

CONSTRUCTION DETAILS: Grading of Soil and Hardscape Elements

Accurate grading of stormwater facilities is critical for assuring the success of a green street or parking lot project. The designer and contractor must work together during construction to assure that the project is correctly built to plan. In most situations, adjustments to the grades will need to be made in the field. This is especially true when attempting to match existing conditions to new conditions in retrofit projects.

While a major component of grading stormwater facilities is to accurately build the finish grade of soil, it is equally important to assure that the grades of the hardscape elements (i.e., curb cuts, trench drains, curb heights, etc.) are also constructed correctly. Even an 1/8 inch discrepancy in elevation can mean the difference between stormwater freely entering a curb cut or not.

Designers should be prepared both in terms of time and budget to regularly be in the field to help assure that the design is being constructed properly.



SOURCE: KEVIN ROBERT PERRY - CITY OF PORTLAND

Figure 5-54: A shallow graded stormwater curb extension retains a maximum of 7 inches of water.



SOURCE: KEVIN ROBERT PERRY - CITY OF PORTLAND

Figure 5-55: Hardscape elements, such as this trench drain channel, should be inspected to ensure positive drainage into the stormwater facility.



SOURCE: NEVUE NGAN ASSOCIATES

Figure 5-56: The design team should be on-site regularly during the grading process to determine whether or not the grading is consistent with the plans, and if necessary, work with the contractor to make field adjustments.