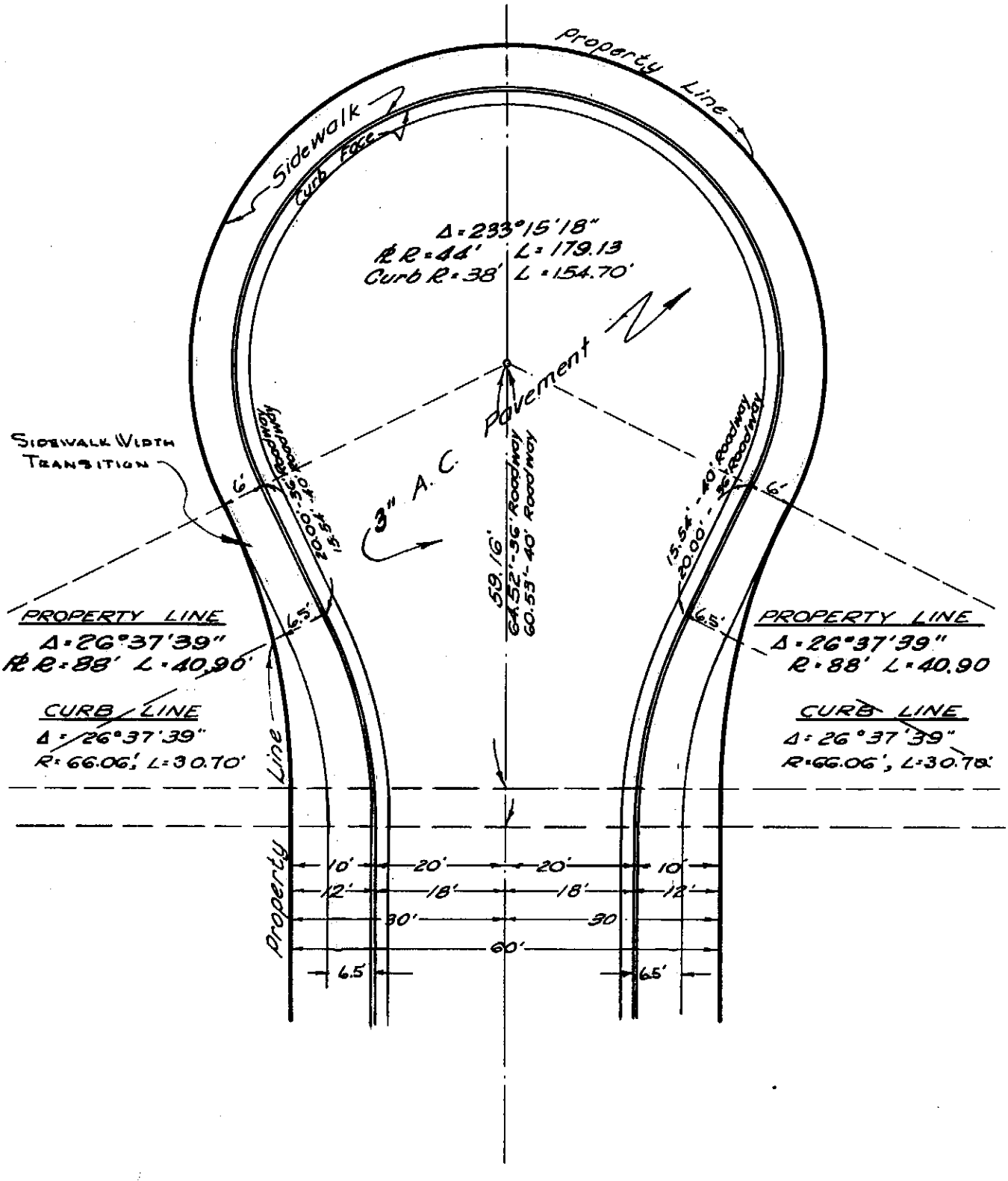
CITY OF POMONA
ENGINEERING DEPARTMENT

STANDARD

CENTERLINE TIE NOTES

DWN. BY	CKD. BY	APPROVED BY	DATE
R.E.L.	E.J.F.	Glenn Crawford CITY ENGINEER R.E NO. 8281	4-30-54

STD. Nº A-9-65



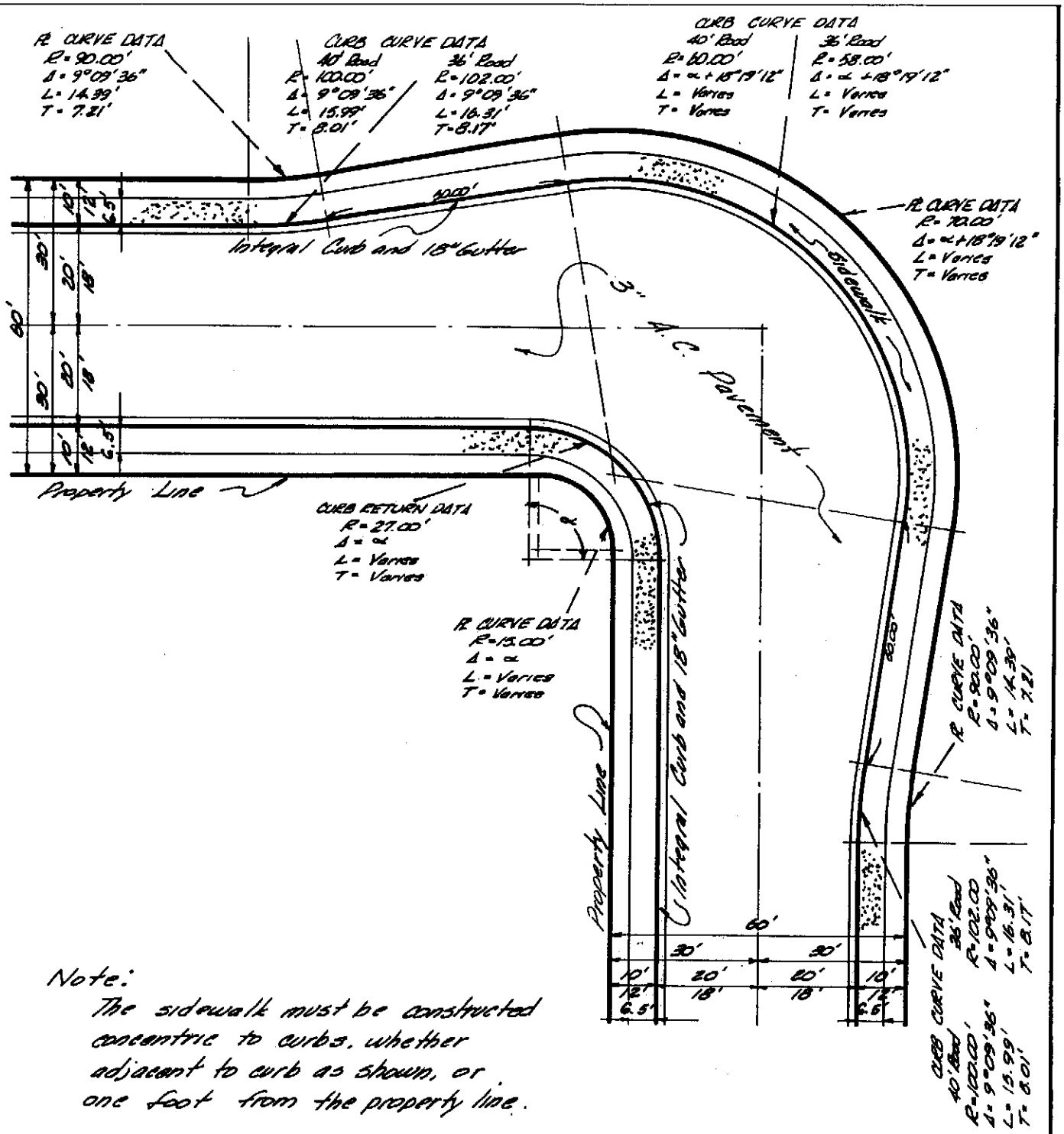
CITY OF POMONA
ENGINEERING DEPARTMENT

STANDARD

PERMANENT CUL-DE-SAC

DWN. BY	CKD. BY	APPROVED BY	DATE
R.E.L.	E.J.Y.	Glenn Crawford CITY ENGINEER R.E. NO. 8281	5/27/63

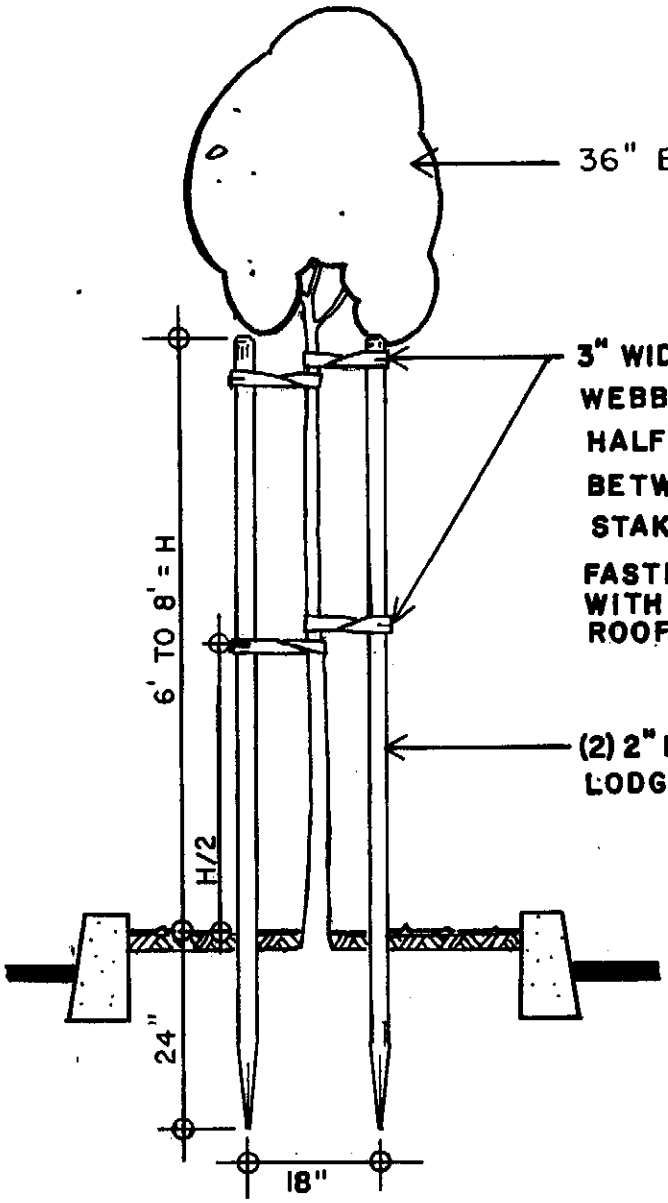
STD. Nº A-13-60



Note:
The sidewalk must be constructed concentric to curbs, whether adjacent to curb as shown, or one foot from the property line.

CITY OF POMONA ENGINEERING DEPARTMENT			
STANDARD KNUCKLE			
DWN BY AM	CKD BY B L.D.	APPROVED BY Glenn A. Crawford CITY ENGINEER RE-8281	DATE 5/15/58

STD. Nº A-17-60



TREE STAKING DETAIL FOR
36" BOX TREE

N.T.S.

CITY OF POMONA
ENGINEERING DEPARTMENT

STANDARD SPECIFICATION
TREE STAKING DETAILS

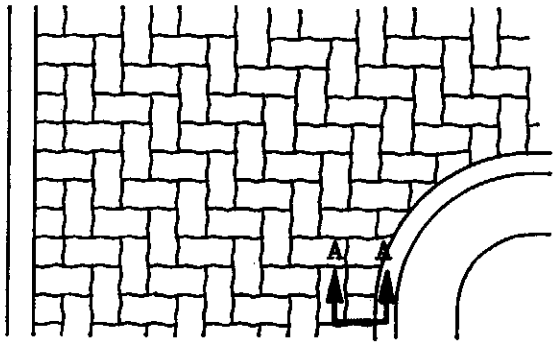
DRAWN	CHKD.	
R.F.	R.I.	Edward R. Jones 11/27/1979 CITY ENGINEER R.E. 17993 DATE

REVISED | HW | NOV.06

STD. No. A-21-75-I

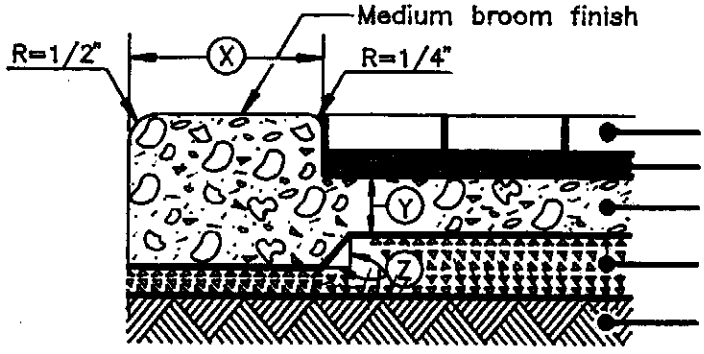
NOTES:

1. Edge treatment should be as straight as possible to compliment the alignment of paving stones.
2. Interlocking paving stones (I.P.S.) shall conform to ASTM C936 and be installed to manufacturer specifications.
3. All surfacing utilities should be encased in concrete, creating straight lines to cut against.
4. Design of the base section shall be by soils engineer, and approved by City Engineer.
5. "X" dimension to be approved by City Engineer.

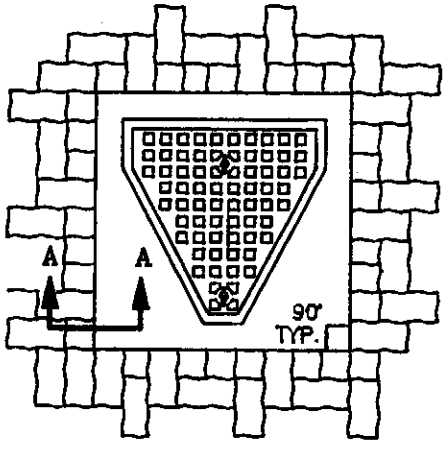


CUT TO FIT AT ALL EDGES

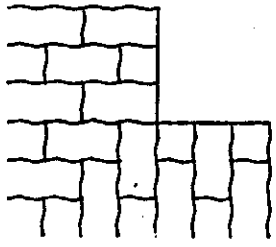
6. Base shall be CAB or CMB per Std. Specs. (rev. October 2006)



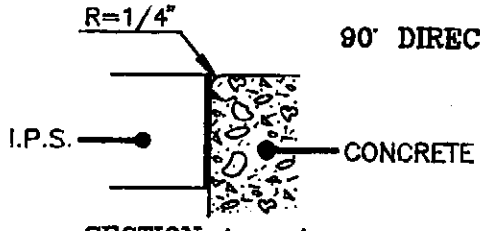
I.P.S. (100 mm Street, 60 mm Sidewalk)
Sand bedding course (1" Maximum)
P.C.C. Slab
Crushed aggregate base (See Note 4)
Compacted subgrade



TYPICAL UTILITY ENCASEMENT



90° DIRECTIONAL CHANGE



SECTION A – A

DIMENSIONS

	SIDEWALK	STREET
* X	6" – 12"	12" – 24"
Y	4"	6"
Z	2"	3"

PCC CLASS

SIDEWALK – 520-C-2500
STREET – 520-A-2500

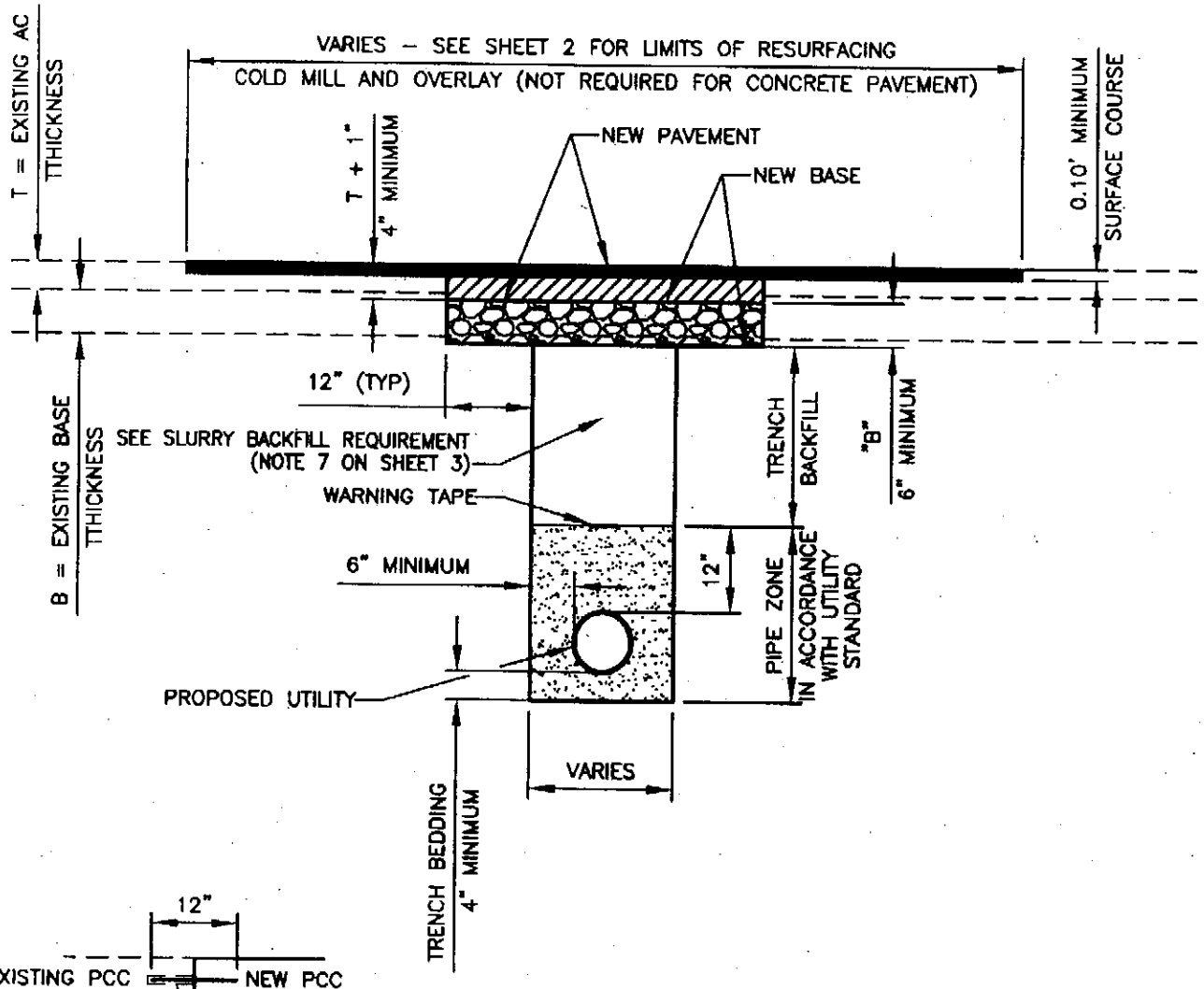
* See Notes No. 5

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

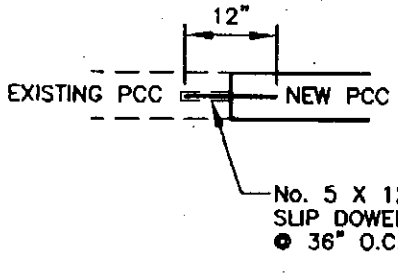
STANDARD
CONCRETE INTERLOCKING PAVING STONE

DRAWN	CHKD.	
V.L.	RC	12-20-89
		CITY ENGINEER RCE 33249 DATE

A-25-88



TRENCH SECTION



CONCRETE DOWEL DETAIL

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

TRENCH PAVEMENT RESTORATION

⚠	UPDATED ENTIRE STANDARD	6/14/11	BAH
△	REVISIONS	DATE	INITIAL

DRAWN BY: BAH
CHECKED BY: ___
APPROVED BY: [signature]

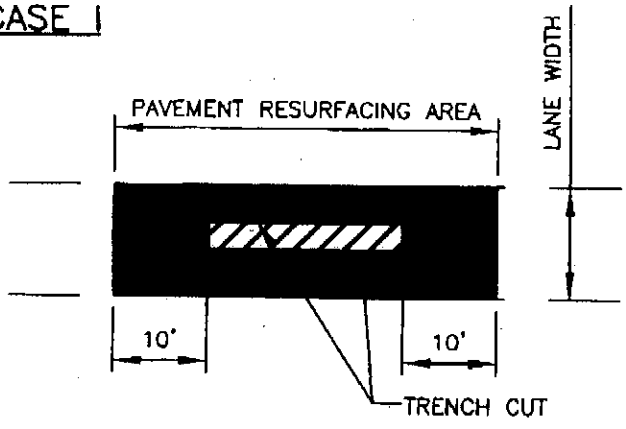
STANDARD

1 OF 3

A-26-02

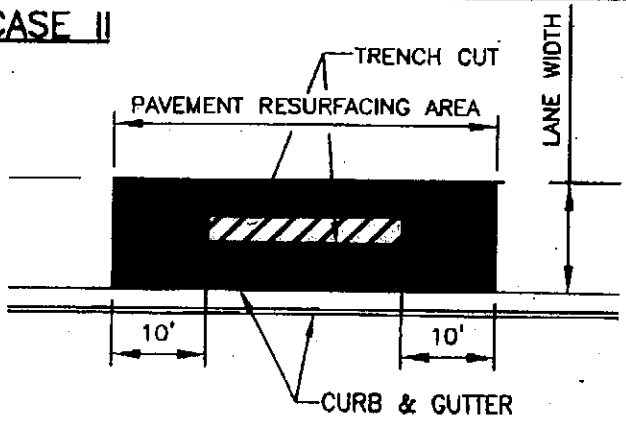
STREET CONDITION FOLLOWING ANY TRENCH RELATED WORK SHALL BE LEFT IN AN "AS GOOD OR BETTER" CONDITION FOLLOWING THE COMPLETION OF WORK TO THE SATISFACTION OF THE CITY ENGINEER.

CASE I



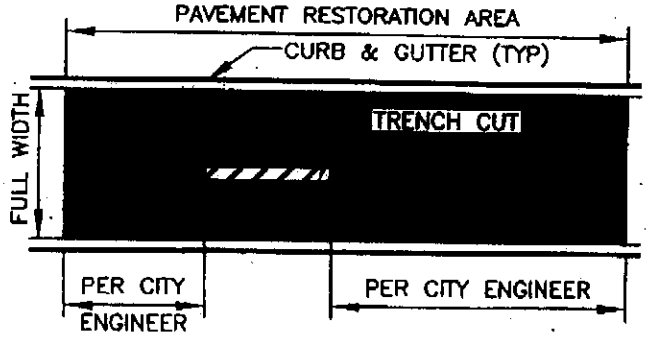
TRENCH CUT IN DIRECTION OF TRAVEL.

CASE II



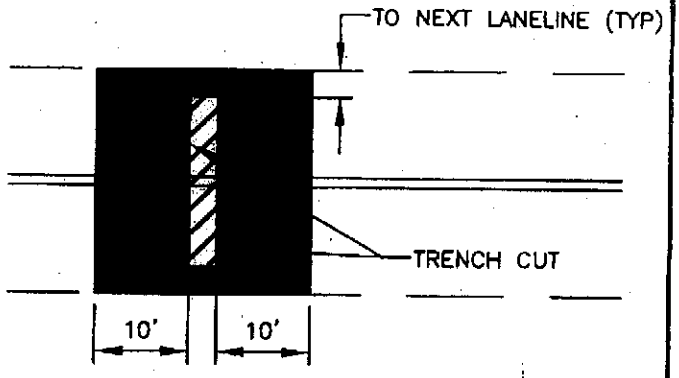
TRENCH CUT DIRECTION ABUTTING EDGE OF GUTTER ON RESIDENTIAL/INDUSTRIAL/COLLECTOR/ARTERIAL STREET.

CASE III: PAVEMENT MORATORIUM STREETS



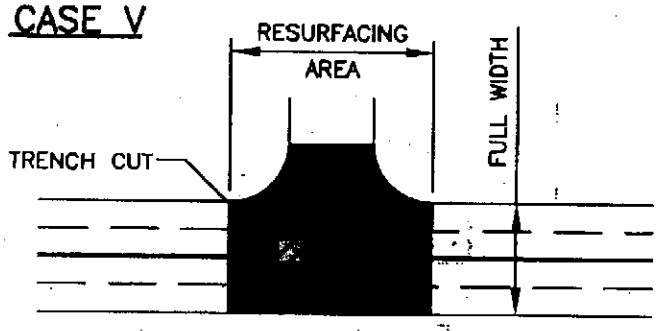
REGARDLESS OF TRENCH SIZE, CURB TO CURB PAVEMENT RESTORATION IS REQUIRED FOR ALL PUBLIC STREETS UNDER PAVEMENT MORATORIUM.

CASE IV



TRENCH CUT PERPENDICULAR TO DIRECTION OF TRAVEL.

CASE V



TRENCH CUT OR POTHOLE GREATER THAN 3' IN ANY DIRECTION.

NOTES FOR ALL CASES:

1. SEE SHEET 1 OF 3 FOR TRENCH SECTION.
2. SEE SHEET 3 OF 3 FOR NOTES.

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

TRENCH PAVEMENT RESTORATION

⚠	UPDATED ENTIRE STANDARD	6/14/11	BAH
△	REVISIONS	DATE	INITIAL

DRAWN BY: BAH
CHECKED BY: ___
APPROVED BY: [signature]

STANDARD

2 OF 3

A-26-02

NOTES:

1. SAWCUT ALL PAVEMENT REMOVALS FULL DEPTH TO NEAT, CLEAN, VERTICAL EDGES.
2. TRENCHING WITH ROCK WHEELS SHALL NOT BE ALLOWED.
3. PIPE ZONE MATERIAL SHALL BE CRUSHED ROCK OR SAND IN ACCORDANCE WITH SSPWC "GREENBOOK" SUBSECTION 200-1 AND IN ACCORDANCE WITH UTILITY STANDARD.
4. CONTINUOUS WARNING TAPE REQUIRED 12 INCHES ABOVE ALL NEW UTILITIES.
5. TRENCH BACKFILL SHALL BE NATIVE MATERIAL ON LOCAL AND COLLECTOR STREETS, AND CALTRANS CLASS 2 ON ARTERIAL/SECONDARY ARTERIAL STREETS. TRENCH BACKFILL SHALL BE COMPACTED TO 90 PERCENT RELATIVE MAXIMUM DENSITY FROM THE PIPE ZONE TO 2 FEET BELOW THE NEW PAVEMENT STRUCTURAL SECTION. THE TOP 2 FEET OF TRENCH BACKFILL SHALL BE COMPACTED TO 95 PERCENT RELATIVE MAXIMUM DENSITY. COMPACTION TESTS SHALL BE TAKEN BY THE CONTRACTOR AT RANDOM LOCATIONS FOR EACH 8-INCH LIFT AND RESULTS PROVIDED TO THE CITY ENGINEER. FLOODING OR JETTING THE TRENCH BACKFILL WILL NOT BE ALLOWED.
6. ALL TRENCHES SHALL BE COMPACTED BY SELF-PROPELLED ROLLERS. NO WHEEL ROLLLING IS ALLOWED.
7. TRENCH BACKFILL SHALL BE 1-SACK CEMENT PER CUBIC YARD SAND-CEMENT SLURRY FOR ALL ARTERIAL AND SECONDARY ARTERIAL STREETS UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER IN WRITING, OR ANY OTHER STREET AS REQUIRED BY THE CITY ENGINEER FOR ANY REASON. SAND-SLURRY BACKFILL CANNOT EXTEND BELOW WARNING TAPE.
8. AGGREGATE BASE SHALL BE CRUSHED AGGREGATE BASE OR CRUSHED MISCELLANEOUS BASE IN ACCORDANCE WITH SSPWC "GREENBOOK" SUBSECTION 200-2. AGGREGATE BASE SHALL EXTEND ONE (1) INCH BELOW EXISTING AGGREGATE BASE THICKNESS.
9. PCC BASE SHALL BE CLASS 520-A-2500 IN ACCORDANCE WITH SSPWC "GREENBOOK" SUBSECTION 201-1.1.2.
10. PCC PLACEMENT SHALL BE A MINIMUM OF 4' WIDE 10' IN LENGTH, AND JOINED WITH No. 5 X 12-INCH LONG SLIP DOWELS AT 36 INCHES ON CENTER. PCC BASE OR PCC PAVEMENT THICKNESS SHALL BE EQUAL TO EXISTING PCC SECTION THICKNESS.
11. ASPHALT CONCRETE BASE COURSE SHALL BE B-PG 64-10 AND ASPHALT CONCRETE SURFACE COURSE SHALL BE C2-PG 64-10 IN ACCORDANCE WITH SSPWC "GREENBOOK" SUBSECTION 203-6. TOTAL ASPHALT CONCRETE THICKNESS SHALL BE ONE (1) INCH THICKER THAN EXISTING ASPHALT CONCRETE. SURFACE COURSE SHALL BE ASPHALT RUBBER HOT MIX (ARHM-GG-C) IN ACORDANCE WITH SSPWC "GREENBOOK" SUBSECTION 203-11 WHERE EXISTING SURFACE COURSE IS ARHM.
12. ASPHALT CONCRETE SURFACE COURSE SHALL EXTEND TO EXISTING LANELINES, TO EXISTING EDGE OF PAVEMENT, TO ROADWAY CENTERLINE, AND/OR MAY INCLUDE RESURFACING THE ENTIRE ROADWAY AS DIRECTED BY THE CITY ENGINEER. WHERE REMAINING PAVEMENT WIDTH IS LESS THAN 24 INCHES (AC) OR 36 INCHES (PCC), FULL-DEPTH PAVEMENT REPLACEMENT SHALL EXTEND TO GUTTER, CURB, EDGE OF PAVEMENT, ETC.
13. UPON COMPLETION OF BACKFILLING THE TRENCH, ASPHALT CONCRETE SHALL BE INSTALLED FLUSH WITH THE EXISTING PAVEMENT. SEVEN (7) CALENDAR DAYS AFTER COMPLETION OF AFOREMENTIONED ASPHALT CONRETE, IT SHALL BE COLD MILLED TO A 0.10-FOOT DEPTH FOR THE ENTIRE RESURFACING AREA UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. NEW ASPHALT CONCRETE SHALL BE INSTALLED EVEN WITH FINISHED GRADE.
14. PCC SURFACE COURSE SHALL EXTEND TO A MINMUM OF 12 INCHES BEYOND THE TRENCH WALLS OR AS DIRECTED BY THE CITY ENGINEER.
15. WHERE MULTIPLE NEW TRENCHES OR POTHOLES ARE IN CLOSE PROXIMITY, SLURRY SEAL OF AN EXPANED AREA MAY BE REQUIRED BY THE CITY ENGINEER IN LIEU OF COLD MILLING AND RESURFACING, POTHOLES SPACED CLOSER THAN 20 FEET WILL BE CONSIDERED A COMMON TRENCH.
16. SLURRY SEAL, WHERE REQUIRED BY THE CITY ENGINEER, SHALL BE TYPE II IN ACCORDANCE WITH SSPWC "GREENBOOK" SUBSECTION 203-5.
17. ALL AFFECTED STREET IMPROVEMENTS SHALL BE REPLACED TO CITY STANDARDS.
18. EXISTING STRIPING, PAVEMENT MARKERS, AND/OR TRAFFIC SIGNAL LOOP/WIRELESS DETECTION THAT IS REMOVED AS A RESULT OF TRENCH WORK SHALL BE REPLACED IMMEDIATELY WITH TEMPORARY STRIPING OR MARKERS, AND SHALL HAVE PERMANENT STRIPING, PAVEMENT MARKERS AND/OR TRAFFIC LOOPS/WIRELESS DETECTION REPLACED WITHIN 5 WORKING DAYS OF COMPLETION OF TRENCH RESURFACING TO THE SATISFACTION OF THE CITY ENGINEER.
19. CROSSWALKS MARKINGS SHALL BE REPLACED COMPLETELY, PARTIAL REPLACEMENT WILL NOT BE ALLOWED.
20. IF ANY INTERSECTION MARKINGS ARE AFFECTED, THEN ALL INTERSECTION MARKINGS SHALL BE REPLACED (CROSSWALKS, LEGENDS, BARS, ARROWS, ETC.) FOR EACH AFFECTED LEG OF INTERSECTION.
21. STREET EXCAVATION MORATORIUM PERIOD IS 5 YEARS FOR NEW AND REHABILITATED PAVEMENT.

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

TRENCH PAVEMENT RESTORATION

⚠1	UPDATED ENTIRE STANDARD	6/14/11	BAH
△	REVISIONS	DATE	INITIAL

DRAWN BY: BAH
CHECKED BY: ___
APPROVED BY: [signature]

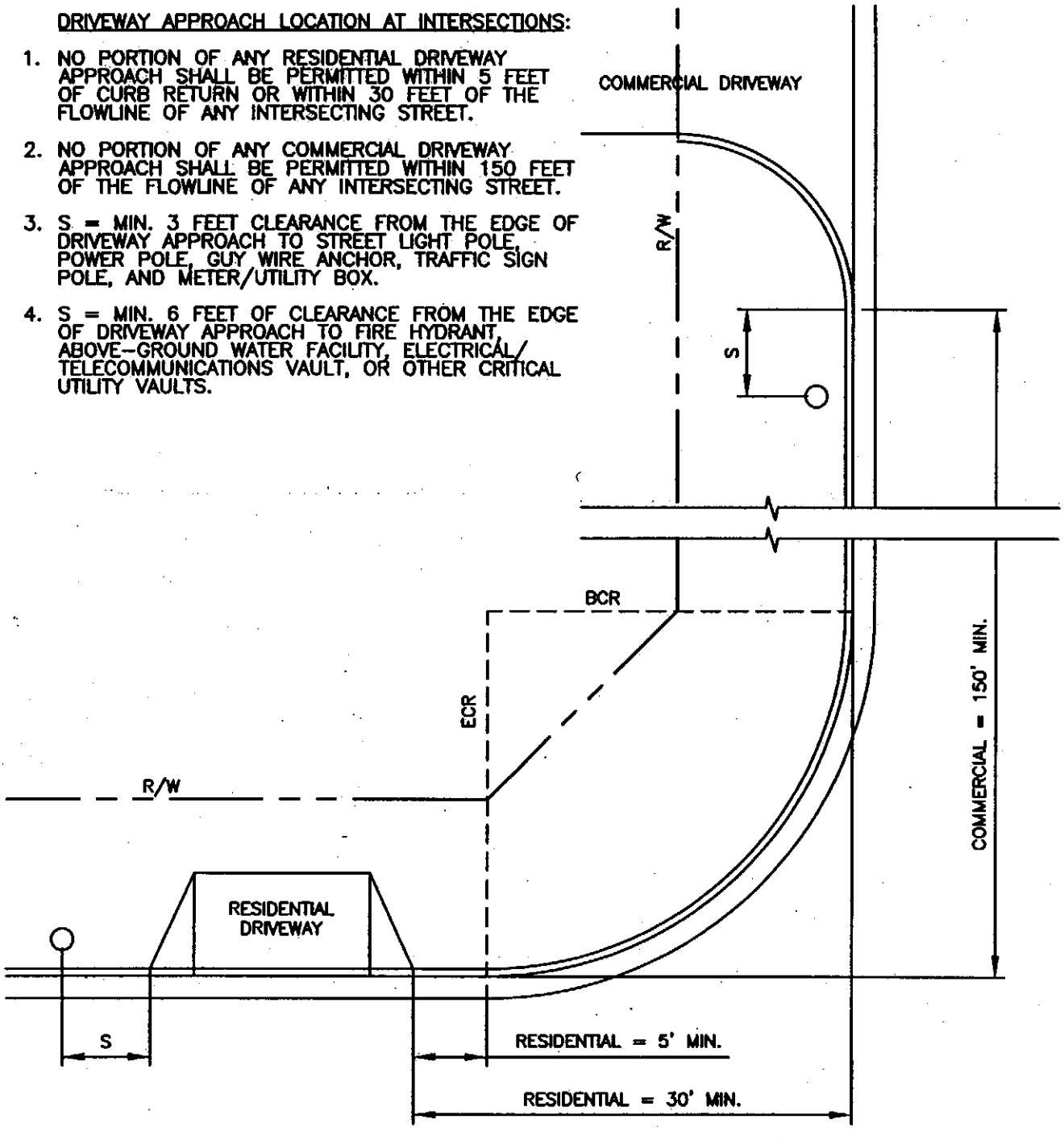
STANDARD

3 OF 3

A-26-02

DRIVEWAY APPROACH LOCATION AT INTERSECTIONS:

1. NO PORTION OF ANY RESIDENTIAL DRIVEWAY APPROACH SHALL BE PERMITTED WITHIN 5 FEET OF CURB RETURN OR WITHIN 30 FEET OF THE FLOWLINE OF ANY INTERSECTING STREET.
2. NO PORTION OF ANY COMMERCIAL DRIVEWAY APPROACH SHALL BE PERMITTED WITHIN 150 FEET OF THE FLOWLINE OF ANY INTERSECTING STREET.
3. S = MIN. 3 FEET CLEARANCE FROM THE EDGE OF DRIVEWAY APPROACH TO STREET LIGHT POLE, POWER POLE, GUY WIRE ANCHOR, TRAFFIC SIGN POLE, AND METER/UTILITY BOX.
4. S = MIN. 6 FEET OF CLEARANCE FROM THE EDGE OF DRIVEWAY APPROACH TO FIRE HYDRANT, ABOVE-GROUND WATER FACILITY, ELECTRICAL/ TELECOMMUNICATIONS VAULT, OR OTHER CRITICAL UTILITY VAULTS.



CITY OF POMONA
PUBLIC WORKS DEPARTMENT

DRIVEWAY APPROACH

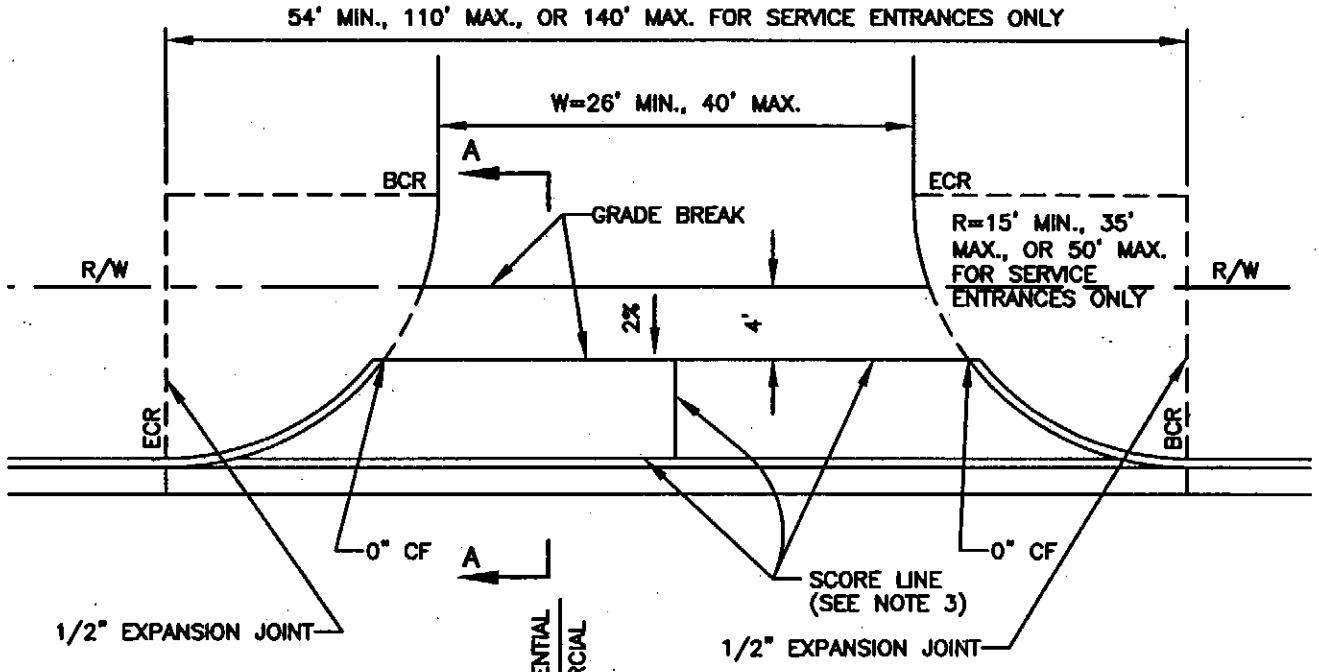
⚠1	UPDATED ENTIRE STANDARD	07/18/11	BAH
⚠	REVISONS	DATE	INITIAL

DRAWN BY: BAH
CHECKED BY: —
APPROVED BY:

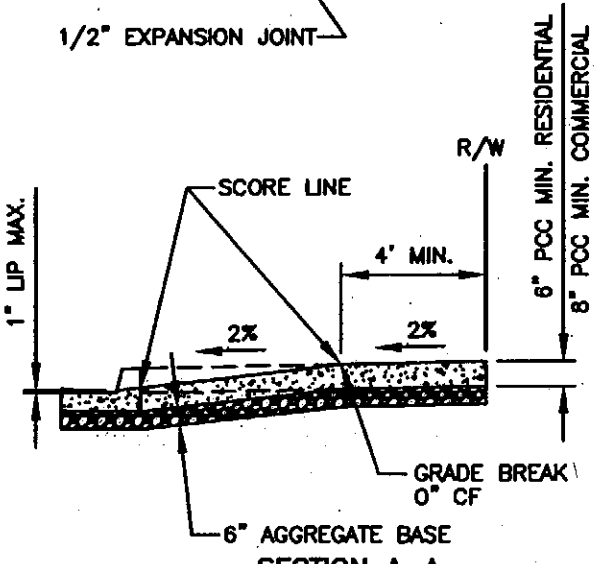
STANDARD

1 OF 4

A-27-10



PLAN VIEW
TYPE I COMMERCIAL DRIVEWAY APPROACH WITH LARGE RADIUS CURBS



SECTION A-A

GENERAL NOTES FOR ALL DRIVEWAY APPROACHES:

1. DRIVEWAY APPROACH SHALL BE CLASS 520-C-2500 PCC (6" MIN. THICKENESS RESIDENTIAL AND 8" MIN. THICKNESS COMMERCIAL) AND SHALL UTILIZE CURING COMPOUND. ALL NEW PCC WORK REQUIRES TAMPING PER SSPWC "GREENBOOK".
2. DRIVEWAY APPROACH SHALL BE CONSTRUCTED ON 6" C.A.B. OR 6" C.M.B. OVER 6" SUBGRADE AT 90% RELATIVE COMPACTION.
3. DRIVEWAY APPROACHES SHALL BE SCORED 1 1/2" DEEP AT THE CENTER OF THE APPROACH AND EQUALLY SPACED AT A MAXIMUM 10'-0" ON CENTER.

GENERAL NOTES FOR ALL DRIVEWAY APPROACHES (CONT.):

4. WHEN ABUTTING SOIL HAS HIGH SULFATE CONTENT, SPECIAL CONSIDERATION SHALL BE CONSIDERING INCLUDING BUT NOT LIMITED TO 6 MIL PLASTIC SHEETING A MINIMUM OF 2' BEYOND EDGE OF CONCRETE (SEE SSPWC "GREENBOOK" FOR FURTHER REQUIREMENTS).
5. FOR NEW DRIVEWAY APPROACHES ADJACENT TO EXISTING PAVEMENT, A MINIMUM OF 2' OF EXISTING PAVEMENT SHALL BE REMOVED AND REPLACED FULL-DEPTH ADJACENT TO NEW PCC.
6. DRIVEWAY APPROACH DESIGN SHALL PROVIDE FOR ADA ACCESSIBLE PATH OF TRAVEL (2% MAX. CROSS SLOPE, MINIMUM 4' WIDE).
7. NEW DRIVEWAY APPROACHES REQUIRE THE INSTALLATION OF ONE 2" PVC STREET LIGHT CONDUIT 2' BEHIND CURB AND SHALL EXTEND A MIN. OF 3 FEET BEYOND BCR/ECR OF DRIVEWAY APPROACH.
8. MAX. DRIVEWAY SLOPE IS 10% MEASURED FROM THE 1" CURB LIP AT THE FLOWLINE TO THE GRADE BREAK AT THE FRONT OF THE ADA PATH OF TRAVEL.
9. DRIVEWAY SLOPE AREA REQUIRES MEDIUM BROOM FINISH PARALLEL WITH CURB. DRIVEWAY SIDEWALK AREA REQUIRES MEDIUM BROOM FINISH PERPENDICULAR TO CURB LINE.
10. DRIVEWAY SIDEWALK SHALL BE SCORES AT 5' ON CENTER WITH WEAKENDED PLANE JOINTS EVERY 10'.

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

COMMERCIAL DRIVEWAY APPROACH

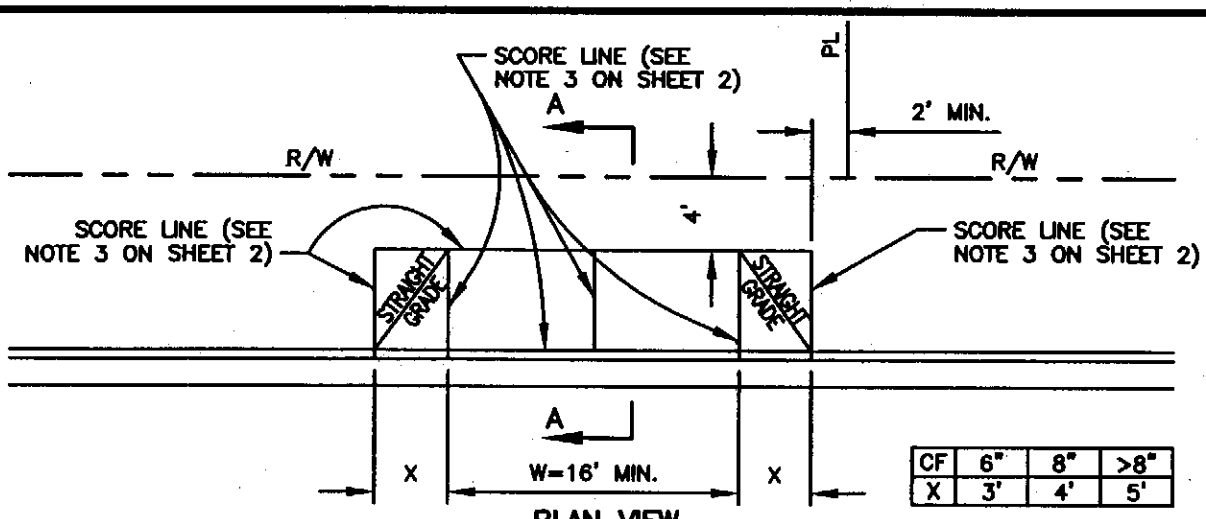
	REVISONS	DATE	INITIAL
1	UPDATED ENTIRE STANDARD	07/18/11	BAH

DRAWN BY: BAH
CHECKED BY:
APPROVED BY:

STANDARD

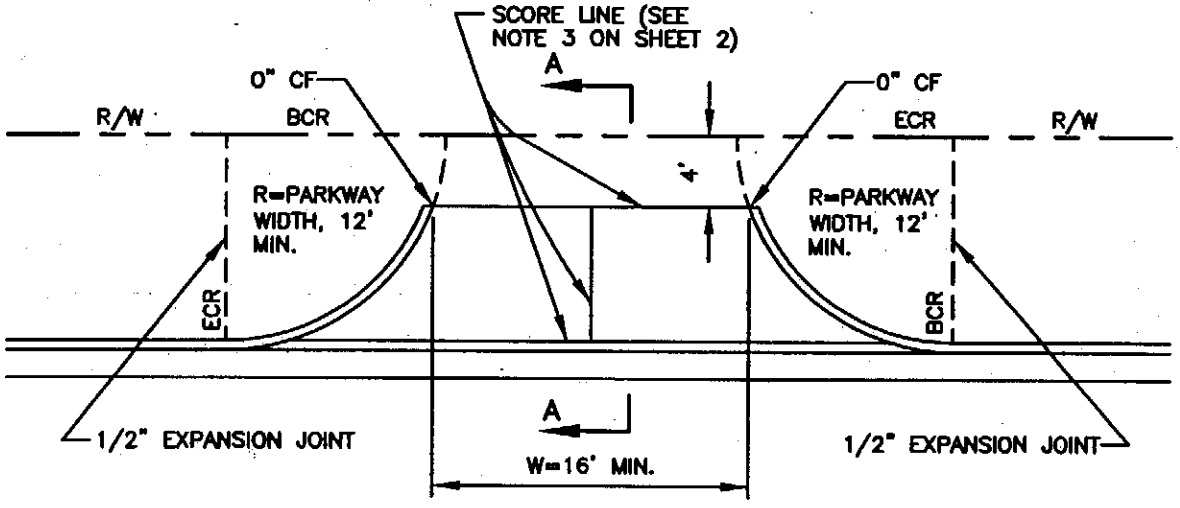
2 OF 4

A-27-10



CF	6"	8"	>8"
X	3'	4'	5'

PLAN VIEW
TYPE II COMMERCIAL DRIVEWAY APPROACH WITH TRANSITION CURB



PLAN VIEW
TYPE III COMMERCIAL DRIVEWAY APPROACH WITH SMALL CURB RADIUS

SEE SHEET 2 FOR GENERAL NOTES FOR DRIVEWAY APPROACHES AND SECTION A–A.

⚠	UPDATED ENTIRE STANDARD	07/18/11	BAH
△	REVISONS	DATE	INITIAL

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

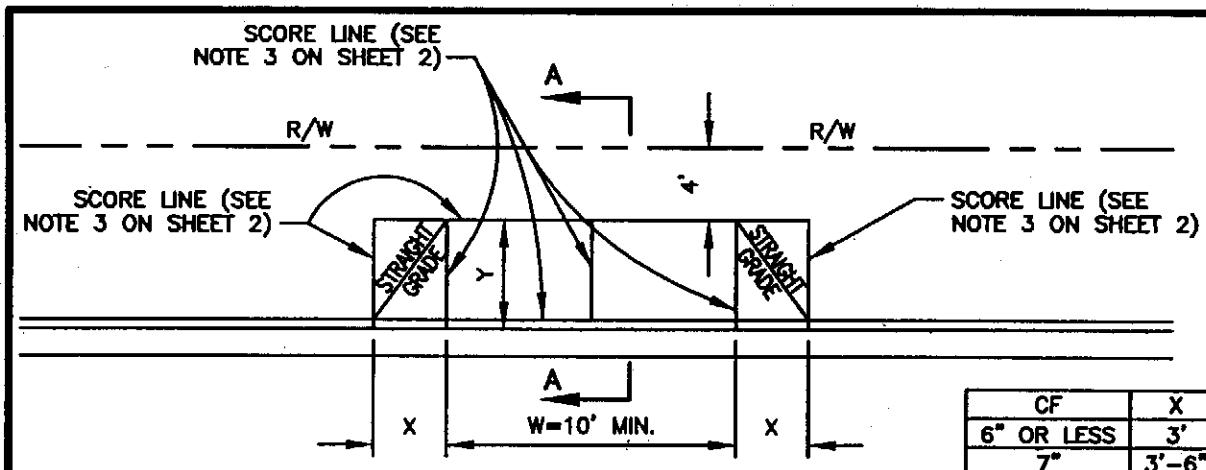
COMMERCIAL DRIVEWAY APPROACH

DRAWN BY: BAH
CHECKED BY:
APPROVED BY:

STANDARD

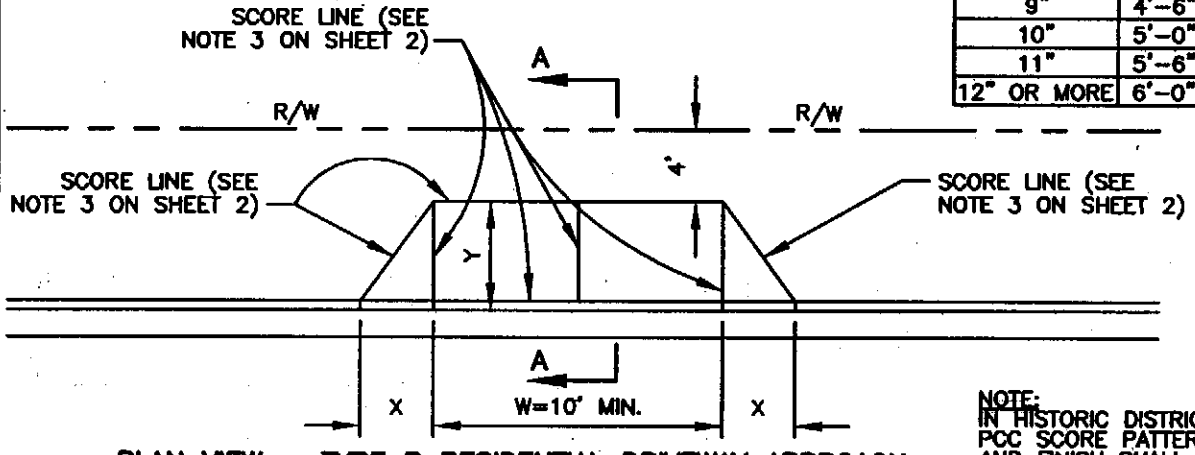
3 OF 4

A–27–10



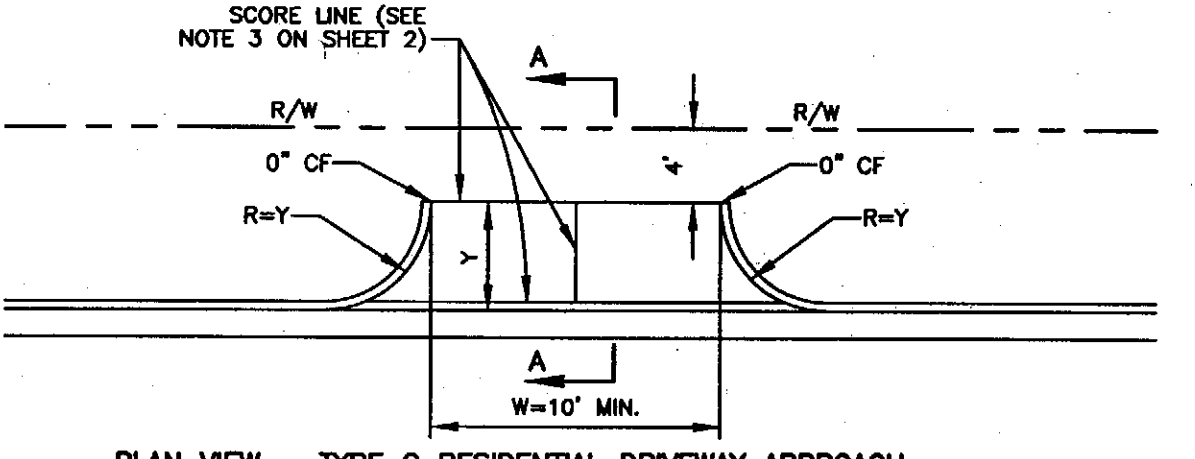
PLAN VIEW – TYPE A RESIDENTIAL DRIVEWAY APPROACH

CF	X	Y MIN.
6" OR LESS	3'	4'-0"
7"	3'-6"	4'-9"
8"	4'-0"	5'-8"
9"	4'-6"	6'-6"
10"	5'-0"	7'-3"
11"	5'-6"	8'-0"
12" OR MORE	6'-0"	8'-9"



PLAN VIEW – TYPE B RESIDENTIAL DRIVEWAY APPROACH

NOTE:
IN HISTORIC DISTRICTS, PCC SCORE PATTERN AND FINISH SHALL MATCH ADJOINING IMPROVMENTS.



PLAN VIEW – TYPE C RESIDENTIAL DRIVEWAY APPROACH

SEE SHEET 2 FOR GENERAL NOTES FOR DRIVEWAY APPROACHES AND SECTION A–A.

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

RESIDENTIAL DRIVEWAY APPROACH

	REVISONS	DATE	INITIAL
1	UPDATED ENTIRE STANDARD	07/18/11	BAH

DRAWN BY: BAH
CHECKED BY:
APPROVED BY:

STANDARD

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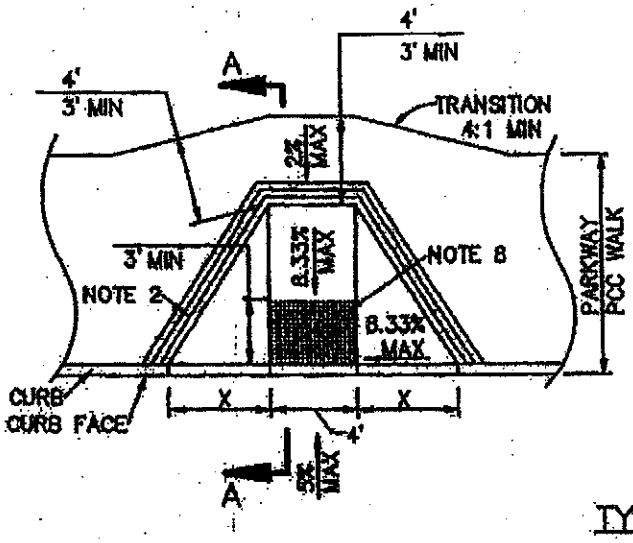
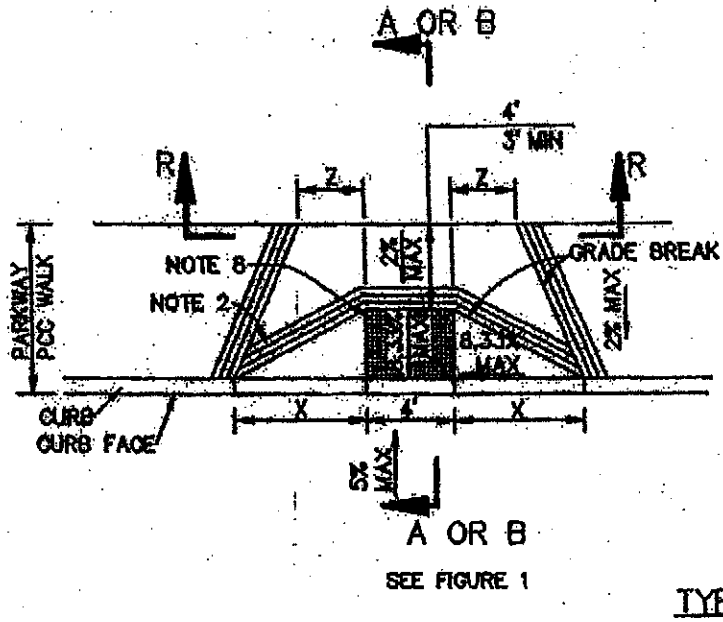
A–27–10



TYPE 1



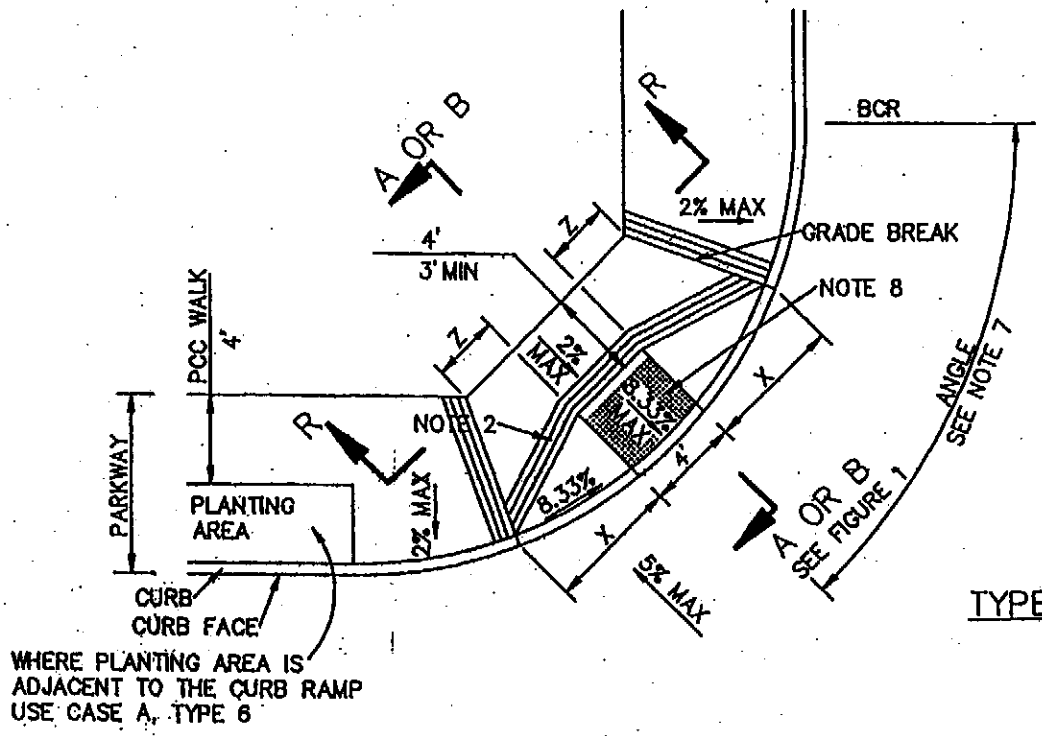
SEE FIGURE 1

TYPE 2

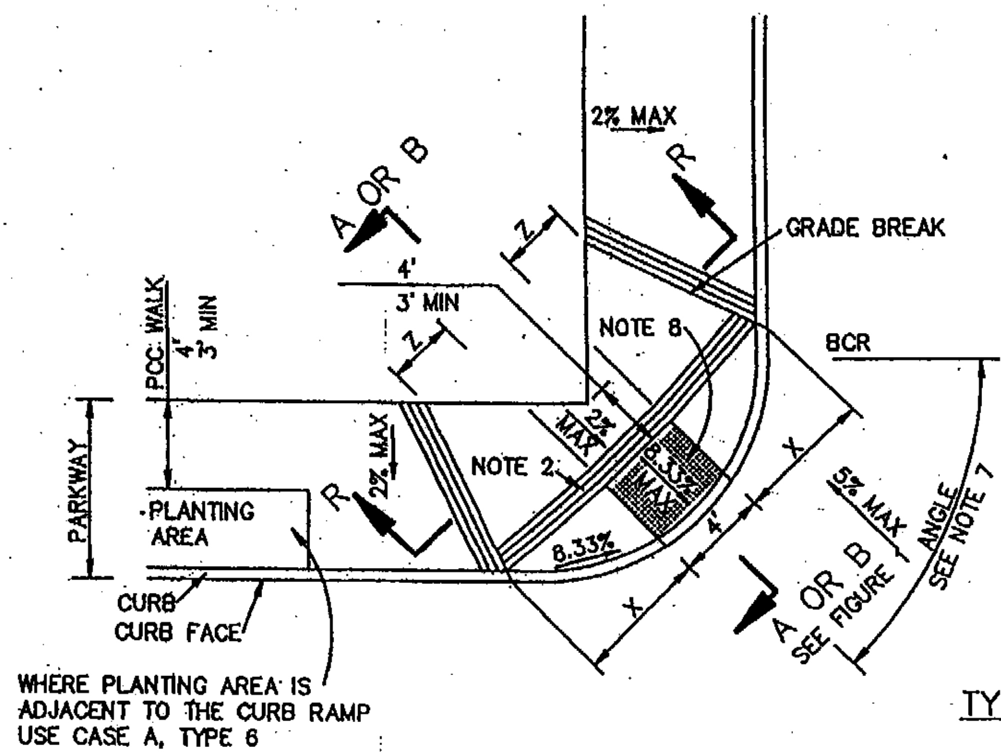
CASE A

				CITY OF POMONA PUBLIC WORKS DEPARTMENT	
				CURB RAMP	
				DRAWN BY: M.L. CHECKED BY: V.L. APPROVED CITY ENGINEER DATE 7-28-11	STANDARD 1 OF 11
△	REVISIONS	DATE	INITIAL		

STD. No. A-28-10



TYPE 3



TYPE 4

CASE A

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

CURB RAMP

DRAWN BY: M.L. CHECKED BY: V.L.

APPROVED

CITY ENGINEER DATE 7-28-11

STANDARD

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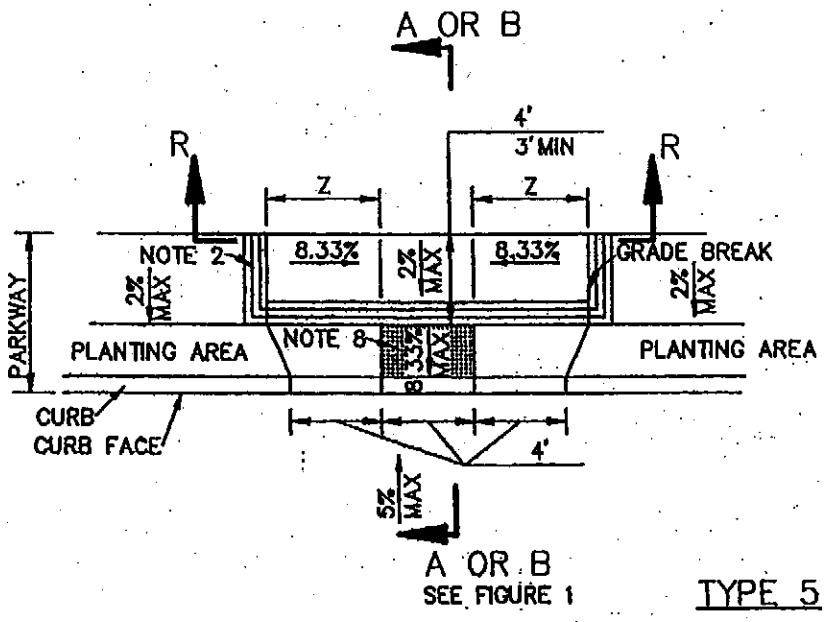
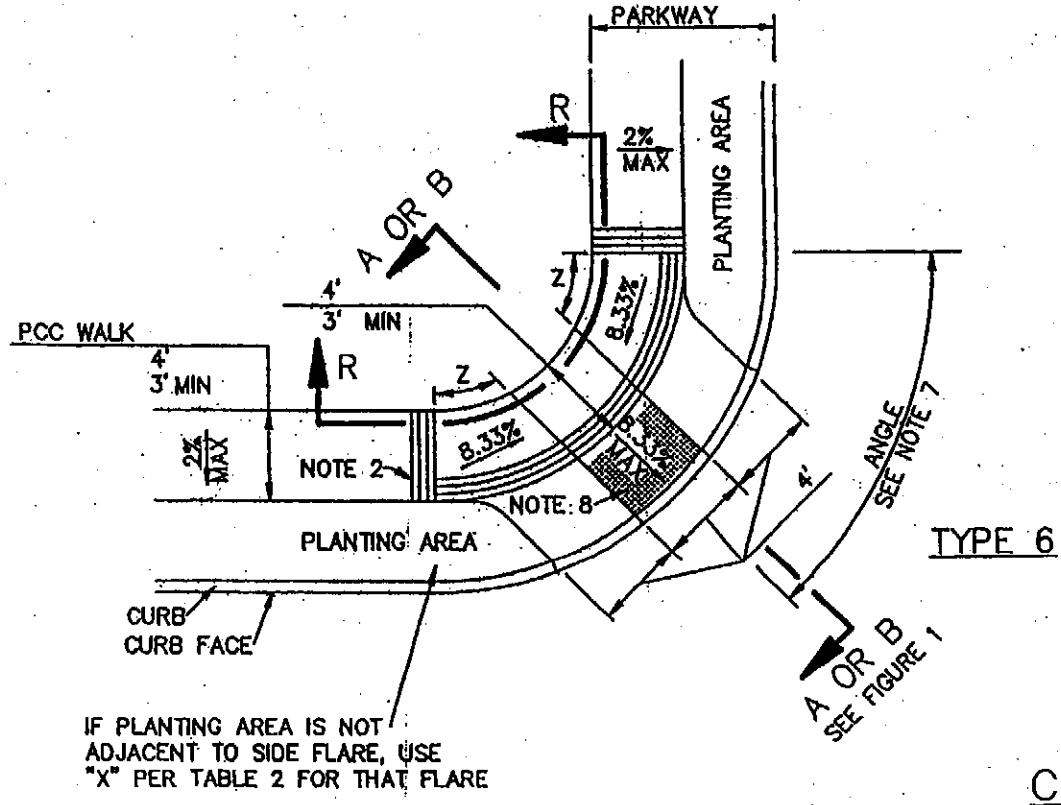
REVISIONS | DATE | INITIAL

STD. No. A-28-10



TYPE 5



TYPE 6

CASE A

△	REVISIONS	DATE	INITIAL	

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

CURB RAMP

DRAWN BY: M.L. CHECKED BY: V.L.

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CITY ENGINEER DATE 7-28-11

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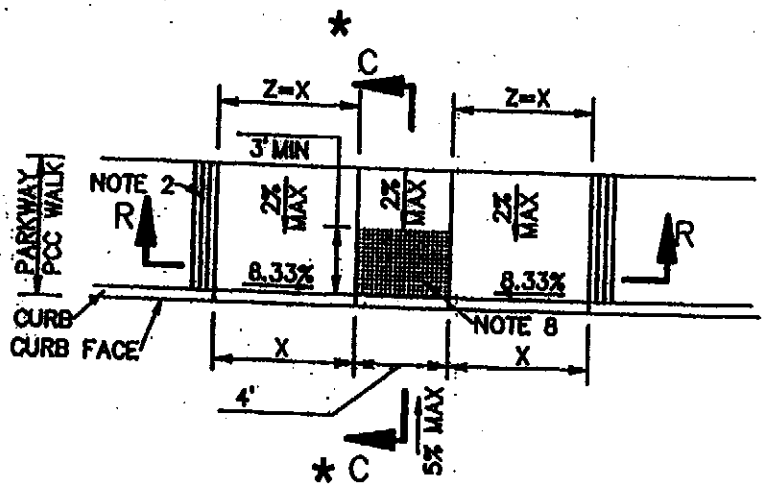
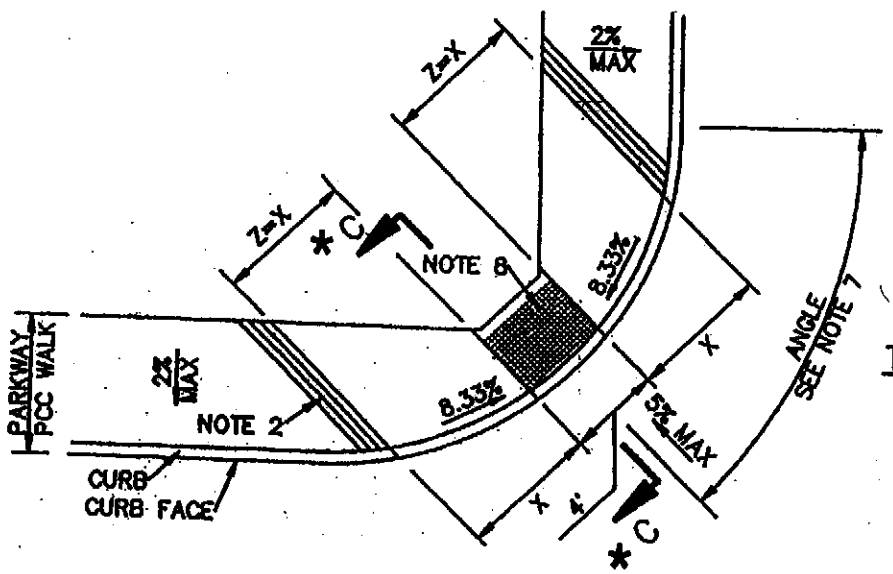
STD. No. A-28-10



TYPE 1

*NOTE: THIS SECTION IS NOT ALLOWED WHERE STREET DRAINAGE MAY BACK-UP INTO CURB RAMP AREA



TYPE 2

*NOTE: THIS SECTION IS NOT ALLOWED WHERE STREET DRAINAGE MAY BACK-UP INTO CURB RAMP AREA

CASE B

REVISIONS	DATE	INITIAL

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

CURB RAMP

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CITY ENGINEER _____ DATE 7-28-11

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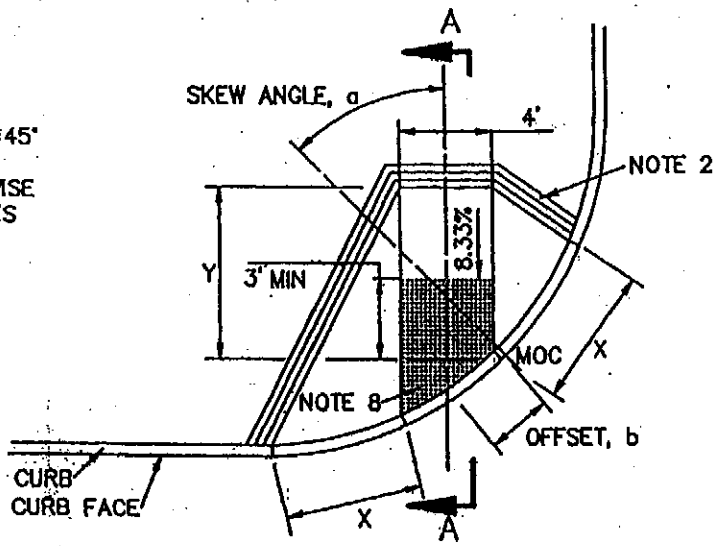
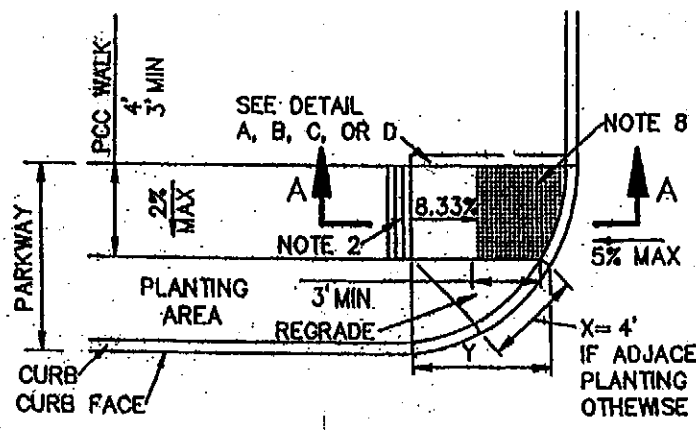
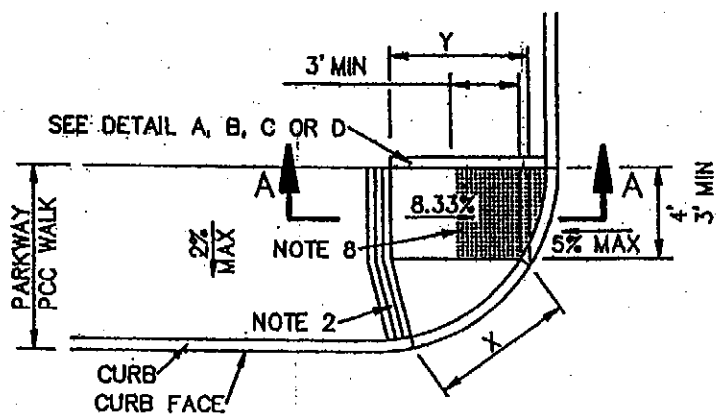
SKEW ANGLE a=45°
OFFSET b=0
UNLESS OTHERWISE
NOTED ON PLANS



CASE C



TYPE 1

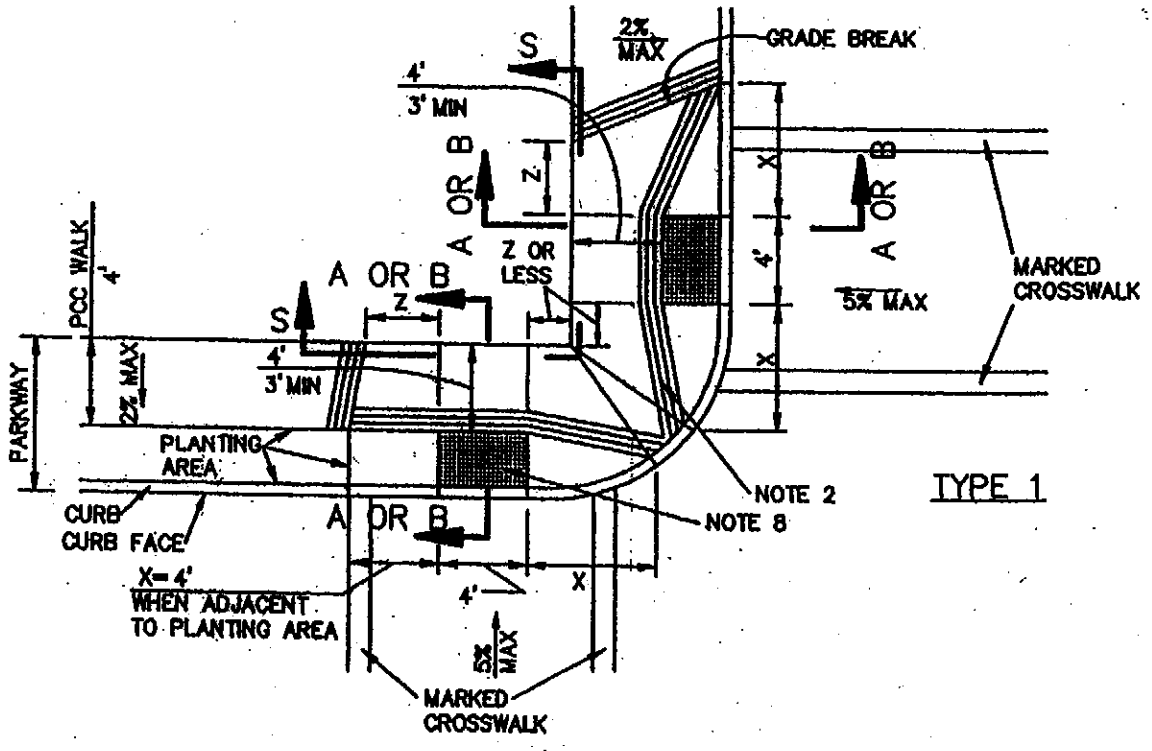


TYPE 2

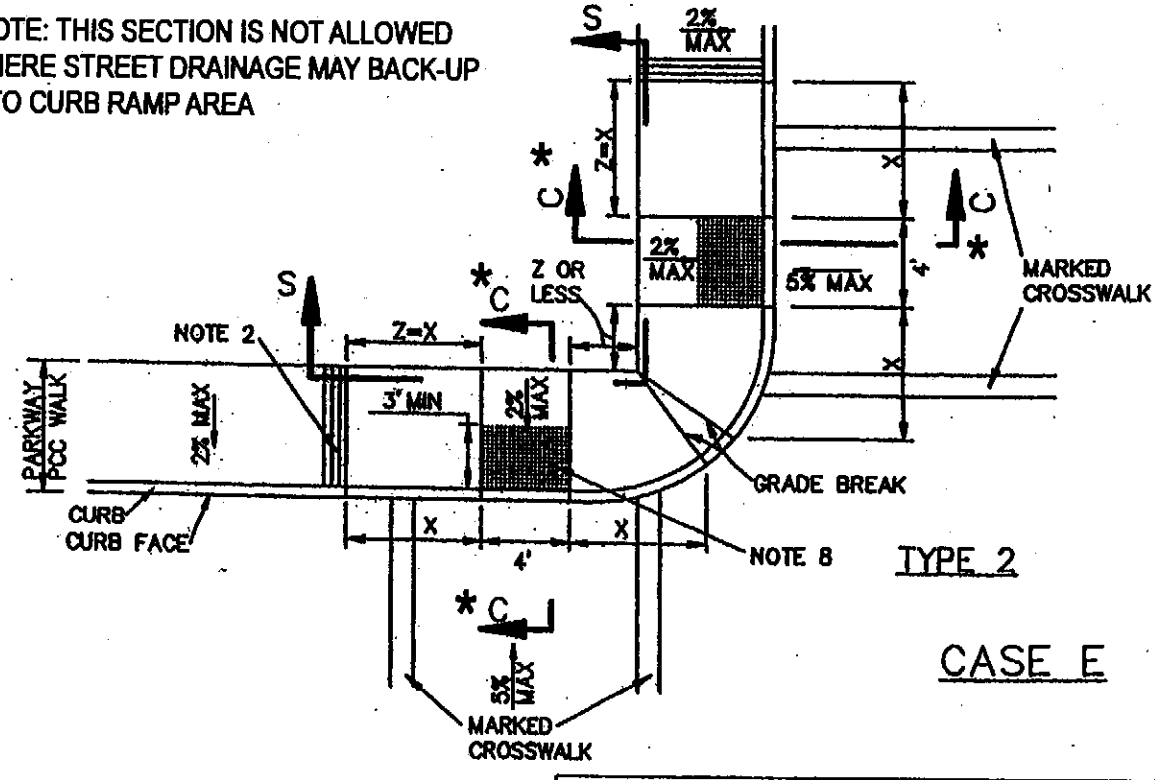
CASE D

				CITY OF POMONA PUBLIC WORKS DEPARTMENT
				CURB RAMP
				DRAWN BY: M.L. CHECKED BY: V.L. APPROVED CITY ENGINEER DATE 7-28-11 — STANDARD — 5 OF 11
△	REVISIONS	DATE	INITIAL	

STD. No. A-28-10



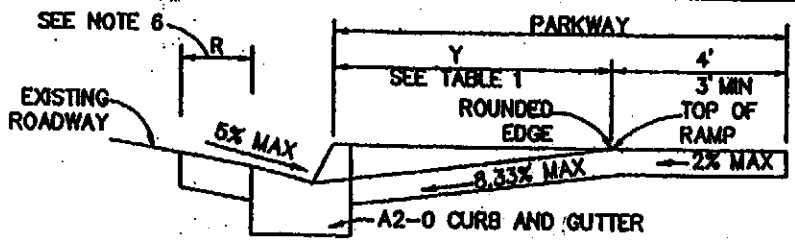
*NOTE: THIS SECTION IS NOT ALLOWED WHERE STREET DRAINAGE MAY BACK-UP INTO CURB RAMP AREA



CASE E

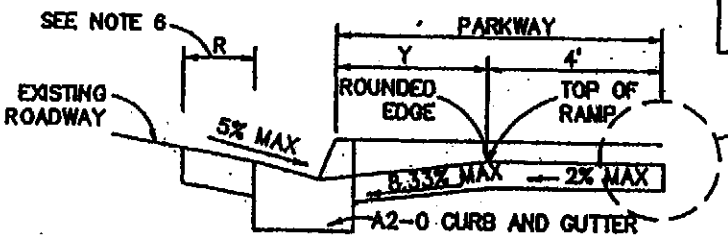
				CITY OF POMONA PUBLIC WORKS DEPARTMENT		
				CURB RAMP		
				DRAWN BY: M.L. CHECKED BY: V.L. APPROVED	STANDARD	6 OF 11
△	REVISIONS	DATE	INITIAL	CITY ENGINEER DATE 7-28-11		

STD. No. A-28-10

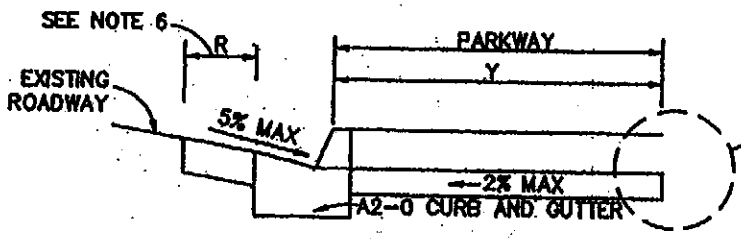


SECTION A-A

USE FIGURE 1 TO DETERMINE WHICH OF SECTIONS A-A, B-B OR C-C IS APPROPRIATE.

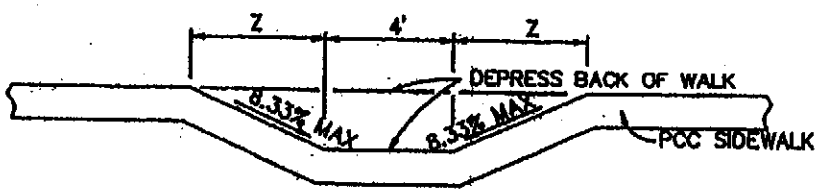


SECTION B-B

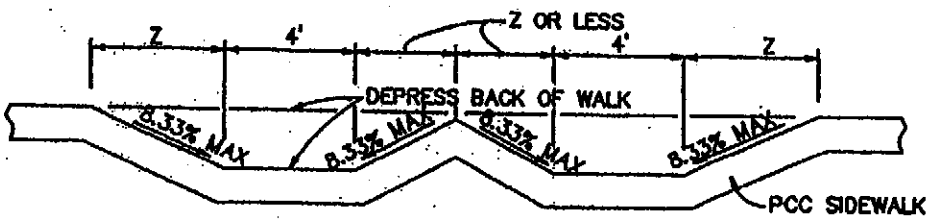


SECTION C-C *

*NOTE: THIS SECTION IS NOT ALLOWED WHERE STREET DRAINAGE MAY BACK-UP INTO CURB RAMP AREA



SECTION R-R



SECTION S-S

REVISIONS	DATE	INITIAL

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

CURB RAMP

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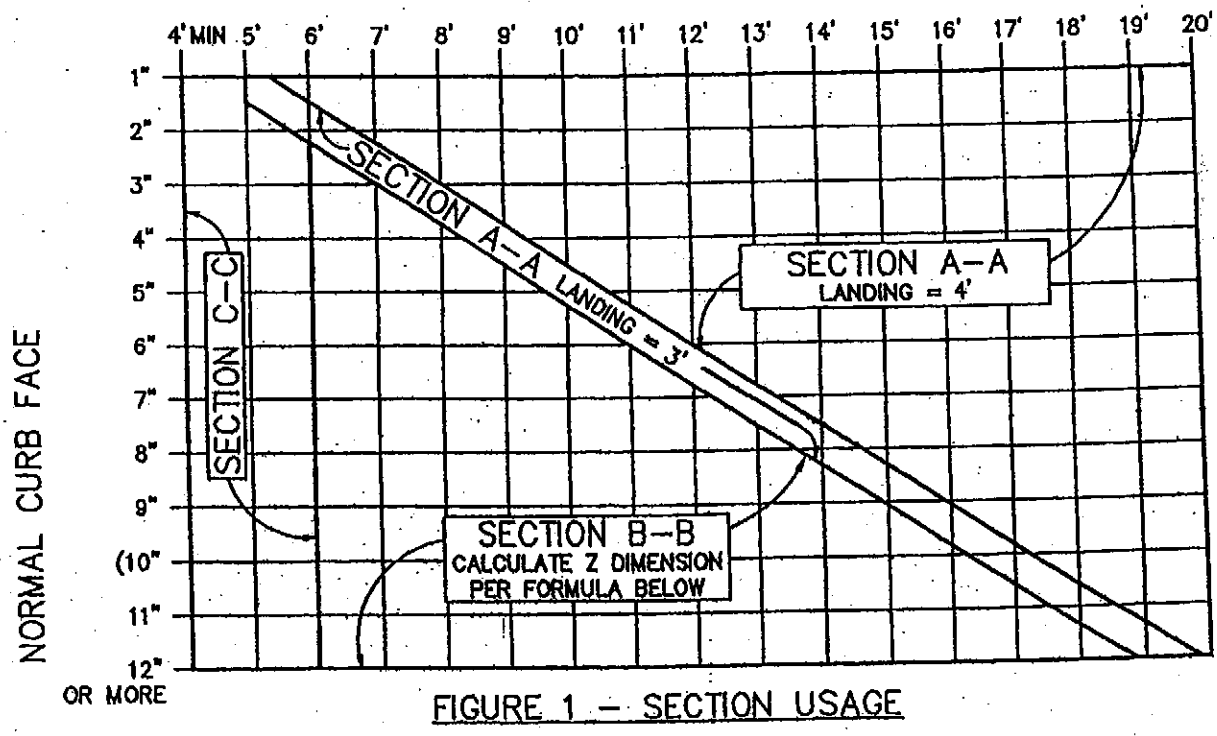

FIGURE 1 – SECTION USAGE

NORMAL CURB FACE	X (FT)	SECTION Y–Y Y, (FT)
2"	4.00' MIN	2.63'
3"	4.00' MIN	3.95'
4"	4.00'	5.26'
5"	5.00'	6.58'
6"	6.00'	7.90'
7"	7.00'	9.21'
8"	8.00'	10.53'
9"	9.00'	11.84'
10"	10.00'	13.16'
11"	11.00'	14.47'
12"	12.00'	15.79'

SEE SHEET 9 FOR STREET SLOPE ADJUSTMENT FACTORS, ALL STREETS

TABLE 1 – X AND Y VALUES

WHERE FIGURE 1 SHOWS USE OF SECTION B–B, FIGURE Z DIMENSION AS FOLLOWS:

W = PARKWAY WIDTH
L = LANDING WIDTH, 4' TYP, 3' MIN.

$Z = [(Y+L)-W] \times 0.760$

IF $(Y+L) < W$, THEN $Z = 0$

TABLE 1 SHOWS X FOR A FLARE SLOPE OF 8.33% AT THE CURB FACE. IF L IS 4' OR MORE, X MAY BE MULTIPLIED BY 0.833 FOR A MAXIMUM FLARE SLOPE OF 10% AT THE CURB FACE.

TABLE 1 REFERENCE FORMULAS:
X = CF / 8.333%
Y = CF / (8.333% – 2% WALK CROSS SLOPE)

REVISIONS	DATE	INITIAL

CITY OF POMONA
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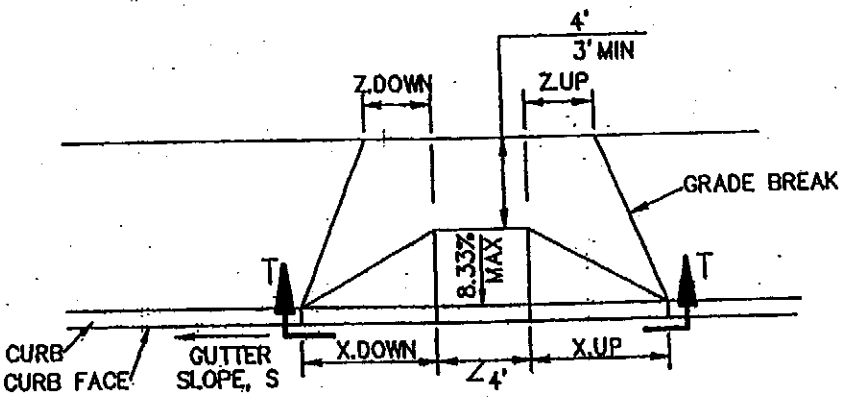
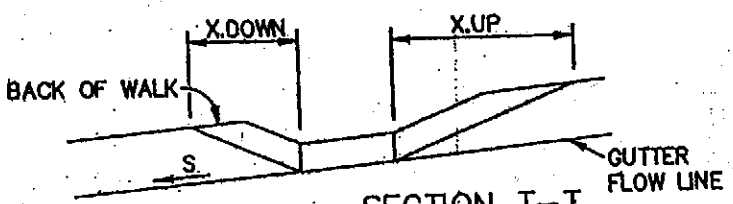


TYPICAL CURB RAMP



SECTION T-T
SLOPED STREET

FOR SLOPED STREETS, MULTIPLY THE DIMENSIONS PARALLEL TO THE STREET, X AND Z, UPSTREAM AND DOWNSTREAM OF THE RAMP BY THE FACTORS IN THE FOLLOWING TABLE.

FOR EXAMPLE, X.DOWN = X x K.DOWN

S	K.DOWN	K.UP
0%	1.000	1.000
0.2%	0.977	1.025
0.5%	0.943	1.064
1%	0.893	1.136
2%	0.806	1.316
3%	0.735	1.563
4%	0.676	1.923
5%	0.625	2.500

TABLE 2 – SLOPE ADJUSTMENTS

TABLE 2 REFERENCE FORMULAS:
K.DOWN = 8.333% / (8.333% + S)
K.UP = 8.333% / (8.333% – S)

STREET SLOPE ADJUSTMENTS

REVISIONS	DATE	INITIAL

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

CURB RAMP

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CITY ENGINEER _____ DATE 7-28-11

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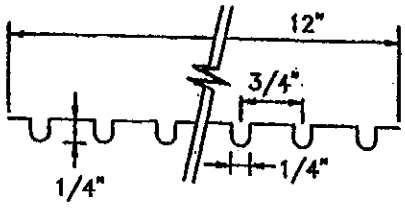
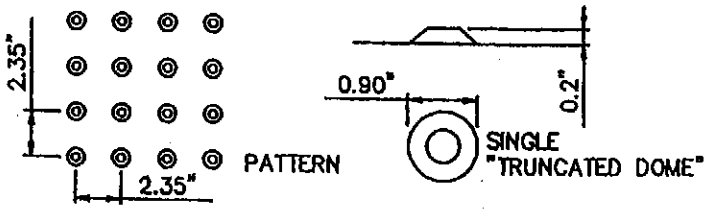
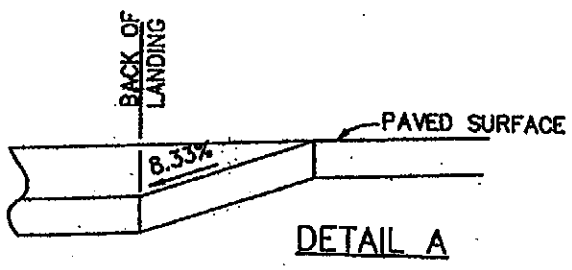


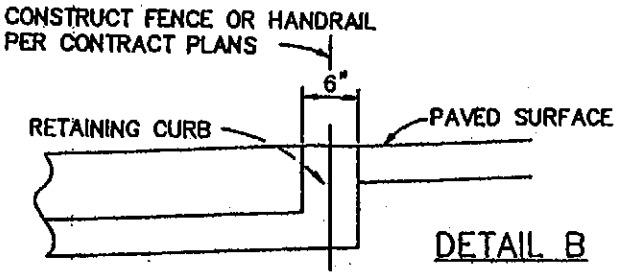
GROOVING DETAIL



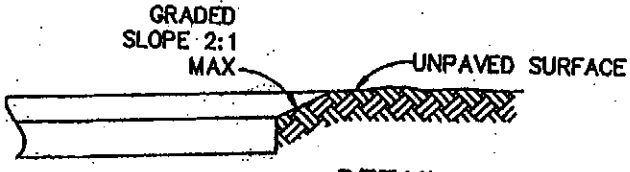
DETECTABLE WARNING DETAIL



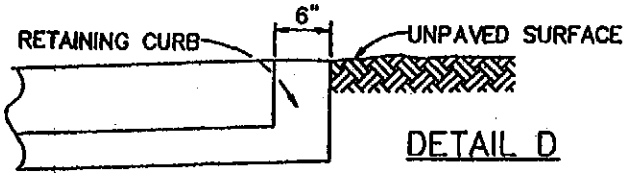
DETAIL A



DETAIL B



DETAIL C



DETAIL D

GENERAL NOTES:

1. CONCRETE SHALL BE CLASS 310-C-17 (520-C-2500) AND SHALL BE 4" THICK.
2. THE RAMP SHALL HAVE A 12" WIDE BORDER WITH 1/4" GROOVES APPROXIMATELY 3/4" OC. SEE GROOVING DETAIL.
3. THE RAMP SURFACE SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE CONFORMING TO SSPWC 303-1.9.
4. USE DETAIL "A" OR "B" IF EXISTING SURFACE BEHIND LANDING IS PAVED.
5. USE DETAIL "C" OR "D" IF EXISTING SURFACE BEHIND LANDING IS UNPAVED.
6. R = 3' UNLESS OTHERWISE SHOWN ON PLAN.
7. ANGLE = $\Delta/2$ UNLESS OTHERWISE SHOWN ON PLAN.
8. CONSTRUCT DETECTABLE WARNING SURFACE PER DETAIL THIS SHEET. MATERIALS SHALL BE PER CONTRACT DOCUMENTS.
9. ALL RAMPS SHALL BE POURED MONOLITHICLY
10. RAMPS IN FLAT AREAS WHERE WATER MAY COLLECT SHALL REQUIRE FIRST 2' (AS PRACTICAL) BEHIND FLOW LINE TO BE AT 8.33% TO PREVENT PONDING

REVISIONS	DATE	INITIAL

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

CURB RAMP

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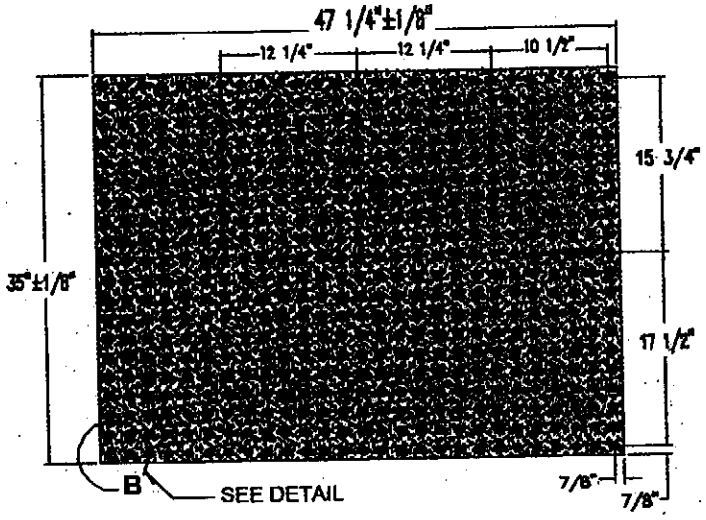
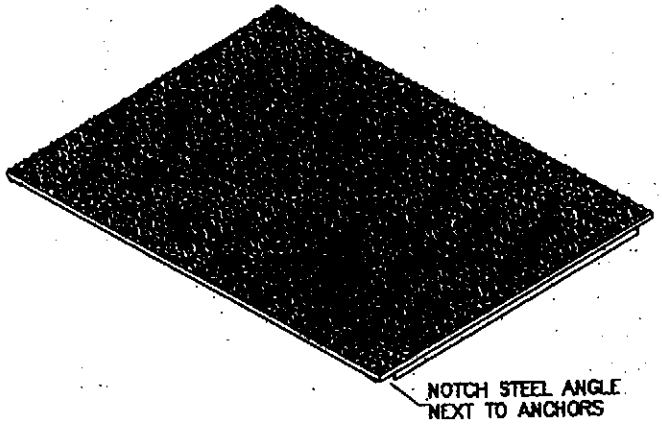
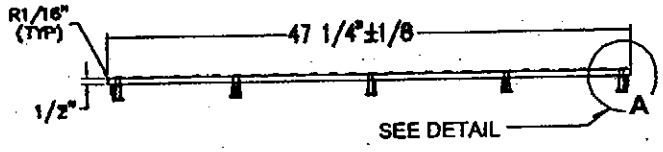
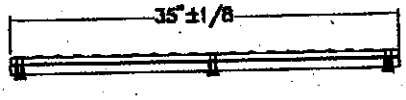
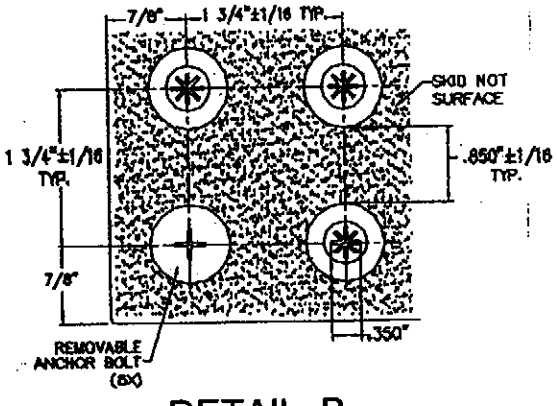
3'X4' PANEL (BLACK)



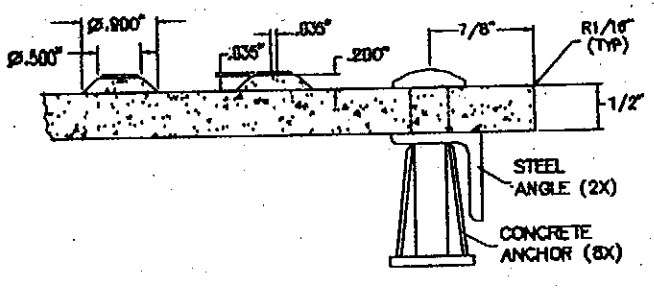








DETAIL B



DETAIL A

Note: Armorcast Products Company
A-6003648RADAXXX
"XXX" Designate Color

△	REVISIONS	DATE	INITIAL

CITY OF POMONA
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CURB RAMP - TRUNCATED DOME

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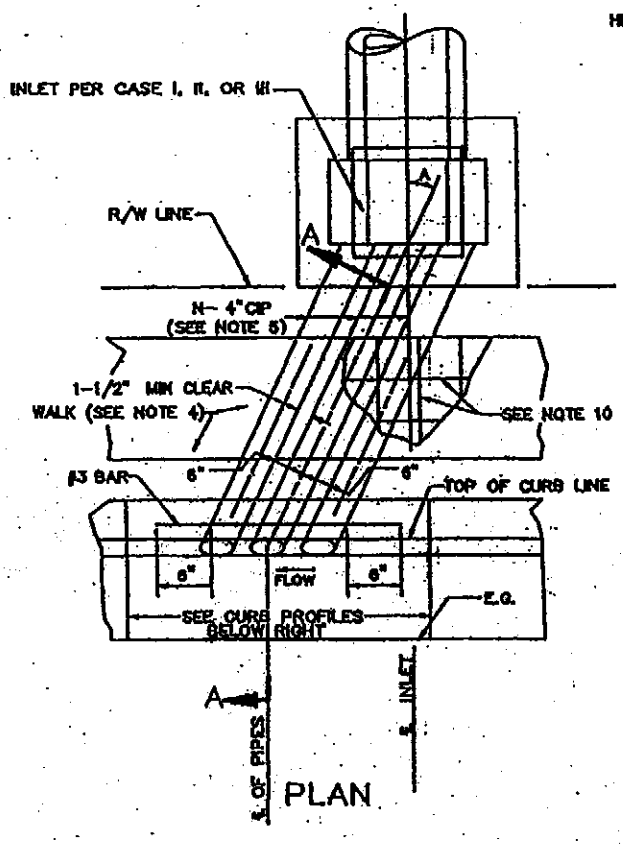
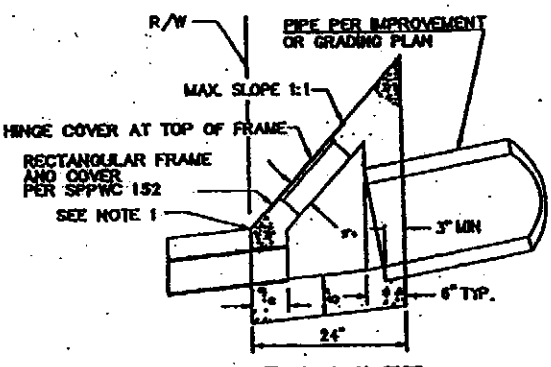
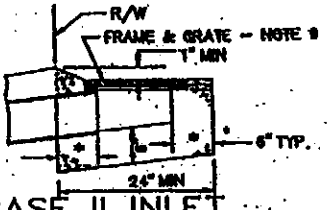


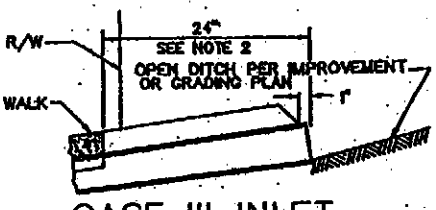
PLAN



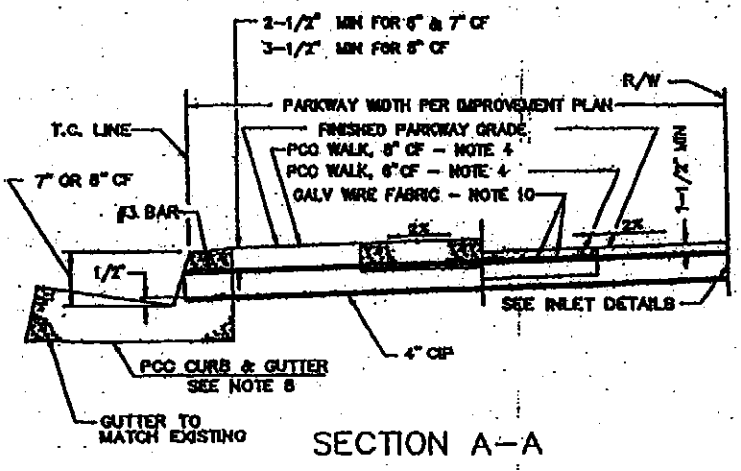
CASE I INLET
TRANSITION STRUCTURE SECTION



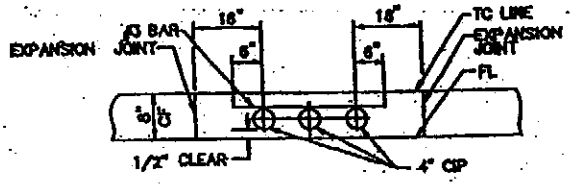
CASE II INLET
DROP INLET CATCH BASIN SECTION



CASE III INLET
GRADED DITCH SECTION

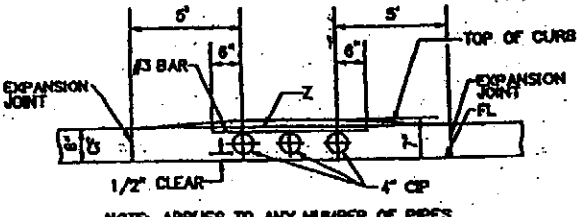


SECTION A-A



NOTE: APPLIES TO ANY NUMBER OF PIPES

CURB PROFILE - 8" CURB FACE



NOTE: APPLIES TO ANY NUMBER OF PIPES
Z = TOP-OF-CURB LINE SHOWN ON PROFILE

CURB PROFILE - 6" CURB FACE

△	REVISIONS	DATE	INITIAL	

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

CURB DRAIN

DRAWN BY: M.L. | CHECKED BY: V.L.

APPROVED

CITY ENGINEER _____ DATE 7-28-11

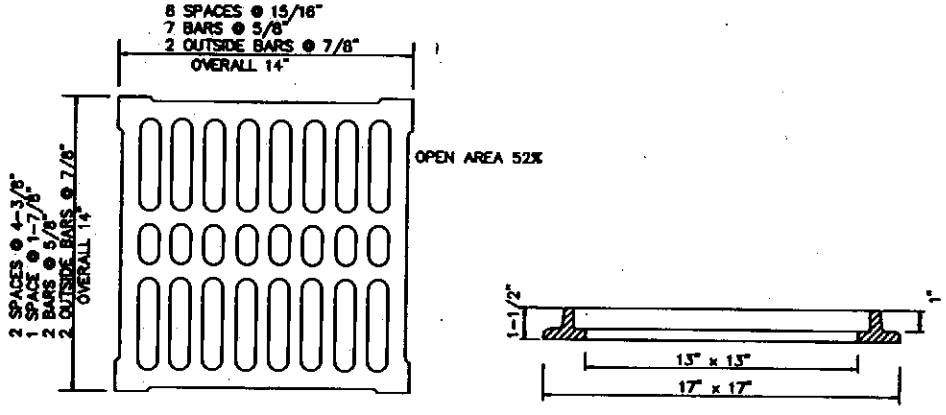
STANDARD

1 OF 2

STD. No. A-29-10

NOTES

1. IF THE TOP OF SLOPE IS ALLOWED WITHIN THE R/W, INLET CASE I BEGINS AT THE TOP RATHER THAN THE R/W LINE.
2. FOR OPEN DITCH (CASE INLET III), THE 24" EXTENSION BEYOND THE R/W LINE IS NOT REQUIRED WHEN BACK OF WALK IS 24" OR MORE FROM THE R/W LINE; HOWEVER, PIPE SHALL EXTEND TO R/W LINE.
3. TOP OF INLET STRUCTURE (CASE I AND II) TO BE FLUSH WITH ADJACENT SURFACE WHERE PRACTICAL.
4. CONSTRUCT PCC WALK WHEN SPECIFIED ON PLANS. THE CONTRACT PRICE PAID FOR PCC WALK ITEM SHALL INCLUDE WALK CONSTRUCTED IN CONJUNCTION WITH PARKWAY CULVERT.
5. "N" EQUALS NUMBER OF PIPES (MAXIMUM OF THREE) AS SPECIFIED ON PLANS.
6. INLET CASE TO BE SPECIFIED ON PLANS.
7. ANGLE A EQUALS 0°, UNLESS OTHERWISE SPECIFIED.
8. TYPE, DIMENSIONS AND ELEVATIONS OF P.C.C. CURB AND GUTTER PER PLANS.
9. UNLESS OTHERWISE SPECIFIED, FRAME AND GRATE FOR CASE II INLET SHALL BE GALVANIZED CAST IRON. WEIGHT OF FRAME AND GRATE SHALL BE 80 LBS.
10. AT LOCATIONS WITH LESS THAN 8" CURB FACE, USE 6x6–10/10 GALVANIZED WIRE FABRIC. WIRE FABRIC SHALL EXTEND 8" BEYOND THE EDGE OF CAST IRON PIPES.
11. ALL DRAINS MUST HAVE FLO–GUARD FILTER ON–SITE BEFORE DISCHARGING INTO CITY RIGHT–OF–WAY, PER SUSMP REQUIREMENTS.



TOP OF GRATE

SECTION THRU FRAME

GRATE FOR CASE II INLET

REVISIONS	DATE	INITIAL

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

CURB DRAIN

DRAWN BY: R.D. | CHECKED BY: R.D.

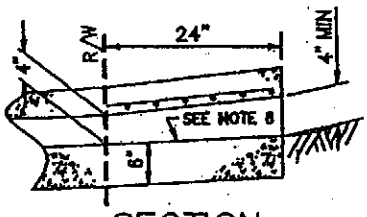
APPROVED

CITY ENGINEER DATE 7-28-11

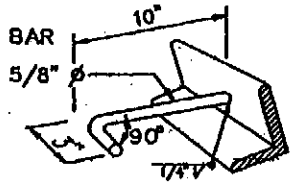
STANDARD

2 OF 2

STD. No. A-29-10



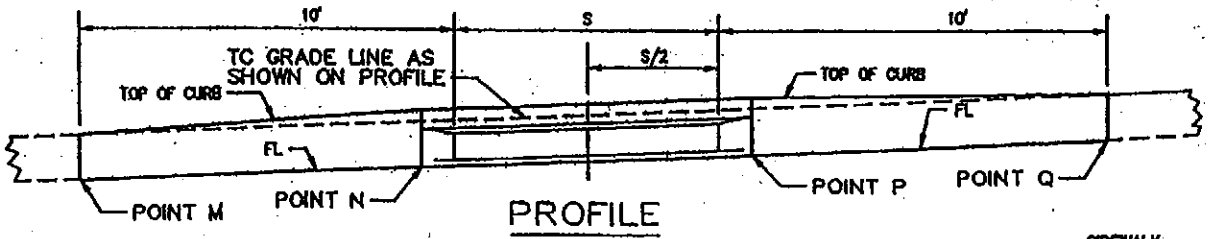
SECTION
INLET TYPE 2



DETAIL OF ANCHOR

A
PLAN

SECTION
INLET TYPE 1



PROFILE

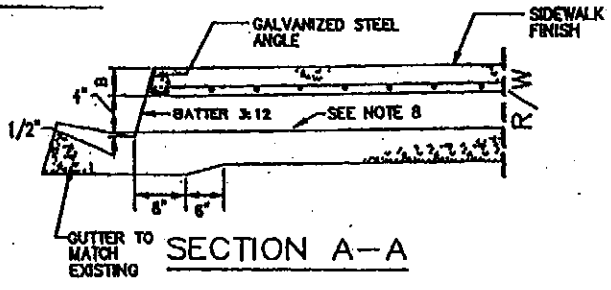
S	J BAR SPACING
12"	7"
18"	7"
24"	7"
30"	7"
36"	7"
42"	6"
48"	5"
54"	6-1/2"
60"	5"
66"	4"
72"	3-1/2"

FOR S = 30" AND LESS, USE 2 ANCHORS. OTHERWISE, USE 3 ANCHORS.

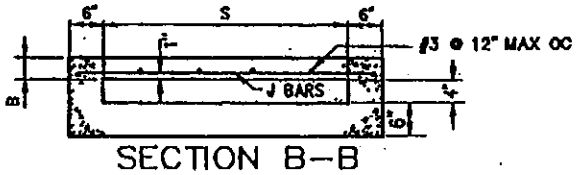
FOR S = 48" AND LESS, B = 3" USE 2-1/2"x2"x3/8" GALVANIZED STEEL ANGLE.

OTHERWISE, B = 4". USE 3-1/2"x3"x1/2" GALVANIZED STEEL ANGLE.

J BARS ARE #3.



SECTION A–A



SECTION B–B

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

PARKWAY DRAIN

DRAWN BY: M.L. | CHECKED BY: V.L.

APPROVED

CITY ENGINEER DATE 7-28-11

STANDARD

1 OF 2

REVISIONS	DATE	INITIAL

STD. No. A-30-10

NOTES

1. FLOOR OF BOX SHALL BE TROWELED SMOOTH.

2. IF THE TOE OF SLOPE IS ALLOWED WITHIN THE R/W, INLET TYPE 1 BEGINS AT THE TOE RATHER THAN AT THE R/W LINE.

3. FOR OPEN DITCH (TYPE 2), THE 24" EXTENSION BEYOND THE R/W LINE IS NOT REQUIRED WHEN BACK OF WALK IS 24" OR MORE FROM THE R/W LINE; HOWEVER, THE PIPE SHALL EXTEND TO THE R/W LINE IN ANY EVENT.

4. TOP OF INLET STRUCTURE (TYPE 1 & 2) SHALL BE FLUSH WITH ADJACENT SURFACE WHERE PRACTICAL.

5. A HEADED STEEL STUD 5/8" x 6-3/8" WITH A 1" HEAD ATTACHED BY A FULL PENETRATION BUTT WELD MAY BE USED AS AN ALTERNATE ANCHOR.

6. NORMAL CURB FACE AT POINT M AND Q. CURB FACE IS B + 5" AT POINT N AND P.

7. THE 3" LEG OF THE 5/8" DIA ANCHORS SHALL BE PARALLEL TO THE TOP OF SIDEWALK.

8. SLOPE = 2.0%.

9. ALL DRAINS MUST HAVE FLO-GUARD FILTERS ON-SITE BEFORE DISCHARGE IS ALLOWED ON CITY RIGHT-OF-WAY, PER SUSMP REQUIREMENTS.

REVISIONS	DATE	INITIAL
△		

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

PARKWAY DRAIN

DRAWN BY: R.G. | CHECKED BY: R.G.

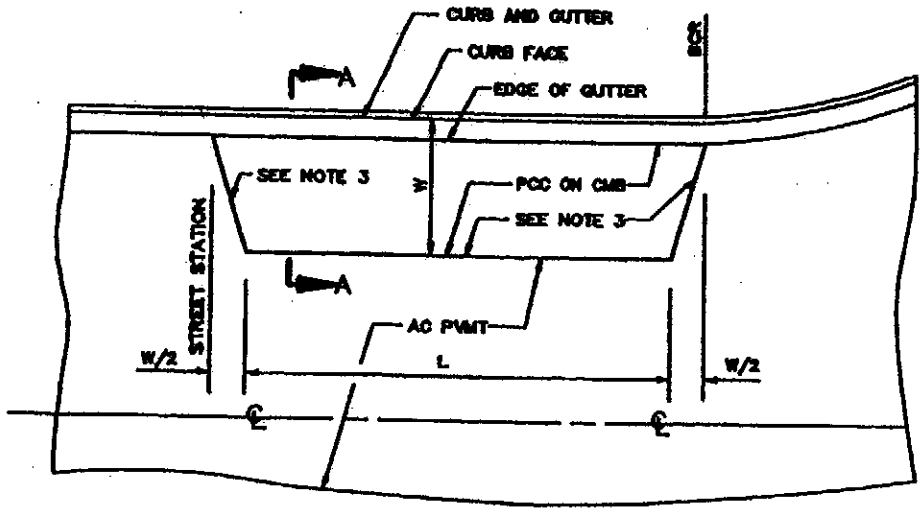
APPROVED

CITY ENGINEER _____ DATE 7-28-11

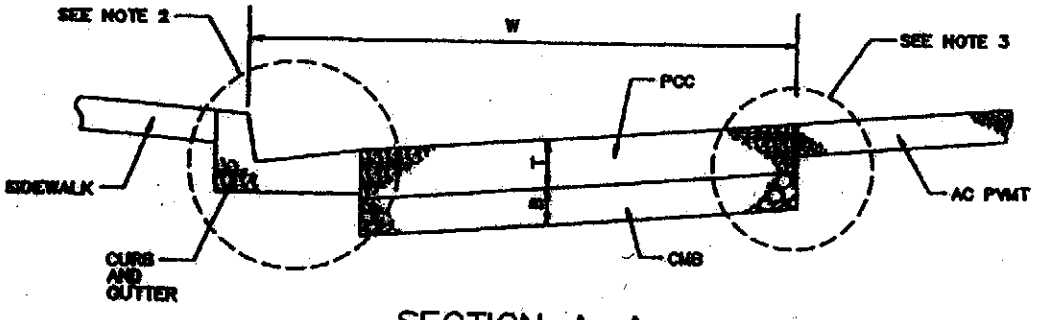
STANDARD

2 OF 2

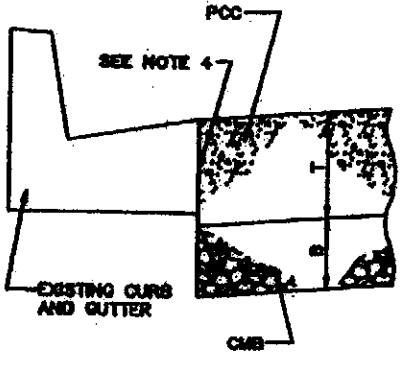
STD. No. A-30-10



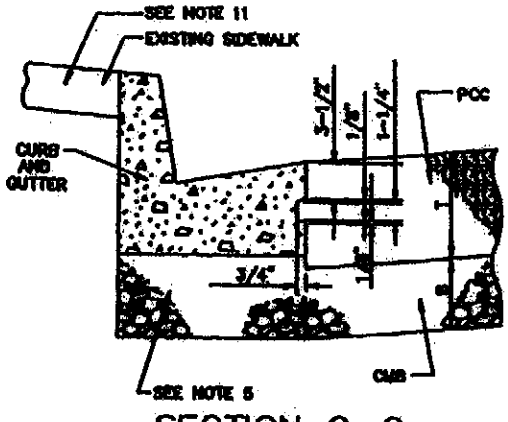
TYPICAL BUS PAD



SECTION A–A



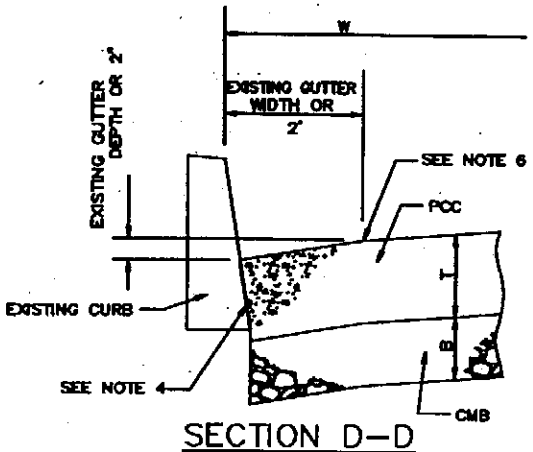
SECTION B–B



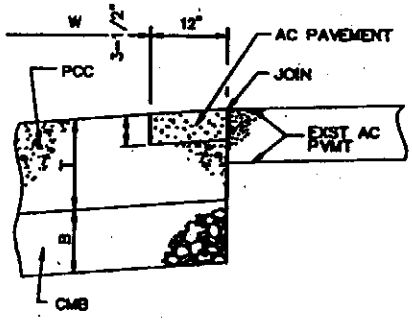
SECTION C–C

			CITY OF POMONA PUBLIC WORKS DEPARTMENT
			CONCRETE BUS PAD
			DRAWN BY: M.L. CHECKED BY: V.L. APPROVED CITY ENGINEER DATE 7-28-11
			STANDARD
			1 OF 2
△	REVISIONS	DATE	INITIAL

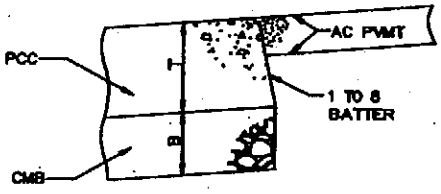
STD. No. A-31-10



SECTION D–D



SECTION E–E
SEE NOTE 14



SECTION F–F

NOTES:

1. DIMENSIONS: (UNLESS OTHERWISE SHOWN)
   L = 85' T = 8"
   W = 10' B = 6"
2. USE SECTION B–B FOR EXISTING CURB AND GUTTER THAT IS TO REMAIN.
   USE SECTION C–C FOR NEW CURB AND GUTTER.
   USE SECTION D–D FOR EXISTING CURB THAT IS TO REMAIN.
3. USE SECTION E–E FOR EXISTING AC PAVEMENT.
   USE SECTION F–F FOR NEW AC PAVEMENT.
4. AT LOCATIONS WHERE PCC PAVEMENT WILL ABUT EXISTING CONCRETE, AN EPOXY APPROVED BY THE ENGINEER SHALL BE APPLIED TO THE EXISTING CONCRETE SURFACES PRIOR TO CONCRETE PLACEMENT.
5. CONSTRUCT LONGITUDINAL WEAKENED–PLANE JOINT TO MATCH ADJOINING EXISTING GUTTER WIDTH, OR 2' IF NO ADJOINING GUTTER EXISTS.
6. USE 2"x4" (50x100) HEADER TO FORM 3–1/2" STEP. TOP OF HEADER SHALL BE SET TO LINE AND GRADE.
7. ALL EXPOSED PCC CORNERS SHALL BE ROUNDED WITH A 1/2" RADIUS.
8. SURFACE OF CONCRETE SHALL HAVE A ROUGH TRANSVERSE BROOM FINISH.
9. WHERE DESIGNATED BY THE ENGINEER, UNDESIRABLE SUBGRADE MATERIAL SHALL BE REMOVED AND REPLACED WITH CMB.
10. WHERE NEW CURB AND GUTTER IS CONSTRUCTED ADJACENT TO EXISTING SIDEWALK, SIDEWALK SHALL BE REMOVED AND REPLACED TO NEAREST SCORELINE.
11. CONSTRUCT TRANSVERSE WEAKENED PLANE JOINTS IN BUS PAD PAVEMENT AT APPROX. 10' INTERVALS.
12. CONSTRUCT TRANSVERSE WEAKENED PLANE JOINTS IN BUS PAD PAVEMENT AT ALL EXISTING CURB/CURB & GUTTER CONSTRUCTION JOINTS AND WEAKENED–PLANE JOINTS.
13. AT THE OPTION OF THE ENGINEER, THE EXISTING PAVEMENT MAY BE NEATLY SAWCUT AROUND THE DIMENSIONS OF THE BUS PAD, AND CONCRETE POURED DIRECTLY USING THE EXISTING PAVEMENT AS A FORM. THE CONCRETE EDGES SHALL BE ROUNDED WITH A 1/2" RADIUS.
14. P.C.C. MIX DESIGN SHALL BE AS APPROVED BY ENGINEER.
15. CURING COMPOUND SHALL BE PROVIDED FOR ALL P.C.C..

△	REVISIONS	DATE	INITIAL

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

CONCRETE BUS PAD

DRAWN BY: R.D. | CHECKED BY: R.D.

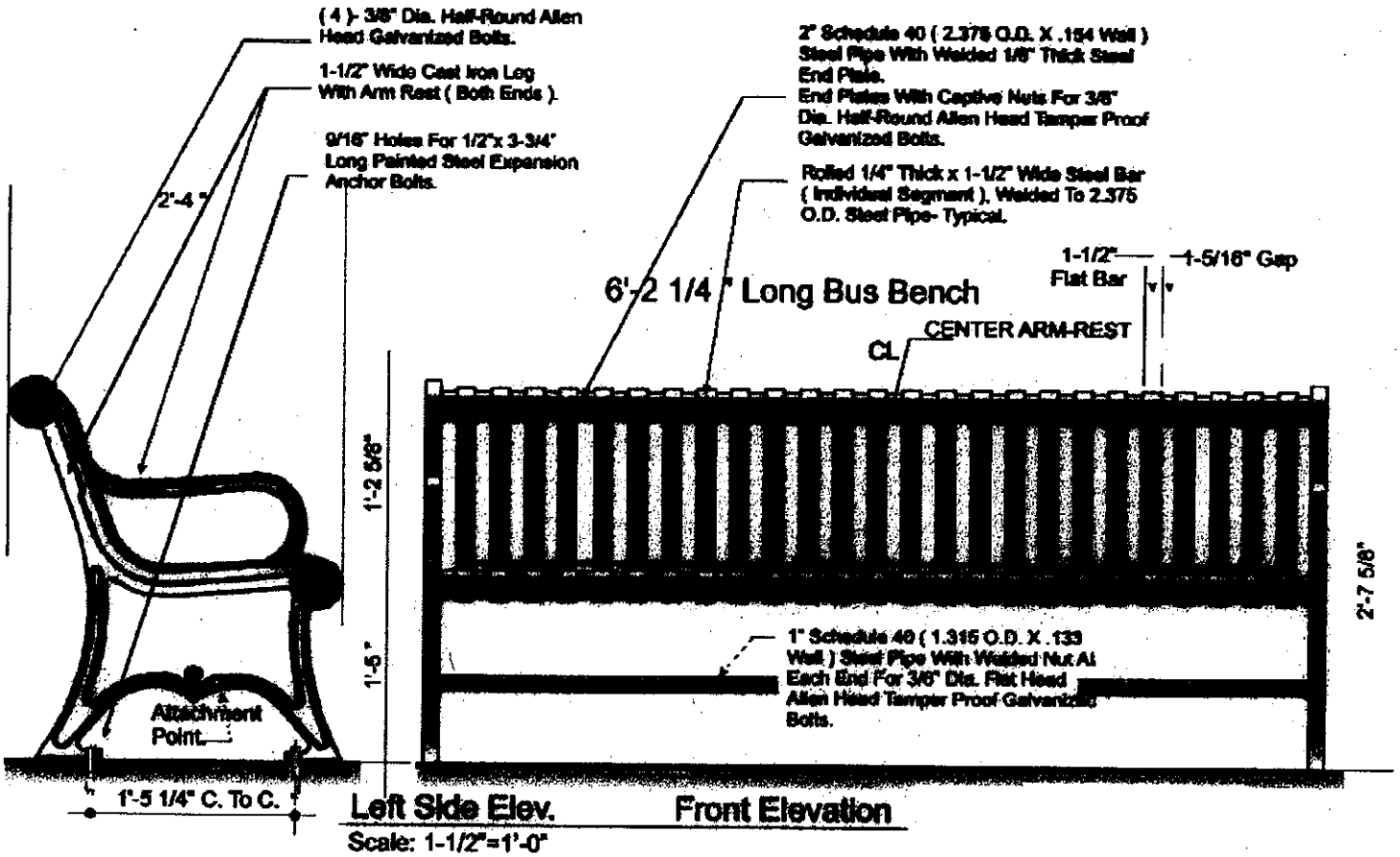
APPROVED

CITY ENGINEER _____ DATE 7-28-11

STANDARD

2 OF 2

STD. No. A-31-10

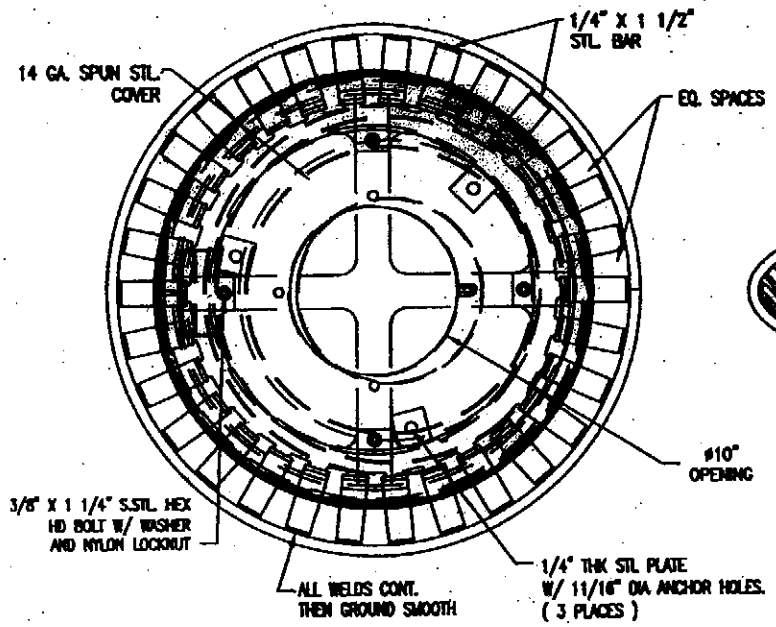


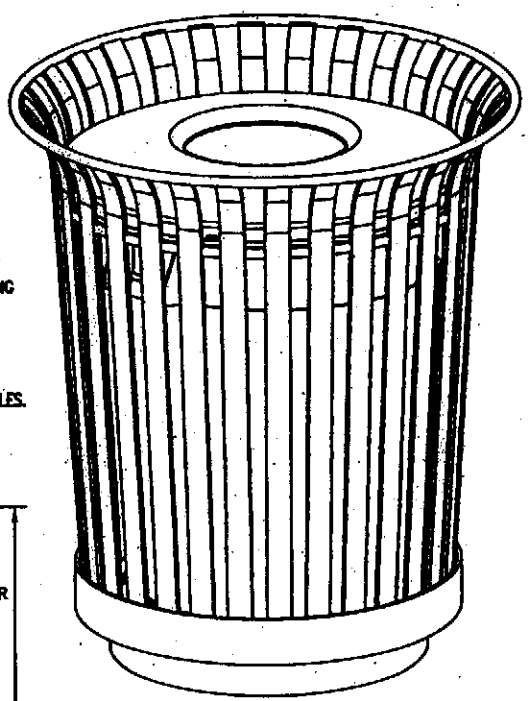
NOTES

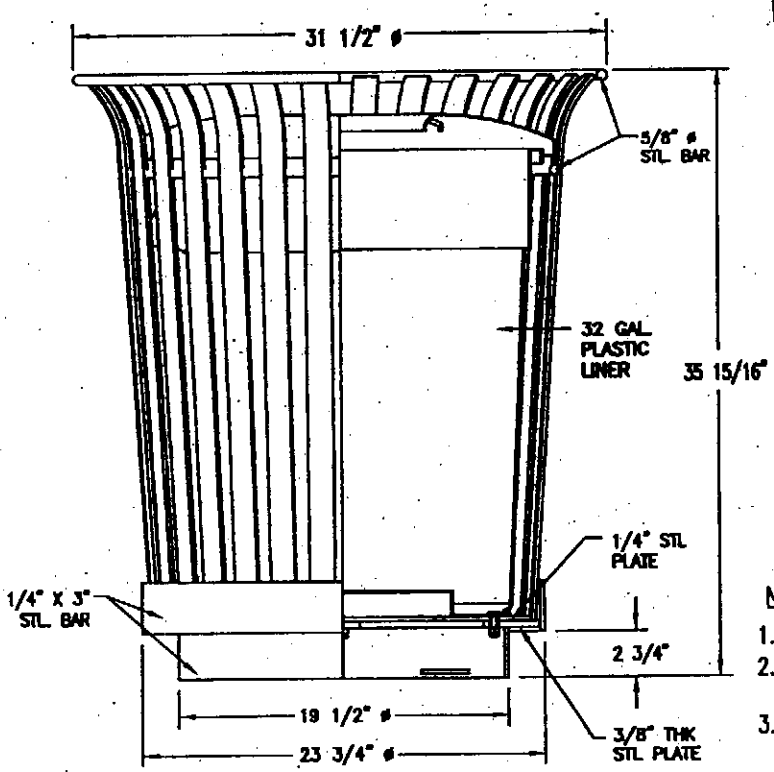
1) ALL STEEL MEMBERS COATED W/ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.

		CITY OF POMONA PUBLIC WORKS DEPARTMENT	
		BUS BENCH	
		DRAWN BY: R.D. / CHECKED BY: R.D.	STANDARD
		APPROVED CITY ENGINEER DATE 7-28-11	1 OF 1
△	REVISIONS	DATE / INITIAL	

STD. No. A-32-10







NOTE:

1.) RECEPTACLE SHIPPED FULLY ASSEMBLED.
2.) COVER ATTACHED W/ 1/8" VINYL COATED CABLE.
3.) MOUNT AND ANCHOR AS SPECIFIED.

NOTES:

1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
3.) ALL WELDS CONT. THEN GROUND SMOOTH.
4.) RECEPTACLE FULLY ASSEMBLED AT FACTORY.

REVISIONS	DATE	INITIAL

CITY OF POMONA
PUBLIC WORKS DEPARTMENT

RECEPTACLE

DRAWN BY: M.L. | CHECKED BY: V.L.

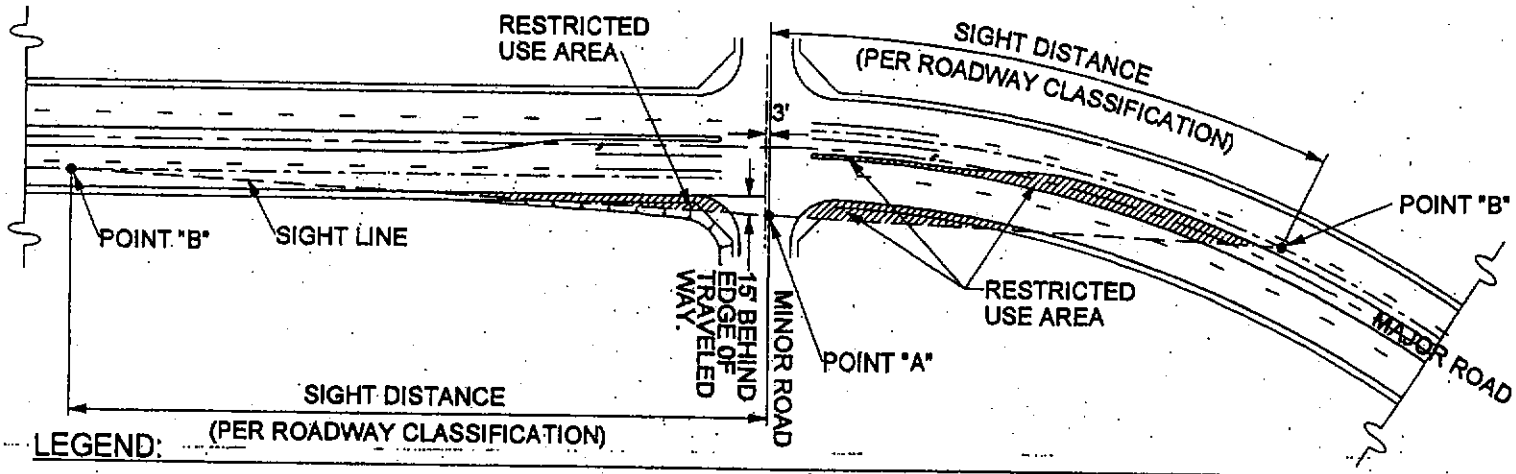
APPROVED

CITY ENGINEER DATE 7-28-11

STANDARD

1 OF 1

STD. No. A-33-10



LEGEND:

- LIMITED USE AREA
- SIGHT LINE
- CENTERLINE OF ROADWAY
- CENTERLINE OF TRAFFIC LANE

POINT "A": DRIVER'S VANTAGE POINT.
POINT "B": THE REQUIRED SIGHT DISTANCE POINT, MEASURED ALONG THE CENTERLINE OF THE NEAREST LANE OF APPROACHING TRAFFIC.

NOT TO SCALE

DESIGN SPEED (M.P.H.)	PUBLIC STREETS CORNER SIGHT DIST. (FT.)	PRIV. ROADS & DRIVEWAYS STOPPING SIGHT DIST. (FT.)
20	220	125
25	275	150
30	330	200
35	385	250
40	440	300
45	495	360
50	550	430
55	605	500
60	660	580
65	715	660

NOTES:

1. THE LIMITED USE AREA IS DETERMINED BY THE GRAPHICAL METHOD. IT SHALL BE USED FOR THE PURPOSE OF PROHIBITING OR CLEARING OBSTRUCTIONS TO MAINTAIN ADEQUATE SIGHT DISTANCE AT INTERSECTIONS.
2. LIMITED USE AREA TO BE KEPT CLEAR OF ALL OBSTRUCTIONS OVER 30 INCHES HIGH, INCLUDING VEGETATION.
3. NO TREES, WALLS, OR ANY OBSTRUCTIONS SHALL BE ALLOWED IN THE LIMITED USE AREA.
4. THE TOE OF SLOPE SHALL NOT ENCROACH INTO THE LIMITED USE AREA.
5. THE SIGHT DISTANCE SHALL BE MEASURED ALONG THE CENTERLINE OF THE ROAD.
6. POINT "A" IS THE LOCATION OF THE DRIVER'S EYE, MEASURED 15 FEET BACK FROM THE EDGE OF THE TRAVELED WAY. (6 FEET FROM ETW, 1 FOOT STOP BAR, AND 8 FEET FROM FRONT BUMPER TO DRIVER.) IF THE STOP BAR IS MORE THAN 6 FEET FROM THE ETW, ADDITIONAL ALLOWANCE SHOULD BE CONSIDERED.
7. POINT "B" IS THE REQUIRED SIGHT DISTANCE POINT LOCATED ALONG THE CENTER OF THE NEAREST TRAFFIC LANE.
8. THE LINE OF SIGHT SHALL BE SHOWN AT INTERSECTIONS ON TENTATIVE MAPS, SITE PLANS, GRADING PLANS, STREET PLANS, AND LANDSCAPE PLANS.
9. CORNER SIGHT DISTANCE IS MEASURED FROM A 3.5 FOOT HEIGHT AT THE LOCATION OF THE DRIVER'S EYE ON THE MINOR ROAD, TO A 4.25 FOOT OBJECT HEIGHT IN THE CENTER OF THE NEAREST TRAFFIC LANE OF THE MAJOR ROAD.
10. WHEN AN INTERSECTION IS LOCATED ON A VERTICAL CURVE, A PROFILE OF THE SIGHT LINE SHALL BE PROVIDED.

REVISIONS | DATE | INITIAL

CITY ENGINEER [signature] DATE 7-28-11

DRAWN BY: M.L. | CHECKED BY: M.P.

APPROVED

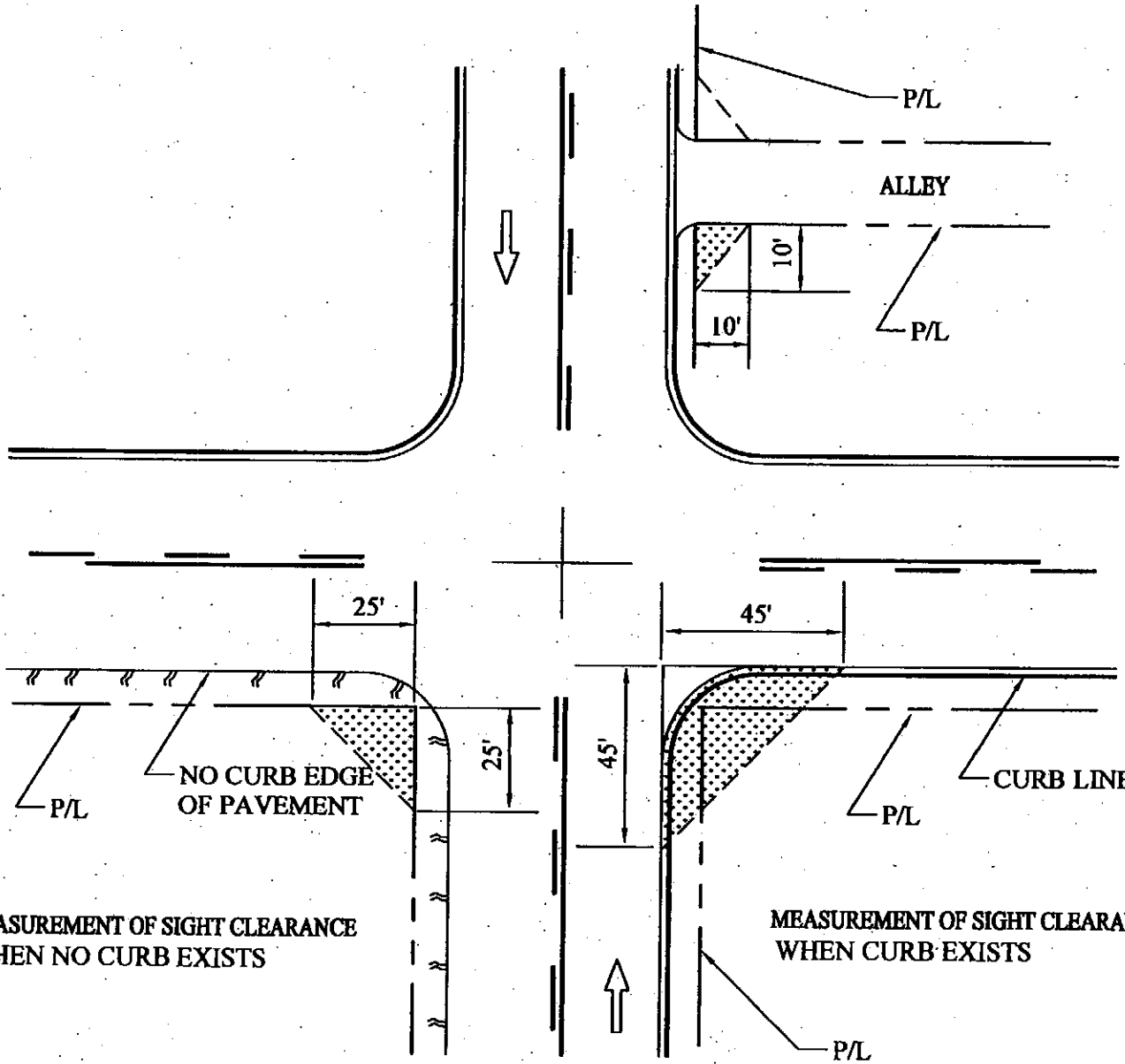
CITY OF POMONA
PUBLIC WORKS DEPARTMENT

INTERSECTION SIGHT DISTANCE

STANDARD

1 OF 2

STD. No. A-34-11



NO OBSTRUCTION TO VISIBILITY AREA AT INTERSECTIONS

NOT TO SCALE

NOTE: See City Code, Zoning, Part III, Section 503-I-2, and Pomona City Code Section 46-12 for related requirements

LEGEND

NO OBSTRUCTION TO CROSS VISIBILITY AREA

CITY OF POMONA PUBLIC WORKS DEPARTMENT			
NO OBSTRUCTION TO VISIBILITY AREA AT INTERSECTIONS			
DRAWN BY: R.D.	CHECKED BY: R.D.	STANDARD	2 OF 2
APPROVED CITY ENGINEER	DATE 7-28-11		
△ REVISIONS	DATE / INITIAL		

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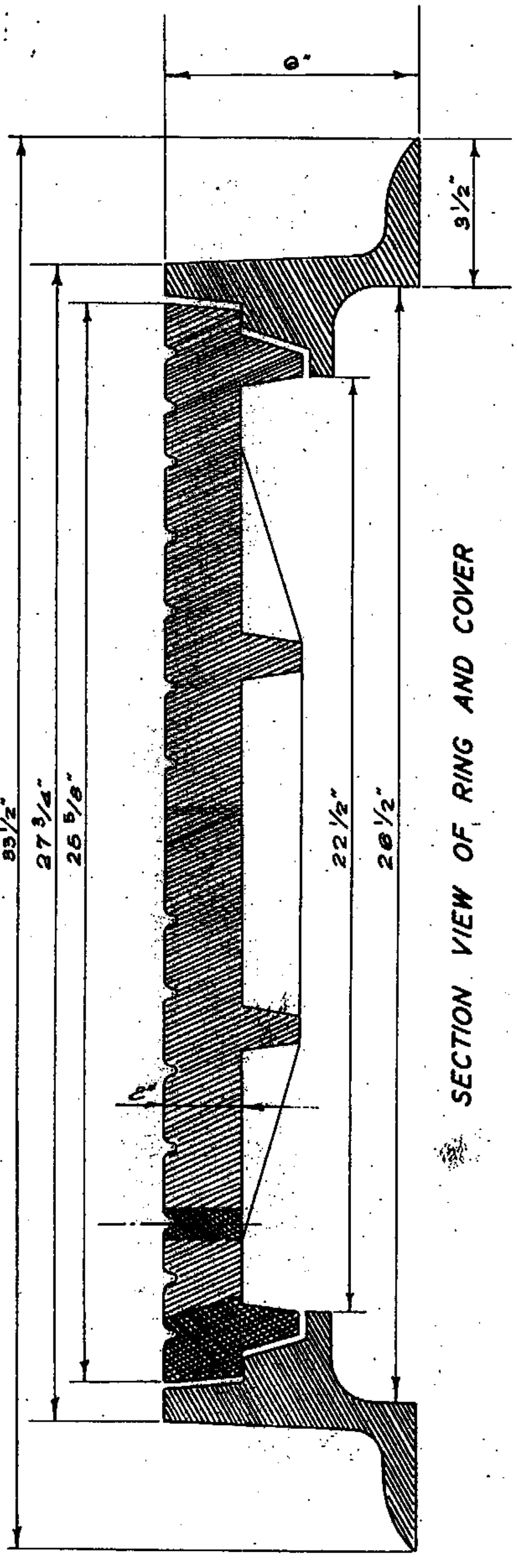
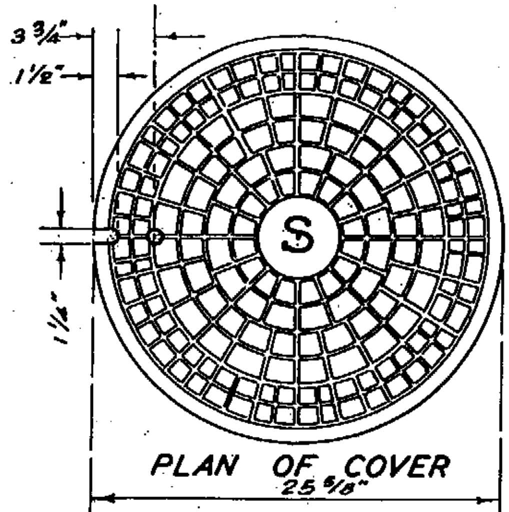
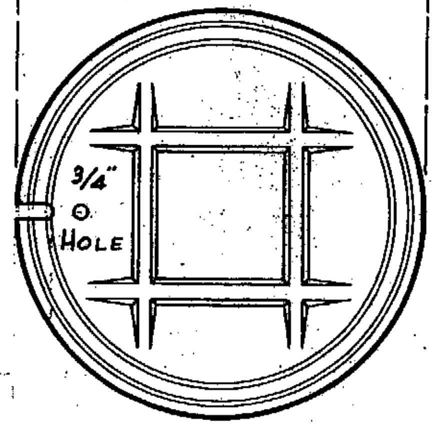
STD. No. A-34-11



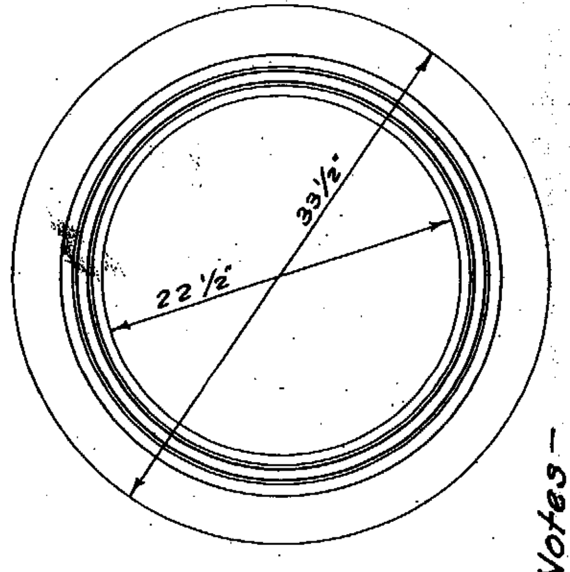
SECTION VIEW OF RING AND COVER



PLAN OF COVER



BOTTOM VIEW



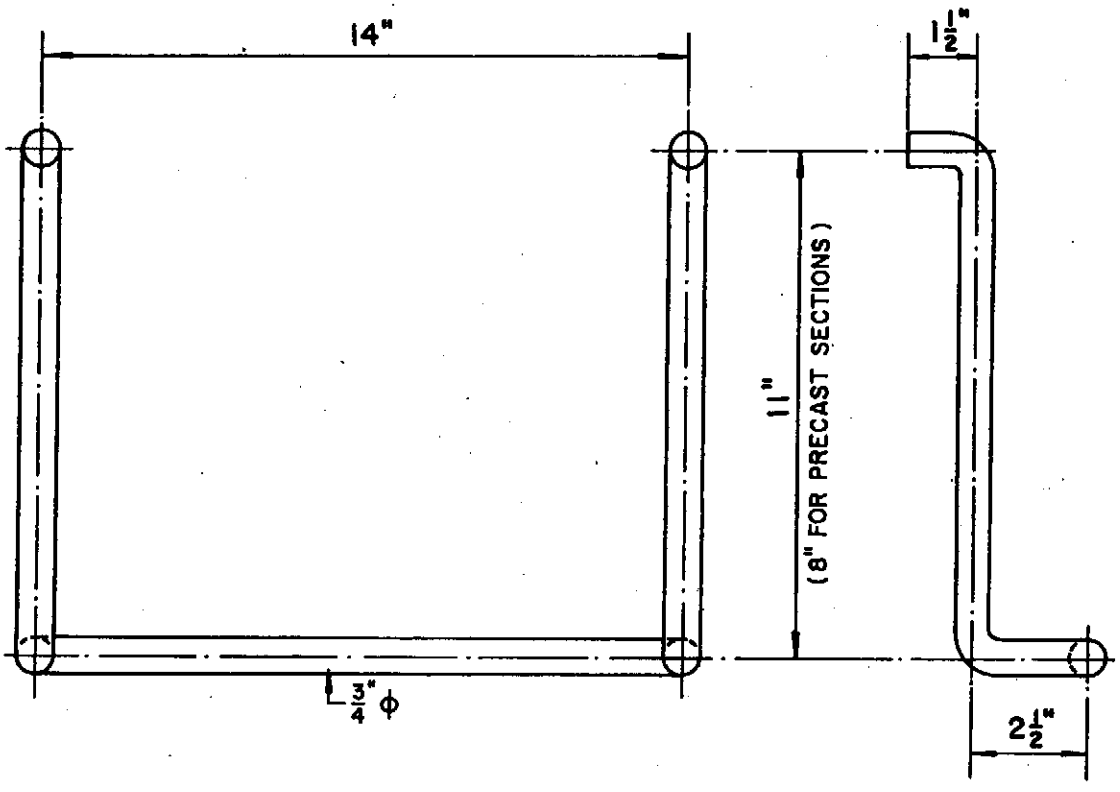
PLAN OF RING

Notes–
1- Manhole frame & cover shall be Alhambra Foundry number A-1170, or equal.
2- Manhole frame & cover casting shall conform to Class 30, serial number A-48 of A.S.T.M.

Approx. Weight = Frame 260 lbs.
Cover 200 lbs.

CITY OF POMONA ENGINEERING DEPARTMENT			
STANDARD SEWER MANHOLE FRAME & COVER			
DWN. BY	CKD. BY	APPROVED BY	DATE
R.E.L.	E.S.F.	Glenn A. Crawford CITY ENGINEER R.E. NO. 8281	5-1-54

STD. No. B-3-58



UNLESS OTHERWISE SPECIFIED ON THE PLANS, STEP MATERIAL SHALL BE GALVANIZED STEEL CONFORMING TO ASTM A-123, GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SECTION 206-7 OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (1973 EDITION) AND HEAVILY COATED WITH ASPHALTUM PAINT.

IF STAINLESS STEEL STEPS ARE SPECIFIED ON THE PLANS, STEP MATERIAL SHALL BE STAINLESS STEEL CONFORMING TO ASTM A-276, TYPE 316.

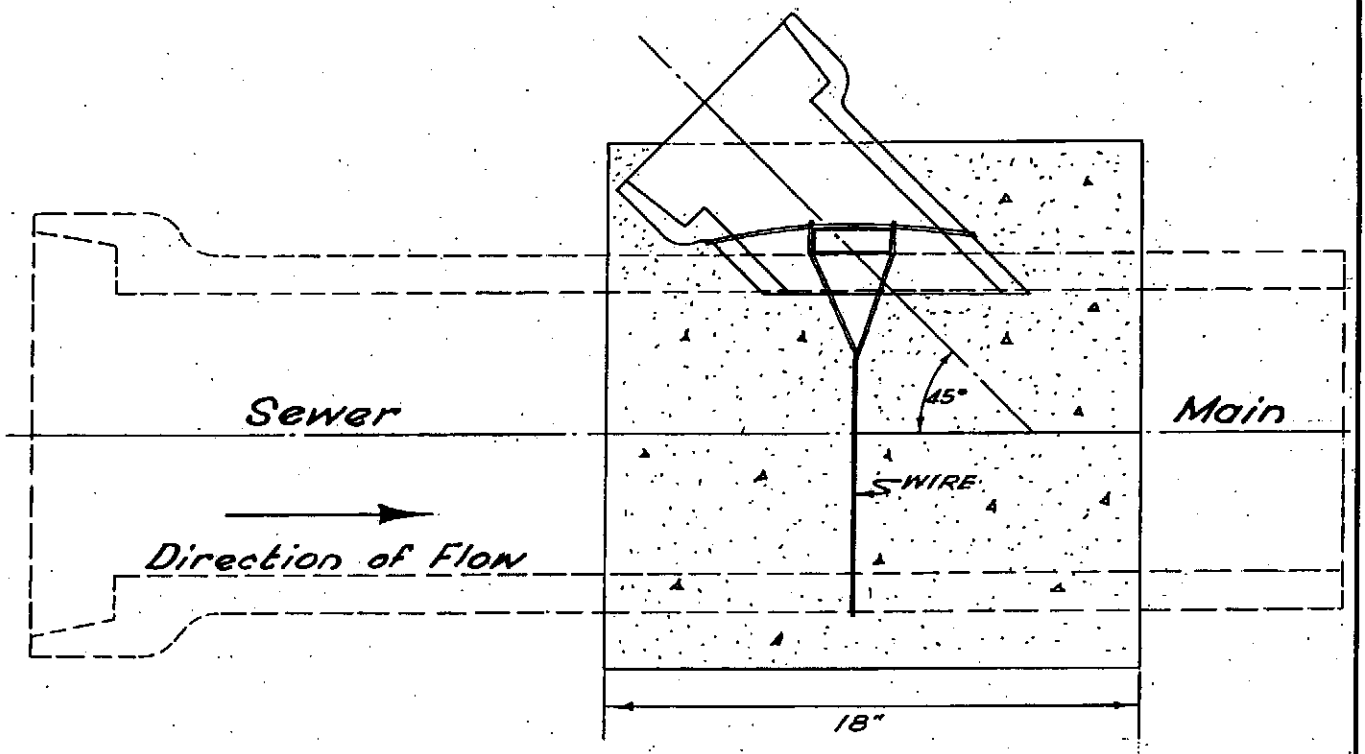
CITY OF POMONA
ENGINEERING DEPARTMENT

STANDARD

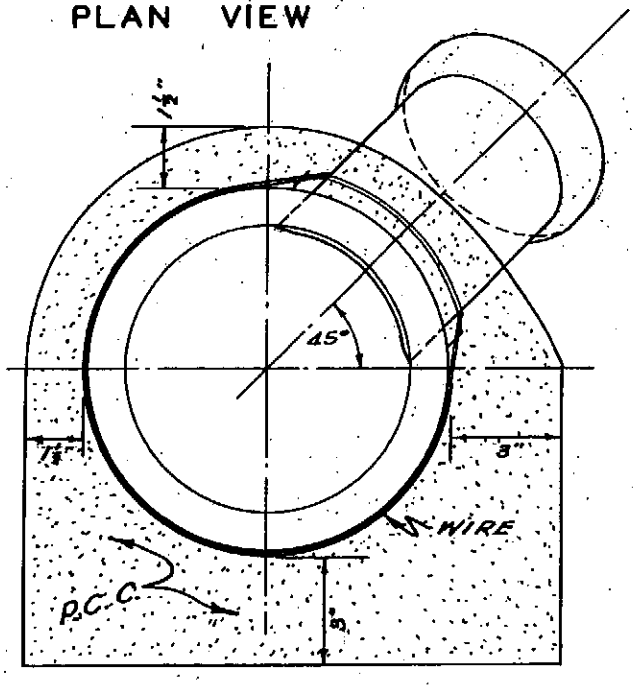
MANHOLE STEP

DWN BY	CKD BY	APPROVED BY	DATE
GRAHAM	L.L.F.	Edward R. Jones	8-7-74
		CITY ENGINEER R.E. 17993	

STD Nº B-4-74



PLAN VIEW



SECTION

NOTE:
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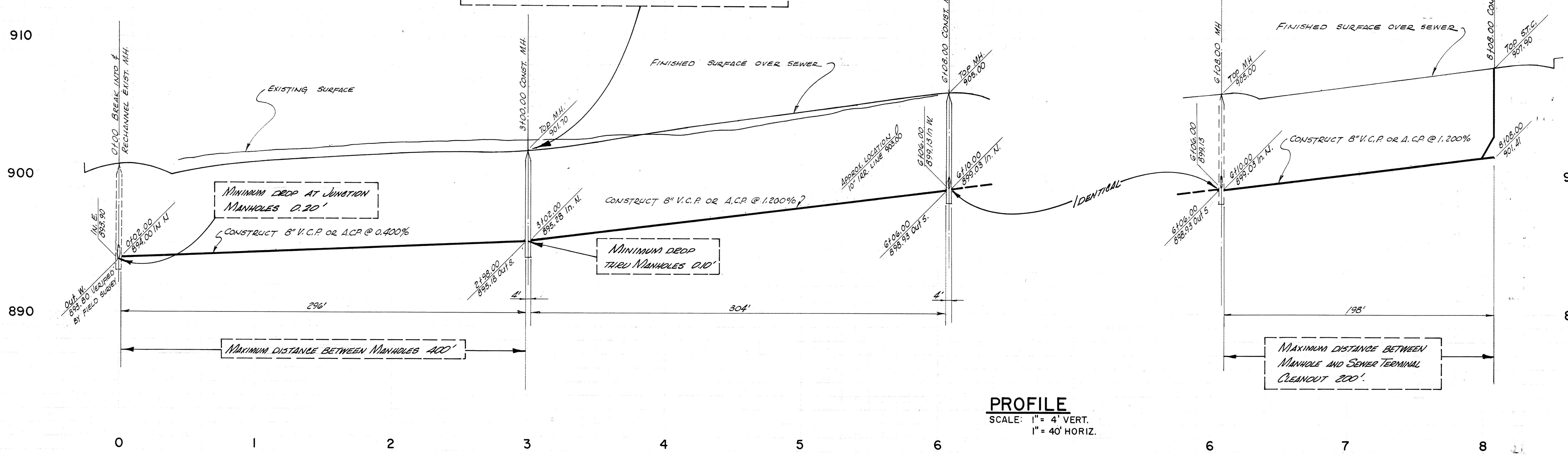
CITY OF POMONA
ENGINEERING DEPARTMENT
STANDARD
SEWER SADDLE

DWN. BY	CKD. BY	APPROVED BY	DATE
R.E.L.	E.D.	Glenn Crawford CITY ENGINEER R.E. NO. 8281	4-30-54

STD Nº B-5-54



MANHOLES CONSTRUCTED IN NEW SUBDIVISION STREETS ARE TO BE SET 4" BELOW THE STREET SURFACE ELEVATION SHOWN ON THE PLANS AND ARE TO BE RAISED BY THE STREET CONTRACTOR AFTER THE STREET IS SURFACED.

PROFILE

SCALE: 1" = 4' VERT.
1" = 40' HORIZ.

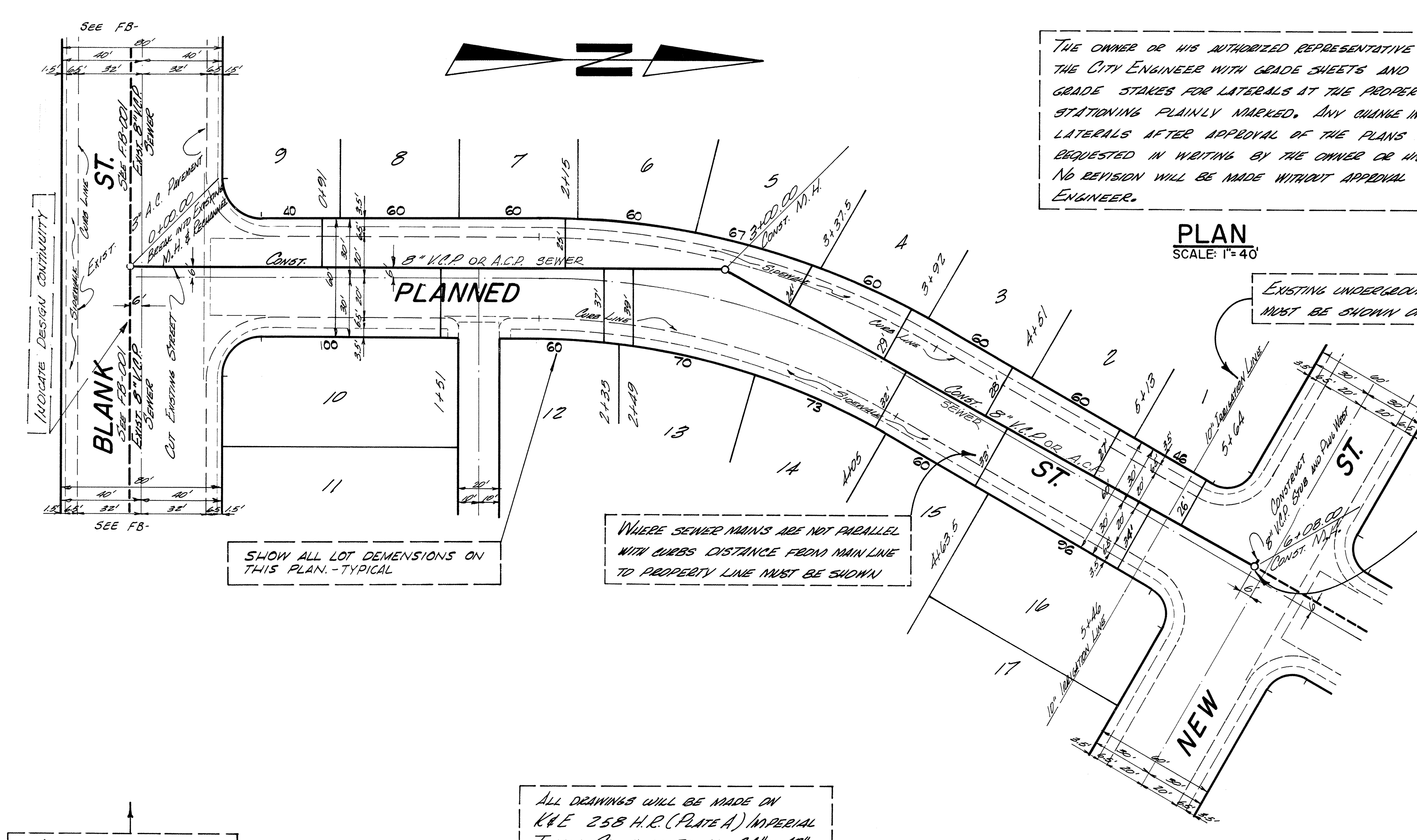
BENCH MARK Nº 408
L&N ON TOP OF WEST CURB AT NORTH END U.P. RAILROAD OVERPASS # 53-345
ELEV. = 815.715

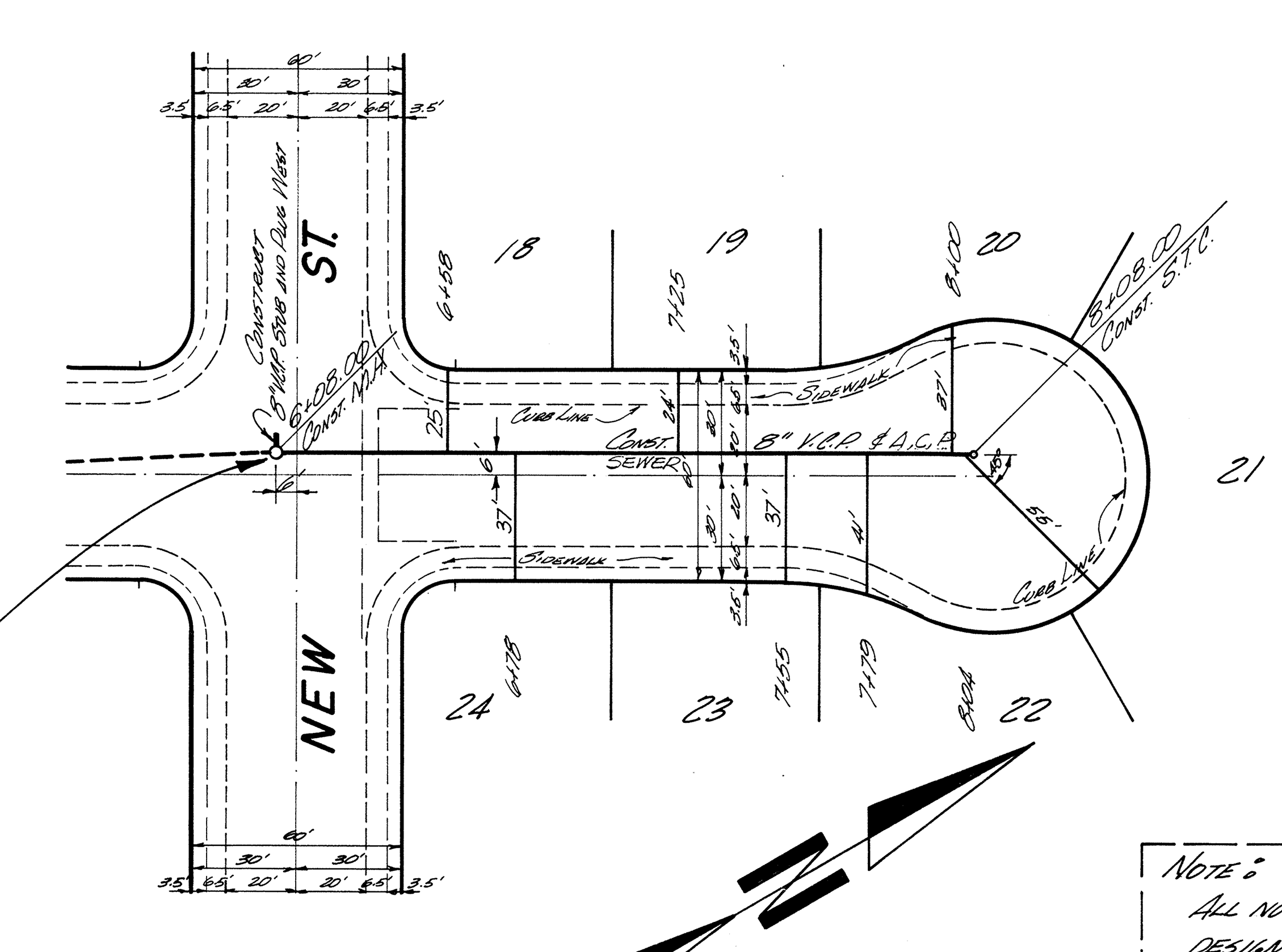
BENCH MARK IS ALWAYS TO BE AT RIGHT OF PROFILE. THERE WILL BE A BENCH MARK SHOWN ON EACH DRAWING.

STANDARD NUMBER IS ALWAYS TO BE INDICATED WITH QUANTITY AND DESCRIPTION IN ESTIMATE. ESTIMATE OF QUANTITIES IS TO BE SHOWN ON FIRST SHEET ONLY

ESTIMATE OF QUANTITIES
00.00 LIN. FT. 8" V.C.P. SEWER
00 EA. MANHOLES STD B-1-58
0 EA SEWER TERMINAL CLEANOUT STD B-10-58
00.00 LIN FT 4" V.C.P. LATERALS STD B-8-58

MINIMUM GRADES SHALL BE 0.40% AND MINIMUM DEPTH SHALL BE 7' FOR RESIDENTIAL SEWERS AND 8' FOR BUSINESS OR INDUSTRIAL SEWER. TERMINAL SEWER LINES SHALL HAVE A MINIMUM GRADE OF 0.50% BETWEEN THE LAST TWO MANHOLES OR THE LAST MANHOLE AND SEWER TERMINAL CLEANOUT. MAINTAIN MINIMUM GRADE AT EXPENSE OF DEPTH. SUB-MINIMUM GRADES AND DEPTHS REQUIRE SPECIAL APPROVAL BY THE CITY ENGINEER.





PLAN

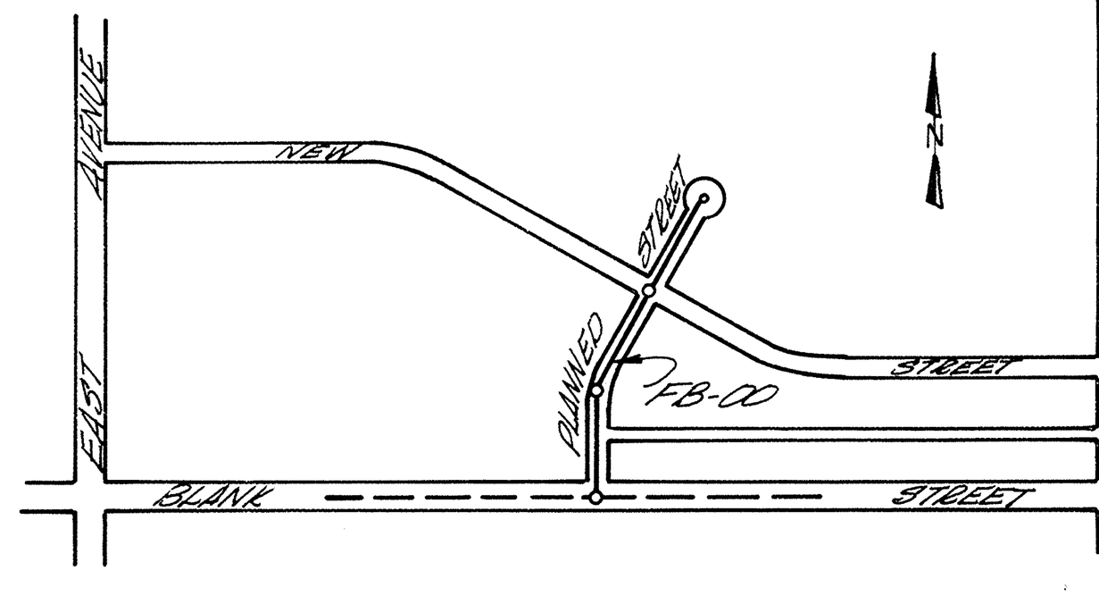
SCALE: 1" = 40'

THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL FURNISH THE CITY ENGINEER WITH GRADE SHEETS AND SHALL PROVIDE GRADE STAKES FOR LATERALS AT THE PROPERTY LINE WITH STATIONING PLAINLY MARKED. ANY CHANGE IN LOCATION OF LATERALS AFTER APPROVAL OF THE PLANS SHALL BE REQUESTED IN WRITING BY THE OWNER OR HIS REPRESENTATIVE. NO REVISION WILL BE MADE WITHOUT APPROVAL OF THE CITY ENGINEER.

EXISTING UNDERGROUND UTILITIES MUST BE SHOWN ON PLAN

SHOW ALL LOT DEMENSIONS ON THIS PLAN. - TYPICAL

WHERE SEWER MAINS ARE NOT PARALLEL WITH CURBS DISTANCE FROM MAIN LINE TO PROPERTY LINE MUST BE SHOWN



INDEX MAP

SCALE: 1" = 600'

THESE NOTES TO BE SHOWN ON PLANS

GENERAL NOTES

1. ALL MANHOLE FRAME AND COVERS ARE TO BE SET 4" BELOW ELEVATION SHOWN ON PLANS UNLESS OTHERWISE NOTED.
2. HOUSE LATERALS ARE TO BE CONSTRUCTED WITH INVERTS 5½' BELOW CURB GRADE UNLESS OTHERWISE NOTED.
3. BEFORE WORK IS STARTED, THE CONTRACTOR MUST OBTAIN A PERMIT TO EXCAVATE IN CITY STREETS FROM THE OFFICE OF THE CITY ENGINEER.
4. THE CONTRACTOR MUST SECURE APPROVAL FROM THE INSPECTOR BEFORE BACK-FILLING OVER ANY WYES.
5. WYES MUST BE CONSTRUCTED WITHIN ONE PIPE LENGTH OF THE STATION SHOWN ON THE PLANS AND ALL LATERALS LAID 90° TO MAIN, EXCEPT IN CUL-DE-SACS, WHERE LATERALS SHALL BE LAID EITHER AT 90° OR 45° TO THE MAIN LINE.
6. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF POMONA STANDARDS AND SPECIFICATIONS.
7. VERIFY BY FIELD SURVEY ALL ELEVATIONS USED FOR BASIS OF DESIGN.
8. A.C.P. @ GRADES LESS THAN 0.6% SHALL BE EPOXY LINED.

NOTE: ALL NOTES WITH DASHED FRAME ARE DESIGN INFORMATION OR FOR GENERAL INFORMATION AND ARE NOT TO BE PLACED ON PLAN.

ALL DRAWINGS WILL BE MADE ON K&E 258 H.R. (PLATE A) IMPERIAL TRACING CLOTH OR EQUAL, 24" x 42" WITH ½" BORDER

KEEP THIS AREA CLEAR FOR UTILITIES CHECK STAMPS

KEEP THIS AREA CLEAR FOR REVISION BLOCKS

APPROVED: COUNTY SANITATION DISTRICT NO. ____
OF LOS ANGELES COUNTY, CALIF.
CHARLES W. CARRY - CHIEF ENGINEER and GENERAL MANAGER
BY: ____________ DATE: ________
OFFICE ENGINEER

CITY OF POMONA

PLAN AND PROFILE OF
SANITARY SEWERS IN
PLANNED STREET
BLANK STREET TO
200' NORTH OF NEW STREET
TRACT NO. 1234

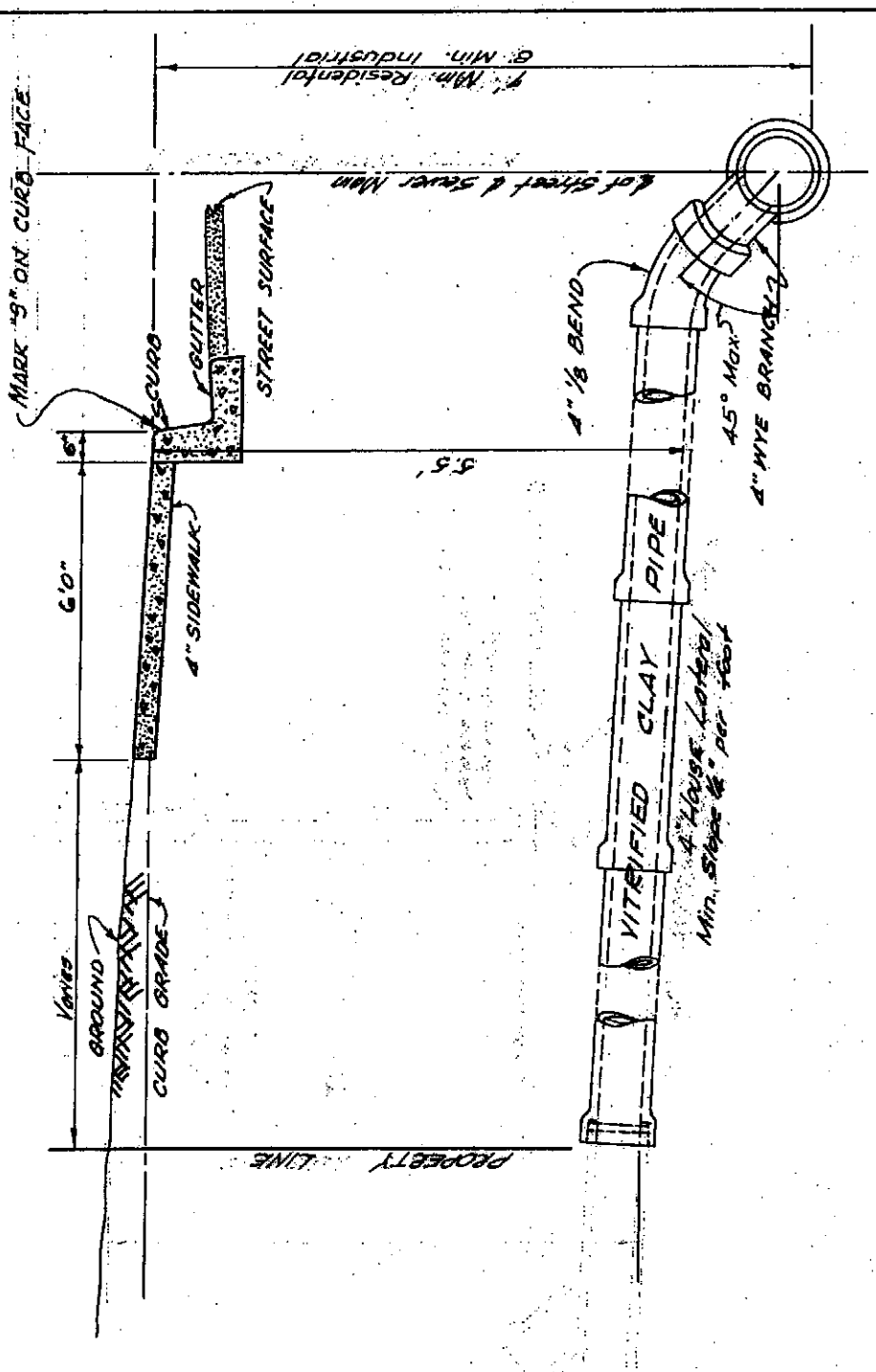
RECOMMENDED	APPROVED		
CHECKED	CITY ENGINEER R E	DATE	
CHECKED	BLANK ENGINEERING CO. ADDRESS		SHEET
DRAWN	R.E. 0000		1 OF 1

1½" 3" 1½" 4" 3/8" 1¼" 5/8" 7/8"

BY CITY ENGINEERING DEPARTMENT → FB-00

STD. B-6-61

DIETZGEN 276PR IMPERIAL



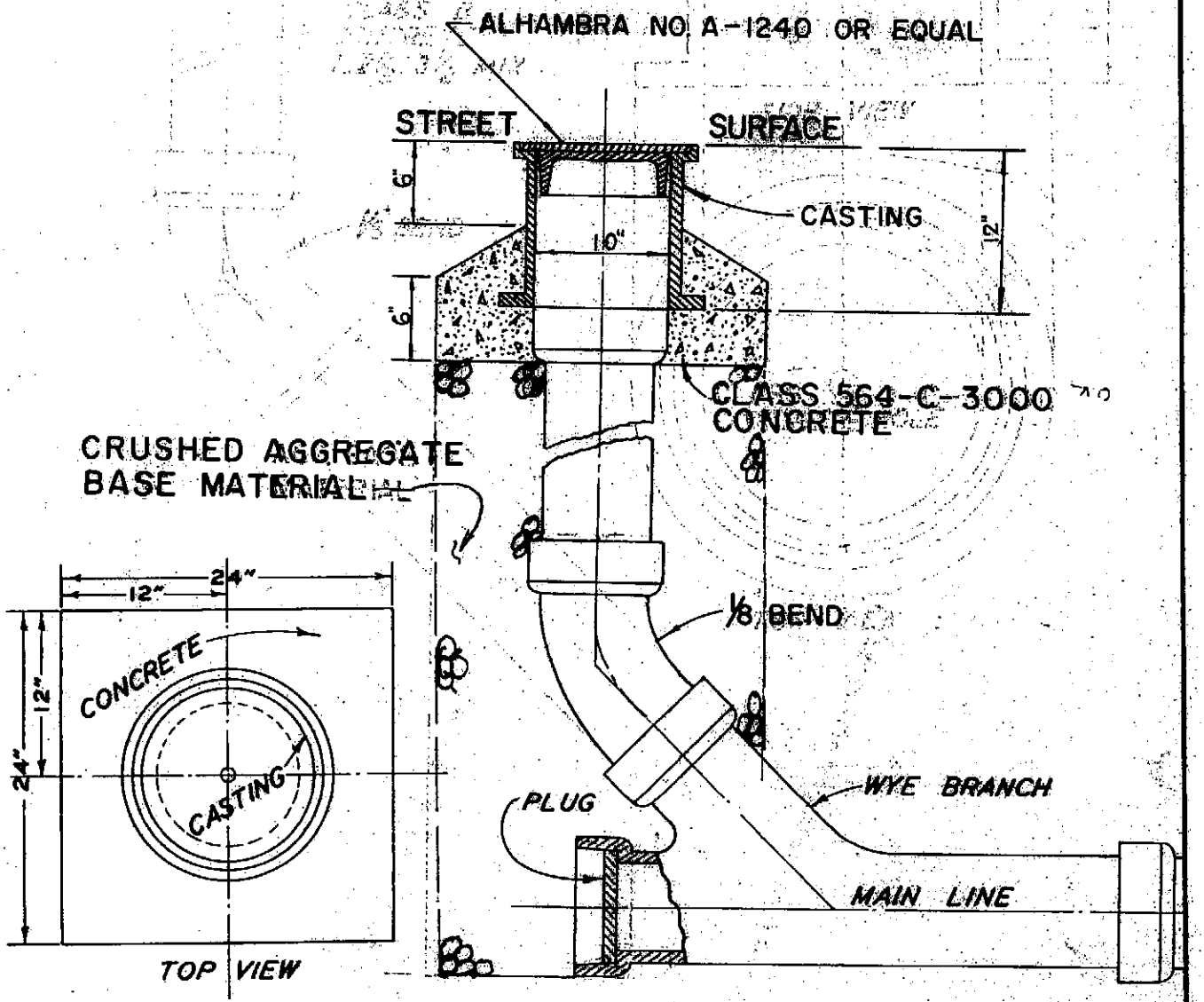
CITY OF POMONA
ENGINEERING DEPARTMENT

STANDARD

HOUSE LATERAL

DWN. BY	CKD. BY	APPROVED BY	DATE
R.E.L.	E.S.F.	Glenn Crawford	4-30-54
		CITY ENGINEER R.E. NO. 6281	

STD Nº B-8-61



NOTE-
CLEAN-OUT PIPE MUST BE SAME DIAMETER AS MAIN LINE SEWER.

CASTING MAY BE ALHAMBRA FOUNDRY NUMBER A-1240 OR EQUAL.

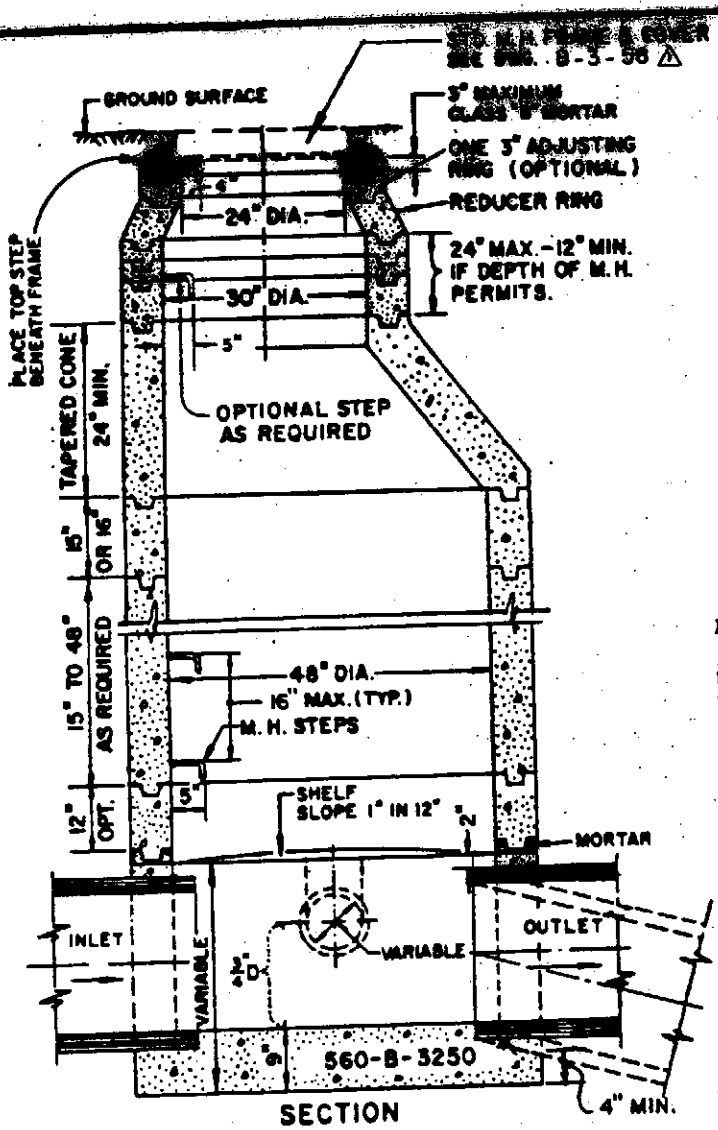
CITY OF POMONA
ENGINEERING DEPARTMENT

STANDARD

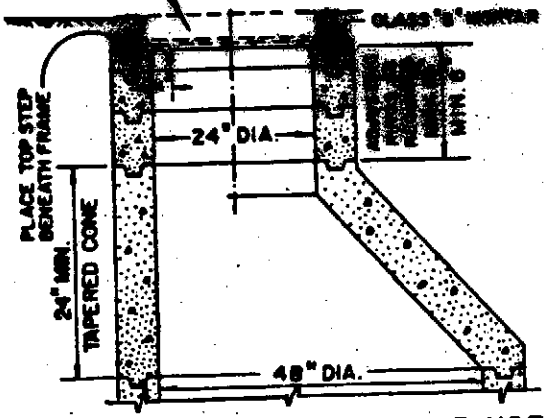
SEWER TERMINAL CLEAN-OUT

DWN. BY	CKD. BY	APPROVED BY	DATE
REI	ESE	CITY ENGINEER R.C. NO.	

STD Nº B-10-61



SECTION



ALTERNATE SECTION MAY BE USED IF SPECIFIED IN BID DOCUMENTS

NOTES AND SPECIFICATIONS

1. Except as noted hereon, the precast units shall be manufactured and tested in accordance with ASTM C 478. The curing of the precast units shall conform to Section 207-1.7 of the Standard Specifications for Public Works Construction. As an alternative, the units may be cured using saturated steam for a minimum of 12 hours followed by 4 days of water curing or membrane curing. If the units are cured by the alternate method, they shall not be shipped prior to 8 days after casting nor until the concrete has attained a strength of 3500 psi.

2. Manhole steps shall conform with S-a-209. The manhole steps shall be uniformly spaced at a maximum of 16" with the top step placed just under the manhole frame. The lowest step shall be placed not less than 8" nor more than 24" above the shelf. The top step and those in the 24" diameter section shall project 4" inside the manhole and all others 5".

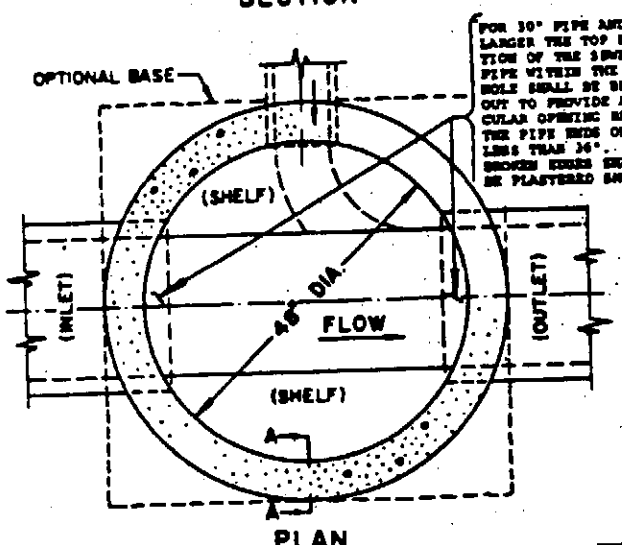
3. Riser sections may be reinforced or unreinforced. Reinforced sections shall be reinforced in accordance with ASTM C 478 and shall have a minimum wall thickness of 4".

4. The 24" x 48" and 30" x 48" eccentric cones may be reinforced or unreinforced. If reinforced, the wall thickness shall be not less than 4". If unreinforced, the wall thickness shall be not less than 6".

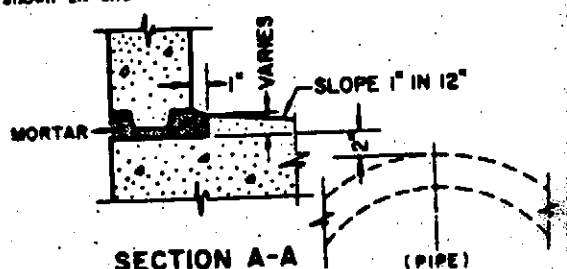
5. Joints may be the type shown or tongue and groove and shall conform with ASTM C 478 Section 14.

6. Precast units shall be assembled using mortar conforming with Section 201-5.1 (Class "B") of the Standard Specifications for Public Works Construction.

7. If 30" diameter manhole frame and cover is required, it shall be installed where the reducer ring is shown in the above section.



PLAN



SECTION A-A

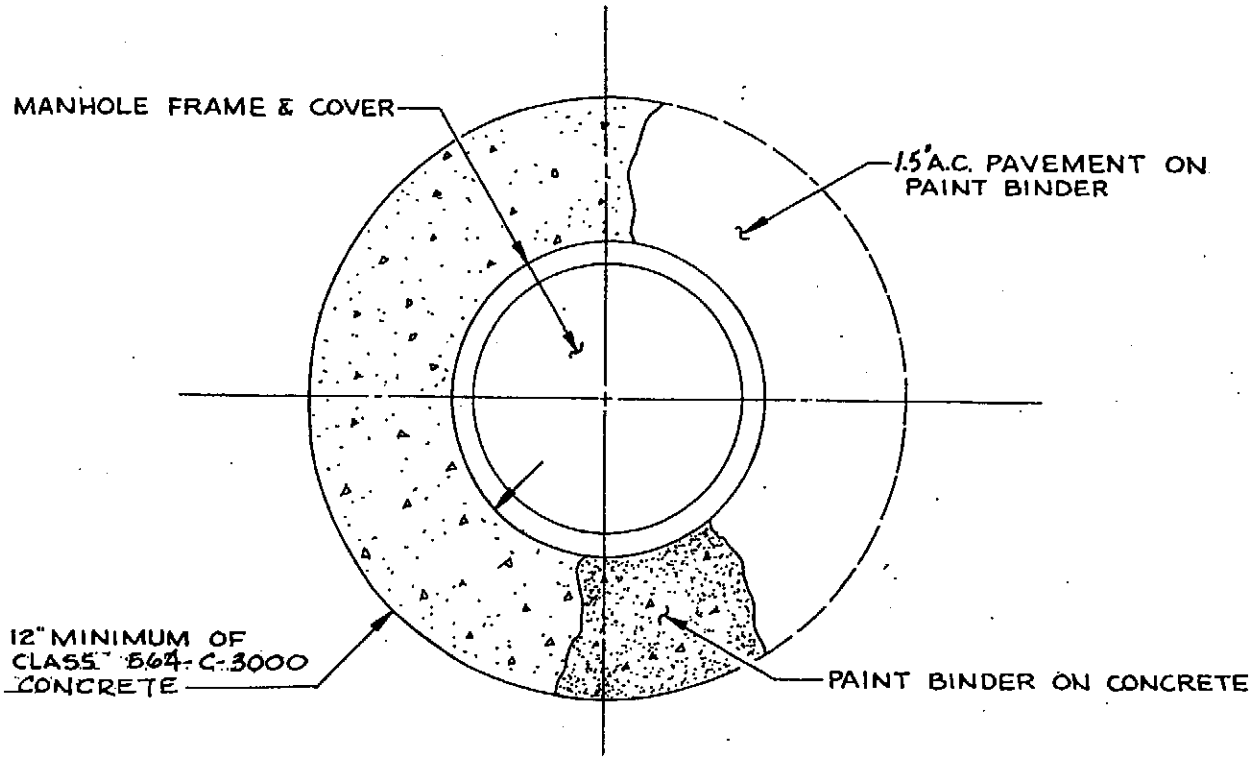
REVISION	
INT.	DATE
RC	12-4-85

CITY OF POMONA
ENGINEERING DEPARTMENT

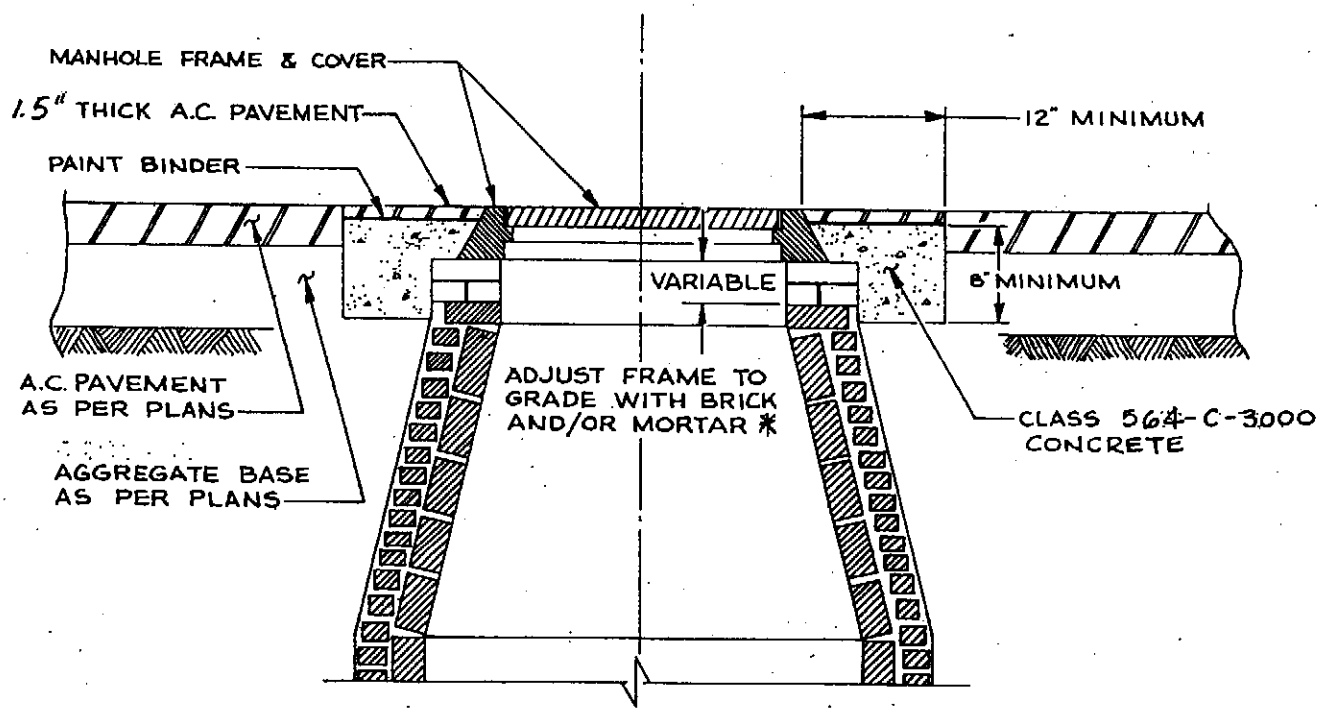
STANDARD
PRECAST CONCRETE MANHOLE
FOR LINE 30" IN DIA. & SMALL

DWN. BY	CKD. BY	APPROVED
V.L.		

STD. NO. S-11-85



PLAN VIEW



CROSS SECTION

NOTES:

LOWER MANHOLE TO 6" BELOW SUB-GRADE AND COVER WITH 4' x 4' x 1/2" STEEL PLATE PRIOR TO STREET CONSTRUCTION.

* FOR STANDARD PRE-CAST MANHOLES USE PRE-CAST GRADE RINGS. (Rev. Oct. 2006)

CITY OF POMONA
ENGINEERING DEPARTMENT

STANDARD

MANHOLE ADJUSTMENT DETAILS

DWN BY	CKD BY	APPROVED BY / DATE
J. Duie	C.B. 7-8-68	Jack P. Taylor 9-23-68

CITY ENGINEER R.E. 15305

STD Nº B-14-68

PLAN

———	Existing property line : to remain or future.
— — —	Existing property line : to be changed.
———	Curb face line (do not show back of curb line.)
———	Toe of gutter line
- - - - - - -	Existing P.C.C. improvements : note if removal is required.
≡≡≡ ≡≡≡	Edge of existing pavement, no curb or gutter (blue).
▬▬▬	Sewer line (on sewer plan only.)
▬ ▬ ▬	Existing sewer line (on sewer plan only.)
— — —	Improvements future or shown on another drawing.
M.H. 1.00	Sewer manhole
	Sewer Wye
	Sewer lateral
	Sewer saddle
8" S	Sewer line
	Fire hydrant
W	Water valve
W or W	Water meter
8" W	Water line
G.M.H.	Gas manhole
G	Gas valve
G or G	Gas meter
6" G	Gas line
E.M.H.	Power manhole
T.M.H.	Telephone manhole
10" I	Irrigation line
SP TO	Std. pipe or turn out

CITY OF POMONA
ENGINEERING DEPARTMENT

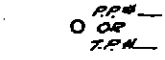
STANDARD

DRAFTING SYMBOLS

DWN. BY	CKD. BY	APPROVED BY	DATE
E.K.S.	B	Glenn A. Crawford CITY ENGINEER RE 8281	5/15/58

STD Nº E-1-58

PLAN



Utility pole

Guy and anchor or deadman

Electrolier

1½" E. or T. — Conduit (Power or Telephone)

—x—x— All fence Describe type, limits and height

Coniferous tree

Palm tree

+18" Deciduous tree (giving dia. of trunk)

Bush

Existing P.C.C. driveways

Existing A.C. driveways

A.C. to be constructed (stomp and shade on back)

Railroad tracks

Building

PROFILE

Proposed street profile. Show only top of curb line.

Existing ℄ and P/L profile freehand unless improved.

Existing curb. Show join station and elevation.

GENERAL NOTES

1. Show curb face in decimals of a foot and only where it varies and on the typical section.

2. Show topography in fine, solid black lines except pavement edge and hold necessary descriptions 1" back of P/L. Do not draw arrows from description to symbol unless necessary for clarity.

3. Show pertinent existing elevations in blue unless join elevations.

CITY OF POMONA
ENGINEERING DEPARTMENT

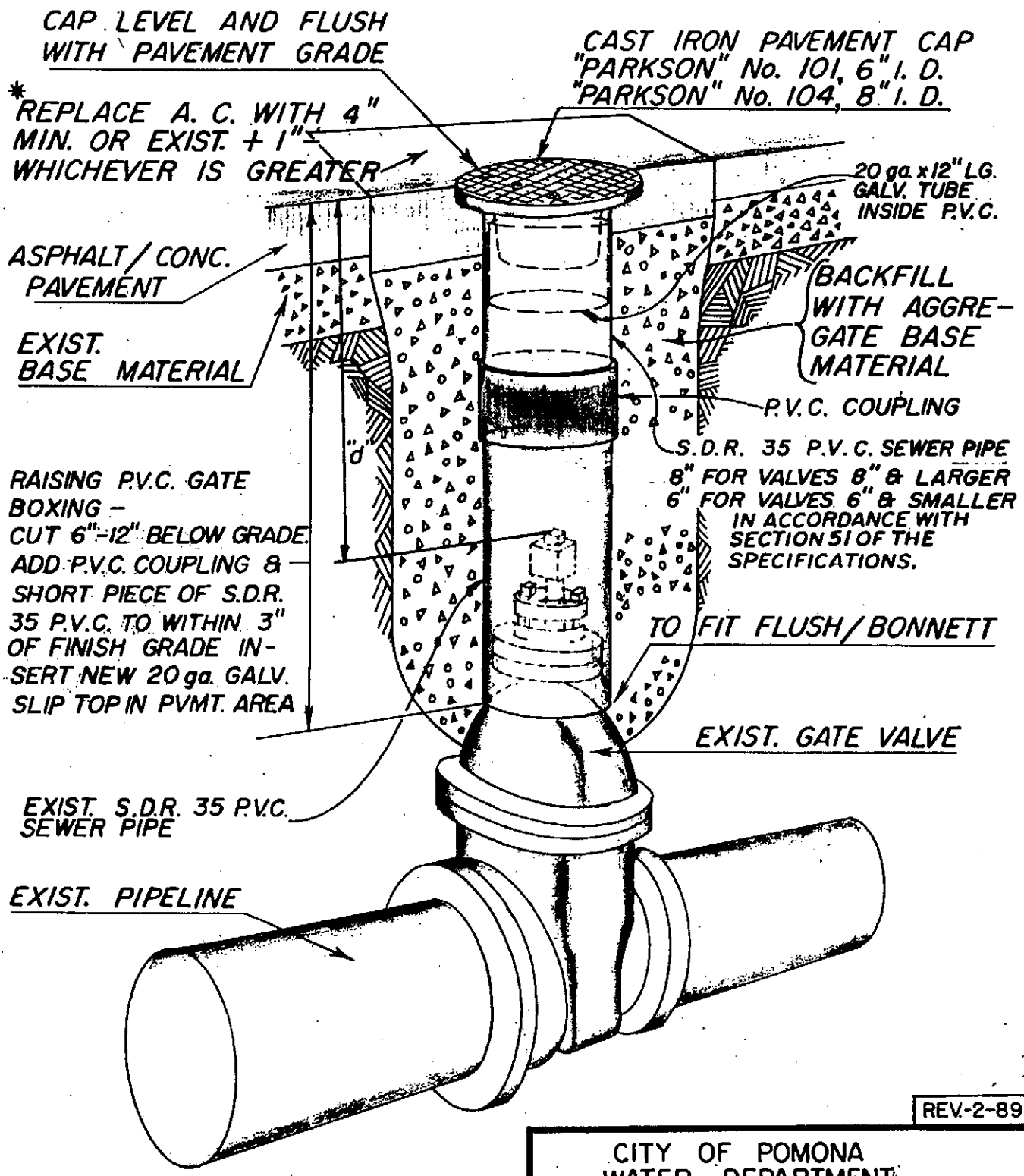
STANDARD

DRAFTING SYMBOLS

DWN. BY	CKD. BY	APPROVED BY	DATE
E.K.S.	B	Glenn A. Cavanaugh CITY ENGINEER RE 8281	5/15/58

STD Nº E-2-58

NOTE–IF DIM "d" IS 48" OR GREATER, AN APPROVED VALVE STEM EXTENSION SHALL BE INSTALLED TO REDUCE "d" TO A MINIMUM OF 18" AND A MAXIMUM OF 24."



REV-2-89

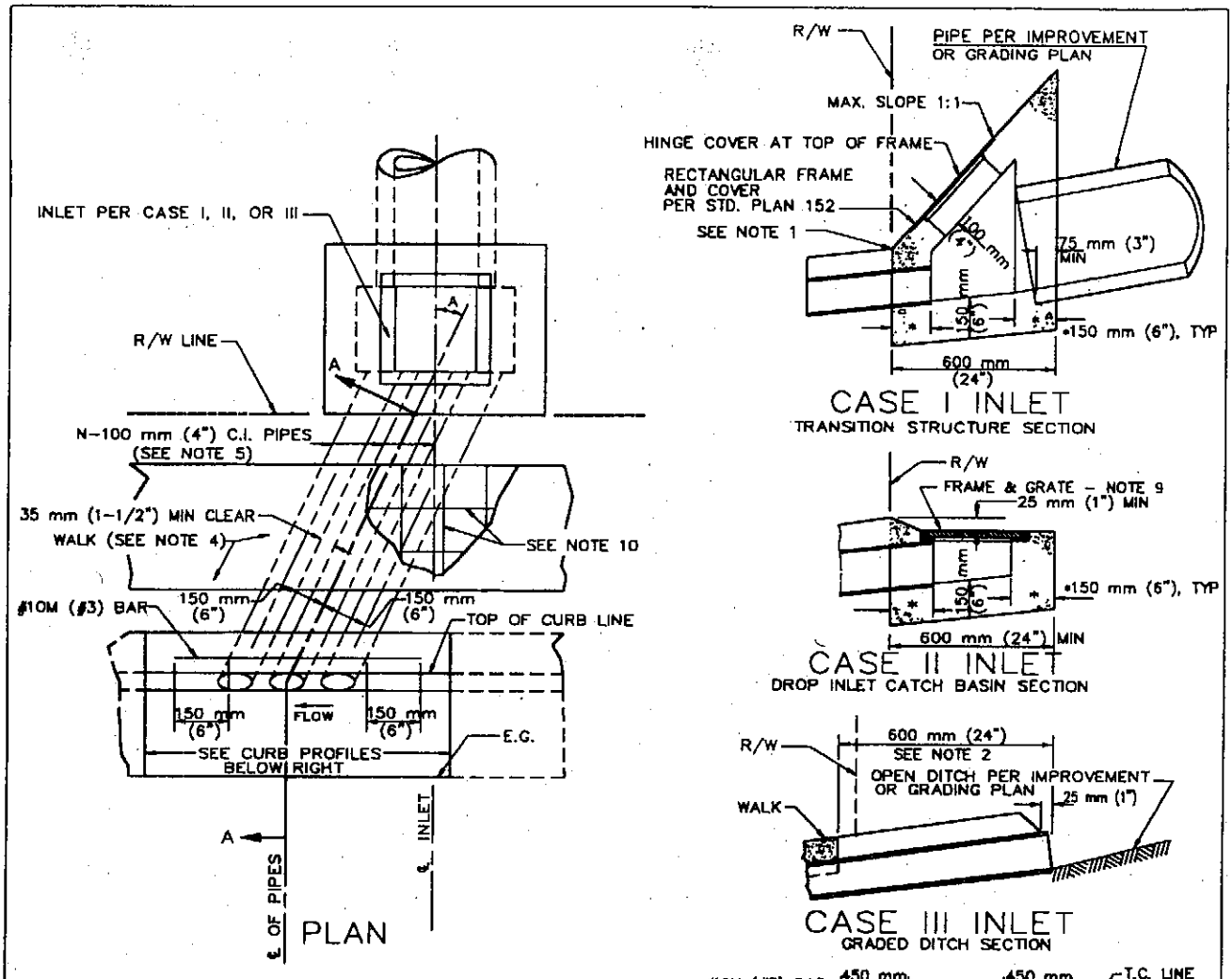
CITY OF POMONA
WATER DEPARTMENT

ADJUSTING P.V.C-G.V. BOX ON EXISTING MAINS

Dwn. By C.L.S.
Ckd. By C.L.S.

STANDARD 6

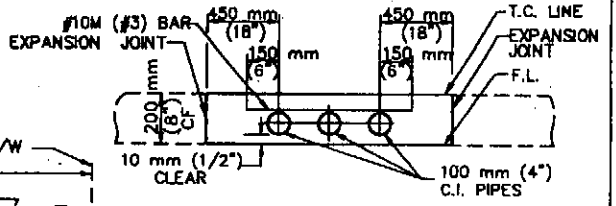
* CONCRETE PAVEMENT
REPLACE WITH P. C. C. TO EXIST. + 1"- IF COVERED WITH A. C. CAP
REPLACE WITH A. C. TO EXIST. + 1"



CASE I INLET
TRANSITION STRUCTURE SECTION

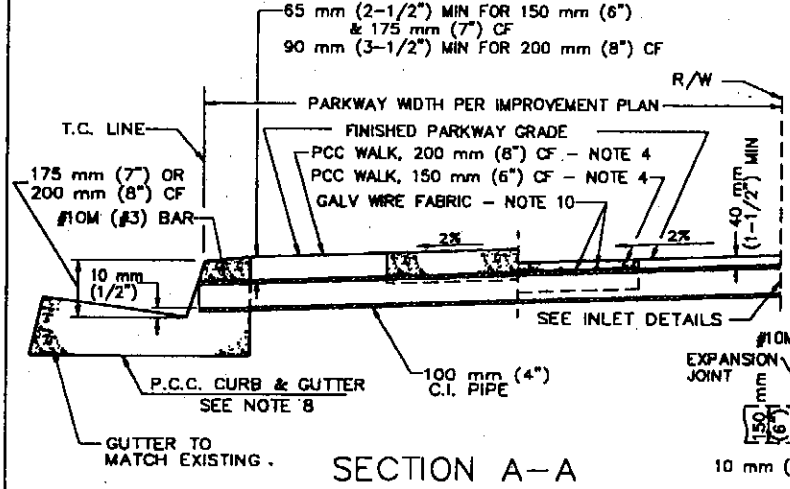
CASE II INLET
DROP INLET CATCH BASIN SECTION

CASE III INLET
GRADED DITCH SECTION

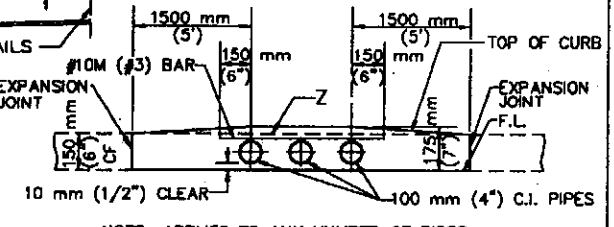


NOTE: APPLIES TO ANY NUMBER OF PIPES

CURB PROFILE
200 mm (8") CURB FACE



SECTION A-A



NOTE: APPLIES TO ANY NUMBER OF PIPES
Z = TOP-OF-CURB LINE SHOWN ON PROFILE

CURB PROFILE
150 mm (6") CURB FACE

AMERICAN PUBLIC WORKS ASSOCIATION - SOUTHERN CALIFORNIA CHAPTER

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1984
REV. 1992, 1998

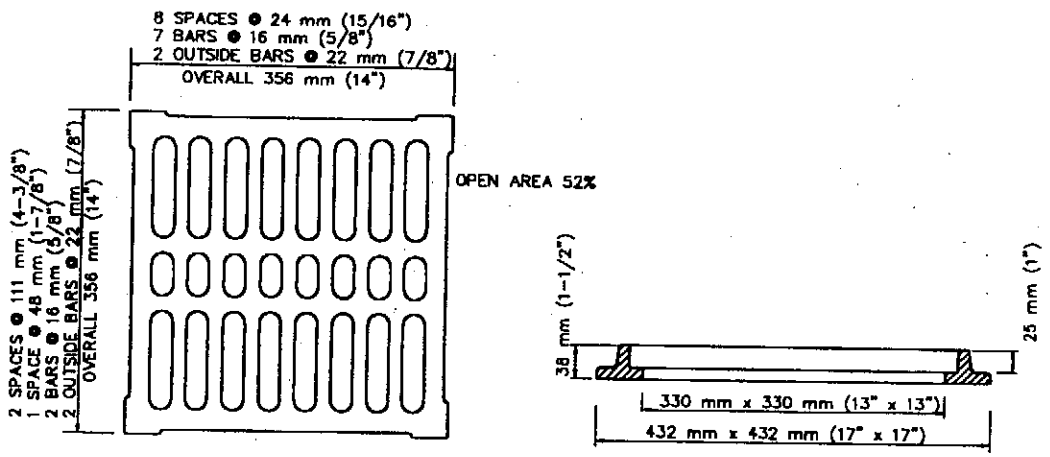
CURB DRAIN

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN METRIC
150 - 2
SHEET 1 OF 2

NOTES

1. IF THE TOE OF SLOPE IS ALLOWED WITHIN THE R/W, INLET CASE I BEGINS AT THE TOE RATHER THAN THE R/W LINE.
2. FOR OPEN DITCH (CASE INLET III), THE 600 mm (24") EXTENSION BEYOND THE R/W LINE IS NOT REQUIRED WHEN BACK OF WALK IS 600 mm (24") OR MORE FROM THE R/W LINE; HOWEVER, PIPE SHALL EXTEND TO R/W LINE.
3. TOP OF INLET STRUCTURE (CASE I AND II) TO BE FLUSH WITH ADJACENT SURFACE WHERE PRACTICAL.
4. CONSTRUCT P.C.C. WALK WHEN SPECIFIED ON PLAN. THE CONTRACT PRICE PAID FOR P.C.C. WALK ITEM SHALL INCLUDE WALK CONSTRUCTED IN CONJUNCTION WITH PARKWAY CULVERT.
5. "N" EQUALS NUMBER OF PIPES (MAXIMUM OF THREE) AS SPECIFIED ON PLAN.
6. INLET CASE TO BE SPECIFIED ON IMPROVEMENT OR GRADING PLAN.
7. ANGLE A EQUALS 0°, UNLESS OTHERWISE SPECIFIED.
8. TYPE, DIMENSIONS AND ELEVATIONS OF P.C.C. CURB AND GUTTER PER IMPROVEMENT PLAN.
9. UNLESS OTHERWISE SPECIFIED, FRAME AND GRATE FOR CASE II INLET SHALL BE GALVANIZED CAST IRON. WEIGHT OF FRAME AND GRATE SHALL BE 36 kg (80 LBS).
10. AT LOCATIONS WITH LESS THAN 200 mm (8") CURB FACE, USE 152x152–MW9.1xMW9.1 (6x6–10/10) GALVANIZED WIRE FABRIC. WIRE FABRIC SHALL EXTEND 200 mm (8") BEYOND THE EDGE OF CAST IRON PIPES.
11. DIMENSIONS SHOWN ON THIS PLAN FOR METRIC AND ENGLISH UNITS ARE NOT EXACTLY EQUAL VALUES. IF METRIC UNITS ARE USED, ALL VALUES USED FOR CONSTRUCTION SHALL BE METRIC VALUES. IF ENGLISH UNITS ARE USED, ALL VALUES USED FOR CONSTRUCTION SHALL BE ENGLISH VALUES. HOWEVER, ASTM 615 REINFORCING STEEL MAY BE SUBSTITUTED FOR ASTM 615M STEEL.

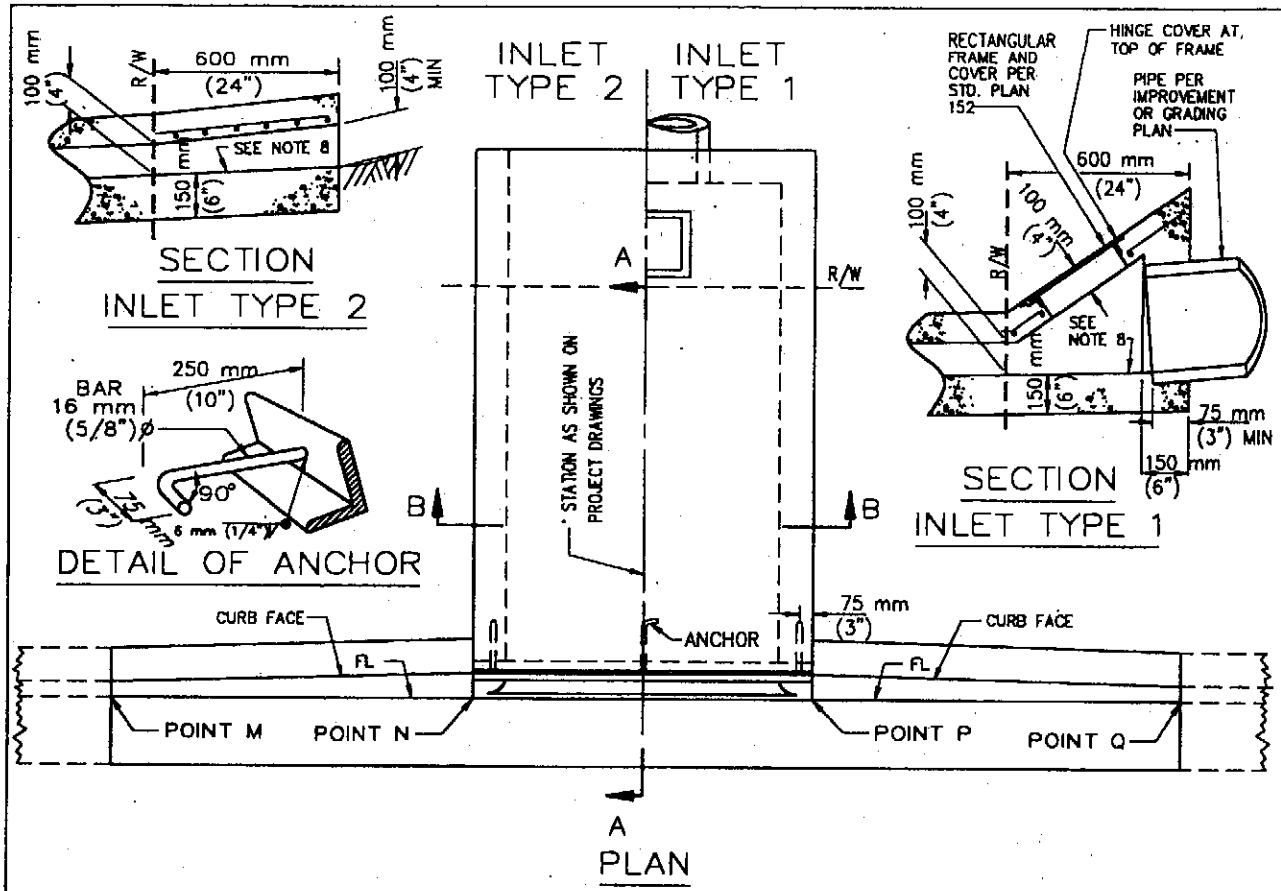


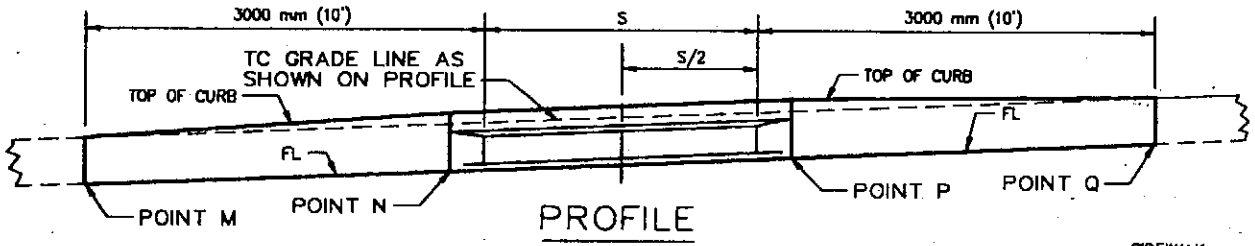
TOP OF GRATE

SECTION THRU FRAME

GRATE FOR CASE II INLET

AMERICAN PUBLIC WORKS ASSOCIATION - SOUTHERN CALIFORNIA CHAPTER	STANDARD PLAN METRIC 150 - 2 SHEET 2 OF 2
CURB DRAIN	





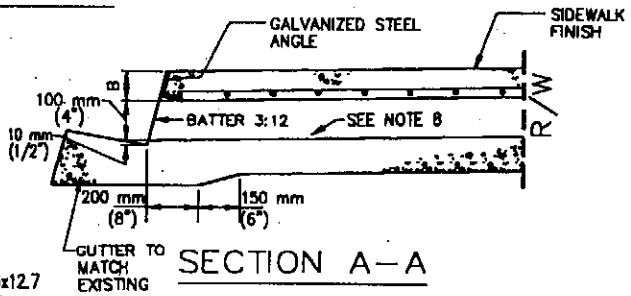
S, mm	J BAR SPACING, mm
300 (12")	240 (7")
450 (18")	240 (7")
600 (24")	240 (7")
750 (30")	240 (7")
900 (36")	240 (7")
1050 (42")	210 (6")
1200 (48")	180 (5")
1350 (54")	225 (6-1/2")
1500 (60")	180 (5")
1650 (66")	180 (4")
1800 (72")	120 (3-1/2")

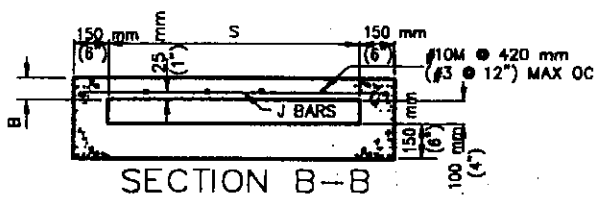
FOR S = 750 mm (30") AND LESS, USE 2 ANCHORS. OTHERWISE, USE 3 ANCHORS.

FOR S = 1200 mm (48") AND LESS, B = 75 mm (3") USE 64x51x9.5 (2-1/2"x2"x3/8") GALVANIZED STEEL ANGLE.

OTHERWISE, B = 100 mm (4"). USE 89x76x12.7 (3-1/2"x3"x1/2") GALVANIZED STEEL ANGLE.

J BARS ARE #10M (#3).





AMERICAN PUBLIC WORKS ASSOCIATION - SOUTHERN CALIFORNIA CHAPTER

PROMULGATED BY THE PUBLIC WORKS STANDARDS INC. GREENBOOK COMMITTEE 1993 REV. 1996

PARKWAY DRAIN

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN METRIC 151 - 1

SHEET 1 OF 2

NOTES

1. FLOOR OF BOX SHALL BE TROWLED SMOOTH.
2. IF THE TOE OF SLOPE IS ALLOWED WITHIN THE R/W, INLET TYPE 1 BEGINS AT THE TOE RATHER THAN AT THE R/W LINE.
3. FOR OPEN DITCH (TYPE 2), THE 600 mm (24") EXTENSION BEYOND THE R/W LINE IS NOT REQUIRED WHEN BACK OF WALK IS 600 mm (24") OR MORE FROM THE R/W LINE; HOWEVER, THE PIPE SHALL EXTEND TO THE R/W LINE IN ANY EVENT.
4. TOP OF INLET STRUCTURE (TYPE 1 & 2) SHALL BE FLUSH WITH ADJACENT SURFACE WHERE PRACTICAL.
5. A HEADED STEEL STUD 16 mm x 160 mm WITH A 25 mm HEAD (5/8" x 6-3/8", 1" HEAD) ATTACHED BY A FULL PENETRATION BUTT WELD MAY BE USED AS AN ALTERNATE ANCHOR.
6. NORMAL CURB FACE AT POINT M AND Q. CURB FACE IS B + 125 mm (5") AT POINT N AND P.
7. THE 75 mm (3") LEG OF THE 16 mm (5/8") DIA ANCHORS SHALL BE PARALLEL TO THE TOP OF SIDEWALK.
8. SLOPE = 2.0%.
9. DIMENSIONS SHOWN ON THIS PLAN FOR METRIC AND ENGLISH UNITS ARE NOT EXACTLY EQUAL VALUES. IF METRIC UNITS ARE USED, ALL VALUES USED FOR CONSTRUCTION SHALL BE METRIC VALUES. IF ENGLISH UNITS ARE USED, ALL VALUES USED FOR CONSTRUCTION SHALL BE ENGLISH VALUES. HOWEVER, ASTM 615 REINFORCING STEEL MAY BE SUBSTITUTED FOR ASTM 615M STEEL.

City of Pomona
Public Works Department
Policies & Procedures

STREET LIGHTING DESIGN GUIDELINES

December 2022

This procedure will be followed for the review and approval of new street light installations within the public right-of-way.

1. The City will provide the developer/consultant engineer with the City's standards, guidelines, and other relevant data (as available).

2. It is the developer/consultant engineer's responsibility to design and lay out the street lighting system or systems and to submit three (3) copies of the plan or plans to the City for review.

3. Included with the street light layout, the developer/consultant engineer shall show all existing and proposed streetlights within 250 feet on either side of the property and across the street from the proposed development. The wattage, lumens and circuits of both existing and proposed streetlights shall also be shown on the plans. When more than three (3) street lights are involved, a separate circuit plan, drawn in 1"=20' scale shall be provided in addition to the site plan.

4. After reviewing the plan, the City will return the marked plan to the developer/consultant engineer for revisions (if necessary). At least two (2) weeks should be allowed for plan checking.

5. The developer/consultant engineer shall provide the Edison Company with three (3) copies of the development plan showing the layout and type of streetlight required by the City. The Edison Company will indicate the feed point location on these plans (if necessary). One copy will be returned to the developer/consultant engineer, one shall be sent to the City, and Edison will retain the third for their records.

6. The developer/consultant engineer will indicate the feed point on the plan and make the necessary corrections. A standard size Mylar, (D size), of the original plan shall be submitted to the City for final approval.

7. All work and materials shall conform to the requirements of the Standard Specifications for Public Works Construction, ("Green Book"), latest edition, any supplements or revisions and these City Standards. In the event of a conflict between the Standard Specifications and the City Standards, the Standard Specifications shall prevail.

8. The Contractor shall contact Underground Service Alert at 8-1-1 at least two (2) working days before any excavations are performed.

9. **Street Light Locations:**

A. In the process of designing a street light system or determining location for a single street light, the exact location shall be determined through field review and clearance provided to avoid sidewalk area vaults, meter boxes, poles, overhead utility wires, trees, driveways, etc.

B. The normal location for street lights shall be on the side property line prolongation in residential areas and BCR/ECR at curb returns. If an unusually small curb return exists (i.e. less than 25 feet), allowances for future enlargement should be made.

C. Show lighting location on plans distinctly and precisely as opposed to schematically showing a representation of location particularly when the intention is to have it placed on the side property line prolongation, a dimension should be given showing distance from sideline, in addition to construction stations and/or dimensions. Adjustments might be necessary to provide a minimum of 25 feet as the minimum separation of light from any trees.

D. Installation or upgrading of street lights will be required as a condition if the projected property at property line is greater than the street light design spacing for that street, as determined by the Public Works Department. As an example: A property of 260 feet in width and a street light design of 120 feet, 260÷120=2.16. Therefore, two lights would be required.

E. This will not relieve the property owner/developer from the City requirements of installation of conduits, pull boxes and pull ropes along the street frontage of the property to be developed for future use.

F. **Spacing:**

Property Use or Classification of Street	Curb to Curb Street Width	Footcandle Level	Lumen Level	Pole Spacing (Staggered)	Pole Height
Residential	40 ft	0.33 fc	5,800	180'	23.25 ft
Collector	64 ft	0.60 fc	16,000	180'	23.25 ft
Arterial	84 ft	0.67 fc	22,000	180'	28.25 ft
Commercial/Retail	64 ft 84 ft	1.00 fc 1.00 fc	22,000 27,500	150' 150'	23.25 ft 28.25 ft

10. **Street Light Poles:**

A. Street light poles shall be centrifugally spun reinforced Portland cement concrete. They shall be coated with Anti-Graffiti coating. Coloring shall be Ameron color #37 – BLACK & WHITE exposed.

B. Concrete foundations for street light standards shall conform to the following City Standard: Foundation size shall be 3' square by 4' deep, if hand dug or dug by backhoe. Foundation size shall be 3' round by 5' deep, if dug by auger. Bolt circle will be determined by type of pole installed. Foundations shall be Class 560-C-3250 Portland concrete cement, as per the Green Book, Section 201-1.1.2.

C. Street light poles shall be installed adjacent to the curbs or as directed by the City Engineer. **All hand holes shall face oncoming traffic**. Where sidewalks exist at the light pole location, the sidewalks shall be sawcut and removed as required by the City Engineer. After installation of the streetlight, the concrete sidewalk shall be replaced to match existing sidewalk. The Contractor shall perform concrete work.

D. Street light poles shall be of the following type, as specified by the Public Works Department: Ameron Contemporary Series 6B1 Octagonal Pole with Anchor Base. Height, mast arm and usage areas are shown in the following table:

Length/Weight	**Arm Length (Aluminum)**	**Mounting Height**	**Order Number**	**Street Classification (Usage)**
21' 1" / 1,255#	4' 0" *	22' 10"	6B1-21	Residential
24' 1" / 1,390#	6' 0"	26' 6"	6B1-24	Collector / Commercial
26' 7" / 1,375#	8' 0"	29' 10"	6B1-26	Arterial / Retail
Bolt Circle			**Anchor Bolt Size**	
21"			**1" x 36" x 4"**	

* If pole is set away from the curb, arm length will be increased per notes.

11. **Conduit and Conductors:**

A. Conduit shall be Schedule 80 PVC, 1.5 inches in diameter, unless otherwise noted. Conduit shall be placed to a depth of not less than 30 inches nor more than 60 inches below the flowline grade, except that conduit placed behind a curb shall not be less than 14 inches nor more than 36 inches below top of curb; and conduit placed under railroad tracks shall be not less than 36 inches nor more than 60 inches below bottom of ties. Conduit terminating in street lighting standards shall not be transposed and shall terminate as near the door or hand hole of the standard as possible with the end of the conduit below, but within 1 inch of the lower edge of the door. The prolongation of the conduit shall pass through the door opening.

All roadway crossings shall be rigid metallic, 1.5 inches in diameter, unless otherwise noted. All conduit ends shall be reamed to remove burrs and rough edges. All metallic conduits shall be provided with threaded conduit ground bushings.

B. Conduit to be installed behind curb within City right-of-way in a straight line run from pole to pole, pole to pull box or from pull box to pull box, unless otherwise noted. Bell bushings shall terminate all PVC Schedule 80 conduits.

C. **Stranded** No. 8 conductors shall be used in all street lighting circuits. All wire inside each street light pole shall be No. 10 **solid** wire. All conductors shall be new copper with type THHN insulation, except that the grounding conductor shall be a No. 8 AWG **solid** wire with no insulation. All splices shall be treated as if the splice is for High-Voltage, series-circuit lighting. The splices shall be waterproof and use rubber tape, vinyl chloride tape and 3M Scotchkote sealer or approved equal.

12. **Pull Boxes:**

A. All pull boxes shall be constructed from concrete and be of the following dimensions, known commonly as a State Number 5: Overall length = 28"; Overall width = 18". The covers shall be R-Series Composite Lid and be 23.25" in length and 13.75" in width. Pull box covers shall be inscribed with the legend "Street Lighting". There shall be bolt down kit for the cover. (Christy N30Box, N30R with N90 Bolt Down from Oldcastle Precast or approved equal) Concrete surrounding the pull box is not required for boxes placed behind the curb. The spacing between boxes shall not exceed 150 feet without intervening poles.

B. Pull boxes adjacent to street light poles shall not be required unless requested by the City Engineer. All pull boxes shall be installed 6" to 12" behind the curb and no more than 4 feet from the light standard or as directed by the City Engineer. All installed pull boxes shall be shown on all plans submitted.

C. Pull boxes adjacent to Edison Company service points shall be provided with a 5/8" diameter copper ground rod eight (8) feet long. Conduit runs longer than five hundred (500) feet in length shall have additional ground rods installed as required.

D. Pull boxes shall be installed at the locations shown on the plans. They shall be approximately equally spaced, but not over 150 feet apart. It shall be at the option of the Contractor, at its own expense and subject to the approval of the Engineer, to install additional pull boxes that it may desire to facilitate the work. The bottom of the pull box shall rest firmly on a 12-inch thick bed of 1 inch crushed rock base extending 6 inches beyond the outside edges of the pull box. Grout all pull box bottoms. Allow for drainage by providing a ½" hole.

E. All pull boxes shall have McCain vandal resistant insert or approved equal, installed and furnished by the contractor.

13. **Service and Fusing:**

A. The Contractor shall install a 120/240-volt pedestal service for each designated circuit and shall be responsible for the payment of service point fees to the Edison Company. The City may, at its option, provide the service pedestal to the Contractor.

B. Services shall be an unmetered TESCO 26000 complete with the following: (1) 100 Amp 2-pole main disconnect, four (4) 30-amp single pole circuit breakers,

two (2) 30-amp magnetic contactors, an Auto/Test switch and an internally mounted photoelectric control socket with a “Delay Type” photoelectric cell. All circuit breakers shall be installed in a vertical position, handle up for “ON”, handle down for “OFF”. All connections to circuit breakers shall be by a compression lug or machine screw. There shall be no plug-in type circuit breakers. All circuit breakers shall be industrial grade, Westinghouse Quicklag C or approved equal. The service cabinet shall be completely prewired at the factory.

C. Service cabinet shall be manufactured from 12 gauge anodized aluminum. Maximum width of service cabinet shall be twelve (12) inches and maximum depth shall be nine (9) inches, unless otherwise noted. Service shall be welded construction. Cabinet shall have a Best lock with a RED core installed.

D. All risers/sweeps at service poles shall be 3” inches in diameter and installed at least three inches above grade. Riser/sweep shall meet Edison Company requirements. The quadrant locations shall be as directed by the Edison Company.

E. Tesco Controls can be reached at (916) 395-8800. The Customer Service Planner for the Edison Company can be reached at (909) 592-3719.

F. Each street light shall have a fuse holder installed in the base of the pole. The fuse holder shall be a TRON waterproof HEB-AA McGraw-Edison type or approved equal with an eight (8)-amp fuse for a 70-watt lamp, a ten (10)-amp fuse for a 100-watt lamp and a fifteen (15)-amp fuse for 200-watt lamps.

14. **Bonding and Grounding:**

A. Metallic conduit, nonmetallic conduit grounding wire, service equipment and anchor bolts that form a continuous system shall be effectively grounded. Bonding and grounding jumpers shall be No. 8 **solid** copper wire.

B. For bonding purposes in all nonmetallic type conduits, a bare No. 8 **solid** copper wire shall be run continuously in all circuits.

C. Bonding of light standards shall be accomplished by means of a No. 8 **solid** bonding wire attached from a grounding bushing or from the continuous grounding wire to a foundation bolt.

15. All street light locations shall be verified in the field by the City Engineer before construction. All removals within existing improvements shall be accomplished by saw cutting unless otherwise approved by the City Engineer.

16. Final acceptance will be based on all necessary excavation, removals and/or replacement necessary to restore adjacent grounds to as near original condition as possible. All spoils shall be removed from the job site on the same day of excavation.

17. **Street Light Luminaires:**

A. Street light luminaires shall meet the following criteria - Power/Door Luminaire as manufactured by GE Current LED fixtures (or approved equal) ordered using the following order code:

Residential streets	36W LED	ERLC 0 05 C5 30 A GRAY G L
Collector streets	56W LED	ERLC 0 07 C5 30 A GRAY G L
Arterial streets	58W LED	ERL1 0 08 C5 30 A GRAY G L
Safety Lights	129W LED	ERL1 0 16 C5 30 A GRAY G L

B. All luminaires shall be installed with individual photoelectric controls manufactured by Ripley Lighting Controls (RD8645) or approved equal.

C. The contractor shall provide the City with one (1) spare luminaire of the same type and manufacture as installed for every five (5) the contractor installs. As an example, if the Contractor installs from one (1) to five (5) street lights, the Contractor will provide to the City one (1) spare luminaire. If the contractor installs from six (6) to ten (10) street lights, then the Contractor will provide two (2) spare luminaires to the City, and so on.

D. After installation is complete and the serving utility has energized the circuit, the system will be burn tested for seventy-two (72) hours prior to City acceptance.

18. **Salvaged Materials:**

A. The balance of all or any number of the street light poles to be removed by the Contractor or from this project shall be delivered to the City Yard location as designated by the Signal/Lighting Supervisor or shall become the property of the Contractor. The decision on this item shall be made by the City Engineer.

B. All excavation materials not to be re-used as backfill materials, such as broken sidewalk, removed light pole foundations excess fill materials shall be disposed of by the Contractor.

Supersedes Policy Dated 04/04/2008, 12/15/1995
Policy Initiated 10/08/1985