

Site Grading

Land development involves disturbing the existing condition of a site in favor of a different condition, and the disturbance is usually directed by a design. From all appearances the range of what is good design appears to vary as much as the character of the sites being developed. Increasing concerns with sustainable site development will compel design professionals to give greater consideration to the predevelopment environmental function of a site and to seek ways to retain that function to the degree it is possible. Concern for the environmental and natural function of a site is not limited to the development of green sites. Undisturbed and pristine sites may have a higher functional quality than severely impacted former industrial sites; however, it is not unusual to find existing important functional elements even on environmentally compromised urban sites.

The layout and grading scheme of a site should consider and address the physical characteristics of the site including the functional aspects of the landscape. Ideally the new features such as roads or buildings will fit onto the site in a manner that will minimize the need for large cuts and fills. This requires the plan to accommodate the site and the arrangement of the features in a manner that maximizes the integrity of each of them. By minimizing the disturbance and the excavated area at the design level, the designer begins to mitigate the impact of the development. The design should retain as much of the original terrain and character of the site as is feasible. Roads should be parallel to contours as much as possible, and buildings should be located on the flatter areas of the site to minimize grading. Disturbed areas should be kept as small as possible, and strips of existing vegetation should be left in place between disturbed areas if possible. By grading smaller areas individually, the amounts of time and area of exposure and disturbance are minimized. The time of disturbance should be managed to minimize the risk of erosion and to maximize conditions to stabilize the site.