



Figure 5.6 Residential street detail, parking on two sides.

TABLE 5.5 Residential Street Design Standards

	Low density, ordinary, hilly terrain	High density, ordinary, hilly terrain
Right-of-way width	40 ft	60 ft
Cartway width	22 ft	36 ft
Sidewalk width	0–6 ft	5 ft
Sidewalk distance from curb	0–6 ft	6 ft
Sight distance	20–100 ft	110–200 ft
Maximum grade	4–8%	4–15%
Maximum cul-de-sac length	1000 ft	500 ft
Design speed	30 mi/h	20 mi/h
Minimum centerline radius	250 ft	110 ft

Hillside streets generally need to be narrower and steeper to mimic the existing terrain and minimize the size and amount of cuts and fills. A rule of thumb is to use the dimensions of emergency vehicles, such as fire engines, to test design fitness. However, most design standards use the overblown requirements of vehicles built decades ago rather than the vehicles built today. Today cartway widths as narrow as 18 or 20 ft should be considered with no parking allowed. If parking is to be allowed, the designer should add a lane 8 ft wide for each side on which parking is allowed. Designers might consider varying cartway widths—narrower on slopes, wider on flat areas—to provide parking opportunities. Steep roads might be split, with a single lane in each direction separated by a wide area of steep slope. Shoulder widths might be reduced or eliminated in difficult areas. It should be noted that in most cases the split roadway may not provide a substantial savings in cost or in the amount of disturbed area because of the necessary slope lengths. As it is with all elements, the cost and benefit must be evaluated on a case-by-case basis.