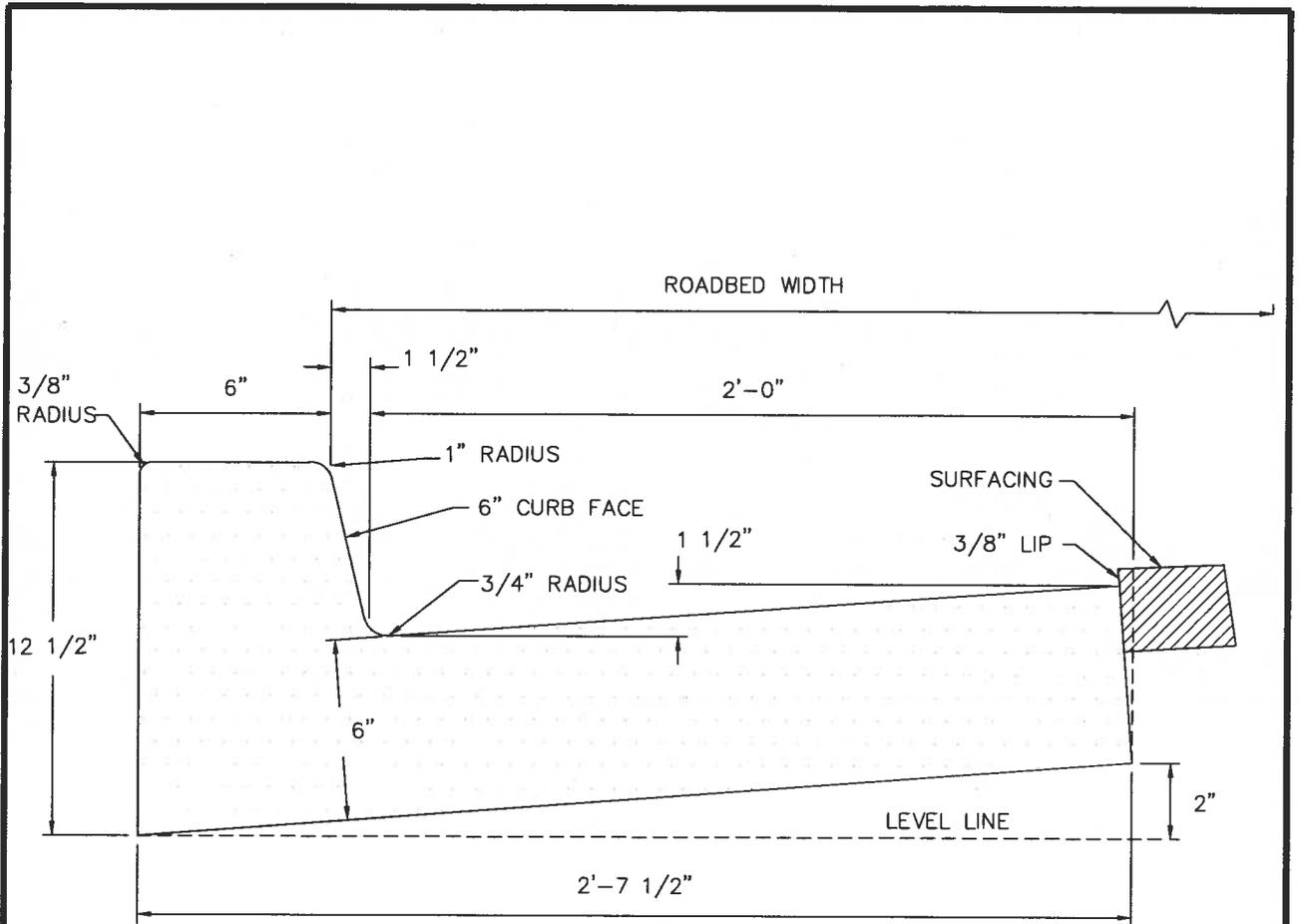


# **SECTION 300**

## **CURBS, DRIVEWAYS AND ALLEYS**





NOTES:

1. CLASS 560-C-3250 CONCRETE.
2. 1.601 CU.FT./L.F.
3. CU.YD. = 16.86 L.F.
4. MINIMUM PERMISSIBLE GRADE 1.0% UNLESS SPECIFIC APPROVAL IS GIVEN BY THE CITY ENGINEER PRIOR TO DESIGN.
5. IF USED FOR MEDIAN CURB, GUTTER TO SLOPE AWAY FROM CURB AT SAME SLOPE AS SURFACING WITH NO GUTTER LIP.
6. PROVIDE A 4" SMOOTH TROWELED SURFACE AT FLOWLINE.

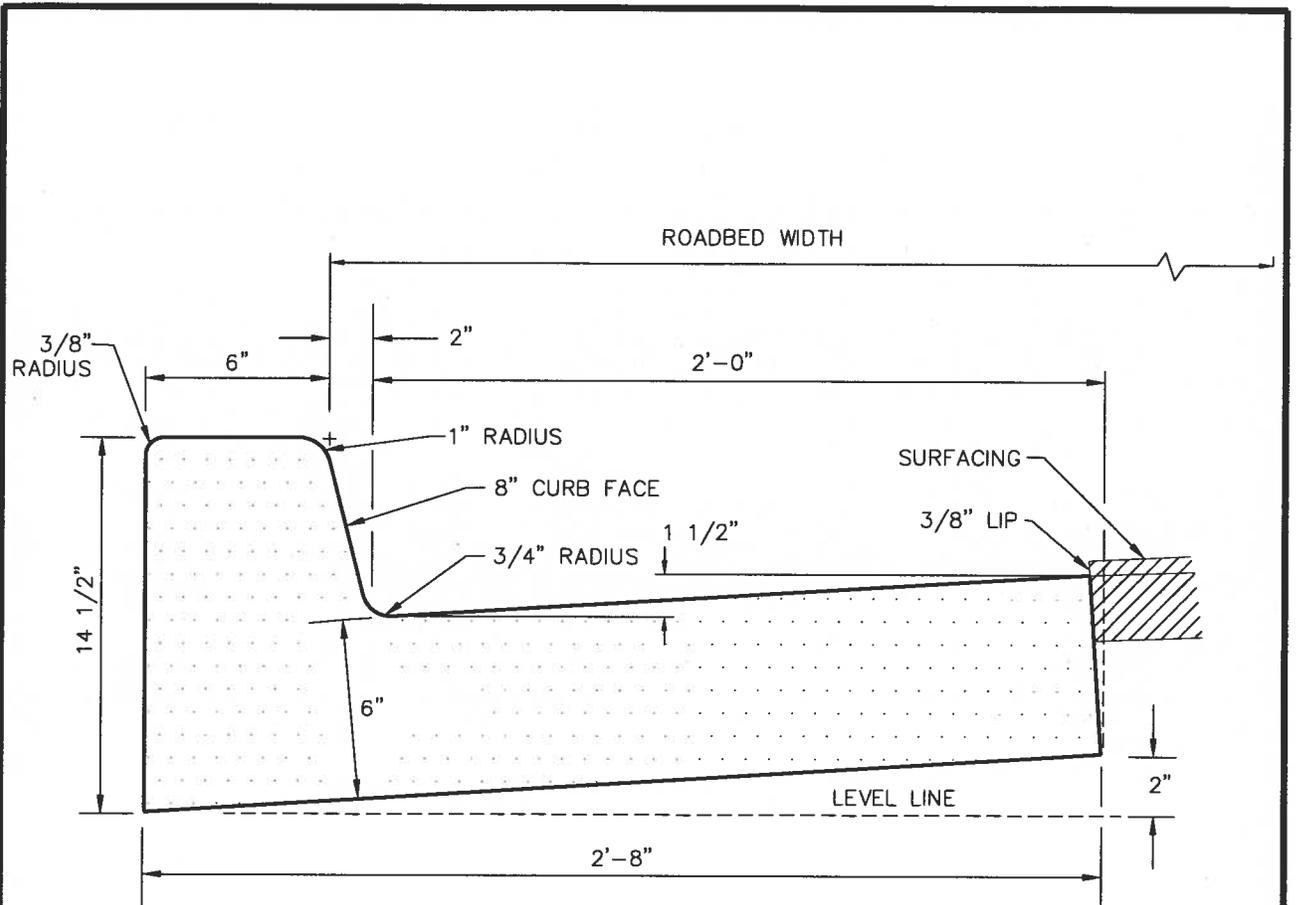
CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS

REVISIONS	
5/92	
APPROVED 1/14/10	

TYPE A-6 CURB

STD. NO.

301



NOTES:

1. CLASS 560-C-3250 CONCRETE.
2. 1.730 CU.FT./L.F.
3. CU. YD. = 15.60 L.F.
4. MINIMUM PERMISSIBLE GRADE 1.0% UNLESS SPECIFIC APPROVAL IS GIVEN BY THE CITY ENGINEER PRIOR TO DESIGN.
5. IF USED FOR MEDIAN CURB, GUTTER TO SLOPE AWAY FROM CURB AT SAME SLOPE AS SURFACING WITH NO GUTTER LIP.
6. PROVIDE A 4" SMOOTH TROWELED SURFACE AT FLOWLINE.

**CITY OF MURRIETA**  
**DEPARTMENT OF PUBLIC WORKS**

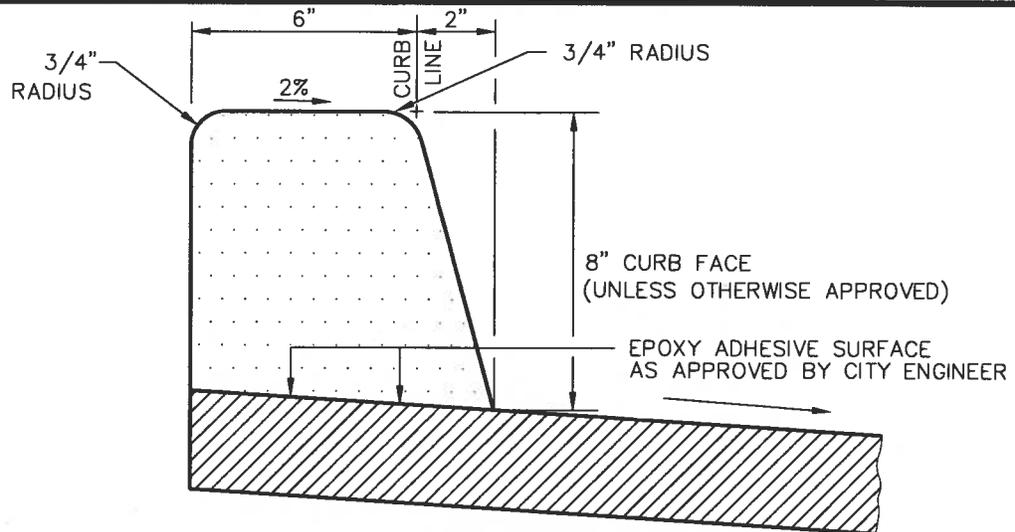
REVISIONS	
5/92	
APPROVED 1/14/10	

**TYPE A-8 CURB**

STD. NO.

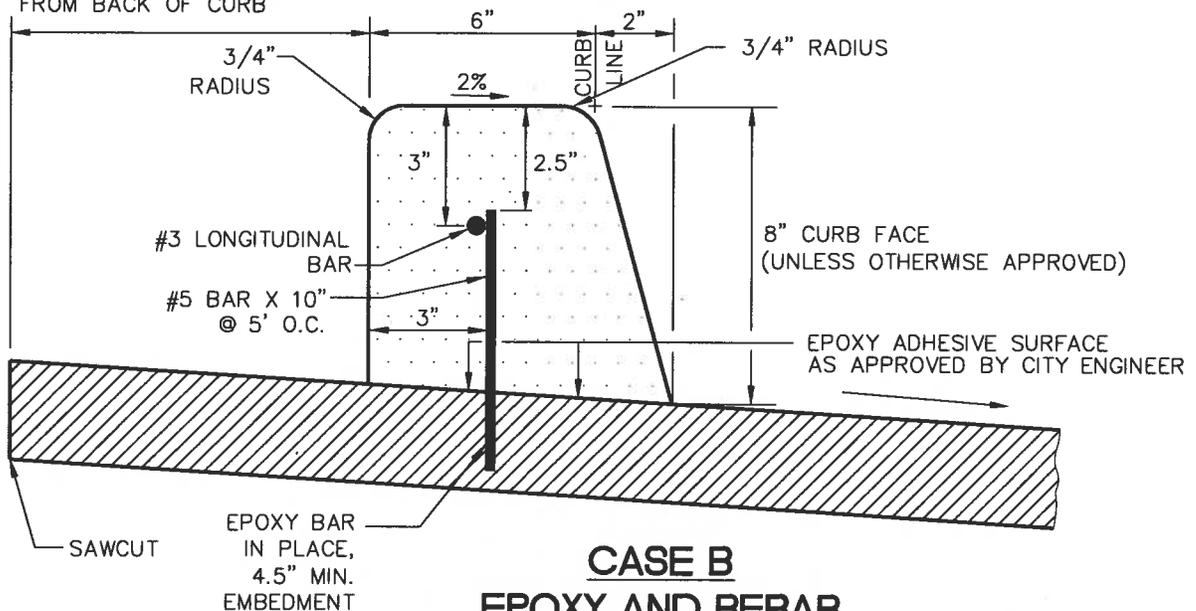
**302**





**CASE A  
EPOXY ONLY**

WHEN REMOVING AC BEHIND CURB, SAWCUT 12" MINIMUM FROM BACK OF CURB



**CASE B  
EPOXY AND REBAR**

**NOTES:**

1. CONCRETE SHALL BE CLASS 560-C-3250.
2. MINIMUM PERMISSIBLE GRADE SHALL BE 1.0% UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
3. CASE A OR B SHALL BE SELECTED BASED ON SITE SPECIFIC CRITERIA AND SHALL BE APPROVED BY THE CITY ENGINEER.

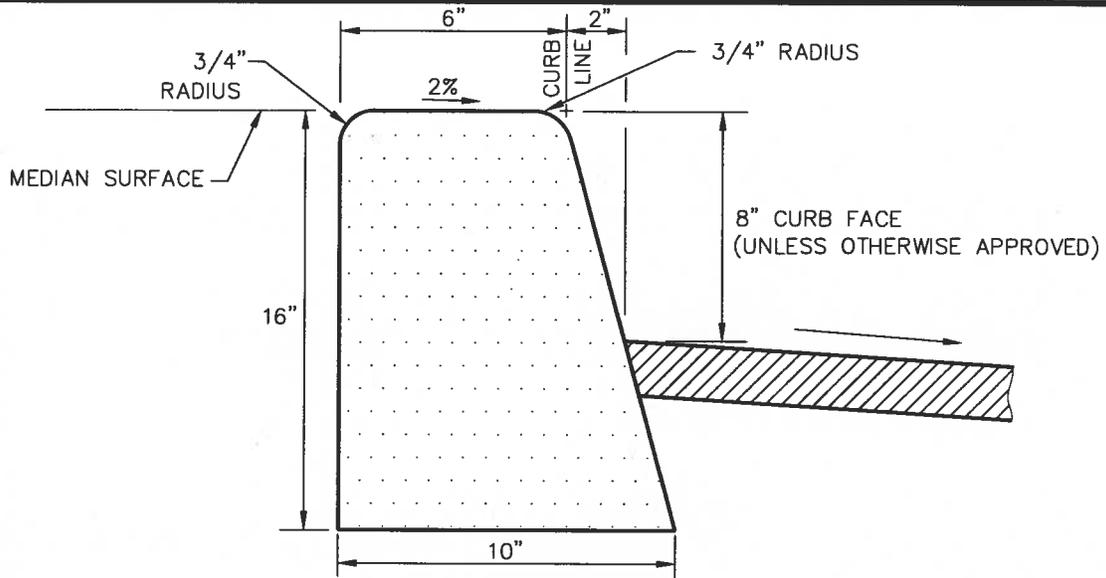
**CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS**

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APPROVED 1/14/10	

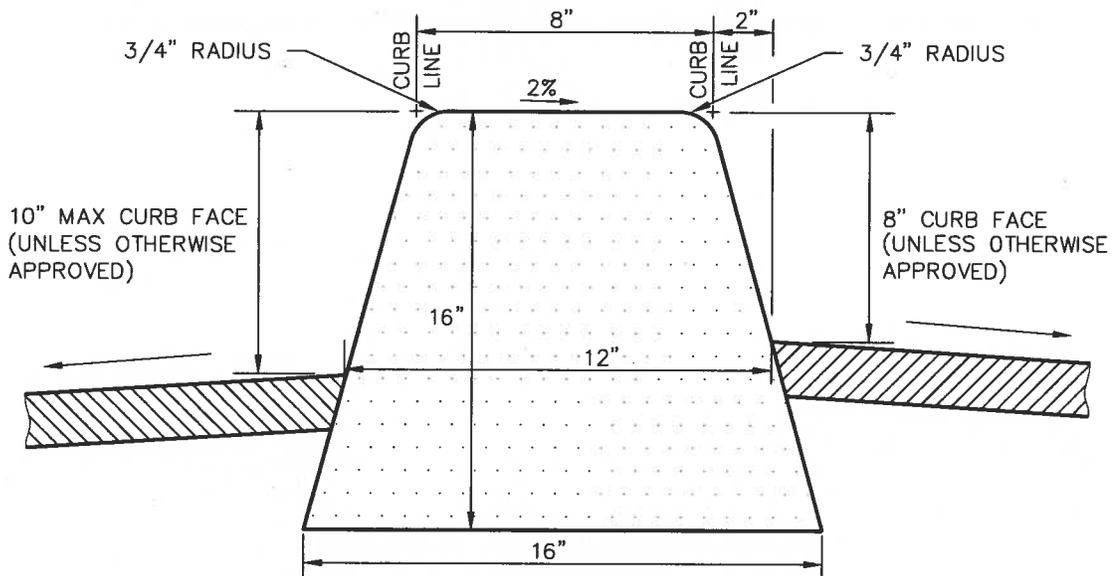
**TYPE "D-1" CURB**

STD. NO.

**304**



**CASE A**



**CASE B**

**MONOLITHIC MEDIAN CURB**

**NOTES:**

1. CONCRETE SHALL BE CLASS 560-C-3250.  
0.888 CU. FT. / L.F. (CASE A)  
CU. YD. = 30.42 L.F. (CASE A)
2. MINIMUM PERMISSIBLE GRADE SHALL BE 1.0% UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
3. CASE B REQUIRES CITY ENGINEER APPROVAL.

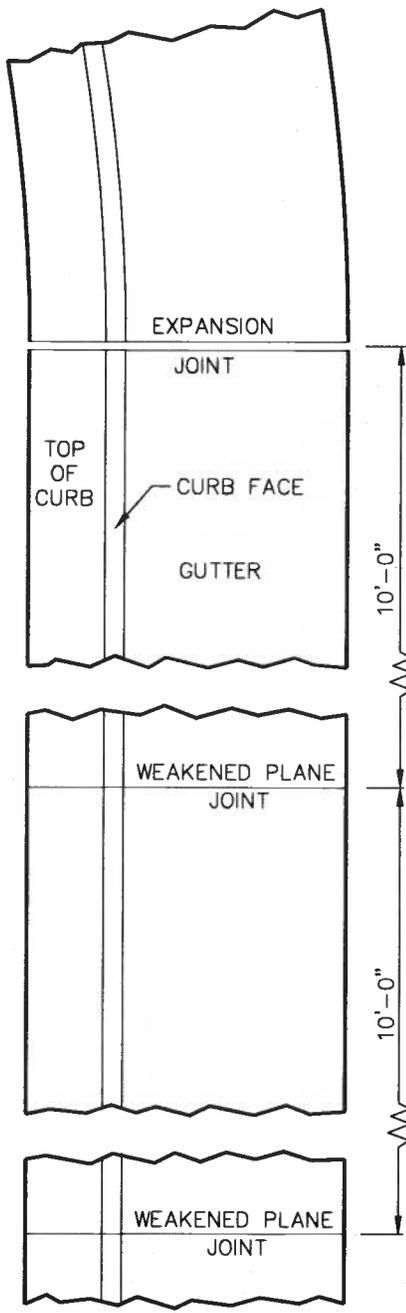
**CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS**

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APPROVED 1/14/10	

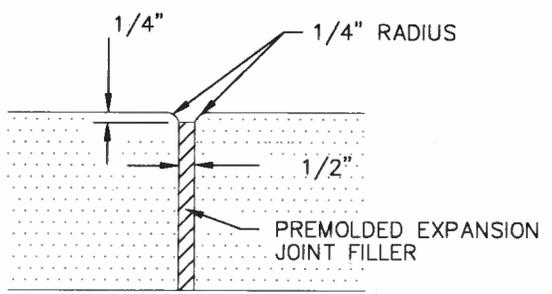
**TYPE "D" CURB**

STD. NO.

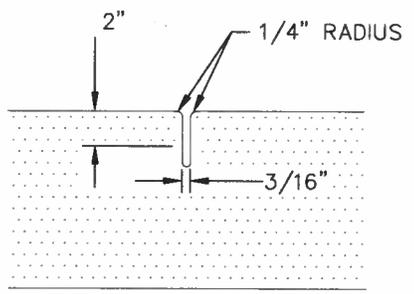
**305**



TYPICAL PLAN



EXPANSION JOINT



WEAKENED PLANE JOINT

NOTES:

1. EXPANSION JOINTS TO BE INSTALLED AT THE BC AND EC OF ALL CURVES AND CURB RETURNS AND AT THE MID-POINT OF CUL-DE-SACS AND KNUCKLES.
2. 10' INTERVAL BETWEEN TRANSVERSE WEAKENED PLANE JOINTS MAY BE VARIED TO ALLOW MATCHING OF JOINTS IN ADJACENT EXISTING IMPROVEMENTS.

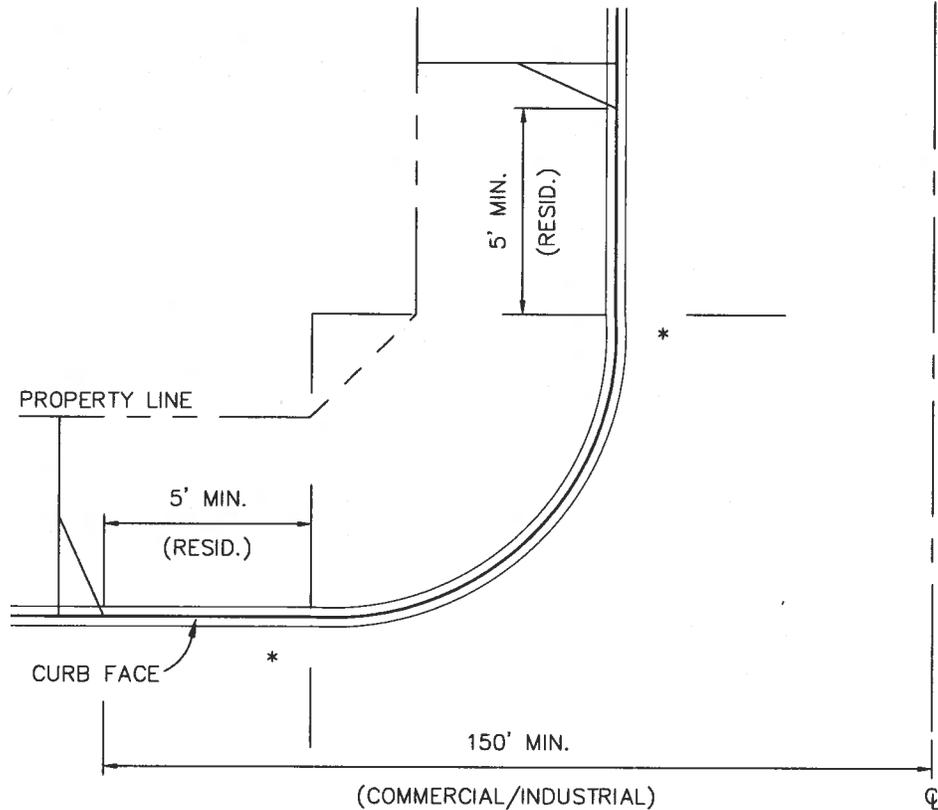
CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS

REVISIONS	
5/92	
APPROVED 1/14/10	

CURB AND GUTTER JOINTS

STD. NO.

306



\* RESIDENTIAL ONLY  
 NO PORTION OF ANY DRIVEWAY SHALL BE PERMITTED WITHIN  
 5' OF THE POINTS OF CURVATURE.

COMMERCIAL/ INDUSTRIAL  
 NO PORTION OF ANY DRIVEWAY SHALL BE PERMITTED WITHIN  
 150' OF THE CENTERLINE OF INTERSECTING STREET OR AS  
 APPROVED BY THE CITY ENGINEER.

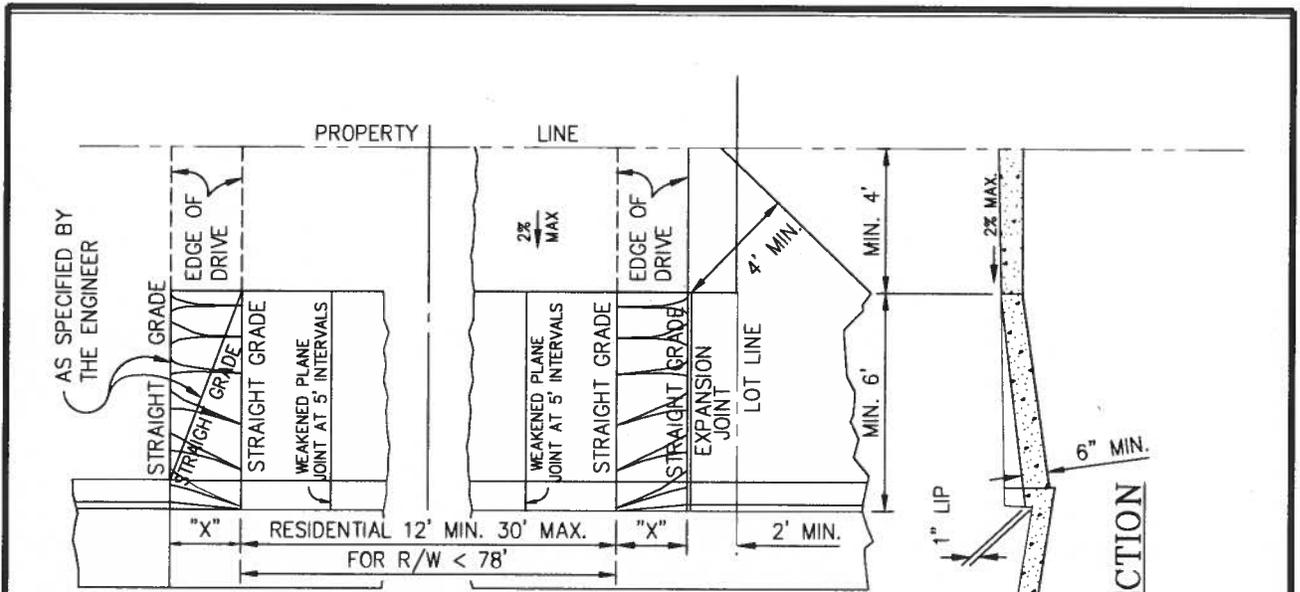
**CITY OF MURRIETA**  
 DEPARTMENT OF PUBLIC WORKS

REVISIONS	
5/92	
APPROVED 1/14/10	

**DRIVEWAY LOCATIONS AT  
 INTERSECTION CURB RETURNS**

STD. NO.

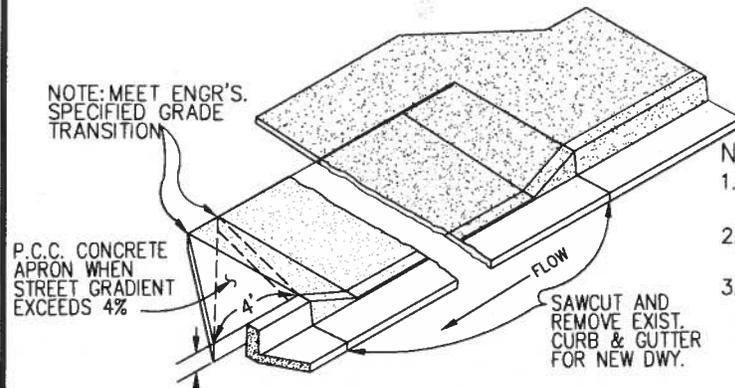
**307**



**WHEN NO SIDEWALK EXISTS OR IS REQUIRED**

**SIDEWALK**

**SECTION**



**SCHEMATIC**

**NOTES:**

1. ALL CONSTRUCTION SHALL BE 560-C-3250 CONCRETE.
2. 20' OF FULL HEIGHT CURB REQUIRED BETWEEN DRIVEWAYS WITHIN ANY ONE PROPERTY FRONTAGE.
3. WHERE ABOVE LIMITING SLOPES CAN NOT BE MET BECAUSE OF HEIGHT OF CURB, DEPRESS SIDEWALK UNTIL SAID SLOPES ARE OBTAINED. LONGITUDINAL SLOPE OF WARPED AREA ADJACENT TO DRIVEWAY SHALL NOT VARY MORE THAN 6% FROM THE LONGITUDINAL GRADE LINE OF THE SIDEWALK.
4. COMPACT TOP 12" OF SUBGRADE TO 95% COMPACTION.

TABLE OF "X" DIMENSIONS		
HEIGHT OF DIKE	RESIDENTIAL	COMMERCIAL
6"	2' 0"	2' 0"
8"	3' 0"	2' 8"

**CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS**

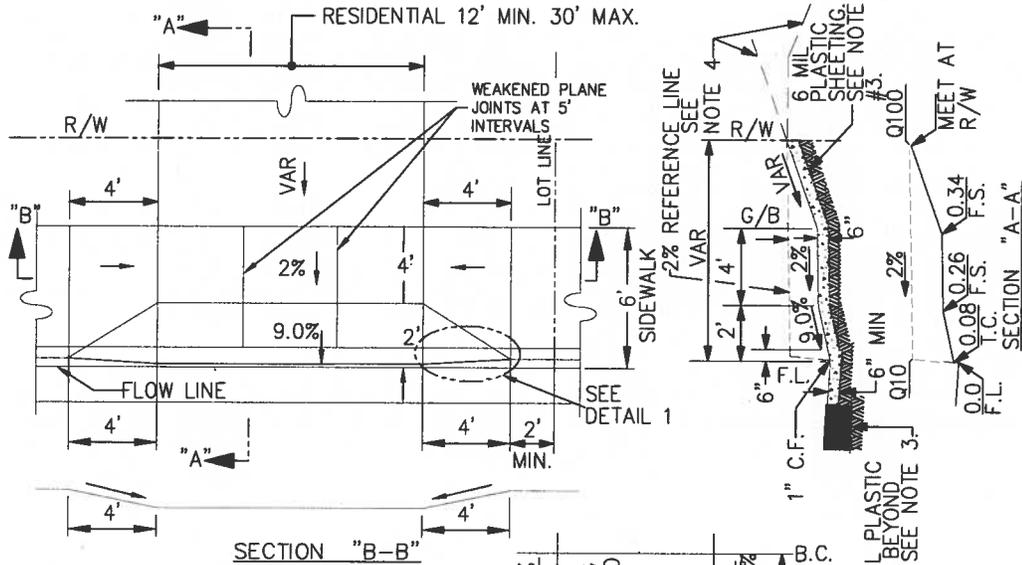
REVISIONS	
5/92	
APPROVED 1/14/10	

**CONCRETE DRIVEWAY  
APPROACH**

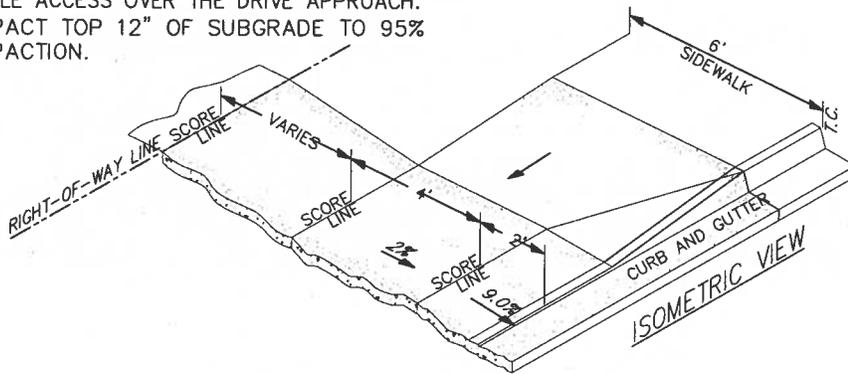
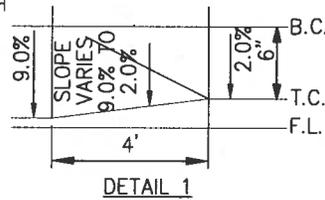
STD. NO.

**308a**

SHEET 1 OF 2



- NOTES:
1. USE OF THIS STANDARD SUBJECT TO APPROVAL OF CITY ENGINEER.
  2. CONCRETE SHALL BE 560-C-3250.
  3. 20' OF FULL-HEIGHT CURB REQUIRED BETWEEN DRIVEWAYS WITHIN ANY ONE PROPERTY FRONTAGE.
  4. USE 6 MIL PLASTIC SHEETING WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT.
  5. CONSTRUCT THE PROFILE GRADE OF THE PRIVATE ON-SITE DRIVEWAY SO THAT IT PROVIDES SMOOTH VEHICLE ACCESS OVER THE DRIVE APPROACH.
  6. COMPACT TOP 12" OF SUBGRADE TO 95% COMPACTION.



**CITY OF MURRIETA**  
DEPARTMENT OF PUBLIC WORKS

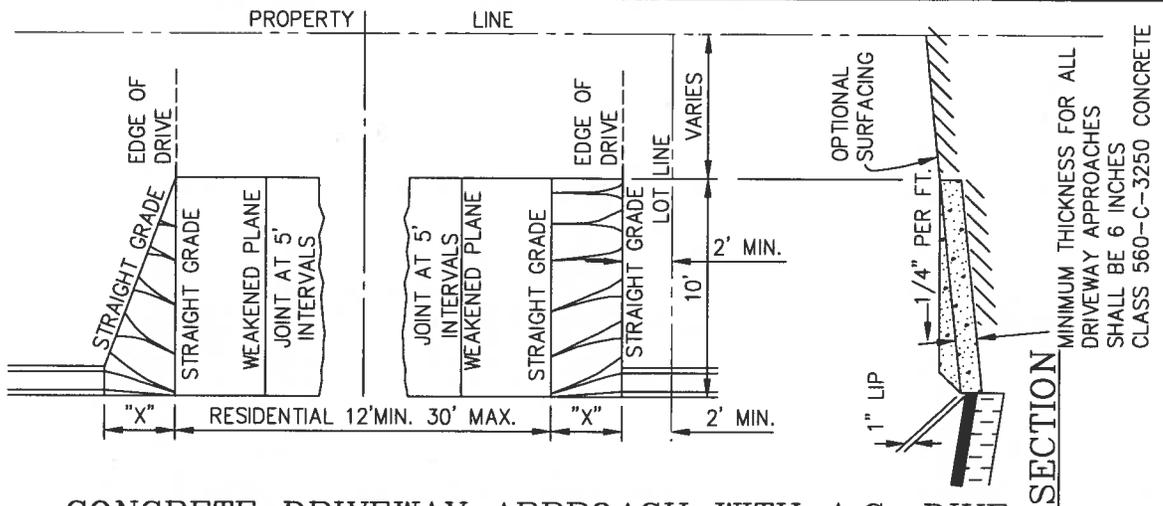
REVISIONS	
APPROVED 1/14/10	

**CONCRETE DRIVEWAY APPROACH  
ALTERNATE**

STD. NO.

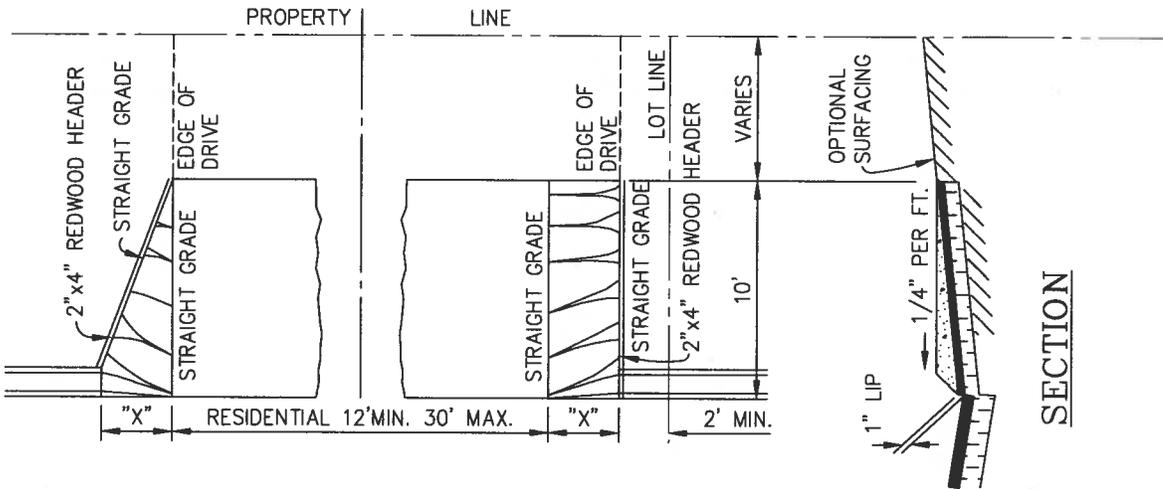
**308b**

SHEET 2 OF 2



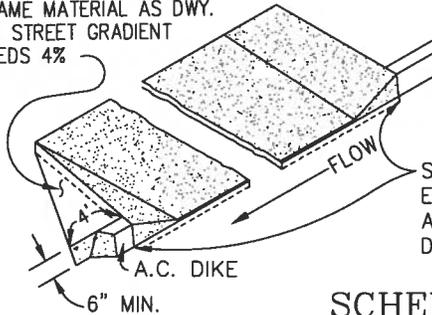
**CONCRETE DRIVEWAY APPROACH WITH A.C. DIKE**

NOT APPLICABLE TO INTERIM DIKE LOCATION



**ASPHALTIC CONCRETE DRIVEWAY APPROACH WITH A.C. DIKE**

APRON TO BE CONSTRUCTED OF SAME MATERIAL AS DWY. WHEN STREET GRADIENT EXCEEDS 4%



**SCHMATIC**

**NOTES:**

1. ALL CONSTRUCTION SHALL BE 4" MIN. THICKNESS A.C. ON 6" MIN. THICKNESS CLASS 2 OR CLASS 3 BASE, OR 5" THICKNESS A.C. ON NATIVE SOIL.
2. 20' OF FULL HEIGHT DIKE REQUIRED BETWEEN DRIVEWAYS WITHIN ANY ONE PROPERTY UNLESS OTHERWISE PERMITTED.
3. COMPACT TOP 12" OF SUBGRADE TO 95% COMPACTION.

TABLE OF "X" DIMENSIONS		
HEIGHT OF DIKE	RESIDENTIAL	COMMERCIAL
6"	2' 0"	2' 0"
8"	3' 0"	2' 8"

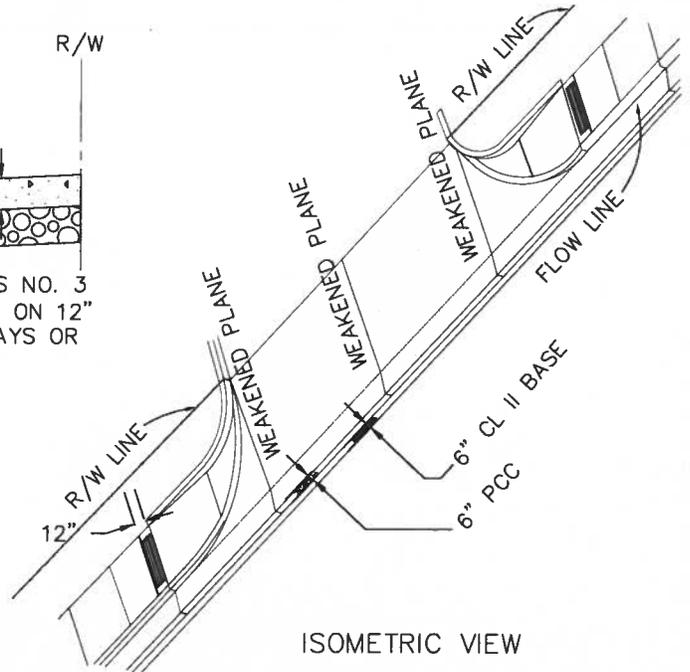
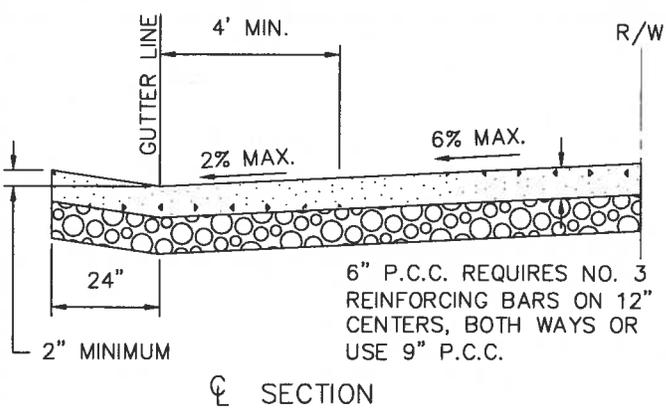
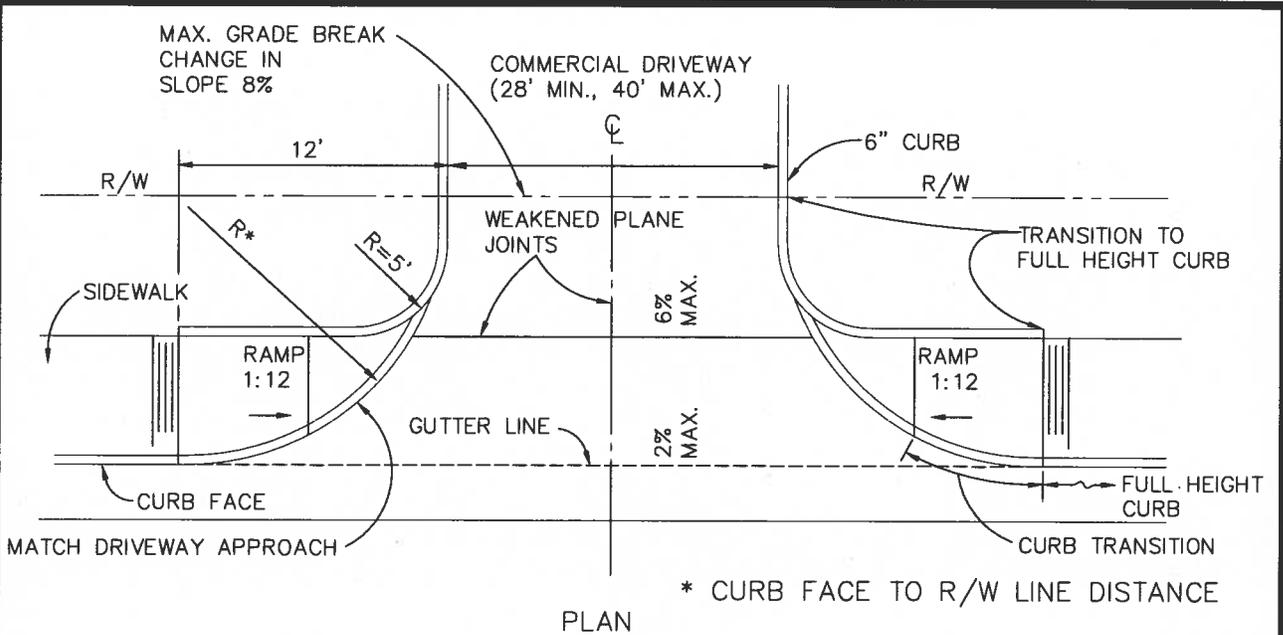
**CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS**

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**DRIVEWAY APPROACHES  
WITH A.C. DIKE**

STD. NO.

**309**



NOTES:

1. USE 560-C-3250 CONCRETE.
2. APRON BASE MATERIAL IS CRUSHED AGGREGATE BASE, 6" MIN. THICKNESS.
3. TYPE A-6 CURB AND GUTTER.
4. STD. 320 SIDEWALK.
5. COMMERCIAL DRIVES USE TRAFFIC INDEX OF 10 WITH CRUSHED AGGREGATE BASE.
6. THE RAMP SHALL HAVE A 12" WIDE BORDER WITH GROOVES APPROXIMATELY 3/4" O.C.
7. THREE 4-INCH SLEEVES SHALL BE INSTALLED ACROSS THE DRIVEWAY 5' OFF R/W FOR IRRIGATION UNLESS OTHERWISE APPROVED BY CITY ENGINEER.
8. COMPACT TOP 12" OF SUBGRADE TO 95% COMPACTION.
9. 6" P.C.C. REQUIRES NO. 3 REINFORCING BARS ON 12" CENTERS, BOTH WAYS OR USE 9" P.C.C.

**CITY OF MURRIETA**  
DEPARTMENT OF PUBLIC WORKS

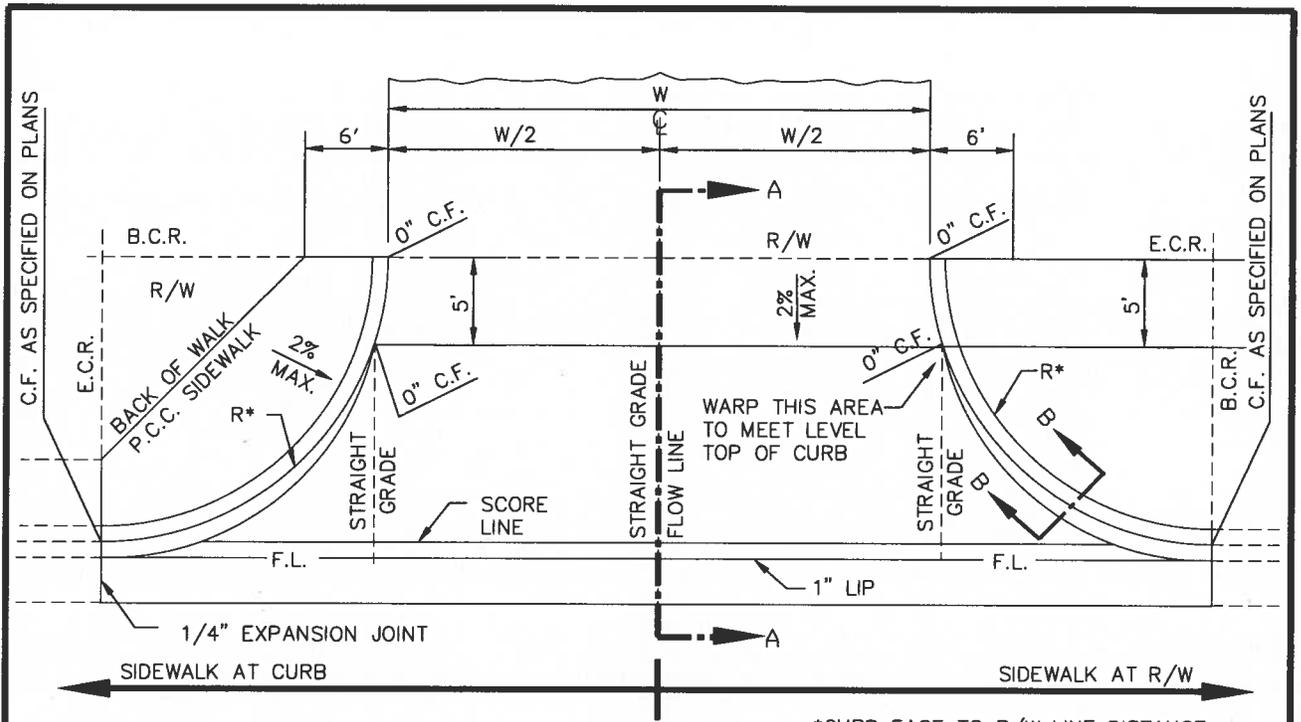
REVISIONS	
5/92	
10/98	
APPROVED 1/14/10	

**COMMERCIAL DRIVEWAY ENTRANCE  
FOR RIGHT OF WAY 78' AND LARGER**

STD. NO.

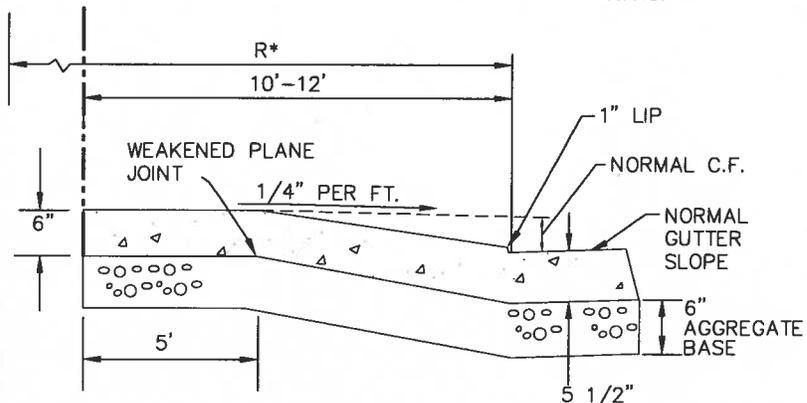
**310a**

SHEET 1 OF 2

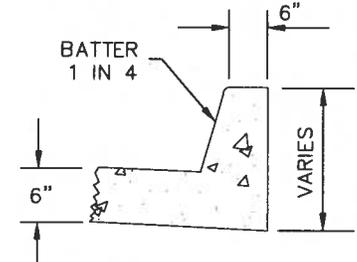


PLAN VIEW  
N.T.S.

\*CURB FACE TO R/W LINE DISTANCE



SECTION A-A  
N.T.S.



SECTION B-B  
N.T.S.

NOTES:

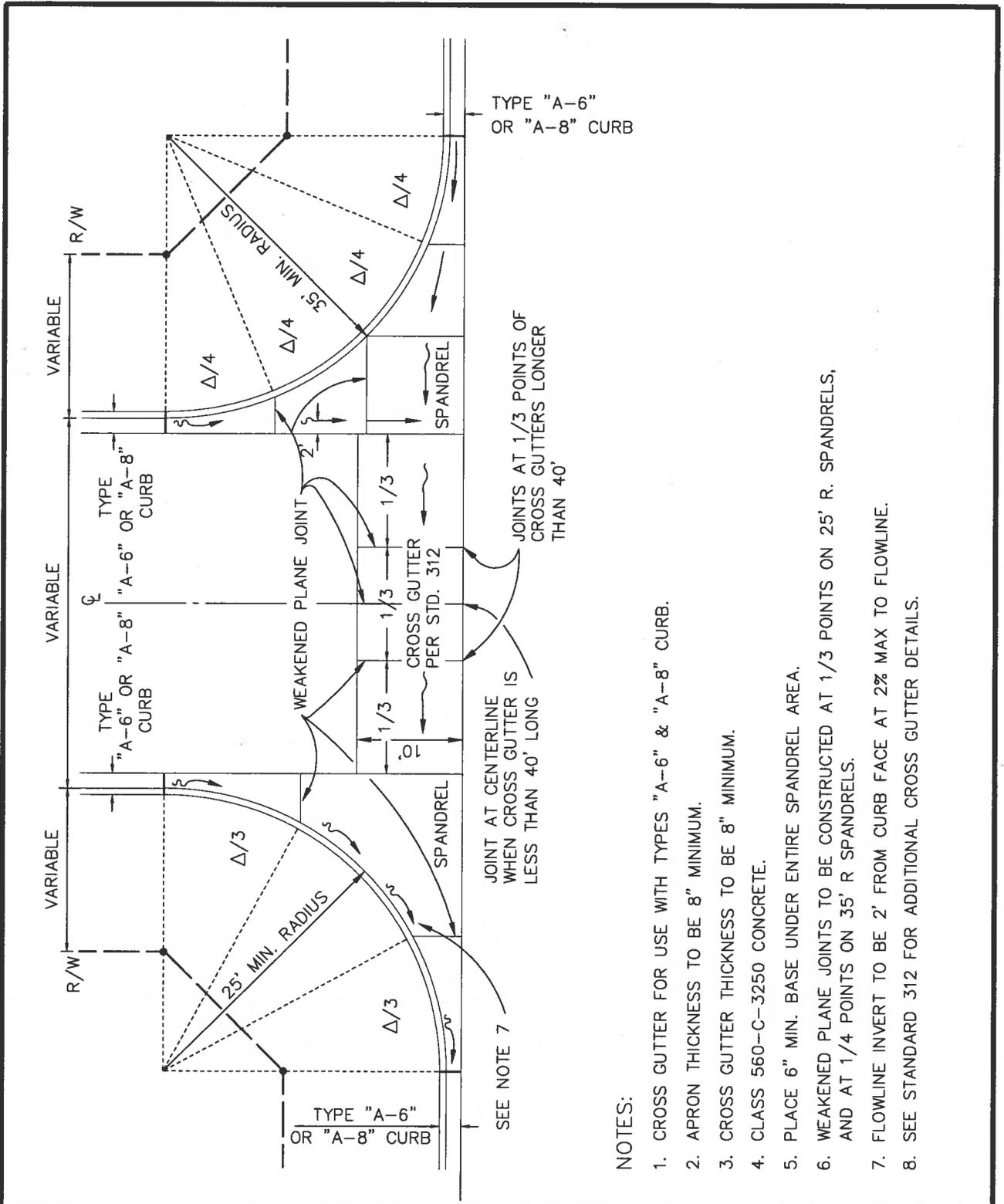
1. APPROACHES EXCEEDING 20' IN WIDTH SHALL BE SCORED 1 1/2" DEEP AT CENTER OF APPROACH.
2. CONCRETE SHALL BE CLASS 560-C-3250.
3. WHEELCHAIR RAMP PER STD. NO. 321.
4. STRAIGHT GRADE FLOW LINE.
5. 6" PCC REQUIRES NO. 3 REINFORCING BARS 12" O.C. BOTH WAYS OR USE 9" P.C.C.
6. THREE 4-INCH SLEEVES SHALL BE INSTALLED ACROSS THE DRIVEWAY 5' OFF R/W FOR IRRIGATION UNLESS OTHERWISE APPROVED BY CITY ENGINEER.
7. COMPACT TOP 12" OF SUBGRADE TO 95% COMPACTION.

CITY OF MURRIETA  
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COMMERCIAL DRIVEWAY ENTRANCE  
ALTERNATE

STD. NO.	310c
	SHEET 2 OF 2



NOTES:

1. CROSS GUTTER FOR USE WITH TYPES "A-6" & "A-8" CURB.
2. APRON THICKNESS TO BE 8" MINIMUM.
3. CROSS GUTTER THICKNESS TO BE 8" MINIMUM.
4. CLASS 560-C-3250 CONCRETE.
5. PLACE 6" MIN. BASE UNDER ENTIRE SPANDREL AREA.
6. WEAKENED PLANE JOINTS TO BE CONSTRUCTED AT 1/3 POINTS ON 25' R. SPANDRELS, AND AT 1/4 POINTS ON 35' R SPANDRELS.
7. FLOWLINE INVERT TO BE 2' FROM CURB FACE AT 2% MAX TO FLOWLINE.
8. SEE STANDARD 312 FOR ADDITIONAL CROSS GUTTER DETAILS.

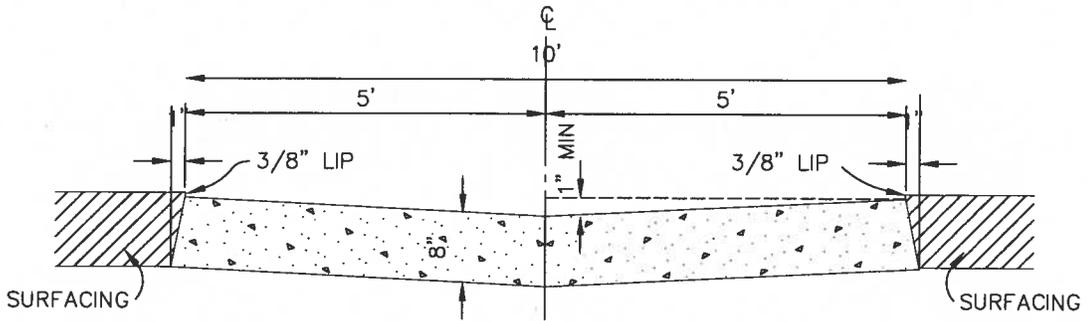
CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS

REVISIONS	
5/92	
APPROVED 1/14/10	

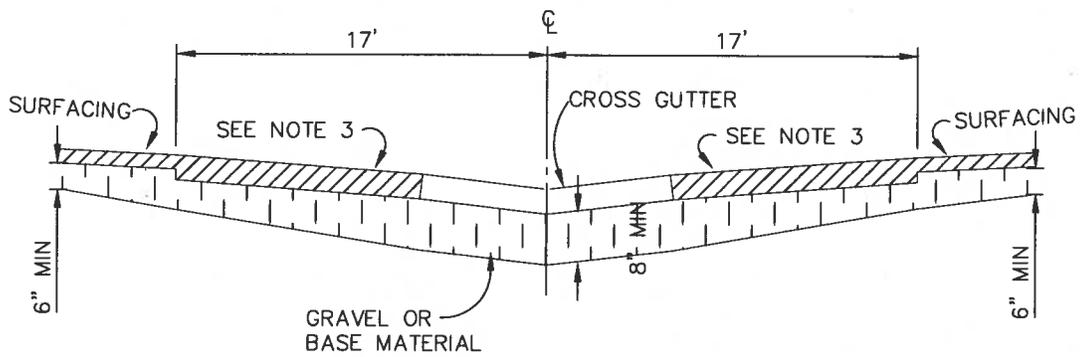
CROSS GUTTER LAYOUT

STD. NO.

311



CROSS GUTTER



PAVEMENT AND BASE SECTION

NOTES:

1. SEE STD. NO. 313 FOR STEEP GRADES.
2. CLASS 560-C-3250 CONCRETE.
3. AC THICKNESS TO MATCH CONCRETE CROSS GUTTER THICKNESS WITH A 10' TRANSITION.

**CITY OF MURRIETA**  
**DEPARTMENT OF PUBLIC WORKS**

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10/98	
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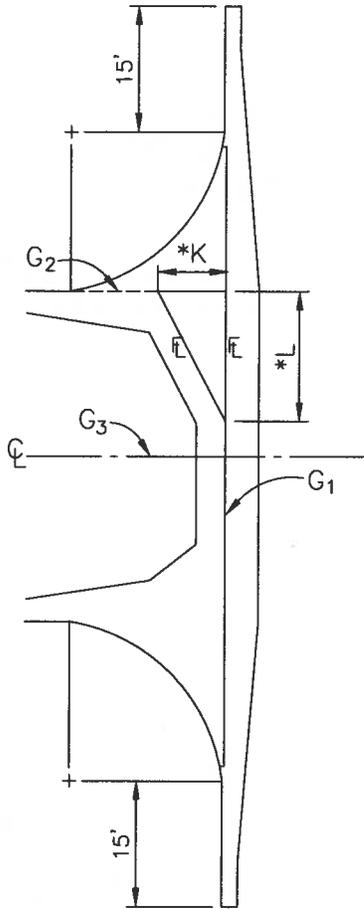
**CROSS GUTTER**  
**(TYPICAL SECTION)**

STD. NO.

**312**

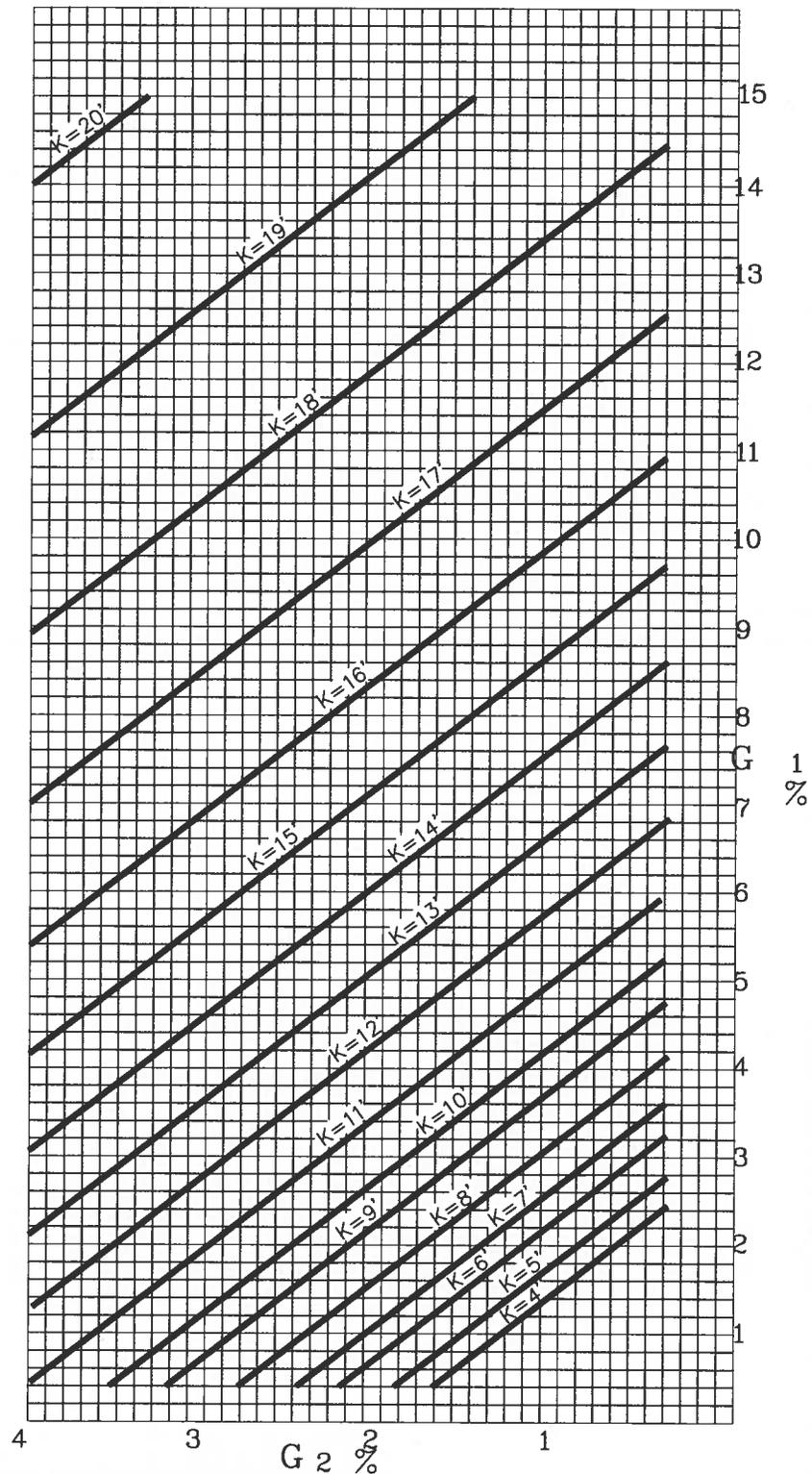


$$L = \frac{KG}{K \leq L} \frac{1}{G_2}$$



TO BE USED WITH SHEET 1

\* K AND L TO BE SPECIFIED ON THE PLAN.



**CITY OF MURRIETA**  
**DEPARTMENT OF PUBLIC WORKS**

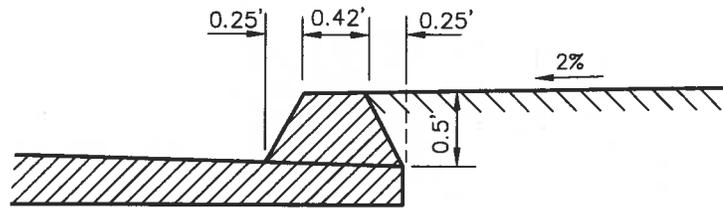
REVISIONS	
5/92	
APPROVED 1/14/10	

**SPECIAL CROSS GUTTER**  
**(STEEP GRADES)**

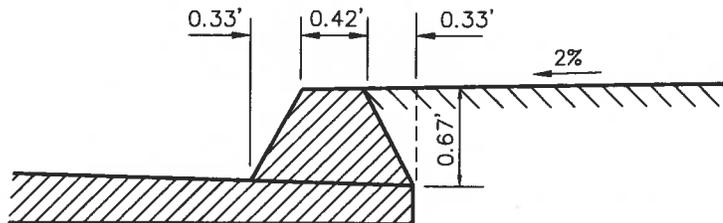
STD. NO.

**313b**

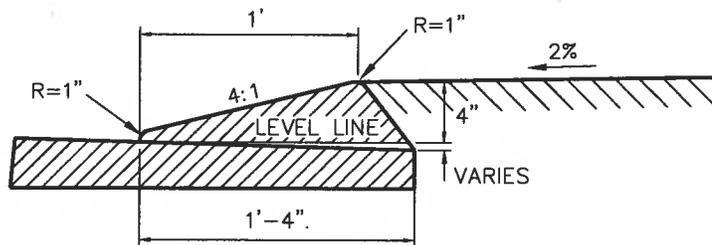
SHEET 2 OF 2



6" A.C. DIKE



8" A.C. DIKE



4" MOUNTABLE A.C. DIKE

NOTE:

A.C. DIKE REQUIRED WHERE FILL SLOPES ARE STEEPER THAN 4:1, MATERIAL IS SUSCEPTIBLE TO EROSION, OR WHERE ROADWAY GRADIENT EXCEEDS 3%.

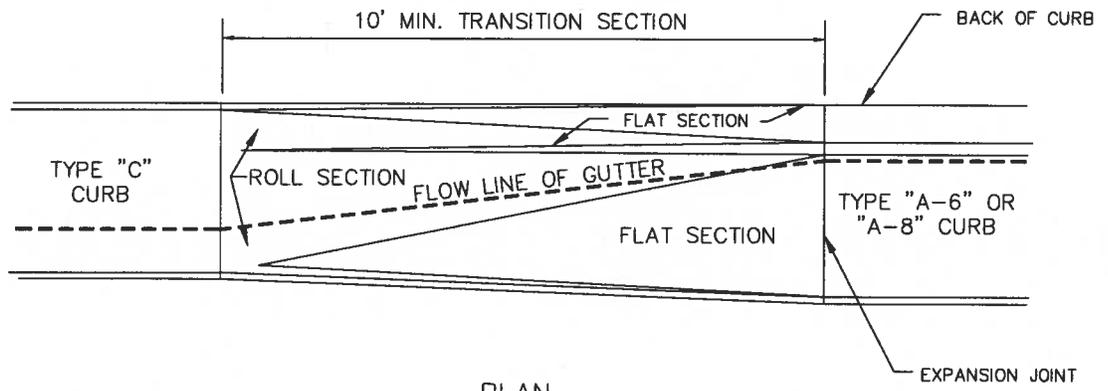
CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS

REVISIONS	
5/92	
APPROVED 1/14/10	

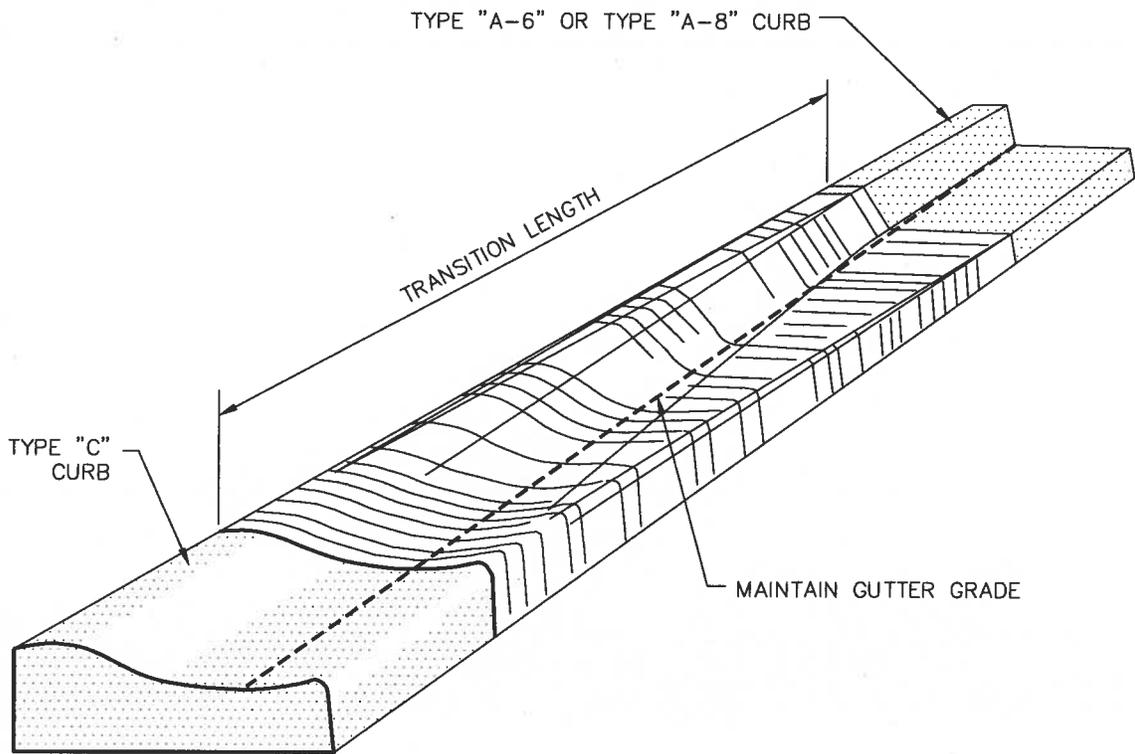
ASPHALT CONCRETE DIKES

STD. NO.

315



PLAN



SCHEMATIC EXAMPLE

NOTE:  
CONCRETE SHALL BE 560-C-3250

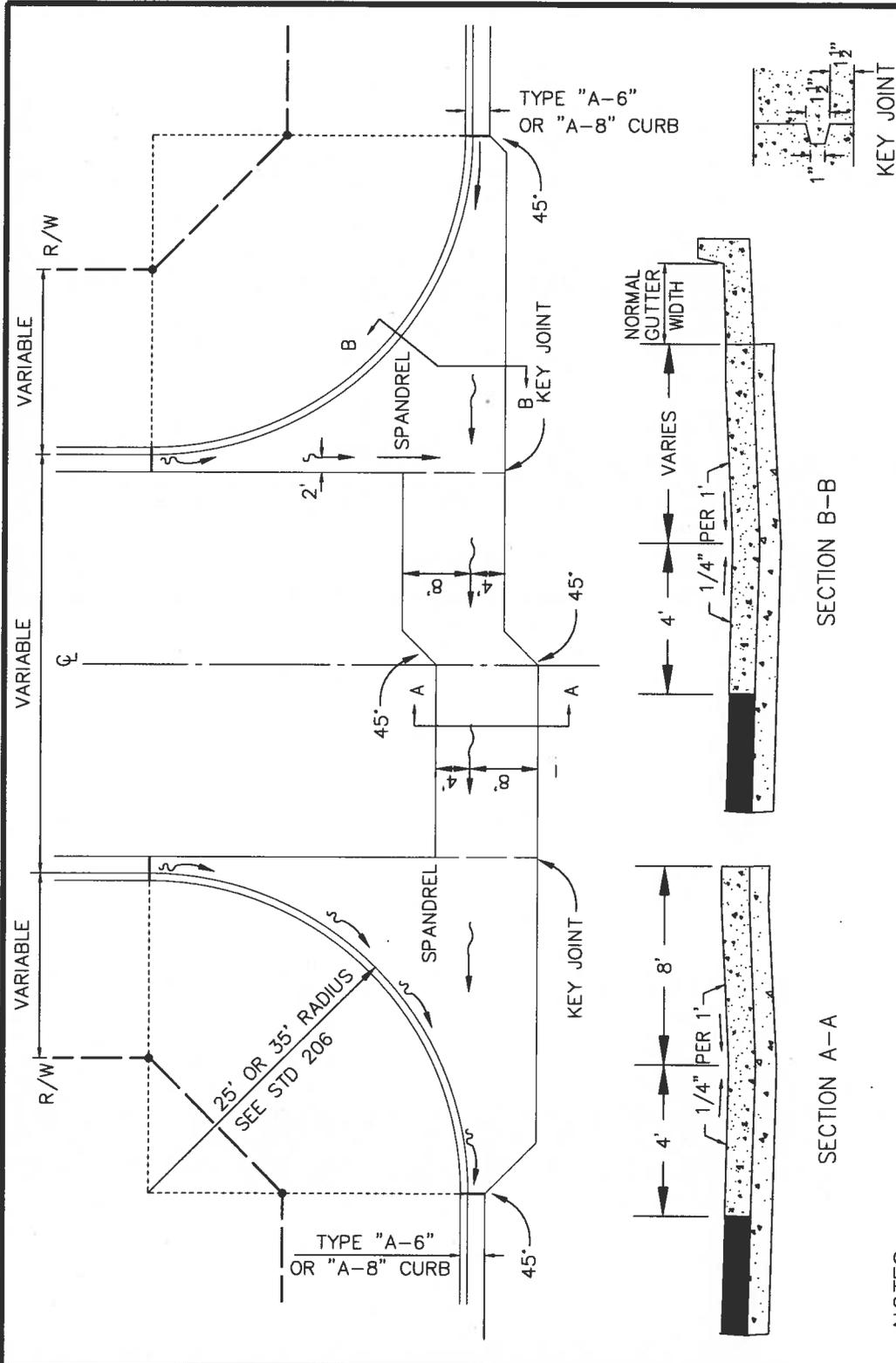
CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS

REVISIONS	
5/92	
APPROVED 1/14/10	

CURB TRANSITION

STD. NO.

316



NOTES:

1. THIS CROSS GUTTER STANDARD TO BE CONSTRUCTED IN AREAS WHERE STREET GUTTERS HAVE CONSTANT OR FREQUENT FLOWS FROM LANDSCAPED PARKWAYS AND MEDIANS, GOLF COURSE AND AGRICULTURAL RUNOFF AND WHEN GRADIENT IS LESS THAN 1.0%.
2. CROSS GUTTER THICKNESS TO BE 8" MINIMUM.
3. CLASS 560-C-3250 CONCRETE.
4. SEE STANDARDS 311 AND 312 FOR ADDITIONAL CROSS GUTTER REQUIREMENTS.

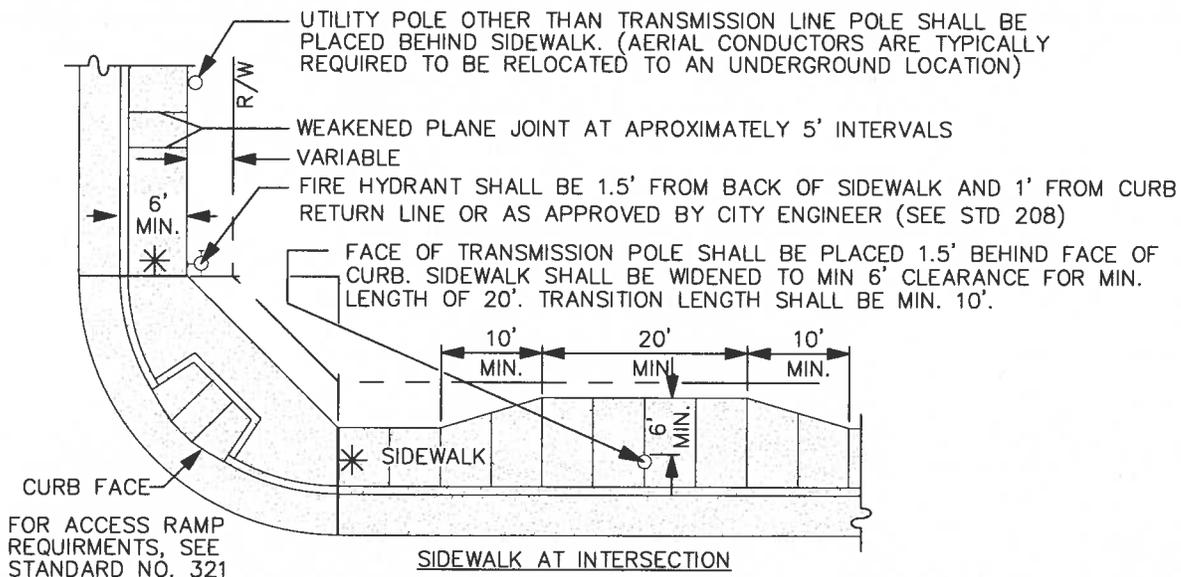
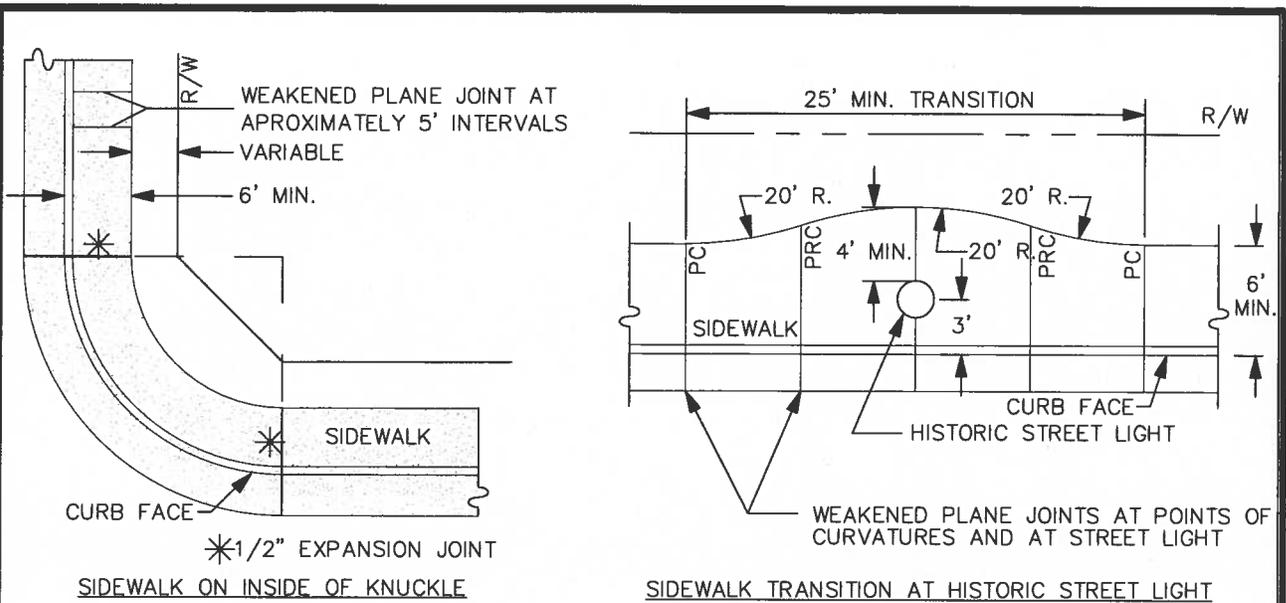
CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS

REVISIONS	
5/92	
APPROVED 1/14/10	

CROSS GUTTER  
WITH SPLASH AREA

STD. NO.

318



\*1/2" EXPANSION JOINT

NOTE:

1. VARIABLE DISTANCES TO BE SHOWN ON APPLICABLE TYPICAL ROAD SECTION STANDARD.
2. CONCRETE SHALL BE 560-C-3250, 4" MINIMUM THICKNESS.
3. THE TRANSITION FOR THE HISTORIC STREET LIGHT MAY BE USED FOR OTHER UTILITY POLES WHEN APPROVED BY THE CITY ENGINEER.

**CITY OF MURRIETA**  
**DEPARTMENT OF PUBLIC WORKS**

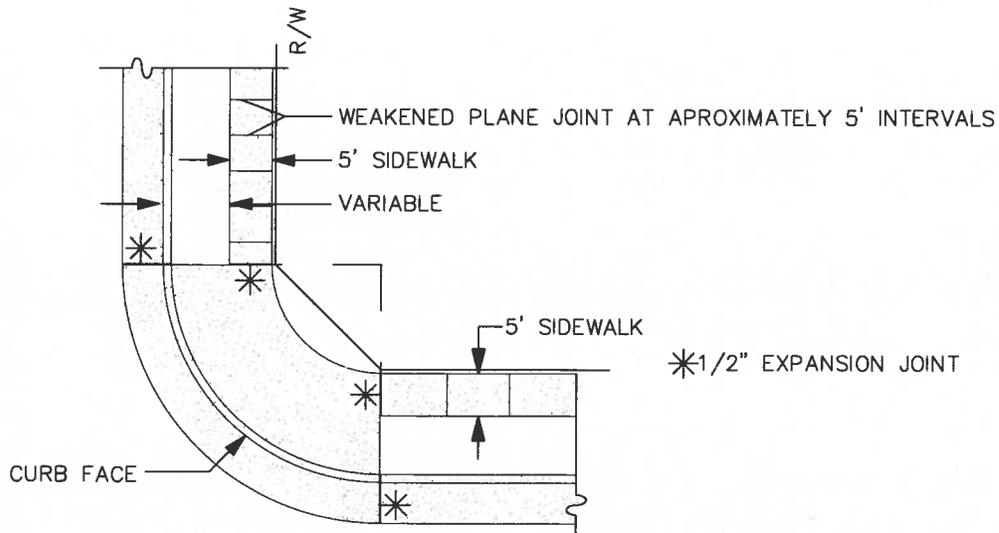
REVISIONS	
5/92	
10/98	
APPROVED 1/14/10	

**SIDEWALK, FIRE HYDRANT,  
AND UTILITY POLE LOCATION  
(SIDEWALK AT CURB)**

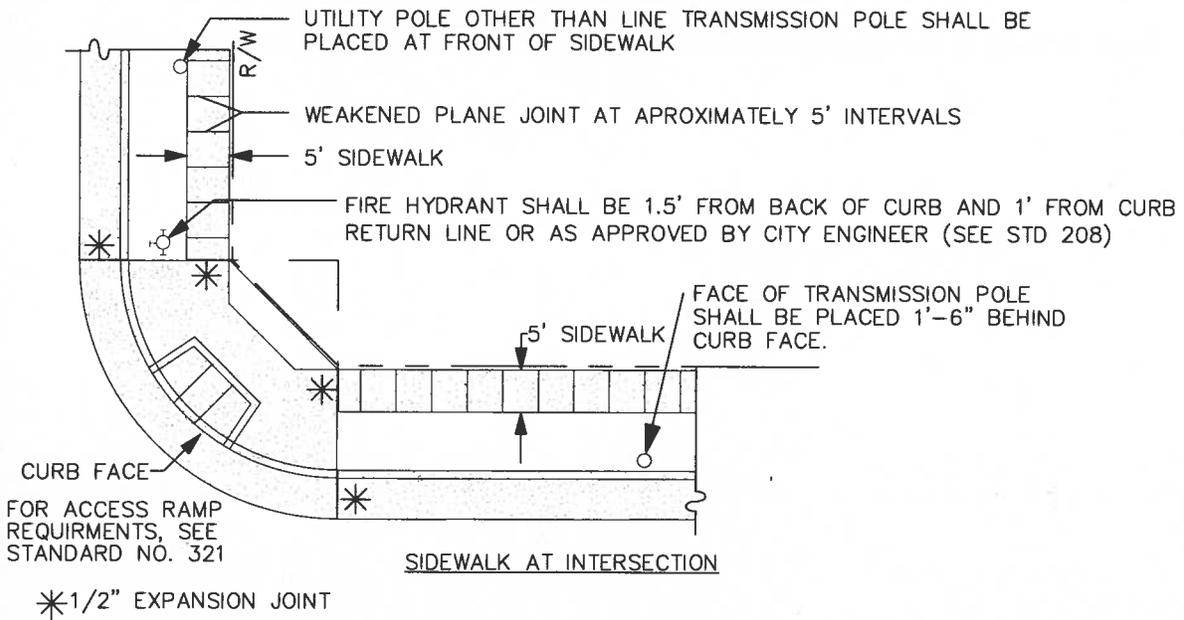
STD. NO.

**319a**

SHEET 1 OF 2



SIDEWALK ON INSIDE OF KNUCKLE



SIDEWALK AT INTERSECTION

NOTE:

1. VARIABLE DISTANCES TO BE SHOWN ON APPLICABLE TYPICAL ROAD SECTION STANDARD.
2. CONCRETE SHALL BE 560-C-3250, 4" MINIMUM THICKNESS.

**CITY OF MURRIETA**  
**DEPARTMENT OF PUBLIC WORKS**

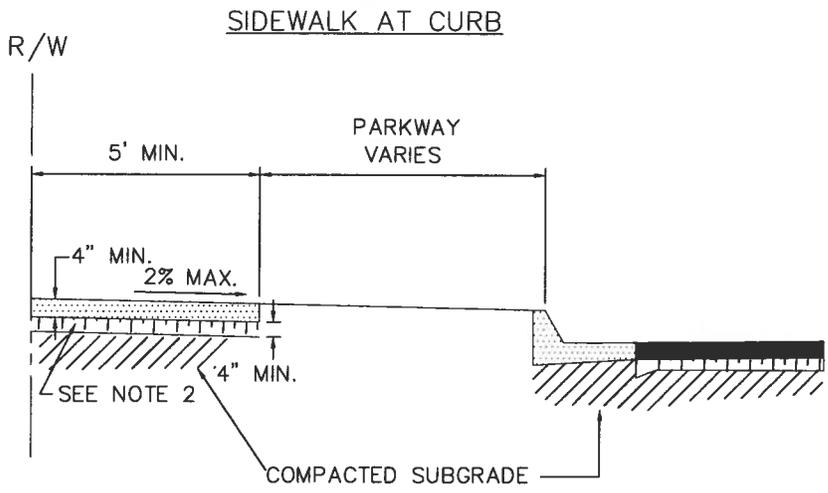
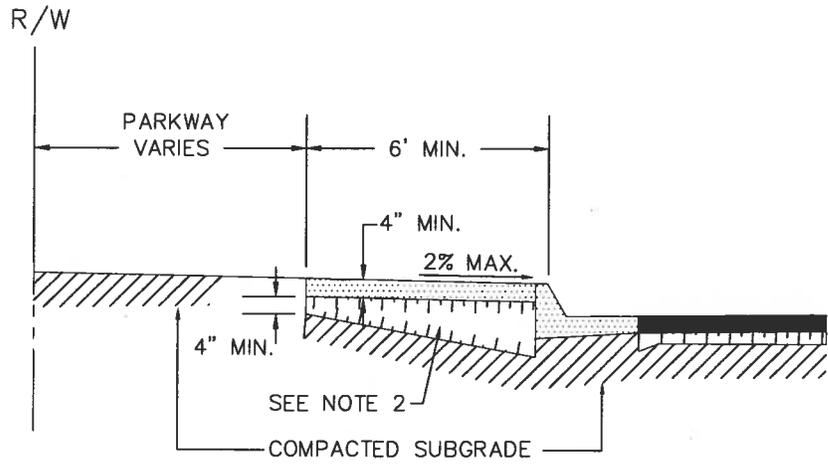
REVISIONS	
APPROVED 1/14/10	

**SIDEWALK, FIRE HYDRANT,  
 AND UTILITY POLE LOCATION  
 (SIDEWALK AT R/W)**

STD. NO.

**319b**

SHEET 2 OF 2



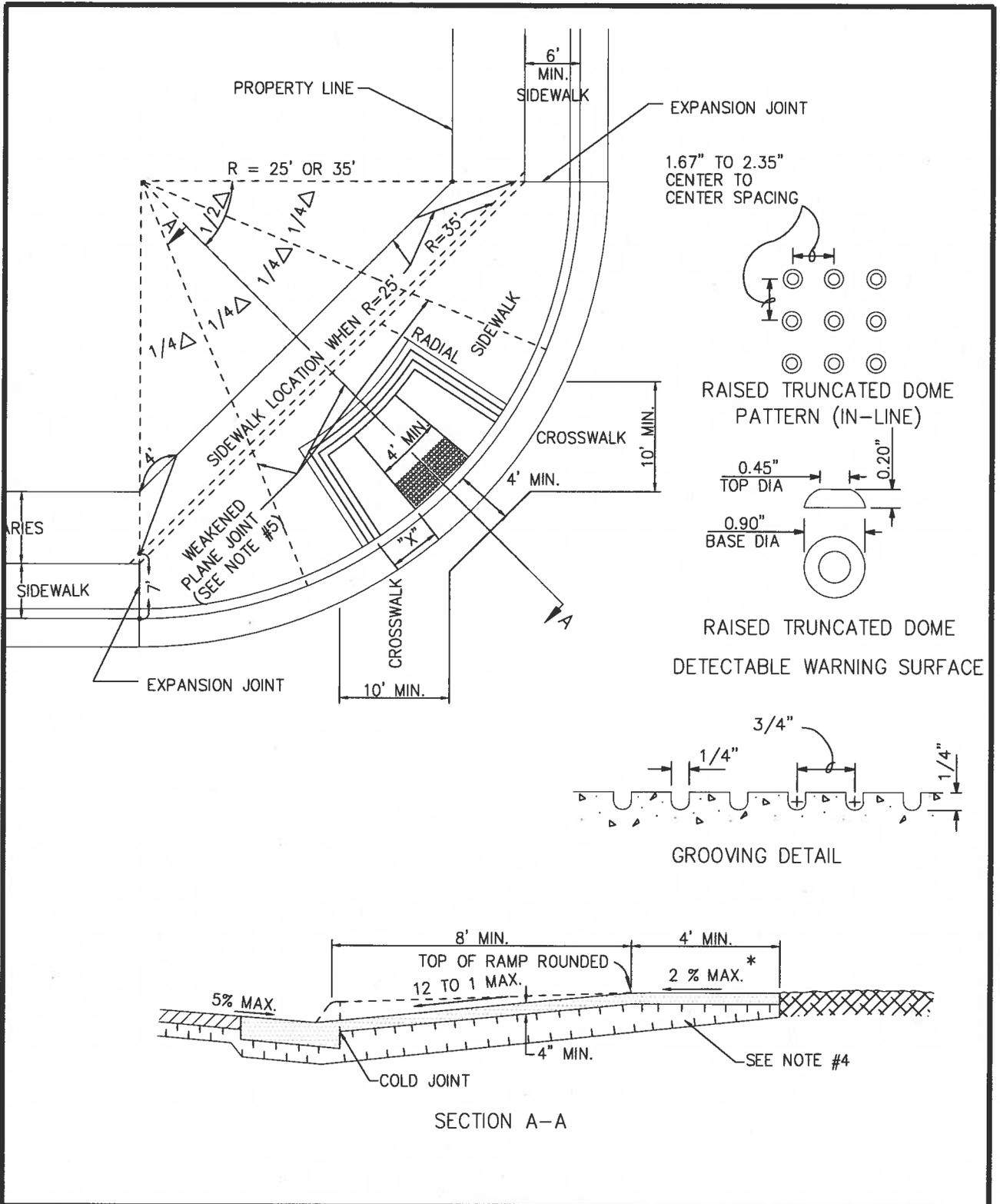
SIDEWALK AT R/W

NOTES:

1. CONCRETE SHALL BE CLASS 560-C-3250.
2. AGGREGATE BASE OR APPROVED SELECT MATERIAL WHEN SOILS REPORT INDICATES PRESENCE OF EXPANSIVE SOIL CONDITIONS.
3. WALLS PLACED AT THE BACK OF SIDEWALK REQUIRE A SPECIAL DESIGN ALLOWING FOR A LANDSCAPING SETBACK OR ALTERNATE DESIGN TO LANDSCAPE THE WALL AS APPROVED BY THE CITY ENGINEER.
4. SIDEWALKS TRANSITIONING FROM CURB TO RIGHT OF WAY SHALL BE DONE WITH A 20' MINIMUM TRANSITION UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

**CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS**

<b>REVISIONS</b>		<b>SIDEWALK AND CURB</b>	<b>STD. NO.</b>
5/92			<b>320</b>
10/98			
<b>APPROVED 1/14/10</b>			



**CITY OF MURRIETA  
DEPARTMENT OF PUBLIC WORKS**

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NOTES:

1. THE RAMP SHALL HAVE A 12" WIDE BORDER WITH 1/4" GROOVES APPROXIMATELY 3/4" O.C.
2. RAMP SIDESLOPE VARIES UNIFORMLY FROM A MAXIMUM OF 10% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF CURB. "X" = VARIES, 15' MAX.
3. THE SLOPE OF THE LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
4. AGGREGATE BASE OR APPROVED SELECT MATERIAL IS REQUIRED WHEN SOILS REPORT INDICATES EXPANSIVE SOIL CONDITION.
5. WEAKENED PLANE JOINTS AT 1/4Δ WHEN R=35'; AND INSIDE EDGE OF GROOVED BORDER WHERE R=25'.
6. FINISHED SURFACE OF RAMP SHALL BE MEDIUM BROOM FINISH. FINISH SHALL CONTRAST WITH ADJACENT SIDEWALK. APPLY BROOM FINISH PERPENDICULAR TO DIRECTION OF SLOPE FOR SLIP-RESISTANCE.
7. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3'-0" DEPTH OF THE RAMP. DETECTABLE WARNING SURFACES SHALL CONFORM TO THE DETAILS ON THIS PLAN. DETECTABLE WARNING SURFACE MATERIALS SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO INSTALLATION.
8. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE BETWEEN 6" AND 8" FROM THE GUTTER FLOWLINE.

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