

Description	Site disturbance can be minimized by locating buildings and roads along existing contours, orienting the major axes of buildings parallel to existing contours, staggering floor levels to adjust to grade changes, and designing structures including garages to fit into the terrain, lot by lot.
General Information	<p>Steep topography poses a problem in the development of building sites and roads. Most conventional grading is based on straight lines, in plan or section or both. Such grading patterns produce level or near-level surfaces for human use and unvarying slopes on the “in-between” areas such as road cuts or embankments. However, these slopes are subject to erosion and mass wasting.</p> <p>One technique to slow, if not completely prevent this problem is to fit the development to the existing contours. Steep slopes should be avoided and buildings aligned with topography to minimize grading. The major axes of buildings should be oriented parallel to existing contours and floor levels should be staggered to adjust to grade changes.</p> <p>Avoid placing roads on steep slopes by designing roads to follow grades and run along ridgelines. Roads that follow contour lines increase cut and fill and make driveways difficult. Roads that go straight uphill reduce cut and fill, but may become excessively steep.</p>
Additional Resources	Thompson, J.W. and K. Sorvig, 2000. <i>Sustainable Landscape Construction: A Guide to Green Building Outdoors</i> , Island Press, Washington, D.C.

Figure 7-1. Fit development to natural gradient

