

City of Tulare Design Guidelines



22. Curb and gutter grades shall be a minimum of 0.002 ft/ft, except when matching existing streets where it can be demonstrated that 0.002 ft/ft is impractical. Under the latter circumstances, minimum slope shall not be less than 0.0015 ft/ft.
23. Curb and gutter grades at curb bulbs and cul-de-sacs shall be a minimum of 0.0030 ft./ft., unless otherwise approved by the City Engineer.
24. Flow line grade across commercial or industrial drive approaches shall be 0.0030 ft./ft., unless matching existing conditions or as otherwise approved by the City Engineer.
25. Slopes at street returns shall conform to the following:

Curb Return Radius	Minimum Slope at Flow Line	Maximum Slope at Flow Line
20'	0.64%	1.5%
30'	0.64%	1.5%
35'	0.64%	1.5%

Exceptions to the above are as follows:

- a. Special circumstances that may be approved by the City Engineer on a case-by-case basis.
26. Minimum size of storm drains and drop inlet laterals shall be twelve (12") inches.
 27. Maximum nominal pipe sizes allowed for manholes:
 - a. Type I: 24 inches
 - b. Type II: 36 inches
 - c. Type III: 42 inches.
 28. Type IV manholes are required for storm drain piping larger than 42 inches diameter.
 29. Drop inlet laterals shall conform to the following:
 - a. Shall not create an opposing flow into the main, unless specifically allowed by the City Engineer because of low-flow relative to the storm drain main.
 - b. May connect directly to new mains with fabricated tees, to adjacent manholes, or to another drop inlet. No drop inlet shall have more than two laterals connected to it (one in and one out).
 - c. Connection directly to main shall match pipe centerlines
 - d. Drops into manholes shall be one-tenth (0.10') foot minimum at any change of direction. The maximum drop at a manhole shall be four (4') feet, or matching inside top of pipe, whichever is greater.
 - e. Maximum separation within the tongue and groove of mortar joints shall not exceed one (1") inch for concrete pipe deflections.
 30. Minimum drop inlet depth from bottom of grate to floor in cases where the drop inlet is installed almost directly over storm drains shall not be less than twelve (12") inches. There is no specified maximum drop inlet depth.
 31. Storm drain manhole spacing shall not exceed 450 feet.