1. **ASPHALT CONCRETE (AC)**

   ASPHALT CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, TYPE A, 1/2-INCH (13mm) MAXIMUM SIZE AGGREGATE, MEDIUM GRADING. ASPHALT BINDER SHALL BE PG 64–10. ASPHALT CONCRETE ON ARTERIAL STREETS IN LIFTS IN EXCESS OF 2 INCHES MAY BE TYPE A, 3/4-INCH MAXIMUM, MEDIUM GRADING.

2. **FOG SEAL**

   ASPHALTIC EMULSION FOR FOG SEAL SHALL BE CSS1h. THE EMULSION SHALL BE DILUTED WITH WATER SO THAT THE RESULTING MIXTURE WILL CONTAIN ONE PART ASPHALTIC EMULSION AND NOT MORE THAN ONE PART ADDED WATER. THE APPLICATION RATE (ASPHALTIC EMULSION AND ADDED WATER) SHALL BE SUCH THAT THE ORIGINAL EMULSION WILL BE SPREAD AT A RATE OF 0.10 GALLON PER SQUARE YARD.

3. **TACK COAT**

   A PAINT BINDER OF CSS1h ASPHALTIC EMULSION SHALL BE APPLIED TO ALL VERTICAL SURFACES OF EXISTING PAVEMENTS, CURBS, GUTTERS, AND CONSTRUCTION JOINTS AND BEFORE PLACING A LAYER OF ASPHALT CONCRETE ON AN EXISTING BITUMINOUS PAVEMENT. THE PAINT BINDER SHALL BE APPLIED IN ONE APPLICATION AT A RATE OF 0.10 GALLON PER SQUARE YARD.

4. **AGGREGATE BASE (AB)**

   AGGREGATE BASE SHALL CONFORM TO THE REQUIREMENTS OF STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARDS SPECIFICATIONS, CLASS 2, 3/4-INCH MAXIMUM EXCEPT THAT THE COURSE AGGREGATE (MATERIAL RETAINED ON THE NO. 4 SIEVE) SHALL CONSIST OF MATERIAL OF WHICH AT LEAST 25 PERCENT BY WEIGHT SHALL BE CRUSHED PARTICLES AS DETERMINED BY CALIFORNIA TEST 205.

5. **AGGREGATE SUBBASE (AS)**

   AGGREGATE SUBBASE SHALL CONFORM TO THE REQUIREMENTS OF STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARDS SPECIFICATIONS AGGREGATE SUBBASE CLASS 2.

6. **CONCRETE (PCC)**

   CONCRETE FOR CURBS, GUTTERS, SIDEWALKS, AND MINOR STRUCTURES SHALL BE CLASS 520–C–2500 PER THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK). CERTIFIED WEIGHMASTER CERTIFICATES SHALL INCLUDE BATCHING INFORMATION PER THE REQUIREMENTS OF SECTION 201–1.4.3, INCLUDING THE MIX PROPORTIONS FOR ON SITE REVIEW BY THE PROJECT INSPECTOR.

---

**MATERIALS**

<table>
<thead>
<tr>
<th>DWG DATE: 2/03</th>
<th>SCALE: NTS</th>
<th>CITY OF REDDING • PUBLIC WORKS DEPARTMENT • ENGINEERING DIVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>7/13</td>
<td>EDIT NOTE STRIKE-OUT</td>
</tr>
<tr>
<td>2</td>
<td>4/06</td>
<td>EDIT NOTE STRIKE-OUT</td>
</tr>
<tr>
<td>MARK DATE</td>
<td>REVISION</td>
<td>APPROVED BY CITY ENGINEER STRIKE-OUT</td>
</tr>
<tr>
<td></td>
<td>10/13</td>
<td>STRIKE-OUT STRIKE-OUT</td>
</tr>
</tbody>
</table>
1. **VERTICAL CLEARANCE**

VERTICAL CLEARANCE ABOVE THE ROADWAY SURFACE SHALL NOT BE LESS THAN:
- BRIDGES AND SIGN STRUCTURES: 18 FEET FOR ALL STREET CLASSIFICATIONS
- ALL OTHER ITEMS: 18 FEET FOR EXPRESSWAYS
  16 FEET FOR ARTERIALS
  14.5 FEET FOR COLLECTORS AND LOCAL STREETS

2. **BRIDGES**

**WIDTH**

BRIDGES SHALL HAVE A MINIMUM WIDTH BETWEEN CURBS OF 28 FEET. WIDTH SHALL BE INCREASED TO PROVIDE FOR SIDEWALKS, PARKING, BICYCLES, OR ADDITIONAL TRAFFIC LANES WHERE NEEDED.

**DESIGN LOADS**

DESIGN LIVE LOADING FOR ANY BRIDGE SHALL NOT BE LESS THAN HS–20 LOADING IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).

3. **GEOMETRIC DESIGN**

THE RIGHT OF WAY FOR THE PARTICULAR STREETS SHALL BE DETERMINED BY THE CITY ENGINEER AND SHALL BE DETERMINED BY ADDITION OF THE WIDTHS NECESSARY TO PROVIDE THE VARIOUS ITEMS TO BE CONTAINED THEREIN. THE FOLLOWING WIDTHS ARE CONSIDERED TO BE THE DESIRABLE MINIMUM IN EACH INSTANCE.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>MINIMUM WIDTH</th>
<th>STREET CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTER MEDIAN</td>
<td>22 FEET</td>
<td>EXPRESSWAY</td>
</tr>
<tr>
<td></td>
<td>12 FEET</td>
<td>SOME ARTERIAL</td>
</tr>
<tr>
<td>TRAVEL LANE / TURN LANES</td>
<td>12 FEET</td>
<td>EXPRESSWAY, ARTERIAL</td>
</tr>
<tr>
<td></td>
<td>10 FEET</td>
<td>COLLECTOR, LOCAL, CUL–DE–SAC, AND ALLEY</td>
</tr>
<tr>
<td>SHOULDER</td>
<td>6 FEET</td>
<td></td>
</tr>
<tr>
<td>PARKING LANE</td>
<td>7 FEET</td>
<td></td>
</tr>
<tr>
<td>BICYCLE LANE</td>
<td>8 FEET</td>
<td>EXPRESSWAY</td>
</tr>
<tr>
<td></td>
<td>5 FEET</td>
<td>ARTERIAL, COLLECTOR</td>
</tr>
<tr>
<td>PARKING LANE W/ BIKE LANE</td>
<td>14 FEET</td>
<td>COLLECTOR</td>
</tr>
<tr>
<td>DIVIDER BETWEEN FRONTAGE ROAD AND PARALLELING ROAD</td>
<td>8 FEET, CURB TO CURB</td>
<td>ALL STREETS</td>
</tr>
<tr>
<td>RIGHT OF WAY LINE TO CURB FACE OR SHOULDER</td>
<td>10 FEET</td>
<td>ALL STREETS (EXCEPT ALLEY AND MINOR COLLECTOR)</td>
</tr>
</tbody>
</table>

MAXIMUM LENGTH PROJECTED FROM PROPERTY LINE OF INTERSECTING STREET TO CENTER OF TURN–AROUND 600 FEET CUL–DE–SAC.
THE MAJOR FUNCTIONS OF URBAN STREETS FALL INTO THE FOLLOWING CLASSIFICATIONS, WHICH EACH VARY IN DESIGN BASED PRIMARILY ON PROJECTED TRAFFIC.

- EXPRESSWAY SYSTEMS, INCLUDING FREEWAYS AND PARKWAYS, PROVIDE FOR EXPEDITIOUS MOVEMENT OF LARGE VOLUMES OF THROUGH TRAFFIC BETWEEN AREAS AND ACROSS THE CITY AND ARE NOT INTENDED TO PROVIDE ACCESS TO INDIVIDUAL PROPERTIES.
- ARTERIAL SYSTEMS PROVIDE FOR THROUGH TRAFFIC MOVEMENT BETWEEN AREAS AND ACROSS THE CITY. DIRECT ACCESS TO ABUTTING COMMERCIAL AND MULTIPLE–FAMILY PROPERTIES CAN BE PERMITTED SUBJECT TO CONTROL OF THE LOCATION, NUMBER, AND SPACING OF ENTRANCE AND EXIT LOCATIONS.
- COLLECTOR STREETS PROVIDE FOR TRAFFIC MOVEMENT BETWEEN ARTERIAL STREETS AND LOCAL STREETS.
- LOCAL STREETS, INCLUDING CUL–DE–SACS, PROVIDE DIRECT ACCESS TO ABUTTING PARCELS AND ARE USED FOR LOCAL TRAFFIC MOVEMENTS.

THE ALIGNMENT OF ALL STREETS, BOTH HORIZONTAL AND VERTICAL, SHALL BE BASED UPON THE FOLLOWING:

<table>
<thead>
<tr>
<th>COR STANDARD</th>
<th>STREET CLASSIFICATION</th>
<th>MINIMUM RIGHT–OF–WAY (FT)</th>
<th>PAVEMENT WIDTH (CURB TO CURB) (FT)</th>
<th>MEDIAN WIDTH (FT) *3</th>
<th>CURB TYPE</th>
<th>MINIMUM SIDEWALK WIDTH (FT)</th>
<th>MAXIMUM GRADE (%)</th>
<th>MINIMUM CENTERLINE CURVE RADIUS (FT)</th>
<th>MINIMUM CURB RADIUS (FT)</th>
<th>MINIMUM STOPPING DISTANCE AT INTERSECTIONS (FT)</th>
<th>PROPERTY LINE RADIUS AT INTERSECTIONS (FT)</th>
<th>DESIGN SPEED (MPH)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ALLEYWAY</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>FRONTAGE ROAD</td>
<td>45–60</td>
<td>32–40</td>
<td>–</td>
<td>VERTICAL</td>
<td>5</td>
<td>8</td>
<td>300</td>
<td>*2</td>
<td>10</td>
<td>155</td>
<td>30</td>
</tr>
<tr>
<td>113.00</td>
<td>CUL–DE–SAC</td>
<td>50–60</td>
<td>32–40</td>
<td>–</td>
<td>VERTICAL OR ROLLED *4</td>
<td>5</td>
<td>12</td>
<td>200</td>
<td>*2</td>
<td>–</td>
<td>155</td>
<td>20</td>
</tr>
<tr>
<td>112.00</td>
<td>LOCAL STREET</td>
<td>50–56</td>
<td>32–36</td>
<td>–</td>
<td>VERTICAL OR ROLLED *4</td>
<td>5</td>
<td>12</td>
<td>200</td>
<td>*2</td>
<td>10</td>
<td>155</td>
<td>20</td>
</tr>
<tr>
<td>112.30</td>
<td>MINOR COLLECTOR</td>
<td>60–68</td>
<td>40–48</td>
<td>–</td>
<td>VERTICAL</td>
<td>5</td>
<td>8, 12</td>
<td>500</td>
<td>*2</td>
<td>20</td>
<td>250</td>
<td>30</td>
</tr>
<tr>
<td>112.50</td>
<td>MAJOR COLLECTOR</td>
<td>72, 80</td>
<td>52, 56</td>
<td>10</td>
<td>VERTICAL</td>
<td>5 *1</td>
<td>8</td>
<td>800</td>
<td>100</td>
<td>20</td>
<td>250</td>
<td>30</td>
</tr>
<tr>
<td>112.60</td>
<td>MINOR ARTERIAL</td>
<td>84</td>
<td>64</td>
<td>10</td>
<td>VERTICAL</td>
<td>5–10 *1</td>
<td>7</td>
<td>1,000</td>
<td>100</td>
<td>20</td>
<td>360</td>
<td>40</td>
</tr>
<tr>
<td>112.80</td>
<td>PRINCIPAL ARTERIAL</td>
<td>96</td>
<td>76, 64, 60</td>
<td>12–18</td>
<td>VERTICAL</td>
<td>5–10 *1</td>
<td>7</td>
<td>1,850</td>
<td>100</td>
<td>30</td>
<td>495</td>
<td>40</td>
</tr>
<tr>
<td>112.90</td>
<td>EXPRESSWAY</td>
<td>130</td>
<td>34 x 2</td>
<td>22</td>
<td>VERTICAL</td>
<td>–</td>
<td>7</td>
<td>3,150</td>
<td>100</td>
<td>30</td>
<td>645</td>
<td>40</td>
</tr>
</tbody>
</table>

* NOTES:
1. WIDTH VARYS WITH TYPE/DENSITY OF DEVELOPMENT.
2. TANGENT TO BE DETERMINED BY THE CITY ENGINEER.
3. MEDIANS MAY BE ESTABLISHED IN ANY STREET SUBJECT TO APPROVAL BY THE PLANNING COMMISSION, DEPENDING ON WHETHER IT IS ALSO USED FOR TURNING PURPOSES.
4. ROLLED CURB ONLY ALLOWED IN SINGLE–FAMILY OR DUPLEX AREAS WHERE GRADE OF STREET DOES NOT EXCEED FIVE PERCENT (5%).

DESIRABLE MINIMUM INTERSECTION SPACING:
ARTERIAL/ARTERIAL INTERSECTIONS – 1 MILE
ARTERIAL/COLLECTOR INTERSECTIONS – 1/2 MILE
ARTERIAL OR COLLECTOR/Local INTERSECTIONS – 500 FT. TO 650 FT.

DESIRABLE SIGNAL SPACING: 1/2 MILE (IDEAL); 1200 FT. (MIN.)
DETAIL SECTION AT CURB

TYPICAL HALF SECTION
SYMMETRICAL ABOUT CENTERLINE

LEGEND:
R/W = RIGHT-OF-WAY – SEE PAGE 110.00 FOR R/W REQUIREMENTS.
SW = SIDEWALK – A FULL WIDTH SIDEWALK WILL BE REQUIRED ON COMMERCIAL STREETS DESIGNATED
BY THE ENGINEERING DIVISION AS "PEDESTRIAN ORIENTED". SEE PAGES 131.00, 131.10, OR 131.50.
SE/PSE = SLOPE EASEMENT/PUBLIC SERVICE EASEMENT – WIDTH TO BE DETERMINED BY THE ENGINEERING
DIVISION.
AC = ASPHALT CONCRETE – SEE PAGE 100.00 FOR MATERIALS LIST.
TI = TRAFFIC INDEX – AS DEFINED IN CHAPTER 600 OF THE CALIFORNIA DEPARTMENT OF
TRANSPORTATION HIGHWAY DESIGN MANUAL.
AB = AGGREGATE BASE – SEE PAGE 100.00 FOR MATERIALS LIST.

NOTES:
1. ALL MATERIALS SHALL BE PER PAGE 100.00.
2. DENSITY REQUIREMENTS SHALL BE PER PAGE 601.00.
3. ON ALL NEW DEVELOPMENT PROJECTS, FOG SEAL NEW AC PAVEMENT NO SOONER THAN 30 DAYS AFTER
PLACEMENT. FOG SEAL REQUIREMENT MAY BE WAIVED IF COMPACTION AND IN-PLACE VOID RESULTS ARE
SUBMITTED TO THE CITY AND APPROVED BY THE CITY ENGINEER.

TYPICAL STREET
CROSS SECTION
WIDTH AND THICKNESS
# Minimum Structural Sections

(Minimum Layer Thickness in Feet) Based on Highway Design Manual
Section 630 California State Department of Transportation

<table>
<thead>
<tr>
<th>STREET CLASSIFICATION</th>
<th>TI MINIMUM</th>
<th>MATERIAL</th>
<th>R-VALUE OF BASEMENT SOIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPRESSWAY &amp; PRINCIPAL ARTERAL</td>
<td>10.0</td>
<td>AC</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AB</td>
<td>2.15</td>
</tr>
<tr>
<td>FULL DEPTH AC</td>
<td></td>
<td></td>
<td>1.30</td>
</tr>
<tr>
<td>MINOR ARTERAL</td>
<td>9.0</td>
<td>AC</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AB</td>
<td>2.00</td>
</tr>
<tr>
<td>FULL DEPTH AC</td>
<td></td>
<td></td>
<td>1.20</td>
</tr>
<tr>
<td>MAJOR COLLECTOR</td>
<td>8.0</td>
<td>AC</td>
<td>0.35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AB</td>
<td>1.80</td>
</tr>
<tr>
<td>FULL DEPTH AC</td>
<td></td>
<td></td>
<td>1.05</td>
</tr>
<tr>
<td>CUL-DE-SACS</td>
<td>7.0</td>
<td>AC</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AB</td>
<td>1.55</td>
</tr>
<tr>
<td>FULL DEPTH AC</td>
<td></td>
<td></td>
<td>0.90</td>
</tr>
<tr>
<td>MINOR COLLECTOR &amp; LOCAL STREET WITH 151 TO 300 RESIDENCES</td>
<td>6.0</td>
<td>AC</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>AB</td>
<td>1.25</td>
</tr>
<tr>
<td>FULL DEPTH AC</td>
<td></td>
<td></td>
<td>0.75</td>
</tr>
<tr>
<td>LOCAL STREET WITH 1 TO 150 RESIDENCES AND AC TRAILS</td>
<td>5.5</td>
<td>AC</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>AB</td>
<td>1.10</td>
</tr>
<tr>
<td>FULL DEPTH AC</td>
<td></td>
<td></td>
<td>0.65</td>
</tr>
</tbody>
</table>

**AC** = Asphalt Concrete  
**AB** = Aggregate Base (Class 2)

**NOTE:** Alternate Structural Sections utilizing Subbase, Base and AC Materials may be used subject to approval of the City Engineer.
NOTE:
THIS STANDARD ONLY APPLIES TO LOCAL STREETS THAT MUST CONFORM TO AN EXISTING 50 FT. R/W.

NOTE:
1. LANE LINES SHOWN ARE TYPICAL CONFIGURATIONS. PROPOSED MODIFICATIONS SHALL BE SUBJECT TO CITY ENGINEER APPROVAL.

PROJECTED ADT: LESS THAN 2,000
ACCESS: INTERSECTIONS AT GRADE WITH DIRECT ACCESS TO ABUTTING PROPERTIES.
TRAFFIC FEATURES: TRAFFIC CONTROL MEASURES AS WARRANTED TO PROVIDE ADEQUATE SAFETY.
GEOMETRICS: ROADWAY GEOMETRICS SHALL CONFORM TO PAGE 110.00.
STRUCTURAL SECTION: STRUCTURAL SECTION SHALL BE AS SHOWN ON PAGE 111.00.
BICYCLES: LOCAL STREETS ARE SUITABLE FOR A CLASS 3 BIKEWAY.
NOTE:
THIS STANDARD ONLY APPLIES WHEN TRAFFIC IS PROJECTED TO BE LESS THAN 4,000 ADT AND/OR CONFORMING TO AN EXISTING 60 FT. R/W.

(NOTICE)

1. LANE LINES SHOWN ARE TYPICAL CONFIGURATIONS. PROPOSED MODIFICATIONS SHALL BE SUBJECT TO CITY ENGINEER APPROVAL.

PROJECTED ADT: BETWEEN 2,000 AND 4,000
ACCESS: INTERSECTIONS AT GRADE WITH DIRECT ACCESS TO ABUTTING PROPERTIES.
TRAFFIC FEATURES: TRAFFIC SIGNALS, PARKING RESTRICTIONS, AND OTHER CONTROL MEASURES AS WARRANTED TO PROVIDE ADEQUATE SAFETY.
GEOMETRICS: ROADWAY GEOMETRICS SHALL CONFORM TO PAGE 110.00.
STRUCTURAL SECTION: STRUCTURAL SECTION SHALL BE AS SHOWN ON PAGE 111.00.
NOTE:
1. LANE LINES SHOWN ARE TYPICAL CONFIGURATIONS. PROPOSED MODIFICATIONS SHALL BE SUBJECT TO CITY ENGINEER APPROVAL.

PROJECTED ADT: GREATER THAN 4,000

ACCESS: INTERSECTIONS AT GRADE WITH DIRECT ACCESS TO ABUTTING PROPERTIES.

TRAFFIC FEATURES: TRAFFIC SIGNALS, PARKING RESTRICTIONS, AND OTHER CONTROL MEASURES AS WARRANTED.

GEOMETRICS: ROADWAY GEOMETRICS SHALL CONFORM TO PAGE 110.00.

STRUCTURAL SECTION: STRUCTURAL SECTION SHALL BE AS SHOWN ON PAGE 111.00.
NOTE:
THIS STANDARD ONLY APPLIES TO MAJOR COLLECTORS THAT MUST CONFORM TO AN EXISTING 80 FT. R/W.
NOTE:
THIS STANDARD ONLY APPLIES TO MINOR ARTERIALS THAT MUST CONFORM TO AN EXISTING 84 FT. R/W.

NOTES:
1. LANE LINES SHOWN ARE TYPICAL CONFIGURATIONS. PROPOSED MODIFICATIONS SHALL BE SUBJECT TO CITY ENGINEER APPROVAL.
2. CERTAIN ARTERIALS MAY BE REDUCED TO 84 FT. R/W WITH SPECIAL PROVISIONS FOR PUBLIC SERVICE EASEMENTS AND INTERSECTION TURN LANES, BUS STOPS, AND BIKE LANES.

ACCESS: INTERSECTIONS AT GRADE WITH DIRECT ACCESS TO ABUTTING PROPERTIES. SUBJECT TO CONTROL OF THE LOCATION, NUMBER, AND SPACING OF ENTRANCES AND EXITS.

TRAFFIC FEATURES: CHANNELIZATION USED TO CONTROL TURNING MOVEMENTS AT INTERSECTIONS AND AT CRITICAL DRIVEWAYS. TRAFFIC SIGNALS AT MAJOR INTERSECTIONS. PARKING AND DRIVEWAYS RESTRICTED AS NECESSARY.

GEOMETRICS: ROADWAY GEOMETRICS SHALL CONFORM TO PAGE 110.00.

STRUCTURAL SECTION: STRUCTURAL SECTION SHALL BE AS SHOWN ON PAGE 111.00.
FLAT TERRAIN

SE VARIES

SE VARIES

10'

10'

8 FT

60 FT

30 FT

8 FT

11/2%

11/2%

11/2%

11/2%

11/2%

11/2%

8'

12'

12'

12'

12'

12'

8'

BIKE TRAVEL LANE TRAVEL LANE LEFT TURN LANE OR RAISED MEDIAN TRAVEL LANE TRAVEL LANE BIKE

48 FT (1/2 SECTION)

96 FT R/W (MIN.)

48 FT (1/2 SECTION)

96 FT R/W (MIN.)

ABBR EVIATIOS:
HP = HINGE POINT
SE = SLOPE EASEMENT
SHD = SHOULDER

STEEP/MODERATE TERRAIN

NOTES:
1. LANE LINES SHOWN ARE TYPICAL CONFIGURATIONS. PROPOSED MODIFICATIONS SHALL BE SUBJECT TO CITY ENGINEER APPROVAL.

TRAVEL LANES: 4 TO 6

ACCESS: INTERSECTIONS AT GRADE WITH DIRECT ACCESS TO ABUTTING PROPERTY.
SUBJECT TO CONTROL OF LOCATION, NUMBER, AND SPACING OF ENTRANCES AND EXITS.

TRAFFIC FEATURES: CHANNELIZATION USED TO CONTROL TURNING MOVEMENTS AT INTERSECTIONS AND AT CRITICAL DRIVEWAYS. TRAFFIC SIGNALS AT MAJOR INTERSECTIONS. PARKING AND DRIVEWAY RESTRICTIONS AS NECESSARY.

GEOMETRICS: ROADWAY GEOMETRICS SHALL CONFORM TO PAGE 110.00.

STRUCTURAL SECTION: STRUCTURAL SECTION SHALL BE AS SHOWN ON PAGE 111.00

STREET STANDARD
PRINCIPAL ARTERIAL

CITY OF REDDING • PUBLIC WORKS DEPARTMENT • ENGINEERING DIVISION

DWG DATE: 9/13 SCALE: NTS CITY OF REDDING • PUBLIC WORKS DEPARTMENT • ENGINEERING DIVISION

6 9/13 4/06 5 REVISION

MARK DATE REVIEWED

APPROVED BY:

10/9/13

CITY ENGINEER
NOTE:
THIS STANDARD SHALL ONLY BE USED IN LOCATIONS WHERE TRAFFIC VOLUME PROJECTIONS
INDICATE THAT AN ARTERIAL WOULD NOT BE REQUIRED WITHIN A 15 YEAR PERIOD (SUBJECT TO
CITY ENGINEER APPROVAL). PAVEMENT WIDTH SHALL INCREASE AT INTERSECTIONS TO
ACCOMMODATE TURNING LANES.

4 LANE OPTION

6 LANE OPTION
PARKWAY OPTION

STANDARD EXPRESSWAY
(4-LANE)

NOTE:
1. LANE LINES SHOWN ARE TYPICAL CONFIGURATIONS. PROPOSED MODIFICATIONS SHALL BE SUBJECT TO CITY ENGINEER APPROVAL.

TRAVEL LANES: 4 TO 6

ACCESS: GENERALLY ADJACENT PROPERTY DOES NOT HAVE ACCESS DIRECTLY TO EXPRESSWAY. PARALLEL FRONAGE ROADS WHERE NECESSARY.

TRAFFIC FEATURES: TRAFFIC CONTROLS AND SAFETY FEATURES AS WARRANTED.

GEOMETRICS: ROADWAY GEOMETRICS SHALL CONFORM TO PAGE 110.00.

STRUCTURAL SECTION: STRUCTURAL SECTION SHALL BE AS SHOWN ON PAGE 111.00

MEDIAN: LEAVE A 12-FOOT WIDE (NET) LANDSCAPE STRIP AT TURN-POCKETS.
TABLE OF DIMENSIONS

<table>
<thead>
<tr>
<th>CASE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50'</td>
<td>37'</td>
<td>20'</td>
<td>26.50'</td>
<td>50'</td>
<td>43.50'</td>
<td>53.62'</td>
</tr>
<tr>
<td>2</td>
<td>50'</td>
<td>33'</td>
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<td>28.50'</td>
<td>50'</td>
<td>41.50'</td>
<td>53.62'</td>
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<tr>
<td>3</td>
<td>56'</td>
<td>37'</td>
<td>20'</td>
<td>29.50'</td>
<td>50'</td>
<td>40.50'</td>
<td>50.95'</td>
</tr>
<tr>
<td>4</td>
<td>60'</td>
<td>41'</td>
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<td>29.50'</td>
<td>50'</td>
<td>40.50'</td>
<td>48.99'</td>
</tr>
</tbody>
</table>

NOTES:

1. DIMENSIONS B, D AND F ARE TO BACK OF CURB.
2. MINIMUM RIGHT-OF-WAY WIDTH 50 FT.
3. MINIMUM PROPERTY LINE RADIUS OF CUL-DE-SAC 50 FT.
NOTES:

1. INTERSECTION ELBOWS ARE NOT REQUIRED WHERE THE CENTERLINE RADIUS MEETS THE MINIMUM REQUIREMENTS.

2. SEE APPLICABLE "STREET STANDARD" PAGES FOR DIMENSION REQUIREMENTS OF RIGHT-OF-WAY WIDTH ('A') AND CURB TO CURB WIDTH ('B').

3. WHERE 'A' = 40', 'RA' = 50'
   
   'A' = 50', 60'
   'A' = 56', 68'
   'A' = 60', 72'

4. A MINIMUM OF 50' OF TANGENT IS REQUIRED FROM THE POINT OF INTERSECTION OF THE CENTERLINES.

5. INTERSECTION ANGLE SHALL BE BETWEEN 85° AND 95°.

6. SIGHT TRIANGLE (SHAPED AREA) SHALL HAVE VISIBILITY CONTROL. NO PERMANENT BUILDINGS OR LANDSCAPING IN EXCESS OF 36 INCHES IN HEIGHT WILL BE ACCEPTED WITHIN THE SETBACK LINES.
NOTES:
1. EASEMENT DEDICATION REQUIRED TO BACK OF SIDEWALK.
2. WEAKENED PLANE JOINTS SHALL BE 1 1/2" MIN. DEPTH TOOLED JOINTS.
3. SUBGRADE SHALL BE COMPACTED IN ACCORDANCE WITH PAGE 601.00.
4. QUICK CHANGE BASE AND 2" DIAMETER GALVANIZED PIPE POST PER PAGE 152.10.

SECTION

FLOW LINE TO EXTEND THROUGH BUS STOP PARALLEL TO LIP OF GUTTER

VERTICAL CURB BEYOND
CONC. SLAB

12'-0" (MIN.) FACE OF CURB TO EDGE OF TRAVELED WAY

5'-0" (MIN.)

10'-0" (MIN.)

SEE NOTE 4

PLACE 3" MIN CLASS 2 AGG. BASE UNDER CONCRETE SIDEWALK

CLASS 2 AGG. BASE BELOW BUS TURNOUT, THICKNESS SHALL BE EQUAL TO ADJACENT STREET BASE THICKNESS OR 6" MINIMUM.
NOTES:
1. EASEMENT DEDICATION REQUIRED TO BACK OF SIDEWALK.
2. WEAKENED PLANE JOINTS SHALL BE 1 1/2" MIN. DEPTH TOOLED JOINTS.
3. SUBGRADE SHALL BE COMPACTED IN ACCORDANCE WITH PAGE 601.00.
4. QUICK CHANGE BASE AND 2" DIAMETER GALVANIZED PIPE POST PER PAGE 152.10.

SECTION

PLACE 3" MIN CLASS 2 AGG. BASE UNDER CONCRETE SIDEWALK

CLASS 2 AGG. BASE BELOW BUS TURNOUT. THICKNESS SHALL BE EQUAL TO ADJACENT STREET BASE THICKNESS OR 6" MINIMUM.
NOTES:
1. All work and materials shall conform to the "standard specifications for public works construction" (Greenbook).
2. Concrete shall be per page 100.00.
3. Weakened plane joints shall be to a depth of 2 Inches and at intervals not to exceed 12 ft. o.c.
4. Within the curb and gutter section, the top 3/4-inch of the control joint shall be filled with polyurethane sealant (Sikaflex-1A or equal).

<table>
<thead>
<tr>
<th>CURB FACE</th>
<th>'X' DIST</th>
<th>'W' MIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 1/2&quot; or less</td>
<td>2&quot;-6&quot;</td>
<td>17&quot;</td>
</tr>
<tr>
<td>7&quot; to 7 1/2&quot;</td>
<td>3'-0&quot;</td>
<td>18&quot;</td>
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<td>8&quot; to 8 1/2&quot;</td>
<td>3'-6&quot;</td>
<td>19&quot;</td>
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<tr>
<td>9&quot; to 9 1/2&quot;</td>
<td>4'-0&quot;</td>
<td>20&quot;</td>
</tr>
<tr>
<td>10&quot; to 10 1/2&quot;</td>
<td>4'-6&quot;</td>
<td>21&quot;</td>
</tr>
<tr>
<td>11&quot; to 12&quot;</td>
<td>5'-0&quot;</td>
<td>22&quot;</td>
</tr>
</tbody>
</table>
TYPICAL CROSS SECTION

HEADER DETAILS

OUTER LIP BEYOND
PROFILE GRADE (FLOW LINE)

1/2" EXPANSION JOINT AT
15'-0" (MAX.) SPACING.
(SEE NOTE 3)

(3) 1/2" DIA. SMOOTH BARS PER JOINT. GREASE OR DUCT TAPE ONE END.

NOTES:
1. ALL WORK AND MATERIALS SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).
2. SURFACING AND BASE THICKNESS SHALL BE DETERMINED IN ACCORDANCE WITH THE CITY STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER, BUT IN NO CASE BE LESS THAN THESE MINIMUM STRUCTURAL DESIGN SECTION REQUIREMENTS:
   - AGGREGATE BASE = 0.33'
   - PRIME COAT (IF REQUIRED) = 0.25 GAL/SQ YD
   - ASPHALT CONCRETE = 0.17'
   - FOG SEAL (IF REQUIRED) = 0.10 GAL/SQ YD
3. 1/2-INCH, PRE-MOLDED EXPANSION JOINT MATERIAL SHALL BE HELD FIRMLY IN PLACE PRIOR TO PLACING CONCRETE.
4. CONCRETE SHALL BE PER PAGE 100.00
5. REDWOOD HEADERS TO BE FOUNDATION GRADE OR BETTER.

ALLEY AND VALLEY GUTTER DETAILS
NOTES:
1. WORK TO BE DONE AND MATERIALS SUPPLIED SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. (GREENBOOK)
2. CONCRETE SHALL BE PER PAGE 100.00.
3. AN 8 INCH FLOW LINE SHALL BE LEFT SMOOTH TROWELLED.
4. ALL BROOMING SHALL BE PARALLEL TO DIRECTION OF FLOW.
5. WHEN ROLL CURB IS USED, A TRANSITION SHALL BE CONSTRUCTED 5 FEET, BEYOND THE RADIUS RETURN.
6. VERTICAL CURB SHALL BE USED ON ALL RADIUS RETURNS.
7. EXPANSION JOINTS SHALL BE CONSTRUCTED AT THE MIDPOINT AND AT EACH END OF CROSS GUTTER BUT SHALL NOT EXCEED 15 FEET ON CENTER. CONSTRUCT PER DETAIL ON PAGE 125.50.
8. STANDING WATER SHALL NOT BE ALLOWED IN THE CROSS GUTTER OR SPANDRELS.
9. CONTROL JOINTS SHALL BE CONSTRUCTED RADIALY THRU THE SPANDRELS AT THE LIMITS OF THE HANDICAP RAMPS.
10. 6 INCH MIN. AGGREGATE BASE SHALL BE PLACED BELOW SPANDREL AND CROSS GUTTER SECTIONS. AGGREGATE BASE COST TO BE INCLUDED IN SPANDREL AND CROSS GUTTER PRICE.
SECTION A-A

DETAIL
(END OF DIKE RAMP)

NOTES:
1. BACK OF CURB RADIUS SHALL BE DETERMINED BY STREET CLASSIFICATION AS FOLLOWS:
   - 'LOCAL' STREETS SHALL BE 29 FT.
   - 'COLLECTOR' AND 'ARTERIAL' STREETS SHALL BE 39 FT.
NOTES:
1. WORK AND MATERIALS SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).
2. SIDEWALKS MUST MAINTAIN A MINIMUM OF 4- FEET CLEAR WIDTH AT ALL TIMES.
3. SIDEWALK GRADES SHALL NOT EXCEED 5-PERCENT EXCEPT TO MATCH THE GRADE OF THE ADJACENT STREET OR ROADWAY.
4. SIDEWALKS WITH CONTINUOUS GRADIENTS SHALL HAVE A LEVEL AREA AT LEAST 5-FEET IN LENGTH AT INTERVALS NO LONGER THAN 400-FEET.
5. SIDEWALK AND CURB RAMPS WITHIN ALL CURB RETURNS SHALL BE A MINIMUM OF 6 INCHES THICK.
6. IN ALL AREAS, WHERE ROLL CURB TRANSITIONS TO VERTICAL CURB OR CATCH BASINS, SIDEWALK SHALL BE A MINIMUM OF 6 INCHES THICK.
7. CONCRETE SHALL BE PER PAGE 100.00.
8. ALL BROOMING SHALL BE PERPENDICULAR TO THE CURB.
9. WEAKENED PLANE JOINTS SHALL BE TO A DEPTH OF 2 INCHES AND AT INTERVALS NOT TO EXCEED 12 FT. O.C.
10. 1/2-INCH DEEP SCORE LINES SHALL BE EVENLY SPACED BETWEEN WEAKENED PLANE JOINTS AT 3 FT TO 5 FT INTERVALS.
11. ALL EXISTING STREET SIGNS SHALL BE RELOCATED AND ALL REQUIRED NEW SIGNS PLACED PER PAGE 152.10 AT THE TIME OF SIDEWALK INSTALLATION. THE CITY WILL PROVIDE THE QUICK CHANGE BASE TUBE FOR THE CONTRACTOR'S INSTALLATION FOR ALL EXISTING SIGNS.
NOTES:
1. MAXIMUM AND MINIMUM MEANDER DISTANCES SHALL BE AS SPECIFIED ON IMPROVEMENT PLANS. TYPICAL MEANDER DISTANCE IS EQUAL TO SIDEWALK WIDTH.
2. THE SIDEWALK CURVE RADIUS SHOULD VARY, BETWEEN 50 AND 300 FEET, AND AT EACH POINT OF REVERSE CURVATURE, THE RADIUS SHOULD CHANGE TO ASSIST CREATING AN ARRHYTHMIC LAYOUT.
3. THE SLOPE OF THE AREA BETWEEN CURB AND THE SIDEWALK SHALL BE 2% AT ALL DRIVEWAYS AND AT ALL CURB RETURNS. SLOPE MAY INCREASE TO A MAXIMUM OF 6:1 IN ALL OTHER AREAS.
4. SIDEWALK WIDTH SHALL BE AS SHOWN ON IMPROVEMENT PLANS.
5. SEE SIDEWALK STANDARD, PAGE 131.00, FOR SPECIFIC SIDEWALK CONSTRUCTION DETAILS NOT SHOWN.
NOTES:

1. THIS SECTION SHALL BE USED ONLY IN PARKING LOTS OR AS APPROVED BY THE CITY ENGINEER.

2. ALL WORK TO BE DONE AND ALL MATERIALS SUPPLIED SHALL CONFORM TO THE "STANDARDS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).

3. CROSS SECTIONAL AREA = 0.66 SQ. FT.

4. CONCRETE TO BE PER PAGE 100.00, WITH 4-INCH MAX. SLUMP, 1 1/2 INCH MAX. SLUMP FOR EXTRUDED CURBS.

5. PROVIDE A WEAKENED PLANE JOINT EACH 12 FT. O.C.

6. ALL EXPOSED SURFACES SHALL RECEIVE A LIGHT BROOM FINISH PARALLEL TO THE CURB.
NOTES:

1. ALL WORK TO BE DONE AND ALL MATERIALS SUPPLIED SHALL CONFORM TO THE "STANDARDS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).

2. CROSS SECTIONAL AREA = 1.80 SQ. FT.

3. CONCRETE SHALL BE PER PAGE 100.00.

4. ALL BROOMING SHALL BE PARALLEL TO THE DIRECTION OF FLOW.

5. WEAKENED PLANE JOINTS SHALL BE TO A DEPTH OF 2-INCHES AND AT INTERVALS NOT TO EXCEED 12 FT. O.C. THE TOP 3/4-INCH OF THE WEAKENED PLANE JOINT SHALL BE FILLED WITH POLYURETHANE SEALANT (SIKAFLLEX-1A OR EQUAL).
NOTES:

1. WORK AND MATERIALS SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).

2. CROSS SECTIONAL AREA = 1.70 SQ. FT.

3. CONCRETE SHALL BE PER PAGE 100.00.

4. ALL BROOMING SHALL BE PARALLEL TO THE DIRECTION OF FLOW.

5. WEAKENED PLANE JOINTS SHALL BE TO A DEPTH OF 2-INCHES AND AT INTERVALS NOT TO EXCEED 16 FT. O.C. THE TOP 3/4-INCH OF THE WEAKENED PLANE JOINT SHALL BE FILLED WITH POLYURETHANE SEALANT (SIKAFLUX-1A OR EQUAL).
NOTES:

1. WORK AND MATERIALS SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).

2. CROSS SECTIONAL AREA = 1.93 SQ. FT.

3. CONCRETE SHALL BE PER PAGE 100.00.

4. ALL BROOMING SHALL BE PARALLEL TO THE DIRECTION OF FLOW.

5. WEAKENED PLANE JOINTS SHALL BE TO A DEPTH OF 2-INCHES AND AT INTERVALS NOT TO EXCEED 12 FT. O.C. THE TOP 3/4-INCH OF THE WEAKENED PLANE JOINT SHALL BE FILLED WITH POLYURETHANE SEALANT (SIKAFLLEX-1A OR EQUAL).

6. ALL SIDEWALK ADJACENT TO 5" CURB AND GUTTER SHALL BE NO LESS THAN 6-INCHES THICK.

7. WHEN CONSTRUCTING A CURB RETURN ADJACENT TO ROLL CURB, RETURN SHALL BE 5" VERTICAL CURB AND GUTTER PER THIS STANDARD.

8. TRANSITION FROM ROLL TO VERTICAL CURB SHALL BE 5 FT. LONG; FORMED NOT HAND SHAPED.
NOTES:

1. WORK AND MATERIALS SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).

2. CROSS SECTIONAL AREA = 1.84 SQ. FT.

3. CONCRETE SHALL BE PER PAGE 100.00.

4. ALL BROOMING SHALL BE PARALLEL TO THE DIRECTION OF FLOW.

5. WEAKENED PLANE JOINTS SHALL BE TO A DEPTH OF 2-INCHES AND AT INTERVALS NOT TO EXCEED 12 FT. O.C. THE TOP 3/4-INCH OF THE WEAKENED PLANE JOINT SHALL BE FILLED WITH POLYURETHANE SEALANT (SIKAFLEX-1A OR EQUAL).

6. ROLL CURB AND GUTTER IS NOT PERMITTED WHEN GRADE OF STREET IS GREATER THAN 5%.

7. ALL SIDEWALK ADJACENT TO ROLL CURB AND GUTTER SHALL BE NO LESS THAN 6-INCHES THICK.

8. WHEN CONSTRUCTING A CURB RETURN ADJACENT TO ROLL CURB, RETURN SHALL BE 5" VERTICAL CURB AND GUTTER PER PAGE 137.00.

9. TRANSITION FROM ROLL TO VERTICAL CURB SHALL BE 5 FT. LONG; FORMED NOT HAND SHAPED.
NOTES:
1. WORK AND MATERIALS SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).
2. ALL CONCRETE SHALL BE PER PAGE 100.00.
3. SAWCUT CONCRETE CURB, GUTTER, AND SIDEWALK OR TAKE OUT TO NEAREST EXPANSION JOINT.
4. THE AREA INCLUDED WITHIN THE SLOPES OF THE DRIVEWAY SHALL BE GIVEN A HEAVY BROOM FINISH AFTER BEING TROWELED.
5. WEAKENED PLANE JOINTS SHALL BE TO A DEPTH OF 2-INCHES AND AT INTERVALS NOT TO EXCEED 12 FT. O.C. WITHIN THE CURB AND GUTTER SECTION, THE TOP 3/4-INCH OF THE WEAKENED PLANE JOINT SHALL BE FILLED WITH POLYURETHANE SEALANT (SIKAFLEX-1A OR EQUAL).
6. SCORING LINES SHALL CORRESPOND WITH SCORING LINES IN THE ADJACENT SIDEWALK UNLESS OTHERWISE SPECIFIED.

DRIVEWAY MODIFICATION
FOR OBSOLETE 30" OR STANDARD ROLL CURB
NOTES:
1. CURB RAMPS SHALL BE PER PAGES 141.10 AND 141.20.
2. INSTALLATION OF RAMPS AT LOCATIONS OTHER THAN THE MIDDLE OF THE CURB RETURN REQUIRE THE CONSTRUCTION OF TWO (2) RAMPS TO SERVE BOTH CROSSWALKS (SEE CASE 6).
NOTE:
1. WORK AND MATERIALS SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).
2. SEE PAGE 141.00 FOR RAMP LOCATIONS.
3. FOR ROLL CURB, USE 5" VERTICAL CURB IN ALL CURB RETURNS WITH A 5 FT. TRANSITION AT BEGIN AND END OF CURVE TO ADJACENT CURB.
4. USE WIDTH 'W' OF 4 FT AT FLOWLINE. MAINTAIN MINIMUM WIDTH OF 3 FT AT THE TOP OF THE RAMP.
6. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE TRUNCATED DOME PATTERN AS SHOWN ON CALTRANS STANDARD PLAN A88A.
7. DETECTABLE WARNING SURFACE SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. SEE ADA ACCESSIBILITY GUIDELINES 4.29.2.
8. DETECTABLE WARNING SURFACE SHALL BE "WET SET" IN CONCRETE.
9. APPROVED MANUFACTURES: DETECTABLE WARNING SYSTEMS™, ADA SOLUTIONS INC. OR APPROVED EAUAL.

CITY OF REDDING • PUBLIC WORKS DEPARTMENT • ENGINEERING DIVISION

CURB RAMP
TYPE 'A'

MARK DATE REVISION
2 1 7/13 4/06 ADD NOTES EDIT NOTES
1 7/13 10/13 4/06 CITY ENGINEER

DRAWN BY: [signature]
CHECKED BY: [signature]
APPROVED BY: [signature]
NOTES:
1. WORK AND MATERIALS SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).
2. SEE PAGE 141.00 FOR RAMP LOCATIONS.
3. FOR ROLL CURB, USE 5" VERTICAL CURB IN ALL CURB RETURNS WITH A 5 FT. TRANSITION AT BEGIN AND END OF CURVE TO ADJACENT CURB.
4. USE WIDTH 'W' OF 4 FT AT FLOWLINE. MAINTAIN MINIMUM WIDTH OF 3 FT AT THE TOP OF THE RAMP.
6. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE TRUNCATED DOME PATTERN AS SHOWN ON CALTRANS STANDARD PLAN ABB.
7. DETECTABLE WARNING SURFACE SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. SEE ADA ACCESSIBILITY GUIDELINES 4.29.2.
8. DETECTABLE WARNING SURFACE SHALL BE "WET SET" IN CONCRETE.
9. APPROVED MANUFACTURES: DETECTABLE WARNING SYSTEMS™, ADA SOLUTIONS INC. OR APPROVED EAUAL.

CITY OF REDDING • PUBLIC WORKS DEPARTMENT • ENGINEERING DIVISION

CURB RAMP
TYPE 'B'
NOTES:
1. WORK AND MATERIALS SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" (GREENBOOK).
2. SEE PAGE 141.00 FOR RAMP LOCATIONS.
3. FOR ROLL CURB, USE 5" VERTICAL CURB IN ALL CURB RETURNS WITH A 5 FT. TRANSITION AT BEGIN AND END OF CURVE TO ADJACENT CURB.
4. USE WIDTH 'W' OF 4 FT AT FLOWLINE. MAINTAIN MINIMUM WIDTH OF 3 FT AT THE TOP OF THE RAMP.
6. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE TRUNCATED DOME PATTERN AS SHOWN ON CALTRANS STANDARD PLAN ABBA.
7. DETECTABLE WARNING SURFACE SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. SEE ADA ACCESSIBILITY GUIDELINES 4.29.2.
8. DETECTABLE WARNING SURFACE SHALL BE "WET SET" IN CONCRETE.
9. APPROVED MANUFACTURES: DETECTABLE WARNING SYSTEMS™, ADA SOLUTIONS INC. OR APPROVED EQUAL.
1. **DRIVEWAYS - GENERAL**

All driveway approaches in city right of way shall be constructed in conformance with Redding Municipal Code (RMC) Section 18.41, the standard specifications, and the appropriate driveway standard drawings, or as modified for special situations described herein and approved by the city engineer.

2. **DRIVEWAY APRONS**

A. A residential driveway apron shall be constructed between the curb and the property line with Portland cement concrete per page 148.00.

B. A commercial driveway apron to a parking lot or "drive-in" business shall be constructed between the curb and the property line with Portland cement concrete per page 148.10 or 148.20.

C. An industrial driveway apron shall be constructed between the curb and the property line per page 148.10 or 148.20 with an approved Portland cement concrete structural section based on the amount of truck traffic (TI) and ability of the soil (R-value) to withstand truck wheel loads.

D. In all cases above, it shall be the responsibility of the abutting property owner to maintain the driveway apron in a safe and suitable condition for the traffic to be carried, whether pedestrian or vehicular.

E. All concrete within the driveway apron (width 'W' as defined in note 6) shall have a minimum thickness of six (6) inches.

3. **HIGH VOLUME DRIVEWAYS (COMMERCIAL / INDUSTRIAL)**

Commercial and industrial driveways that serve a substantial number of vehicles or trucks shall have dimensions, sight distance, geometrics, spacing, etc., determined by the city engineer.

4. **AMOUNT OF FRONTAGE ALLOWED FOR DRIVEWAYS**

A. Parcels (excluding single-family) shall be limited to one (1) driveway per street frontage and not more than fifty percent (50%) of the frontage may be devoted to driveways (RMC Sec. 18.41.140).

B. Single-family parcels shall be limited to two (2) driveway cuts per street frontage and not more than fifty percent (50%) of the frontage may be devoted to driveways.

5. **ONE-WAY DRIVEWAYS**

Parcels (excluding single-family) shall be limited to two (2) driveways (for circular one-way use) per street frontage and shall conform to the city standard for commercial driveways or as modified by the city engineer for special situations (RMC Sec. 18.41.140).
6. **DRIVEWAY WIDTH "W"**

The total width of driveways shall be measured between full height of curb; except in the case of rolled curb, the width of the driveway shall be measured at the back edge of the curb or back edge of sidewalk.

7. **MINIMUM WIDTH "W"**

A. The minimum width of driveways for one- and two-family residences shall be 17 feet.

B. The minimum width of all other driveways shall provide for the safe, efficient, and economical movement of traffic and should be approximately 25 feet.

8. **MAXIMUM WIDTH "W"**

A. The maximum width of driveways for one- and two-family residences shall be 28 feet.

B. The maximum width of all commercial driveways shall be 40 feet.

C. In the case of a driveway located adjacent to an alley, the driveway apron may be combined with the alley only when approved by the city engineer and the total combined width shall not exceed 40 feet.

D. The driveway width may be modified by the city engineer to facilitate turning movements where curb lanes are used and where necessary to provide for the safe, efficient, and economical movement of traffic.

9. **DISTANCE BETWEEN DRIVEWAYS**

A. No driveway shall be located closer than three (3) feet from a side property line, except as allowed by specific zoning ordinance or use permit.

B. The minimum length of full height curb between driveways on adjacent parcels shall be six (6) feet except as allowed by specific zoning ordinance.

C. No driveway shall be located closer than six (6) feet from an existing or future alley entrance except as provided elsewhere in these standards.

D. Where two or more driveways are constructed on the same parcel, the minimum length of full height curb between driveways shall be 14 feet. Where practical, to provide curbside parking, the total length of full height curb between driveways shall be in multiples of 24 feet.

10. **DRIVEWAY GRADE (SLOPE)**

The maximum grade for driveways within the public right-of-way (measured at the centerline) shall be limited to eight (8) percent; except the area required for pedestrian traffic which shall not exceed two (2) percent (RMC Sec. 18.41.180(A)).
11. DRIVEWAY DISTANCES FROM UTILITY OR SAFETY DEVICES

NO DRIVEWAY SHALL BE LOCATED CLOSER THAN FIVE (5) FEET FROM A FIRE HYDRANT, TRAFFIC SIGNAL, STREET LIGHT STANDARD, UTILITY POLE, GUY WIRE, OR ANY UTILITY COMPANY SERVICE BOX.

12. UTILITY RELOCATION

ANY NECESSARY RELOCATION OF PUBLIC OR PRIVATE UTILITY FACILITIES OR OTHER PUBLIC IMPROVEMENTS REQUIRED TO ACCOMMODATE A DRIVEWAY SHALL BE ACCOMPLISHED WITHOUT COST TO THE CITY.

13. SIGNAL AND ELECTRICAL CONDUIT

WHERE TRAFFIC SIGNAL OR HIGHWAY LIGHTING IS PLANNED OR ANTICIPATED, A MINIMUM OF ONE 3-INCH PVC-P&C TC-6 CONDUIT SHALL BE PLACED UNDER ANY NEW DRIVEWAY APRON AND EXTEND A MINIMUM OF ONE FOOT BEYOND THE ENDS OF THE DRIVEWAY WITHOUT COST TO THE CITY. THE CONDUIT SHALL BE PLACED BEHIND, AND 24 INCHES BELOW TOP OF CURB.

14. REMOVAL OF EXISTING DRIVEWAYS

WHEN DRIVEWAY CONSTRUCTION IS TO TAKE PLACE ON A PARCEL, ANY ABANDONED DRIVEWAYS SHALL BE REMOVED AND REPLACED WITH STANDARD CURB, GUTTER, AND SIDEWALK CONCURRENTLY WITH THE NEW CONSTRUCTION AND WITHOUT COST TO THE CITY (RMC SEC. 18.41.140(E)).

15. REMOVAL OF EXISTING CONCRETE

A. WHERE CURB, GUTTER, AND/OR SIDEWALK IS EXISTING AND NO DRIVEWAY DEPRESSION HAS BEEN PROVIDED, THE CONCRETE SHALL BE SAWCUT AND REMOVED TO THE NEAREST SCORE LINE OR CONTROL JOINT BEYOND THE 'X' DISTANCE ON EITHER SIDE AND REPLACED PER THE APPROPRIATE STANDARDS.


16. REMOVAL OF EXISTING ASPHALT CONCRETE

WHEN A DRIVEWAY IS TO BE CONSTRUCTED ADJACENT TO EXISTING ASPHALT CONCRETE, SAID AC SHALL BE REMOVED TO A NEAT VERTICAL EDGE AT A MINIMUM OF 12 INCHES OFF THE NEW LIP OF GUTTER. VERTICAL EDGE SHALL RECEIVE A TACK COAT BEFORE PLACEMENT OF THE NEW AC PER PAGE 611.00.

17. MODIFICATION

THE ABOVE STANDARDS MAY BE MODIFIED BY THE CITY ENGINEER.
CASE 4
(SEE NOTE 4)

CASE 1
SINGLE-FAMILY ONLY
(SEE NOTE 2)

CASE 2
(SEE NOTE 2)

CASE 3
(SEE NOTE 3)

CASE 5
(SEE NOTE 5)

NOTES:
1. (*) RADIUS REFERS TO FACE OF CURB RADIUS.
2. WHERE RADIUS OF THE CURB RETURN IS LESS THAN FORTY (40) FEET, NO PORTION OF ANY DRIVEWAY SHALL BE PERMITTED WITHIN THE SPECIFIED DISTANCE OF THE CURB RETURN ACCORDING TO THE DESIGNATED LAND USE (RMC SEC. 18.41.140(B)).
3. WHERE RADIUS OF THE CURB RETURN IS LESS THAN SIXTY (60) FEET, NO PORTION OF ANY DRIVEWAY SHALL BE PERMITTED WITHIN THE CURB RETURN.
4. ON ALL CURB RETURNS WHERE THE RADIUS IS MORE THAN SIXTY (60) FEET, DRIVEWAYS MAY ENCLOSE UPON EACH END OF THE RETURN A MAXIMUM DISTANCE EQUAL TO 12-1/2% OR 1/8 OF THE TOTAL LENGTH OF THE ARC OF THE CURB RETURN, SUBJECT TO APPROVAL OF THE CITY ENGINEER.
5. ON ALL CURB RETURNS WHERE CHANNELIZATION AND/OR COMPOUND CURVES ARE TO EXIST, DRIVEWAYS WILL NOT BE PERMITTED WITHIN THE CURB RETURNS AND THEIR LOCATION SHALL BE SUBJECT TO APPROVAL OF THE CITY ENGINEER.
NOTES:
1. ALL DRIVEWAY DESIGNS SHALL CONFORM WITH PAGE 147.00, DRIVEWAY STANDARDS AND CRITERIA.
2. DRIVEWAYS SHALL NOT BE CONSTRUCTED CLOSER TO CURB RETURNS THAN SHOWN ON PAGE 147.20 UNLESS APPROVED BY THE CITY ENGINEER.
3. DISTANCE 'Y' SHALL BE MEASURED FROM THE BACK OF CURB TO THE STREET EDGE OF THE SIDEWALK AND SHALL NOT BE LESS THAN 3 FEET.
4. WHEN SIDEWALK IS NOT ADJACENT TO THE CURB AND THE DISTANCE FROM THE BACK OF CURB TO THE STREET EDGE OF THE SIDEWALK IS LESS THAN THREE (3) FEET, DRIVEWAYS SHALL BE CONSTRUCTED WITH SIDES AT RIGHT ANGLES TO THE CURB.
5. ALL CONCRETE SHALL BE PER PAGE 100.00.
6. 1/2-INCH, PRE-MOLDED EXPANSION JOINT MATERIAL SHALL BE HELD FIRMLY IN PLACE PRIOR TO PLACING CONCRETE.
7. WEAKENED PLANE JOINTS SHALL BE TO A DEPTH OF 2-INCHES AND AT INTERVALS NOT TO EXCEED 12 FT O.C.
8. 1/2-INCH DEEP SCORE LINES SHALL BE EVENLY SPACED BETWEEN WEAKENED PLANE JOINTS AT 3 FT TO 5 FT INTERVALS.
9. WEAKENED PLANE JOINTS AND SCORE LINES SHALL CORRESPOND WITH THOSE IN THE ADJACENT SIDEWALK UNLESS OTHERWISE SPECIFIED.
10. THE AREA INCLUDED WITHIN THE SLOPE OF THE DRIVEWAY SHALL BE GIVEN A HEAVY BROOM FINISH.
11. TOP OF LIP TO BE TROWELED STRAIGHT AND TRUE.
STANDARD DRIVEWAY

SECTION A-A

TABLE OF DIMENSIONS

<table>
<thead>
<tr>
<th>CURB FACE</th>
<th>X' DIST (MIN.)</th>
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<td>29'</td>
</tr>
<tr>
<td>9&quot; TO 9 1/2&quot;</td>
<td>4&quot;-6&quot;</td>
<td>36'</td>
<td>28'</td>
</tr>
<tr>
<td>10&quot; TO 10 1/2&quot;</td>
<td>4&quot;-6&quot;</td>
<td>36'</td>
<td>27'</td>
</tr>
<tr>
<td>11&quot; TO 12&quot;</td>
<td>5&quot;-6&quot;</td>
<td>36'</td>
<td>26'</td>
</tr>
</tbody>
</table>

NOTES:
1. ALL DRIVEWAY DESIGNS SHALL CONFORM WITH PAGE 147.00, DRIVEWAY STANDARDS AND CRITERIA.
2. DRIVEWAYS SHALL NOT BE CONSTRUCTED CLOSER TO CURB RETURNS THAN SHOWN ON PAGE 147.20 UNLESS APPROVED BY THE CITY ENGINEER.
3. ALL CONCRETE SHALL BE PER PAGE 100.00.
4. 1/2-INCH, PRE-MOLDED EXPANSION JOINT MATERIAL SHALL BE HELD FIRMLY IN PLACE PRIOR TO PLACING CONCRETE.
5. WEAKENED PLANE JOINTS SHALL BE TO A DEPTH OF 2-INCHES AND AT INTERVALS NOT TO EXCEED 12 FT O.C.
6. 1/2-INCH DEEP SCORE LINES SHALL BE EVENLY SPACED BETWEEN WEAKENED PLANE JOINTS AT 3 FT TO 6 FT INTERVALS.
7. WEAKENED PLANE JOINTS AND SCORE LINES SHALL CORRESPOND WITH THOSE IN THE ADJACENT SIDEWALK UNLESS OTHERWISE SPECIFIED.
8. THE AREA INCLUDED WITHIN THE SLOPE OF THE DRIVEWAY SHALL BE GIVEN A HEAVY BROOM FINISH.
9. TOP OF LIP TO BE TROWELED STRAIGHT AND TRUE.

CITY OF REDDING • PUBLIC WORKS DEPARTMENT • ENGINEERING DIVISION

COMMERCIAL-INDUSTRIAL DRIVEWAY
SECTION A-A

NOTES:
1. ALL DRIVEWAY DESIGNS SHALL CONFORM WITH PAGE 147.00, DRIVEWAY STANDARDS AND CRITERIA.
2. DRIVEWAYS SHALL NOT BE CONSTRUCTED CLOSER TO CURB RETURNS THAN SHOWN ON PAGE 147.20 UNLESS APPROVED BY THE CITY ENGINEER.
3. DISTANCE 'Z' (EXTENSION OF MODIFIED DRIVEWAY) SHALL BE OF ADEQUATE SIZE TO FACILITATE VEHICLE RIGHT TURNS FROM CURB THRU LANE. LENGTH SHALL BE DETERMINED BY VEHICLE TURN RADIUS CRITERIA AND AS APPROVED BY THE CITY ENGINEER.
4. CURB RETURNS MAY BE USED (MODIFIED DRIVEWAY) WHEN RADIUS 'Z' EXCEEDS 15 FT. CURB RAMPS PER PAGE 141.00 MUST BE DESIGNED INTO THE CURB RETURNS.
5. ALL CONCRETE SHALL BE PER PAGE 100.00.
6. 1/2-INCH, PRE-MOLDED EXPANSION JOINT MATERIAL SHALL BE HELD FIRMLY IN PLACE PRIOR TO PLACING CONCRETE.
7. WEAKENED PLANE JOINTS SHALL BE TO A DEPTH OF 2-INCHES AND AT INTERVALS NOT TO EXCEED 12 FT O.C.
8. 1/2-INCH DEEP SCORE LINES SHALL BE EVENLY SPACED BETWEEN WEAKENED PLANE JOINTS AT 3 FT TO 5 FT INTERVALS.
9. WEAKENED PLANE JOINTS AND SCORE LINES SHALL CORRESPOND WITH THOSE IN THE ADJACENT SIDEWALK UNLESS OTHERWISE SPECIFIED.
10. THE AREA INCLUDED WITHIN THE SLOPE OF THE DRIVEWAY SHALL BE GIVEN A HEAVY BROOM FINISH.
11. TOP OF LIP TO BE TROWELED STRAIGHT AND TRUE.
PLAN

SECTION A–A

EXISTING STREET ASPHALT CONCRETE

EXISTING AGG. BASE

0.25 FT MIN. DIP DEPTH

PROVIDE SMOOTH JOINT

0.17' AC
0.5' CL2 AB
-OR-
0.5' PCC
0.25' CL2 AB

10 FT MIN. DIP WIDTH

FULL DRIVEWAY WIDTH

RIGHT OF WAY LINE

10 FT MIN. OR TO

RIGHT OF WAY LINE

EDGE OF PAVEMENT
NOTES:
1. ALL VARIANCES IN SIGN LOCATION SHALL BE APPROVED BY THE TRAFFIC ENGINEER.
2. STREET SIGN TO BE LOCATED ON THE NEAR RIGHT OR FAR LEFT SIDE OF INTERSECTION OF THE MAJOR STREET.
3. STREET NAME SIGNS IN RESIDENTIAL AREAS SHALL BE 1'-0" FROM BACK OF SIDEWALK PER THIS STANDARD.
4. STREET NAME SIGNS IN COMMERCIAL AREAS SHALL BE INSTALLED IN THE SIDEWALK, 1'-0" FROM BACK OF CURB (SEE PAGE 152.20 FOR INSTALLATION AND "QUICK-CHANGE" BASE DETAIL).

STREET NAME SIGN ASSEMBLY

TYPICAL SIGN LOCATION
FOR 30 FT CURB RADIUS AT 90° INTERSECTIONS
TYP. STOP SIGN LOCATION

NOTES:
1. ALL VARIANCES IN SIGN LOCATION SHALL BE APPROVED BY THE CITY ENGINEER.
2. STOP SIGN STANDARD TO BE LOCATED AT THE CURB RETURN AND SHALL BE 1'-0" FROM BACK OF CURB.
3. WHEN THE CITY ENGINEER DETERMINES THAT THE STOP SIGN AND THE STREET SIGN SHALL BE INCORPORATED ON ONE STANDARD IT SHALL ALLOW FOR THE INSTALLATION OF A 30" STOP SIGN WHILE MAINTAINING THE 7'-0" CLEARANCE BELOW THE SIGN.
4. FOR BASE DETAIL SEE PAGE 152.20
5. IN AREAS WHERE SIDEWALKS ARE 4 FT. OR LESS IN WIDTH, STOP SIGN SHALL BE LOCATED 1'-0" BEHIND SIDEWALK.

STOP SIGN ASSEMBLY
FOR 30 FT CURB RADII AT 90° INTERSECTIONS

12" DIA. CONCRETE BASE
SIGN BASE PER PAGE 152.20

14 GA. 1 3/4" PERFORATED SQUARE STEEL POST 'UNISTRUT' OR EQUAL
7'-0"

30" STOP SIGN
(3M HIP 3930 SERIES OR EQUIVALENT SHEETING ON REGULATORY OR WARNING SIGNS)

ALTERNATE LOCATION (NOTE 5)

1'-0"

EDGE OF PAVEMENT

CURB, GUTTER SIDEWALK

STREET NAME SIGN PER PAGE 152.00

STOP SIGN (TYP)

PROPERTY LINE (TYP)

BEVERLY
ERIKO

PARKE
'NO PARKING' SIGN ASSEMBLY
SEE CITY TRAFFIC DEPARTMENT FOR SIGN PLACEMENT

NOTES:
1. SIGN SHALL BE A R26, 2 SIDED SIGN, WHICH SHALL READ "NO PARKING ANY TIME". SEE CITY OF REDDING TRAFFIC DEPT. FOR LETTER SIZE, TYPE, AND PLACEMENT.
2. SIGN STANDARD TO BE LOCATED 12" BACK OF CURB WITH A 7 FT. VERTICAL CLEARANCE FROM SURFACE OF SIDEWALK.
3. SIGN BRACKET SHALL BE A "HAWKINS" SET SCREW TYPE L-BRACKET. (CAT. # M2G-2LBS)
4. IN AREAS WHERE SIDEWALKS ARE 5 FT. OR LESS IN WIDTH, 'NO PARKING' SIGN SHALL BE LOCATED 12" BEHIND SIDEWALK.
NOTES:
1. SIGN STANDARD TO BE LOCATED 12" BACK OF CURB WITH A 7 FT. VERTICAL CLEARANCE FROM SURFACE OF SIDEWALK.
2. IN AREAS WHERE SIDEWALKS ARE 5 FT. OR LESS IN WIDTH, SIGN STANDARD SHALL BE LOCATED 12" BEHIND SIDEWALK.
3. SIGN STANDARDS SHALL BE PLACED 150 FT. O.C. FOR LENGTH OF FIRE LANE WITH A MINIMUM OF TWO (2) PER BLOCK.
4. SIGN SHALL BE R26F (CA), 2 SIDED SIGN.
5. SIGN BRACKET SHALL BE A "HAWKINS" SET SCREW TYPE L-BRACKET (CAT. # M2G-2LBS).
6. SIGN BRACKET AND SIGN SHALL BE INSTALLED PARALLEL TO THE DIRECTION OF TRAFFIC FLOW.
7. "FIRE LANE" SHALL BE STENCILED IN WHITE PAINT AT 25' INTERVALS ALONG FACE OF RED CURB.

'CITY OF REDDING • PUBLIC WORKS DEPARTMENT • ENGINEERING DIVISION

'FIRE LANE'
SIGN INSTALLATION
QUICK-CHANGE TUBE DETAIL

QUICK-CHANGE BASE INSTALLATION

NOTE:
LOCATE BOLT IN RELATION TO DIRECTION OF TRAFFIC FLOW

5/16" BOLT 6" LONG

14 GA. 1 3/4" PERFORATED SQUARE STEEL POST "UNISTRUT" OR EQUAL
DIRECTION OF TRAFFIC FLOW

3/8" ALUMINUM DRIVE RIVET
CONC. SIDEWALK OR LANDSCAPING

4"

12" DIA CONC BASE
DRAIN ROCK

20"

3" MIN.
QUICK-CHANGE BASE TUBE

2 1/4" X 2 1/4" X 12 GA. SQUARE STEEL TUBE
2 1/4" X 12 GA. SQUARE STEEL TUBE

7/16" DIA HOLE (TYP)
NOTES:

1. LETTER FONT SHALL BE MIXED-CASE CLEARVIEW "3-W".

2. SIGN WIDTH SHALL BE EITHER 6'-0" OR 8'-0".

3. MINIMUM VERTICAL CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE TRAVELED WAY SHALL BE PER PAGE 110.00.

4. BLOCK ADDRESS LETTERING ORIENTATION SHALL MATCH THE INCREASING/DECREASING DIRECTION OF THE EXISTING STREET ADDRESSES.
Summit →
← Canyon Creek

FRONT PANEL

← Summit
Canyon Creek →

BACK PANEL
INSTALL IRRIGATION PIPE (1/2" PVC, CAPPED EACH END) EXTEND PIPE MIN. 6" BEHIND SIDEWALK AND 6" INTO TREE WELL. (SEE NOTE 5) ALL EDGES OF TREE WELL TO BE FINISHED SMOOTH.

TREE WELL PLAN

SECTION A-A

SECTION C-C

PRECAST CONCRETE COVER DETAIL

NOTES:
1. ALL DIMENSIONS SHOWN, TO BE HELD EXACTLY TO INSURE PROPER FIT OF PRECAST COVER.
2. COVER TO BE SIMILAR AND EQUAL TO THOSE MANUFACTURED BY COOK CONCRETE, INC.
3. SPACING AND LOCATION TO BE DESIGNATED BY THE ENGINEER.
4. CENTER KNOCK-OUT TO BE REMOVED BY THE CITY OF REDDING PARKS DEPARTMENT AT TIME OF TREE PLANTING.
5. WATER FOR TREE IRRIGATION TO BE SUPPLIED FROM WATER SYSTEM OF ADJACENT PROPERTY.
NOTES:
1. THESE TRAFFIC DETAILS HAVE BEEN ADOPTED FOR USE IN THE CITY OF REDDING AND SHALL CONFORM TO THE CURRENT EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA-MUTCD) WITH MODIFICATIONS AS SHOWN.
2. ALL TRAFFIC STRIPING SHALL BE 90 MIL (MIN) THICK THERMOPLASTIC. ALL TRAFFIC MARKING SHALL BE 120 MIL (MIN) THICK THERMOPLASTIC.
3. LAYOUT REFERENCE MARKS SHALL BE APPROVED BY THE CITY INSPECTOR PRIOR TO PLACEMENT OF STRIPING OR MARKING.
TYPICAL LANE LINE (9M) - LESS THAN 45 mph
(MODIFIED CA-MUTCD DETAIL 9)

TYPICAL LANE LINE 12 - 45 mph OR MORE
(CA-MUTCD DETAIL 12)

TYPICAL LANE LINE EXTENSION THROUGH
INTERSECTIONS (CA-MUTCD DETAIL 40)

RIGHT EDGE LINE
(CALTRANS STD DETAIL 27B)

TYPICAL RIGHT EDGE LINE EXTENSION THROUGH
INTERSECTIONS (CA-MUTCD DETAIL 27C)

LANE DROP LINE
(CA-MUTCD DETAIL 37B)

CHANNELIZING LINE
(CA-MUTCD DETAIL 38)

BIKE LANE LINE
(CA-MUTCD DETAIL 39)

BIKE LANE INTERSECTION LINE
(CA-MUTCD DETAIL 39A)

NOTES:
1. THESE TRAFFIC DETAILS HAVE BEEN ADOPTED FOR USE IN THE CITY OF REDDING AND SHALL CONFORM TO THE CURRENT EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA-MUTCD) WITH MODIFICATIONS AS SHOWN.
2. ALL TRAFFIC STRIPING SHALL BE 90 MIL (MIN) THICK THERMOPLASTIC. ALL TRAFFIC MARKING SHALL BE 120 MIL (MIN) THICK THERMOPLASTIC.
3. LAYOUT REFERENCE MARKS SHALL BE APPROVED BY THE CITY INSPECTOR PRIOR TO PLACEMENT OF STRIPING OR MARKING.
WIDENING ONE SIDE

SYMmetric WIDENING BOTH SIDES

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<td>201–250</td>
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<tr>
<td>251–300</td>
<td>250</td>
<td>400</td>
</tr>
<tr>
<td>&gt;300</td>
<td>Double Left Turn Lane Recommended</td>
<td></td>
</tr>
</tbody>
</table>

NOTES:
1. APPROACH TAPER LENGTH T = WS²/60 FOR SPEEDS LESS THAN 45 MPH.
2. APPROACH TAPER LENGTH T = WS FOR SPEEDS OF 45 MPH OR GREATER (CA–MUTCD).
3. DECELERATION LENGTHS ARE BASED ON GRADES OF LESS THAN 3% (AASHTO).
4. IN URBAN AREAS WHERE CROSS STREETS ARE CLOSELY SPACED AND DESIRABLE DECELERATION LENGTHS CANNOT BE ACHIEVED, THE LISTED MINIMUM DECELERATION LENGTHS MAY BE USED. (HDM 405.2)
5. STORAGE AT UNSIGNALIZED INTERSECTIONS IS BASED ON THE NUMBER OF LEFT TURNING VEHICLES LIKELY TO ARRIVE IN AN AVERAGE TWO (2) MINUTE PERIOD DURING THE PEAK HOUR.
6. STORAGE AT SIGNALIZED INTERSECTIONS IS BASED ON THE 95TH PERCENTILE QUEUE LENGTH.

REFERENCES: AASHTO CHAPTER 9; CA–MUTCD FIGURE 3B–101; HIGHWAY DESIGN MANUAL, SECTION 405.2

CITY OF REDDING • PUBLIC WORKS DEPARTMENT • ENGINEERING DIVISION

PAVEMENT DELINEATION
LEFT TURN LANE CHANNELIZATION

APPROVED BY
10/9/13
CITY ENGINEER
NOTES:
1. ALL TRAFFIC STRIPING SHALL BE 80 MIL (MIN) THICK THERMOPLASTIC. ALL TRAFFIC MARKING SHALL BE 120 MIL (MIN) THICK THERMOPLASTIC.
2. LAYOUT REFERENCE MARKS SHALL BE APPROVED BY THE CITY INSPECTOR PRIOR TO PLACEMENT OF STRIPING OR MARKING.

A = 2.9 SQ. FT.

CROSSWALK OR LIMIT LINE

CENTER OF BIKE LANE

BIKE LANE

PAVEMENT DELINEATION
BICYCLE DETECTOR
PLACEMENT
SMALL BIKE LANE SYMBOL
USE FOR BIKE LANES
LESS THAN SIX FEET WIDE

LARGE BIKE LANE SYMBOL
USE FOR BIKE LANES
SIX OR MORE FEET WIDE

NOTES:
1. ALL TRAFFIC STRIPING SHALL BE 90 MIL (MIN) THICK THERMOPLASTIC. ALL TRAFFIC MARKING SHALL BE 120 MIL (MIN) THICK THERMOPLASTIC.
2. LAYOUT REFERENCE MARKS SHALL BE APPROVED BY THE CITY INSPECTOR PRIOR TO PLACEMENT OF STRIPING OR MARKING.
3. BIKE LANE WIDTH SHALL INCLUDE THE CUTTER TO THE FACE OF CURB, WHEN APPLICABLE.

PAVEMENT DELINEATION
BIKE LANE SYMBOL
WITH ARROW
CONTINENTAL TYPE

NOTES:
1. ALL CROSSWALK MARKINGS SHALL BE 120 MIL (MIN) THICK THERMOPLASTIC.

2. RAMPS SHALL BE PER PAGES 141.00, 141.10, 141.20, AND 141.30, AS APPLICABLE FOR EACH LOCATION.

3. THE WIDTH AND SPACING OF THE MARKERS SHALL BE ADJUSTED AT EACH APPLICATION (AS SHOWN IN THE TABLE BELOW) SO THAT THREE (3) EQUAL-SPACED MARKERS WILL BE CENTERED IN EACH LANE.

<table>
<thead>
<tr>
<th>LANE WIDTH 'L' (FT)</th>
<th>MARKING WIDTH 'W' (IN)</th>
<th>SPACE WIDTH 'S' (IN)</th>
<th>MARK AREA, EA. (SQ FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.0</td>
<td>24</td>
<td>24</td>
<td>24.0</td>
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<td>23</td>
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</tr>
<tr>
<td>10.0</td>
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<td>20</td>
<td>20.0</td>
</tr>
</tbody>
</table>

PAVEMENT DELINEATION
HIGH VISIBILITY CROSSWALK

DWG DATE: 10/11 SCALE: NTS CITY OF REDDING • PUBLIC WORKS DEPARTMENT • ENGINEERING DIVISION

APPROVED BY

MARK DATE REVISION CITY ENGINEER
NOTES:
1. 3' WIDE x 1.5" MIN. DEPTH COLD PLANE CONFORM (TYP).
2. 2' WIDE x 1.5" MIN. DEPTH COLD PLANE CONFORM (TYP).
3. ALL SPEED TABLE MARKINGS SHALL BE 120 MIL (MIN) THICK WHITE THERMOPLASTIC.
4. LAYOUT REFERENCE MARKS SHALL BE APPROVED BY THE CITY INSPECTOR PRIOR TO PLACEMENT OF STRIPING OR MARKING.
2 - 1/2" GALVANIZED CARRIAGE BOLTS WITH CUT WASHERS AND NUTS, BOLT THROUGH AND DEFORM THREADS TO PREVENT REMOVAL.

MATERIALS:

2 - 2x12x20 FT "NO. 2" OR BETTER DOUGLAS FIR
3 - 6x6x7 FT POSTS "MERCHANTABILITY HEART" REDWOOD OR TREATED DOUGLAS FIR RATED FOR "GROUND CONTACT"
2 - 18"x18" END OF ROADWAY MARKER (OM4-3)

NOTES:

1. BARRICADES TO BE ERECTED AT EACH STREET TERMINAL IN ACCORDANCE WITH THE SPECIFICATIONS.
2. ALL EXPOSED SURFACES TO BE PAINTED WITH TWO COATS OF WHITE EXTERIOR GRADE PAINT.
3. BARRICADE INSTALLATION SHOWN IS TO BE USED FOR STREETS HAVING CURB TO CURB WIDTHS UP TO 40 FEET. WHERE A WIDER WIDTH OF BARRICADE IS REQUIRED, IT SHALL BE MADE IN 10 FOOT MULTIPLES OF THE ABOVE UNIT.
4. "FUTURE THROUGH STREET..." SIGN TO BE PROVIDED BY C.O.R. SIGN DEPARTMENT. CALL 224-6081 TO ORDER SIGN.

STANDARD STREET TIMBER BARRICADE
MONUMENT INSTALLATION

SECTION A-A

NOTES:
1. MONUMENT COVER ASSEMBLY TO BE 'SOUTH BAY FOUNDRY' MODEL NO. 1578 & 1579 OR EQUAL.
2. BEARING SURFACE BETWEEN FRAME AND COVER SHALL BE MACHINED TO PREVENT ROCKING.
3. CASTING SHALL BE HOT DIP BITUMINOUS COATED GRAY IRON.
4. 2 1/2" DIA. BRASS CAP TO BE PLACED AFTER PIPE HAS BEEN DRIVEN TO FINISHED ELEVATION.
5. TOP OF BRASS CAP SHALL NOT BE PLACED LESS THAN THREE (3) INCHES IN DEPTH FROM FINISHED STREET GRADE.
6. CONCRETE TO BE PER PAGE 100.00.
7. BRASS CAP SHALL BE PUNCHED AND STAMPED WITH 'LS' OR 'RE' NUMBER.

CUT EXISTING PAVEMENT TO A NEAT VERTICAL EDGE PRIOR TO PLACING CONCRETE.
6" VERT CURB
PER PAGE 136.00

2"x2" ANGLE WELDED
TO STEEL TUBE

1/4" PER FT.

MIN. 3" CLASS 2 AGG BASE
UNDER CURB SECTION

EXTEND 2'-0" MIN.
BACK OF SIDEWALK
OR TRANSITION TO
STORM DRAIN
(SEE NOTE 3)

2% SLOPE

1 1/2" CLR

SECTION A-A

2'-0" MIN.
(SEE NOTE 3)

TOP OF CURB

CURB AND GUTTER
(SEE NOTE 2)

FLOW DIRECTION

30'
(SEE NOTE 1)

TOP OF CURB

SIDEWALK

SIDEWALK

PLAN VIEW

CITY OF REDDING • PUBLIC WORKS DEPARTMENT • ENGINEERING DIVISION

APPROVED BY

UNDER SIDEWALK DRAIN
STEEL CONDUIT

REVISE STD & CHG. NO.
EDIT NOTE

MARK DATE REVISION

CITY ENGINEER

10/9/13
SECTION B-B

TRANSITION SECTION
FROM S.D. PIPE TO DRAIN BOX

REINFORCING BAR SCHEDULE

<table>
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<tr>
<th></th>
<th>12&quot; OPENING</th>
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<th>24&quot; OPENING</th>
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<tr>
<td>'A' BARS</td>
<td>#4 at 6&quot; OC</td>
<td>#5 at 8&quot; OC</td>
<td>#5 at 8&quot; OC</td>
</tr>
<tr>
<td>'B' BARS</td>
<td>#3 (3 TOTAL)</td>
<td>#3 (3 TOTAL)</td>
<td>#3 (3 TOTAL)</td>
</tr>
</tbody>
</table>

NOTES:
1. UNDER SIDEWALK DRAIN TO BE CONSTRUCTED ANGLED IN THE DOWNSTREAM DIRECTION, 30° OFF PERPENDICULAR TO THE FACE OF CURB, TO INSURE PROPER FLOW.
2. IF EXISTING CURB IS ROLLED, CONSTRUCT TRANSITION TO VERTICAL.
3. WHERE TRANSITION FROM STORM DRAIN PIPE TO UNDER SIDEWALK DRAIN IS CONSTRUCTED, UNDER SIDEWALK DRAIN SHALL EXTEND FROM FACE OF CURB TO PROPERTY LINE.