



3. ROAD DESIGN

- 3.1. ALL ROADS, WHETHER PRIVATE OR PUBLIC, SHALL BE DESIGNED IN ACCORDANCE WITH THESE STANDARDS. WHERE STANDARDS ARE NOT DEFINITE ON SPECIFIC FEATURES, DESIGN SHALL BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE AS INDICATED IN THE AMERICAN PUBLIC WORKS ASSOCIATION STANDARDS, CALTRANS HIGHWAY DESIGN MANUAL, AND AS APPROVED BY THE CITY ENGINEER.
- 3.2. DEVIATIONS FROM R/W AND IMPROVEMENT REQUIREMENTS OF THESE STANDARDS MAY BE MADE ONLY UPON THE APPROVAL OF THE CITY COUNCIL. DEVIATIONS FROM TECHNICAL ENGINEERING REQUIREMENTS OF THESE STANDARDS MAY BE MADE UPON APPROVAL OF THE CITY ENGINEER, BASED ON SUFFICIENT SUPPORTING DATA.
- 3.3. THE DESIGN SPEED OF ALL ROADS SHALL BE EQUAL TO OR GREATER THAN THE ANTICIPATED OPERATING SPEEDS. THE CITY ENGINEER MAY REQUIRE THE ENGINEER TO INCORPORATE A DIFFERENT DESIGN SPEED THAN INDICATED ON THE ROAD STANDARD PLATES, IF THE CITY ENGINEER DETERMINES THAT CONDITIONS WARRANT SUCH A CHANGE.
- 3.4. ALL SOIL TESTING AND THICKNESS DESIGN OF PAVEMENT SHALL BE PERFORMED BY THE DEVELOPER'S ENGINEER AND APPROVED BY THE CITY ENGINEER.
- 3.5. HILLSIDE PLANNED DEVELOPMENT ROADS
  - 3.5.1. "HILLSIDE AREAS" SHALL MEAN THOSE AREAS SO DESIGNATED ON THE HILLSIDE DEVELOPMENT DISTRICT MAP WHICH, IN GENERAL, HAVE AN AVERAGE SLOPE BEFORE GRADING OF 10% OR MORE.
  - 3.5.2. TOMC 9-4.3100 PROVIDES GENERAL GUIDELINES FOR STREET GEOMETRIC SECTIONS WITHIN HPD AREAS. THE PROPOSED STREET SYSTEM AND ASSOCIATED GEOMETRIC SECTION SHALL BE REVIEWED WITH THE CITY ENGINEER PRIOR TO DEVELOPING A DETAILED HPD PLAN OR TENTATIVE MAP.
- 3.6. HORIZONTAL CURVES
  - 3.6.1. FOR CENTRAL ANGLES LESS THAN 30 MINUTES, NO CURVE IS REQUIRED.
  - 3.6.2. COMPOUND CURVES SHOULD BE AVOIDED. IF DESIGNED, THE SHORTER RADIUS SHALL BE AT LEAST 2/3 THE LONGER RADIUS.
  - 3.6.3. A MINIMUM 100' TANGENT LENGTH IS REQUIRED BETWEEN CURVES.
- 3.7. AT STREET INTERSECTIONS WHERE EITHER STREET GRADE EXCEEDS 5%, THE INTERSECTION AND A 25' LONG LANDING AREA BEYOND THE CURB RETURNS SHALL HAVE A 3% MAXIMUM GRADE. THE CROSS WALK AREA SHALL HAVE MAXIMUM 2% CROSS FALL PER ADA REQUIREMENTS.
- 3.8. THE MINIMUM STREET FLOWLINE SLOPE SHALL BE 0.6%. A MINIMUM FLOWLINE SLOPE OF 1% SHALL BE PROVIDED AROUND CURB RETURNS AND CUL-DE-SAC BULBS, EXCEPT FOR 30' EACH SIDE OF THE GRADE BREAK AT THE TOP OF THE CUL-DE-SAC BULB WHERE THE FLOWLINE SLOPE SHALL BE 0.6%.
- 3.9. THE CENTERLINE ANGLE AT INTERSECTIONS IS PREFERRED TO BE 90°, BUT MAY VARY FROM 72° TO 108°.

				APPROVED: 	
CHANGE	DESCRIPTION	DATE	INITIAL	CITY ENGINEER	DATE