



## **Engineering Criteria Manual – 1 July 2010 Update Key Highlights**

Following is a summary of the key issues that you, as a user of the Engineering Criteria Manual or a concerned Stakeholder should be aware of since some of our previous requirements are changing.

### **SECTION I SUBDIVISION POLICY MANUAL**

This section of the Engineering Criteria Manual addresses the detailed policies, procedures, and requirements of the City Engineer for developing and subdividing land in Colorado Springs. This section was last published in 1990 with many addenda added over the years. This 2010 update compiles all of the agenda into the chapters of the Manual with several policy changes.

- All approved engineering reports and plans must be submitted to City Engineering in electronic format along with the signed "hard copy" documents. Electronic documents will be added to City Engineering's web-accessible subdivision document viewer. (This new requirement appears throughout the Manual.)
- Development Review Philosophies are now spelled out in the Policy Manual. (2.1)
- Geologic Hazard Studies are not required for most development east of I-25. (3.3)
- The Drainage Report checklist is improved. (4.4)
- Dual signoff on grading plans by EDRD and Land Use Review for Hillside and Streamside zones replaces the former approval routing slip. (5.3)
- A waiver procedure is added for Best Management Practices (BMPs) in single family developments. (5.7)
- The erosion control checklist is revised and must be filled out by the EDRD reviewer and filed for all submittals. A narrative report is required with all erosion control plans. These changes resulted from a recent audit by the Colorado Department of Health and Environment. (5.10)
- Street-cut and excavation permits are required for all work including utility installations in new subdivisions. (9.7)
- Financial assurances are now required for traffic signals, signs, and pavement markings. (10.1 and 10.5) Sunset provisions for traffic signal assurances are discussed. This replaces the previous practice of paying cash contributions for traffic signals.
- Erosion control financial assurances are required in any dollar amount. There is no longer a minimum dollar amount. (10.2)

## **SECTION II**

### **PAVEMENT DESIGN CRITERIA MANUAL**

This is a significant update and revision to the 1989 Pavement Design Criteria. The goal of this update is to prevent the kind of premature street failures and street maintenance work that the City has experienced in the past. Many important changes are included, especially related to expansive soils and minimum allowable pavement thickness.

- Emphasis on designing for expansive soils with moisture treatment, chemical treatment, and mechanical stabilization.
- Designers will use the 1993 AASHTO Design Guide.
- New recommended ESAL values (Table 4.1.1) with an emphasis on determination of design ESAL values in the Traffic Impact Study.
- Increased minimum pavement thicknesses. (Table 4.5.1)
- Detailed testing procedures.
- Preference for composite pavement sections (asphalt over base course) while still allowing the use of full-depth asphalt with sufficient justification. (4.5)
- Encouraging alternate pavement designs, emerging technologies and additional drainage controls. (4.6)
- Base course and sub-grade stabilization layers must extend to the back of curb.

## **SECTION III**

### **TRAFFIC CRITERIA MANUAL**

The previous Traffic Engineering Division Policy and Design Standards Manual was adopted in January, 1990, and had several significant updates and revisions over the years relating to Hillside Zoning, Traditional Neighborhood Design, Mixed Use Development, and the design guidelines for small lot PUD zone districts. This 2010 update is comprehensive and provides further updates to the requirements for street width, classification, multimodal accommodation, sight distance, sidewalk placement, Traffic Impact Studies, and many other design requirements.

- Traffic Impact Studies must be certified by the design professional and will be signed and dated by the City for acceptance. The preparer will provide a scanned copy for City Engineering's document viewer. (Appendix A)
- New street widths for most street classifications.
- Attached and detached sidewalks are still allowed on residential streets. Attached sidewalk generally may only be allowed adjacent to vertical curb, not ramp curb.
- Minimum sidewalk width in the detached location is increased from four feet to five feet. Attached sidewalks are increased from five feet to six feet.
- All street widths are now measured from one edge of pavement to the other, not between the flowlines of the curbs. Residential streets, which allow the use of either vertical or ramp curb, will consequently have different flowline-to-flowline widths due to the different gutter pan dimensions.
- Minor residential streets have 28 foot wide pavement mats (32 feet between flowlines when Type 1 vertical curb is used). (Figure 22)
- Minor residential streets serving less than 20 lots (such as a cul-de-sac) have 24 foot wide pavement mats (28 feet between flowlines when Type 1 vertical curb is used). (Figure 23)

- There is flexibility for alternate design solutions with suitable justification. (1.1)
- Sight distance requirements at intersections and driveways are clarified. Follow-up code changes will be needed to amend the sight triangles that are currently shown in the landscape code. (4.0)
- Alternate cul-de-sac and turnaround designs are allowable with sufficient justification. (12.0)
  
- Utility and Storm sewer standard locations in the new street cross sections is still a work-in-progress. (Appendix B)
- Roundabout design guideline is included. (Appendix C)

It is expected that the members of the standards development group will reconvene after the 2011 construction season and evaluate any changes that should be considered.

The City of Colorado Springs is delighted to make this step forward in terms of improved quality of design and construction of our street systems. We want to share these manuals with other cities and counties in the Pikes Peak Region, and make them available for your use if appropriate. Developing consistency in our standards on a regional basis should help the design and construction industries to provide us all with better products at reduced costs.

We also welcome comments and suggestions for improving the specification. Please direct your questions and/or comments to Kathleen Krager, Senior Traffic Engineer, 385-7628, or [kkrager@springsgov.com](mailto:kkrager@springsgov.com).