In order to promote and mimic a more natural hydrologic condition, it is important to remember that the natural landscape does not convey stormwater runoff quickly off of a site. Rather, stormwater infiltrates into the ground, or is conveyed slowly on the surface to low spots in the landscape. The latter condition is the kind of design scenario that this guidebook hopes to recreate.

Designing a network of small stormwater surface conveyance features can be done for new development and retrofit projects. Traditional landscape areas can be transformed into naturalized stormwater conveyance systems simply by depressing greenspace into the existing landscape. Larger stormwater facilities can be interconnected with swales, runnels, trench drains, and other surface conveyance systems. Having this conveyance network reduces peak flows and volumes, recharges groundwater aquifers, and provides water quality treatment.

Allowing stormwater to flow on the surface has other benefits besides improving water quality, such as:

• Increasing awareness and connecting people to natural systems. Stormwater is no longer perceived as "out of sight, out of mind."

•Reducing stormwater facility sizes. Stormwater facilities that accept runoff from surface conveyance are generally less deep than stormwater facilities receiving underground piped runoff.

•Simplifying maintenance. It is easier to detect and repair any problems when stormwater conveyance is on the surface.

•Reducing up-front installation costs. Surface conveyance systems can be less expensive to install than underground systems.

SOURCE: NEVUE NGAN ASSOCIATES

Figure 2-23: *A trench drain connects runoff between two landscape areas.*

SOURCE: NEVUE NGAN ASSOCIATES

Figure 2-24: *A concrete valley gutter allows water to flow through an intersection on the surface. The landscape system in the background is a good candidate for a vegetated swale retrofit.*

SOURCE: NEVUE NGAN ASSOCIATES

Figure 2-25: *Vegetated channels like this can be designed even in urban conditions for the purpose of conveying stormwater runoff.*