

DESIGN STANDARDS
SECTION DS 10
SIGNING, STRIPING, AND PAVEMENT MARKINGS

DS 10-01 GENERAL:

- A. INTENT:** The intent of these Design Standards is to provide minimum standards for the design of signing, striping, and pavement markings for public streets and bike paths.
- B. GOVERNING CRITERIA:** These Design Standards, in conjunction with the most current edition of the Standard Drawings and Manual of Uniform Traffic Control Devices (MUTCD) along with the California Supplements to the MUTCD shall govern the engineering design of signing, striping, and pavement markings on public streets and bike paths within the City of Vacaville. In the event that there is a conflict with the criteria between these documents, the Director of Public Works shall determine which document governs. Additionally, if there are criteria or issues not addressed in these documents, the Director of Public Works will determine the criteria to be used in the design. All signing, striping, and pavement markings shall be designed in accordance with the current accepted engineering practices. These standards are minimum standards and are intended to assist the Design Engineer, but not substitute for competent work. The City Engineer/Director of Public Works at their sole discretion may require more stringent requirements for unusual circumstances, special conditions, and/or environmental constraints.

DS 10-02 STREET NAME SIGNS:

- A. GENERAL:** All new streets shall be named by the owner or subdivider subject to the approval of the City Community Development Department. Street names and street name sign locations shall appear on Project Plans submitted for approval. Sign details and installation shall be in accordance with the City Standard Specifications which include the Standard Drawings.
- B. STREET SIGN LOCATIONS:** Street sign locations shall conform to the following:
 - 1. Two street name sign installations with two sign plates on each pole are required at each four-way intersection and one installation is required at each “Tee” Intersection.
 - 2. At four-way intersections, the sign installations shall be located on both far right-hand corners of the intersection relative to the street having the greater right-of-way width, or relative to the more important street if the right-of-way widths are equal.

3. At a “Tee” intersection, unless otherwise directed by the Director of Public Works, the installation shall be located on the right hand side of the single leg of the approach to the intersection.
4. All arterial streets shall require advance street name signs for each intersecting street. Sign placement shall be at the direction of the Director of Public Works.

DS 10-03 TRAFFIC SIGNS:

- A. The Design Engineer shall provide a design for installation of traffic signing with the Project Plans in accordance with the most current standards of the MUTCD along with the California Supplements to the MUTCD except as amended by Section CS 13, Street Name and Traffic Signs, of the City Standard Specifications which include the Standard Drawings, and as provided herein.

DS 10-04 STRIPING AND PAVEMENT MARKINGS:

The Design Engineer shall provide a design for installation of Striping and Pavement markings with the Project Plans in accordance with the most current standards of the CALTRANS Standard Plans except as amended by Section CS 12, Traffic Stripes, Pavement Markings and Pavement Markers, of the City Standard Specifications which include the Standard Drawings.

DS 10-05 PROJECT PLAN REQUIREMENTS:

- A. The Project Plans shall include a separate plan sheet which will show the existing and proposed signing, striping, and pavement markings within the project area.
- B. The Design Engineer shall be responsible for evaluating the adequacy and design of the existing signing and striping within and adjoining the project area as it relates to the proposed improvements.
- C. The Project Plans shall show the California Supplements to the MUTCD sign designation code and the location of installation with adequate dimensions.
- D. Small signs such as No Parking and Speed Limit signs shall be installed on Street light poles wherever possible.
- E. The Project Plans shall include the following notes and requirements:
 1. The Contractor shall ensure that the appropriate signing, striping, and pavement markings are in place at all times. Temporary signing, striping, and pavement markings shall be installed to replace any existing signing striping and marking which have been removed. Any

conflicting signing, striping, and pavement markings shall be removed by the contractor prior to opening the street to traffic.

2. The Contractor shall be responsible for thoroughly removing all striping and pavement markings in conflict with proposed striping and pavement markings by grinding. The entire area within the pavement marking to be removed shall be blocked out and ground. The Contractor shall be responsible for adhering to all NPDES rules and regulations for this type of work. Pavement shall be repaired in a manner satisfactory to the Director of Public Works if damaged with the removal of markers, striping or legends.
3. Proposed striping and pavement markings shall be installed the same day as the removal of the conflicting striping and pavement markings, except as provided in note # 1 above.
4. The Contractor shall be responsible for layout and cat tracking of all proposed striping and pavement markings. The City must approve the layout and cat tracking of the proposed striping and pavement markings and location of signing prior to installation.
5. The Contractor shall notify the Inspector a minimum of 48 hours prior to the day of layout of the proposed signing, striping, and pavement markings.
6. All striping and pavement markings shall conform to the most current edition of the CALTRANS Standard Plans as amended by the City Standard Specifications which include the Standard Drawings.
7. Centerlines and lane lines shall be installed with reflectorized and non reflectorized pavement markers unless otherwise shown on the Project Plans.
8. All other pavement markings including but not limited to legends, arrows, crosswalks, and stop limit lines shall be installed with thermoplastic unless otherwise shown on the Project Plans. Said pavement markings shall be installed in accordance with CALTRANS Standard Specifications and Standard Plans as amended by the City Standard Specifications which include the Standard Drawings.
9. Stop limit lines shall be installed on the pavement at all stop sign locations. These limit lines shall consist of twelve (12) inch white thermoplastic material unless otherwise shown on the Project Plans. The limit lines shall be in conformance with CALTRANS Standard Specifications and CALTRANS Standard Plans as amended by the City Standard Specifications which include the Standard Drawings. The limit lines shall be located four (4) feet behind the prolongation of the gutter flow line of the intersecting street except where an accessible ramp is present. At locations with accessible ramps the limit line shall be located behind the edge of the accessible ramp in accordance with the Standard Drawings.

- 10.** All signing shall conform to the latest edition of the MUTCD along with the California Supplements to the MUTCD except as amended by the City Standard Specifications which include the Standard Drawings.
- 11.** All signing shall be installed in accordance with the Standard Drawings on 2"x2"-12 gauge square perforated galvanized steel tubing with breakaway post and base.
- 12.** All signing shall be made from high-intensity grade prismatic or approved equal sheeting and shall be of metal material in accordance with the MUTCD along with the California Supplements to the MUTCD.
- 13.** Signs shall be installed behind the sidewalk area wherever possible.