



**Activity: Street Design**

<b>Advantages</b>	<ul style="list-style-type: none"> <li>➤ Thoughtful siting and design of streets helps achieve stormwater control “at the source”, which means less runoff requiring management, less stormwater infrastructure, and less impact on downstream water bodies.</li> <li>➤ Reducing paving lowers development and maintenance costs.</li> <li>➤ Forgoing curb-and-gutter in favor of a rural residential section in major cost savings</li> <li>➤ Rural-section streets can incorporate attractive “rain garden” planting in low areas adjacent to the roadway, when soil permits.</li> <li>➤ Narrower streets tend to slow traffic and create a more pedestrian-friendly environment.</li> <li>➤ Reducing pavement lessens the urban heat island effect-the increase in air temperature that occurs when highly developed areas are exposed to the sun.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>➤ Local ordinances may preclude narrowed or curbless street design.</li> <li>➤ Cities’ desire to design roads to accommodate future growth may impede innovations.</li> <li>➤ Roadside swales are difficult to accommodate in single family residential developments with net densities above 8 units per acre.</li> <li>➤ Good drainage for road subgrade must be provided when using roadside infiltration methods.</li> <li>➤ Soil and topography may limit street siting opportunities.</li> </ul>
<b>Design Requirements</b>	<ul style="list-style-type: none"> <li>➤ Design residential streets with the minimum pavement width necessary to support: the traffic volume; on-street parking needs; and emergency, maintenance, and service vehicles.</li> <li>➤ Use shallow, grassed roadside swales (rural residential cross section) instead of curb and gutter when net densities are 6 to 8 units or acre or less.</li> <li>➤ Swales to catch road runoff should be sloped no more than 3:1.</li> <li>➤ Limit sidewalks to one side on roads with less than 400 Average Daily Traffic (ADT) (or 200 ADT for cul-de-sacs).</li> <li>➤ Resist designing for distant future growth.</li> </ul>
<b>Construction Requirements</b>	<ul style="list-style-type: none"> <li>➤ Take care not to compact adjacent, permeable soils during road construction.</li> <li>➤ Protect swales and other infiltrations areas from sediment influx during construction, or remove sediment after construction is complete.</li> </ul>
<b>Maintenance</b>	<ul style="list-style-type: none"> <li>➤ Swales planted with perennials grasses and wildflowers rather than turf grass must be weeded at least monthly during the first two to three years. After that, weeding once or twice a growing season may suffice.</li> <li>➤ Swales will need periodic sediment removal to maintain volume and filtering ability.</li> </ul>