INSTALL TYPE 3 OR TYPE 14 CURB IF ABUTTING PARKING AREA OR LANDSCAPING (EXCEPT LAWN AREA)

F.O.C. = FACE OF CURB
B.O.C. = BACK OF CURB

6" MIN. A.B.
SEE NOTES 1 & 2

CURB & GUTTER TYPE 1

6" MIN. A.B.
SEE NOTES 1 & 2

CURB & GUTTER TYPE 2

CURB TYPE 4

MEDIAN CURB TYPE 14
NONLANDSCAPED OR HARDSCAPED AREA

MEDIAN CURB TYPE 14A
LANDSCAPED AREA

EPOXY CONC. CURB & DOWEL (½" 4' C-C, 18" MIN. LENGTH) TO PAVEMENT

NOTES:
1. 12" MIN. A.B. SHALL BE PLACED IF SUBGRADE IS EXPANSIVE CLAY (R=VALUE LESS THAN 10).
2. TOP 6" OF SUBGRADE SHALL BE COMPACTED TO 95% MIN., UNLESS OTHERWISE APPROVED.
3. 1/2" RADIUS ON EXPOSED EDGES.
4. ALL CONCRETE SHALL BE CLASS B.
5. ALL CONSTRUCTION & MATERIALS IN CONFORMANCE WITH SECTION 24 OF STD. SPECIFICATIONS.

PLAN FOR TYP. PLACEMENT OF TYPE 4 CURB
MODIFIED REINFORCED CURB AND GUTTER TYPE 2 AT BUS STOP LOCATION FOR 50 FEET ON EITHER SIDE OF THE CENTER OF THE BUS STOP OR AS DIRECTED BY THE ENGINEER.

NOTE:
REINFORCING STEEL SHALL BE GRADE 60

SECTION A-A

No. 5 REBAR @ 12" O.C.
No. 4 REBAR @ 24" O.C.

6" MIN. AB
EXIST. TREE ROOTS

TYPE 2

EXPANSION
JOINT

STREET SECTION

CURB AND GUTTER TYPE 2
MODIFIED (3" TO 6")

EXPANSION
JOINT

CURB AND GUTTER
TYPE 2

IF TREE ROOTS ARE NOT OVER THE CURB AND GUTTER, THEN NARROW THE THICKNESS OF CURB TO 3" AND PLACE 2-No.4 REBARS IN CURB IN FRONT OF THE TREE
NOTES:

A. DRIVEWAY WIDTH AS PER SEC. 18 CITY CODE.

B. WEAKENED PLANE JOINTS (WPJ) REQUIRED ON CENTERLINE FOR DRIVEWAYS 10' TO 20' WIDE. DRIVEWAYS 22' TO 35' WIDE SHALL HAVE TWO WPJ EVENLY SPACED AT 1/3 AND 2/3 POINTS.

C. ALL CONSTRUCTION AND MATERIALS IN CONFORMANCE WITH SECTION 24 OF STANDARD SPECIFICATIONS.

D. THICKNESS OF APRONS SHALL BE 4" ON RESIDENTIAL DRIVEWAYS AND 6" ON COMMERCIAL DRIVEWAYS. ON COMMERCIAL DRIVEWAYS SIDEWALK SHALL BE REMOVED AND REPLACED WITH 6" OF CONCRETE.

E. APRON WILL BE DEPRESSED ON CURB AND GUTTER NO. 13 WHEN RECONSTRUCTING EXISTING COMMERCIAL DRIVEWAYS.

• ON RECONSTRUCTION PROJECTS THE SLOPE CAN BE 1:10.

** IF CURB & GUTTER ARE POURED SEPARATE OF APRON THEN DOWELS ARE REQUIRED AT BACK OF CURB. 3" IN CURB AND 9" IN CENTER OF APRON.
SECTION A-A WITH VERTICAL CURB

NOTES:

A. DRIVEWAY WIDTH AS PER SEC. 18 CITY CODE.

B. WEAKENED PLANE JOINTS (WPJ) REQUIRED ON CENTERLINE FOR DRIVEWAYS 10' TO 20' WIDE. DRIVEWAYS 22' TO 30' WIDE SHALL HAVE TWO WPJ EVENLY SPACED AT 1/3 AND 2/3 POINTS.

C. ALL CONSTRUCTION AND MATERIALS IN CONFORMANCE WITH SECTION 24 OF STANDARD SPECIFICATIONS.

D. THICKNESS OF APRONS SHALL BE 4" ON RESIDENTIAL DRIVEWAYS AND 6" ON COMMERCIAL DRIVEWAYS. ON COMMERCIAL DRIVEWAYS SIDEWALK SHALL BE REMOVED AND REPLACED WITH 6" OF CONCRETE.

* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.

** IF CURB AND GUTTER ARE Poured SEPARATE OF APRON THEN DOWELS ARE REQUIRED AT BACK OF CURB. 3" IN CURB AND 9" IN CENTER OF APRON.

*** ON RECONSTRUCTION PROJECTS THE SLOPE CAN BE 1:10.
NOTE:
GALVANIZE AFTER FABRICATION AND ASSEMBLY

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

THROUGH SDWK DRAIN
DETAIL (C&G TYPE 1)

REV. DATE DESCRIPTION

APPR'D BY: [Signature] NO. SCALE
DATE: MAY 2007 DWG. NO. T-31
SPECIFICATIONS FOR THE SUBDRAIN TRENCH SYSTEM:

1. CRUSHED ROCK: CONTRACTOR SHALL PLACE CLEAN TYPE C CRUSHED ROCK CONFORMING TO SECTION 10-17 OF THE STANDARD SPECIFICATIONS.

2. PERFORATED DRAIN PIPE: PERFORATED PIPE SHALL BE POLYVINYL CHLORIDE (PVC) PIPE WITH PERFORATIONS THROUGHOUT THE LENGTH OF THE PIPE AND CONFORMING TO THE APPLICABLE PORTIONS OF AASHTO M252. ALTERNATIVELY, PIPE MAY BE PERFORATED CORRUGATED POLYETHYLENE TUBING CONFORMING TO THE APPLICABLE PORTIONS OF AASHTO M252 OR M294.

3. FILTER FABRIC: FILTER FABRIC SHALL CONFORM WITH SECTIONS 68-1.03, 88-1.01, AND 88-1.03 OF THE CALTRANS STANDARD SPECIFICATIONS.
1) **SIDEWALK TRANSITIONS**
   * Located above ramp or landing
   * 48" minimum width
   * 2% (1:50) maximum cross slope at ramp or landing
   * 8.33% (1:12) maximum slope

2) **LANDINGS**
   * Located above ramp
   * 48" minimum dimension in all directions
   * 2% (1:50) maximum cross slope or slope in all directions, including diagonal

3) **RAMPS**
   * Located above pan or below landing
   * 48" minimum width
   * 2% (1:50) maximum cross slope
   * 8.33% (1:12) maximum slope
   * Transition to gutter shall be flush and free of abrupt changes

4) **PANS**
   * Located below ramp
   * 48" minimum at back of pan
   * 48" minimum from back of pan to flow line
   * 1% (1:100) minimum slope from back of pan to flow line
   * 2% (1:50) maximum cross slope or slope in all directions, including diagonal
   * On corners, pan boundaries are to be radial
   * Transition to gutter shall be flush and free of abrupt changes

5) **GUTTERS**
   * Adjacent to ramp or pan
   * 5% (1:20) maximum slope measured 4' from foc out to street pavement for full width of ramp.
   * Transition to gutter shall be flush and free of abrupt changes

6) **FLARES**
   * Located adjacent to ramp
   * Required between ramps where there is no planter area
   * Required on the exterior of ramps where there is an adjacent concrete sidewalk, regardless of obstacles
   * Generally triangular in nature
   * 10% (1:10) maximum slope

7) **RETAINING CURBS**
   * Required adjacent to sidewalk transitions, landings, ramps and pans where the existing landscape (planter area) is 4' or higher at any point above the newly constructed curb ramp element
   * Required for existing planter areas between ramps
   * Retaining curbs are to have a 6" width and a vertical face
   * Retaining curb foundations are to extend 8" below the adjacent ramp element surface
   * Outside corners of retaining curbs must have a 6" radius

8) **12" GROOVING DETAILS**
   * Required adjacent to (on flat areas above) ramp and flare
   * Required to be perpendicular to the path of travel

9) **CONCRETE COLORING**
   * Lamp black or other coloring shall be added to new concrete as necessary to match existing color. This applies to all in fill locations

* Dual curb ramps are required unless otherwise approved by the engineer.
* All elements, except gutters and retaining curbs, must be constructed planar in nature with weakened plane joints scored between each element.
* When feasible, opposing curb ramps shall align.
* These definitions and standards, general details, and standard drawings shall apply to all curb and gutter types.
* There are variations and adjustments that may be required upon the approval of the engineer.
* There are no variances to the maximum allowable slopes and cross slopes.
12' GROOVING DETAIL

WEAKENED PLANE JOINT (WPJ)

TYPICAL CROSS SECTION
FOR CENTER LINE OF FLARE, COMBO,
OR PLANTER STRIP CURB RAMP

NOTE:
ON RAMPS ADJACENT TO PANS
TRUNCATED DOMES REQUIRED WHEN
SLOPE IS LESS THAN 1:15 (SEE
SPECIAL PROVISIONS FOR DETAILS)

TYPICAL CROSS SECTION
FOR CENTER LINE OF
PAN CURB RAMP

NOTE:
SURFACE OF RAMPS AND PANS SHALL HAVE A TRANSVERSE
BROOM SURFACE TEXTURE ROUGHER
THAN ADJACENT SIDEWALK
NOTES:

A. ALL SLOPES SHOWN ARE MAXIMUMS.
B. ALL DIMENSIONS SHOWN ARE MINIMUMS.
C. ALL PANS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.
D. ALL JOINTS BETWEEN ELEMENTS ARE RADIAL.
E. SINGLE RAMP CAN BE CONSTRUCTED ON A TANGENT.
   * CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.
   ** MINIMUM SLOPE OF 1% (1:100) FROM BACK OF PAN TO FLOW LINE.
   ———— DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.
NOTES:
A. ALL SLOPES SHOWN ARE MAXIMUMS.
B. ALL DIMENSIONS SHOWN ARE MINIMUMS.
C. ALL PANS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.
D. ALL JOINTS BETWEEN ELEMENTS ARE RADIAL.
* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.
** MINIMUM SLOPE OF 1% (1:100) FROM BACK OF PAN TO FLOW LINE.
1 4" MINIMUM CURB HEIGHT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
-- DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.
NOTES:

A. ALL SLOPES SHOWN ARE MAXIMUMS.

B. ALL DIMENSIONS SHOWN ARE MINIMUMS.

C. ALL RAMPS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.

D. ALL JOINTS BETWEEN ELEMENTS, EXCEPT BETWEEN RAMP AND FLARE, ARE RADIAL. RAMP WIDTH REMAINS CONSTANT.

E. SINGLE RAMPS CAN BE CONSTRUCTED ON A TANGENT.

* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.

--- DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.
NOTES:

A. ALL SLOPES SHOWN ARE MAXIMUMS.
B. ALL DIMENSIONS SHOWN ARE MINIMUMS.
C. ALL RAMPS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.

* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.

--- DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.

---

NOTES:

1. 4" MINIMUM CURB HEIGHT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. NO MINIMUM DIMENSION. GROOVE PATTERNS OR FLARES CAN INTERSECT.
3. IF LANDING CONSTRUCTED, 60" MIN. LANDING DIMENSIONS AND 60" MIN. WIDTH OF RAMP REQUIRED.

---

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

DUAL FLARE CURB RAMPS

APPR'D BY: N. apple
DATE: MAY 2007
DWG. NO. T - 74
NOTES:

A. ALL SLOPES SHOWN ARE MAXIMUMS.

B. ALL DIMENSIONS SHOWN ARE MINIMUMS.

C. ALL RAMPS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.

D. ALL JOINTS BETWEEN ELEMENTS, EXCEPT BETWEEN RAMP AND FLARE, ARE RADIAL.
   RAMP WIDTH REMAINS CONSTANT.

E. SINGLE RAMPS CAN BE CONSTRUCTED ON A TANGENT.
   * CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.

--- DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.
NOTES:

A. ALL SLOPES SHOWN ARE MAXIMUMS.

B. ALL DIMENSIONS SHOWN ARE MINIMUMS.

C. ALL RAMPS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.

* CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.

---

DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.

---

1. 4" MINIMUM CURB HEIGHT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

2. NO MINIMUM DIMENSION. GROOVE PATTERNS OR FLARES CAN INTERSECT.

---

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

DUAL COMBINATION CURB RAMPS

APP'D BY:

NO SCALE

DATE: MAY 2007

REV.
DATE
DESCRIPTION
NOTES:

A. ALL SLOPES SHOWN ARE MAXIMUMS.
B. ALL DIMENSIONS SHOWN ARE MINIMUMS.
C. ALL RAMPS MUST BE LOCATED INSIDE CROSSWALKS OR IN FRONT OF STOP BARS.
   * CONSTRUCTED IF REQUIRED BY EXISTING CONDITIONS.
   ** CONTINUE TO MATCH SIDEWALK WIDTH AND SCORE PATTERN (MIN. 48" WIDE).
   --- DESIGNATES IN PLAN VIEWS THAT ELEMENT MAY BE CONSTRUCTED.

1. STANDARD CURB HEIGHT TO MATCH EXISTING.
2. TOP OF RETAINING CURB TO MATCH ADJACENT RETAINING CURB ELEVATIONS. CAN BE FLUSH WITH LANDING.
NOTES:

1. TRUNCATED DOMES REQUIRED IN PAN AT ALL LOCATIONS (FOR EXCEPTIONS SEE NOTE 2)

2. TRUNCATED DOMES REQUIRED ON RAMP WHEN SLOPE IS LESS THAN 1:15

3. 3' x 4' DIMENSION IS NOMINAL (SEE DWG CE. 3.1)

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

TRUNCATED DOME STANDARD LAYOUT

APP'D BY: 
DATE: MAY 2007
DWG. NO. T - 78
NOTE:
SURFACE MOUNTED TILE DETAILS SHOWN. DETAILS ARE APPLICABLE TO TILE SURFACE SECTION ONLY.
CAST-IN-PLACE TILE UNIT DESIGN AND DETAILS TO BE APPROVED BY THE ENGINEER.
TILE MATERIAL, FASTENERS, AND ADHESIVE TO BE APPROVED BY THE ENGINEER.

1/4" DIA. CTSK HOLES (TYP. 12 LOCATIONS)
0.5" (TYP. AROUND PERIMETER)
2.5" WIDE BOSS AT UndERSIDE OF TILE FOR STRUCTURAL ADHESIVE AT FULL PERIMETER AND THROUGH CENTER TILE

PLAN - TILE
N.T.S.

VARIATES
0.5"

1.7"
0.2"

2.5"
0.03"

BOSS AROUND FULL PERIMETER

SECTION A-A
N.T.S.

VARIATES
1/4" DIA. CTSK HOLES

1.7"
10 EQUAL SPACES @ 0.17" O/C

VARIATES
0.03"

90° POINTS 0.045" HIGH

90° POINTS 0.03" HIGH

1/4" DIA. CTSK HOLE FOR BOLTED FASTENER

DETAIL 2

DETAIL 1

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION
TRUNCATED DOME DETAIL

APP'D BY:
DATE: MAY 2007
DWG. NO. T - 79
NOTES:

1. A TACK COAT OF ASPHALTIC EMULSION OR PAVING GRADE ASPHALT SHALL BE APPLIED TO EXISTING A.C. PAVEMENT AT ALL CONTACT SURFACES PRIOR TO PERMANENT A.C. PAVING PER SECTION 22-7 OF STANDARD SPECIFICATIONS.

2. UNLESS OTHERWISE SPECIFIED, PERMANENT PAVEMENT SHALL CONFORM IN QUALITY AND THICKNESS TO THE TYPE OF PAVEMENT REMOVED; BUT IN NO CASE SHALL BE LESS THAN FOUR INCHES (4") OF ASPHALTIC CONCRETE ON TWELVE INCHES (12") OF AGGREGATE BASE CLASS 2.

3. EXISTING PAVEMENT SHALL BE SAWCUT AND REMOVED IN SUCH A MANNER SO AS NOT TO TEAR, BULGE OR DISPLACE ADJACENT PAVEMENT. EDGES SHALL BE CLEAN AND VERTICAL WHEN PRACTICAL ALL CUTS SHALL BE PARALLEL OR PERPENDICULAR TO STREET CENTERLINE.

4. ALL EXCAVATION AND BACKFILL SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

5. R.C. - RELATIVE COMPACTION AS DETERMINED BY ASTM DESIGNATION D 1557 OR 696.

6. UNLESS OTHERWISE INDICATED ON PLANS OR IN PERMIT OR SPECIAL PROVISIONS.

7. NO SOLID BLOCKING PERMISSIBLE BENEATH PIPE.

8. JETTING BACKFILL IS NOT PERMITTED.

<table>
<thead>
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<tbody>
<tr>
<td>DIMENSION NAME</td>
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<tr>
<td>A (MIN. TRENCH CLEARENCE)</td>
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<tr>
<td>B (MIN. BEDDING BELOW PIPE)</td>
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CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

BACKFILL AND RESURFACING IN PAVED AREAS

APPR'D BY: Nicolaitis, 4/16/07
NO SCALE
DATE: MAY 2007
DWG. NO. T - 80
NOTES:
- FENCE LOCATION AS SHOWN ON PLANS
- LINE POSTS AT 500' MAX. INTERVALS BRACED & TRUSSED IN BOTH DIRECTIONS.
  ALL CONSTRUCTION AND MATERIALS IN CONFORMANCE WITH SECTION 10-38 OF THE
  STANDARD SPECIFICATIONS.
NOTES:

1. MATERIALS
   3-2"x6"x16' WOOD PLANKS - TREATED DOUGLAS FIR
   2-6"x6"x7' WOOD POSTS - TREATED DOUGLAS FIR
   1-18"x18" TYPE N (RED) REFLECTORIZED SIGN
   IN CONFORMANCE WITH SEC. 56-2.02
   CALTRANS STANDARD SPECIFICATIONS

2. INSTALLATION
   PLANKS SHALL BE FASTENED TO
   POSTS WITH 5/16" CARRIAGE BOLTS,
   CUT WASHERS, AND SAFETY NUTS.
   ALL HARDWARE GALVANIZED.

3. LOCATION
   THE LOCATION SHALL BE AS
   SHOWN ON THE PLANS OR
   DESIGNATED BY THE ENGINEER.

4. PAINT
   TWO COATS OF EXTERIOR GRADE WHITE PAINT
   CONFORMING TO CALTRANS STANDARD SPECIFICATIONS
   SECTION 91-3.02 SHALL BE APPLIED TO ALL
   EXPOSED WOOD SURFACES.

5. BARRICADE MUST BE FULL WIDTH BETWEEN
   FACES OF CURBS WHERE REQUIRED.
**NOTES:**

1. SIDEWALK BARRICADE TO BE ERECTED AT EACH LOCATION WHERE SATISFACTORY PROVISION CANNOT BE MADE FOR PEDESTRIANS TO CONTINUE BEYOND THE TERMINUS OF A SIDEWALK AND STREET.

2. ALL EXPOSED SURFACES TO BE PAINTED WITH TWO (2) COATS OF WHITE PAINT. ALL PAINT TO CONFORM TO SEC. 91-3.02 OF CALTRANS STANDARD SPECIFICATIONS.

3. ALL MATERIAL USED IN THE CONSTRUCTION OF BARRICADE SHALL BE TREATED DOUGLAS FIR IN CONFORMANCE WITH SEC 56-2.02 OF CALTRANS STANDARD SPECIFICATIONS.
NOTES:

1. SIDEWALK BARRICADE TO BE ERECTED AT EACH LOCATION WHERE SATISFACTORY PROVISION CANNOT BE MADE FOR PEDESTRIANS TO CONTINUE BEYOND THE TERMINUS OF A SIDEWALK.

2. ALL EXPOSED SURFACES TO BE PAINTED WITH TWO (2) COATS OF WHITE PAINT. ALL PAINT TO CONFORM TO SEC. 91-3.02 OF CALTRANS STANDARD SPECIFICATIONS.

3. ALL MATERIAL USED IN THE CONSTRUCTION OF BARRICADE SHALL BE TREATED DOUGLAS FIR IN CONFORMANCE WITH SEC.56-2.02 OF CALTRANS STANDARD SPECIFICATIONS.
NOTES:
ALL EXPOSED SURFACES SHALL BE PAINTED WITH TWO (2) COATS OF WHITE PAINT.
ALL PAINT TO CONFORM WITH SECTION 91-3.02 OF THE CALTRANS STANDARD SPECIFICATIONS.

SECTION A-A

1/2" (6 E.A.) CARRIAGE BOLTS WITH CUT WASHERS & NUTS

BEGIN TRANSITION
VARIES 5 MAX.

E.P.
NOTE:
DEPTH OF PLANED PAVEMENT SHALL BE 0.17" AT CROSS STREET AND SHALL PROGRESSIVELY DECREASE TO 0" OVER 50'

TYPICAL STREET TO BE OVERLAID

DEPTH OF CUT = 0"

C.R. (TYP)

DEPTH OF CUT = 0.17" (LIMIT OF CONFORM)

CONSTRUCT WHERE THE BEGINNING OR ENDING LIMIT OF WORK IS A CROSS STREET

50'-0" CONFORM DETAIL
NOTE:
DEPTH OF PLANED PAVEMENT SHALL BE 0.17" AT CROSS STREET AND SHALL PROGRESSIVELY DECREASE TO 0" OVER 18'

DEPTH OF CUT = 0.17" AT LIP (TYP)

DEPTH OF CUT = 0

C.R. (TYP)

18'

CROSS STREET

VARIES

VARIES

VARIES

CONSTRUCT WHERE THE BEGINNING OR ENDING LIMIT OF WORK IS A CROSS STREET

18'-0" CONFORM DETAIL

DEPT OF CUT = 0.17" (LIMIT OF CONFORM)
TYPICAL STREET
TO BE OVERLAID

DEPTH OF
CUT VARIES

CROSS STREET

DEPTH OF
CUT = 0.17"
(LIMIT OF
CONFORM)

CONSTRUCT WHERE THE BEGINNING OR
ENDING LIMIT OF WORK IS A CROSS STREET

18'-0" CONFORM DETAIL
(WITHOUT KEY CUT)
NOTE:
DEPTH OF PLANED PAVEMENT SHALL BE 0.17" AT MAIN STREET AND SHALL PROGRESSIVELY DECREASE TO 0" AT CURB RETURN OF SIDE STREET

DEPTH OF CUT = 0.17" (LIMIT OF CONFORM)

DEPTH OF CUT = 0.17" AT LIP (TYP)

C.R. (TYP)

DEPTH OF CUT = 0.17" (LIMIT OF CONFORM)

PLANED PAVEMENT CONFORM *

MAIN STREET

* THIS CONFORM WILL BE APPLIED WHERE THE ENTIRE MAIN STREET IS BEING PLANED OR KEYCUT.

SIDE STREET CONFORM DETAIL
CURB AND GUTTER TYPE 1

CURB AND GUTTER TYPE 2

NOTES:

A. THIS DISTANCE VARIES. IT SHOULD EXTEND TO THE LOWER LIMITS OF THE FACE OF CURB.

B. INDICATES PAINTED SURFACES
NOTE:
METAL POST TO BE AS SHOWN EXCEPT THAT MINOR VARIATIONS IN DESIGN AND DIMENSIONS WILL BE PERMITTED TO MEET MANUFACTURER'S STANDARDS
LEGEND:
C&G - CURB AND GUTTER
EP - EDGE OF PAVEMENT
SWK - SIDEWALK

NOTES:
1. BOLLARD TO BE INSTALLED ON SIDEWALKS WITH ROLLED CURBS. SEE CITY STANDARD DWG. NO. T-230.
2. PADDLES TO BE INSTALLED ON PLANTER/DIRT WITH ROLLED CURBS OR UNIMPROVED STREETS. SEE CITY STANDARD DWG. NO. T-210.
3. NO BOLLARD OR PADDLE IS NEEDED WHERE TYPE 2 CURB & GUTTER IS PRESENT.

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<th>hump width (w)</th>
<th>(d)</th>
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<tr>
<td>20' - 32'</td>
<td>2'-0&quot;</td>
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<tr>
<td>32' +</td>
<td>3'-0&quot;</td>
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CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

SPEED HUMP DETAIL

REV. DATE DESCRIPTION

APPROVED BY: Date: 08/31/09 DWG. NO. T-221
SPEED LUMP CROSS SECTION A-A

BOLLARD (NOTES 1 & 3)

EP

4'-6'+
1'-6'*
(Typ.)

6*
(Typ.)

4'-6'+
2'

PADDLE (NOTES 2 & 3)

EP

PLANTER

1'-3'
(Typ.)

5'-6'

C & G

SWK

FRONT VIEW

TOP VIEW

WHITE THERMOPLASTIC (TYP.)

TYPES G MARKER (TYP.)

C & L

SEE NOTE 4

LEGEND:
C & G - CURB AND GUTTER
EP - EDGE OF PAVEMENT
SWK - SIDEWALK

NOTES:
1. BOLLARD TO BE INSTALLED ON SIDEWALKS WITH ROLLED CURBS. SEE CITY STANDARD DWG. NO. T-230.
2. PADDLES TO BE INSTALLED ON PLANTER/DIRT WITH ROLLED CURBS OR UNIMPROVED STREETS. SEE CITY STANDARD DWG. NO. T-210.
3. NO BOLLARD OR PADDLE IS NEEDED WHERE TYPE 2 CURB & GUTTER IS PRESENT.
4. CENTER LUMP ON ROADWAY UNLESS OTHERWISE NOTED BY THE ENGINEER.

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

SPEED LUMP DETAIL (B)
(w) ≥24' & <34'

REV. DATE DESCRIPTION

APPROVED BY: SCALE: None

DATE: 08/31/09 DWG. NO. T-223
SLEEVE FOR BOLLARD

3/8" HOLE MUST FACE THE STREET WHEN INSTALLED

2 1/2" INSIDE DIAMETER SCH40 GALVANIZED PIPE

5/16" BOLT 4 1/2" TO 6" LONG

2" INSIDE DIAMETER SCH40 GALVANIZED PIPE

5/16" X 3/4" BOLT IS INSERTED TO ATTACH BOLLARD TO SLEEVE

3/8" HOLE MUST BE FACING STREET

FILL W/ THIN SET.

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

BOLLARD INSTALLATION

APP'D BY: N. T. L'CHAI
DATE: MAY 2007
DWG. NO. T - 230

REV. DATE DESCRIPTION

GALVANIZED HEAVY DUTY SLIP ON CAP

2" YELLOW REFLECTIVE TAPE

3/8" HOLE

Curb & Gutter

Concrete

Sidewalk

Bollard
TYPE D MARKERS WITH 4" SPACING

TYPE OM2-1V
ADHERE TO THE SURFACE USING ADHESIVE
TYPE D MARKERS (RPM)
DETAIL 26 AT 1/2 SPACING (MUTCD)

DETAIL 26 AT 1/2 SPACING (MUTCD)
### Table A: Island Width

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<th>Width</th>
<th>2'</th>
<th>3'</th>
<th>4'</th>
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### Table B: Radius

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<tr>
<th>Radius</th>
<th>1'</th>
<th>1.5'</th>
<th>2'</th>
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### Table C: No. of RPM's

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<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
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</table>

### Table D: Size

<table>
<thead>
<tr>
<th>Size</th>
<th>39°</th>
<th>42°</th>
<th>45°</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td></td>
<td></td>
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</tbody>
</table>

### Table E: Size

<table>
<thead>
<tr>
<th>Size</th>
<th>12x24</th>
<th>12x24</th>
<th>24x30</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

### Table F: Object Marker

<table>
<thead>
<tr>
<th>Object Marker</th>
<th>OM2-1H</th>
<th>OM2-1H</th>
<th>OM2-1H</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**NOTES:**

- **A**: 2" Galvanized Threaded Pipe Coupling, secured to 2" pipe by threads and attached to subterranean portion by either a bolt or tack welding.
- **B**: 2" Schedule 40 Galvanized Pipe not less than 8" long or more than 12" long, crosspinned with either 5/16" x 6" Bolts or 5/16" x 6" Rebar.
- **C**: Excavated portion to be filled with Portland cement, minimum 4 bag mix, smooth finished at grade.
- **D**: Grade: where an unequal grade is encountered, the higher portion of the 2" Pipe Coupling set at grade is acceptable.

---

**DETAIL A**

- **F**: Install Type OM2-1H Object Marker
- **E**: Place in Center of Of Median
- **D**: Socket Job as per Detail A
- **C**: One Way (R6-1) maybe required
- **C**: Reflectors evenly spaced
- **D**: Markers evenly spaced and adhered to surface with adhesive

---

**DETAIL 26 AT 1/2 SPACING (MUTCD)**

- **D**: To Center 18" min.

---

**MEDIAN ISLANDS WITH SOCKET JOB & RPM'S**
SINGLE 2" ID U-BRACKET CLAMP FOR CENTERMOUNT

2" GALVANIZED S-40 PIPE

END OF PIPE MUST BE SMASHED TO PREVENT TURNING AND REMOVAL

GROUND 24"

STANDARD SIGN CENTERMOUNT

2" PIPE SADDLE FOR CENTERMOUNT

LOCK NUT

STEEL U-BOLT

5/16" X 3/4" HEX BOLT

PIECE CREATED TO KEEP CONCRETE FROM BEING TURNED OR PULLED OUT

END OF PIPE SMASHED TO KEEP PIPE FROM BEING TURNED OR PULLED OUT

NOTE:
ALL FASTENERS AND HARDWARE GALVANIZED, UNLESS OTHERWISE NOTED

2" CLAMP SIDE BRACKET FOR SIDEMOUNT

POCKET CREATED TO KEEP CONCRETE FROM BEING TURNED OR PULLED OUT

END OF PIPE SMASHED TO KEEP PIPE FROM BEING TURNED OR PULLED OUT

5/16" X 3 1/2" BOLT WITH WASHER AND NYLOCK NUT

5/16" NYLON/ZINC LOCK NUT

3/4" OD STEEL/ZINC RUBBER BACKING WASHER

M2G-516A ZINC DIE CAST ADAPTER RING

M2G-S2S SIGN SADDLE

M2G-SWS HIGH TENSILE ALLOY ALUMINUM EXTRUSION SIGN SADDLE

1/8" THICK

2" ALUMINUM PIPE SADDLE

3/8" DIA. HOLE

SERRATION

1 3/4" WIDE

2" HEIGH

END OF PIPE MUST BE SMASHED TO PREVENT TURNING AND REMOVAL

GROUND 24"

STANDARD SIGN SIDEMOUNT

5/16" X 3/4" HEX BOLT
5/16-18
3/4" HEX BOLT

SELF LOCKING NUT

WASHER TO PREVENT SIGN DAMAGE

1/4-20
3/4" BOLT NON-CORROSIVE

SIGN BLANK SHALL NOT BE LESS THAN .080 INCHES THICK ALUMINUM (5052-H38)

NOTE:
7" MIN. CLEARANCE FROM BOTTOM OF SIGN TO GROUND

CAP SCREW
WASHER

ELECTROLIER POLE

STAINLESS STEEL STRAP

HEAVY DUTY 3/4" X .032" STAINLESS STEEL STRAP
HEAVY DUTY 3/4" STAINLESS STEEL BUCKLE FOR .032" STRAP
BUCKLE INSTALLED PER MANUFACTURER INSTRUCTIONS

TOP VIEW
CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

STANDARD STREET NAME SIGN

SNS LETTER PER LBANKS

24" 1 TO 4
30" 5 TO 6
36" 7 TO 8
42" 9 TO 10
48" 11 TO 13

NOTE:
SPACE IS THE SAME
AS LETTER BLOCK
REQUIRED ON ALL SIGNS

HEAVY DUTY 3/4" X .032"
STAINLESS STEEL STRAP
HEAVY DUTY 3/4" STAINLESS
STEEL BUCKLE FOR .032" STRAP

NOTE:
- BLANK .125" THICKNESS
- GREEN BACKGROUND WITH
  WHITE LETTERS
- TYPE NINE SHEETING

LOWER SNS GOES IN OPPOSITE
DIRECTION OF STOP SIGN

STOP SIGN

2" HIGHWAY C
LOWER CASE

ALL HARDWARE IS STAINLESS STEEL. ALL SET SCREWS
MUST BE STAINLESS STEEL TAMPER PROOF DESIGN.

SET SCREW DETAIL
NOTES:
- 1" BRACE ON BACK (HORIZONTAL)
- GREEN BACKGROUND WITH WHITE LETTERS USING TYPE IX RETROREFLECTIVE SHEETING
- .080" ALUMINUM 5052 H38 SIGN BLANK

HEAVY DUTY 3/4" X .032"
STAINLESS STEEL STRAP

HEAVY DUTY 3/4" STAINLESS STEEL
BUCKLE FOR .032" STRAP

EXTENSIONS TO BE USED TO MAINTAIN LEVEL WHEN NEEDED
EXAMPLE

30" x 18"
SIGN BLANK

NOTE:
THIS TYPE OF SIGN MOUNT IS TO BE USED
WHEN SPECIFIED BY THE ENGINEER

DIRECT SIGN MOUNTING
FOR SMALL SIGNS

NOTE:
CONTRACTOR SHALL VERIFY EXACT
STREET ADDRESS FOR PLACEMENT ON
STREET NAME SIGN SHOWN.

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

STANDARD OVERHEAD
STREET NAME (SMALL SIGNS)

APPR'D BY:  DATE:  MAY 2007  DWG. NO. T - 302

REV. DATE DESCRIPTION
TOPS OF METER PIPES 148 MUST BE REAMED

THREADED

NOTE:
ALL METER PIPES MUST BE AT A HEIGHT OF 40" ABOVE THE GROUND

CONCRETE

2" SCH 40 GALVANIZED PIPE

DIET

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

METER PIPES
DETAIL

APPD' BY: Nielson
DATE: MAY 2007
NO. SCALE

T - 310
11-1/2 THREADS PER INCH

18 GAUGE OUTER PROTECTIVE BELL

5 1/2" CAST STEEL FLANGE WITH FOUR BOLT HOLES AND 2" THREADED CENTER HOLE

3/8" X 3" CONCRETE ANCHOR HEX SLEEVE ANCHOR

ADD QUIKSET OR EPOXY TO BOLT HOLE SO FLANGE WON'T TURN WHEN PLACING THE PIPE IN

NOTE:
FLANGE JOBS ARE USED FOR HOLLOW SIDEWALKS IN AND AROUND DOWNTOWN AREA FOR PARKING METERS.
NOTE:

1. SCHEDULE 40 GALVANIZED STEEL PIPE

DETAIL A

7/8" HOLES THROUGH BOTH PIPES TO ACCOMMODATE THE LOCK BAR

3/4" X 6" ALL THREAD OR BAR STOCK STEEL WITH 3/8" HOLES ON BOTH SIDES CENTERED 3/4" FROM THE ENDS (FOR LOCKS ON BOTH ENDS)

5/16" X 6" BOLT PLACED 6" ABOVE BOTTOM OF PIPE

DETAIL B
SLEEVE FOR BOLLARD

- 5/16" x 3/4" BOLT IS INSERTED TO ATTACH BOLLARD TO SLEEVE
- 3/8" HOLE MUST BE FACING STREET
- CURB & GUTTER
- 3/8" HOLE MUST FACE THE STREET WHEN INSTALLED
- 2-1/2" INSIDE DIAMETER SCH-40 GALVANIZED PIPE
- 5/16" BOLT, 4-1/2" - 6" LONG

A. 2" GALVANIZED THREADED PIPE COUPLING, SECURED TO 2" PIPE BY THREADS AND ATTACHED TO SUBTERRANEAN PORTION BY A BOLT THAT MUST PENETRATE THROUGH PIPE AND COUPLING.

B. 2" SCHEDULE 40 GALVANIZED PIPE NOT LESS THAN 8" LONG OR MORE THAN 12" LONG. CROSSPINNED WITH EITHER 5/16" x 6" BOLTS OR 8" - #3 REBAR.

C. EXCAVATED PORTION TO BE FILLED WITH PORTLAND CEMENT, MINIMUM 4 BAG MIX, SMOOTH FINISHED AT GRADE IN SIDEWALK, A.C. OR IMPROVED SURFACE.

D. GRADE: WHERE ANUNEQUAL GRADE IS ENCOUNTERED, THE HIGHER PORTION OF THE 2" PIPE COUPLING SET AT GRADE IS ACCEPTABLE.

E. IN NATIVE SOIL STANCHION HEIGHT UP TO 4" USE 18" SOCKET STANCHION HEIGHT OVER 4" USE 24" SOCKET

SLEEVE SOCKET
FOR BOLLARD ONLY
SEE DETAIL T-23

THREAD SOCKET
FOR SIGN PIPE ONLY

METER PIPE INSTALLATION

METER PIPE NATIVE INSTALLATION

REV. DATE DESCRIPTION

CITY OF SACRAMENTO
DEPARTMENT OF TRANSPORTATION

STANDARD BOLLARD & METERED PIPE FOOTING

APPR'D BY: MAY 2007 DWG. NO. T - 340

NO SCALE
NOTES:

1. MONUMENT COVERS AND FRAMES SHALL BE FORNIX "IRON SIDES", TYPE 80-61-03; PHOENIX, TYPE P-2001, OR APPROVED EQUAL. EACH COVER SHALL BE GROUND OR OTHERWISE FINISHED SO THAT IT WILL FIT ITS FRAME WITHOUT ROCKING. BRONZE PLAQUE NOT TO EXTEND MORE THAN 1/4" ABOVE CONCRETE BASE. MONUMENT TO BE SET BY A REGISTERED LAND SURVEYOR OR PROFESSIONAL ENGINEER.

2. UNLESS OTHERWISE SPECIFIED, 4" MIN. CLEARANCE OF CONCRETE OVER WATER MAINS.

3. ALL CONCRETE IN CONFORMANCE WITH SEC. 10 OF STANDARD SPECIFICATIONS.
MATERIALS
1-4"X4"X10' POST S4S TREATED DOUGLAS
FIR CONFORMING TO SEC. 58-2.02 OF
CALTRANS STANDARD SPECIFICATIONS.
2-1/2"X6"X24" MIN. A/C EXT. PLYWOOD
SIGNBOARD. WHITE PAINT TO CONFORM
TO SEC. 91-3.02 OF CALTRANS STANDARD
SPECIFICATIONS. ALL HARDWARE GALVANIZED.

DESIGN
THE SIGN SHALL HAVE BLACK GOTHIC
LETTERS SIMILAR TO THOSE SHOWN ON A
WHITE BACKGROUND. MIN. TWO (2) COATS
OF PAINT ON SIGN-BOARD (BOTH)
AND ON POST. LETTERING SHALL
BE FOUR INCHES IN HEIGHT WITH A
STROKE WIDTH OF NO LESS THAN ONE-
HALF (1/2) INCH NOR MORE THAN THREE-
FOUThS (3/4) INCH. NUMERAL SUFFIXES (ST,
NO, RD, TH) SHALL BE TWO INCHES IN
HEIGHT WITH A STROKE WIDTH OF NO LESS
THAN ONE-FOURTH (1/4) INCH NOR MORE
THAN THREE-EIGHTHS (3/8) INCH.

INSTALLATION
SIGN-BOARD SHALL BE FASTENED TO POST
BY 2-1/4"X4 1/2" BOLTS. THE BOTTOM OF
THE SIGN SHALL BE NO LESS THAN SEVEN
FEET ABOVE THE GROUND IN WHICH THE
POST IS SET.

LOCATION
THE LOCATION AND ORIENTATION IS TO BE
DESIGNATED BY THE ENGINEER.