



nerej

Land development 2008 - LIDs go mainstream: They are here to stay and are critical to projects

January 23, 2008 - Retail

This time last year, I wrote an article titled LIDs Are Here to Stay, and this past year saw many new developments in regulations, but the underlining theme was LID's are not only here to stay, but have prospered and are critical to all future projects in N.E. Recent public opinion trends suggest that consumers purchasing decisions are affected by a company's perceived environmental responsibility. Developers, in turn, have begun to offer consumers environmentally friendly options. The U.S. Green Building Council (USGBC) has accommodated the increased demand by expanding the certification process, which initially focused on office buildings, to include shopping centers, schools and multifamily dwellings. Information regarding projects and the certification process can be found here at www.usgbc.org.

Stormwater management design professionals are quickly adopting Low Impact Development (LID) techniques. Large detention ponds are giving way to rain gardens in parking lots and bioretention facilities. The focus is on replicating existing drainage patterns and reducing the development's environmental footprint. LIDs are being extensively incorporated into stormwater regulations. Many N.E. states are in the process of revising their stormwater guidelines to integrate LIDs. Mass. DEP just overhauled their stormwater regulations to "strongly encourage" LID principles.

The LID movement is evolving, as standards for the new techniques are being developed by communities and professionals in conjunction with the ASCE. The expectation is that national guidelines will be available in a couple of years. In the meantime, there will be some trial and error to determine which practices work best in each circumstance. Sharing of information will be critical to overcome skepticism in the new BMPs. These new methods and new systems will require careful consideration by planning boards and conservation commissions. They may look to us as design professionals for guidance, so let's prepare ourselves accordingly.

One area of development that is like to undergo a radical change is landscaping. Raised landscaped islands will be replaced with sunken rain gardens and drought and salt tolerant vegetation. Landscape Ordinances requiring certain species of trees based on aesthetic appeal will need to incorporate the use of native species. Native species will also reduce the amount of fertilizer or biocides required, as well as eliminate the need for irrigation.

A major thrust of the LID movement has been to increase the amount of rainwater that is infiltrated into the ground. With increasing developments and expansive parking lots, more and more rainfall is landing on impervious surfaces and being channelized. As a result, the groundwater is not being recharged and many communities are facing water shortages. The new Mass. stormwater regulations increase the required recharge rates by approximately 50%.

With the adoption of stormwater LID BMPs, a greater emphasis on the maintenance is required, because they will be located in parking lots and adjacent to pedestrian areas, not only will they need

to be maintained for aesthetic reasons, but due to their location, any malfunction could lead to ponding in parking lots or a public safety issue. Operation and Maintenance manuals will require more detailed instructions and be more strictly enforced.

LID is applicable to all aspects of site development, not just stormwater management. From saving existing vegetation to determining which direction a building should face to promote natural light and save energy costs requires an integrated environmental design approach. The LID Center, is a great resource for LID techniques and case studies, this website is: www.lid-stormwater.net.

As environmental awareness grows, many communities have incorporated LID techniques into their zoning codes and regulations. Boston requires all projects over 50,000 s/f to be designed and planned to meet the "certified" level using the US Green Building Council's , LEED building rating systems. Starting in 2009, any state building or publically funded K-12 school in Conn. is required to meet "green" state building regulations.

As with any new guidelines or techniques, confusion can be a limiting factor to how quickly the concept is adopted. There are no less than four other nationally recognized alternatives to the USGBC's LEED program. Furthermore, some states and communities have adopted their own guidelines. This has lead to some initial confusion, but I believe it ultimately shows just how many people are looking to capitalize on the green development wave. Shouldn't you be one of them?

Rich O'Connell is president and one of the founding principals of R J O'Connell & Associates, Stoneham, Mass.

New England Real Estate Journal - 17 Accord Park Drive #207, Norwell MA 02061 - (781) 878-4540