

9.0 STRIPING AND SIGNING

Signs and markings must communicate to the users a clear and definitive message. Signs and markings must conform to industry standards given in the [MUTCD](#). Modifications to signing and striping on the Colorado State Highway System shall be submitted to the [Colorado Department of Transportation](#) for approval.

9.1 Signing and Striping Plan

Preparation of a detailed traffic control plan, showing the locations of all traffic control devices, is required as part of the development plans. A signing and striping plan is required for all public street improvements. The signing and striping plan must be clear and it must contain all relevant information. Example striping plans may be found in the [CDOT M & S Standards](#).

9.2 Signing Specifications

All roadway signs shall conform to the latest edition of the [MUTCD](#) and any Colorado supplement. See [attached illustration](#) for street name sign specifications.

9.2.1 *Materials Specifications:*

All signs shall be reflectorized sheeting on .080 inch thick tempered and anodized aluminum with radius corners. Letters and background shall faithfully reproduce their respective colors when illuminated at night.

All other signs:

- Shall conform to MUTCD standard sign sizes
- Shall be High Intensity grade materials

Posts:

12' length 3#/foot (min.) U channel posts shall be used for:

- Single signs less than 7 sq. ft. wind loading area
- Double post mounting for signs 8 sq. ft. wind loading area

14' length 3#/foot (min.) U channel posts shall be used for:

- Warning sign assembly (2 signs) up to 9 sq. Ft. wind loading area
- Single square or diamond shaped signs 9 sq. Ft. wind loading area
- Double post mounting for all signs 10 - 16 sq. ft. wind loading area

8' length 3#/foot (min.) U channel posts shall be used for:

- End of road markers

- Object markers

Fasteners:

Street Name Signs:

- Post caps: cast aluminum with 12" slots & 5/16" set screws, attached to channel post with 1"x 5/16" bolts
- 90 cross piece: cast aluminum with 12" slots & 5/16" set screws

All other Signs:

- 3/8" grade 5 bolts with nylon lock nuts and flat washers. The bolt shall protrude beyond the lock nut by a full thread after assembly.

9.2.2 *Installation Specifications:*

Minimum driven depth of post shall be 30 inches for all sign installation.

Mounting Height Restrictions:

The mounting height is measured from the bottom of the sign to the near edge of pavement elevation:

- Street Name Signs: 9 foot min., 9.5 foot max.
- End of Road Markers: 4 foot min., 5 foot max.
- All other signs: 7 foot min., 7.5 foot max.

Lateral Clearance Restriction:

The near edge of sign shall not be less than 2 feet behind the face of curb. On roads without curb, the near edge of sign shall not be less than 6 feet from the shoulder or 12 feet from the travel way.

To maintain sign uniformity, no substitute or decorative materials will be allowed. The use of concrete for mount stabilization will not be allowed. If a stable mount cannot be achieved at the minimum driven depths, greater depths must be used in conjunction with longer posts. Minimum sign heights shall be maintained.

All signs (other than street name signs) shall be mounted on the wide, or open, side of the channel post. Care should be taken when tightening the bolts so as not to create a "dimple" in the aluminum sign.

At least two 'end of road' markers consisting of nine red reflectors, each with a minimum dimension of 3 inches, mounted symmetrically on an 18 inch diamond black panel shall be used where there is no alternate vehicular path. More than two markers may be required. Where a hazard exists such as an

open ditch, the engineer may require permanent Type III Barricades may be used to mark the roadway terminus. The design criteria for the permanent Type III barricade shall be the Colorado Department of Transportation Standard Plan No. S-630-2, dated November 1, 1992.

The developer shall bear all expenses for the fabrication and installation of permanent barricades and/or signs for implementing the approved project design (*i.e.* one way, no parking, dead end and private drive).

9.3 Striping Specifications

All striping shall conform to the latest edition of the [MUTCD](#) and any Colorado supplement.

9.3.1 Striping and Marking Materials

All painted lines shall be applied at a minimum thickness of 15 mils, with 6-8 pounds of reflective glass beads applied per gallon of paint.

All permanent markings such as elongated arrows, stop lines, crosswalks, preferential and bike lane markings must be an approved type thermoplastic material, applied a minimum of 120 mils thickness. All letters, arrows and symbols shall be in conformance with the “Standard Alphabets for Highway Signs and Pavement Markings” adopted by the Federal Highway Administration

9.3.2 Re-Striping

When the removal of pavement markings is necessary for re-striping, the old markings must be ground off, sand-blasted or covered with a chip-seal. Covering the markings with black paint is prohibited.

[To Chapter 10:](#)
[To Table of Contents:](#)