

Standard Plans



City of San Juan Capistrano

# STANDARD PLANS

SHEET PLAN TITLE  
NO.

APPROVAL REVISION  
DATE DATE

1	TABLE OF CONTENTS		
10(2)	STANDARD DESIGN SYMBOLS AND ABBREVIATIONS		

**STREETS**

100(2)	TYPICAL SECTION - PRIMARY HIGHWAY		
101	TYPICAL SECTION - SECONDARY HIGHWAY		
102	TYPICAL SECTION 60' AND 50' RESIDENTIAL STREETS		

**CUL-DE-SACS AND KNUCKLES**


201	TYPE I (SYMETRICAL) CUL-DE-SAC FOR RESIDENTIAL STREETS		
202	TYPE II (OFFSET) CUL-DE-SAC FOR RESIDENTIAL STREETS		
203	TYPE III (SYMETRICAL) CUL-DE-SAC FOR 50' WIDE R/W RESIDENTIAL STREETS		
204	TYPE IV (OFFSET) CUL-DE-SAC FOR 50' WIDE R/W RESIDENTIAL STREETS		
211	TYPE I STANDARD KNUCKLE FOR RESIDENTIAL STREETS		
212	TYPE II (50' WIDE R/W) STANDARD KNUCKLE FOR RESIDENTIAL STREETS		
230	CURB RADII AND PROPERTY LINE DIAGONAL CUT-OFF		

**CURBS, GUTTERS, SIDEWALK**

300	TYPE "A" AND "B" CURBS		
301	TYPE "C" CURB AND GUTTER		
305(2)	TYPICAL CROSS-GUTTER		
310	DEPRESSED CURB FOR DRIVEWAY APPROACH		
320	JOINT DETAILS		
330(2)	STANDARD SIDEWALK DETAILS		
331(2)	COMMERCAIL SIDEWALK DETAILS		
335	STANDARD SIDEWALK RETURN		
336(2)	WHEELCHAIR RAMPS		
340	SIDEWALK OBSTRUCTION FLARE		
341(3)	TREE ROOT BARRIER		
342(3)	TREE STAKING		
343	SIDEWALK TREE WELL AND COVER		
345(4)	STANDARD BIKETRAIL		



**City of San Juan Capistrano**

REVISIONS	TABLE OF CONTENTS	STANDARD PLAN NO.
		1
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	SHT 1 OF 3

SHEET PLAN TITLE  
NO.

APPROVAL REVISION  
DATE DATE

### CURBS, GUTTERS AND SIDEWALKS (CON'T)

351(2)	PARKWAY DRAIN NO. 1		
352(2)	PARKWAY DRAIN NO. 2		
355	STANDARD CURB DRAIN PIPE OUTLET		
356(5)	DRIVEWAY/ROLLED CURB DRAIN PIPE OUTLET		
360	LOCAL DEPRESSION		

### DRIVEWAY STANDARDS

401(2)	RESIDENTIAL DRIVEWAY APPROACH - TYPE I		
402(2)	DRIVEWAY APPROACH - TYPE II		
403(2)	DRIVEWAY APPROACH - TYPE III		

### SURVEY STANDARDS

501	SURVEY MONUMENT TYPE "A"		
502	SURVEY MONUMENT TYPE "B"		
503	SURVEY CENTER LINE TIES		

### SIGN STANDARDS


600(2)	STREET NAME SIGN		
610(3)	STREET LIGHTING STANDARDS		
615(2)	TRAFFIC SIGNAL AND HIGHWAY LIGHTING FOUNDATION INSTALLATIONS		
620(2)	SIGNAL AND LIGHTING SPLICING DETAILS		

### EXCAVATION AND RESURFACING STANDARDS

700(6)	EXCAVATION AND RESURFACING STANDARD		
710(4)	SIDEWALK AND DRIVEWAY REPLACEMENT		
715(2)	CONCRETE PAVEMENT REPLACEMENT		
750	NON-UTILITY CONDUIT INSTALLATION DETAIL		

# City of San Juan Capistrano



REVISIONS	TABLE OF CONTENTS	STANDARD PLAN NO.
		1
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	SHT 2 OF 3

SHEET PLAN TITLE  
NO.


APPROVAL REVISION  
DATE DATE

### SEWER STANDARDS

801(2)	48" MANHOLE		
802(2)	60" MANHOLE		
803	PIPE CASING, CONCRETE ENCASEMENT & HOUSE LATERAL		
804(2)	PIPE BEDDING DETAILS		
805(2)	SEPERATION OF WATER AND SEWER LINES		
806(2)	SADDLE CONNECTION		
807	STANDARD MANHOLE FRAME AND COVER		
808	STANDARD CLEAN-OUT		

## City of San Juan Capistrano



REVISIONS	TABLE OF CONTENTS	STANDARD PLAN NO.
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	1
	7/20/95 DATE	SHT 3 OF 3



## UTILITY SYMBOLS

	PP. OR TP.	POWER POLE OR TELEPHONE POLE
		GUY WIRE & ANCHOR
	3' x 5' M.H.	UNDERGROUND UTILITY MANHOLE OR VAULT (SIZE AS INDICATED)
	M.H.	SEWER OR STORM DRAIN MANHOLE
	C.O.	SEWER CLEANOUT
	L.H.	SEWER LAMPHOLE
	C.B. L.	CATCH BASIN (SIZE AS INDICATED)
	F.H.	FIRE HYDRANT
	W. OR G.	WATER OR GAS METER
	W. OR G.	WATER OR GAS VALVE
		STREET LIGHT
		STREET SIGNS

## SYMBOLS FOR SECTIONS

	CONCRETE
	ASPHALTIC BASE COURSE
	AGGREGATE BASE COURSE
	SAND
	STEEL
	WOOD
	BRICK
	EARTH FILL
	GROUND LINE

## TOPOGRAPHIC SYMBOLS

EXISTING - DASHED; PROPOSED - SOLID

	WOOD FENCE
	CONCRETE BLOCK FENCE
	RAILROAD
	CURB AND GUTTER
	CONCRETE
	EDGE OF PAVEMENT
	ASPHALTIC CONCRETE PAVEMENT
	PALM TREES
	MISCELLANEOUS TREES
	SHRUB OR HEDGE
	SLOPE EMBANKMENT
	BENCH MARK
	BUILDING CORNER
	BARBED WIRE OR CHAIN LINK FENCE

## UTILITY LINE SYMBOLS

(SIZE AND TYPE AS INDICATED)

	- T - - - -	UNDERGROUND TELEPHONE LINE
	- E - - - -	UNDERGROUND ELECTRICAL LINE
	- G - - - -	GAS LINE
	- S - - - -	SANITARY SEWER LINE & LATERAL
	- SD - - - -	STORM DRAIN LINE
	- W - - - -	DOMESTIC WATER LINE
	- IRR - - - -	IRRIGATION LINE
	- TS - - - -	TRAFFIC SIGNAL CONDUIT
	- CTV - - - -	CABLE TELEVISION

## LINE SYMBOLS FOR MAPS AND PLANS

	CENTER LINE
	CITY BOUNDARY
	PROPERTY LINE OR R/W LINE
	LOT LINE
	LOT SPLIT
	SET BACK LINE
	EASEMENT

# City of San Juan Capistrano



REVISIONS

STANDARD DESIGN  
SYMBOLS AND ABBREVIATIONS

STANDARD  
PLAN NO.

10

*William M. Huber* 7/20/95  
APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

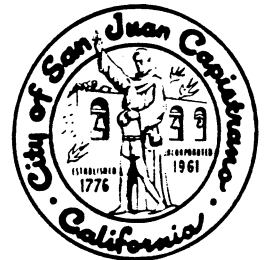
SHT 1 OF 2

## ABBREVIATIONS

(REFER TO "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" SECTION 1 - 3 FOR OTHERS.)

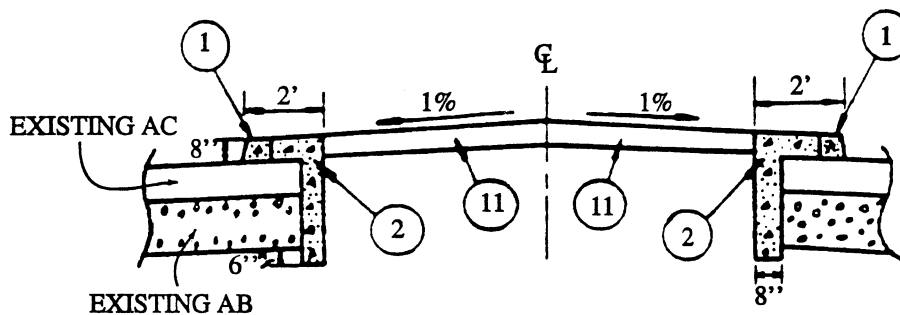
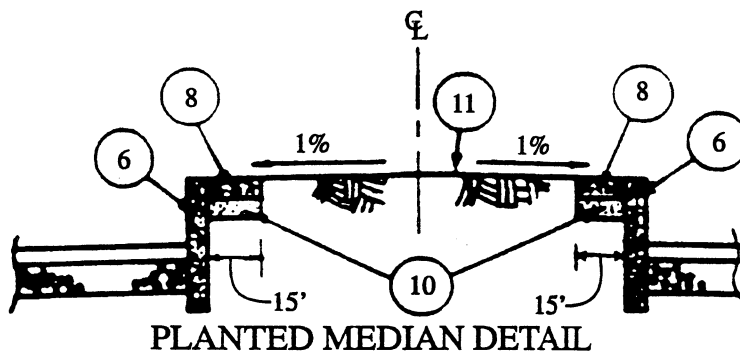
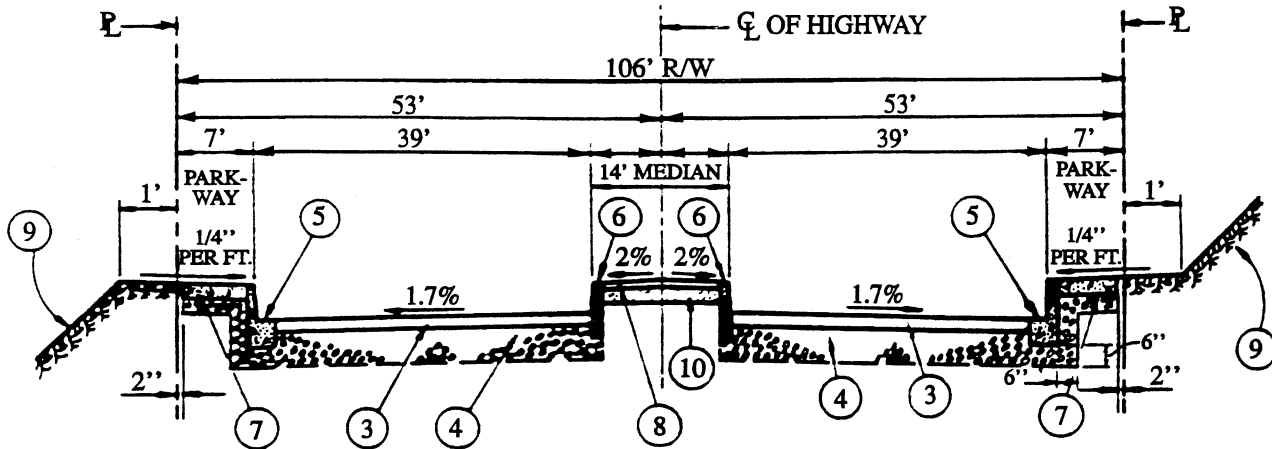
#	NUMBER	ECR	END OF CURB RETURN
AB	AGGREGATE BASE	EP	EDGE OF PAVEMENT
AC	ASPHALTIC CONCRETE	ESMT	EASEMENT
AGG	AGGREGATE	EVC	END OF VERTICAL CURVE
BC	BEGINNING OF CURVE	EXP JT	EXPANSION JOINT
BCR	BEGINNING OF CURB RETURN	FL	FLOW LINE
BDRY	BOUNDARY	FS	FINISHED SURFACE
BM	BENCH MARK	FT	FOOT
BVC	BEGINNING OF VERTICAL CURVE	GALV	GALVANIZED
CAB	CRUSHED AGGREGATE BASE	GB	GRADE BREAK
CF	CURB FACE	ID	INSIDE DIAMETER
C.F.	CUBIC FOOT	L	ARC LENGTH ALONG CURVE
CL	CLEAR	LF	LINEAL FOOT
CL	CENTER LINE	LG	LONG
CL 2 AB	STATE CLASS 2 AGGREGATE BASE	MAX	MAXIMUM
CMB	CRUSHED MISCELLANEOUS BASE	MIN	MINIMUM
CONC	CONCRETE	MOC	MIDDLE OF CURVE
CONST JT	CONSTRUCTION JOINT	NO	NUMBER
CY	CUBIC YARD	O	ROUND
D	DELTA	OC	ON CURVE
DIA	DIAMETER	OD	OUTSIDE DIAMETER
DWG	DRAWING	PCC	POINT OF COMPOUND CURVE
DWY	DRIVEWAY	PCC	PORTLAND CEMENT CONCRETE
EA	EACH	PI	POINT OF INTERSECTION PROPERTY
EC	END OF CURVE		

P	PROPERTY LINE
PRC	POINT OF REVERSE CURVE
PRVC	POINT OF REVERSE VERTICAL CURVE
R	RADIUS
REQ'D	REQUIRED
R'WD	REDWOOD
R/W	RIGHT OF WAY
REINF	REINFORCING
S.F.	SQUARE FOOT
S.Y.	SQUARE YARD
S/W	SIDEWALK
STD	STANDARD
STR GR	STRAIGHT GRADE
SYMM	SYMMETRICAL
T	TONS
T	SEMI TANGENT DISTANCE
TC	TOP OF CURB
TRANS	TRANSITION
TYP	TYPICAL
VC	VERTICAL CURVE
YD	YARD
W/	WITH



# City of San Juan Capistrano

REVISIONS	STANDARD DESIGN SYMBOLS AND ABBREVIATIONS	STANDARD PLAN NO.  <span style="font-size: 2em;">10</span>
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	DATE 7/20/95
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	DATE 7/20/95
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	DATE 7/20/95



SEE SHEET 2 FOR NOTES AND  
UNDIVIDED HIGHWAY DETAIL

# City of San Juan Capistrano



REVISIONS

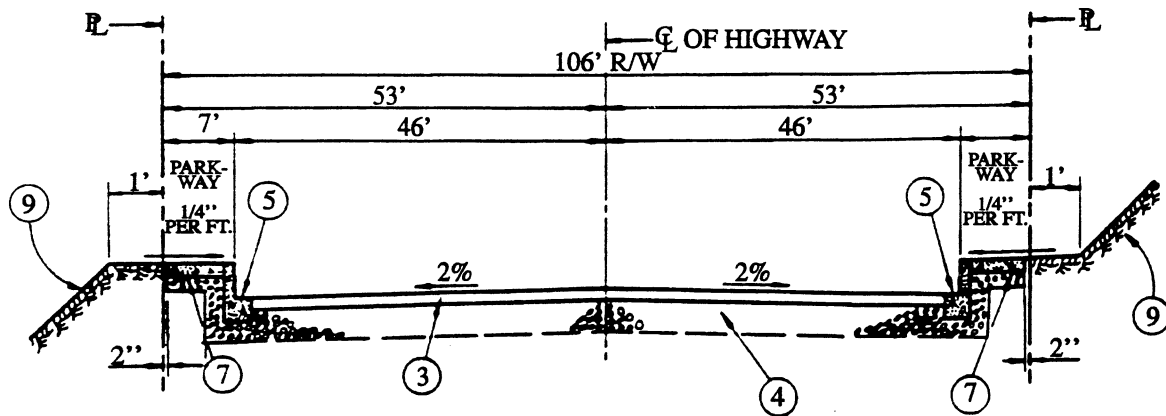
TYPICAL SECTION - PRIMARY HIGHWAY  
(DIVIDED AND UNDIVIDED)

STANDARD  
PLAN NO.

100

*William M. Huber* 7/20/95  
APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 2




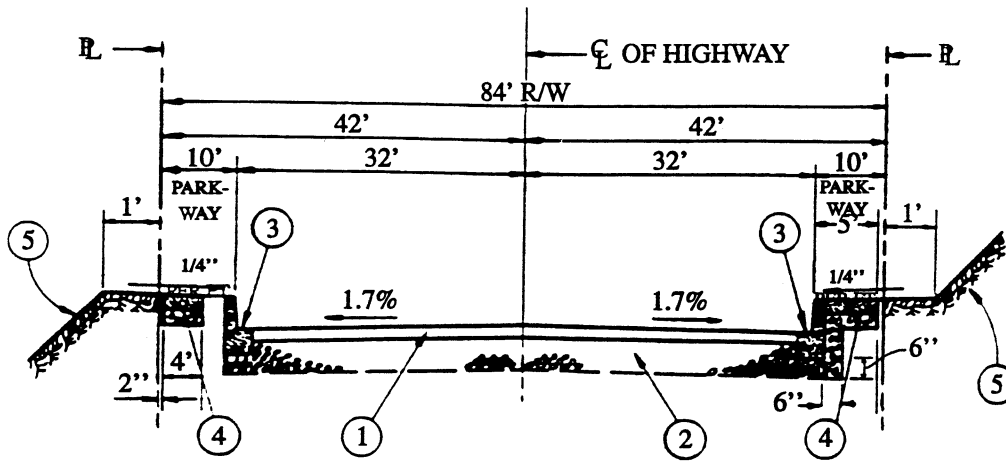
**NOTES:**

1. TYPE "B" CURB PER STD. PLAN NO. 300.
2. 8" THICK PCC (520 - C - 2500) WALL AND SIDEWALK, WITH 20 MIL PLASTIC PLACED ON EXIST. AC AND ALONG VERTICAL EDGE OF STRUCTURAL SECTION.
3. ASPHALTIC CONCRETE PAVEMENT (6" THICKNESS). ACTUAL THICKNESS TO BE DETERMINED AFTER ROUGH GRADING. AC SHALL BE TYPE III AR4000.
4. CRUSHED AGGREGATE BASE (12" THICKNESS). ACTUAL THICKNESS TO BE DETERMINED AFTER ROUGH GRADING WITH 20 MIL PLASTIC PLACED ON EXIST. AC AND ALONG VERTICAL EDGE OF STRUCTURAL SECTION.
5. TYPE "C - 8" CURB AND GUTTER PER STD. PLAN NO. 301.
6. TYPE "A" CURB PER STD. PLAN NO. 300 WITH 20 MIL PLASTIC PLACED ALONG BACK SURFACE SEE DETAIL FOR PLANTED MEDIAN.
7. 4" P.C.C. SIDEWALK PER STD. PLANS NO. 330 AND NO. 331.
8. 4" P.C.C. WITH BROOM FINISH. SEE DETAIL FOR PLANTED MEDIAN. SLOPE 1% IN TURN POCKET AREA.
9. SLOPE TO FIT EXISTING CONDITIONS AND TYPE OF SOIL 2 : 1 CUT AND FILL.
10. 4" SAND. SEE DETAIL FOR PLANTED MEDIAN.
11. PLANTED AREA TERMINATE AT (2/3)L IN PARABOLIC FLARE AND (1/3)L IN PARABOLIC TRANSITION.



# City of San Juan Capistrano

REVISIONS	TYPICAL SECTION - PRIMARY HIGHWAY (DIVIDED AND UNDIVIDED)	STANDARD PLAN NO.  100
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	SHT 2 OF 2

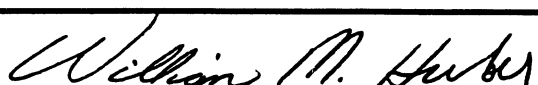


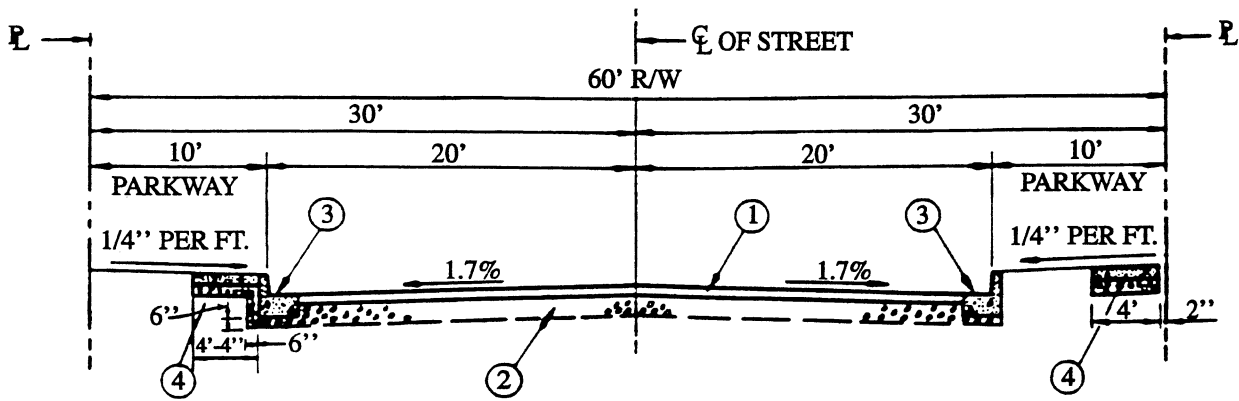
**NOTES:**

1. ASPHALTIC CONCRETE PAVEMENT (5" THICKNESS). ACTUAL THICKNESS TO BE DETERMINED AFTER ROUGH GRADING.
2. CLASS 2 AGGREGATE BASE OR CMB (10" THICKNESS). ACTUAL THICKNESS TO BE DETERMINED AFTER ROUGH GRADING.
3. TYPE "C" - 8" CURB AND GUTTER PER STD. PLAN NO. 301.
4. 4" P.C.C. SIDEWALK PER STD. PLAN NO. 330 OR 331.
5. SLOPE TO FIT EXISTING CONDITIONS AND TYPE OF SOIL. 2 : 1 CUT AND FILL.

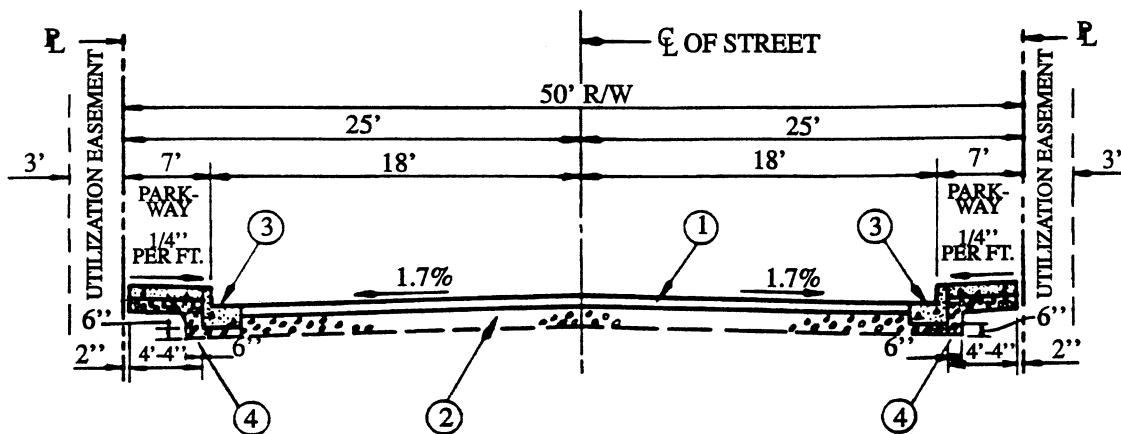


# City of San Juan Capistrano

REVISIONS	TYPICAL SECTION - SECONDARY HIGHWAY (UNDIVIDED)	STANDARD PLAN NO.
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	101
		SHT 1 OF 1



COMMUTER



LOCAL

NOTES:

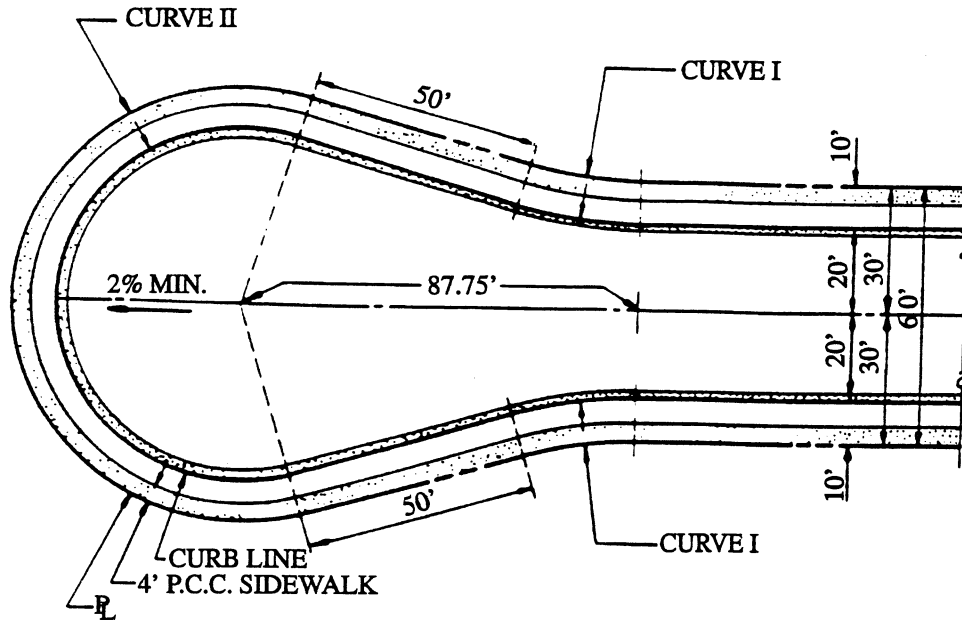
1. ASPHALTIC CONCRETE PAVEMENT (4" THICKNESS). ACTUAL THICKNESS TO BE DETERMINED AFTER ROUGH GRADING.
2. CLASS 2 AGGREGATE BASE OR CMB (8" THICKNESS). ACUTAL THICKNESS TO BE DETERMINED AFTER ROUGH GRADING.
3. TYPE "C - 8" OR "C - 6" CURB AND GUTTER PER STD. PLAN NO. 301.
4. 4" P.C.C. SIDEWALK PER STD. PLAN NO. 330 OR 331.

DRIVEWAY LOCATIONS AND SLOPES SHALL BE APPROVED BY THE CITY ENGINEER ON STREETS WITH 50' R/W.

City of San Juan Capistrano



<p>REVISIONS</p>	<p>TYPICAL SECTION 60' AND 50' RESIDENTIAL STREETS</p>	<p>STANDARD PLAN NO.  102</p>
	<p><i>William M. Huber</i> APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785</p>	<p>7/20/95 DATE</p>
		<p>SHT 1 OF 1</p>



**CURVE I DATA**

$\Delta = 16^{\circ} 31' 20''$

$R_L$	CURB
R = 90'	R = 100'
L = 25.91'	L = 28.84'
T = 13.07'	T = 14.52''

**CURVE II DATA**

$\Delta = 213^{\circ} 02' 40''$

$R_L$	CURB
R = 50'	R = 40'
L = 185.92'	L = 148.73'

**NOTES:**

1. IN THE CASE WHERE THE CUL-DE-SAC BACKS INTO AN ARTERIAL STREET AND DRAINS TOWARD IT, A COVERED DRAIN PER STD. PLAN NO. 351 SHALL BE PROVIDED THRU A DRAINAGE EASEMENT A MINIMUM OF 2' WIDER THAN THE DRAINAGE STRUCTURE. PLANS SHALL INCLUDE ALL INFORMATION PERTINENT TO THE DRAIN; EXACT LOCATION, SIZE, REINFORCEMENT, EASEMENT, FLOW LINES, CURB FACE OPENINGS, LOCAL DEPRESSIONS, ETC.
2. MINIMUM SLOPE IS 2% IN THE BULB.

# City of San Juan Capistrano



REVISIONS

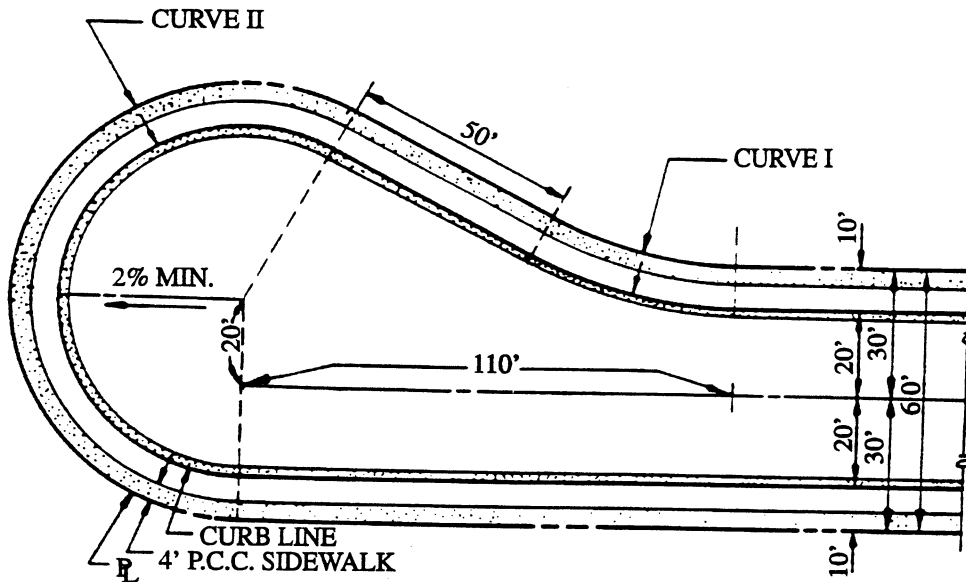
TYPE I (SYMMETRICAL) CUL - DE - SAC  
FOR RESIDENTIAL STREETS

STANDARD  
PLAN NO.

201

*William M. Huber* 7/20/95  
APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 1



CURVE I DATA		CURVE II DATA	
$\Delta = 28^{\circ} 04' 22''$		$\Delta = 208^{\circ} 04' 22''$	
$R_L$	CURB	$R_L$	CURB
R = 90'	R = 100'	R = 50'	R = 40'
L = 44.10'	L = 49.00'	L = 181.58'	L = 145.26'
T = 22.50'	T = 25.00'		

NOTES:

1. IN THE CASE WHERE THE CUL-DE-SAC BACKS INTO AN ARTERIAL STREET AND DRAINS TOWARD IT, A COVERED DRAIN PER STD. PLAN NO. 351 SHALL BE PROVIDED THRU A DRAINAGE EASEMENT A MINIMUM OF 2' WIDER THAN THE DRAINAGE STRUCTURE. PLANS SHALL INCLUDE ALL INFORMATION PERTINENT TO THE DRAIN; EXACT LOCATION, SIZE, REINFORCEMENT, EASEMENT, FLOW LINES, CURB FACE OPENINGS, LOCAL DEPRESSIONS, ETC.
2. MINIMUM SLOPE IS 2% IN THE BULB.

# City of San Juan Capistrano



REVISIONS

TYPE II (OFFSET) CUL - DE - SAC  
FOR RESIDENTIAL STREETS

STANDARD  
PLAN NO.

202

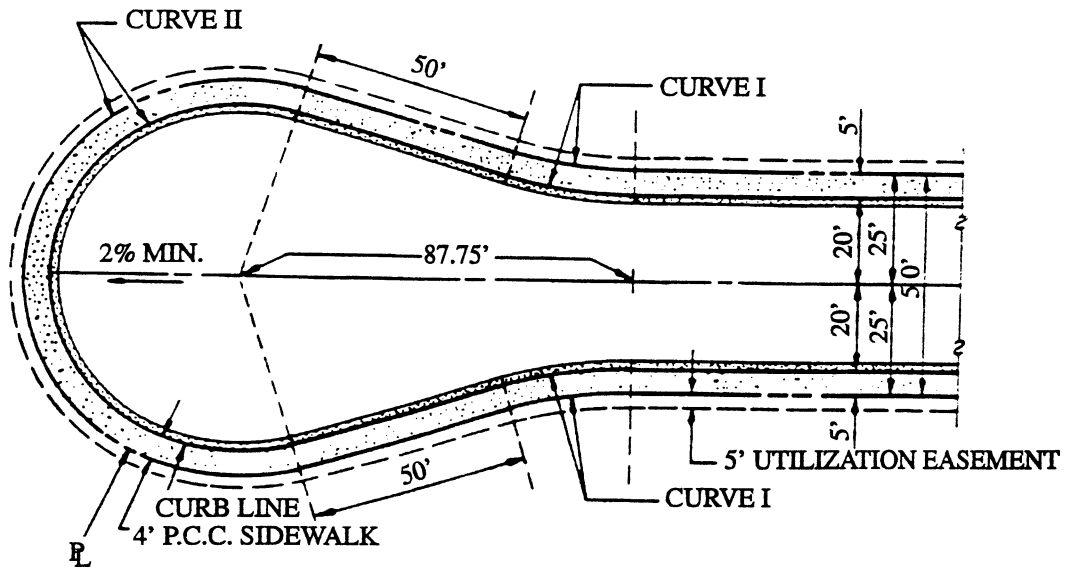
*William M. Huber*

7/20/95

APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 1





**CURVE I DATA**

$\Delta = 16^{\circ} 31' 20''$

$R_L$  CURB

R = 95' R = 100'

L = 27.39' L = 28.84'

T = 13.79' T = 14.52''

**CURVE II DATA**

$\Delta = 213^{\circ} 02' 40''$

$R_L$  CURB

R = 45' R = 40'

L = 167.32' L = 148.73'

**NOTES:**

1. IN THE CASE WHERE THE CUL-DE-SAC BACKS INTO AN ARTERIAL STREET AND DRAINS TOWARD IT, A COVERED DRAIN PER STD. PLAN NO. 351 SHALL BE PROVIDED THRU A DRAINAGE EASEMENT A MINIMUM OF 2' WIDER THAN THE DRAINAGE STRUCTURE. PLANS SHALL INCLUDE ALL INFORMATION PERTINENT TO THE DRAIN; EXACT LOCATION, SIZE, REINFORCEMENT, EASEMENT, FLOW LINES, CURB FACE OPENINGS, LOCAL DEPRESSIONS, ETC.
2. TYPE "C - 6" CURB AND GUTTER ONLY FOR APPROVED SUBSTANDARD RESIDENTIAL STREETS. SEE STD. PLAN NO. 301.
3. MINIMUM SLOPE IS 2% IN THE BULB.

"MAY BE USED IN LIEU OF TYPES I AND II WITH APPROVAL ONLY."

**City of San Juan Capistrano**



REVISIONS

TYPE III (SYMMETRICAL) CUL - DE - SAC  
FOR 50' WIDE R/W RESIDENTIAL STREETS

STANDARD  
PLAN NO.

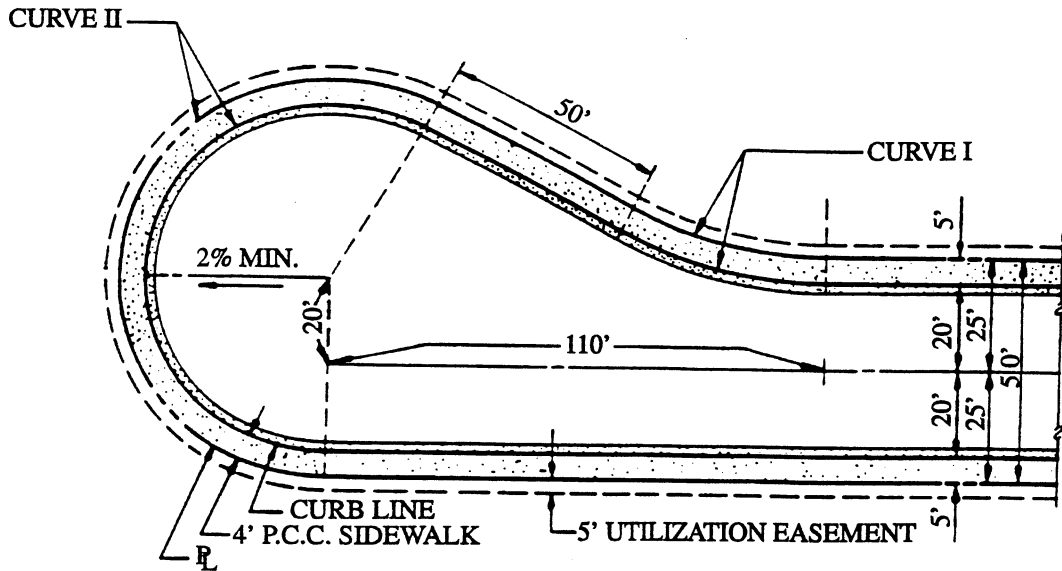
203

*William M. Huber*

7/20/95

APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 1



**CURVE I DATA**

$\Delta = 28^\circ 04' 22''$

$R_L$  CURB

R = 90'      R = 100'  
 L = 46.55'    L = 49.00'  
 T = 23.75'    T = 25.00''

**CURVE II DATA**

$\Delta = 208^\circ 04' 22''$

$R_L$  CURB

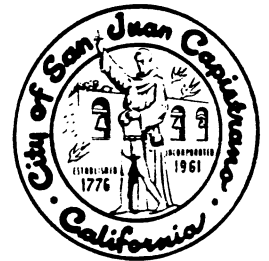
R = 45'      R = 40'  
 L = 163.42'    L = 145.26'

**NOTES:**

1. IN THE CASE WHERE THE CUL-DE-SAC BACKS INTO AN ARTERIAL STREET AND DRAINS TOWARD IT, A COVERED DRAIN PER STD. PLAN NO. 351 SHALL BE PROVIDED THRU A DRAINAGE EASEMENT A MINIMUM OF 2' WIDER THAN THE DRAINAGE STRUCTURE. PLANS SHALL INCLUDE ALL INFORMATION PERTINENT TO THE DRAIN; EXACT LOCATION, SIZE, REINFORCEMENT, EASEMENT, FLOW LINES, CURB FACE OPENINGS, LOCAL DEPRESSIONS, ETC.
2. TYPE "C - 6" CURB AND GUTTER ONLY FOR APPROVED SUBSTANDARD RESIDENTIAL STREETS. SEE STD. PLAN NO. 301.
3. MINIMUM SLOPE IS 2% IN THE BULB.

"MAY BE USED IN LIEU OF TYPES I AND II WITH APPROVAL ONLY."

**City of San Juan Capistrano**



REVISIONS

TYPE IV (OFFSET) CUL - DE - SAC  
 FOR 50' WIDE R/W RESIDENTIAL STREETS

STANDARD  
 PLAN NO.

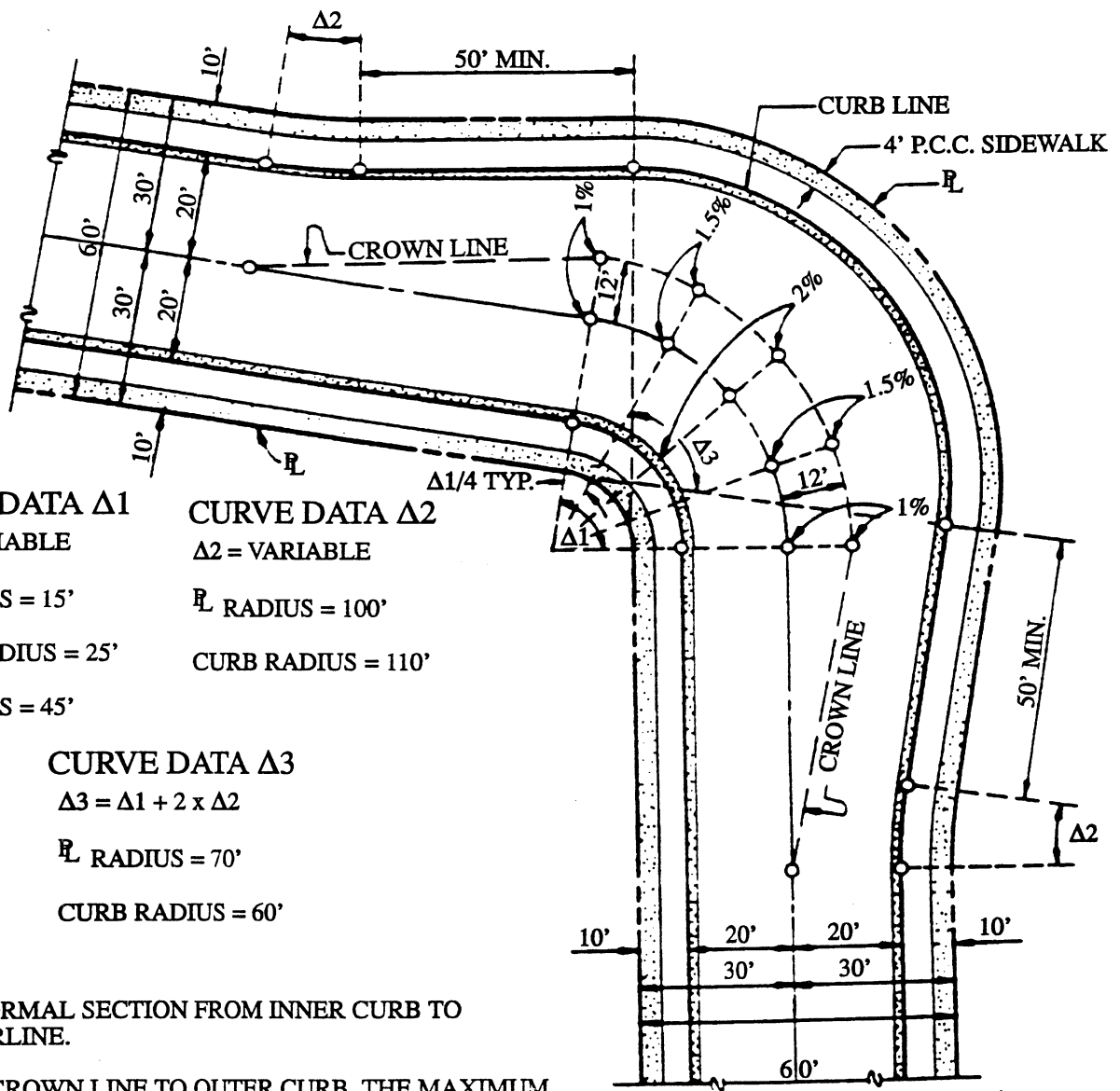
204

*William M. Huber*

7/20/95

APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 1



**CURVE DATA Δ1**

Δ1 = VARIABLE

R<sub>L</sub> RADIUS = 15'

CURB RADIUS = 25'

R<sub>C</sub> RADIUS = 45'

**CURVE DATA Δ2**

Δ2 = VARIABLE

R<sub>L</sub> RADIUS = 100'

CURB RADIUS = 110'

**CURVE DATA Δ3**

$\Delta 3 = \Delta 1 + 2 \times \Delta 2$

R<sub>L</sub> RADIUS = 70'

CURB RADIUS = 60'

**NOTES:**

1. USE NORMAL SECTION FROM INNER CURB TO CENTERLINE.
2. FROM CROWN LINE TO OUTER CURB, THE MAXIMUM SLOPE IS 2% AND THE MINIMUM IS 1%.
3. SUPERELEVATION PERCENTAGES SHOWN ARE STRAIGHT FROM CENTERLINE TO CROWN LINE.
4. ELEVATIONS ARE REQUIRED WHERE CIRCLED (O).
5. WHEN STREETS HAVE TILT - TYPE SECTION, THE CROWN LINE WILL NOT NECESSARILY TERMINATE ON CENTERLINE AT ANGLE POINT OF CURB.
6. THE RADIUS POINT OF Δ3 SHALL BE THE POINT OF

# City of San Juan Capistrano



REVISIONS

TYPE I STANDARD KNUCKLE  
FOR RESIDENTIAL STREETS

STANDARD  
PLAN NO.

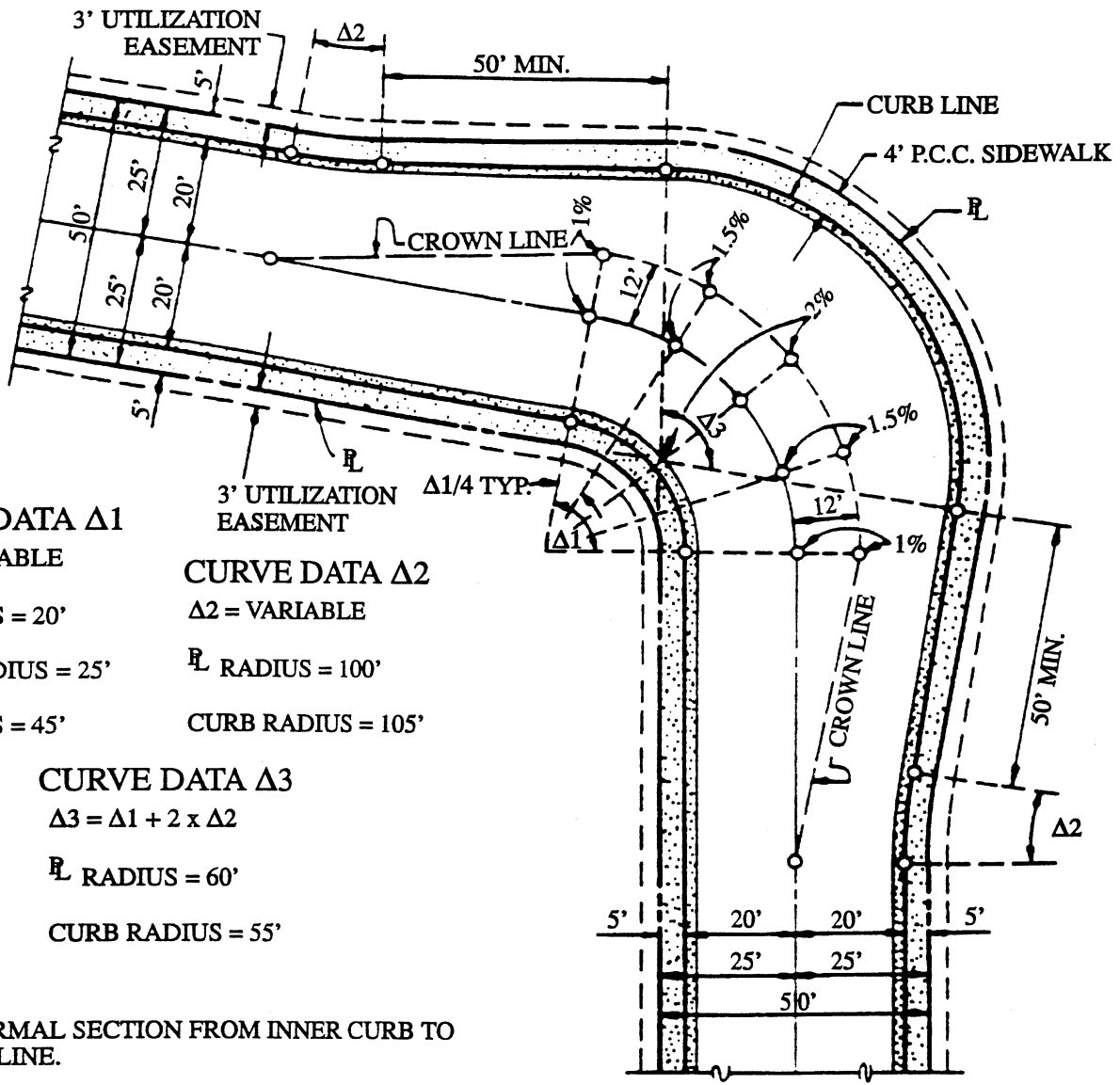
211

*William M. Huber*

7/20/95

APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 1



**CURVE DATA  $\Delta 1$**

$\Delta 1$  = VARIABLE

$R_L$  RADIUS = 20'

CURB RADIUS = 25'

$R_{CL}$  RADIUS = 45'

**CURVE DATA  $\Delta 2$**

$\Delta 2$  = VARIABLE

$R_L$  RADIUS = 100'

CURB RADIUS = 105'

**CURVE DATA  $\Delta 3$**

$\Delta 3 = \Delta 1 + 2 \times \Delta 2$

$R_L$  RADIUS = 60'

CURB RADIUS = 55'

**NOTES:**

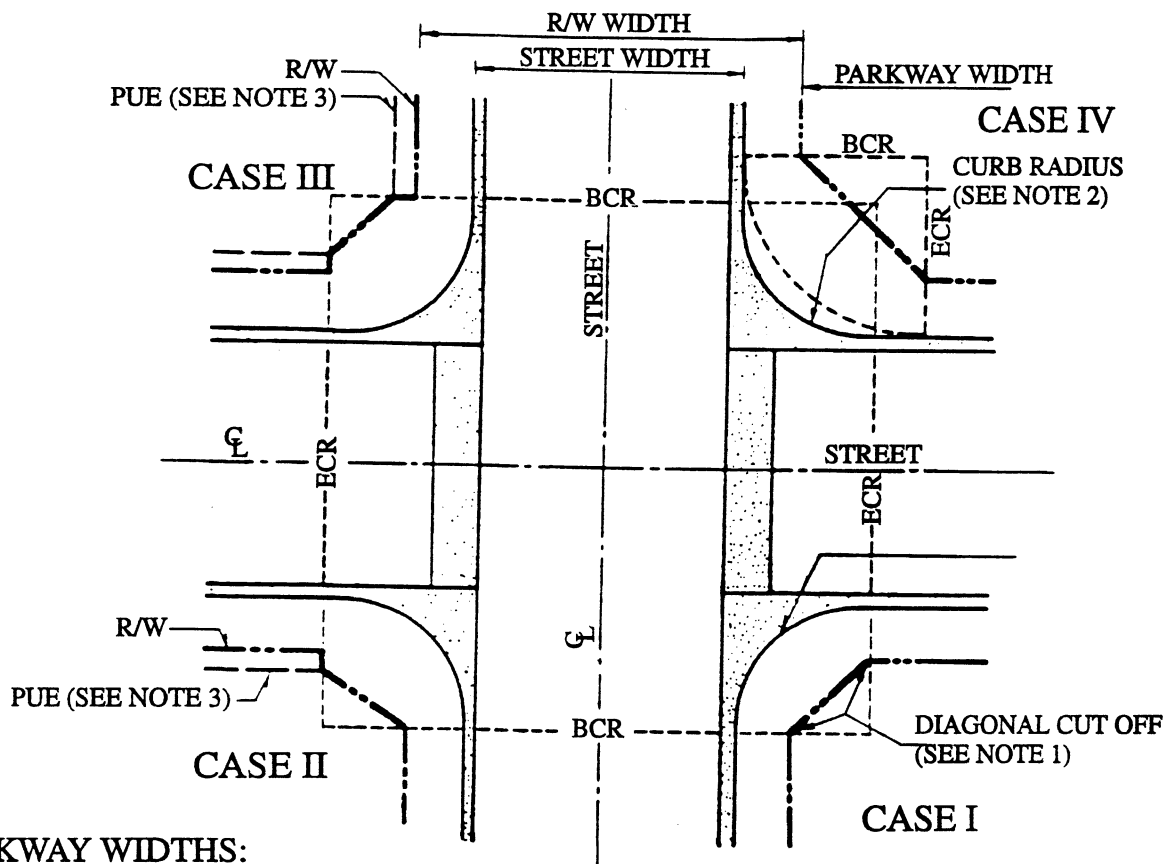
1. USE NORMAL SECTION FROM INNER CURB TO CENTERLINE.
2. FROM CROWN LINE TO OUTER CURB, THE MAXIMUM SLOPE IS 2% AND THE MINIMUM IS 1%.
3. SUPERELEVATION PERCENTAGES SHOWN ARE STRAIGHT FROM CENTERLINE TO CROWN LINE.
4. ELEVATIONS ARE REQUIRED WHERE CIRCLED (O).
5. WHEN STREETS HAVE TILT - TYPE SECTION, THE CROWN LINE WILL NOT NECESSARILY TERMINATE ON CENTERLINE AT ANGLE POINT OF CURB.
6. THE RADIUS POINT OF  $\Delta 3$  SHALL BE THE POINT OF

**MAY BE USED IN LIEU OF TYPE I WITH CITY COUNCIL APPROVAL ONLY**



**City of San Juan Capistrano**

<p>REVISIONS</p>	<p>TYPE II (50' WIDE R/W) STANDARD KNUCKLE FOR RESIDENTIAL STREETS</p>	<p>STANDARD PLAN NO.</p>
	<p><i>William M. Huber</i></p>	<p>212</p>
	<p>APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95</p>	<p>SHT 1 OF 1</p>



PLAN

**PARKWAY WIDTHS:**


- 5' FOR 10' R/W
- 10' FOR 60' R/W
- 7' FOR 84' R/W
- 7' FOR 106' R/W

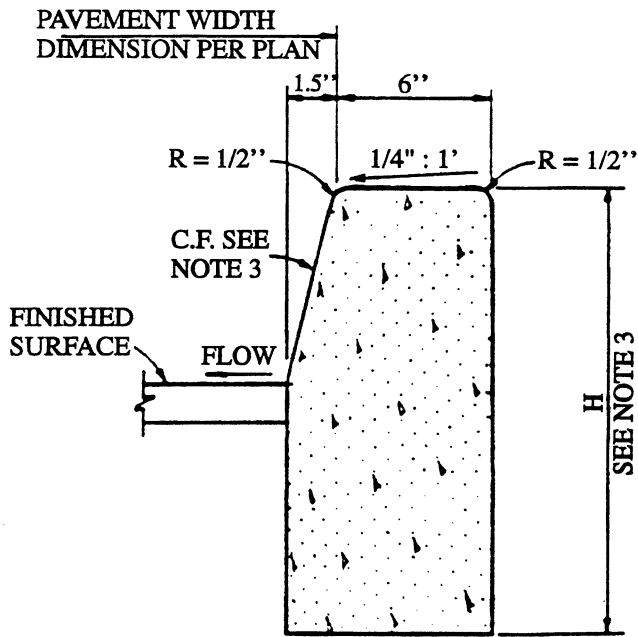
**NOTES:**

1. THE PROPERTY LINE DIAGONAL CUT - OFF IS A STRAIGHT LINE DRAWN BETWEEN THE R/W LINES (OR PUE LINES, IF EXISTING) AT THE BCR AND ECR.
2. ALL CURB RETURN RADII SHALL BE 25' UNLESS BOTH STREETS ARE ON THE MASTER PLAN OF HIGHWAYS, AND THEN THE DIAGONAL CUT - OFF SHALL BE FOR A 35' CURB RETURN RADIUS.
3. ALL 50' STREETS REQUIRE A 3' PUBLIC UTILIZATION EASEMENT. SEE STD. PLAN NO. 102.

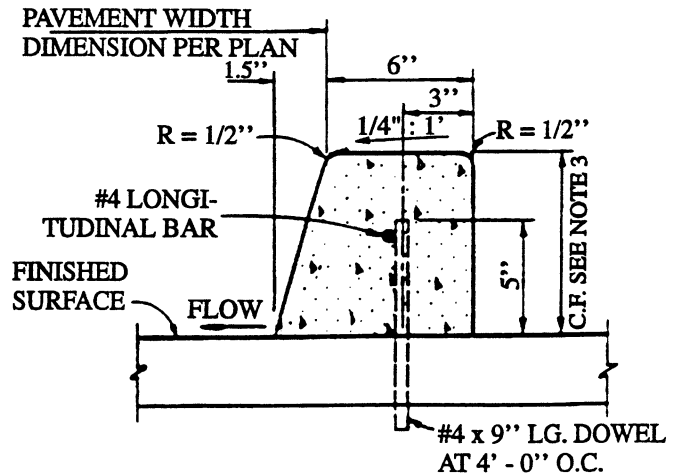
# City of San Juan Capistrano



<b>REVISIONS</b>	<b>CURB RETURN RADII AND PROPERTY LINE DIAGONAL CUT - OFF</b>	<b>STANDARD PLAN NO.</b>
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	230
	7/20/95 DATE	SHT 1 OF 1



TYPE "A"




TYPE "B"

NOTES:

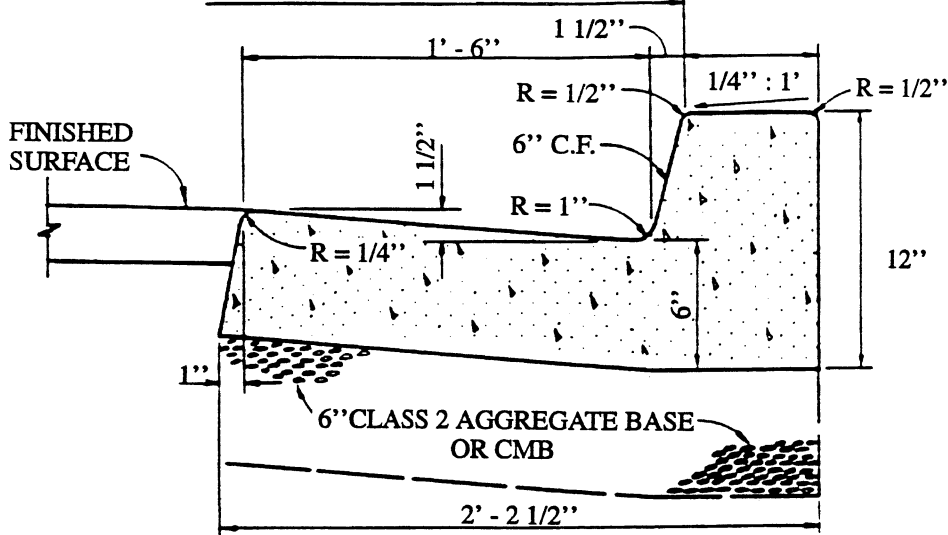
1. 1/4" EXPANSION JOINTS SHALL BE PLACED AT 40' INTERVALS AND AT ALL MEDIAN NOSES. 1/8" x 2" WEAKENED PLANE OR PLASTIC CONTROL JOINTS SHALL BE PLACED AT 10' INTERVALS. FOR DETAILS, SEE STD. PLAN NO. 320.
2. DOWELS AND REINFORCING BAR FOR TYPE "B" CURB MAY BE DELETED WHEN EXTRUDED CONCRETE IS BONDED TO PAVEMENT SURFACE WITH APPROVED ADHESIVE, EXCEPTING THE ISLAND NOSES WHICH SHALL BE DOWELED.
3. WHERE MEDIANS ARE LANDSCAPED, CURB SHALL EXTEND 6" BELOW SUB - GRADE AND BE BACKED WITH A 20 MIL PLASTIC MOISTURE BARRIER THAT EXTENDS 6" BELOW CURB C.F. AND H SHALL BE PER PLAN.
4. THESE CURBS ARE NON - WATER CARRYING. TRANSITION TO TYPE "C" CURB AND GUTTER PER PLAN.
5. CONCRETE SHALL BE 520 - C - 2500 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201-1.1.2



# City of San Juan Capistrano

REVISIONS	TYPE "A" AND "B" CURBS	STANDARD PLAN NO.
		300
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	7/20/95 DATE
		SHT 1 OF 1

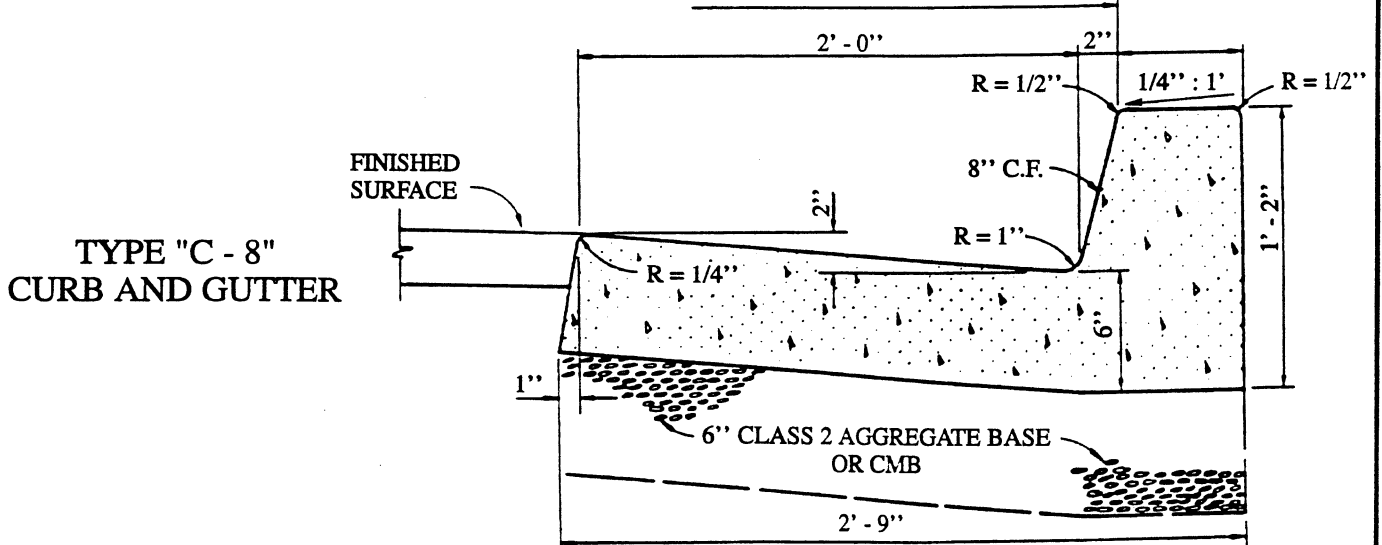
PAVEMENT WIDTH DIMENSION PER PLAN



TYPE "C - 6"  
CURB AND GUTTER

CONC. PER LIN. FT. = 0.05054 CU. YDS.  
1 CU. YD. = 19.7863 LIN. FT.

PAVEMENT WIDTH DIMENSION PER PLAN



TYPE "C - 8"  
CURB AND GUTTER

CONC PER LIN. FT. = 0.0645 CU. YDS.  
1 CU. YD. = 15.50 LIN. FT.

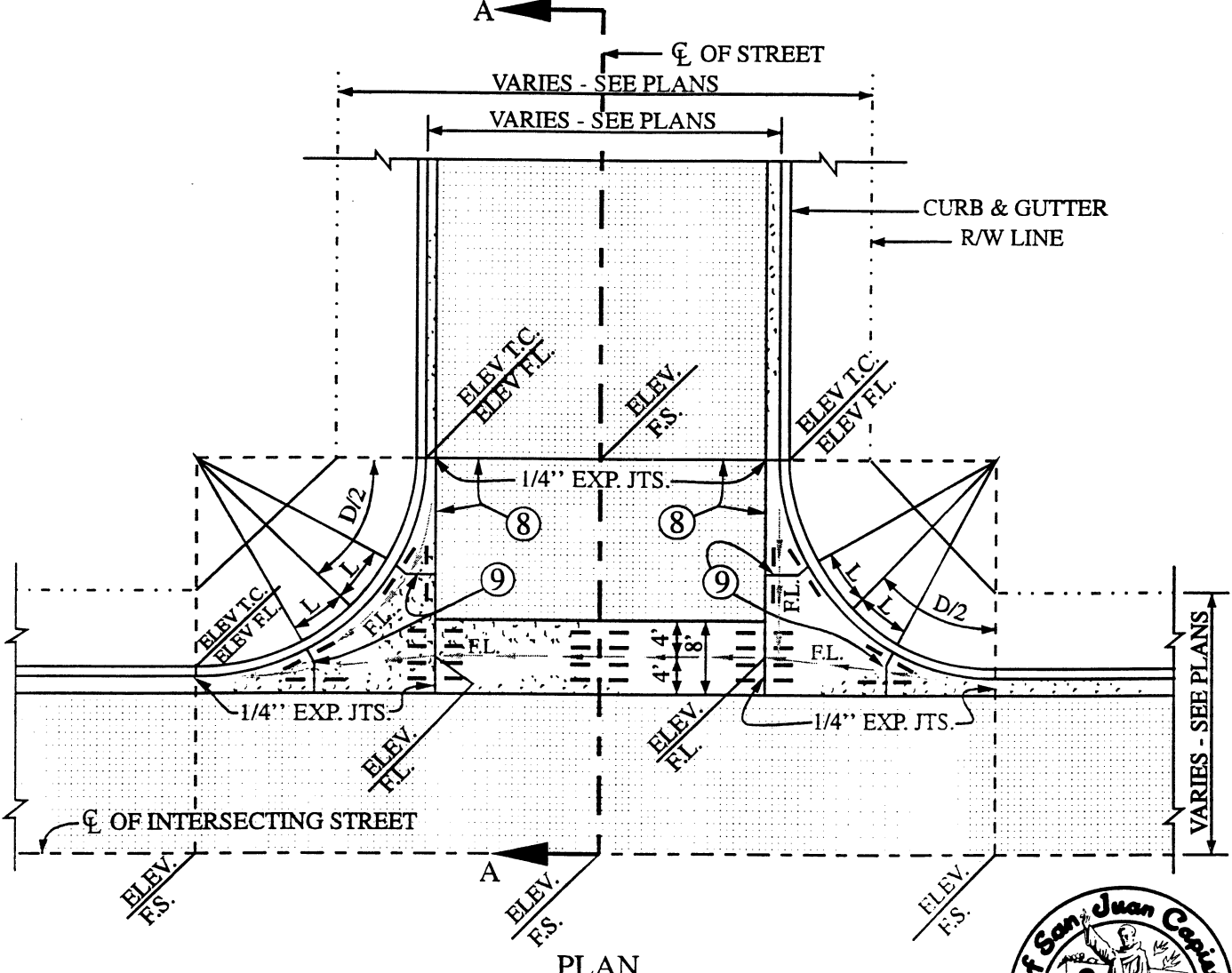
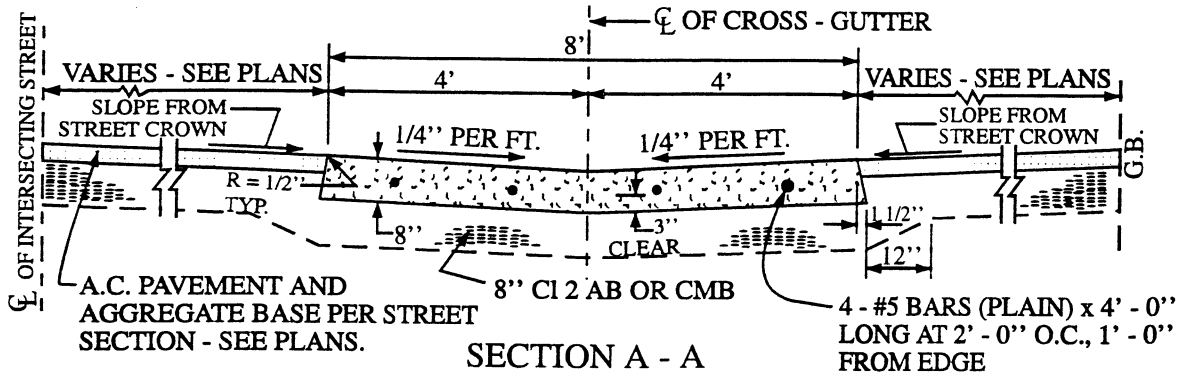
NOTES:

1. 1/4" EXPANSION JOINTS SHALL BE PLACED AT 40' INTERVALS AND AT ALL B.C.R.'S AND E.C.R.'S AND 1/8" x 2" WEAKENED PLANE OR PLASTIC CONTROL JOINTS SHALL BE PLACED AT 10' INTERVALS. FOR DETAILS, SEE STD. PLAN NO. 320.
2. CONCRETE SHALL BE 520 - C - 2500 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201 - 1.1.2.
3. SUB-GRADE RELATIVE COMPACTION SHALL NOT BE LESS THAN 90%.

City of San Juan Capistrano



REVISIONS	TYPE "C" CURB AND GUTTER	STANDARD PLAN NO.
		301
	<p style="text-align: center;"><i>William M. Huber</i> APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95</p>	SHT 1 OF 1



# City of San Juan Capistrano



REVISIONS

**TYPICAL CROSS - GUTTER**

*William M. Huber* 7/20/95  
 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

**STANDARD PLAN NO.**

**305**

SHT 1 OF 2

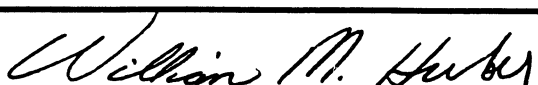


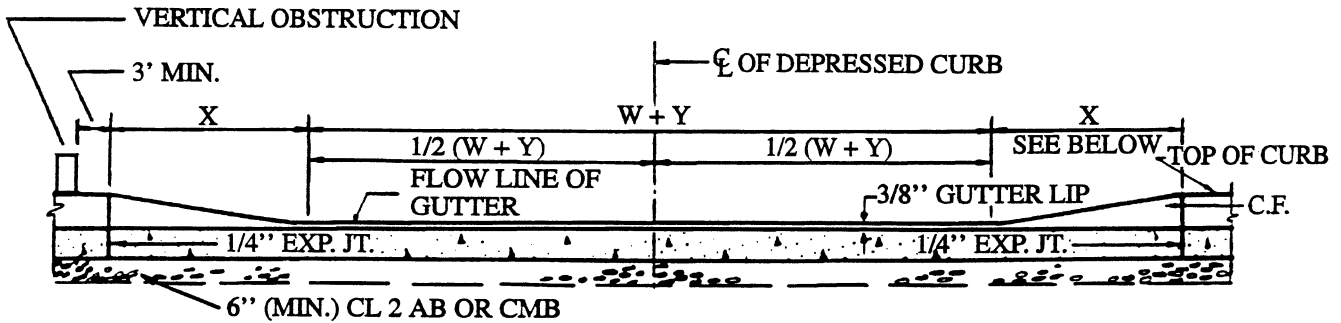
NOTES:

1. SMOOTH TROWEL 8'' WIDE FLOW LINE IN CROSS - GUTTER AND SPANDRELS.
2. AGGREGATE BASE THICKNESS FOR SPANDRELS SHALL BE THE SAME AS FOR CROSS - GUTTER.
3. POUR CURB MONOLITHICALLY WITH SPANDREL.
4. FOR JOINT DETAILS, SEE STD. PLAN NO. 320.
5. CONCRETE SHALL BE 560 - C - 3250 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEC. 201 - 1.1.2.
6. ALL ELEVATIONS SHALL BE PER PLAN.
7. DISTANCE L FROM MIDDLE ORDINATE OF CURB RETURN TO JOINT SHALL BE 7' FOR 8'' C.F. OR 6' FOR 6'' C.F..
8. ANY CROSS - GUTTER TO BE CONSTRUCTED ON LESS THAN 0.20% SHALL HAVE DRAINAGE STRUCTURES CONSTRUCTED TO MITIGATE THE ADVERSE EFFECTS OF NUISANCE WATER AND FULL CONCRETE APRON WITH EXPANSION JOINTS ALONG  $\phi$  AND ALONG EDGE OF GUTTERS.
9. 1/8 x 2" WEAKENED PLANE OR PLASTIC CONTROL JOINTS WITH 2 - #5 BARS (PLAIN) x 4'0" LONG 1' FROM EDGE.

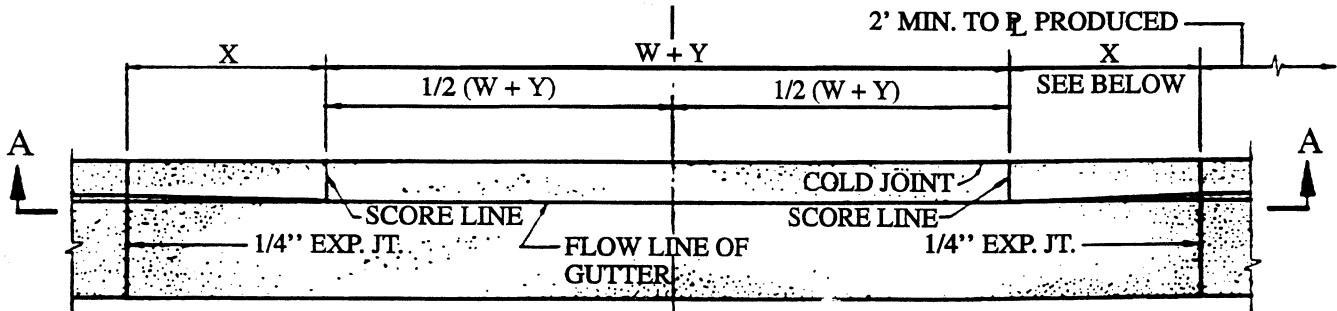
# City of San Juan Capistrano



REVISIONS	TYPICAL CROSS - GUTTER	STANDARD PLAN NO.
		305
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	7/20/95 DATE
		SHT <u>2</u> OF <u>2</u>



SECTION A-A



PLAN

DIMENSIONS

W = 12' MIN. 28' MAX. FOR RESIDENTIAL DRIVEWAYS.

W = 20' MIN. 35' MAX FOR OTHER DRIVEWAYS.

X = 4' FOR 6" CURB FACE

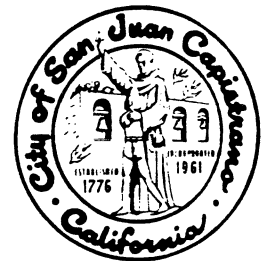
X = 5' FOR 8" CURB FACE

Y = SEE STD. PLAN NO. 402 AND 403.

Y = 0 PER STD. PLAN NO. 401.

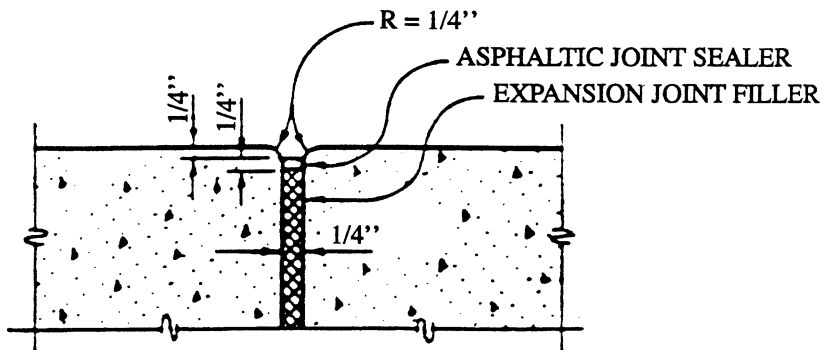
NOTES:

1. FOR CURB AND GUTTER DETAILS, SEE STD. PLAN NO. 301.
2. FOR JOINT DETAILS, SEE STD. PLAN NO. 320.
3. CONCRETE TO BE 520 - C - 2500 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201 - 1.1.2.
4. ALL DRIVEWAY LOCATIONS AND DIMENSIONS SHALL BE APPROVED BY CITY ENGINEER.

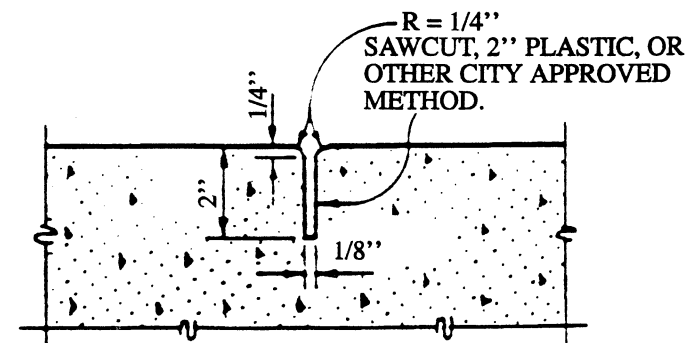


# City of San Juan Capistrano

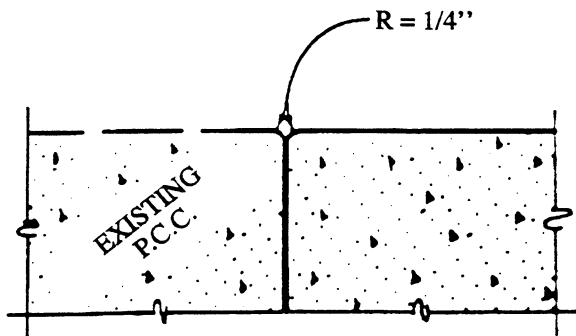
<p>REVISIONS</p>	<p>DEPRESSED CURB FOR DRIVEWAY APPROACH</p>	<p>STANDARD PLAN NO.</p>
	<p><i>William M. Huber</i></p>	<p>310</p>
	<p>APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95</p>	<p>SHT 1 OF 1</p>



1/4" EXPANSION JOINT  
40' INTERVALS



1/8" x 2" WEAKENED PLANE JOINT  
10' INTERVALS



CONSTRUCTION JOINT

# City of San Juan Capistrano



REVISIONS

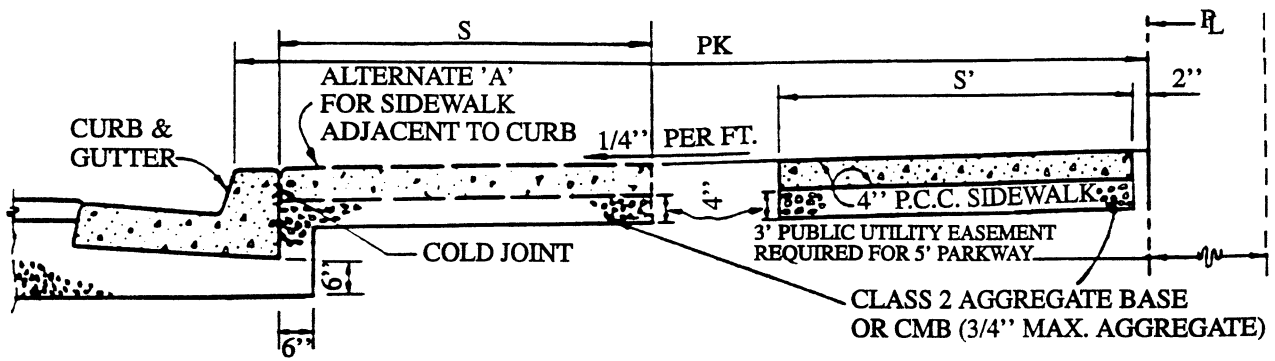
JOINT DETAILS

STANDARD  
PLAN NO.

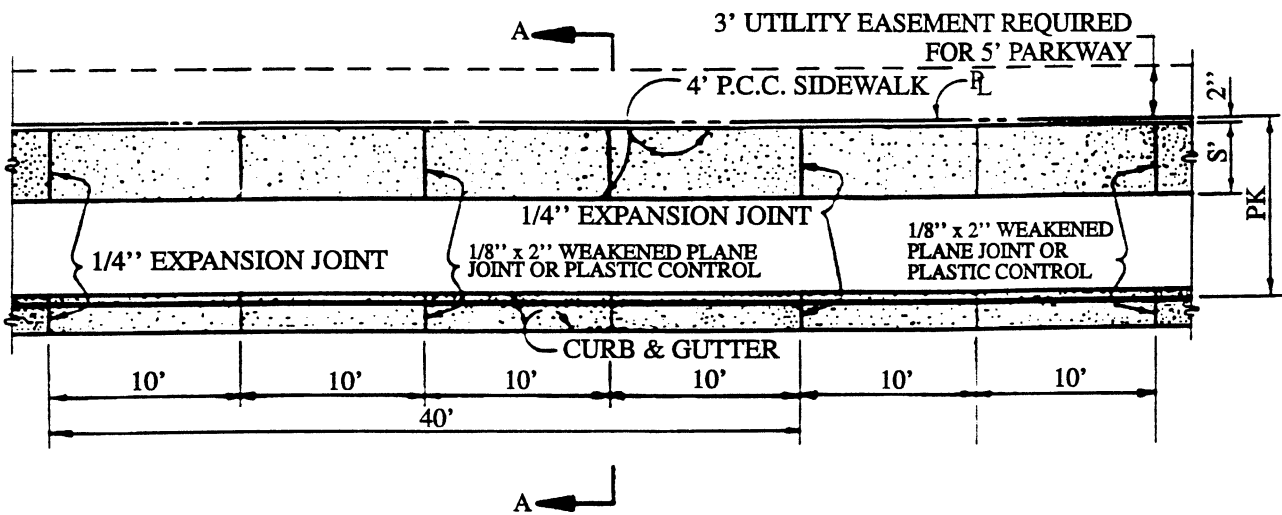
320

*William M. Huber* 7/20/95  
APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 1



SECTION A- A




PLAN

SEE SHEET 2 FOR DIMENSIONS AND NOTES

# City of San Juan Capistrano



REVISIONS	STANDARD SIDEWALK DETAILS		STANDARD PLAN NO.
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785		330
		7/20/95 DATE	SHT 1 OF 2

## DIMENSIONS

PK = PARKWAY WIDTH

S = SIDEWALK WIDTH

50' R/W -- PK = 5' S = 4' - 4''

60' R/W -- PK = 10' S = 4' - 4''

84' R/W -- PK = 7' S = 4' - 4'' RESIDENTIAL, 6' - 4'' COMMERCIAL & INDUSTRIAL

106' R/W -- PK = 7' S = 4' - 4'' RESIDENTIAL, 6' - 4'' COMMERCIAL & INDUSTRIAL

120' R/W -- PK = 8' S = 4' - 4'' RESIDENTIAL, 7' - 4'' COMMERCIAL & INDUSTRIAL

S' = 4' - 0''

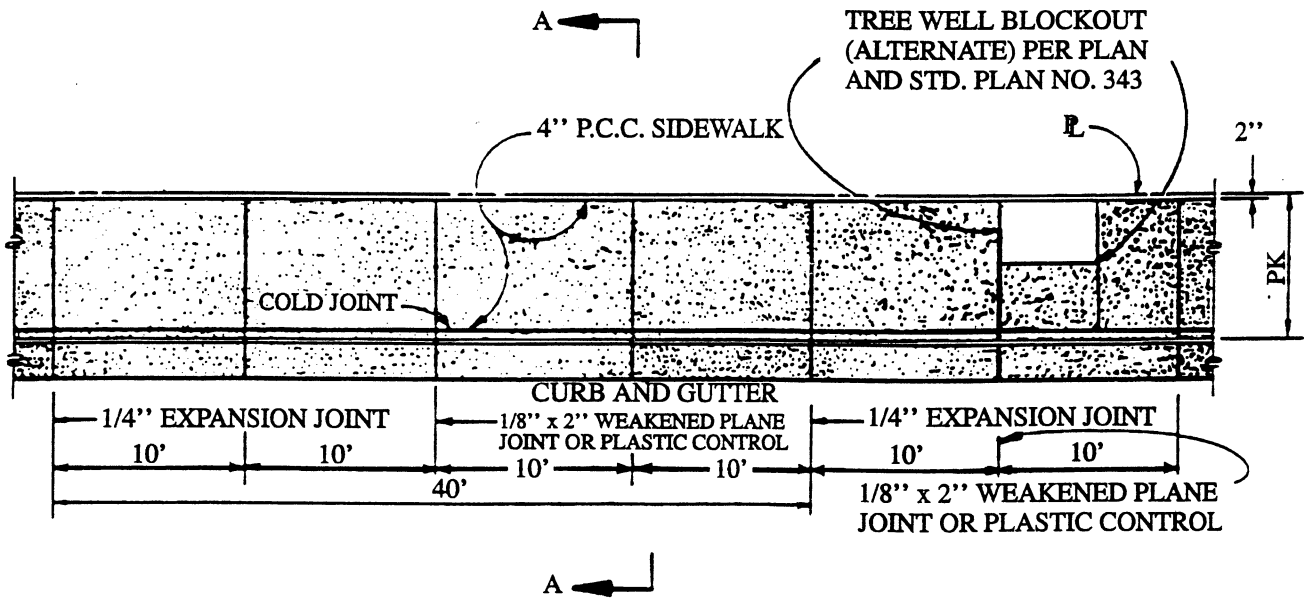
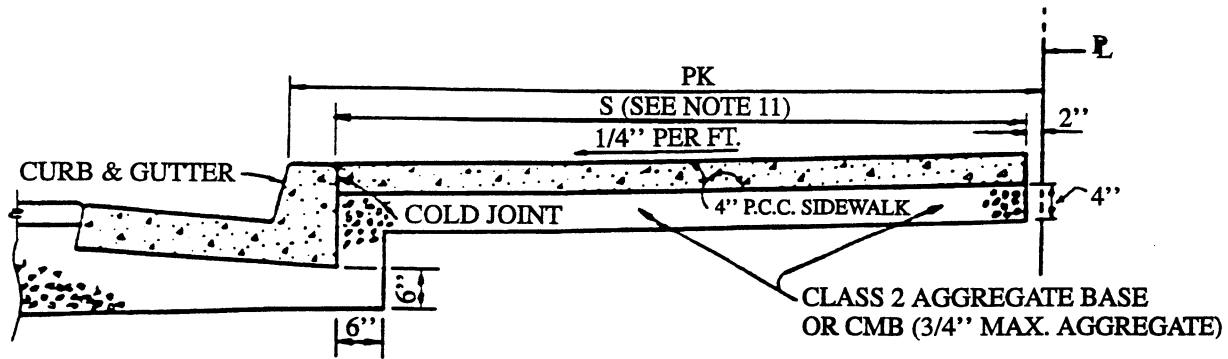
**NOTES:**

1. 1/4" EXPANSION JOINTS SHALL BE PLACED AT 40' INTERVALS AND AT THE END OF ALL CURB RETURNS.
2. 1/8" x 2" PLASTIC CONTROL OR WEAKENED PLANE JOINTS SHALL BE PLACED AT 10' INTERVALS.
3. EXPANSION JOINTS AND WEAKENED PLANE JOINTS FOR SIDEWALK SHALL BE PLACED TO COINCIDE WITH JOINTS OF THE CURB.
4. FOR EXPANSION JOINT AND WEAKENED PLANE JOINT DETAILS, SEE STD. PLAN NO. 320.
5. SIDEWALK THICKNESS IS 4" EXCEPT AT DRIVEWAYS WHERE IT SHALL BE 6" THICK.
6. CONCRETE SHALL BE 520 - C - 2500 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201-1.1.2.
7. 10' INTERVAL BETWEEN TRANSVERSE JOINTS MAY BE VARIED IF JOINING EXISTING IMPROVEMENTS AND APPROVED BY CITY ENGINEER.
8. WIDEN SIDEWALK TO PROVIDE MIN. CLEAR DISTANCE PER STD. PLAN NO. 340.
9. ALL EXPOSED CORNERS ON SIDEWALK SHALL BE ROUNDED OFF WITH 1/2" RADIUS, EXCEPT AS OTHERWISE SHOWN ON STD. PLAN NO. 300 OR 301.

# City of San Juan Capistrano



REVISIONS	STANDARD SIDEWALK DETAILS	STANDARD PLAN NO.
		330
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	DATE 7/20/95
		SHT 2 OF 2



SEE SHEET 2 FOR DIMENSIONS AND NOTES

# City of San Juan Capistrano



REVISIONS

COMMERCIAL SIDEWALK DETAILS

STANDARD PLAN NO.

331

*William M. Huber* 7/20/95  
APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 2

## DIMENSIONS

PK = PARKWAY WIDTH

60' R/W -- PK = 10'

84' R/W -- PK = 7'

106' R/W -- PK = 7'

120' R/W -- PK = 8'

**NOTES:**

1. 1/4" EXPANSION JOINTS SHALL BE PLACED AT 40' INTERVALS AND AT THE END OF ALL CURB RETURNS.
2. 1/8" x 2" WEAKENED PLANE OR PLASTIC CONTROL JOINTS SHALL BE PLACED AT 10' INTERVALS.
3. EXPANSION JOINTS AND WEAKENED PLANE JOINTS FOR SIDEWALK SHALL BE PLACED TO COINCIDE WITH JOINTS OF THE CURB.
4. FOR EXPANSION JOINT AND WEAKENED PLANE JOINT DETAILS, SEE STD. PLAN NO. 320.
5. SIDEWALK THICKNESS IS 4" EXCEPT AT DRIVEWAYS WHERE IT SHALL BE 6" THICK.
6. CONCRETE SHALL BE 520 - C - 2500 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201 - 1.1.2.
7. TREE WELL BLOCKOUTS TO BE CONSTRUCTED PER STD PLAN NO. 343 W/ LOCATION & SPACING PER PLAN.
8. 10' INTERVAL BETWEEN TRANSVERSE JOINTS MAY BE VARIED IF JOINING EXISTING IMPROVEMENTS.
9. ALL EXPOSED CORNERS ON SIDEWALK SHALL BE ROUNDED WITH 1/2" RADIUS, EXCEPT AS OTHERWISE SHOWN ON STD. PLAN NO. 300 OR 301.
10. WIDEN SIDEWALK TO PROVIDE MIN. CLEAR DISTANCE PER STD PLAN NO. 340.
11. SIDEWALK WIDTH (S) SHALL BE PER STD. PLAN NO. 330.

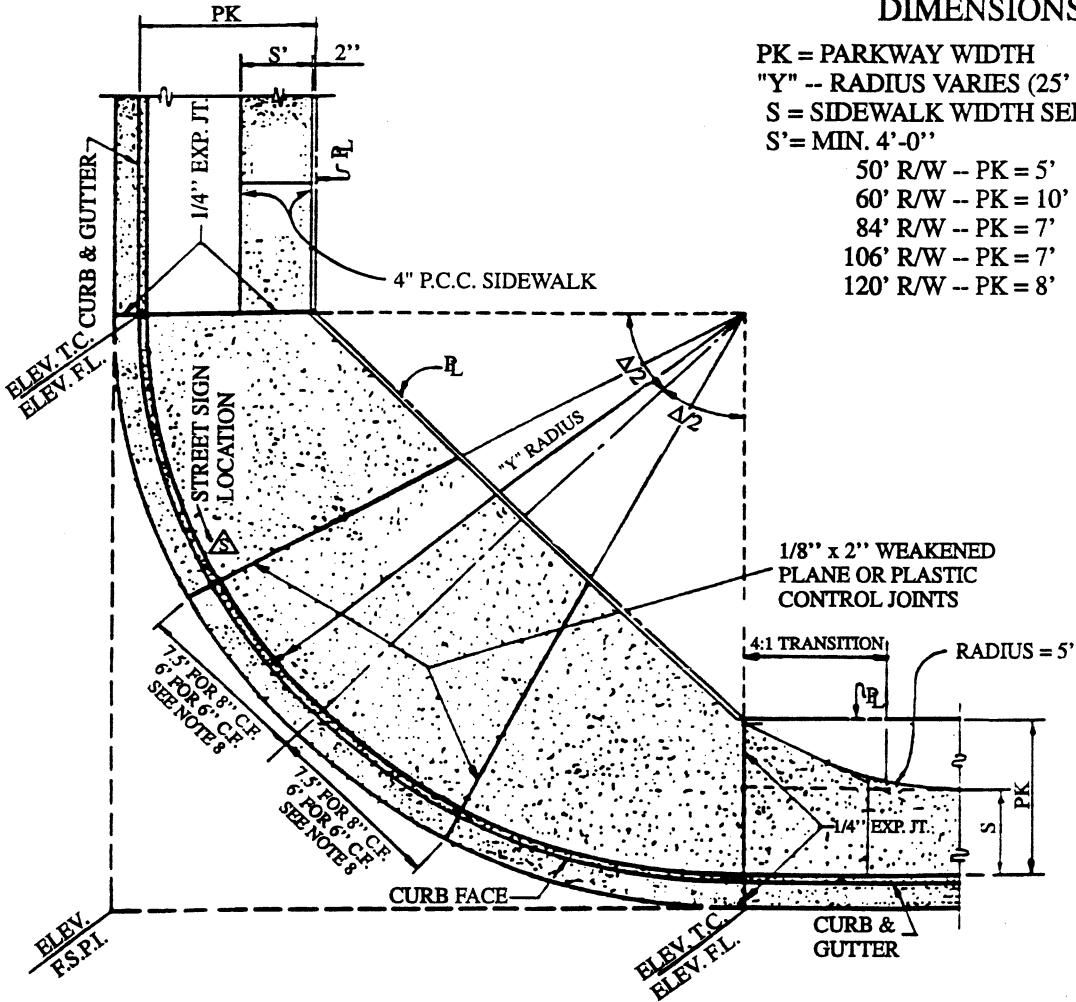
# City of San Juan Capistrano



REVISIONS	COMMERCIAL SIDEWALK DETAILS	STANDARD PLAN NO.
		331
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785      DATE <u>7/20/95</u>	SHT <u>2</u> OF <u>2</u>

**DIMENSIONS**

- PK = PARKWAY WIDTH
- "Y" -- RADIUS VARIES (25' OR 35')
- S = SIDEWALK WIDTH SEE NOTE 7
- S' = MIN. 4'-0"
- 50' R/W -- PK = 5'
- 60' R/W -- PK = 10'
- 84' R/W -- PK = 7'
- 106' R/W -- PK = 7'
- 120' R/W -- PK = 8'

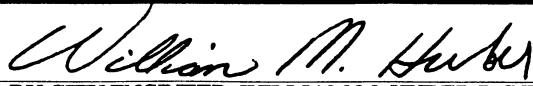


**NOTES:**

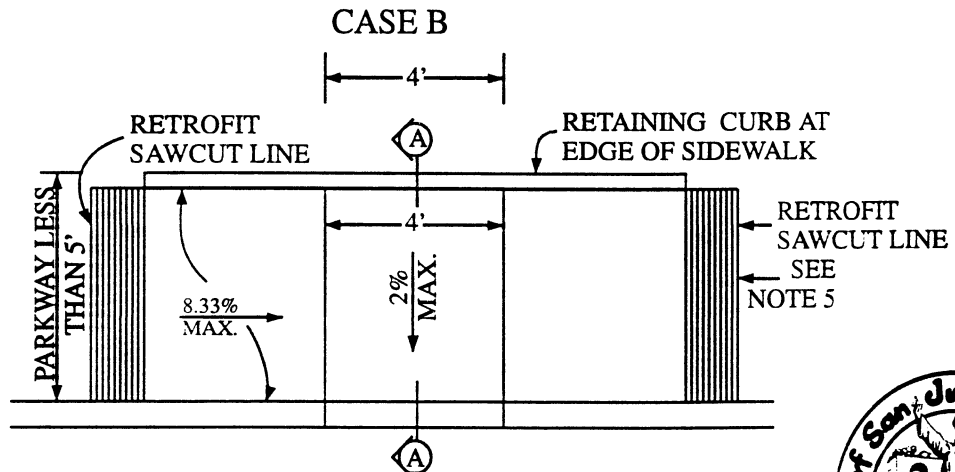
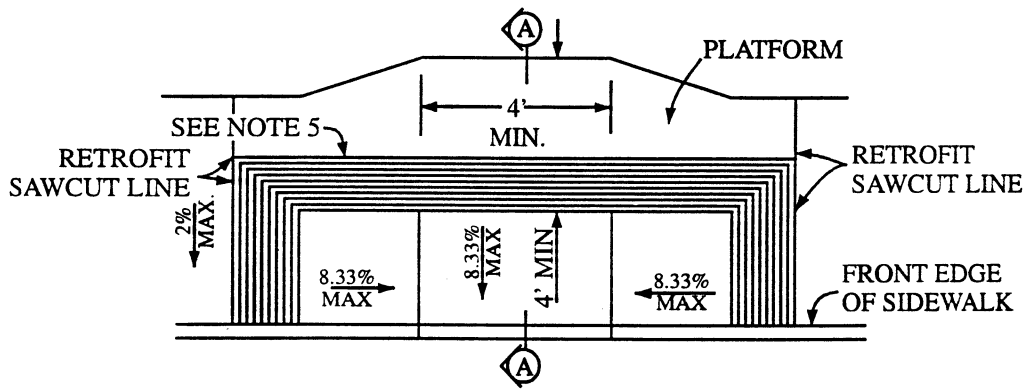
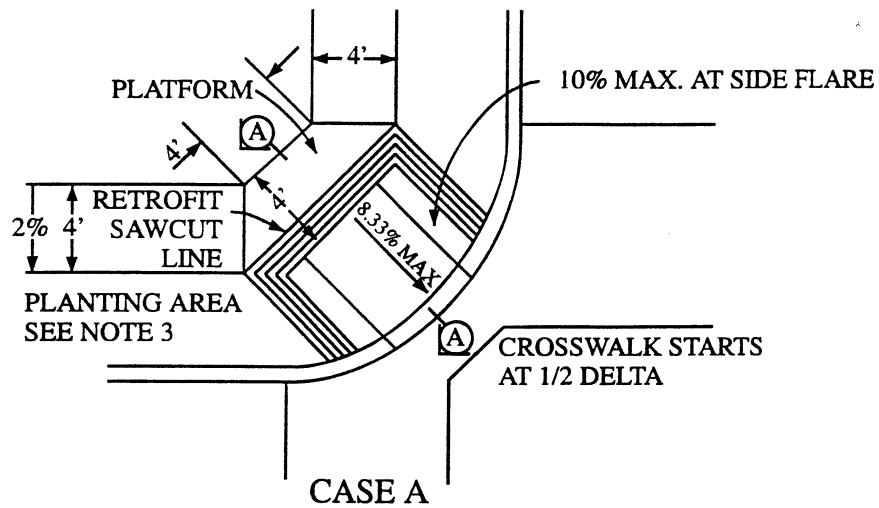
1. 1/4" EXPANSION JOINTS SHALL BE PLACED AT END OF CURB RETURNS.
2. 1/8" x 2" WEAKENED PLANE JOINTS SHALL BE PLACED SO AS NOT TO EXCEED 10' O.C. AT R.
3. FOR EXPANSION JOINT AND WEAKENED PLANE JOINT DETAILS, STD. PLAN NO. 320.
4. CONCRETE SHALL BE PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201 - 1.1.2. CLASS 520 - C - 2500.
5. ALL ELEVATIONS PER PLAN FOR CROSS GUTTERS F.S.P.I. PER STD. PLAN NO. 305 SHALL BE SHOWN ON PLAN.
6. FOR STREET RADIUS DATA, SEE STD. PLAN NO. 230.
7. SEE STD. PLAN NO. 330 AND 331 FOR BASE AND SIDEWALK REQUIREMENTS.
8. DIMENSION JOINTS TO BE COMPATIBLE WITH THE WHEELCHAIR RAMP. SEE STD. PLAN NO. 336.

**City of San Juan Capistrano**



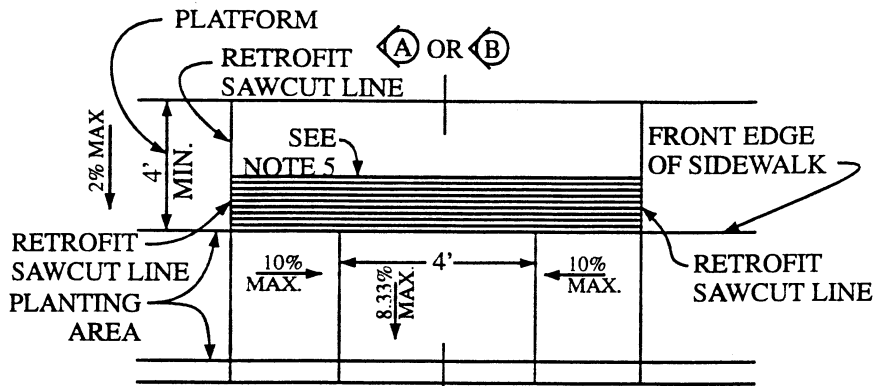
<b>REVISIONS</b>	<b>STANDARD SIDEWALK RETURN</b>	<b>STANDARD PLAN NO.</b>
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	<b>335</b>
	7/20/95 DATE	SHT 1 OF 1



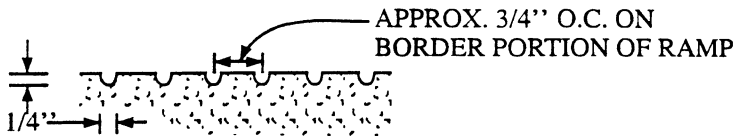
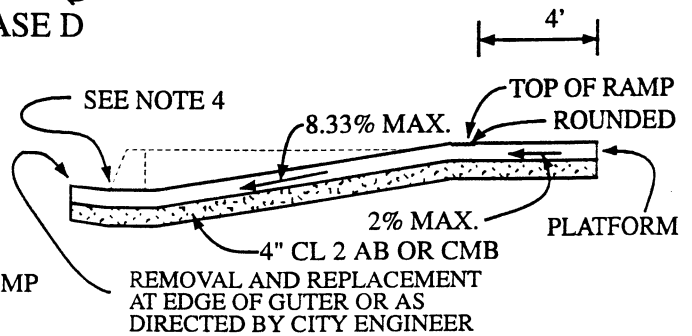
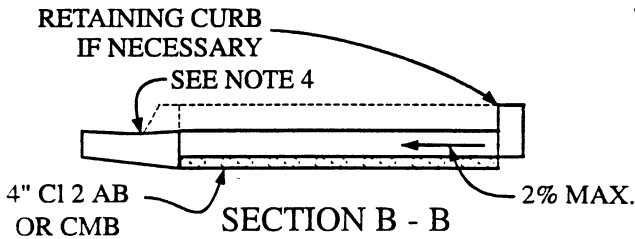


# City of San Juan Capistrano

REVISIONS   	<b>WHEELCHAIR RAMPS</b>	<b>STANDARD PLAN NO.</b>  <b>336</b>
<i>William M. Huber</i> APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95		SHT 1 OF 2



(A) OR (B)  
CASE D



GROOVING DETAIL

SECTION A - A

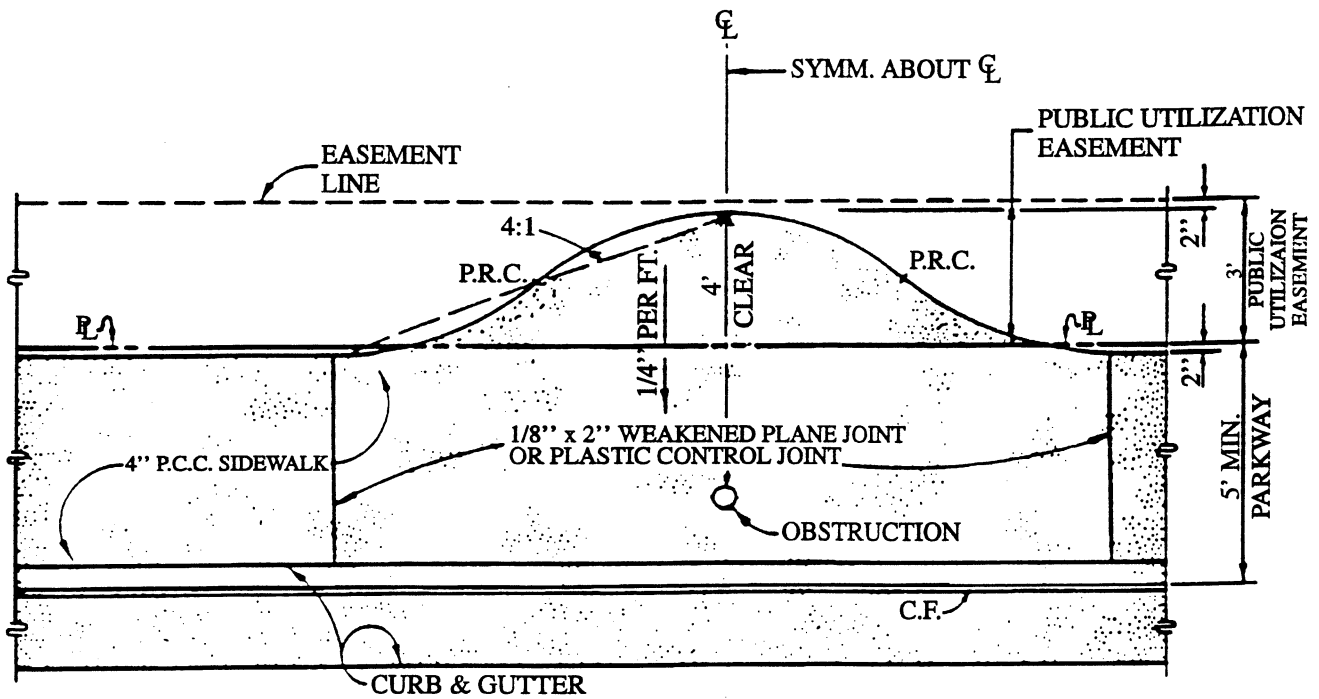
NOTES:

1. IF THE PARKWAY IS LESS THAN 8' WIDE, THE FULL WIDTH OF THE SIDEWALK SHALL BE DEPRESSED AS SHOWN IN CASE C.
2. CROSSWALK CONFIGURATION MUST ALIGN WITH THE RAMP TO ACCOMMODATE WHEELCHAIRS AND MODIFIED AS REQUIRED.
3. IF LOCATED ON A CURVE, THE SIDES OF THE RAMP NEED NOT BE PARALLEL, BUT THE MINIMUM WIDTH OF THE RAMP SHALL BE 4'.
4. THE BOTTOM OF THE RAMP SHALL HAVE A 3/8" LIP, WITH 1/4" PER FOOT SLOPE ON THE CURB.
5. THE RAMP SHALL HAVE A 12" WIDE BORDER WITH 1/4" GROOVES APPROXIMATELY 3/4" O.C.. SEE GROOVING DETAIL.
6. SEE STD. PLAN NO. 320, 335, AND 330 OR 331 FOR ADDITIONAL REQUIREMENTS OF JOINTS, RETURNS AND SIDEWALKS.
7. WHEN SIDEWALK IS ADJACENT TO THE CURB, SIDE SLOPE SHALL BE A MAXIMUM OF 8.33%.
8. RETAINING CURB SHALL BE CONSTRUCTED AT THE BACK OF THE SIDEWALK WHEN NECESSARY.

# City of San Juan Capistrano



REVISIONS	WHEELCHAIR RAMPS	STANDARD PLAN NO.
		336
	<i>William M. Huber</i>	
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	DATE
	7/20/95	SHT 2 OF 2



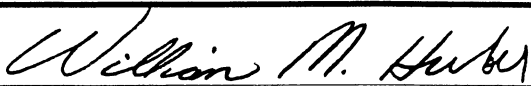
PLAN

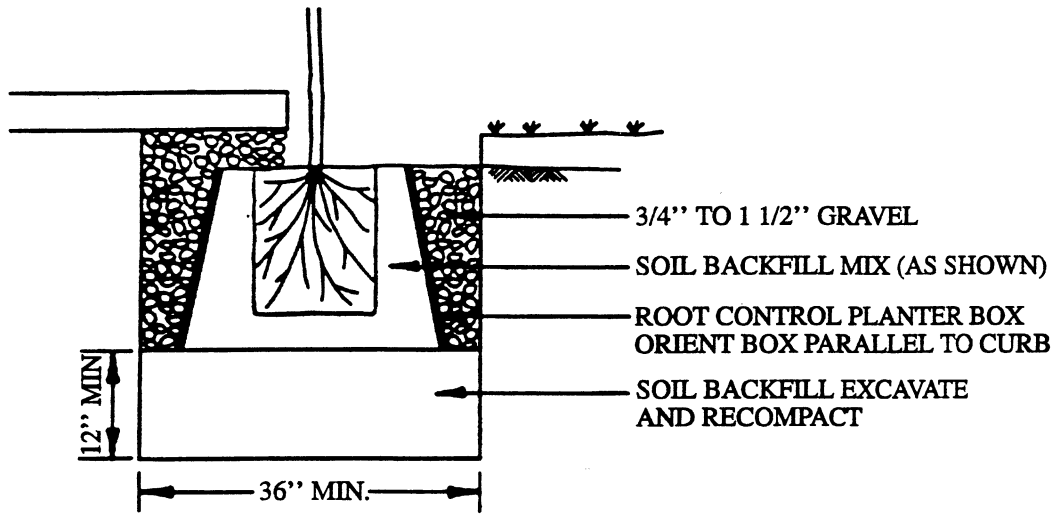
NOTES:

1. FOR STANDARD SIDEWALK DETAILS, SEE STD. PLAN NO. 330 AND/OR 331.
2. FIRE HYDRANTS SHALL BE LOCATED PER CVWD STDS.
3. NO VERTICAL OBSTRUCTION WITHIN 3' CLEAR OF DRIVEWAY TOP OF "X".
4. MAILBOXES SHALL BE 6" CLEAR OFF THE CURB FACE. ULTIMATE LOCATION, HEIGHT, AND MATERIAL TO BE APPROVED BY LOCAL POSTMASTER.
5. POWER POLES, GUY ANCHORS, STREET NAME SIGNS/POLES AND TRAFFIC SIGNS/POLES SHALL BE 18" CLEAR OFF CURB FACE, UNLESS BEHIND THE SIDEWALK, AND 7' VERTICALLY CLEAR FROM FINISHED SURFACE.
6. SEE STD. PLAN NO. 610 AND 615 FOR PLACEMENT OF TRAFFIC SIGNAL AND STREET LIGHTING POLES.

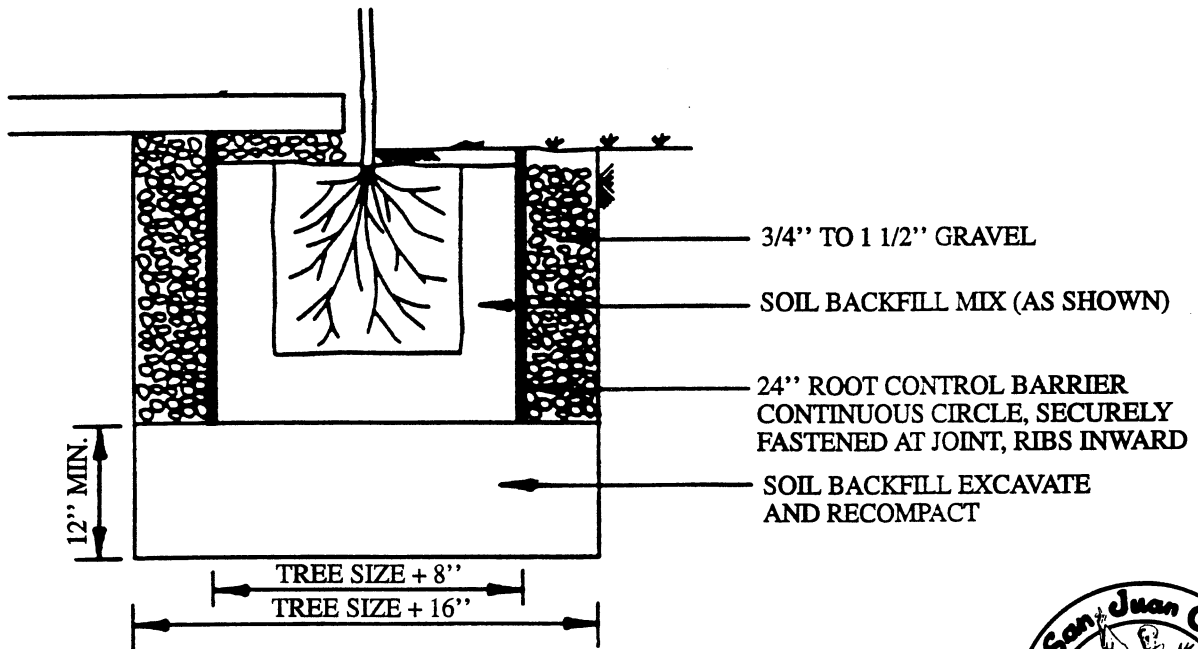


# City of San Juan Capistrano

REVISIONS	SIDEWALK OBSTRUCTION FLARE	STANDARD PLAN NO.  340
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	7/20/95 DATE
		SHT 1 OF 1



FOR 15 GAL./20'' ROOT BALL OR SMALLER

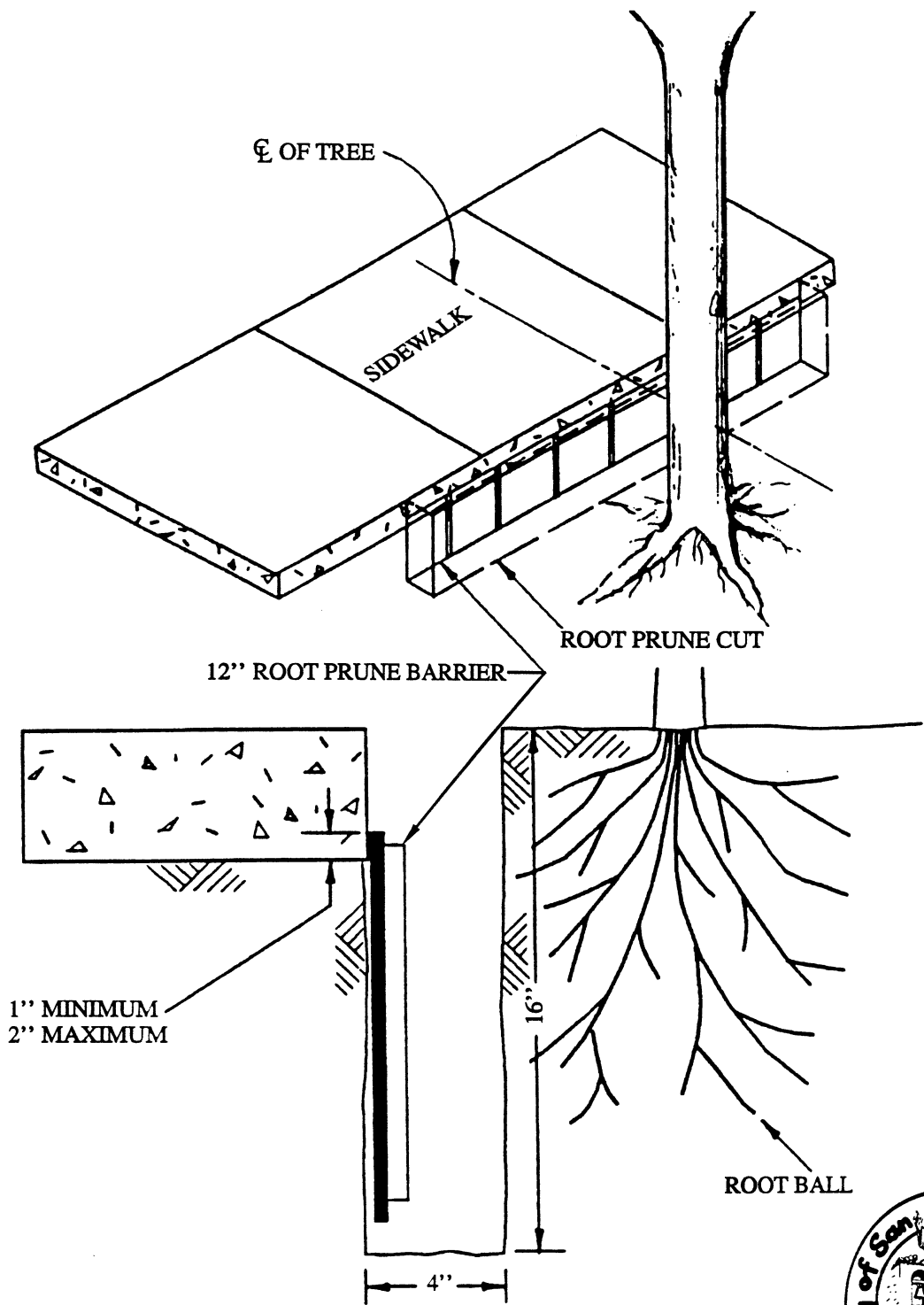


FOR LARGER THAN 15 GAL. OR 20'' BOX

# City of San Juan Capistrano



REVISIONS	TREE ROOT BARRIER	STANDARD PLAN NO.
		341
	<p><i>William M. Huber</i> 7/20/95          APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	SHT 1 OF 3



# City of San Juan Capistrano



REVISIONS	<p>TREE ROOT BARRIER</p> <p><i>William M. Huber</i></p>	STANDARD PLAN NO.
		<p>341</p>
	<p>APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95</p>	SHT 2 OF 3

NOTES:

1. ROOT CONTROL PLANTER BOX AND ROOT CONTROL BARRIER SHALL BE FABRICATED FROM A HIGH DENSITY, HIGH IMPACT PLASTIC, I.E. POLYSTYRENE, POLYETHYLENE, POLYVINYL CHLORIDE (PVC), OR ACRYLONITRILE - BUTADINE - STYRENE (ABS). THE INTERIOR SURFACE SHALL HAVE 1/2" HIGH MINIMUM RAISED VERTICAL RIBS SPACED 6" TO 8" APART THE FULL DEPTH OF THE BOX OR BARRIER AND SHALL BE EXPRESSLY DESIGNED FOR ROOT DEFLECTION.

PLANTER BOXES SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: TOP 22" x 22", BOTTOM 29" x 29", DEPTH 18" WITH A MINIMUM THICKNESS OF 0.06".

BARRIER USED FOR TREE PLANTING SHALL HAVE A MINIMUM DEPTH OF 24" WITH A MINIMUM THICKNESS OF 0.06". THE BARRIER SHALL FORM A CONTINUOUS CIRCLE (OR APPROXIMATE CIRCLE SHAPE) AROUND THE ROOTBALL WITH A MINIMUM DIAMETER 8" GREATER THAN THE ROOT BALL. THE ENDS AND ANY JOINTS SHALL BE SECURELY FASTENED, USING AN ADHESIVE IN ADDITION TO FASTENERS IF NECESSARY.

BARRIER USED FOR ROOT PRUNING SHALL HAVE A MINIMUM DEPTH OF 12" WITH A MINIMUM THICKNESS OF 0.06". BARRIERS SHALL BE 16 FEET LONG IN ONE CONTINUOUS PIECE (PREFERRED) OR IN A COMBINATION OF PIECES, SECURELY FASTENED WITH ADHESIVE, IF APPROPRIATE, AT JOINT POINTS.

2. TREE TRIMMING: PRIOR TO ROOT PRUNING, EACH TREE SHALL BE TRIMMED IN ACCORDANCE WITH THE CITY MUNICIPAL CODE TO REDUCE ITS OVERALL SIZE, TO PROMOTE IMPROVED GROWTH, AND PROVIDE:

A: VERTICAL CLEARANCE OF 15.0 FEET OVER ROADWAYS 9.0 FEET OVER SIDEWALKS;

B: VISUAL CLEARANCE AROUND ALL TRAFFIC CONTROL DEVICES AND SIGNS;

C: REMOVAL OF ALL DEAD, DAMAGED, DISEASED, OR STRUCTURALLY DEFICIENT LIMBS;

D: THINNING TO REDUCE INTERIOR WIND RESISTANCE;

E: AN OVERALL BALANCED APPEARANCE.

3. ROOT PRUNING CUTS SHALL BE MADE IMMEDIATELY ADJACENT TO THE SIDEWALK AND SHALL BE 4" WIDE, 16" DEEP (MEASURED FROM THE TOP OF FINAL GRADE OF THE SIDEWALK) AND 16" LONG CENTERED 8' EITHER SIDE OF THE CENTER OF THE TREE. THE BOTTOM 13" OF THE ROOT PRUNE CUT SHALL BE FILLED WITH PEA GRAVEL, TO PROMOTE DEEPER WATERING, WITH THE TOP 3" OF NATIVE SOIL. AT LEAST 18 MONTHS SHALL TRANSPIRE BETWEEN ROOT PRUNING OPPOSITE SIDES OF A TREE.

4. CENTER TREE IN TREE WELL AND/OR BETWEEN CURB AND SIDEWALK.

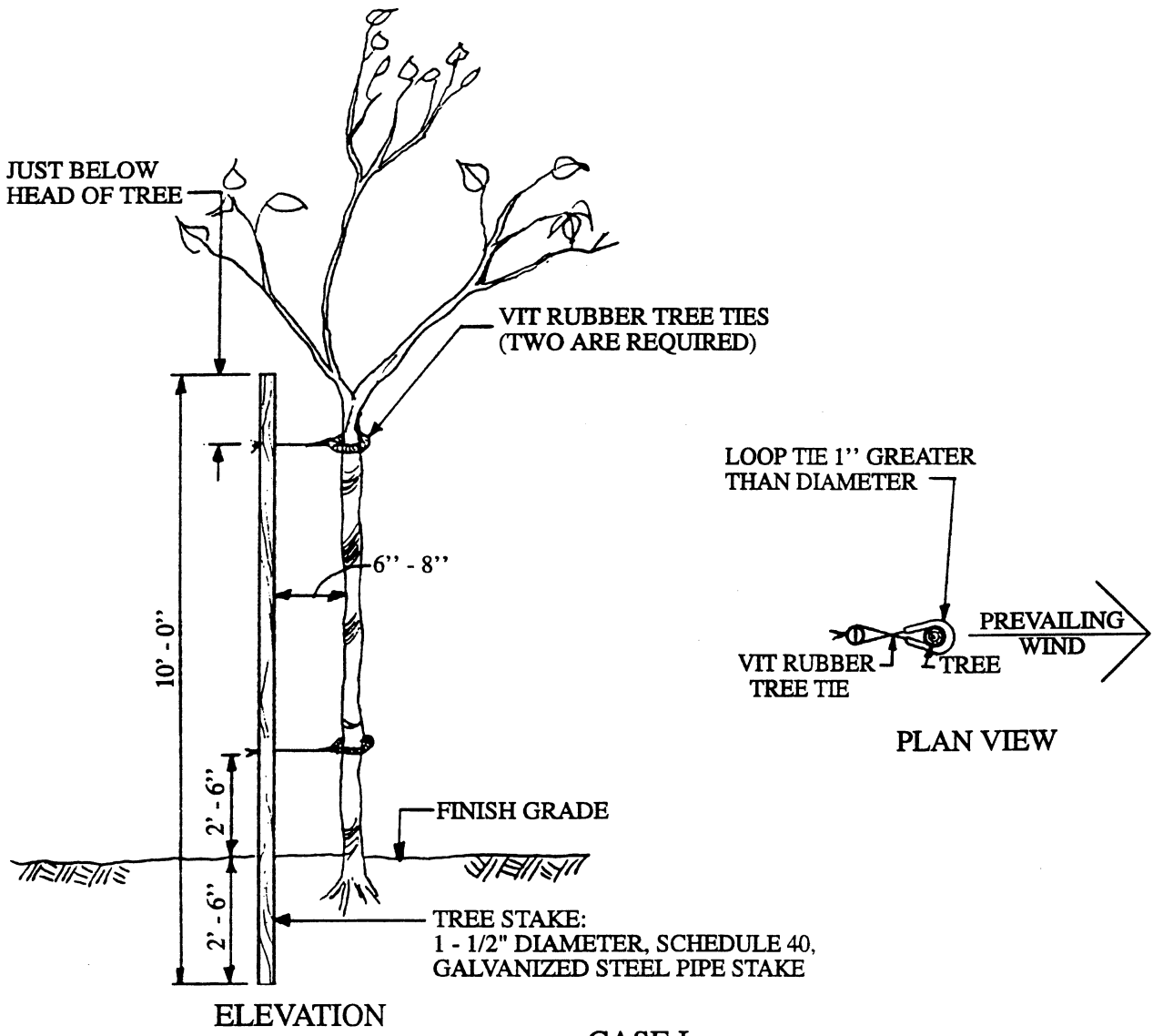
5. SEE STANDARD PLAN NO. 342 FOR TREE STAKING.

6. TREE LIST PER LANDSCAPING PLAN OR IMPROVEMENT PLAN.



# City of San Juan Capistrano

REVISIONS	TREE ROOT BARRIER	STANDARD PLAN NO.
		341
	<p style="text-align: center;"><i>William M. Huber</i> 7/20/95          APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	SHT 3 OF 3

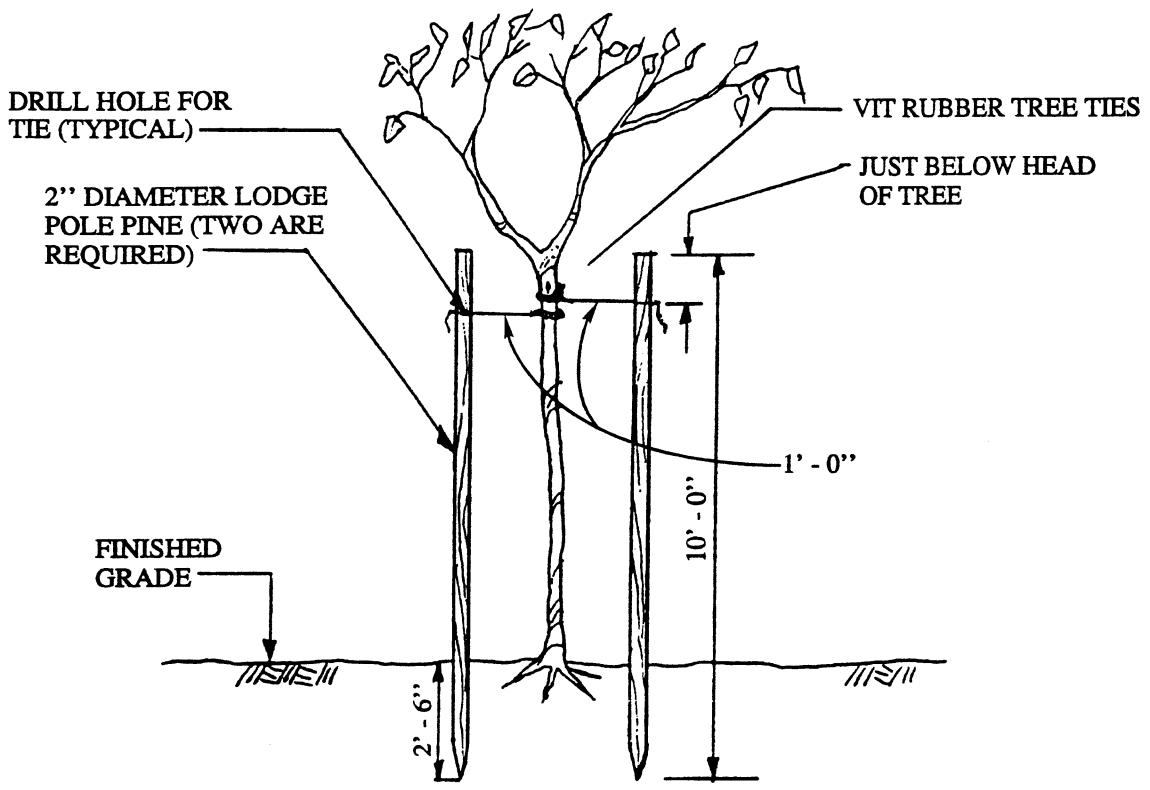


CASE I  
SINGLE STAKING

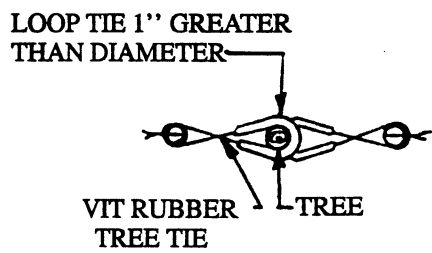
# City of San Juan Capistrano



REVISIONS	TREE STAKING	STANDARD PLAN NO.
		342
	<p><i>William M. Huber</i> 7/20/95          APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	SHT 1 OF 3



ELEVATION



PLAN VIEW

CASE II  
DOUBLE STAKING

NOTES:

STAKES SHALL HAVE UNIFORM DIAMETER, AND BE TREATED WITH COPPER NANTHANATE.



City of San Juan Capistrano

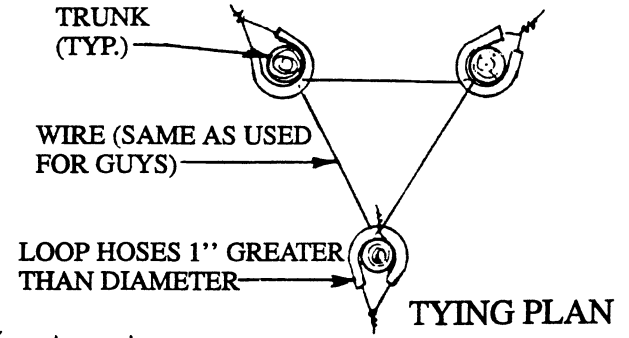
REVISIONS	TREE STAKING	STANDARD PLAN NO.
		342
	<p><i>William M. Huber</i> 7/20/95          APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	SHT 2 OF 3



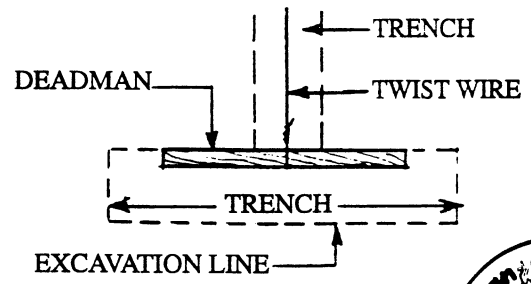
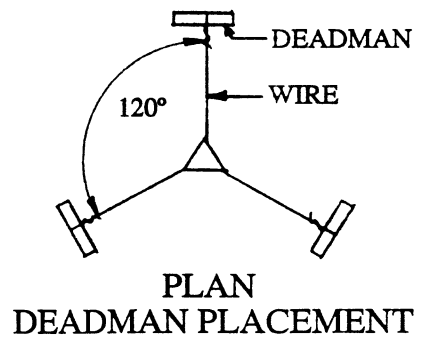
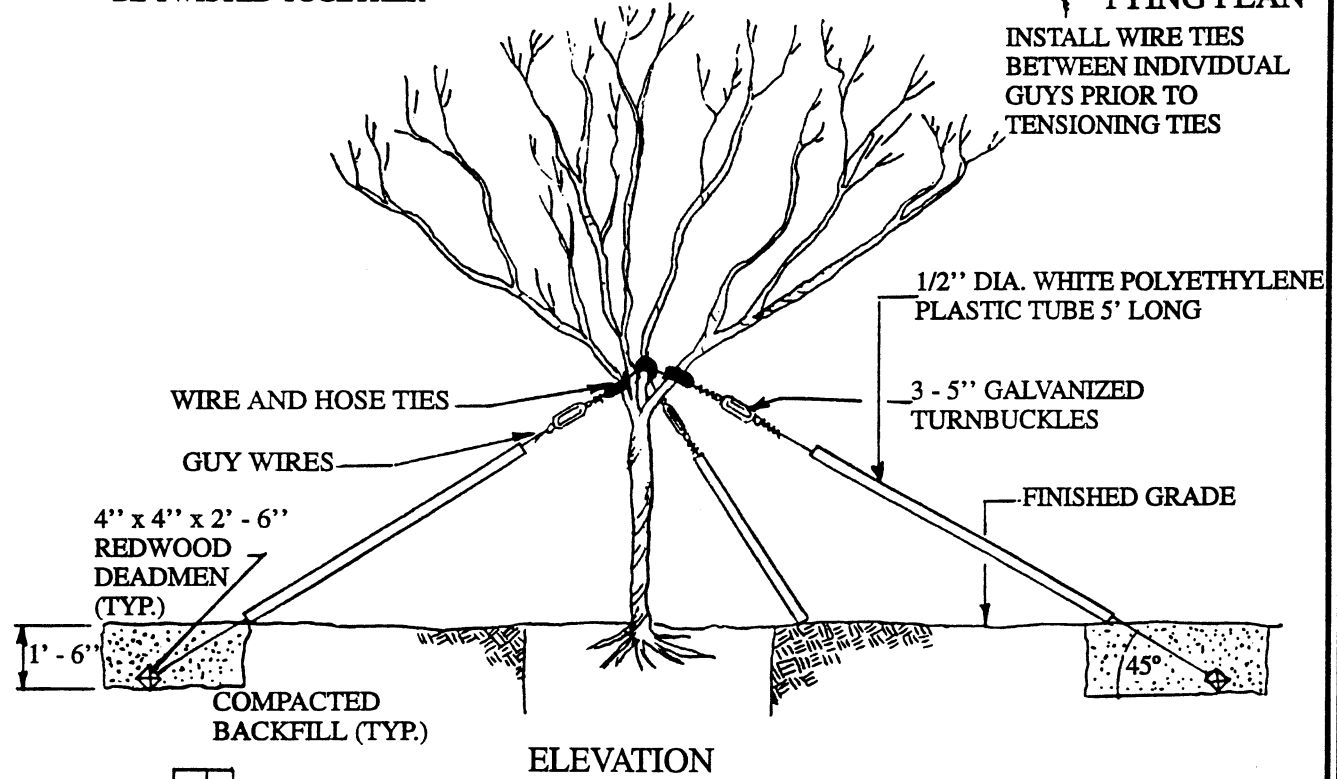
**GUY WIRE SIZES**

24" - 36" BOX	1 STRAND #12 BWG. ZINC COATED
36" - 48" BOX	2 STRAND #12 BWG. ZINC COATED
OVER 48"	3 STRAND #12 BWG. ZINC COATED

MULTIPLE STRANDS SHALL  
BE TWISTED TOGETHER



INSTALL WIRE TIES  
BETWEEN INDIVIDUAL  
GUYS PRIOR TO  
TENSIONING TIES



CASE III  
TREE GUYING

City of San Juan Capistrano

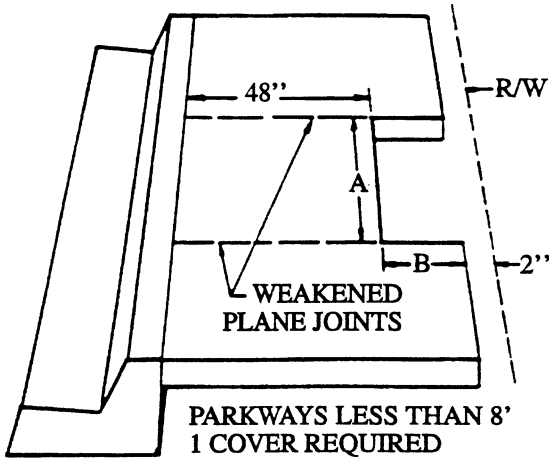


REVISIONS

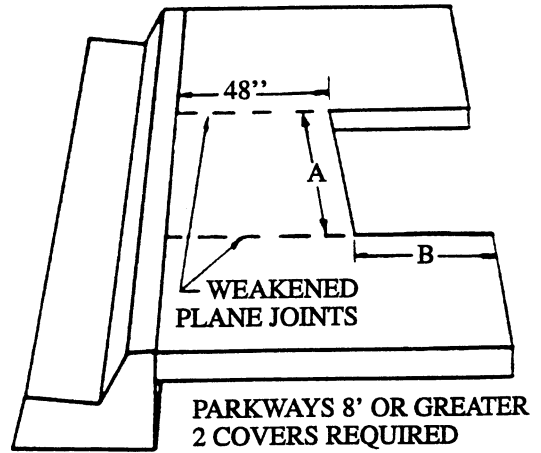
TREE STAKING

STANDARD  
PLAN NO.  
**342**

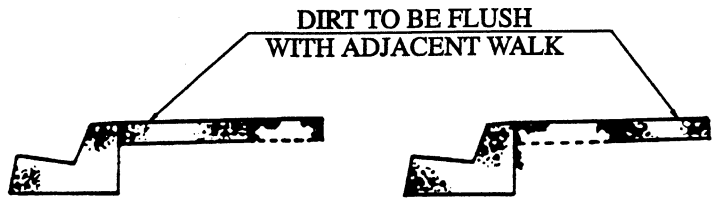
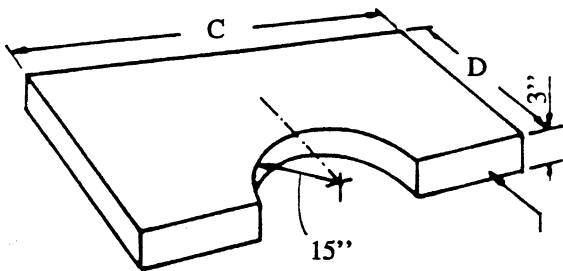
*William M. Huber* 7/20/95  
APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE



CASE I: 2' x 4' TREE WELL



CASE II: 4' x 4' TREE WELL

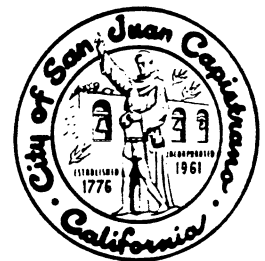



CASE	A	B	C	D
I	4' - 0"	2' - 0"	3' - 11"	1' - 11 1/2"
II	4' - 0"	4' - 0"	3' - 11"	1' - 11 1/2"

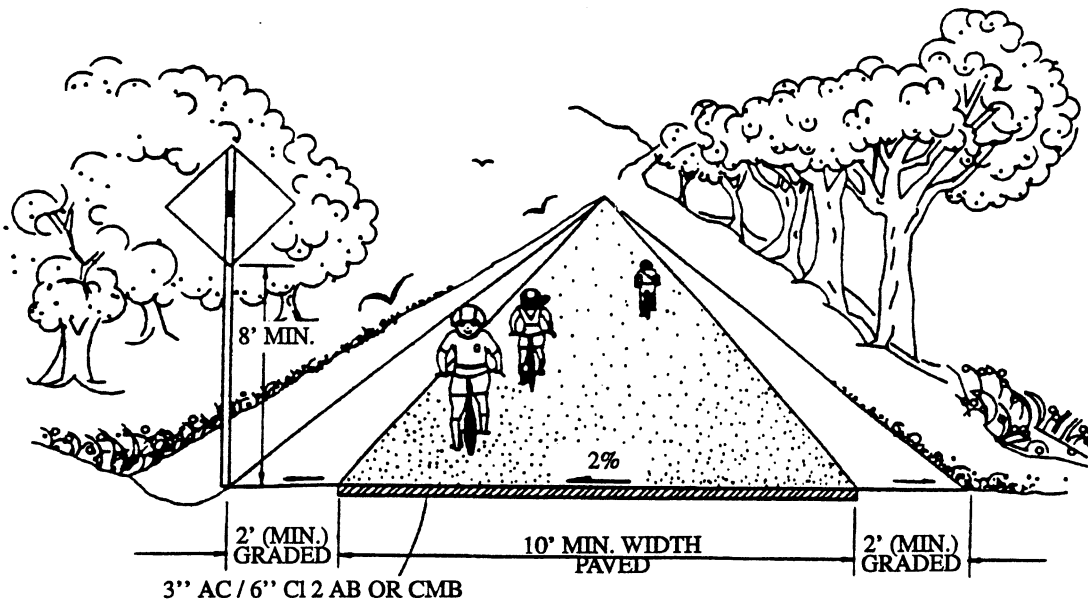
**NOTES:**

- TREE WELLS SHALL BE PLACED APPROXIMATELY 50' APART, BUT NOT LESS THAN ONE PER RESIDENTIAL LOT.
- LOCATION OF TREE WELLS WILL BE SUBJECT TO THE FOLLOWING CONDITIONS.
  - 25' FROM CURB RETURNS.
  - 15' FROM LIGHT STANDARDS AND POWER POLES.
  - 10' FROM FIRE HYDRANTS, DRIVEWAYS, HOUSE WALKS, UTILITY METERS, PEDESTALS.
  - 10' FROM ALL UTILITY LATERALS AND MAINS.
- COVERS ARE TO BE COLORED BUFF USING AN ACCEPTABLE COLORING AGENT.
- TREE WELLS ARE TO BE BACKFILLED WITH CLEAN DIRT AND FLUSH WITH ADJACENT WALK UNTIL TREES ARE PLANTED.

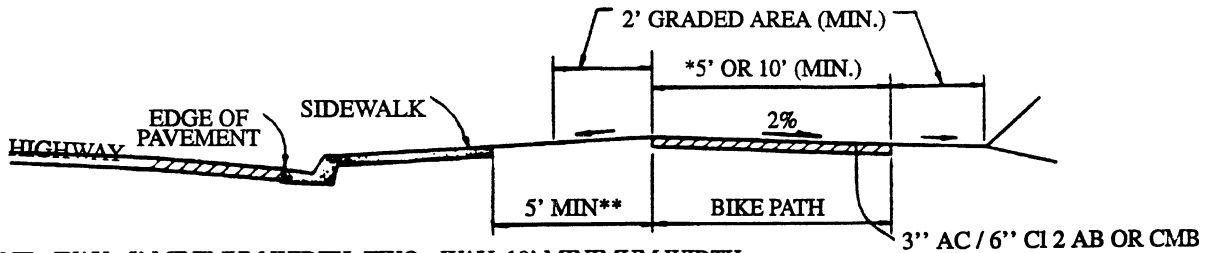
# City of San Juan Capistrano



REVISIONS	SIDEWALK TREE WELL AND COVER	STANDARD PLAN NO.
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	343
		SHT 1 OF 1

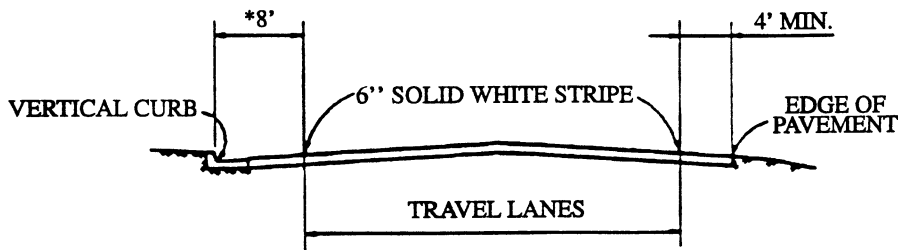


CLASS I BIKEWAY ON SEPARATE RIGHT OF WAY  
TYPICAL SECTION



\* ONE - WAY: 5' MINIMUM WIDTH; TWO - WAY: 10' MINIMUM WIDTH  
\*\*5' SHALL BE MEASURED FROM CURB FACE, IF NO SIDEWALK REQUIRED

CLASS I BIKEWAY ALONG HIGHWAY  
TYPICAL SECTION



\*ADDITIONAL WIDTH SHOULD BE PROVIDED IF PARKING IS ANTICIPATED.  
5' MINIMUM IS ACCEPTABLE IF MORE WIDTH IS NEEDED IN THE TRAVEL  
WAY OF EXISTING ROADWAYS TO PROVIDE FOR ADDITIONAL TURN LANES.

CLASS I BIKEWAY ALONG HIGHWAY  
TYPICAL SECTION

# City of San Juan Capistrano



REVISIONS

STANDARD BIKE TRAIL

STANDARD  
PLAN NO.

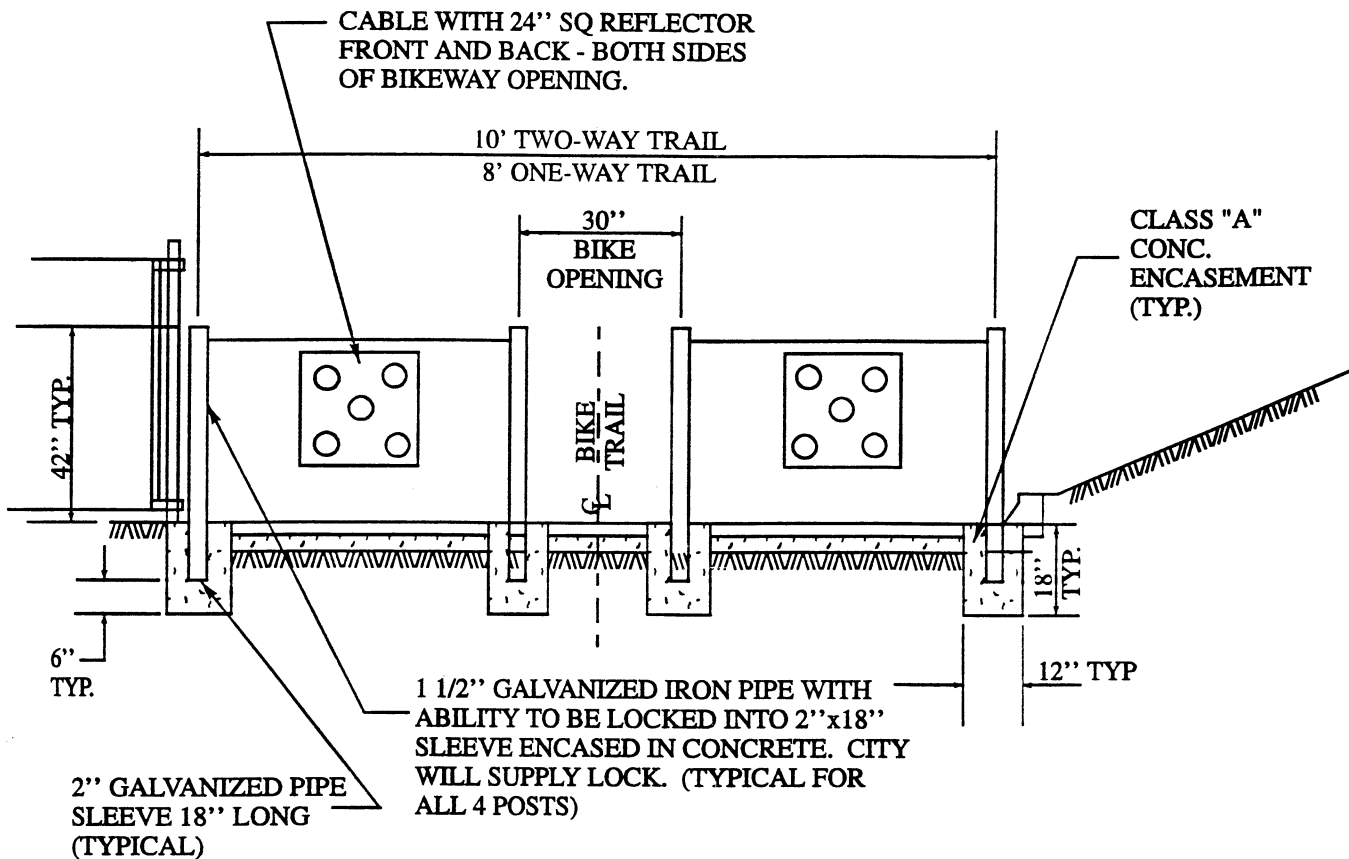
345

*William M. Huber*

7/20/95

APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 4



DETAIL - TRAFFIC GUARD

City of San Juan Capistrano



REVISIONS

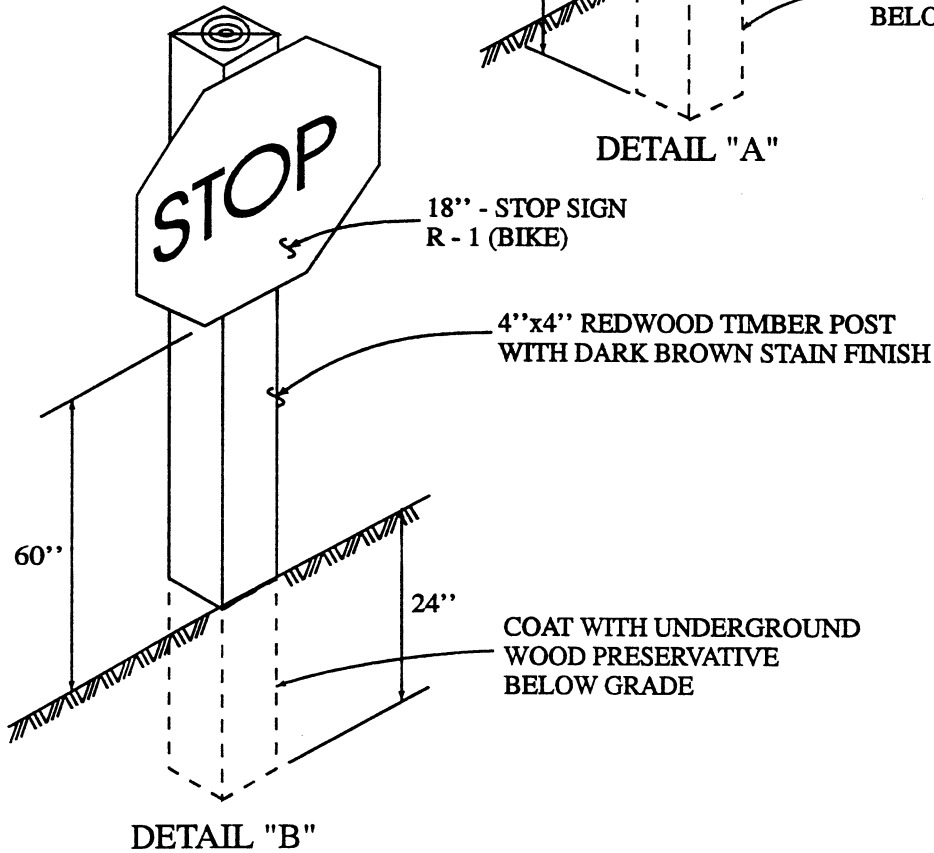
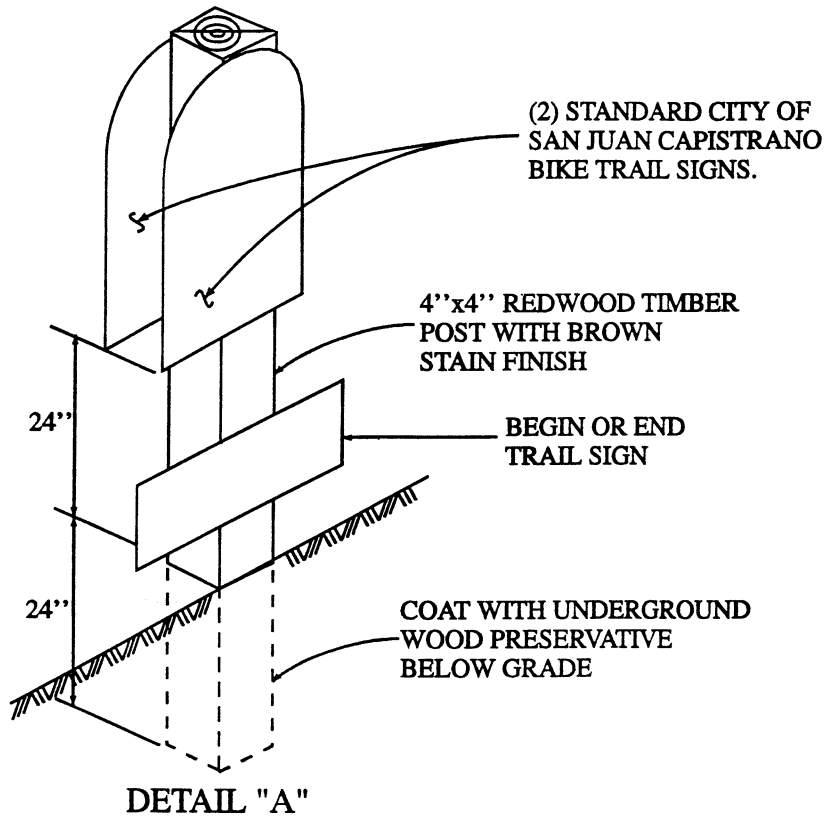
STANDARD BIKE TRAIL

STANDARD PLAN NO.

345

*William M. Huber* 7/20/95  
 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

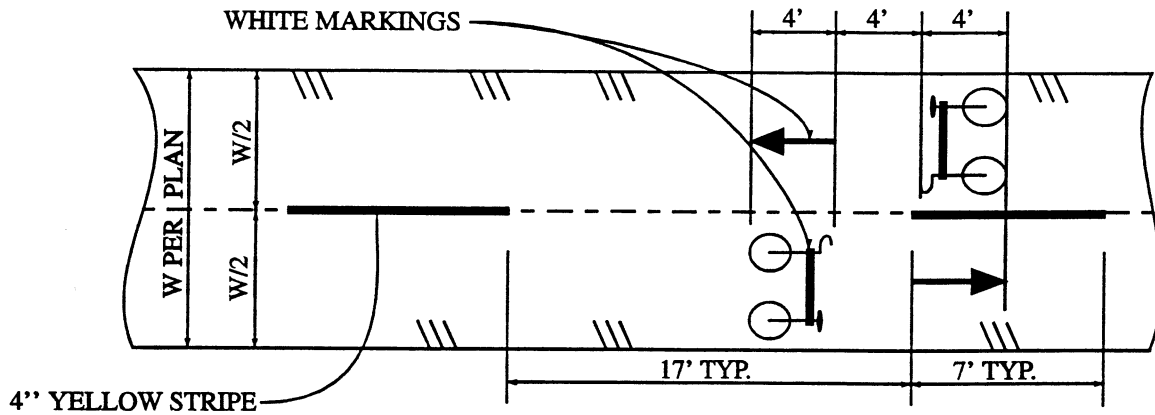
SHT 2 OF 4



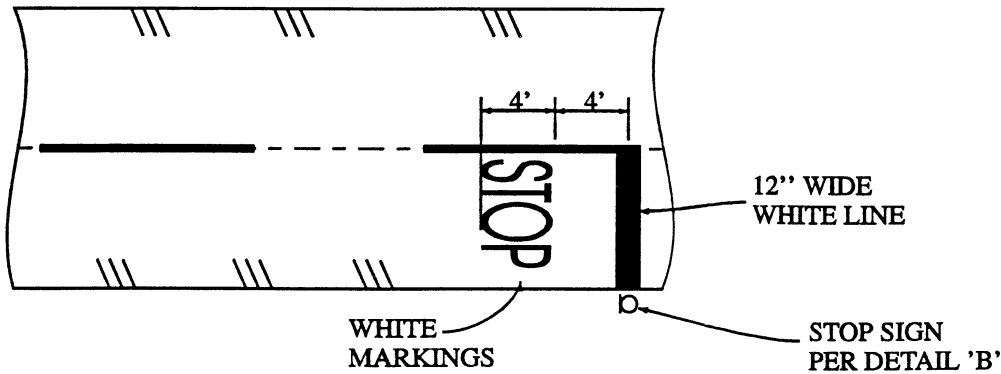
# City of San Juan Capistrano



REVISIONS	STANDARD BIKE TRAIL	STANDARD PLAN NO.
		345
	<p style="text-align: center;"><i>William M. Huber</i></p> <p style="text-align: center;">APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785</p>	<p style="text-align: center;">7/20/95</p> <p style="text-align: center;">DATE</p>



DETAIL "C" - TWO WAY BIKE TRAIL  
PAVEMENT MARKING AND STRIPING



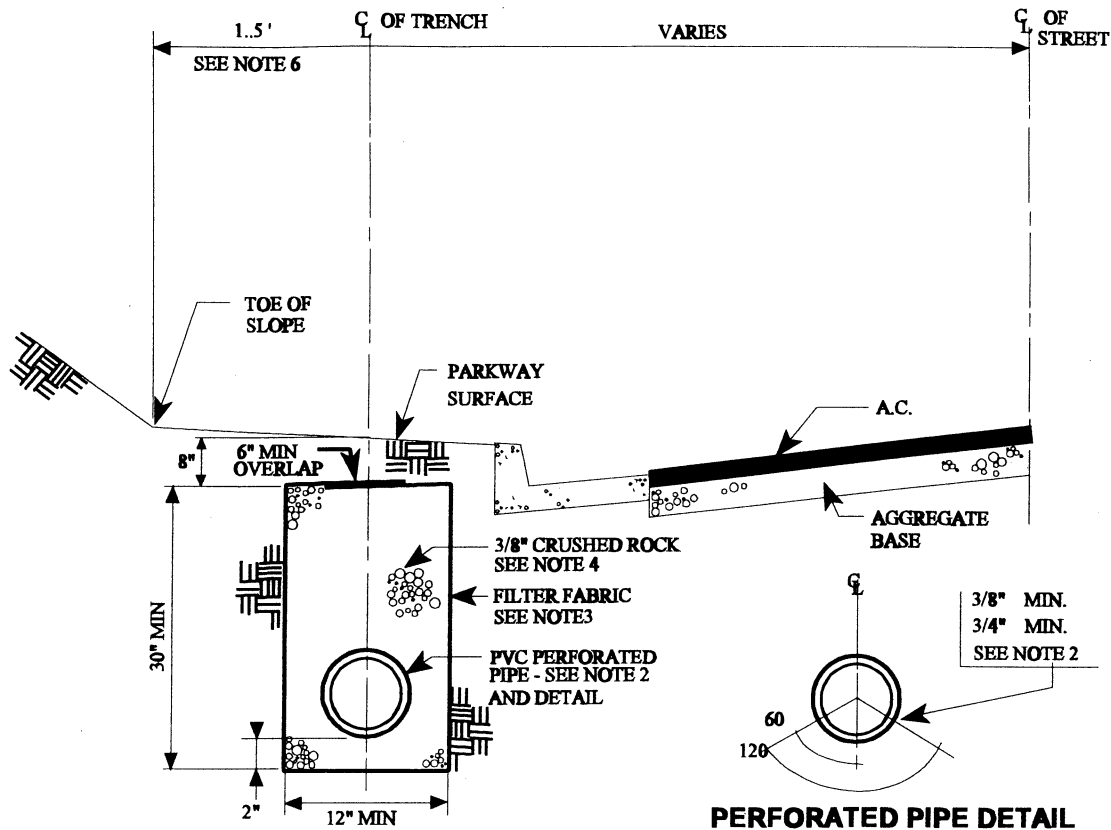
DETAIL "D"

NOTE:  
BICYCLE SYMBOL AND ARROW SHALL BE PLACED  
AT THE BEGINNING AND ENDING POINTS OF TRAIL,  
AT INTERSECTION LOCATIONS, AND AS SPECIFIED ON PLANS.



# City of San Juan Capistrano

REVISIONS	STANDARD BIKETRAIL	STANDARD PLAN NO.
		345
	<i>William M. Huber</i>	7/20/95
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	DATE
		SHT 4 OF 4



**PERFORATED PIPE DETAIL**  
NTS

**NOTES**

1. SUBDRAIN SHALL BE INSTALLED TO ACCUMULATE WATER LEACHING TOE OF HILLSIDE SLOPES AND TO PREVENT DAMAGE TO ADJACENT STREETS .
2. PIPE SPECIFICATIONS: DRAIN PIPE SHALL BE A MIN. OF 4" DIAMETER. (6" MIN. FOR RUNS OF 500' OR GREATER OR AS RECOMMENDED BY SOILS ENGINEER). SCHEDULE 40 PVC PIPE OR GREATER SHALL BE USED OR AS APPROVED BY ENGINEER. 2 ROWS OF PERFORATIONS SHALL BE 120° APART AND HOLES SHALL BE SPACED LONGITUDINALLY AT 4" O.C. OR AS RECOMMENDED BY THE SOILS ENGINEER AND APPROVED BY THE ENGINEER. PERFORATIONS SHALL BE PLACED FACING DOWN TO PREVENT CLOGGING AND TO MAXIMIZE WATER COLLECTION.
3. FILTER FABRIC SHALL CONFORM TO CALTRANS SPECIFICATIONS SECTION 88-1.03 SUPAC 4NP OR EQUIVALENT MAY BE USED. PLACEMENT OF FILTER FABRIC SHALL CONFORM TO SECTION 300-10.1.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
4. 3/8" CRUSHED ROCK SHALL CONFORM TO SECTION 200-1.2 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
5. SUBDRAIN SHALL BE CONNECTED TO THE STORM DRAIN SYSTEM OR APPROVED OUTLET (WHEN CONSTRUCTING TRENCH FOR SUBDRAIN, THE SURROUNDING NATIVE SOIL SHOULD BE MINIMALLY DISTURBED TO PREVENT FUTURE CLOGGING).
6. SUBDRAIN SHALL BE INSTALLED AT THE BASE OF ALL HILLSIDE SLOPES WHEN SLOPES OF 10' IN HEIGHT OR MORE ARE ADJACENT TO ANY STREET (TOE OF SLOPE IS WITHIN 20' FROM EDGE OF PAVEMENT OR CURB FACE), AND/OR WHEN SLOPES ARE GREATER THAN 30' IN HEIGHT.



**City of San Juan Capistrano**

REVISIONS

SUBDRAIN BARRIER STANDARD  
TRENCH INTERCEPTER

STANDARD  
PLAN NO.

*William M. Huber*

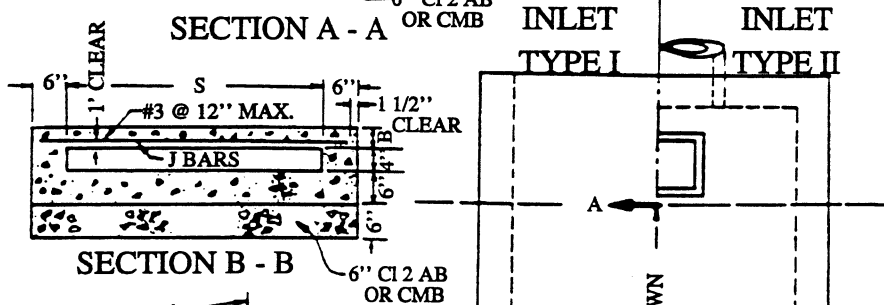
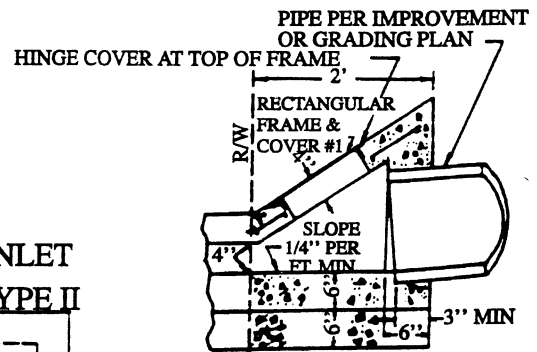
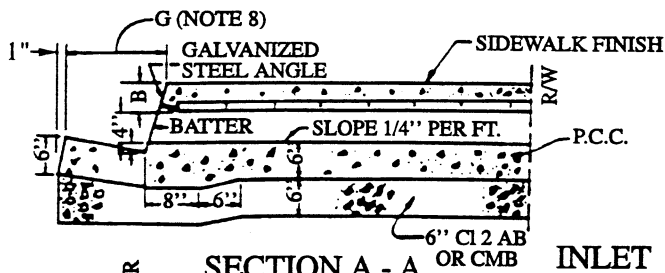
4/25/97

APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785

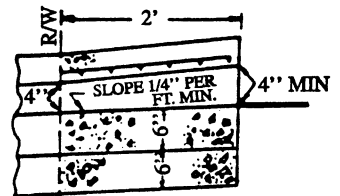
DATE

350

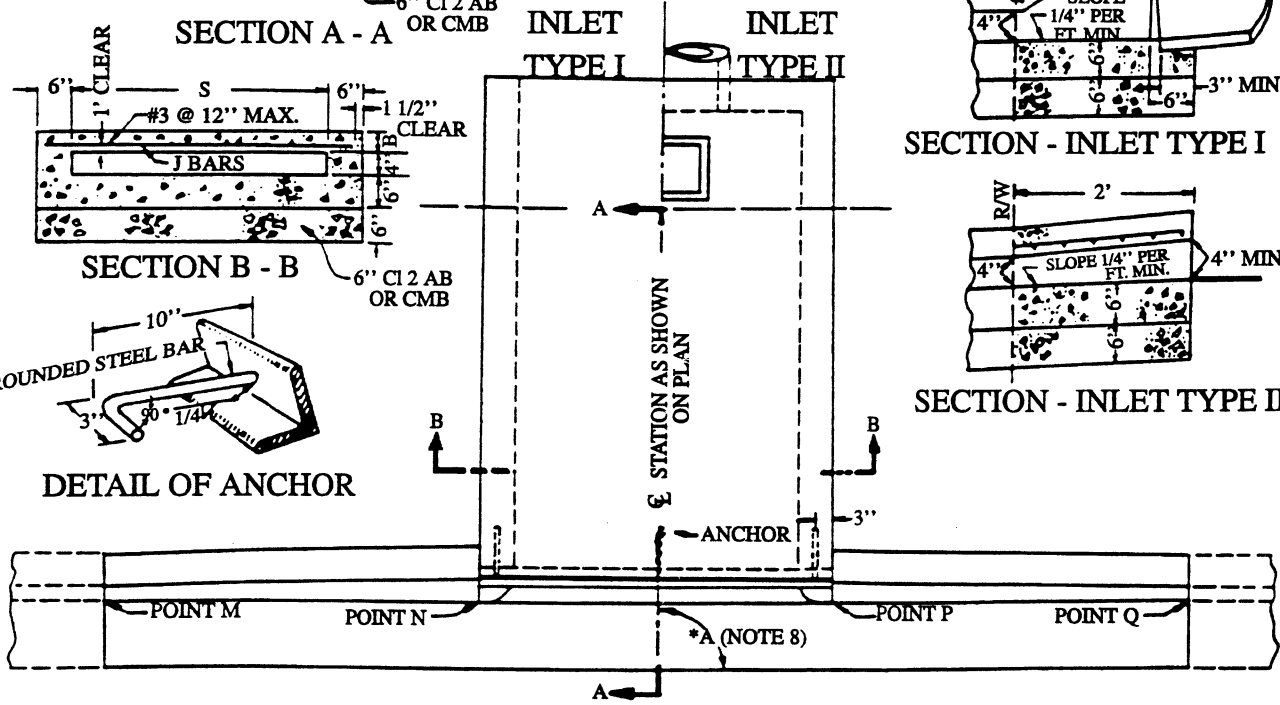
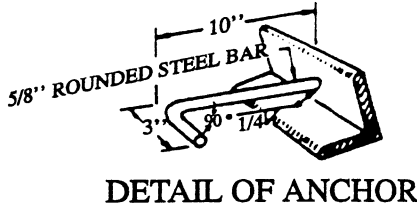
SHT 1 OF 1



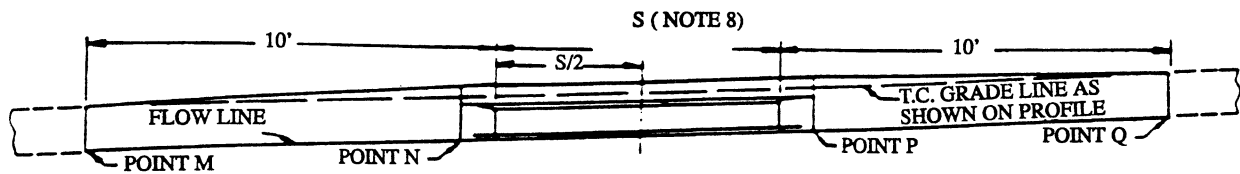
SECTION - INLET TYPE I



SECTION - INLET TYPE II



PLAN



PROFILE

SEE SHEET 2 FOR NOTES AND TABLES



# City of San Juan Capistrano

REVISIONS	PARKWAY DRAIN NO. 1	STANDARD PLAN NO.
	<i>William M. Huber</i>	351
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	7/20/95 DATE



NOTES:

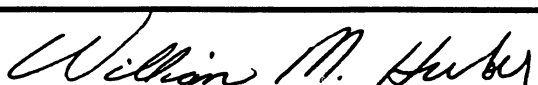
1. FLOOR OF BOX TO BE TROWELED SMOOTH
2. WHEN THE TOE OF THE SLOPE IS WITHIN THE R/W, INLET TYPE I BEGINS AT THE TOE RATHER THAN AT THE R/W LINE.
3. FOR OPEN DITCH APPROACH (TYPE II) THE 2' EXTENSION IS NOT REQUIRED WHEN THE BACK OF WALK IS 2' OR MORE FROM THE R/W LINE.
4. TOP OF INLET STRUCTURE (TYPE I & II) TO BE FLUSH WITH ADJACENT SURFACE WHERE PRACTICABLE.
5. A HEADED STEEL STUD 5/8" x 6 3/8" WITH HEAD D = 1" ATTACHED BY A FULL PENETRATION BUTT WELD MAY BE USED AS AN ALTERNATE ANCHOR.
6. NORMAL CURB FACE AT POINT M AND Q, B + 5" AT POINT N AND P.
7. THE 3" LEG OF THE INTERIOR ANCHORS SHALL BE PARALLEL TO THE TOP OF SIDEWALK.
8. G, S, AND ANGLE A SHALL BE PER IMPROVEMENT PLANS.
9. CURB BATTER SHALL CONFORM TO THE EXISTING ADJOINING CURB. SEE STD. PLAN NO. 301.
10. CONCRETE SHALL BE CLASS 560 - C - 3250 PER STANDARD SPECIFICATIONS SECTION 201-1.1.2.

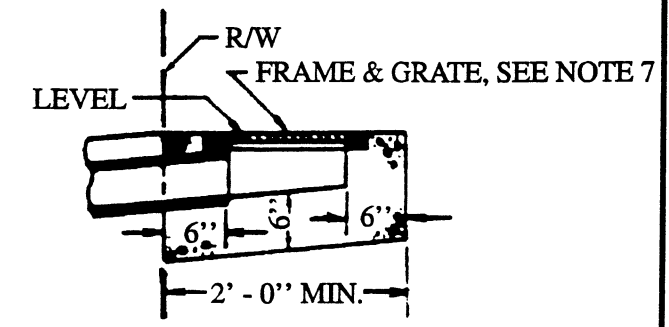
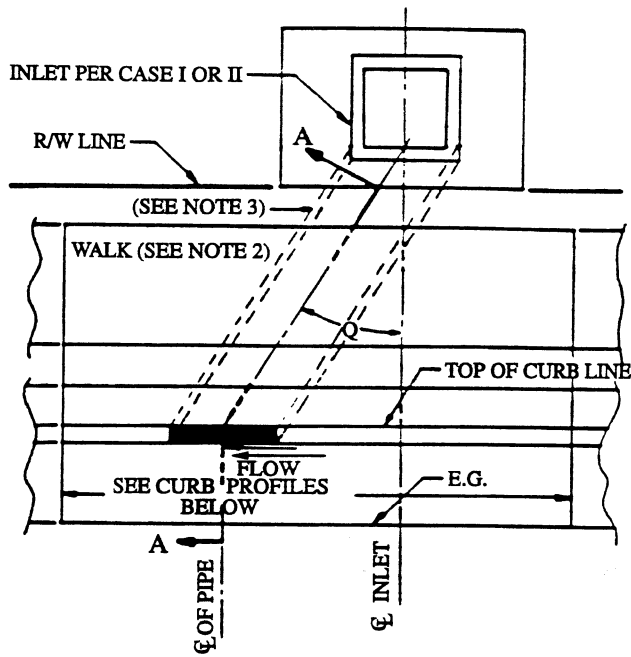
STEEL LIST

S	B	GALVANIZED STEEL ANGLE	ANCHOR	JBAR		
				SIZE	SPACING	LENGTH
1' - 0"	3"	2 1/2" x 2" x 3/8"	2	#3	7"	1' - 9"
1' - 6"	3"	2 1/2" x 2" x 3/8"	2	#3	7"	2' - 3"
2' - 0"	3"	2 1/2" x 2" x 3/8"	2	#3	7"	2' - 9"
2' - 6"	3"	2 1/2" x 2" x 3/8"	2	#3	7"	3' - 3"
3' - 0"	3"	2 1/2" x 2" x 3/8"	2	#3	7"	3' - 9"
3' - 6"	3"	2 1/2" x 2" x 3/8"	2	#3	6"	4' - 3"
4' - 0"	3"	2 1/2" x 2" x 3/8"	2	#3	5"	4' - 9"
4' - 6"	4"	3 1/2" x 3" x 1/2"	2	#3	6 1/2"	5' - 3"
5' - 0"	4"	3 1/2" x 3" x 1/2"	2	#3	5"	5' - 9"
5' - 6"	4"	3 1/2" x 3" x 1/2"	2	#3	4"	6' - 3"
6' - 0"	4"	3 1/2" x 3" x 1/2"	2	#3	3 1/2"	6' - 9"

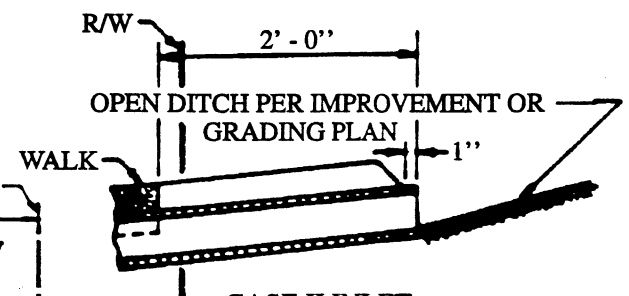


City of San Juan Capistrano

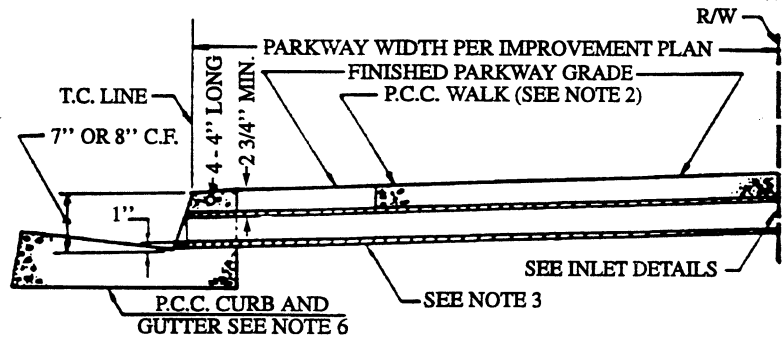
REVISIONS	PARKWAY DRAIN NO. 1	STANDARD PLAN NO.
		
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	DATE 7.20/95



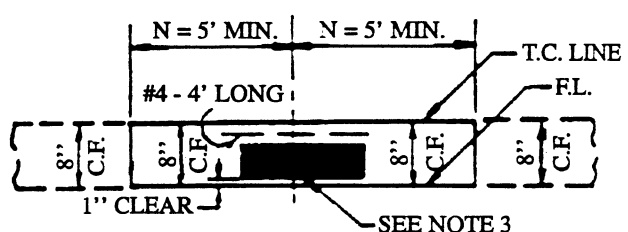
CASE I INLET  
DROP INLET CATCH BASIN SECTION



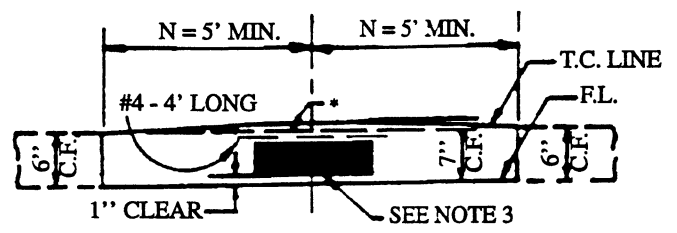
CASE II INLET  
GRADED DITCH SECTION



SECTION A-A



CURB PROFILE  
8" NORMAL CURB FACE



CURB PROFILE  
6" NORMAL CURB FACE

SEE SHEET 2 FOR NOTES

# City of San Juan Capistrano



REVISIONS

**PARKWAY DRAIN NO.2**

*William M. Huber* 7/20/95  
APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

**STANDARD  
PLAN NO.**

**352**


SHT. 1 OF 2

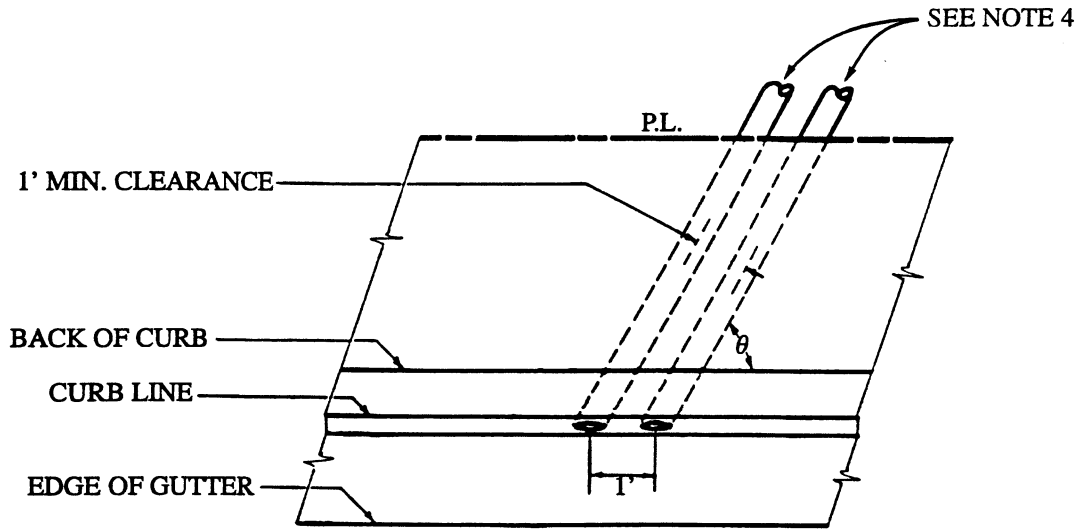
NOTES:

1. TOP OF INLET STRUCTURE (CASE 1) TO BE FLUSH WITH ADJACENT SURFACE.
2. CONSTRUCT P.C.C. WALK AND CURB AND GUTTER AS SPECIFIED ON PLAN. MINIMUM REPLACEMENT OF WALK AND CURB AND GUTTER SHALL BE FROM JOINT TO JOINT OR AS DIRECTED BY THE CITY ENGINEER. SEE STD. PLAN NO. 330 OR 331. THE CONTRACT PRICE PAID FOR P.C.C. WALK ITEM SHALL INCLUDE WALK CONSTRUCTED IN CONJUNCTION WITH PARKWAY CULVERT.
3. ONE CIRCULAR PIPE SHALL BE PLACED AT A LOCATION OTHERWISE THE PIPE SHALL BE ALHAMBRA FOUNDRY A470 OR EQUAL WITH THE SIZE AS SPECIFIED ON PLAN. FOR SIZES OTHER THAN 3" x 5, 9, 12" N SHALL BE 10' AND C.F. OVER PIPE SHALL BE INCREASED 1" FOR 1".
4. INLET CASE TO BE SPECIFIED ON IMPROVEMENT OR GRADING PLAN.
5. ANGLE "Q" EQUALS 0° UNLESS OTHERWISE SPECIFIED.
6. TYPE, DIMENSIONS, AND ELEVATIONS OF P.C.C. CURB AND GUTTER PER IMPROVEMENT PLAN.
7. UNLESS OTHERWISE SPECIFIED, FRAME AND GRATE FOR INLET CASE I SHALL BE ALHAMBRA FOUNDRY 14" x 14" TYPE A - 22422 (GALVANIZED) OR EQUAL, PLACED LEVEL.
8. CONCRETE SHALL BE CLASS 520 - C - 2500 PER STANDARD SPECIFICATIONS SECTION 201-1.1.2.

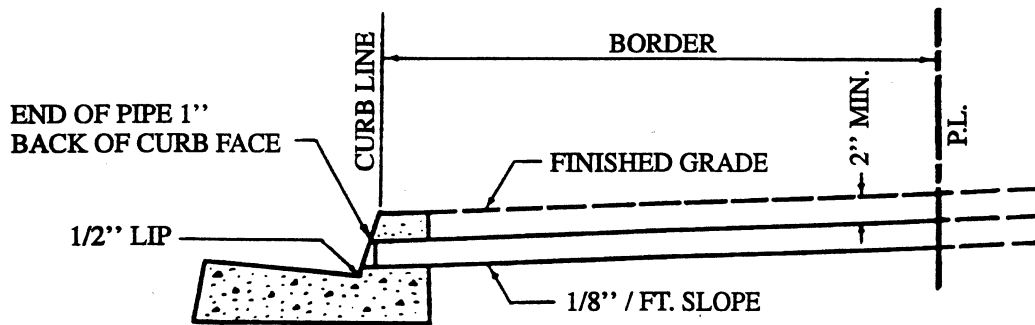
# City of San Juan Capistrano



REVISIONS	PARKWAY DRAIN NO. 2	STANDARD PLAN NO.
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	352
	7/20/95 DATE	SHT 2 OF 2



PLAN



SECTION

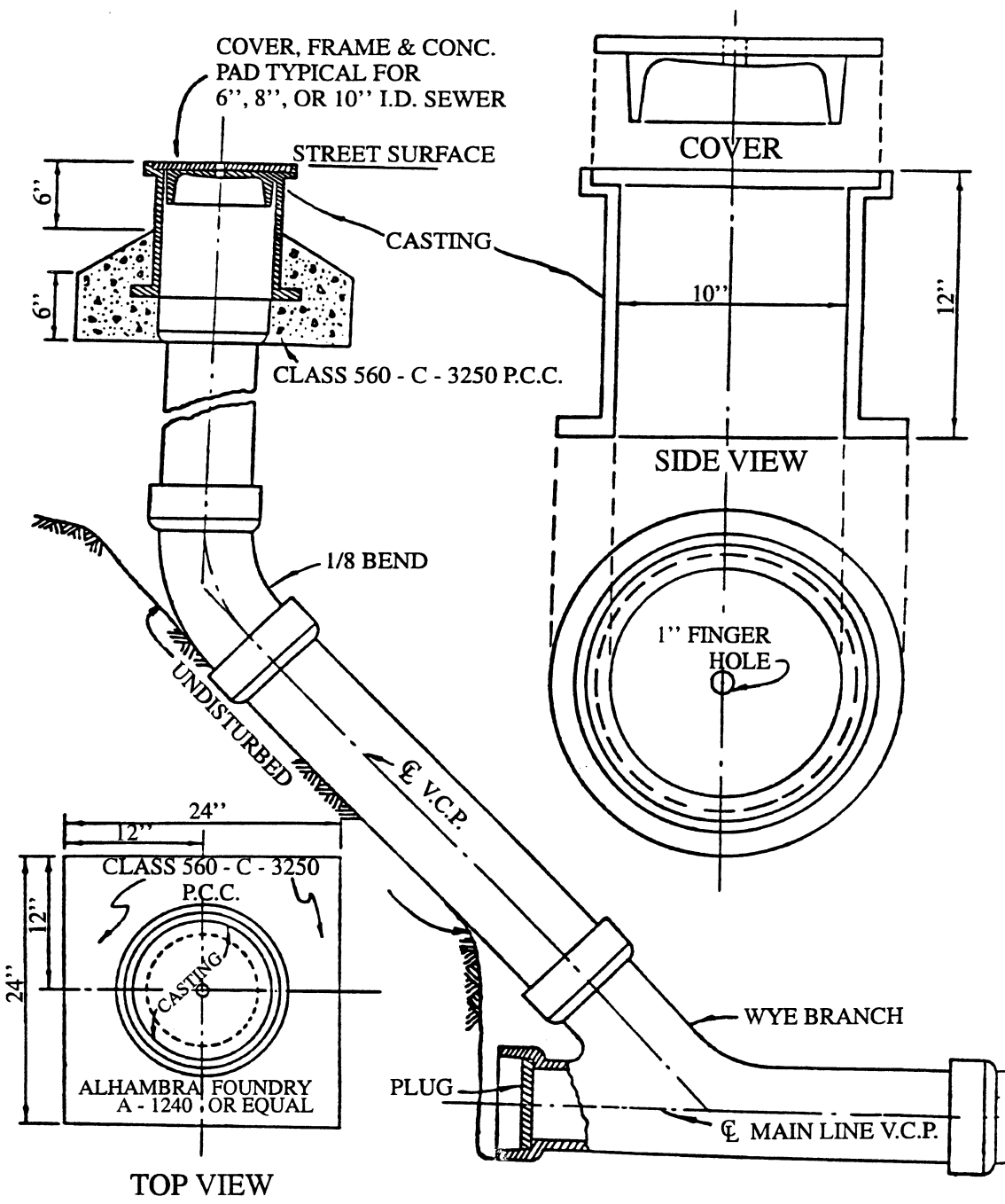
NOTES:

1. CURB CORES SHALL BE 3 - INCH DIAMETER HOLE FOR 6 - INCH CURB FACE AND 4 - INCH DIAMETER HOLE FOR 8 - INCH CURB FACE.
2. ANGLE  $\theta = 90^\circ$ , UNLESS OTHERWISE SPECIFIED.
3. THE NUMBER OF CORES AT ANY LOCATION SHALL NOT EXCEED 2 AND NO CORE SHALL BE WITHIN 1' OF A CONSTRUCTION JOINT.
4. SECOND PIPE IS OPTIONAL. NO MORE THAN TWO PIPES ARE ALLOWED AT ONE LOCATION

# City of San Juan Capistrano



REVISIONS	STANDARD CURB DRAIN PIPE OUTLET	STANDARD PLAN NO.
		355
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	7/20/95 DATE
		SHT 1 OF 1



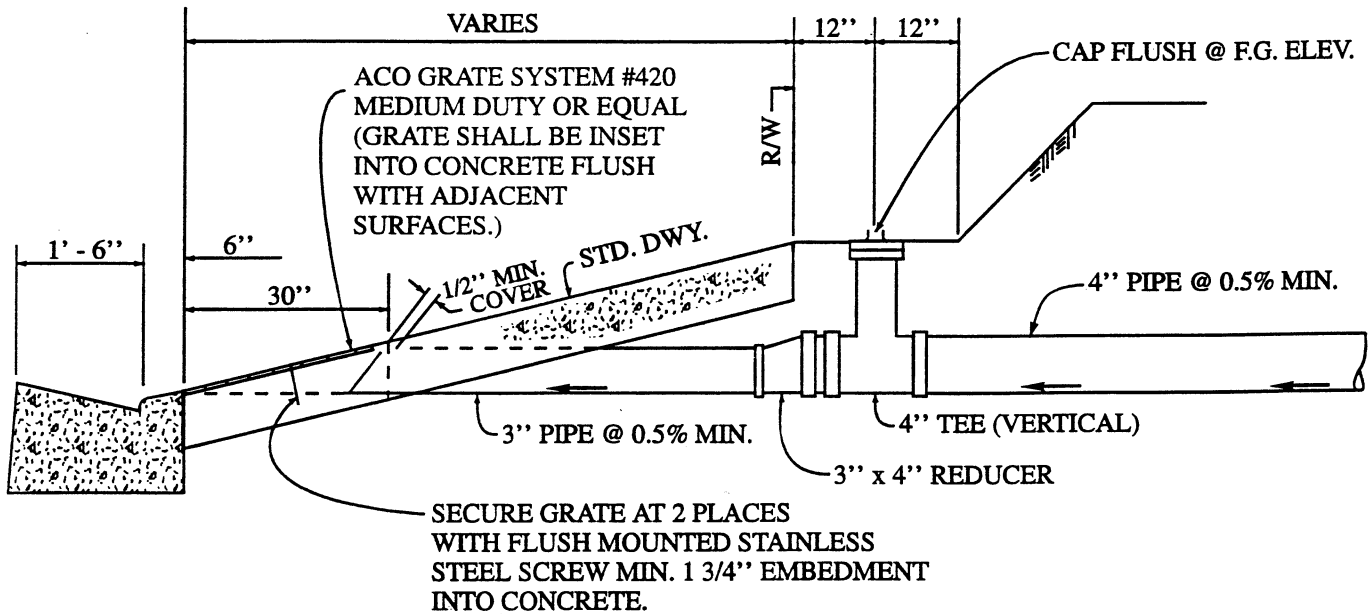
NOTES:

1. CLEAN - OUT PIPE MUST BE SAME DIAMETER AS MAINLINE SEWER.
2. CLEAN - OUTS ARE FOR COMMERCIAL OR INDUSTRIAL USE ONLY AND ARE TO BE LOCATED AT  $\underline{P}$ .



# City of San Juan Capistrano

<p>REVISIONS</p>	<p>STANDARD CLEAN - OUT</p>	<p>STANDARD PLAN NO.</p> <p><b>808</b></p>
	<p><i>William M. Huber</i></p> <p>APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95</p>	<p>SHT 1 OF 1</p>

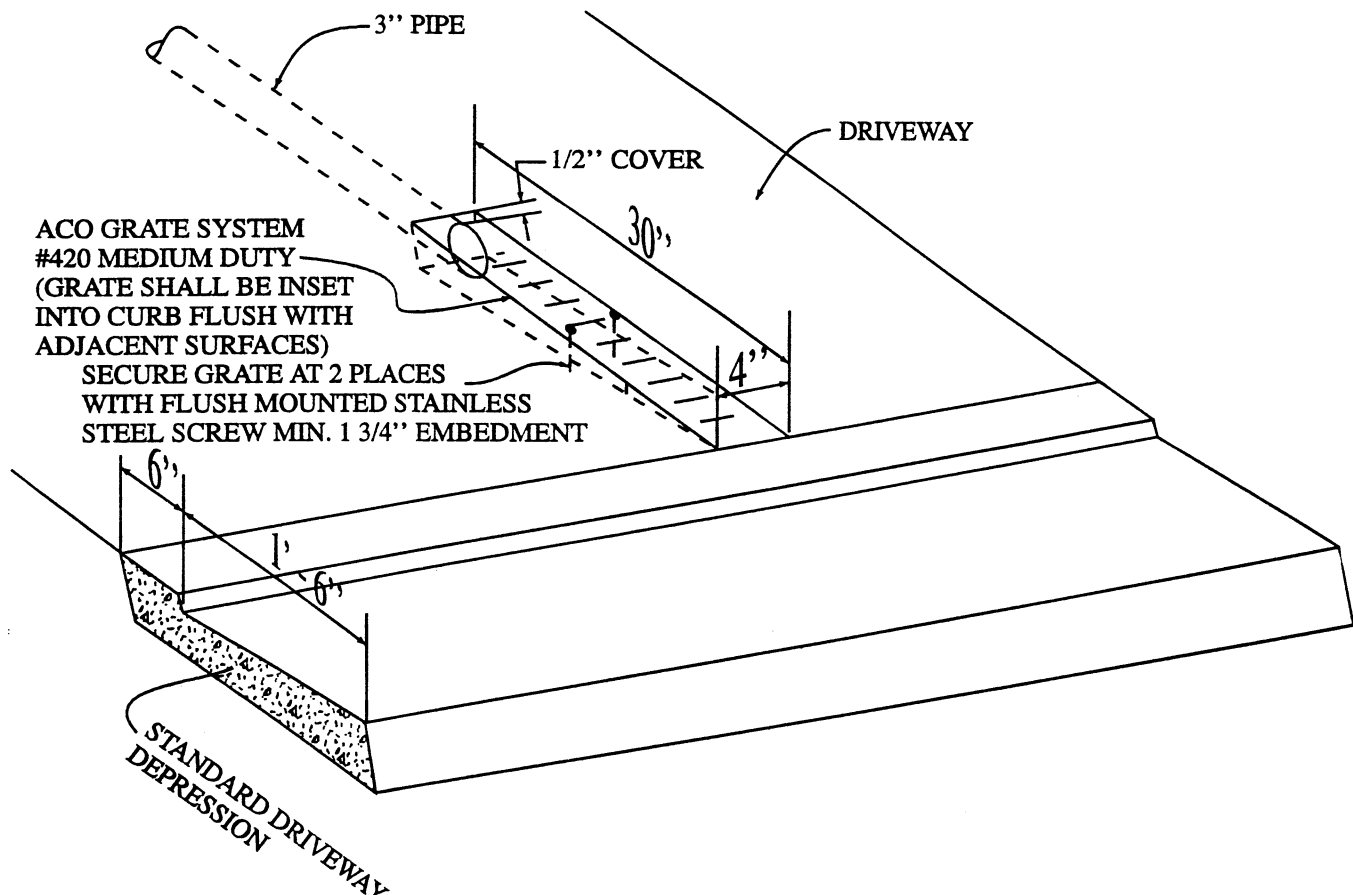


**CASE I**  
**PROFILE AND CLEAN - OUT DETAIL**  
**THRU DRIVEWAY DEPRESSION**  
**WHEN APPROVED BY CITY ENGINEER**



# City of San Juan Capistrano

REVISIONS	<p style="text-align: center;">DRIVEWAY / ROLLED CURB DRAIN PIPE OUTLET</p> <p style="text-align: center;"><i>William M. Huber</i></p> <p style="text-align: center;">APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95</p>	<p>STANDARD PLAN NO.</p> <p style="font-size: 2em; text-align: center;">356</p>
<p> </p> <p> </p> <p> </p> <p> </p>		<p>SHT 1 OF 5</p>



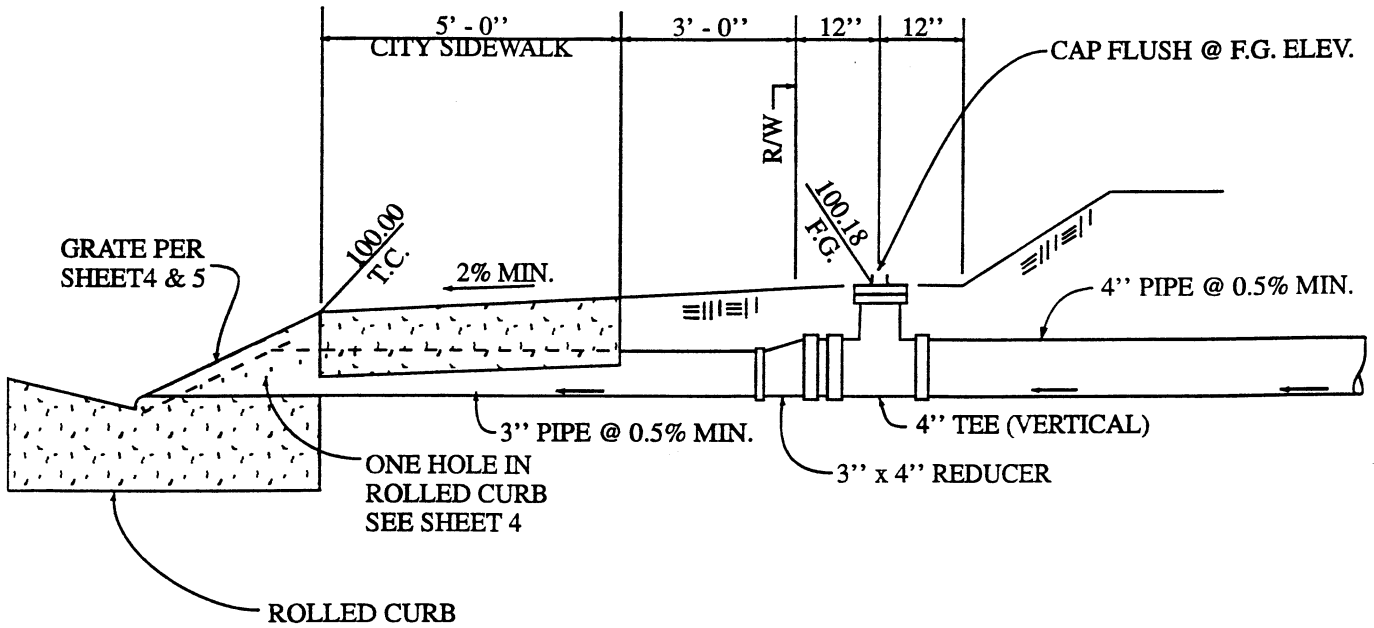
ACO GRATE SYSTEM  
 #420 MEDIUM DUTY  
 (GRATE SHALL BE INSET  
 INTO CURB FLUSH WITH  
 ADJACENT SURFACES)  
 SECURE GRATE AT 2 PLACES  
 WITH FLUSH MOUNTED STAINLESS  
 STEEL SCREW MIN. 1/4" EMBEDMENT

ISOMETRIC DRIVEWAY  
 OUTLET DETAIL



# City of San Juan Capistrano

REVISIONS	DRIVEWAY / ROLLED CURB DRAIN PIPE OUTLET	STANDARD PLAN NO.
		356
	<p style="text-align: center;"><i>William M. Huber</i></p> <p style="text-align: center;">APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95</p>	SHT 2 OF 5



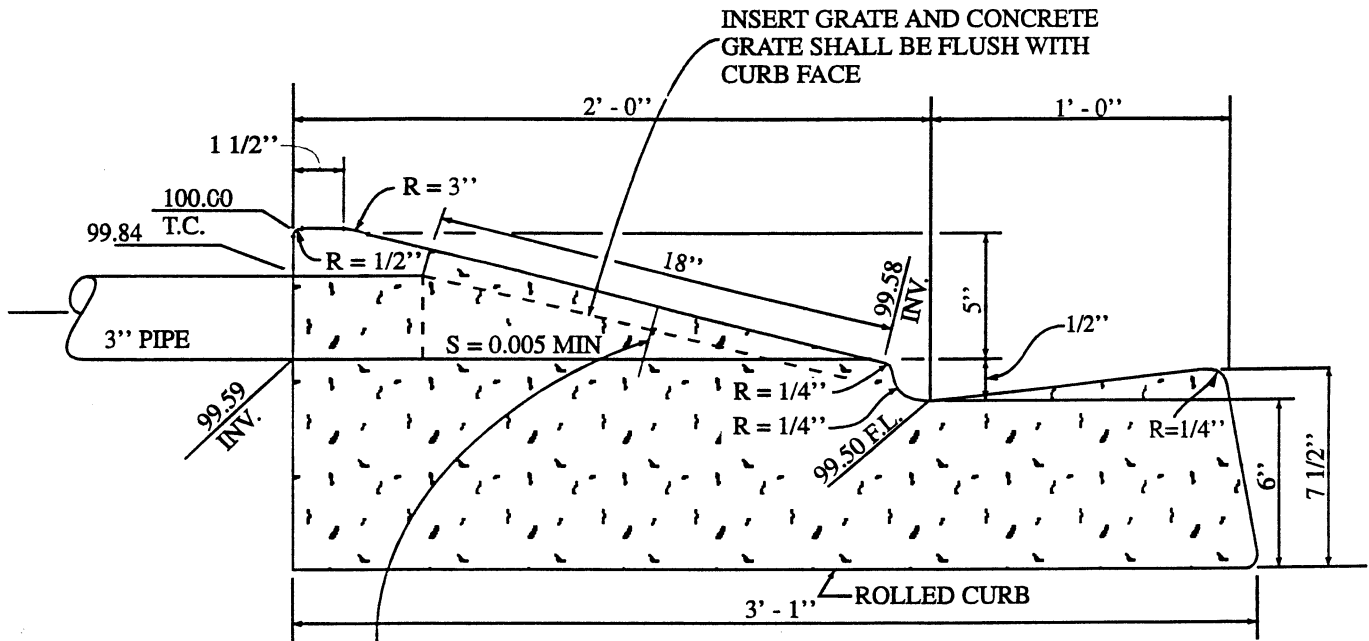
**CASE II  
CLEAN - OUT DETAIL THRU  
ROLLED CURB OUTLET**

City of San Juan Capistrano



REVISIONS	DRIVEWAY / ROLLED CURB DRAIN PIPE OUTLET	STANDARD PLAN NO.
	<i>William M. Huber</i>	356
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	SHT 3 OF 5





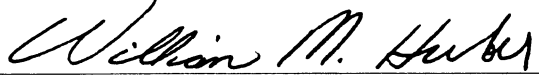
INSERT GRATE AND CONCRETE  
 GRATE SHALL BE FLUSH WITH  
 CURB FACE

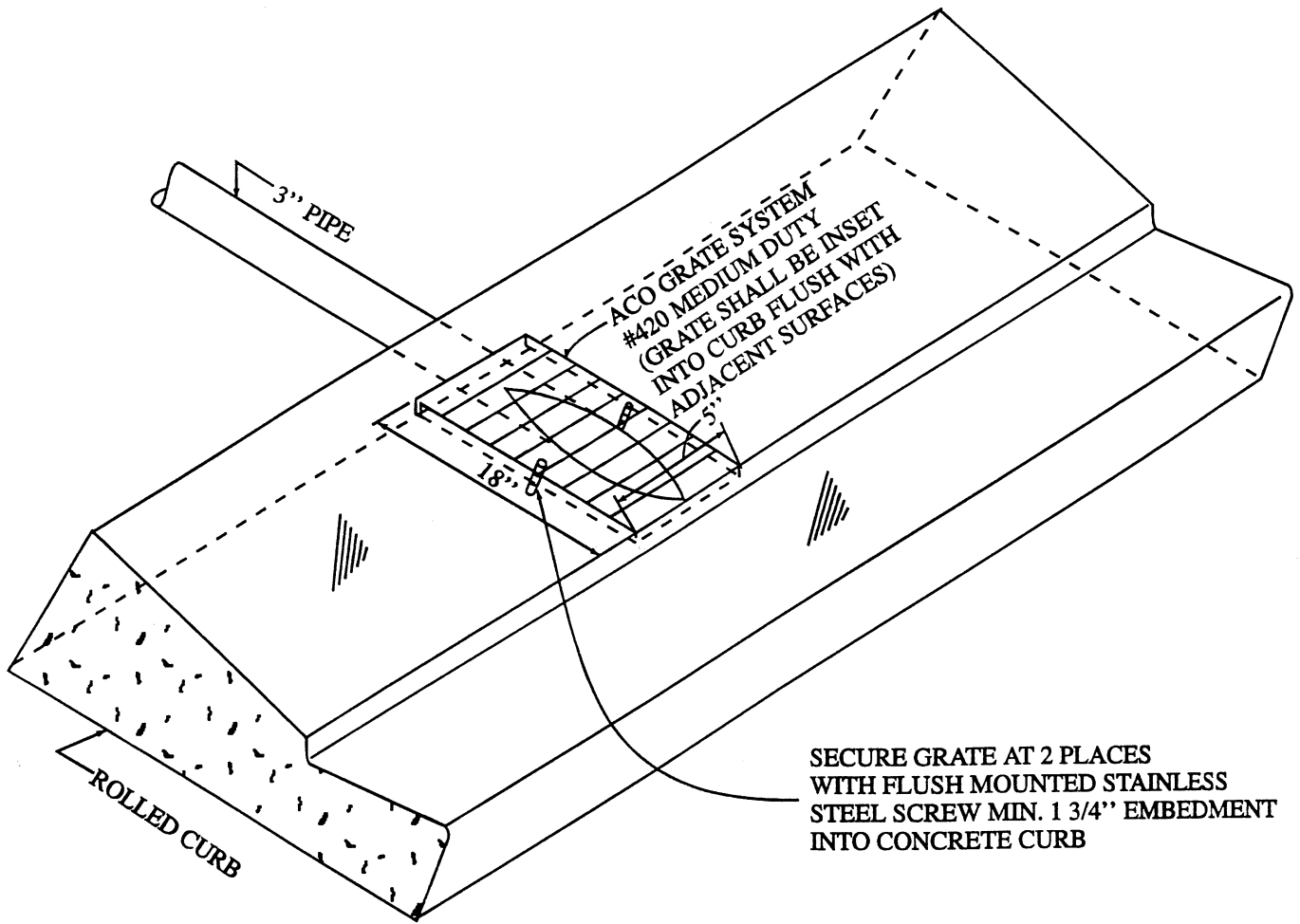
SECURE GRATE AT 2 PLACES  
 WITH FLUSH MOUNTED STAINLESS  
 STEEL SCREW MIN. 1 3/4" EMBEDMENT  
 INTO CONCRETE CURB.

ROLLED CURB OUTLET DETAIL

# City of San Juan Capistrano



REVISIONS    	DRIVEWAY / ROLLED CURB DRAIN PIPE OUTLET	STANDARD PLAN NO.  <h2 style="text-align: center;">356</h2>
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	7/20/95 DATE
		SHT 4 OF 5

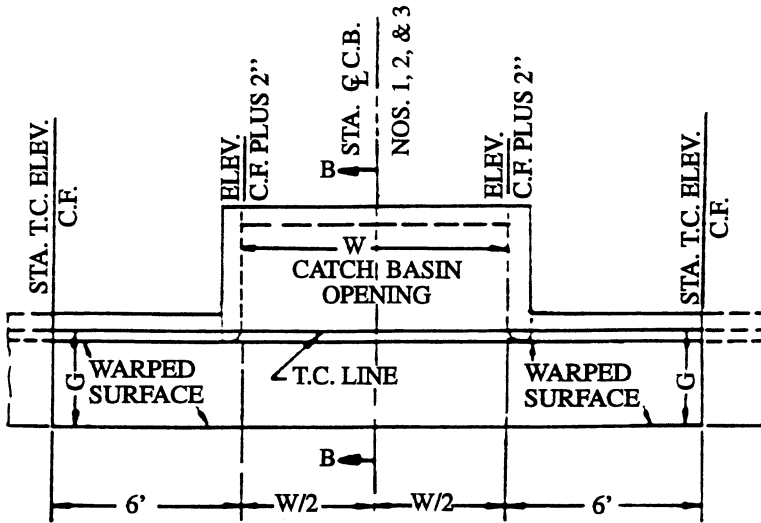


ISOMETRIC ROLLED CURB  
OUTLET DETAIL

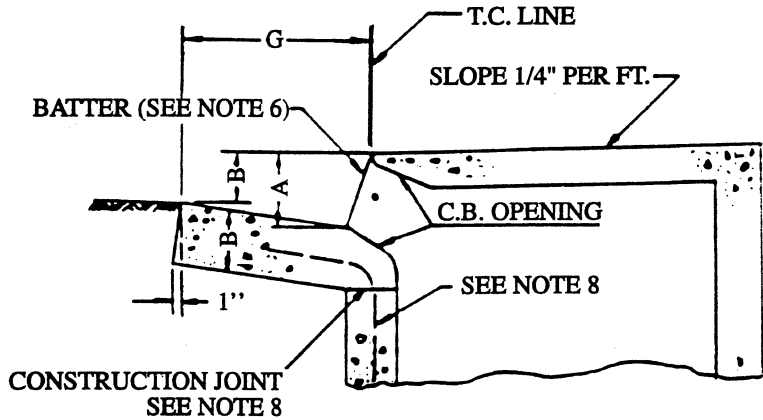
# City of San Juan Capistrano



REVISIONS	DRIVEWAY / ROLLED CURB DRAIN PIPE OUTLET	STANDARD PLAN NO.
   		356
<p style="text-align: center;"><i>William M. Huber</i></p> <p>APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785      7/20/95      DATE</p>		SHT 5 OF 5



PLAN



SECTION B - B

A = C.F. PLUS 2"  
 FOR 8" C.F. : B = 6"  
 FOR 6" C.F. : B = 4"

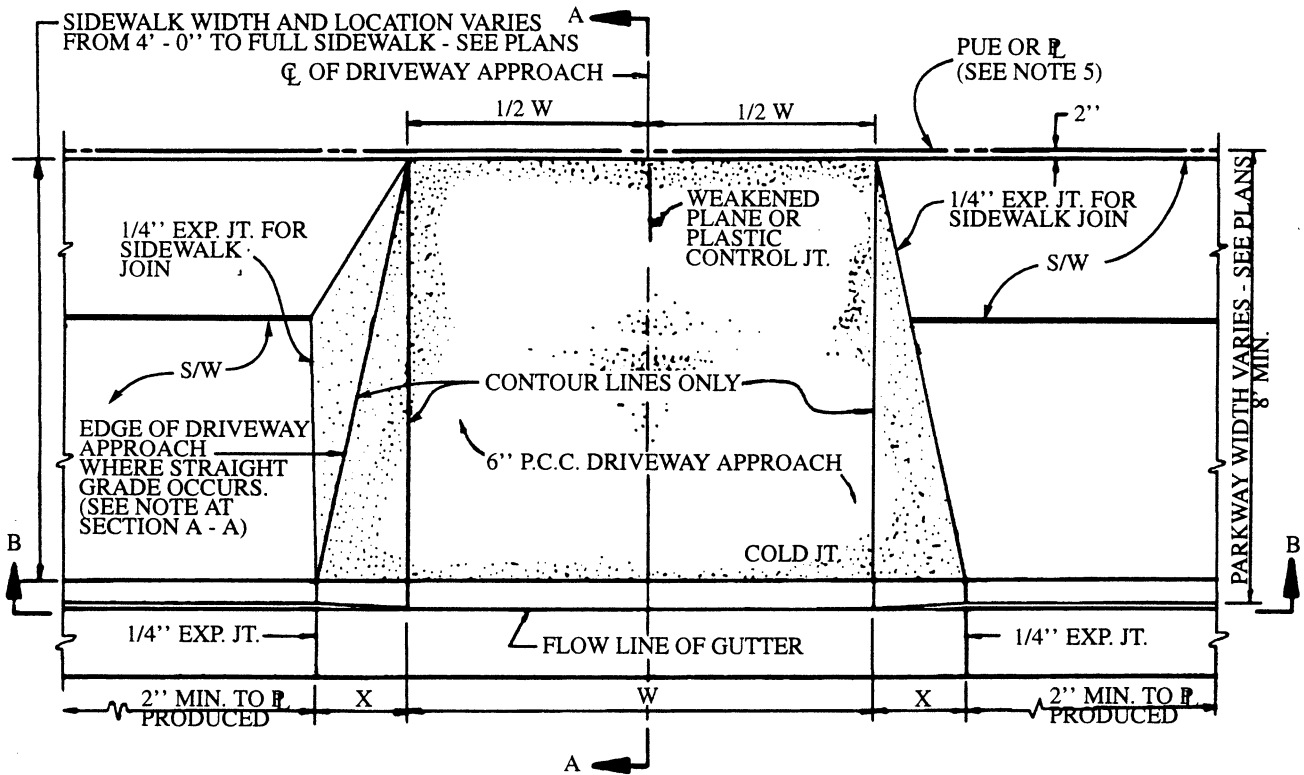
NOTES:

1. STATIONS, ELEVATIONS, CURB FACE, "W", AND CATCH BASIN LOCATION ARE AS SHOWN ON IMPROVEMENT PLAN.
2. ALL CATCH BASINS SHALL BE CONSTRUCTED WITH MODIFICATIONS AS SHOWN HEREON UNLESS OTHERWISE INDICATED. BATTER OF ADJOINING CURB SHALL GOVERN OVER THIS STANDARD.
3. COST OF MODIFICATIONS AS SHOWN HEREON SHALL BE INCLUDED IN THE CONTRACT PRICE PAID FOR THE RESPECTIVE CATCH BASIN.
4. CONCRETE SHALL BE CLASS 560 - C - 3250 PER CURRENT EDITION OF STANDARD SPECIFICATIONS SEC 210-1.1.2.
5. "G" SHALL BE THE WIDTH OF THE JOINED EXISTING IMPROVEMENTS OR AS PER PLAN.
6. BATTER SHALL CONFORM TO EXISTING ADJOINING CURB. SEE STD. PLAN NO. 301.
7. ELEVATIONS AT OUTER CORNERS AND OUTER EDGE SHALL CONFORM TO FINISHED STREET SURFACE UNLESS OTHERWISE SHOWN ON PLAN.
8. FORM CONSTRUCTION JOINT AND PLACE NO. 4 BARS 24" ON CENTER WITH 12" MINIMUM EMBEDMENT AND BEND ON 4" MINIMUM RADIUS, OR CONSTRUCT LOCAL DEPRESSION AND CATCH BASIN WALL MONOLITHICALLY.



# City of San Juan Capistrano

<p>REVISIONS</p>	<p>LOCAL DEPRESSION</p>	<p>STANDARD PLAN NO.</p> <p>360</p>
	<p><i>William M. Huber</i> 7/20/95          APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	<p>SHT 1 OF 1</p>



PLAN

NOTES:

1. ALL DRIVEWAY LOCATIONS AND DIMENSIONS SHALL BE APPROVED BY THE CITY ENGINEER.
2. FOR EXPANSION JOINT AND CONSTRUCTION JOINT DETAILS, SEE STD. PLAN NO. 320.
3. CONCRETE SHALL BE 520 - C - 2500 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201 - 1.1.2.
4. THERE SHALL BE ONE DRIVEWAY PER PROPERTY.
5. FOR 6' PARKWAY, A 3' PUBLIC USE EASEMENT (P.U.E.) IS REQUIRED BACK OF  $\bar{P}$
6. DEPRESSED CURB IS STRAIGHT GRADED WITH 3/8" GUTTER LIP, SEE STD. PLAN NO. 310.
7. STRAIGHT GRADE FROM CURB TO PROPERTY

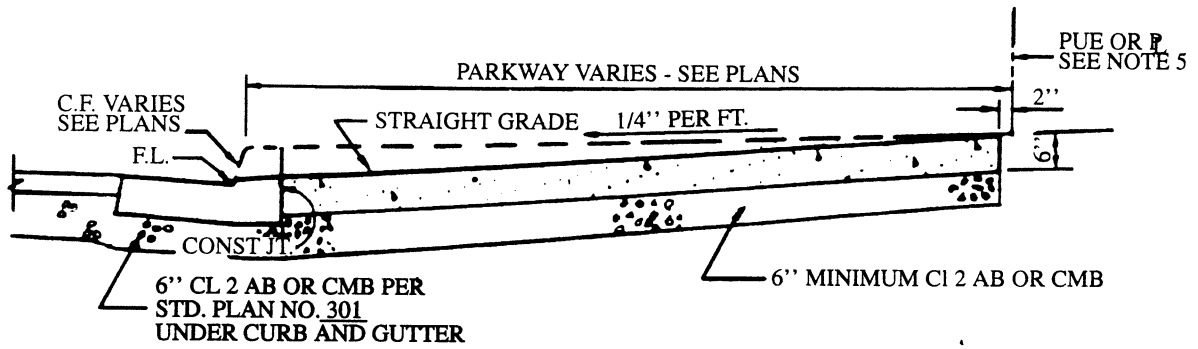
DIMENSIONS:

- W = 10' MIN. - 16' MAX. FOR RESIDENTIAL (R - 1) DRIVEWAYS
- X = 4' FOR 6" CURB FACE
- X = 5' FOR 8" CURB FACE

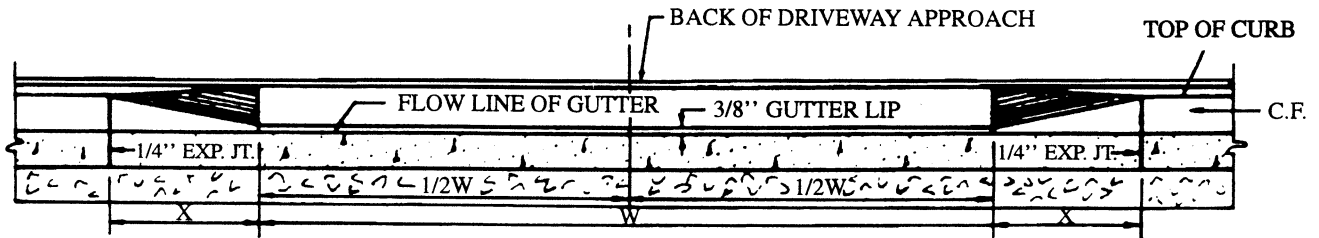
# City of San Juan Capistrano



REVISIONS	RESIDENTIAL DRIVEWAY APPROACH - TYPE I	STANDARD PLAN NO.
	<i>William M. Huber</i>	401
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	SHT 1 OF 2



SECTION A - A

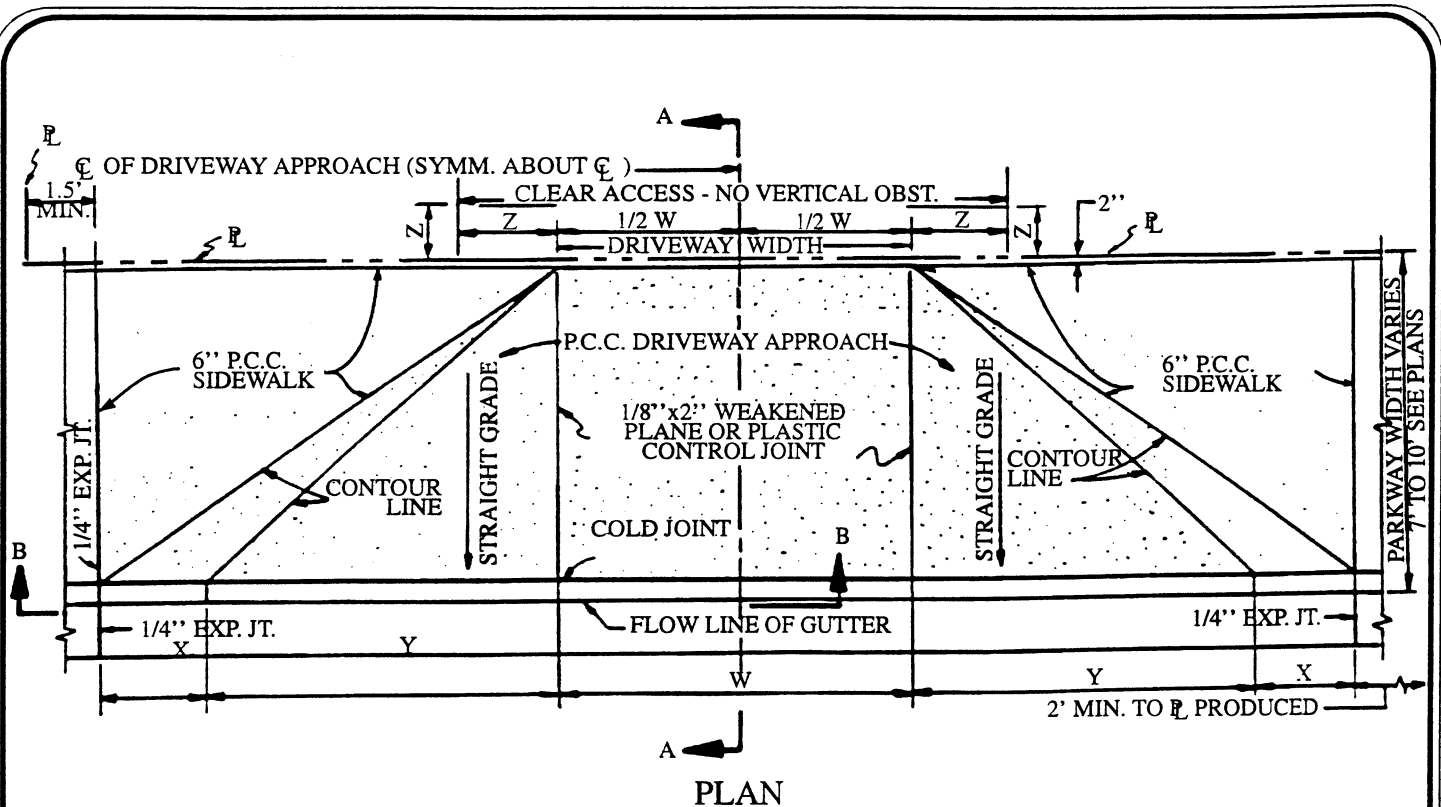


SECTION B - B

# City of San Juan Capistrano



<p>REVISIONS</p>	<p>RESIDENTIAL DRIVEWAY APPROACH - TYPE I</p>	<p>STANDARD PLAN NO.</p>
	<p><i>William M. Huber</i> 7/20/95 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	<p>401</p> <p>SHT 2 OF 2</p>

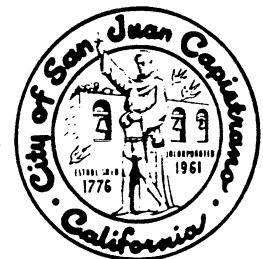


**NOTES:**

1. ALL DRIVEWAY LOCATIONS AND DIMENSIONS SHALL BE APPROVED BY THE CITY ENGINEER.
2. FOR EXPANSION JOINT AND CONSTRUCTION JOINT DETAILS, SEE STD. PLAN NO. 320.
3. CONCRETE SHALL BE 520 - C - 2500 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201 - 1.1.2.
4. THERE SHALL BE ONE DRIVEWAY PER PROPERTY.
5. DEPRESSED CURB IS STRAIGHT GRADED WITH 3/8" GUTTER LIP, SEE STD. PLAN NO. 310.
6. FOR 5' PARKWAYS, SEE STD. PLAN NO. 403.

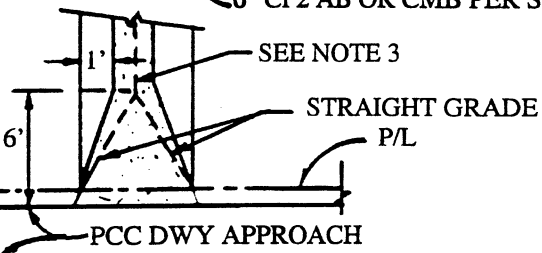
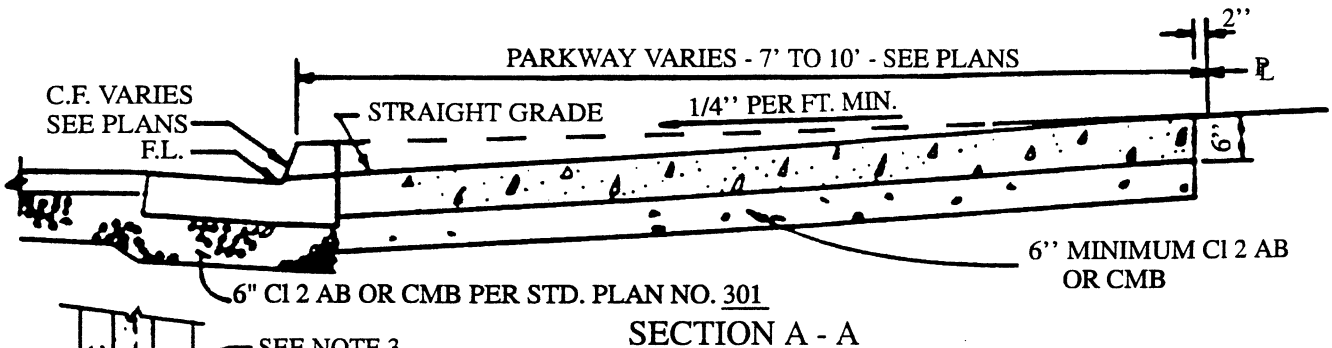
**DIMENSIONS:**

- W = 10' MIN. - 16' MAX. FOR RESIDENTIAL (R - 1) DRIVEWAYS.
- W = 16' MIN. - 26' MAX. FOR ALL OTHER DRIVEWAYS.
- X = 4' FOR 6" CURB FACE.
- X = 5' FOR 8" CURB FACE.
- Y = 7' ON MASTER PLAN STREETS
- Y = 4' ON NON MASTER PLAN STREETS
- Z = 1.5'

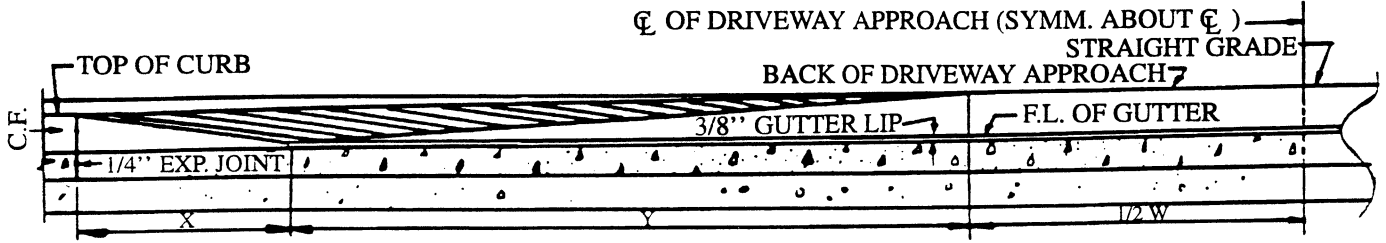


# City of San Juan Capistrano

REVISIONS	<b>DRIVEWAY APPROACH TYPE II</b>	<b>STANDARD PLAN NO.</b>  <span style="font-size: 2em;">402</span>
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785    DATE 7/20/95	SHT 1 OF 2



SITE V - DITCH

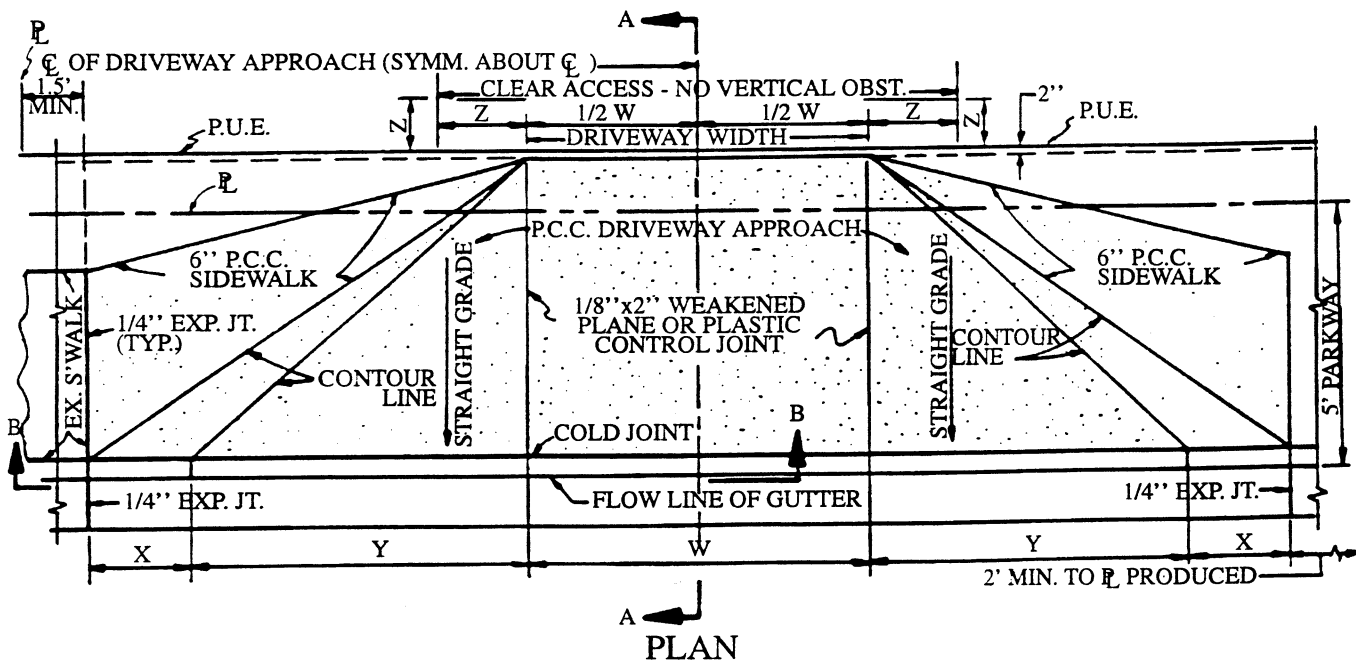


SECTION B - B



# City of San Juan Capistrano

REVISIONS	<p style="text-align: center;">DRIVEWAY APPROACH TYPE II</p> <p style="text-align: center;"><i>William M. Huber</i> 7/20/95 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	STANDARD PLAN NO.
		402 SHT 2 OF 2



**NOTES:**

1. ALL DRIVEWAY LOCATIONS AND DIMENSIONS SHALL BE APPROVED BY THE CITY ENGINEER.
2. FOR EXPANSION JOINT AND CONSTRUCTION JOINT DETAILS, SEE STD. PLAN NO. 320.
3. CONCRETE SHALL BE 520 - C - 2500 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201 - 1.1.2.
4. THERE SHALL BE ONE DRIVEWAY PER PROPERTY.
5. DEPRESSED CURB IS STRAIGHT GRADED WITH 3/8" GUTTER LIP, SEE STD. PLAN NO. 310.
6. FOR 5' PARKWAY, A 3' PUBLIC UTILIZATION EASEMENT (PUE) IS REQUIRED BACK OF  $\bar{P}$ .

**DIMENSIONS:**

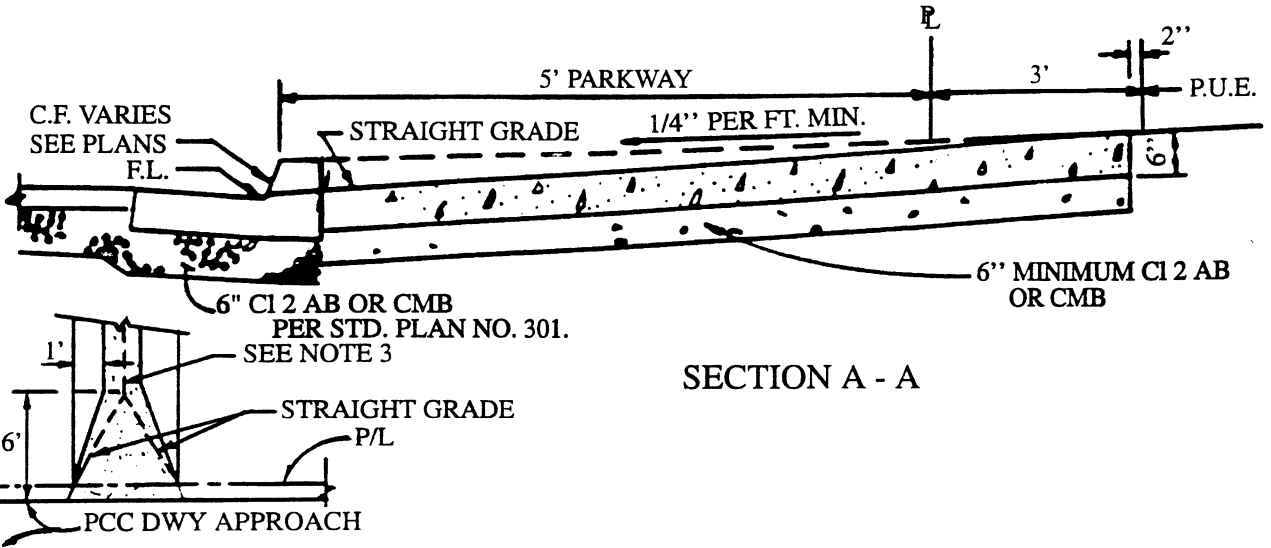
- W = 10' MIN. - 16' MAX. FOR RESIDENTIAL (R - 1) DRIVEWAYS.
- W = 16' MIN. - 26' MAX. FOR ALL OTHER DRIVEWAYS.
- X = 4' FOR 6" CURB FACE.
- X = 5' FOR 8" CURB FACE.
- Y = 7' ON MASTER PLAN STREETS
- Y = 4' ON NON MASTER PLAN STREETS
- Z = 1.5'

# City of San Juan Capistrano



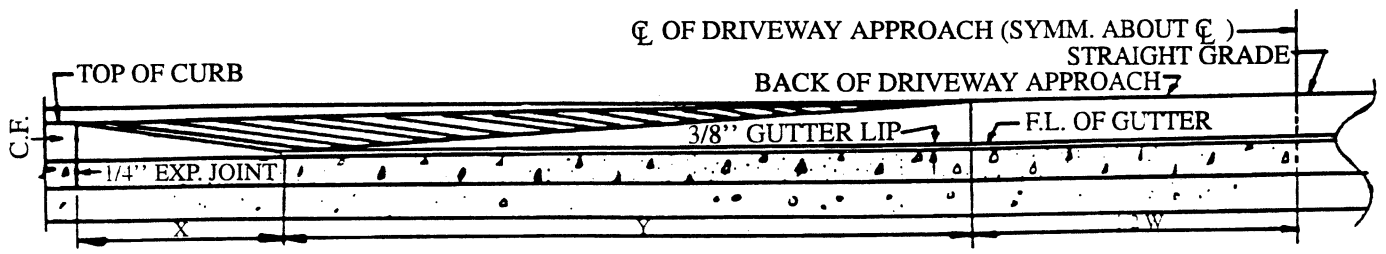
REVISIONS	<b>DRIVEWAY APPROACH TYPE III</b>	<b>STANDARD PLAN NO.</b>  <span style="font-size: 2em;">403</span>
		<span style="float: right;">7/20/95</span>
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	DATE
	SHT 1 OF 2	





SECTION A - A

SITE V - DITCH

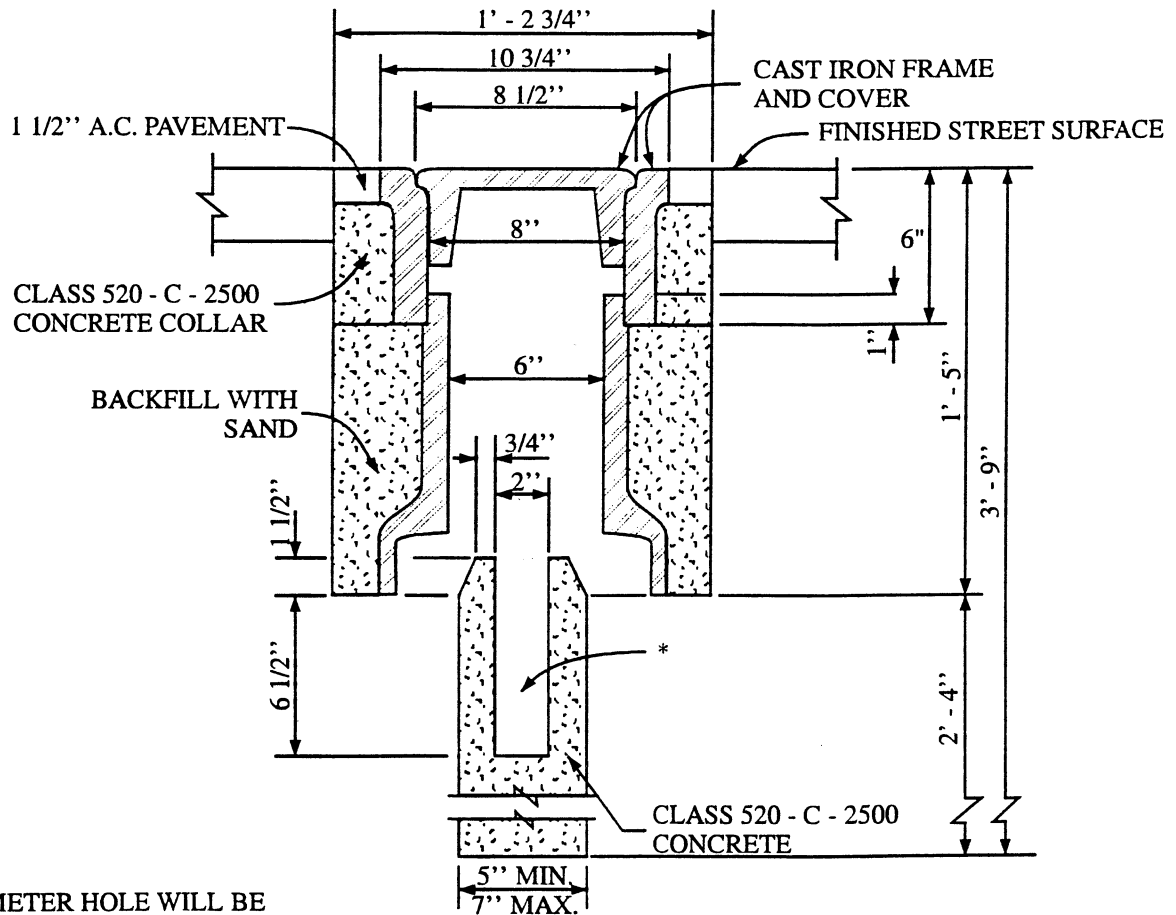


SECTION B - B

# City of San Juan Capistrano

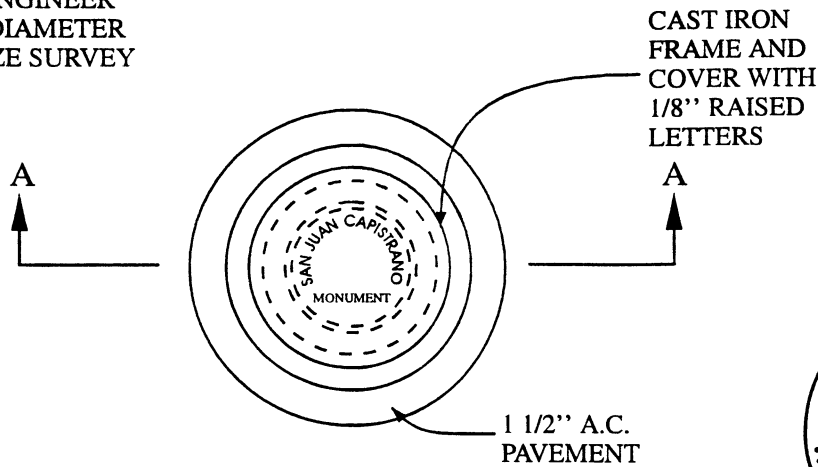


<p>REVISIONS</p>	<p>DRIVEWAY APPROACH TYPE III</p>	<p>STANDARD PLAN NO.</p>
	<p><i>William M. Huber</i> 7/20/95 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	<p>403</p> <p>SHT 2 OF 2</p>



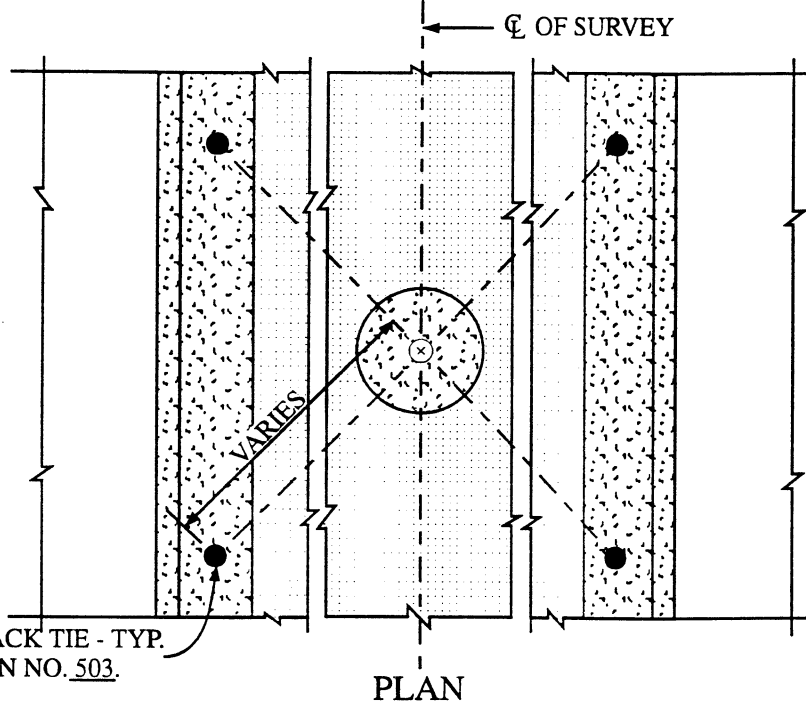
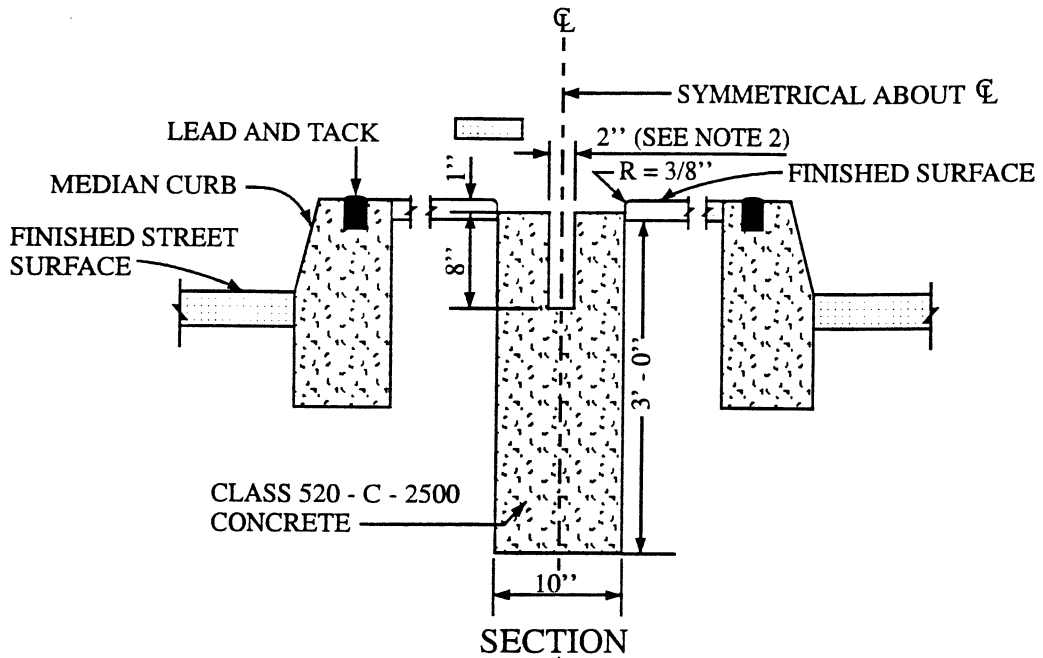
\* 2" DIAMETER HOLE WILL BE FILLED WITH GROUT AND MARKED WITH AN IDENTIFYING MONUMENT BY THE ENGINEER THAT SHALL BE A 3" DIAMETER 3/4"x3" SHANK BRONZE SURVEY

SECTION A-A



# City of San Juan Capistrano

<p>REVISIONS</p>	<p>SURVEY MONUMENT TYPE "A"</p>	<p>STANDARD PLAN NO.  501</p>
	<p><i>William M. Huber</i> 7/20/95 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	<p>SHT 1 OF 1</p>



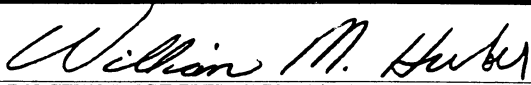
LEAD AND TACK TIE - TYP.  
SEE STD. PLAN NO. 503.

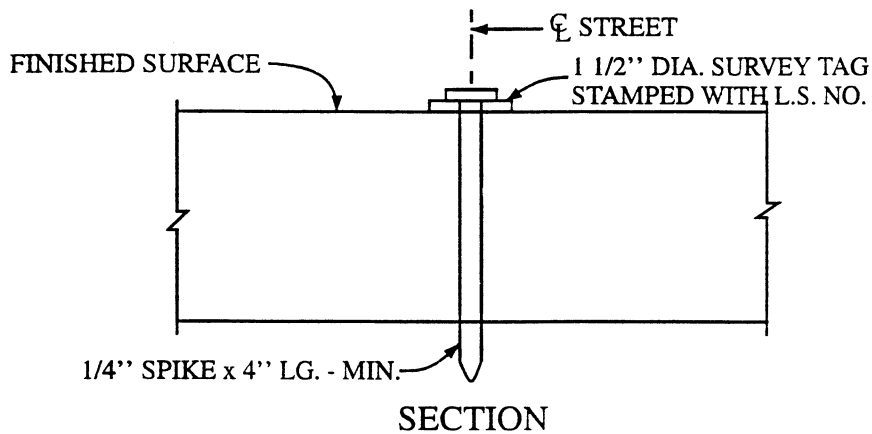
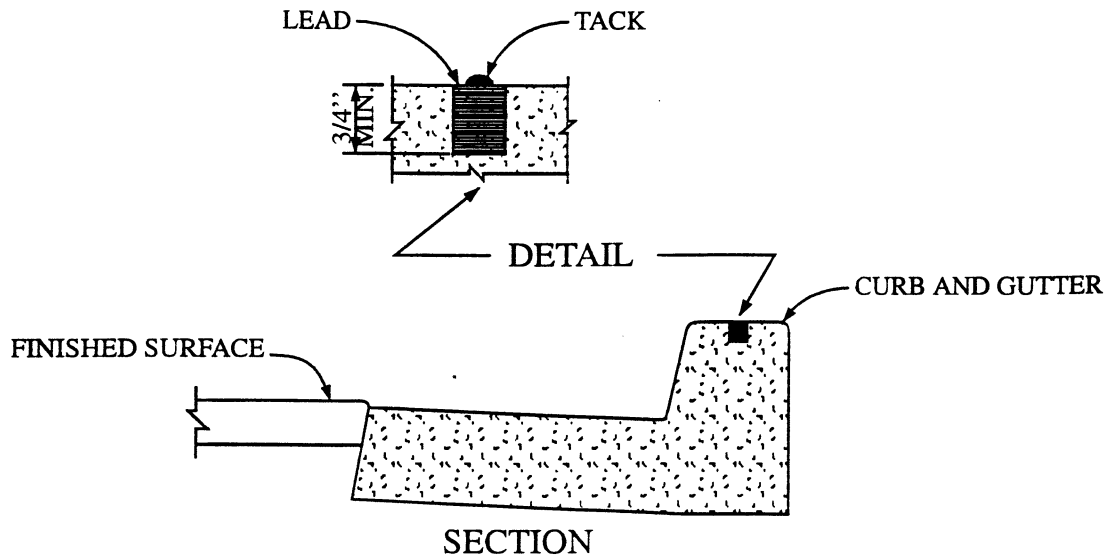
NOTES:

1. THIS TYPE OF MARKER TO BE INSTALLED ONLY IN SITUATIONS WHERE NO VEHICULAR TRAFFIC IS ANTICIPATED.
2. 2" DIAMETER HOLE WILL BE FILLED WITH GROUT AND MARKED WITH IDENTIFYING MONUMENT BY THE ENGINEER (SEE STD. PLAN NO. 501).

# City of San Juan Capistrano



REVISIONS	SURVEY MONUMENT TYPE "B"	STANDARD PLAN NO.
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	<b>502</b> SHT <u>1</u> OF <u>1</u>




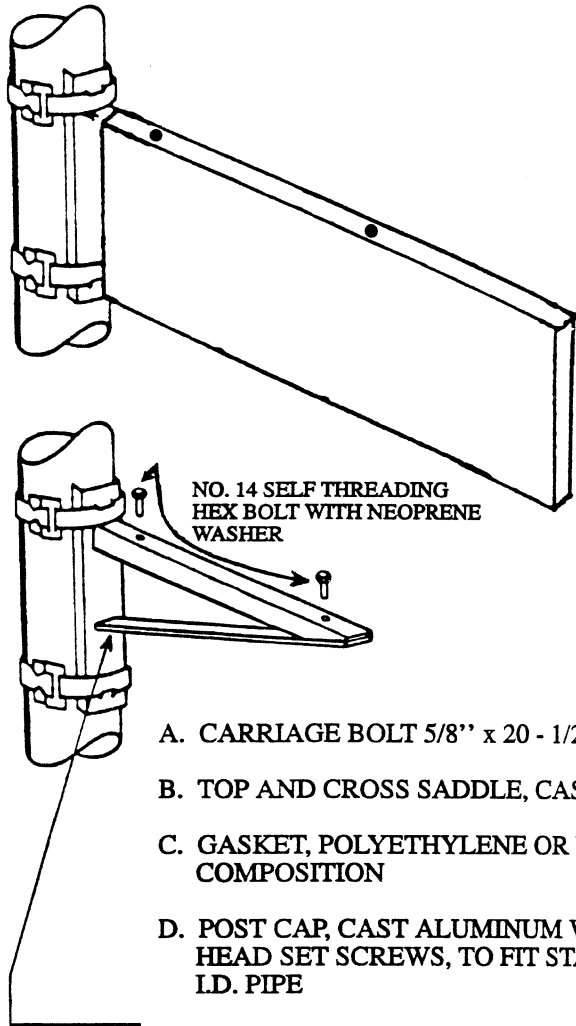
NOTES:

1. ALL TIE POINTS SHALL BE LEAD AND TACK. LEAD SHALL BE A MIN. OF 3/4" DEEP AND TACKS SHALL BE MADE OF BRASS.
2. ALL INTERSECTION AND CENTER LINE CONTROL POINTS SHALL BE SPIKE AND WASHER.
3. ALL CONTROL POINTS SHALL HAVE A MIN. OF 4 TIES, WITH TIES PLACED SUCH THAT A PROPER ANGLE IS OBTAINED FROM THE TIE TO THE CONTROL POINT AS DETERMINED BY THE CITY ENGINEER.
4. RECORD CENTER LINE TIE DATA ON THE SHEET AVAILABLE AT THE CITY OF SAN JUAN CAPISTRANO ENGINEERING DIVISION.

# City of San Juan Capistrano

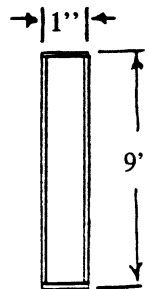
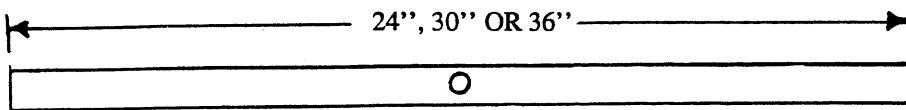
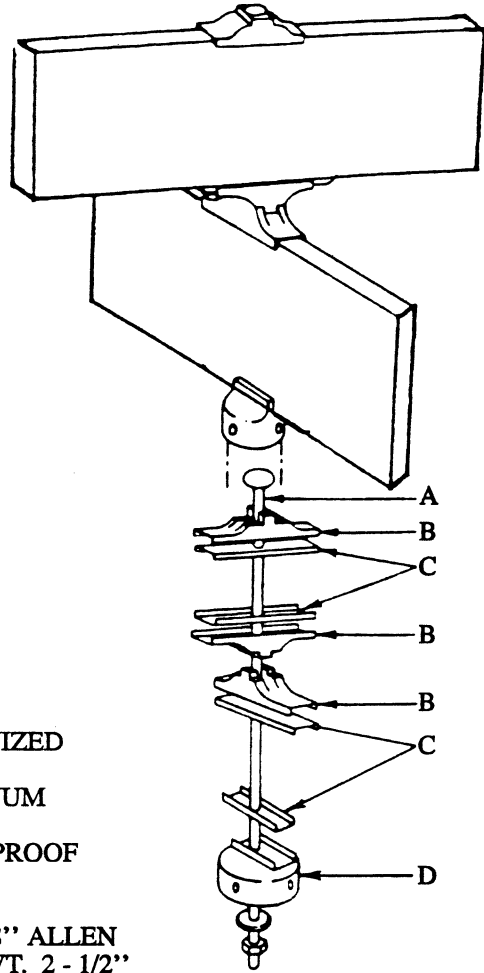


REVISIONS	SURVEY CENTER LINE TIES	STANDARD PLAN NO.
		503
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	SHT 1 OF 1



NO. 14 SELF THREADING  
HEX BOLT WITH NEOPRENE  
WASHER

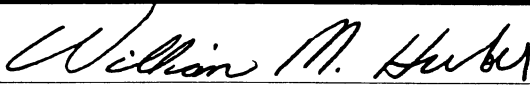
- A. CARRIAGE BOLT 5/8" x 20 - 1/2" GALVANIZED
- B. TOP AND CROSS SADDLE, CAST ALUMINUM
- C. GASKET, POLYETHYLENE OR WEATHERPROOF COMPOSITION
- D. POST CAP, CAST ALUMINUM WITH 3 - 3/8" ALLEN HEAD SET SCREWS, TO FIT STANDARD WT. 2 - 1/2" I.D. PIPE
- E. SIDE ARM BRACKET, 15 3/4" x 3/4" x 3/4" x 3/8" CHANNEL IRON GALVANIZED



SEE SHEET 2 FOR NOTES

# City of San Juan Capistrano



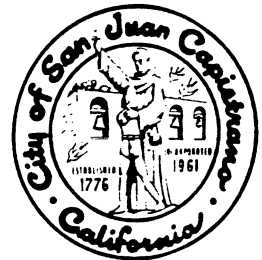
<b>REVISIONS</b>	<b>STREET NAME SIGN</b>	<b>STANDARD PLAN NO.</b>
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	600
	7/20/95 DATE	SHT 1 OF 2

NOTES:

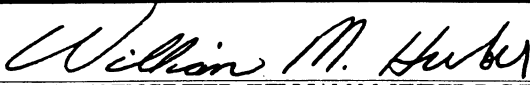
1. STREET NAME SIGNS SHALL BE WESTERN HIGHWAYS AT9 STYLE OR EQUAL AND CONSIST OF A DOUBLE-FACED, BOX-TYPE SIGN, WITH WHITE LEGEND AND BORDER AND A BROWN BACKGROUND.
2. SIGNS SHALL BE MADE FROM TWO PIECES OF .080 THICK ALUMINUM. THE ALUMINUM SHALL BE PUNCHED, FORMED AND FOLDED, THEN WELDED ALONG THE TOP AND BOTTOM SEAMS. THE BLANK WILL THEN HAVE AN ALODINE FINISH APPLIED. OR, SIGN BLANKS SHALL BE DOUBLE FACED BOX TYPE FABRICATED FROM EXTRUDED ALUMINUM CHANNEL, WITH SELF LOCKING FLANGES, TOP AND BOTTOM, OF THE TYPE MANUFACTURED FOR THE CITY OF LONG BEACH. BASE METAL SHALL BE 6061-T6 EXTRUDED ALUMINUM ALLOY. WEB THICKNESS SHALL BE A MINIMUM OF 0.080" WITH 11/16" FLANGES WHICH INCLUDES THE SELF-LOCKING FEATURE MENTIONED ABOVE.
3. SIGN FACES SHALL BE OF WHITE ENCLOSED LENS REFLECTIVE SHEETING APPLIED TO BOTH SIDES CONFORMING TO FEDERAL SPECIFICATION L-S-300A CLASSIFICATION 1.2 TYPE I (CLASS 1 OR 2) TABLE II REFLECTIVITY 1. THE LEGEND MAY BE PRODUCED BY THE REVERSED SCREENING METHOD.

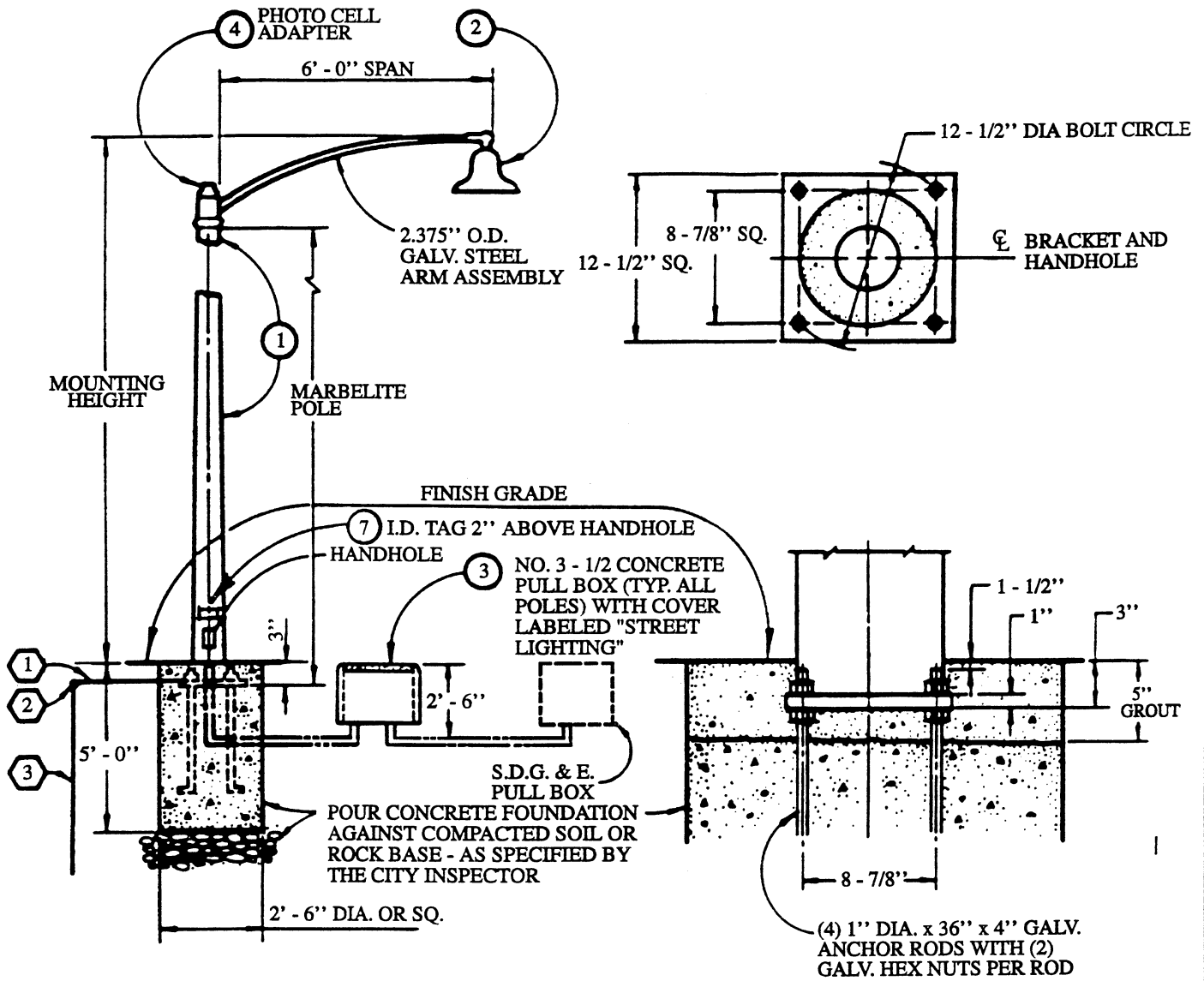
THE BACKGROUND COLOR SHALL BE SAN JUAN CAPISTRANO BROWN TRANSPARENT INK, OR SAFEWAY'S #71 BROWN DELUXE BAKED ENAMEL. THE DRY FILM THICKNESS OF THE BAKED ENAMEL COATING ON THE FRONT FACE SHALL NOT BE LESS THAN 1.75 MILS OF ENAMEL APPLIED BY SPRAY. PRIOR TO THE APPLICATION OF THE ENAMEL, EACH SIGN BLANK SHALL BE TREATED WITH A CHROMATE CONVERSION COATING FOR ALUMINUM CONFORMING TO THE REQUIREMENTS OF FEDERAL SPECIFICATION MIL C -5541.

4. THE STREET NAME MESSAGE IS TO BE COMPOSED OF 4" UPPER CASE MISSION STYLE LETTERS AND NUMERALS AND A 2-1/2" UPPER CASE MISSION STYLE PREFIX OR SUFFIX. THE BLOCK NUMBER MESSAGE IS TO BE COMPOSED OF 2" UPPER CASE SERIES C TYPE NUMERALS. THERE SHALL BE A 1/4" BORDER AROUND THE ENTIRE SIGN. THE STREET NAME MESSAGE, OR COPY SHALL BE 3M #2270 (ENGINEERING GRADE) SCOTCHLITE MISSION STYLE.
5. SIGN LOCATION SHALL BE ON THE MINOR STREET AS DIRECTED BY THE CITY ENGINEER WITH SOLE LOCATIONS TO BE IN ACCORDANCE WITH THE IMPROVEMENT PLANS.



# City of San Juan Capistrano

REVISIONS	STREET NAME SIGN	STANDARD PLAN NO.
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	600
	7/20/95 DATE	SHT 2 OF 2



- ① — NO. 6 COPPER GROUND
- ② — 1/2" GROUND HUB WITH CLAMP
- ③ — 5/8" x 8' COPPERWELD GROUND ROD



# City of San Juan Capistrano

REVISIONS    	<b>STREET LIGHTING STANDARDS</b>	<b>STANDARD PLAN NO.</b>  <b>610</b>
<i>William M. Huber</i> 7/20/95 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE		SHT 1 OF 3

NOTES:

1. PARTS LIST	MANUFACTURER OR APPROVED EQUAL	PART NO.
a. MARBELITE POLE W/ MAST ARM, 2" END KNOB PLUMBIZER & ANCHOR BOLTS.	PUMCO	LA - 7041B (W/70 WATT) 26': NON-ARTERIALS LA - 7041A (W/100 WATT) 30': ARTERIALS LA - 7041A (W/200 WATT) 30': ALL INTERSECTIONS ON ARTERIALS 70 WATT - HPSV W/90° CUT OFF SHATTER RESISTANT LENS AND 120 VOLT HIGH POWER REACTOR BALLAST
b. MISSION BELL LUMINAIRE	GENERAL ELECTRIC CO. SIERRA LIGHTING CO.	100 WATT - HPSV W/90° CUT OFF SHATTER RESISTANT LENS AND 120 VOLT HIGH POWER REACTOR BALLAST  200 WATT - HPSV W/90° CUT OFF SHATTERPROOF LENS
c. CONCRETE PULL BOX W/COVER LABELED "STREET LIGHTING"	BROOKS QUICKSET	NO. 3 1/2
d. PHOTO ELECTRIC CONTROL W/TWIST LOCK PLUG (105 - 285 VOLT)	AMERICAN ELECTRIC FISHER - PIERCE GENERAL ELECTRIC	8090 6690-B (402G300)
e. FUSE: 10 AMP (SINGLE LUMINAIRE) 20 AMP (DOUBLE LUMINAIRE)	BUSSMANN	FNM10 FNM20
f. FUSE HOLDER (WATERPROOF)	BUSSMANN ESNA	HEB - AA 64 - B4A - A6
g. I.D. TAG (SEE CITY ENGINEER FOR # TO BE STAMPED ON TAG) 7/8"	STEINY & CO. INC. 714 / 441 - 0255	

APPLY TAPE WITH "A PLUS B FAST EPOXY PASTE" RESIN CHEMICALS GROUP CHATSWORTH, CA



# City of San Juan Capistrano

REVISIONS	STREET LIGHTING STANDARDS	STANDARD PLAN NO.
		610
	<p style="text-align: center;"><i>William M. Huber</i></p> <p style="text-align: center;">APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95</p>	SHT 2 OF 3

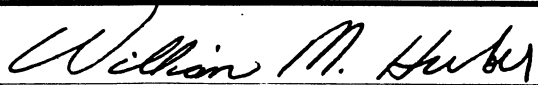


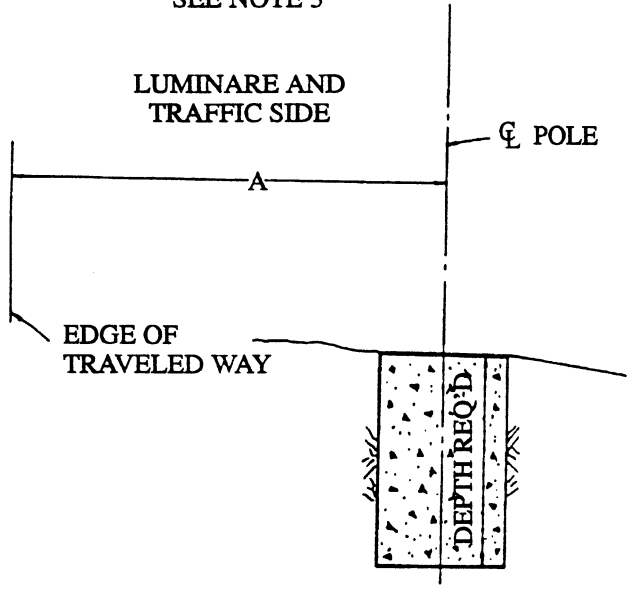
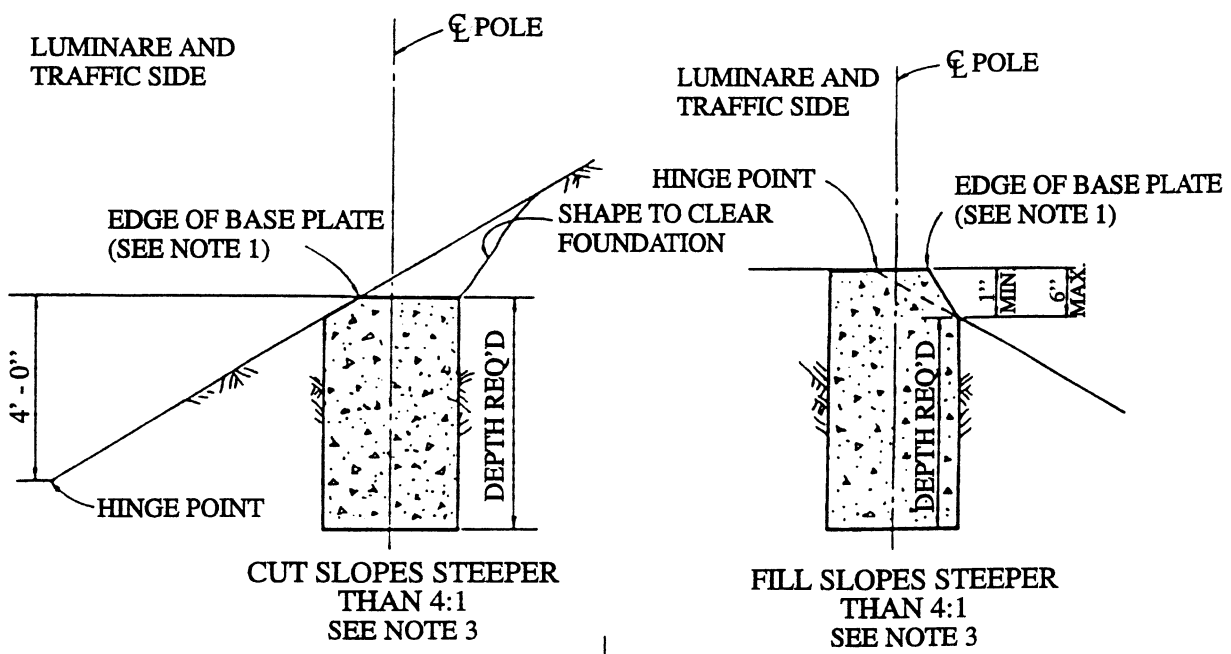
NOTES (CON'D)

2. ALL ITEMS TO BE FURNISHED AND ALL WORK TO BE DONE SHALL CONFORM TO THE CURRENT STANDARD PLANS AND SPECIFICATIONS OF THE STATE OF CALIFORNIA, AND AS MOST RECENTLY REVISED, AND AS SHOWN HEREON. SEE ALSO STD. PLAN NO. 615 FOR LOCATION IN S/W AND STD. PLAN NO. 620 FOR SPLICING DETIALS.
3. ALL CONDUIT SHALL BE MINIMUM 2" PVC SCHEDULE 40 AT 30" BELOW FINISH GRADE. INSTALL #8 THW COPPER WIRE. USE #6 THW COPPER WIRE IF THREE OR MORE POLES ARE ON THE SAME LINE.
4. FURNISH AND INSTALL A NO. 3 1/2 CONCRETE PULL BOX AT EACH POLE.
5. ANCHOR BOLTS TO BE SUPPORTED IN PLACE DURING POURING AND SETTING OF FOUNDATION.
6. CONTRACTOR TO PULL WIRE THROUGH CONDUIT AND LEAVE 3' +/- SLACK WIRE INSIDE SDG&E PULL BOX AND INSIDE CITY PULL BOX.
7. NO ALTERNATIVES MAY BE USED WITHOUT THE WRITTEN CONSENT OF THE CITY ENGINEER.
8. CITY INSPECTOR TO BE NOTIFIED PRIOR TO BACKFILLING, POURING FOUNDATION, AND AT ANY OTHER INSTANCE WHERE INSPECTION IS REQUIRED.
9. MINIMUM RADIUS BEND FOR PVC CONDUIT SHALL BE 24'.
10. CONCRETE FOUNDATION SHALL BE CLASS 560-C-3250, IN ACCORDANCE WITH THE CURRENT EDITION OF THE STD. SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201-1.1.2.
11. THE COMPONENTS SELECTED BY THE CITY FOR THE MISSION BELL LUMINAIRE SHALL BE FABRICATED IN SUCH A MANNER THAT THE LOWER DOOR CONTAINS THE ENTIRE OPTICAL ASSEMBLY, AND THE BALLAST PROVIDES PLUGS FOR BOTH POLE AND OPTICAL CONNECTIONS.



# City of San Juan Capistrano

REVISIONS	STREET LIGHTING STANDARDS	STANDARD PLAN NO.
		610
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	7/20/95 DATE
		SHT 3 OF 3




STANDARD TYPE	SET BACK (DIMENSION A)
32	30' MIN.
31	20' MIN.

FLAT SECTIONS, CUT OR FILL SLOPES  
4:1 OR FLATTER

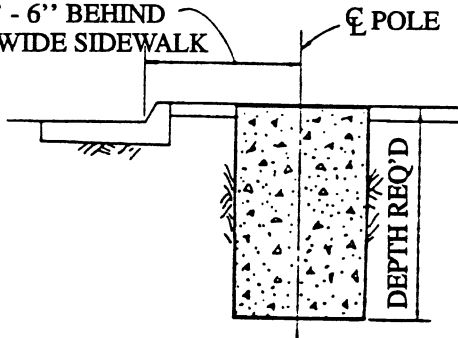
FOUNDATIONS ADJACENT TO ROADWAYS BUT NOT  
IN SIDEWALKS OR MEDIANS

# City of San Juan Capistrano

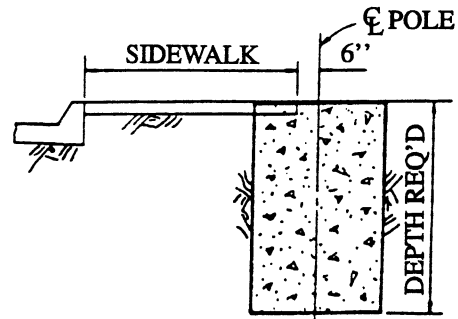


REVISIONS	TRAFFIC SIGNAL AND HIGHWAY LIGHTING FOUNDATION INSTALLATIONS	STANDARD PLAN NO.
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	615
		SHT 1 OF 2

3' BEHIND MEDIAN OR ISLAND CURB CENTERED IN 4' TO 6' MEDIANS. 2' - 6'' BEHIND CURB WITH WIDE SIDEWALK



**MEDIAN, ISLAND OR WIDE SIDEWALK**  
(7' WIDE AND WIDER)



**NARROW SIDEWALK**  
(LESS THAN 7' WIDE)


**FOUNDATIONS IN SIDEWALKS AND MEDIANS**

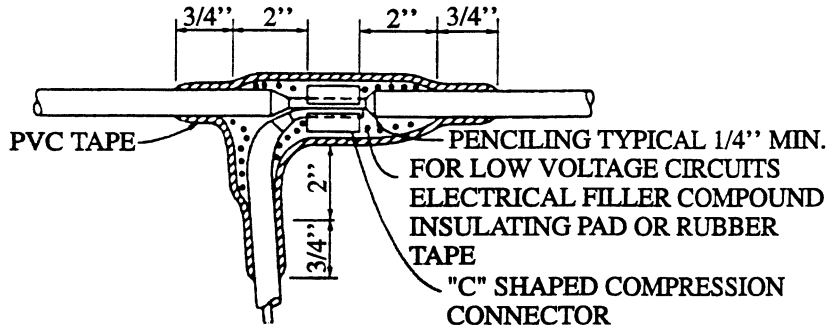
**NOTES:**

1. WHERE A PORTION OF THE FOUNDATION IS ABOVE GRADE, THE TOP EDGES SHALL HAVE A 1'' CHAMFER.
2. PULL BOXES FOR ELECTROLIERS AND SIGNAL STANDARDS SHALL BE LOCATED AT THE SAME STATION ( $\pm 5$  FEET) AS THE ADJACENT ELECTROLIER OR SIGNAL STANDARD. PULL BOXES SHALL BE PLACED IN ANOTHER SUITABLY PROTECTED AND ACCESSIBLE LOCATION. PULL BOXES SHALL BE FLUSH WITH SURROUNDING GRADE AND SHALL NOT BE BURIED.
3. WHERE RIGHT OF WAY IS CONSTRAINED, DIMENSION A AND REFLECTORIZED BARRICADES SHALL BE TO THE SATISFACTION OF THE CITY ENGINEER OR PER IMPROVEMENT PLAN.
4. CONCRETE SHALL BE CLASS 560-C-3250 IN ACCORDANCE WITH THE CURRENT EDITION OF SSPWC 201-1.1.2.

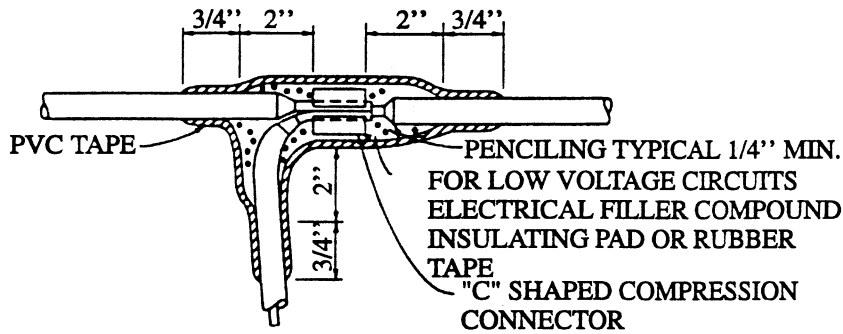


**City of San Juan Capistrano**

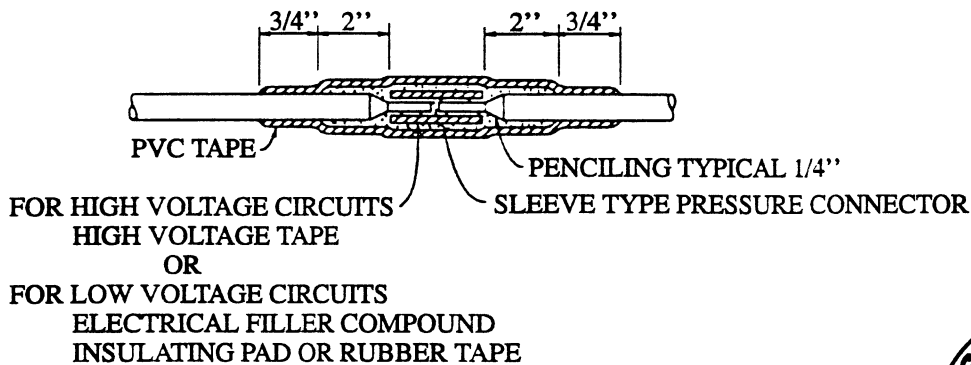
<b>REVISIONS</b>	<b>TRAFFIC SIGNAL AND HIGHWAY LIGHTING FOUNDATION INSTALLATIONS</b>	<b>STANDARD PLAN NO.</b>
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	<b>615</b>  SHT 2 OF 2
	7/20/95 DATE	



**TYPE "C" SPLICE**  
(BETWEEN 1 FREE - END AND 1 THROUGH CONDUCTOR)



**TYPE "T" SPLICE**  
(FOR 3 FREE - ENDS)



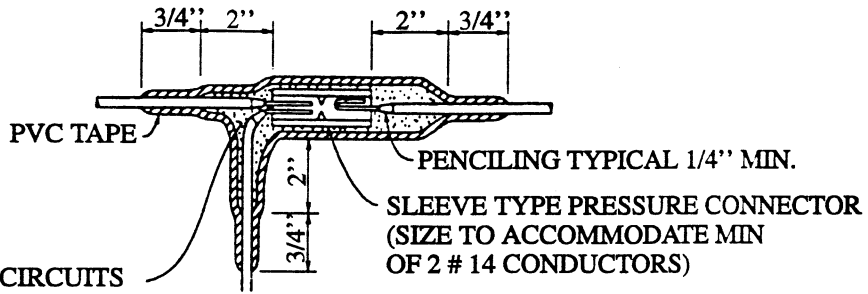
FOR HIGH VOLTAGE CIRCUITS  
HIGH VOLTAGE TAPE  
OR  
FOR LOW VOLTAGE CIRCUITS  
ELECTRICAL FILLER COMPOUND  
INSULATING PAD OR RUBBER TAPE

**TYPE "S" SPLICE**  
(BETWEEN 2 FREE - ENDS)

# City of San Juan Capistrano



REVISIONS	SIGNAL AND LIGHTING SPLICING DETAILS	STANDARD PLAN NO.
		620
	<p style="text-align: center;"><i>William M. Huber</i> 7/20/95 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	SHT 1 OF 2



FOR LOW VOLTAGE CIRCUITS  
 ELECTRICAL FILLER COMPOUND  
 INSULATING PAD OR RUBBER TAPE

**TYPE "ST" SPLICE**  
 (FOR SINGLE CONDUCTORS)

**GENERAL NOTES**

1. ALL DIMENSIONS ARE MINIMAL.
2. RUBBER TAPES SHALL BE ROLLED AFTER APPLICATION.
3. WHEN PVC TAPE IS USED AS FINAL LAYER, PAINT FINISHED SPLICE

**INSULATING METHODS**  
 LOW VOLTAGE CIRCUITS (0 - 600 VOLTS)

**METHOD 'A'**

1. COMPLETELY COVER THE SPLICE AREA WITH AN ELECTRICAL INSULATING COATING AND ALLOW TO DRY.
2. APPLY ELECTRICAL FILLER COMPOUND WITH MINIMUM THICKNESS OF 1/8".
3. APPLY 3 LAYERS OF HALF LAPPED PVC TAPE.

OR

**METHOD 'B'**

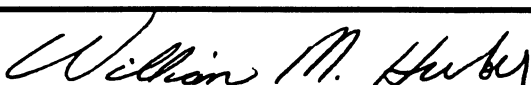
1. COMPLETELY COVER THE SPLICE AREA WITH AN ELECTRICAL INSULATING COATING AND ALLOW TO DRY.
2. APPLY 2 LAYERS OF ELECTRICAL INSULATING PAD WITH MINIMUM THICKNESS OF 1/8" EACH LAYER OR 2 LAYERS, HALF LAPPED, SYNTHETIC OIL RESISTANT, SELF FUSING RUBBER TAPE.
3. APPLY 3 LAYERS HALF LAPPED PVC TAPE.

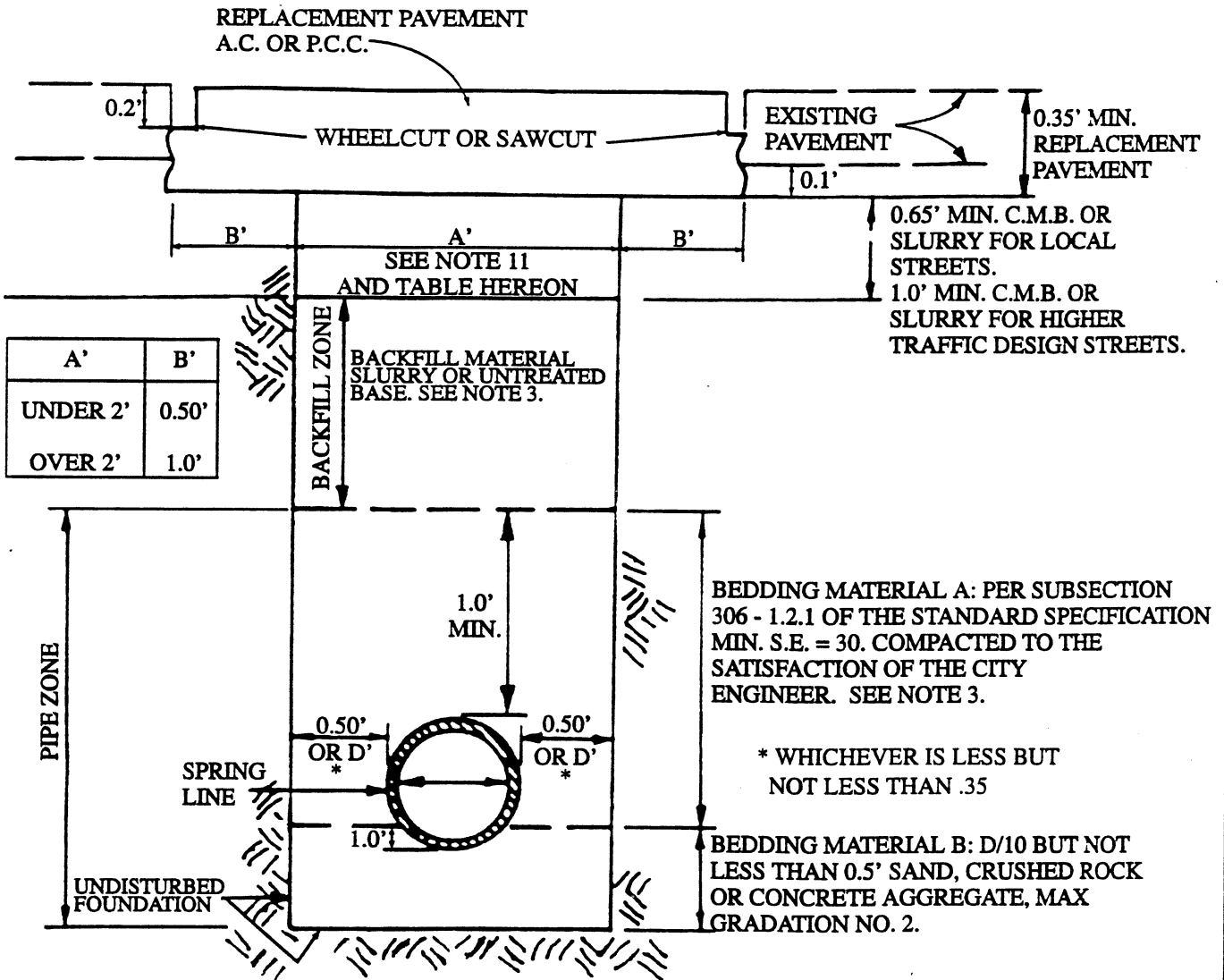
**HIGH VOLTAGE CIRCUITS (OVER 600 VOLTS)**

1. COMPLETELY COVER THE SPLICE AREA WITH AN ELECTRICAL INSULATING COATING AND ALLOW TO DRY.
2. APPLY HIGH VOLTAGE TAPE TO A MINIMUM THICKNESS EQUAL TO ORIGINAL INSULATION.
3. APPLY 3 LAYERS HALF LAPPED PVC TAPE.

**City of San Juan Capistrano**



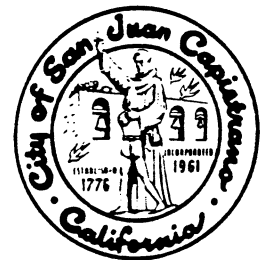
<b>REVISIONS</b>	<b>SIGNAL AND LIGHTING SPLICING DETAILS</b>	<b>STANDARD PLAN NO.</b>
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	<b>620</b>  SHT 2 OF 2



EXISTING STREET TRENCH DETAIL

SEE SHEET 2 FOR NOTES

# City of San Juan Capistrano



REVISIONS	EXCAVATION AND RESURFACING STANDARD	STANDARD PLAN NO.
		700
	<i>William M. Huber</i> 7/20/95 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE	SHT 1 OF 6

NOTES:

1. ALL EXCAVATION AND CONSTRUCTION OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AND THE WORK AREA TRAFFIC CONTROL HANDBOOK (LATEST EDITION).
2. ALL TRENCHES WHICH ARE TRANSVERSE OR DIAGONAL TO EXISTING OR FUTURE STREETS (INCLUDING ALL INTERSECTION CROSSINGS). ALL LONGITUDINAL TRENCHES IN THE STREET WITHIN 1.5 FEET OF THE EDGE OF THE GUTTER OR EDGE OF CURB IF THERE IS NO GUTTER.
3. WHERE SLURRY IS NOT REQUIRED FOR BACKFILL AND BEDDING "A", CRUSHED MISCELLANEOUS BASE PER THE STANDARD SPECIFICATIONS SECTION 200 - 2.4 CLASS 2 AGGREGATE BASE AND UNTREATED BASE PER SECTION 200 - 2 OR 400 - 2 SHALL BE USED. ALL SOIL MATERIALS FOR BACKFILL, BEDDING, AND FILL SHALL BE GRADED PER SECTION 200-2 OR 400-2 FREE OF 1) CLAY; 2) GREATER THAN 2 INCH ROCK OR GRAVEL; 3) DEBRIS; 4) WASTE; 5) VEGETABLE AND DELETERIOUS MATTER. SATISFACTORY SOIL MATERIAL THAT MAY BE APPROVED SHALL BE THOSE DEFINED BY ASTM D 2467 AS GW, SP, GM, SM, SW, AND SP. UNSATISFACTORY SOILS ARE GC, SC, ML, MH, CL, CH, OL, OH, AND PT.
4. BACKFILL AND COMPACTION METHODS SHALL CONFORM TO SUBSECTION 306 - 1.3 OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (CURRENT EDITION), EXCEPT THAT 95% MINIMUM RELATIVE COMPACTION SHALL BE REQUIRED WITHIN THE STRUCTURAL SECTION AND 0.5 FEET BELOW IT AND 90% COMPACTION IN THE REMAINDER OF THE BACKFILL ZONE.
5. ALL REFERENCES TO SLURRY SHALL MEAN CLASS 100 - E - 100 SAND/CEMENT SLURRY.
6. ALL A.C. REPLACEMENT REQUIRES TACK COAT ON EXISTING EDGES AND A SEAL COAT ON THE SURFACE.
7. PRIOR TO PLACING BACKFILL, CALL CITY ENGINEERING DIVISION FOR BEDDING INSPECTION.
8. THE WHEEL OR SAWCUT OF A.C. SHALL BE A STRAIGHT, CLEAN LINE ACCEPTABLE TO THE CITY ENGINEER.
9. WHERE EXISTING A.C. EXCEEDS 0.5 FEET IN THICKNESS, ALTERNATE PAVEMENT REPLACEMENT THAN REQUIRED HEREON WILL BE SPECIFIED BY THE CITY ENGINEER.
10. PRIOR TO PERFORMING ANY WORK IN THE PUBLIC RIGHT - OF - WAY A PERMIT MUST BE OBTAINED FROM CITY ENGINEERING DIVISION.
11. ON ALL HIGHWAYS SHOWN ON THE MASTER PLAN OF HIGHWAYS THE A + B + B SHALL BE OF WIDTH SUFFICIENT ENOUGH TO ACCOMMODATE A SELF - PROPELLED STEEL ROLLER.
12. ALL WORK SHALL CONFORM TO THE "GUIDELINES FOR TRAVEL EXCAVATION;" ATTACHED HERETO.

# City of San Juan Capistrano



REVISIONS	EXCAVATION AND RESURFACING STANDARD	STANDARD PLAN NO.  700
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785      7/20/95 DATE	SHT 2 OF 6

## GUIDELINES FOR TRENCH EXCAVATION

1. A TRENCH IS DEFINED AS AN EXCAVATION IN WHICH THE DEPTH IS GREATER THAN THE WIDTH OF THE BOTTOM OF THE EXCAVATION.

ALL TRENCH EXCAVATION AND RELATED WORK SHALL CONFORM TO SUBSECTION 306-1 OF THE CURRENT EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (STANDARD SPECIFICATIONS) AND AS FURTHER SPECIFIED BELOW:

- A. MAXIMUM LENGTH OF OPEN TRENCH SHALL BE 200 FEET OR THE DISTANCE NECESSARY TO ACCOMMODATE THE AMOUNT OF PIPE ABLE TO BE INSTALLED IN A SINGLE DAY, WHICHEVER IS GREATER.
  - B. BEFORE EXCAVATING ANY TRENCH FIVE FEET OR MORE IN DEPTH, THE CONTRACTOR/PERMITTEE SHALL SUBMIT TO THE CITY A DETAILED PLAN SHOWING THE DESIGN OF SHORING, BRACING, SLOPING OR OTHER PROVISIONS TO BE MADE FOR THE WORKERS' PROTECTION. THIS PLAN MUST COMPLY WITH THE REQUIREMENTS OF THE STATE OF CALIFORNIA CONSTRUCTION SAFETY ORDERS, ARTICLE 6, SECTION 1540. IF THIS PLAN VARIES FROM SHORING SYSTEM STANDARDS, IT SHALL BE PREPARED BY A REGISTERED CIVIL ENGINEER. THE PLAN WILL BE REVIEWED BY THE CITY PRIOR TO THE COMMENCEMENT OF EXCAVATION BY THE CONTRACTOR/PERMITTEE.
  - C. PRIOR TO COMMENCING WORK ON THIS PROJECT, THE CONTRACTOR/PERMITTEE SHALL SUBMIT TO THE CITY FOR APPROVAL A PLAN AND SCHEDULE OF CONSTRUCTION WHICH WILL ALLOW THE LEAST INCONVENIENCE TO THE PUBLIC AND/OR RESIDENTS. UTILITY TRENCHES MUST BE BACKFILLED AND COMPACTED OR COVERED WITH STEEL PLATES SO THAT ALL RESIDENTS WILL HAVE ACCESS TO THEIR DRIVEWAYS PRIOR TO CONTRACTOR/ PERMITTEE LEAVING JOB SITE EACH DAY. ALL TRENCHES DEEPER THAN 0.15 FOOT IN ROADWAY MUST BE COVERED WITH STEEL PLATES OR FENCED, AS DETERMINED BY THE CITY, WHEN LEFT OVERNIGHT. ALL PLATES SHALL BE PLACED AND SECURED AGAINST DISPLACEMENT IN CONFORMANCE WITH THE PROVISIONS OF THE 'WORK AREA TRAFFIC CONTROL HANDBOOK PUBLISHED BY BUILDING NEWS, INC., LATEST EDITION THEREOF. ALL PLATES PLACED ON ARTERIAL HIGHWAYS SHALL BE SECURED ALSO BY SPIKES.
2. BEDDING MATERIAL WHICH SUPPORTS THE CONDUIT SHALL EXTEND A MINIMUM OF 1.0 FOOT ABOVE THE CONDUIT AFTER DENSIFICATION.
  3. PRIOR TO BACKFILLING OF THE TRENCH BY THE CONTRACTOR/PERMITTEE, THE PROPOSED BACKFILL MATERIAL MUST BE APPROVED BY THE CITY. WHEN REQUESTED THE CONTRACTOR/PERMITTEE SHALL PROVIDE THE CITY WITH A CERTIFICATE OF COMPLIANCE FROM A SOILS TESTING LABORATORY APPROVED BY THE CITY.

# City of San Juan Capistrano



REVISIONS	EXCAVATION AND RESURFACING STANDARD	STANDARD PLAN NO.
		700
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785      7/20/95      DATE	SHT 3 OF 6



WHEN REQUIRED BY THE CITY, TESTS SHALL BE PERFORMED ON ALL PROPOSED BACKFILL MATERIAL TO ENSURE UNIFORM COMPLIANCE WITH CITY REQUIREMENTS. ANY MATERIAL THAT FAILS ON - SITE TESTING IS SUBJECT TO REMOVAL AND DISPOSAL AT THE EXPENSE OF THE CONTRACTOR/PERMITTEE.

4. AS STATED IN THE TRENCHING DETAIL NOTES, BACKFILL AND BEDDING MATERIALS SHALL HAVE A SAND EQUIVALENT (S.E.) AS DETERMINED BY TEST METHOD NO. CALIF. 217 AND SHALL BE DENSIFIED TO A MINIMUM RELATIVE COMPACTION OF 90 PERCENT (95 PERCENT IN THE CASE OF SUBPARAGRAPH 4B BELOW) BY THE USE OF MECHANICAL TAMPERS, ROLLERS, OR VIBRATORS APPROVED BY THE CITY. "STAMPING" TYPE EQUIPMENT SHALL NOT BE USED FOR DENSIFYING TRENCH BACKFILL WITHOUT PRIOR CITY APPROVAL WHEN THE CONDUIT OR PIPE IS OTHER THAN REINFORCED CONCRETE OR AS OTHERWISE SPECIFIED BY THE PUBLIC UTILITY COMPANY STANDARDS. MATERIAL FOR MECHANICALLY COMPACTED BACKFILL SHALL BE PLACED IN LIFTS NOT EXCEEDING THICKNESSES AS SPECIFIED IN SUBSECTION 306 - 1.3.2 OF THE STANDARD SPECIFICATIONS FOR THE TYPE OF EQUIPMENT USED. CLASS 100 - E - 100 SAND-CEMENT SLURRY, MECHANICALLY MIXED (HAND MIXING IS NOT APPROVED) AND PLACED IN CONFORMANCE WITH CITY REQUIREMENTS, MAY BE USED WHEN APPROVED BY THE CITY.
- A. TESTING OF BACKFILL MATERIAL SHALL BE PERFORMED BY THE CONTRACTOR/PERMITTEE, AS REQUIRED BY THE CITY TO ENSURE UNIFORM DENSIFICATION. APPROVAL OF THE TEST RESULTS FOR BACKFILL MATERIAL SHALL BE SECURED FROM THE CITY PRIOR TO PLACEMENT OF PERMANENT BASE OF PAVEMENT. ALL TESTS SHALL BE PERFORMED AT THE EXPENSE OF THE CONTRACTOR/PERMITTEE.
  - B. WHERE TRENCH EXCAVATION OCCURS WITHIN EXISTING PAVEMENT, THE FOLLOWING CONDITIONS SHALL APPLY:
    1. THE UPPER 0.5 FEET OF SUBGRADE AND THE STRUCTURAL SECTION SHALL BE DENSIFIED TO A MINIMUM RELATIVE COMPACTION OF 95 PERCENT. THE REMAINING BACKFILL SHALL BE DENSIFIED TO A MINIMUM RELATIVE COMPACTION OF 90 PERCENT.
    2. ALL TRENCHES WHICH ARE TRANSVERSE OR DIAGONAL TO EXISTING STREETS OR ARE WITHIN AN INTERSECTION SHALL BE BACKFILLED WITH CLASS 100 - E - 100 SAND-CEMENT SLURRY. WHEN LONGITUDINAL TRENCHING IS PROPOSED NEAR CURBS AND GUTTERS, THE WALLS OF THE TRENCH SHALL NOT BE WITHIN 1.5 FEET OF THE EDGE OF GUTTER (OR EDGE OF CURB IF THERE IS NO GUTTER) IF THE TRENCH IS IN THE STREET, NOR WITHIN 1.5 FEET OF THE BACK OF THE CURB IF THE TRENCH IS IN THE PARKWAY, UNLESS PRIOR APPROVAL IS OBTAINED FROM THE CITY. WHEN TRENCH WALLS 1.5 FEET OR CLOSER TO THE EDGE OF GUTTER (OR EDGE OF CURB IF THERE IS NO GUTTER) ARE APPROVED BY THE CITY, THEN THE TRENCH SHALL BE BACKFILLED WITH CLASS 100 - E - 100 SAND-CEMENT SLURRY.
    3. THE EXISTING PAVEMENT SHALL BE CUT ON ALL SIDES 0.5 TO 1.0 FEET WIDER THAN THE TRENCH WIDTH. WHEN THE EDGE OF EXISTING PAVEMENT IS SO CUT, ALL EXISTING PAVEMENT BETWEEN THE EDGE OF THE CUT AND THE GUTTER SHALL BE REMOVED IF IT IS LESS THAN 2.0 FEET IN UNIFORM WIDTH. ALL EDGES OF RECONSTRUCTED PAVEMENT SHALL BE STRAIGHT AND UNIFORM. IF THE CONTRACTOR/PERMITTEE CHOOSES TO USE A "PAVEMENT BREAKER" FOR MARKING THE INITIAL LIMITS OF TRENCH EXCAVATION, THE AREA SO MARKED MUST BE CONTINUOUSLY BARRICADED TO PREVENT TRAFFIC FROM PASSING OVER THE INDENTATIONS IN THE PAVEMENT, AS WELL AS THE AREA IMMEDIATELY ADJACENT TO ANY EXCAVATION. SUCH BARRICADING OR TRAFFIC CLOSURE, HOWEVER, SHALL COMPLY WITH CONTRACT/PERMIT TRAFFIC REQUIREMENTS, AND NOT CONSTITUTE ADDITIONAL CLOSURE. ALL LOOSE PAVEMENT AND OTHER DEBRIS SHALL BE IMMEDIATELY REMOVED. PRIOR TO SURFACING OF THE TRENCH, THE EXISTING PAVEMENT SHALL BE CUT AS SPECIFIED ABOVE. ANY BARRICADING SHALL CONFORM TO CITY TRAFFIC REQUIREMENTS AND PROVISIONS OF THE "WORK AREA TRAFFIC CONTROL HANDBOOK".



## City of San Juan Capistrano

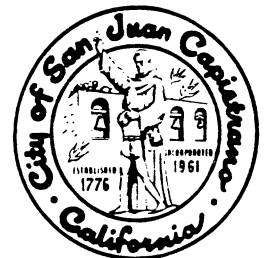
REVISIONS	EXCAVATION AND RESURFACING STANDARD	STANDARD PLAN NO.
		700
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	DATE
	7/20/95	SHT 4 OF 6

4. TRENCH RESURFACING SHALL MATCH THE EXISTING STREET SURFACE (A.C. OR P.C.C.) AND SHALL BE 0.1 FOOT THICKER THAN EXISTING PAVEMENT. THE MINIMUM THICKNESSES OF TRENCH RESURFACING MATERIALS SHALL CONFORM TO THE FOLLOWING TABLE.

LOCAL STREETS AND ALLEYS	MAJOR, PRIMARY, SECONDARY AND COMMUTER STREETS (AS SHOWN ON THE CITY MASTER PLAN OF HIGHWAYS)
0.35 FOOT A.C. OR P.C.C. OVER 0.65 FOOT CI 2 AB OR CMB  OR  0.35 FOOT A.C. OR P.C.C. OVER CLASS 100 - E - 100 SAND CEMENT SLURRY	0.50 FOOT A.C. OR P.C.C. OVER 1.00 FOOT CI 2 AB OR CMB  OR  0.35 FOOT A.C. OR P.C.C. OVER CLASS 100 - E - 100 SAND - CEMENT SLURRY

5. IF TEMPORARY ASPHALT CONCRETE PAVEMENT IS PLACED IN ANY PAVEMENT CUT, IT SHALL BE MAINTAINED FREE OF HOLES, RUTS OR OTHER FAILURES. THIS TEMPORARY PAVEMENT SHALL BE REMOVED AND DISPOSED OF, AND PERMANENT ASPHALT CONCRETE PLACED WITHIN A PERIOD OF TEN WORKING DAYS OR AS OTHERWISE APPROVED FOR PUBLIC UTILITY COMPANIES, FOLLOWING THE PLACEMENT OF THE TEMPORARY PAVEMENT. AFTER REMOVAL OF TEMPORARY PAVEMENT AND PRIOR TO PLACEMENT OF PERMANENT ASPHALT THE SURFACE OF THE SUBGRADE, BACKFILL OR BASE, AND EDGES OF ADJACENT PAVEMENT SHALL BE APPROVED BY THE CITY. THIS SURFACE SHALL BE TESTED/INSPECTED FOR COMPACTION, ELEVATION, SURFACE UNIFORMITY, AND IT SHALL BE FIRM, HARD AND UNYIELDING. THE EDGES OF PAVEMENT SHALL BE INSPECTED FOR WIDTH, STRAIGHTNESS, AND PROPER TACK COAT.
6. IF THE CONTRACTOR/PERMITTEE PROPOSES TO OPEN A STREET TO TRAFFIC AFTER PERMANENT ASPHALT CONCRETE (BASE COURSE) HAS BEEN INSTALLED IN THE TRENCH, BUT PRIOR TO INSTALLATION OF THE FINAL PAVEMENT COURSE, THE PAVEMENT SHALL BE MAINTAINED IN SUCH A MANNER THAT HOLES, RUTS, FAILURES, AND ABRUPT CHANGES IN ELEVATION WILL NOT OCCUR. THE CONTRACTOR/PERMITTEE SHALL OBTAIN APPROVAL FROM THE CITY PRIOR TO OPENING THE STREET TO TRAFFIC WITHIN THE LIMITS OF THEIR PERMITTED WORK.
7. THE FINAL PAVEMENT COURSE SHALL BE MADE IN SUCH A MANNER THAT IT WILL BE FLUSH AND CONFORM WITH THE EXISTING STREET SURFACE. THE CONTRACTOR/PERMITTEE SHALL OBTAIN APPROVAL FROM THE CITY PRIOR TO PLACING THE FINAL PAVEMENT COURSE.

# City of San Juan Capistrano



REVISIONS	EXCAVATION AND RESURFACING STANDARD	STANDARD PLAN NO.
		700
	<p style="text-align: center;"><i>William M. Huber</i></p> <p style="text-align: center;">APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785      7/20/95      DATE</p>	SHT <u>5</u> OF <u>6</u>

8. THE CITY GUIDELINES FOR TESTING BACKFILL MATERIAL ARE AS FOLLOWS:

A. PRIOR TO TRENCH EXCAVATION, THE GRADING SAND EQUIVALENC (S.E.), AND RELATIVE COMPACTION CURVE OF THE PROPOSED BACKFILL MATERIAL SHALL BE DETERMINED AND A CERTIFICATE OF COMPLIANCE FROM A CITY APPROVED SOILS TESTING LABORATORY SHALL BE SUBMITTED TO THE CITY. THE CITY MAY REQUIRE ADDITIONAL TESTING AT THE EXPENSE OF THE CONTRACTOR/PERMITTEE TO ENSURE UNIFORM COMPLIANCE AND MAY ACCEPT OR REJECT THE MATERIAL BASED UPON SUCH TESTING. UNSUITABLE MATERIAL AS DETERMINED BY THE CITY SHALL BE REMOVED FROM THE SITE AT THE EXPENSE OF THE CONTRACTOR/PERMITTEE.

B. RELATIVE COMPACTION TESTS SHALL BE PERFORMED AT INTERVALS NOT EXCEEDING 200 FEET IN LENGTH AND 2.0 FEET IN DEPTH. ANY MATERIAL THAT FAILS A COMPACTION TEST SHALL BE RECOMPACTED OR REMOVED TO LIMITS DETERMINED BY THE CITY.

9. BARRICADES AND TRAFFIC CONTROL SHALL BE PERFORMED PER THE "WORK AREA TRAFFIC CONTROL HANDBOOK" PUBLISHED BY BUILDING NEWS, INC., LATEST EDITION THEREOF.

10. ANY PAVEMENT TRAFFIC STRIPING REMOVED OR OBLITERATED DUE TO CONTRACTOR/PERMITTEE OPERATIONS SHALL BE REPLACED BY THE CONTRACTOR/PERMITTEE IMMEDIATELY FOLLOWING FINAL PAVING/PATCHING, TO THE SATISFACTION OF THE CITY. THE CONTRACTOR/PERMITTEE SHALL ALSO PROVIDE TEMPORARY PAVEMENT MARKINGS DURING CONSTRUCTION WHEN REQUIRED BY THE CITY. ON CITY CONTRACTS THE CONTRACTOR SHALL RESTRIPE AS REQUIRED BY THE SPECIFICATION.

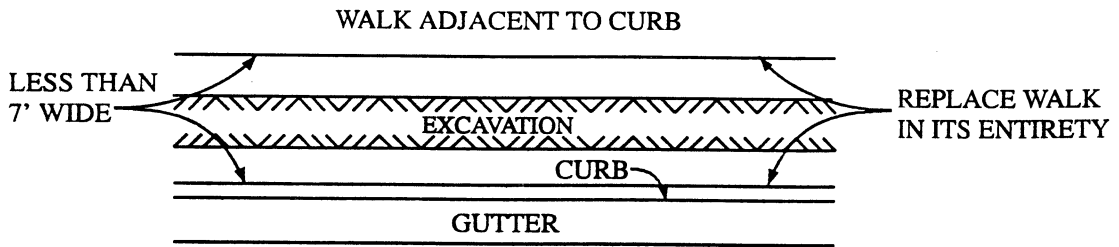
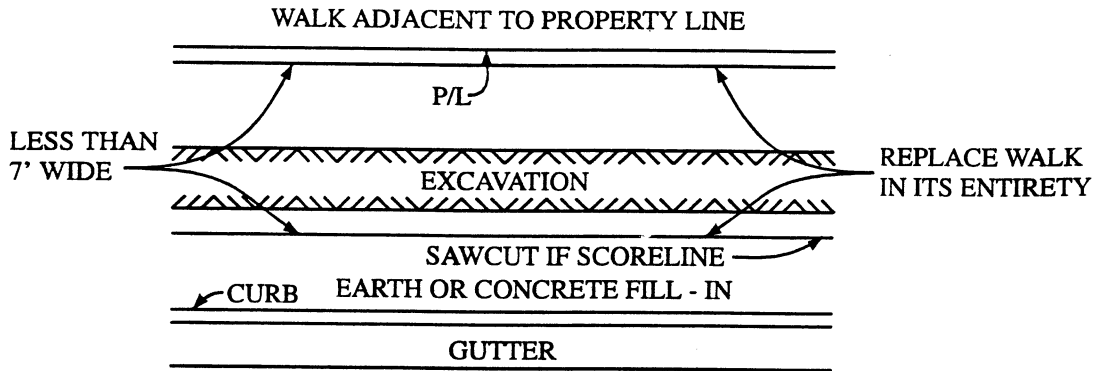


# City of San Juan Capistrano

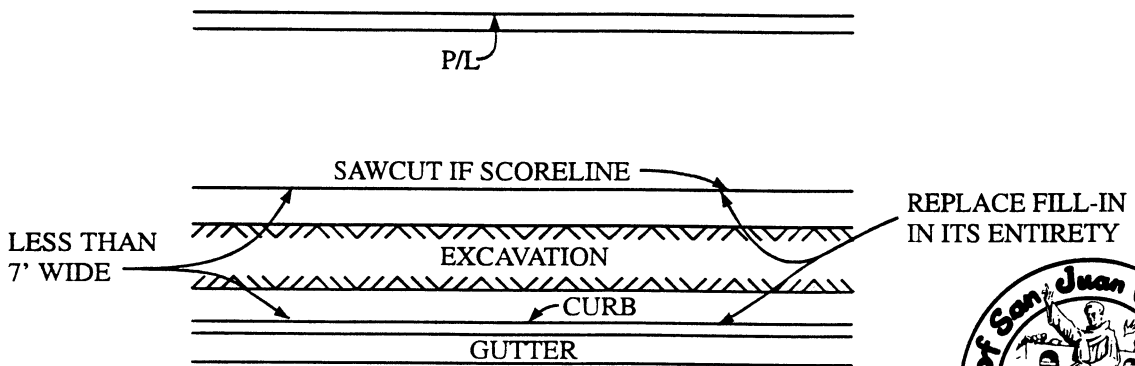
REVISIONS	EXCAVATION AND RESURFACING STANDARD	STANDARD PLAN NO.
		700
	<p style="text-align: center;"><i>William M. Huber</i> 7/20/95          APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	SHT <u>6</u> OF <u>6</u>

**WALK OR FILL-IN REPLACEMENT FOR EXCAVATIONS MADE  
PARALLEL TO CURB OR PROPERTY LINE**

**A. WALK LESS THAN 7 FT. WIDE**



**B. FILL-IN LESS THAN 7 FT. WIDE**

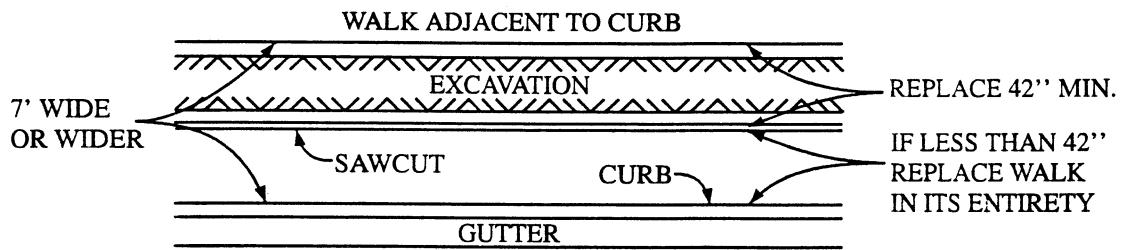
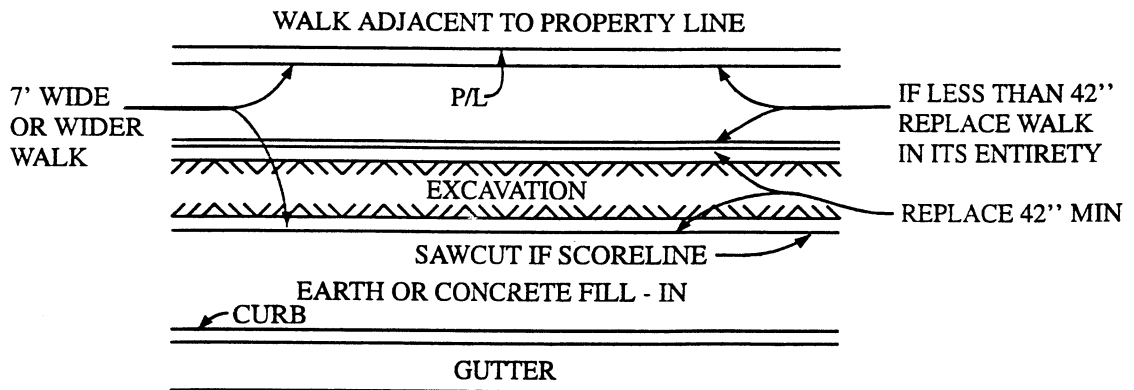


**City of San Juan Capistrano**

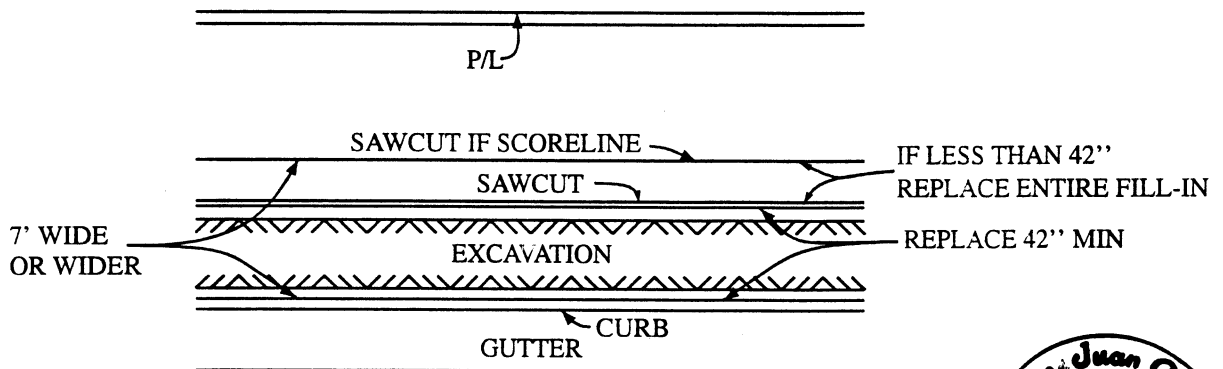


REVISIONS	<p align="center"><b>SIDEWALK AND DRIVEWAY REPLACEMENT</b></p> <p align="center"><i>William M. Huber</i> 7/20/95                  APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	<p align="center"><b>STANDARD PLAN NO.</b></p> <p align="center"><b>710</b></p> <p align="center">SHT <u>1</u> OF <u>4</u></p>
<p> </p> <p> </p> <p> </p> <p> </p>		

C. 7 FT. WIDE OR WIDER



D. FILL IN 7 FT. WIDE OR WIDER



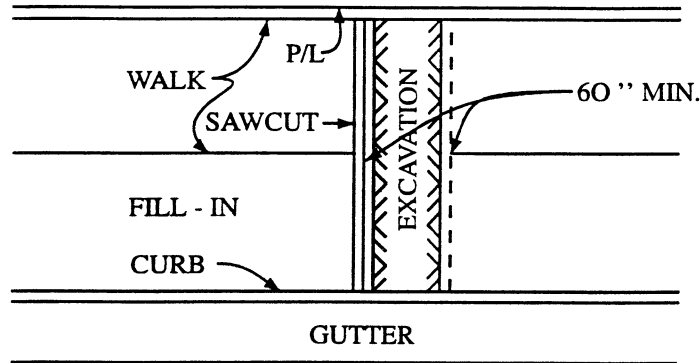
City of San Juan Capistrano



<p>REVISIONS</p>	<p>SIDEWALK AND DRIVEWAY REPLACEMENT</p> <p><i>William M. Huber</i> 7/20/95</p> <p>APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	<p>STANDARD PLAN NO.</p> <p>710</p> <p>SHT 2 OF 4</p>
------------------	--	---

**WALK OR FILL - IN REPLACEMENT FOR EXCAVATIONS  
MADE NORMAL TO CURB OR PROPERTY LINE**

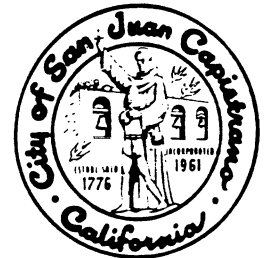
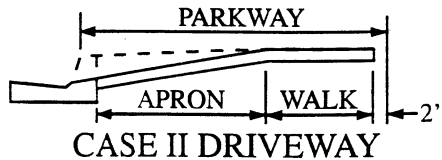
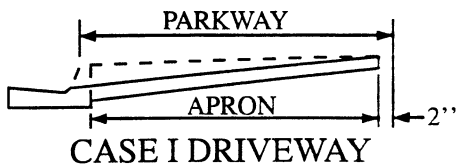
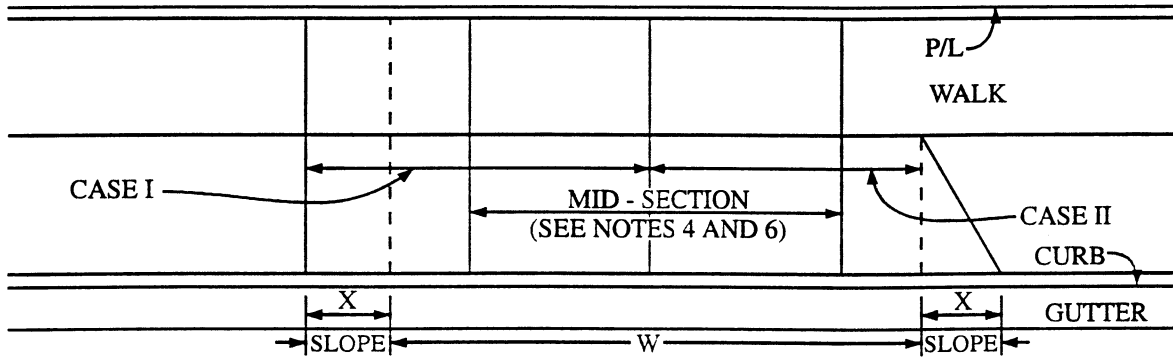
(THESE REQUIREMENTS ALSO APPLY TO  
ENDS OF PARALLEL EXCAVATIONS)



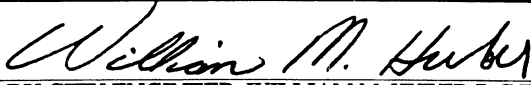
IF AN EXCAVATION FALLS WITHIN 60 INCHES OF AN EXPANSION JOINT, CONSTRUCTION JOINT, WEAKENED PLANE JOINT, CRACK OR EDGE, THE CONCRETE SHALL BE REMOVED AND REPLACED TO THE JOINT, CRACK OR EDGE.

IF AN EXCAVATION FALLS WITHIN 30 INCHES OF A SCORELINE, THE CONCRETE SHALL BE REMOVED AND REPLACED TO THE SCORELINE. THE SCORELINE SHALL BE SAWCUT PRIOR TO REMOVAL. THE MINIMUM LENGTH OF REPLACEMENT IN BOTH CASES SHALL BE 60 INCHES.

**DRIVEWAY REPLACEMENT**



**City of San Juan Capistrano**

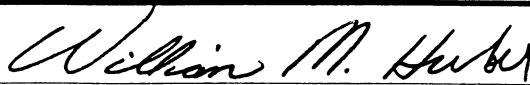
REVISIONS	SIDEWALK AND DRIVEWAY REPLACEMENT	STANDARD PLAN NO.  710
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785      DATE 7/20/95	
		SHT 3 OF 4

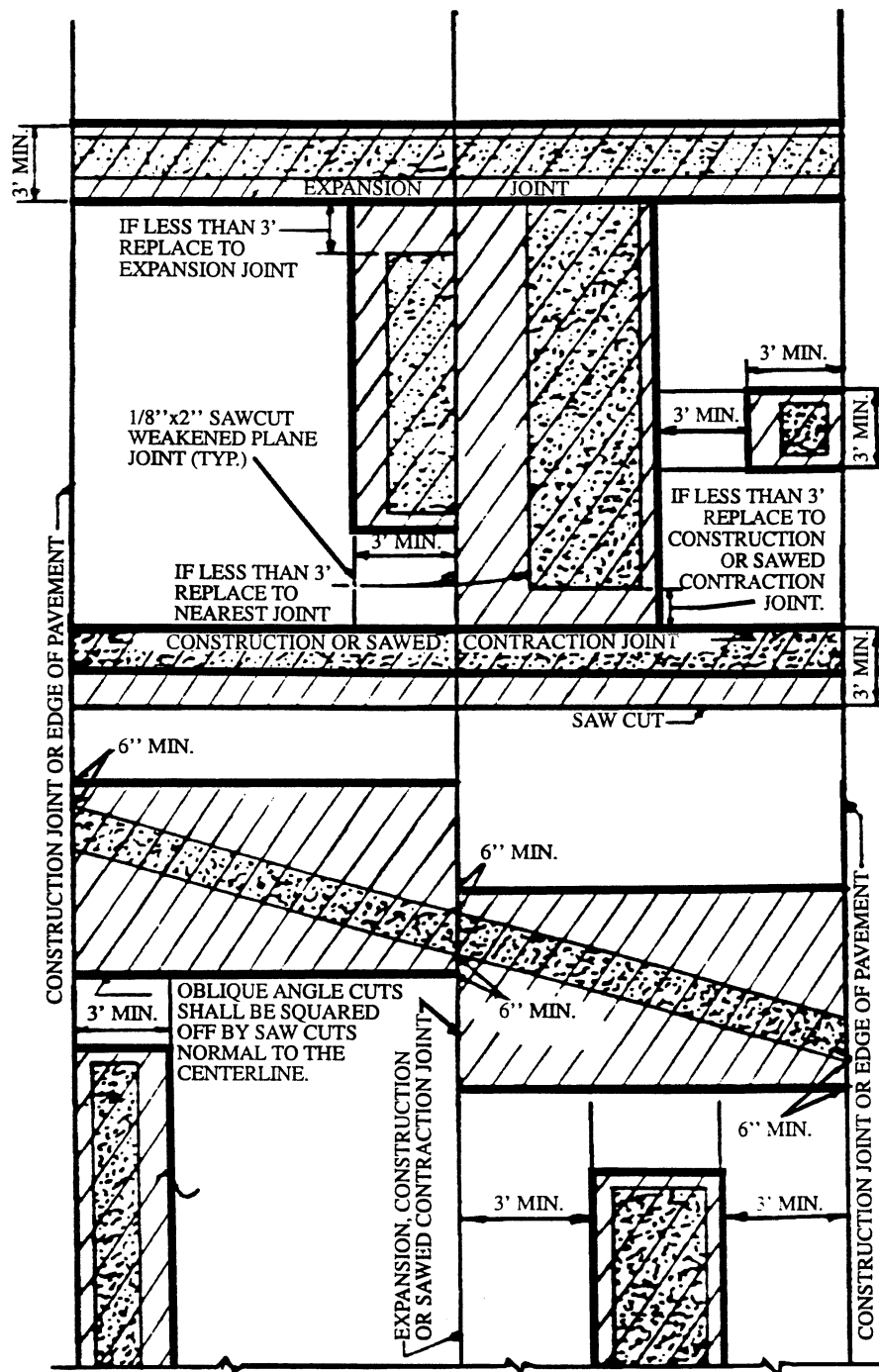
NOTES:

1. CONCRETE WALK, FILL - IN AND DRIVEWAYS REMOVED IN CONNECTION WITH CONSTRUCTION SHALL BE REPLACED TO "NEATLY SAWED EDGES." SAWCUTS SHALL BE A MINIMUM OF ONE HALF THE THICKNESS IN CONCRETE OVER 4" THICK AND 2" DEEP IN CONCRETE 4" OR LESS IN THICKNESS. ALL CUTS SHALL BE PARALLEL TO OR PERPENDICULAR TO THE CURB; ON THE CURVES, THE CUT SHALL BE RADIAL TO THE CURB.
2. A SCORELINE OR MARK IS DEFINED AS A LINE MADE WITH A JOINTER TOOL 1/2" DEEP OR LESS AND NO MORE THAN 1/8" WIDE.
3. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS LESS THEN 11' SHALL BE REPLACED IN THEIR ENTIRETY IF CUT IN ANY AREA.
4. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS 11' OR MORE MAY BE CUT IN THE MID - SECTION AREA, THE MINIMUM REPLACEMENT SHALL BE 66' IN LENGTH, IF APPROVED BY THE CITY ENGINEER.
5. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS 20' OR MORE MAY BE CUT IN THIRDS IF APPROVED BY THE CITY ENGINEER.
6. DRIVEWAY APRONS SHALL BE REPLACED FROM THE BACK OF THE CURB TO THE BACK EDGE OF THE APRON.
7. WALK PORTIONS OF DRIVEWAYS SHALL BE REPLACED AS SHOWN ABOVE FOR EXCAVATIONS MADE PARALLEL OR NORMAL TO CURB.
8. ALL CONCRETE SHALL BE 520 - C - 2500 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SECTION 201 - 1.1.2.
9. ALL CONCRETE WORK SHALL CONFORM TO THE CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND CITY STANDARD PLANS.



# City of San Juan Capistrano

REVISIONS	SIDEWALK AND DRIVEWAY REPLACEMENT	STANDARD PLAN NO.
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	710
	7/20/95 DATE	SHT 4 OF 4



= EXCAVATION

= AREA OF CONCRETE PAVEMENT TO BE SAWCUT AND REPLACED

= 1/8" x 2" SAWCUT

= SAWCUT 2" DEEP



# City of San Juan Capistrano

REVISIONS

## CONCRETE PAVEMENT REPLACEMENT

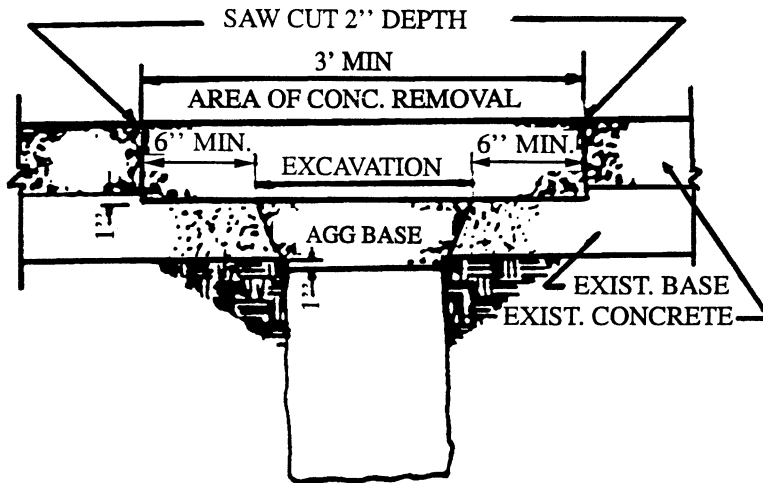
STANDARD PLAN NO.

715

*William M. Huber* 7/20/95  
 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 2






TYPICAL EXCAVATION SECTION  
SEE NOTE 2

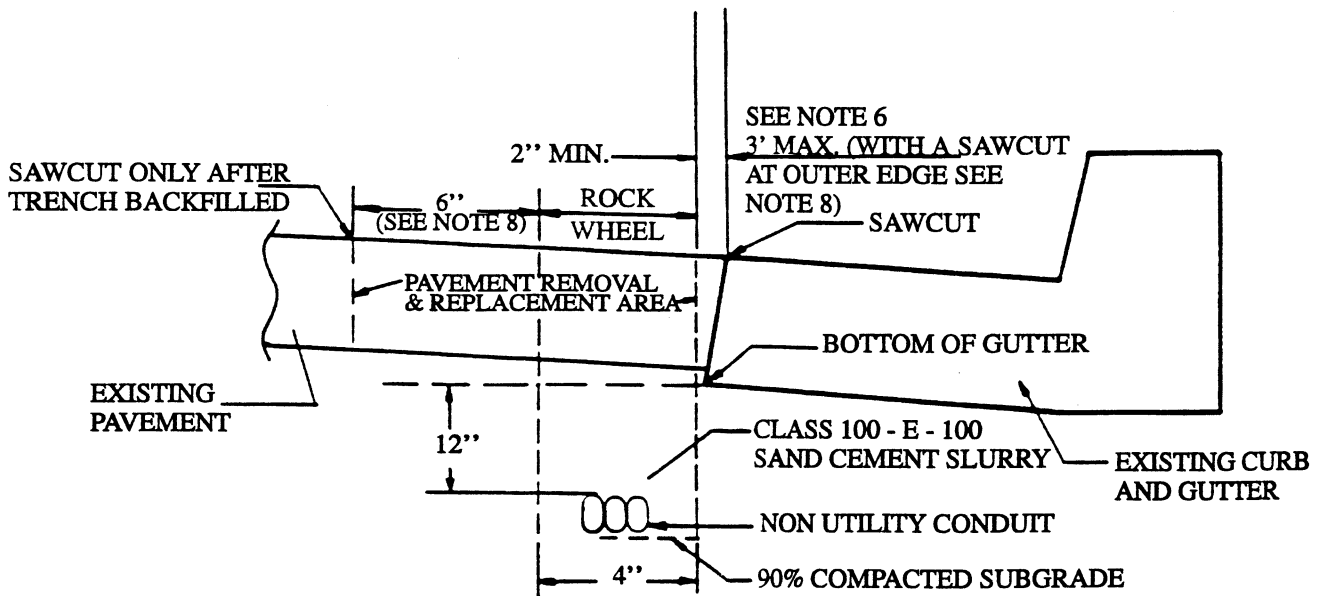
NOTES:

1. CONCRETE PAVEMENT SHALL NOT BE CUT WITHOUT PRIOR APPROVAL FROM THE CITY ENGINEER.
2. EXCAVATION SHALL ALSO CONFORM TO THE REQUIREMENTS OF STD. PLAN NO. 700.
3. THE EXTENT OF REPAIR OF CONCRETE CUTS NOT SHOWN ON THIS STANDARD OR OF CUTS MADE WITHIN THREE FEET OF EXISTING PATCHES, CRACKS OF DETERIORATED SLABS SHALL BE DETERMINED BY THE CITY ENGINEER.
4. ALL CONCRETE WORK SHALL CONFORM TO THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND CITY OF SAN JUAN CAPISTRANO STANDARD PLANS.
5. ALL TRANSVERSE AND LONGITUDINAL JOINTS AND OUTER EDGES OF PAVEMENT WHICH ARE PART OF THE REPLACED CONCRETE SHALL BE EDGED WITH AN EDGING TOOL HAVING A RADIUS OF 1/4" AND IN ACCORDANCE WITH CITY STANDARD PLANS.
6. REPLACED CONCRETE THAT JOINS A SAWED EDGE OF THE EXISTING PAVEMENT SHALL BE TOOLED.
7. REPLACED CONCRETE SHALL BE FINISHED TO THE SAME SURFACE TEXTURE AS THAT OF ADJACENT EXISTING CONCRETE.
8. THE LIMITS OF REMOVAL AND REPLACEMENT IN THE TRAVELED WAY SHALL BE DETERMINED BY THE CITY ENGINEER.
9. DOWELING MAY BE REQUIRED AS DIRECTED BY THE CITY ENGINEER.
10. ALL REMOVALS IN CROSS GUTTERS SHALL BE ALONG EXPANSION OR WEAKENED PLANE JOINTS PER STD. PLAN NO. 305.



# City of San Juan Capistrano

REVISIONS	CONCRETE PAVEMENT REPLACEMENT	STANDARD PLAN NO.
		715
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE	7/20/95
		SHT 2 OF 2

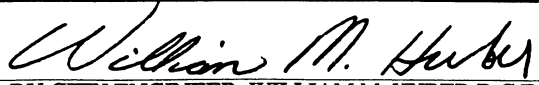


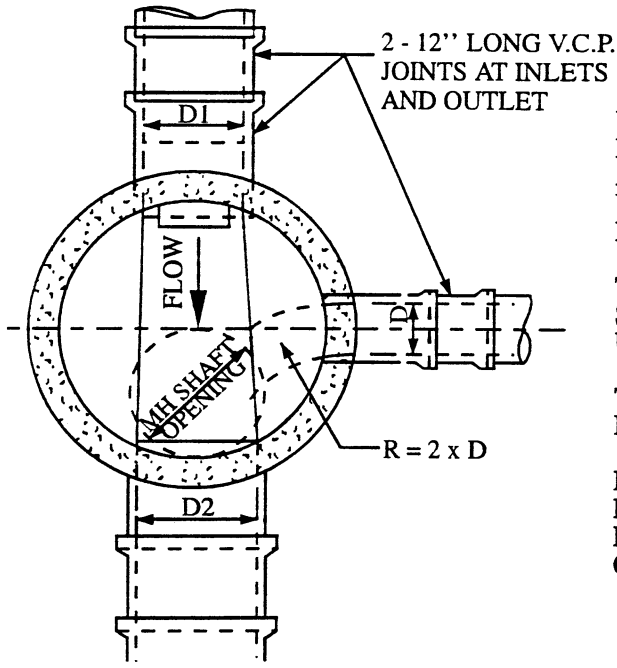
**NOTES:**

1. ALL TRENCHING AND CONSTRUCTION OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE WORK AREA TRAFFIC CONTROL HANDBOOK (CURRENT EDITION) AND SECTION 306 - 1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (CURRENT EDITION).
2. ALL REFERENCES TO SLURRY SHALL MEAN CLASS 100 - E - 100 SAND - CEMENT SLURRY.
3. ALL A.C. REPLACEMENT REQUIRES A TACK COAT ON EXISTING EDGES AND A SEAL COAT ON THE SURFACE, REPLACEMENT A.C. SHALL BE C3AR4000 (3/8" MAX. AGGREGATE).
4. TRENCH RESURFACING SHALL MATCH THE EXISTING STREET SURFACE MATERIAL AND SHALL BE 0.1' THICKER THAN EXISTING PAVEMENT WITH THE MINIMUM REPLACEMENT BEING 4" THICK WHERE EXISTING A.C. EXCEEDS 6" THICK, ALTERNATE PAVEMENT REPLACEMENT WILL BE SPECIFIED BY THE CITY ENGINEER.
5. MAXIMUM LENGTH OF OPEN TRENCH SHALL BE THE DISTANCE NECESSARY TO ACCOMMODATE THE AMOUNT OF PIPE ABLE TO BE INSTALLED AND BACKFILLED IN A SINGLE DAY.
6. LOCATIONS THAT DO NOT HAVE CURB AND GUTTER OR HAVE CURB ONLY WILL REQUIRE INSTALLATION PER THE CITY ENGINEER'S DIRECTION. FOR LOCATIONS THAT REQUIRE SWEEPS UNDER CURB AND GUTTER THE 3' MAX IS REQUIRED.
7. BORE UNDER ALL EXISTING CONCRETE IMPROVEMENTS TUNNELLING IS NOT PERMITTED.
8. THIS EXTRA 6" OF PAVEMENT REMOVAL AND REPLACEMENT WILL BE AS DIRECTED BY THE CITY ENGINEER.

# City of San Juan Capistrano



REVISIONS	NON - UTILITY CONDUIT INSTALLATION DETAIL	STANDARD PLAN NO.
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	750
	7/20/95 DATE	SHT 1 OF 1



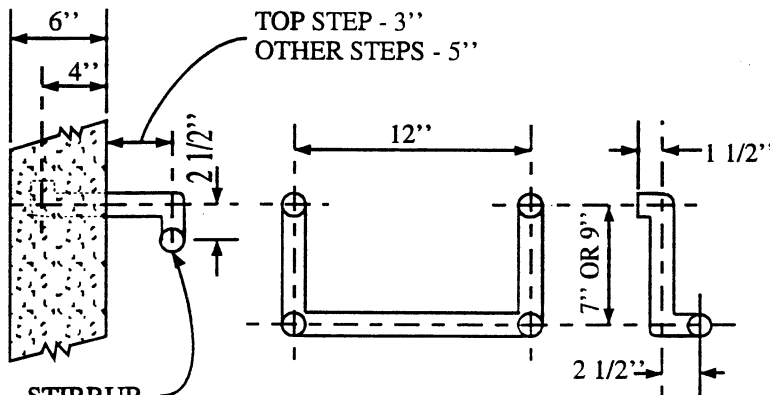
PLAN

WHEN BROKEN END OF PIPE IS WITHIN MANHOLE, BREAK THE PIPE FLUSH WITH INSIDE OF MANHOLE WALL AND PLASTER BROKEN EDGES SMOOTH. WHEN UNBROKEN END OF PIPE IS IN MANHOLE, LEAVE SQUARE END AND FILL FILLETS AT UPPER SECTION TO DRAIN.

THE CROWN ELEVATION OF ALL PIPES SHALL BE THE SAME AS THE CROWN ELEVATION OF THE LARGEST PIPE UNLESS OTHERWISE INDICATED.

THE FIRST TWO PIPE JOINTS INTO AND OUT OF EACH MANHOLE SHALL BE A 1' SECTION.

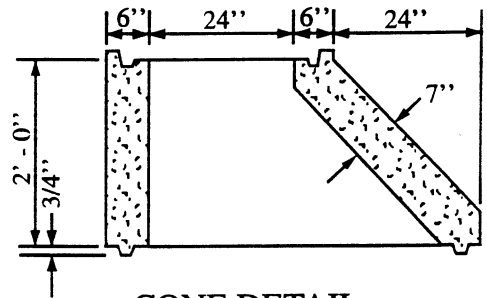
MANHOLE SHAFT OPENING TO BE PLACED ON DOWNSTREAM SIDE OF MANHOLE. LADDER RUNGS ARE REQUIRED. SEE SPECIAL PROVISIONS FOR THE CONSTRUCTION OF SANITARY SEWERS, SECT. I - 05.



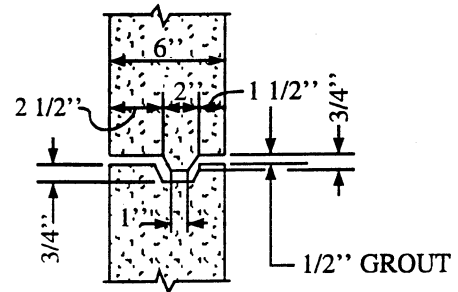
STIRRUP TYPE SAFETY STEPS SPACED 16" O.C. ARE CAST IN PLACE AT TIME OF MANUFACTURE

STEP DETAIL

STEP NOTE:  
MATERIAL SHALL BE 3/4" DIA. STEEL CONFORMING TO A.S.T.M. A - 15 OR A - 107 GALVANIZED AFTER FABRICATION IN ACCORD WITH A.S.T.M. A - 123.



CONE DETAIL



JOINT DETAIL

# City of San Juan Capistrano



REVISIONS

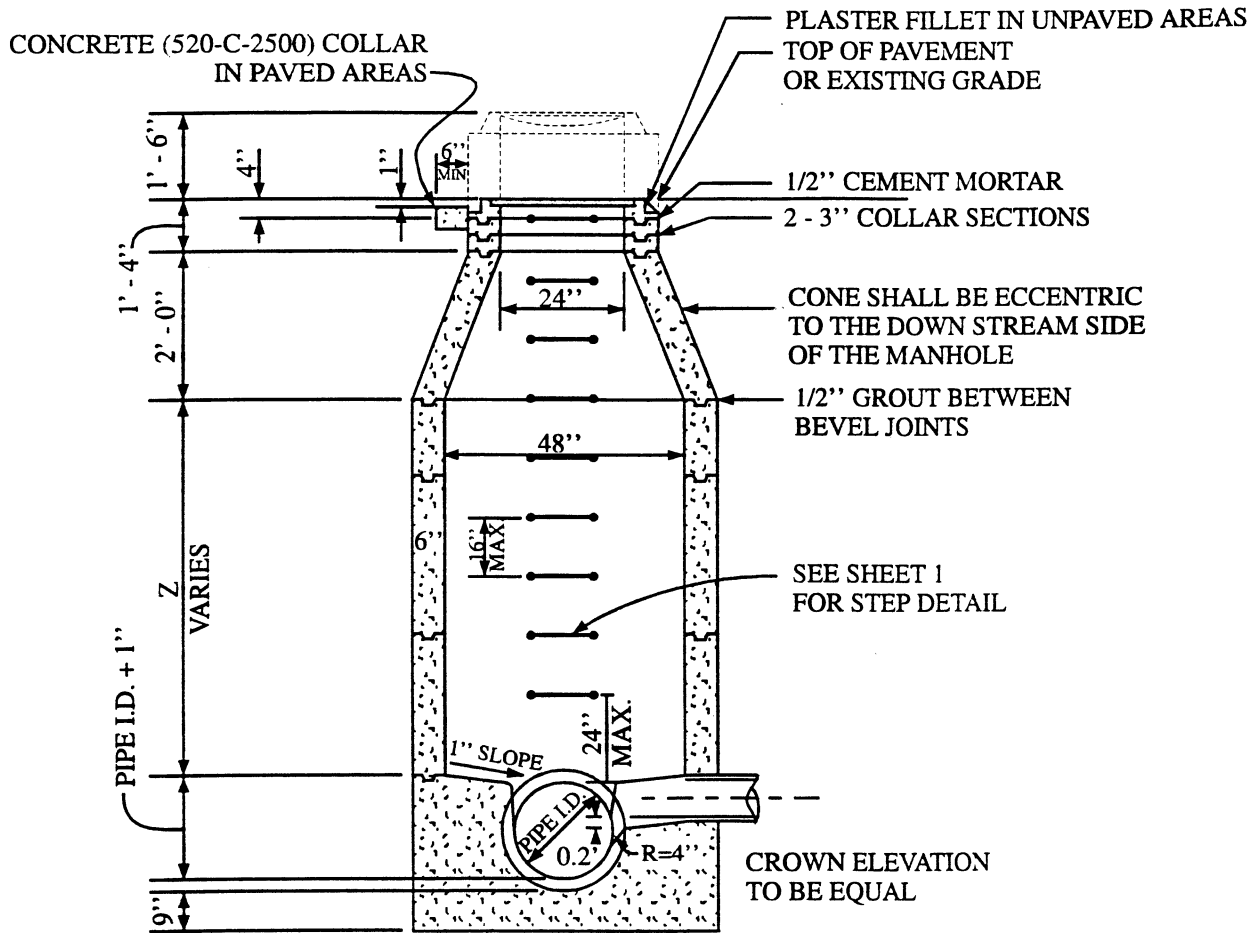
48" MANHOLE

STANDARD PLAN NO.

801

*William M. Huber* 7/20/95  
APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 2



BASE POURED AGAINST UNDISTURBED SOIL.

NOTES:

1. 48" I.D. MANHOLE TO BE USED ON SEWERS 20" IN DIAMETER AND LESS.
2. USE 60" I.D. MANHOLE WHEN Z IS EQUAL TO OR GREATER THAN 12'.
3. SEE STD PLAN NO. 807 FOR FRAME AND COVER DETAILS.
4. MANHOLES IN UNPAVED AREAS ADJACENT TO TRAVELLED WAYS SHALL BE PROTECTED BY METAL POSTS SET IN CONCRETE TO THE CITY'S SATISFACTION.
5. MANHOLES PLACED IN UNPAVED AREAS SHALL HAVE FRAME AND COVER 1'6" ABOVE EXISTING GRADE.

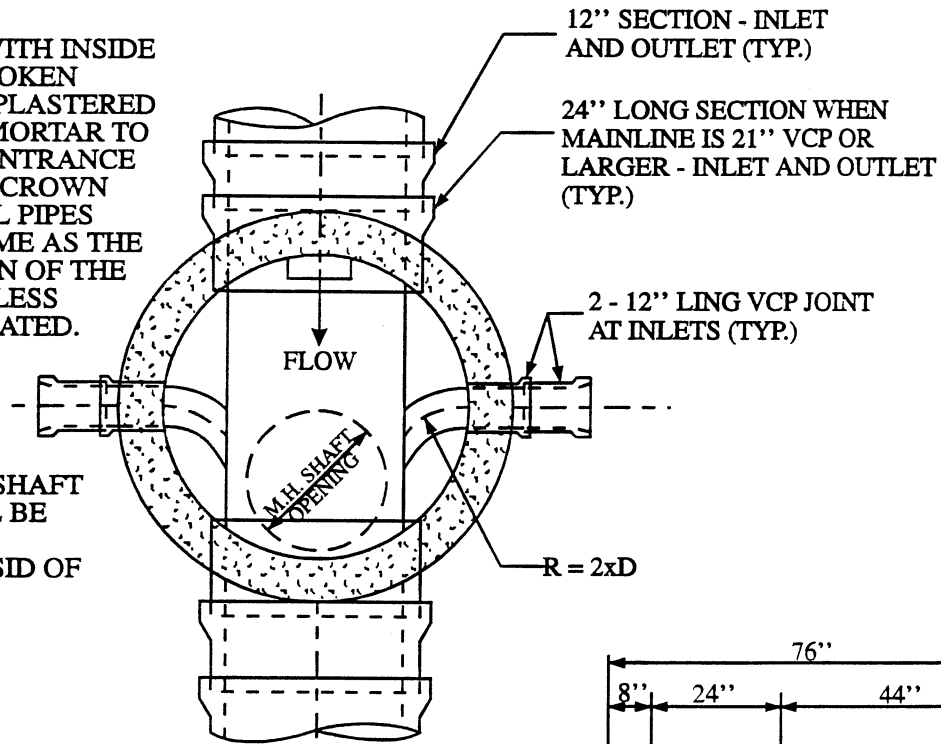
# City of San Juan Capistrano



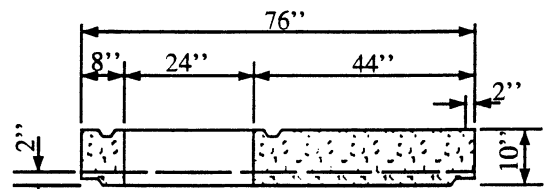
REVISIONS	48" MANHOLE	STANDARD PLAN NO.
	<i>William M. Huber</i>	801
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE 7/20/95	SHT 2 OF 2

CUT PIPE FLUSH WITH INSIDE OF MANHOLE. BROKEN EDGES SHALL BE PLASTERED WITH A CEMENT MORTAR TO GIVE A SMOOTH ENTRANCE TO THE PIPE. THE CROWN ELEVATION OF ALL PIPES SHALL BE THE SAME AS THE CROWN ELEVATION OF THE LARGEST PIPE UNLESS OTHERWISE INDICATED.

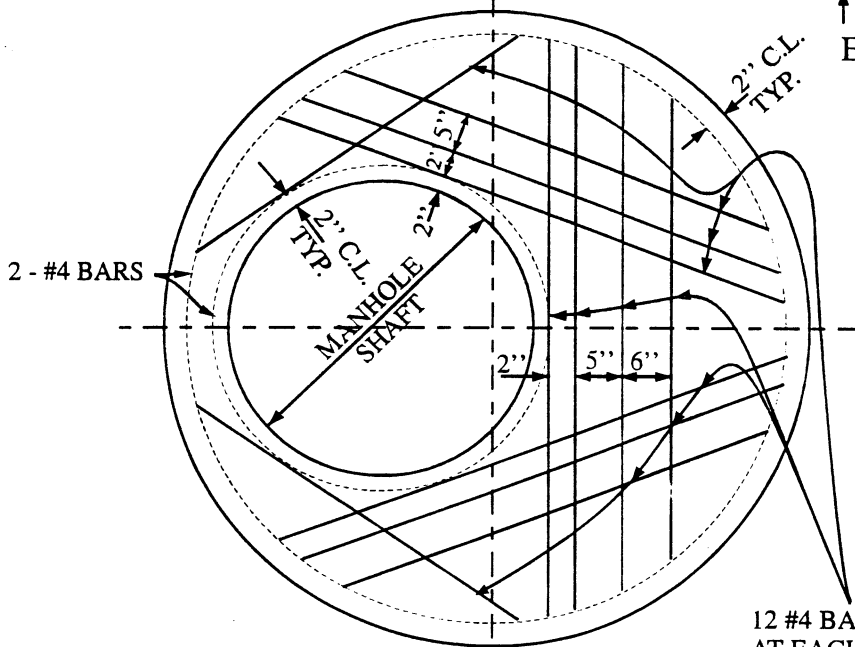
THE MANHOLE SHAFT OPENING SHALL BE PLACED ON THE DOWNSTREAM SID OF THE MANHOLE.



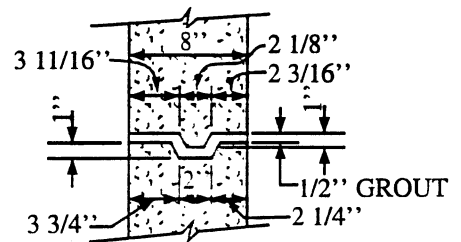
PLAN



ECCENTRIC FLAT TOP DETAIL



ECCENTRIC FLAT TOP



JOINT DETAIL

12 #4 BARS HOOKED AT EACH END

# City of San Juan Capistrano



REVISIONS

60" MANHOLE

STANDARD PLAN NO.

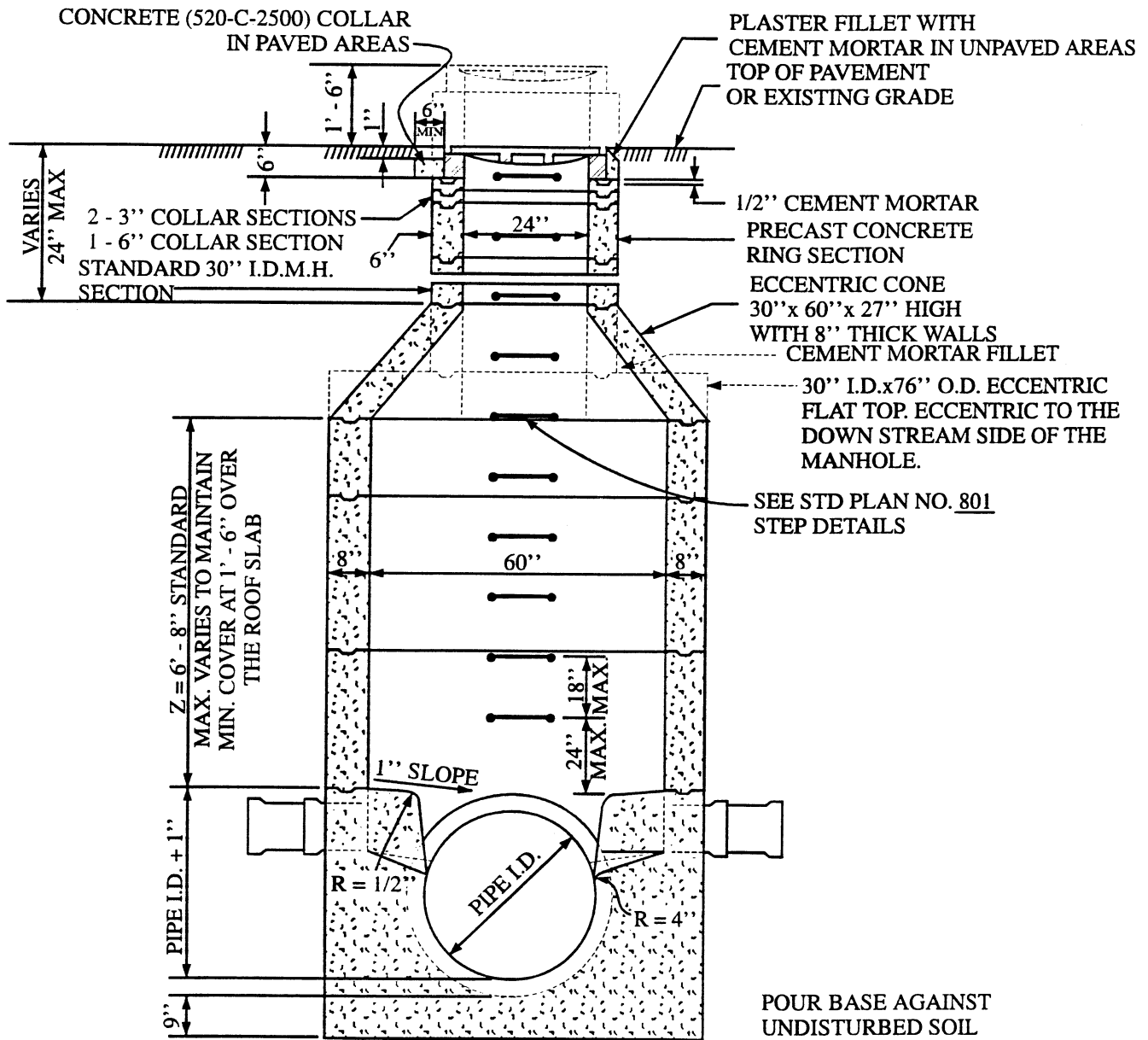
802

*William M. Huber*

7/20/95

APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 2



ELEVATION

NOTES:

1. THE STANDARD 60 INCH MANHOLE SHALL BE USED ON SEWERS 24" IN DIAMETER AND LARGER, OTHER SPECIAL CASES, OR WHEN Z IS 12' OR GREATER.
2. SEE STD. PLAN NO. 807 FOR FRAME AND COVER DETAILS.
3. MANHOLES IN UNPAVED AREAS ADJACENT TO TRAVELLED WAYS SHALL BE PROTECTED BY METAL POSTS SET IN CONCRETE TO THE CITY'S SATISFACTION.
4. MANHOLES IN UNPAVED AREAS SHALL HAVE FRAME AND COVER 1'6" ABOVE EXISTING GRADE.

# City of San Juan Capistrano



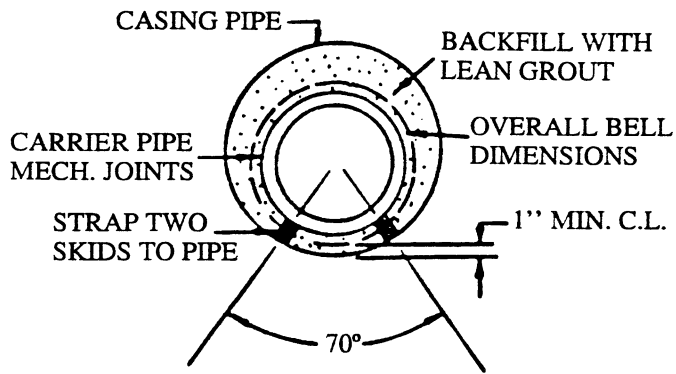
REVISIONS

60" MANHOLE

STANDARD PLAN NO.

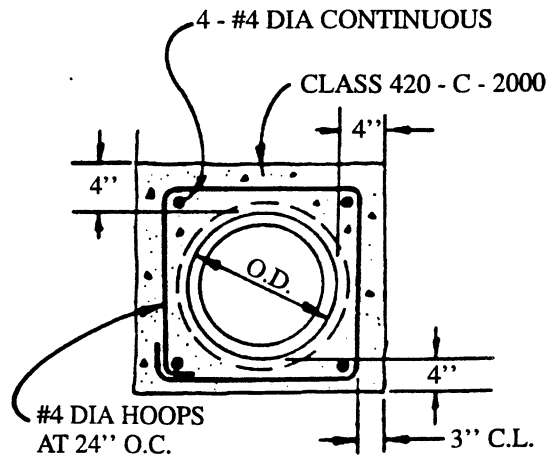
802

*William M. Huber* 7/20/95  
 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE



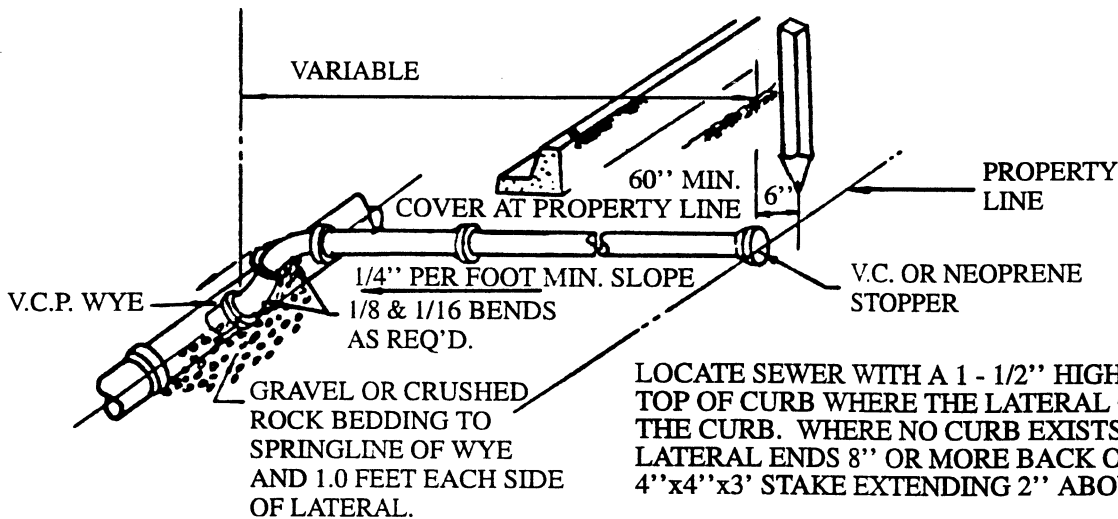
**TYPICAL PIPE CASING**

CARRIER PIPE SHALL BE ANCHORED AND / OR WEIGHTED PRIOR TO GROUTING IN ORDER TO AVOID FLOATING.



**REINFORCED CONCRETE ENCASEMENT**

CONCRETE ENCASEMENT SHALL BE EXTENDED 3\"/>



LOCATE SEWER WITH A 1 - 1/2\"/>

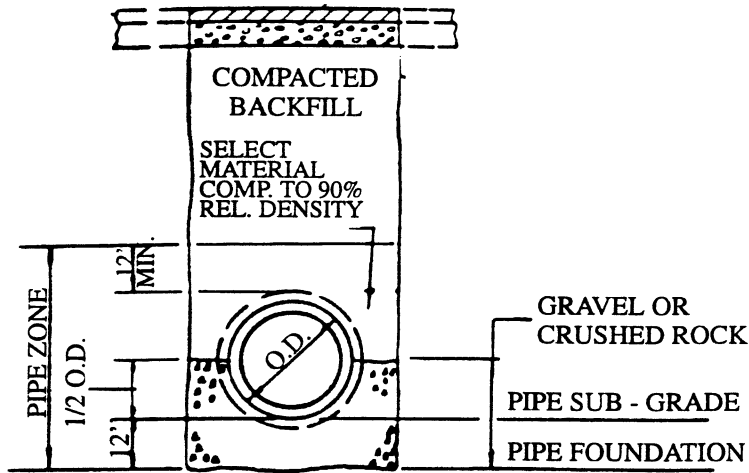
WHERE V.C.P. IS INSTALLED WITHOUT HOUSE LATERAL, THE WYE SHALL BE PLUGGED WITH A V.C. PLUG OR NEOPRENE STOPPER.

**TYPICAL HOUSE LATERAL**

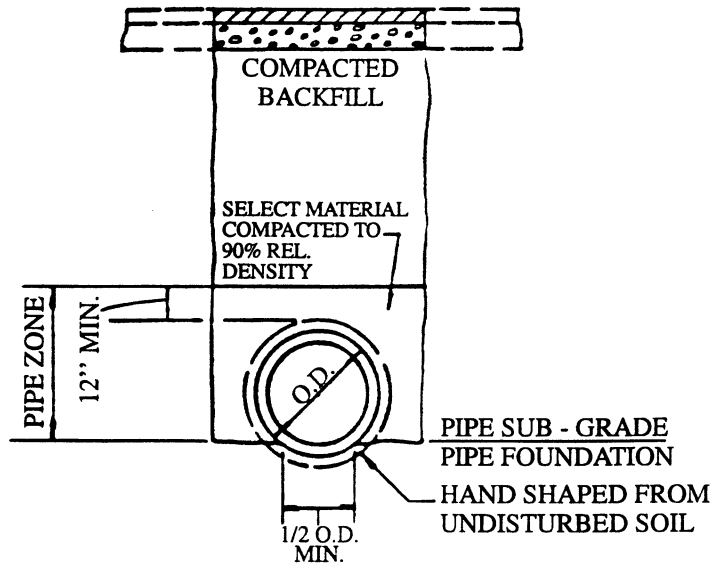


**City of San Juan Capistrano**

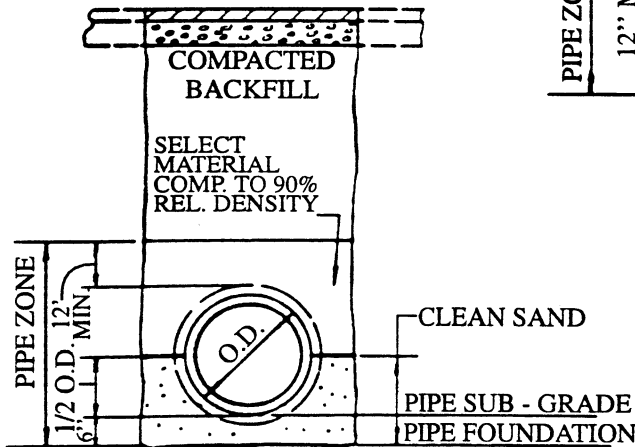
REVISIONS	PIPE CASING, CONCRETE ENCASEMENT & HOUSE LATERAL	STANDARD PLAN NO.
		803
	<p style="text-align: center;"><i>William M. Huber</i> 7/20/95 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>	SHT <u>1</u> OF <u>1</u>



TYPE I



TYPE III



TYPE II

# City of San Juan Capistrano



REVISIONS

PIPE BEDDING DETAILS

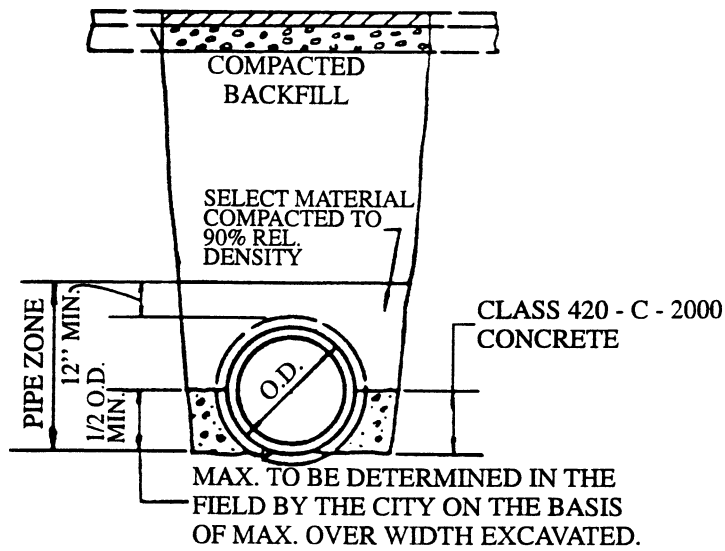
STANDARD  
PLAN NO.

804

*William M. Huber* 7/20/95  
APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

SHT 1 OF 2






TYPE IV

NOTES:

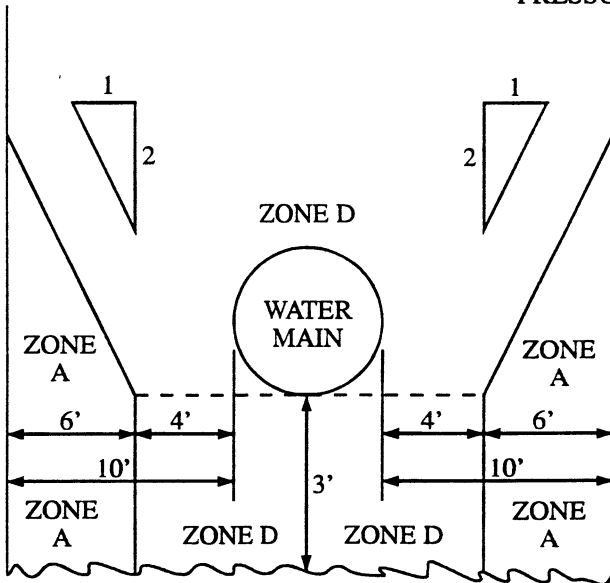
1. THE TRENCH WIDTH AT THE UPPER LIMIT OF THE PIPE ZONE SHALL BE WITHIN THE FOLLOWING LIMITS FOR TYPE I, II, AND III BEDDING:  
 MAXIMUM TRENCH WIDTH - O.D. OF PIPE OR BELL PLUS 12"  
 MINIMUM TRENCH WIDTH - O.D. OF PIPE OF BELL PLUS 8"
2. TYPE IV BEDDING SHALL BE USED WHERE THE TRENCH WIDTH AT THE UPPER LIMIT OF THE PIPE ZONE EXCEEDS THE MAXIMUM WIDTH SPECIFIED ABOVE.
3. SEE STD. PLAN NO. 700 FOR TRENCH RESURFACING AND BACKFILL REQUIREMENTS.

# City of San Juan Capistrano



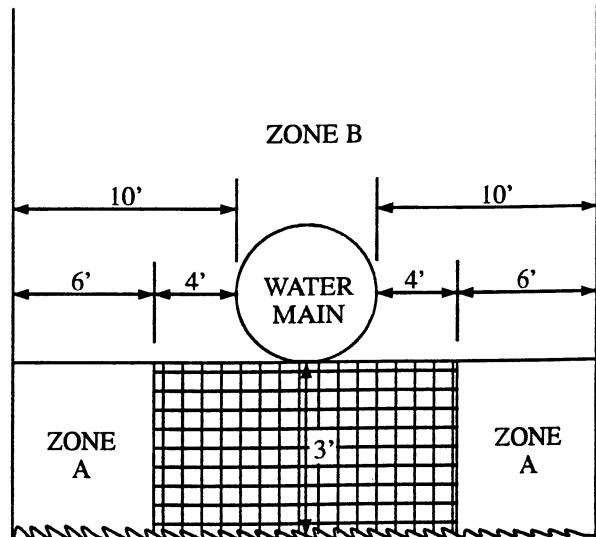
REVISIONS	PIPE BEDDING DETAILS	STANDARD PLAN NO.
		804
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	7/20/95 DATE
		SHT 2 OF 2

DESIGN REQUIREMENTS FOR SANITARY SEWERS IN THE VICINITY OF  
PRESSURE WATER MAINS



PARALLEL CONSTRUCTION

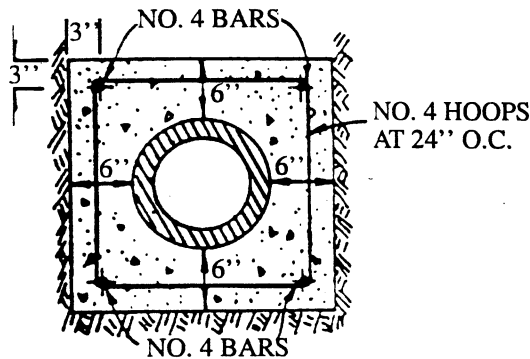
IF A SANITARY SEWER IS TO BE LOCATED WITHIN 10 FEET OF A PRESSURE WATER MAIN WITHIN ANY OF THE ABOVE INDICATED ZONES, SPECIAL CONSTRUCTION WILL BE REQUIRED AS SHOWN BELOW.



PERPENDICULAR CONSTRUCTION

IF A MAIN LINE SEWER MUST CROSS A PRESSURE WATER MAIN WITHIN ANY OF THE ABOVE INDICATED ZONES, OR IF A HOUSE LATERAL MUST CROSS IN ZONE B, SPECIAL CONSTRUCTION WILL BE REQUIRED AS SHOWN BELOW.

ZONE	SEWER CONSTRUCTION REQUIREMENTS
A	V.C.P. WITH COMPRESSION JOINTS
B OR C	C.I.P. (CLASS 150) APPROVED MECHANICAL JOINTS; OR V.C.P. WITH SPECIAL CONCRETE PER (DETAIL 1); OR V.C.P. GROUTED IN CONTINUOUS STEEL CASING.
D	DO NOT LOCATE ANY PARALLEL SEWER IN THIS AREA WITHOUT HEALTH DEPARTMENT APPROVAL.



SPECIAL ENCASUREMENT DETAIL 1  
SEE STD. PLAN 803.

City of San Juan Capistrano



REVISIONS	SEPARATION OF WATER AND SEWER LINES	STANDARD PLAN NO.
		805
	<i>William M. Huber</i>	
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	DATE 7/20/95
		SHT 1 OF 2

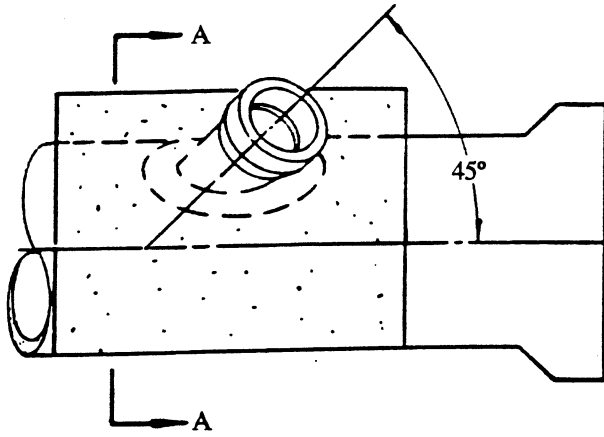
NOTES:

1. EXTEND BOTH ENDS OF ENCASEMENT TO A POINT ONE INCH SHORT OF THE FIRST PIPE JOINT BEYOND LOCATIONS SPECIFIED ON PLAN. USE ONE FOOT SECTION OF PIPE AT BOTH ENDS BEFORE USING STANDARD LENGTHS.
2. APPLY FORM OIL, THIN PLASTIC SHEET, OR OTHER ACCEPTABLE MATERIAL TO PIPE, TO PREVENT BOND BETWEEN PIPE AND CONCRETE.
3. USE CLASS 420 - C - 2000 P.C.C. FOR ALL CASES.
4. NO SEWER LINES SHALL BE WITHIN 15' HORIZONTALLY OF A 5 PSI. OR LESS WATERLINE.

# City of San Juan Capistrano

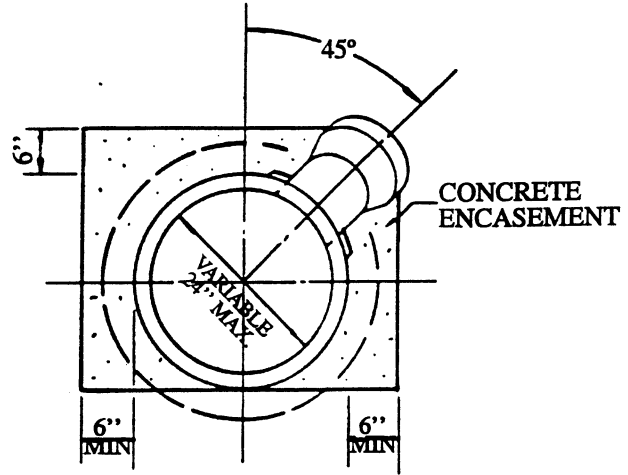


REVISIONS	SEPARATION OF WATER AND SEWER LINES	STANDARD PLAN NO.
		805
<p style="text-align: center;"><i>William M. Huber</i> 7/20/95 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>		SHT 2 OF 2



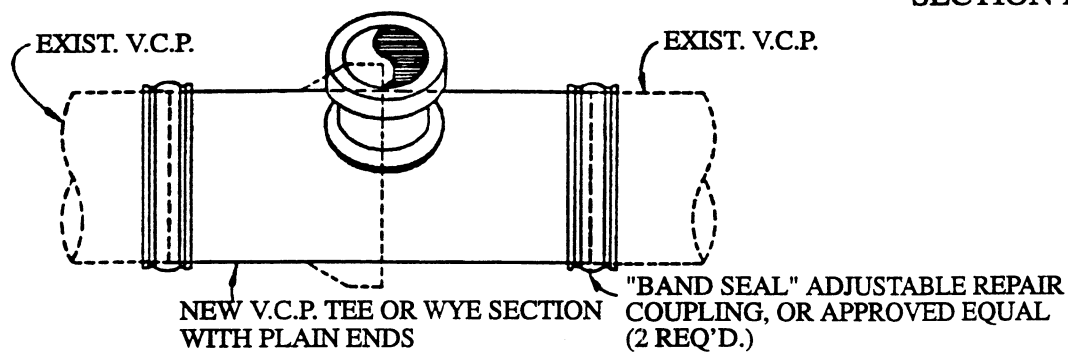
ELEVATION

THE BELL ON THE COLLAR WYE SADDLE SHALL NOT BE ENCASED IN CONCRETE  
 TAP TO BE MADE AT APPROX.  $\frac{1}{2}$  JOINT. ENCASE 12" EACH SIDE OF THE OPENING WITH CLASS 420 - C - 2000 P.C.C.



SECTION A-A

BELOW - DETAIL MAKING CONNECTION TO AN EXISTING SEWER: FOR MAKING 6" LATERAL ON 8" MAIN OR AS REQUIRED BY THE CITY ENGINEER



COLLAR WYE SADDLE

City of San Juan Capistrano



REVISIONS

SADDLE CONNECTION

STANDARD PLAN NO.  
 806  
 SHT 1 OF 2

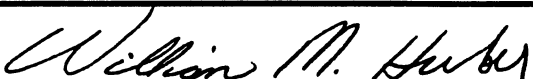
*William M. Huber* 7/20/95  
 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE

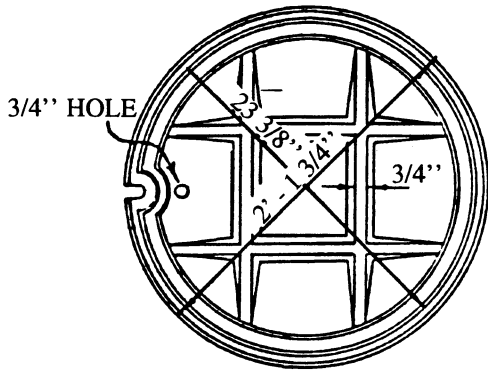
NOTES:

1. THE SEWER LINE SHALL BE SCORED TO THE APPROXIMATE SHAPE OF THE COLLAR WYE OR TEE FITTING. THE CONTRACTOR SHALL EITHER CUT A NEAT OPENING WITH A CIRCULAR SAW OF 2", 4", 6", OR 8" DIAMETERS, OR MAKE A SMALL HOLE, NOT LARGER THAN ONE - INCH IN DIAMETER, IN THE APPROXIMATE CENTER OF THE SCORED AREA WITH A POINTED TOOL, SIMILAR TO A MASON'S PICK, AND CHIP WITH A CHISEL AND SHORT HANDLE, HAND HELD HAMMER IN A SPIRAL FASHION TO THE SCORED LINE.
2. THE CONTRACTOR SHALL SECURE THE COLLAR WYE SADDLE TO THE SEWER AS APPROVED BY THE CITY ENGINEER.
3. THE CONTRACTOR SHALL ENCASE THE SADDLE CONNECTION WITH CLASS 420 - C - 2000 P.C.C. AFTER THE CONNECTION IS APPROVED BY THE CITY ENGINEER TO THE LIMITS INDICATED ABOVE.
4. THE CONTRACTOR SHALL KEEP ALL CLAY CHIPS, DIRT, EPOXY, MORTAR, AND CONCRETE OUT OF THE SEWER SADDLED, AND SHALL PERFORM A CLEANING AND BALLING OF THE REACH SADDLED IF DIRECTED TO DO SO BY THE CITY ENGINEER.
5. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGED PIPE AS DIRECTED BY THE CITY ENGINEER.
6. THE CONTRACTOR SHALL EPOXY ALL SADDLE CONNECTIONS TO THE SATISFACTION OF THE CITY ENGINEER.

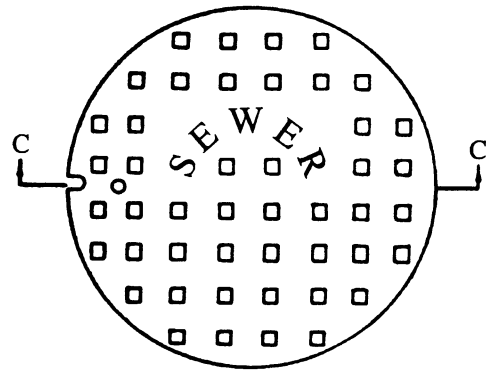
# City of San Juan Capistrano



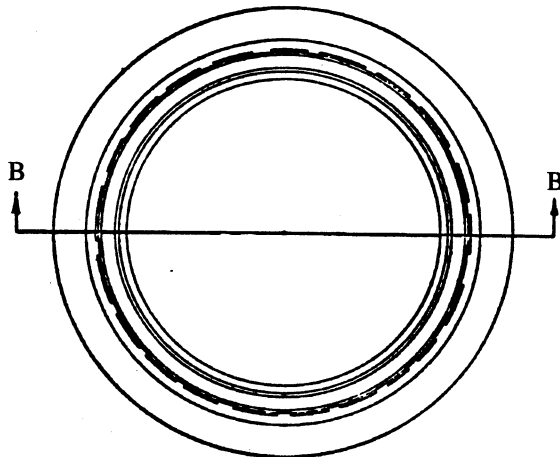
REVISIONS	SADDLE CONNECTION	STANDARD PLAN NO.
		806
	 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	
	7/20/95 DATE	SHT. 2 OF 2



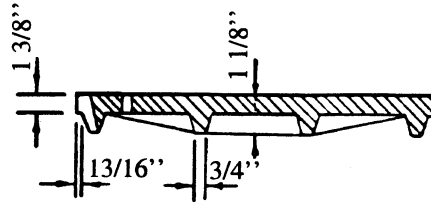
COVER - BOTTOM VIEW



COVER - TOP VIEW



RING PLAN



SECTION C - C

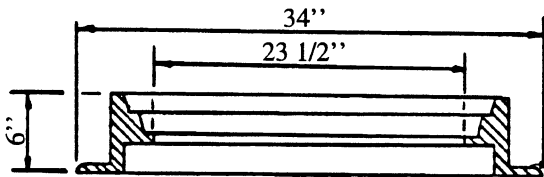
NOTES:

CAST IRON SHALL HAVE MINIMUM TENSILE STRENGTH OF 30,000 LBS. PER SQ. INCH.

ALHAMBRA FOUNDRY CO. TYPE A -1270 OR EQUAL

WEIGHT OF FRAME AND COVER = 440 LBS. MINIMUM

CASTINGS SHALL CONFORM TO A.S.T.M. A 48 CLASS 35.

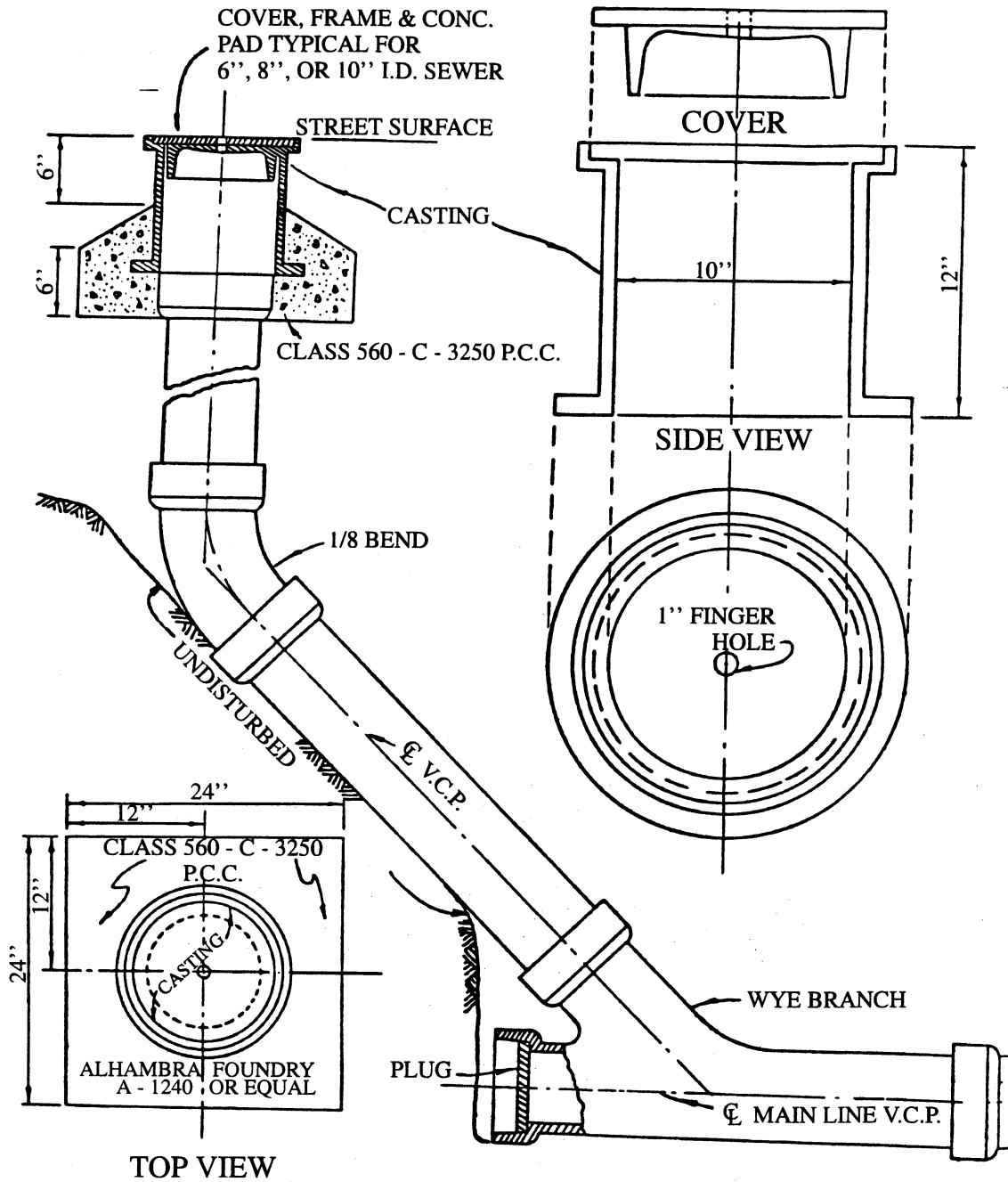


SECTION B - B

# City of San Juan Capistrano



REVISIONS	STANDARD MANHOLE FRAME AND COVER	STANDARD PLAN NO.			
<table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>					
<p style="text-align: center;"><i>William M. Huber</i> 7/20/95 APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785 DATE</p>		SHT <u>1</u> OF <u>1</u>			



NOTES:

1. CLEAN - OUT PIPE MUST BE SAME DIAMETER AS MAINLINE SEWER.
2. CLEAN - OUTS ARE FOR COMMERCIAL OR INDUSTRIAL USE ONLY AND ARE TO BE LOCATED AT  $\square$ .



# City of San Juan Capistrano

REVISIONS	STANDARD CLEAN - OUT	STANDARD PLAN NO.
	<i>William M. Huber</i>	808
	APPROVED BY CITY ENGINEER, WILLIAM M. HUBER R.C.E. 31785	DATE
	7/20/95	SHT 1 OF 1