CHAPTER 3H. CHANNELIZING DEVICES USED FOR EMPHASIS OF PAVEMENT MARKING PATTERNS

Section 3H.01 Channelizing Devices

**Option:**

01 Channelizing devices, as described in Sections 6F.63 through 6F.73, and 6F.75, and as shown in Figure 6F-7, such as cones, tubular markers, vertical panels, drums, lane separators, and raised islands, may be used for general traffic control purposes such as adding emphasis to reversible lane delineation, channelizing lines, or islands. Channelizing devices may also be used along a center line to preclude turns or along lane lines to preclude lane changing, as determined by engineering judgment.

**Standard:**

02 Except for color, the design of channelizing devices, including but not limited to retroreflectivity, minimum dimensions, and mounting height, shall comply with the provisions of Chapter 6F.

03 The color of channelizing devices used outside of temporary traffic control zones shall be either orange or the same color as the pavement marking that they supplement, or for which they are substituted.

04 For nighttime use, channelizing devices shall be retroreflective (as described in Part 6) or internally illuminated. On channelizing devices used outside of temporary traffic control zones, retroreflective sheeting or bands shall be white if the devices separate traffic flows in the same direction and shall be yellow if the devices separate traffic flows in the opposite direction or are placed along the left-hand edge line of a one-way roadway or ramp.

**Support:**

04a In California, cones are used for temporary traffic control, not as permanent channelizing devices.

**Guidance:**

05 Channelizing devices should be kept clean and bright to maximize target value.

**Support:**

06 Channelizers are flexible retroreflective devices for installation within the roadway to discourage road users from crossing a line or area of the roadway. Unlike delineators, which indicate the roadway alignment, channelizers are intended to provide additional guidance and/or restriction to traffic by supplementing pavement markings and delineation.

**Option:**

07 Channelizers may be used for additional emphasis to discourage median crossings at traffic islands and at lane separations.

**Standard:**

08 The design of a channelizer shall be as shown in Figure 3H-101(CA) and Figure 6F-102(CA).

09 The retroreflective unit used on channelizers shall be a minimum of 3 x 12 inch. The 3 x 24 inch minimum retroreflective unit shall be visible at 1000 feet at night under illumination of legal high beam headlights, by persons with vision of or corrected to 20/20. Refer to Caltrans’ Standard Specifications Section 12-3.07. See Section 1A.11 for information regarding this publication.

10 The post shall be flexible with a 2 ¼ inch minimum width, except that the portion containing the retroreflective unit shall be a minimum width of 3 inch. The post shall be a minimum height of 36 inch above the pavement.

11 Channelizer posts used for temporary traffic control shall be orange with white reflectors. See Section 6F.101(CA).

12 If the channelizers are to remain in place as a permanent roadway feature, the post shall be white and the color of the reflector shall conform to that of the pavement markings it supplements with the following exceptions:

A. Retroreflective units used in narrow bridge shoulder tapers shall be yellow as shown in Figure 3F-104(CA).

B. Retroreflective units shall be white when used in construction and maintenance zones (posts shall be orange).

See Section 6F.101(CA).

**Option:**

13 At locations where speeds are 40 mph or less a minimum post height of 28 inch may be used.
Support:
14 Since channelizers require closer spacing, their post size requirements differ from those of delineators.
15 There are two basic types of channelizers: one attaches to the pavement and the other attaches to an anchoring device imbedded in the pavement. Both the base and anchor systems are designed to permit replacement of the channelizer post. See Figure 3H-101(CA).

Guidance:
16 Channelizers should be placed a minimum of 2 feet from the traffic line, away from traffic, to allow for future maintenance of the line.

Option:
17 Space limitations may dictate exceptions to this criterion. At certain locations, placement directly on the traffic line may be required.

Support:
18 Spacing of the channelizers depends on the type of facility where they are to be used, the speed and volume of traffic, and the alignment to be channelized. Spacing which results in a visual fence/barrier effect is a key factor in channelizer installation.

Guidance:
19 The maximum post spacing should be 100 feet on carpool lanes where channelizers are used primarily to delineate the separation between the carpool lane and the main facility.
20 In locations where a relatively high number of violations occur, the post spacing should be 25 feet.

Option:
21 Where barrier violations are relatively minimal, a post spacing of 50 feet may be adequate. However, spacing in excess of 50 feet is of negligible value as a deterrent to intentional barrier violations.
22 Post spacing closer than 25 feet may be considered on lower speed roads, urban streets and at specific locations such as traffic islands.

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**Figure 3H-101 (CA). Example of Channelizers**

- **Rigid Base**
- **Flexible Base**

<table>
<thead>
<tr>
<th>Surface Mounted</th>
<th>Below Surface Anchor</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 in Minimum</td>
<td>2.25 in Minimum</td>
</tr>
<tr>
<td>1.5 in Max.</td>
<td>18 in Min.</td>
</tr>
<tr>
<td>2 in Max.</td>
<td>Flexible Post</td>
</tr>
<tr>
<td>4 in Max.</td>
<td></td>
</tr>
<tr>
<td>3 ft</td>
<td></td>
</tr>
<tr>
<td>Minimum 3 in x 12 in Retroreflector</td>
<td></td>
</tr>
</tbody>
</table>

*NOT TO SCALE*