

**Green Infrastructure
and Low-Impact Development
Technologies**

Design Scenarios

Your Challenge

Instructions: As a class, analyze the pictures of the real-world urban environment scenarios and draw in your site plans for stormwater management based on the green infrastructure (GI) and low-impact development (LID) technologies.

Consider and discuss the following topics in determining your site plans.

- Traffic concerns
- Aesthetics
- Safety of people, plants and animals
- Vegetation types, size, sun requirements and soil depth
- What type of vegetation should be excluded from your design?
- Stormwater flow
- Drainage media
- Incorporate other GI and LID technologies

Be BOLD, be creative, but realistic and practical. *Have fun!*

Green Roofs and Vegetative Walls



Image source: City of Fayetteville GA <http://www.fayetteville-ga.gov/vertical/sites/%7B7C2ED344-BB55-4347-B057-121AA147A84D%7D/uploads/%7BE907E794-A6A7-4542-BCE0-8C197303A64A%7D.JPG>

Bioretention or Rain Gardens



Image source: <http://www.raleighnc.gov/home/content/PWksStormwater/Articles/WesternNorthRidge.html>

Bioswales



Image source: Nebraska Transportation <http://www.transportation.nebraska.gov/roadrunner/docs/archives/oct-nov05-cover.jpg>

Planter Boxes



Image source: http://commons.wikimedia.org/wiki/File:HK_Kln_City_Carpenter_Road_sign_%E8%B3%88%E7%82%B3%E9%81%94%E9%81%93_sidewalk_car_park.jpg

Permeable Pavement



Image source: <http://www.mtc.ca.gov/news/info/oakconnector.htm>

Urban Tree Canopy



Image source: http://www.noaa.gov/features/economic_0309/restoration.html

Rainwater Harvesting



Image source: U.S. Dept. of Housing and Urban Development <http://www.disasterhousing.gov/offices/pih/ih/codetalk/onap/swonap/feature.cfm>

Downspout Disconnection



Image source: Ryan Locicero, University of South Florida (author)

Green Streets and Alleys



Image source: <http://www.costamesaca.gov/index.aspx?recordid=1320&page=40>

Green Parking



Image source: U.S. Army http://www.army.mil/article/56831/New_boat_ramp_opens_at_Corps__039__Black_Butte_Lake/