An Introduction to Low Impact Development

Low Impact Development (LID) is a more sustainable land development approach that begins with a site planning process that first identifies critical natural resource areas for preservation. Then, once the building envelope is established, LID techniques, such as maintaining natural drainage flow paths, minimizing land clearance, clustering buildings, and reducing impervious surfaces are incorporated into the project design. A series of small stormwater best management practices (BMPs) that preserve the natural features and the hydrology of the land are used instead of the conventional methods of collecting, conveying, and piping away runoff.

Massachusetts "Smart Growth/Smart Energy" Toolkit - LID Module: OPEN HERE

The facts sheets, linked in the diagram below, are just one component of the Massachusetts Low Impact Development Toolkit, produced by the Metropolitan Area Planning Council (in coordination with the I-495 Metro West Corridor Partnership and with financial support from the EPA).

Costs of Low Impact Development (Barrier Busted!): OPEN HERE

Are Low-Impact Development practices more economical than conventional practices? In many cases, the answer is yes. LID typically includes a variety of low cost elements such as bio-swales that retain rain water and encourage it to soak into the ground rather than allowing it to run off into storm drains where it would otherwise contribute to flooding and pollution problems. LID projects typically include smaller overall development footprints, reduce the amount of runoff generated and increase the amount of natural areas on a site, thereby reducing costs when compared to traditional stormwater management and flood control.

"Saving Land, Water and Money with LID", a compilation of resources by MA Audubon: OPEN HERE

"Reducing Stormwater Costs through Low Impact Development Strategies and Practices", a presentation from the EPA: OPEN HERE

Greenscapes LID Toolkit: OPEN HERE

This toolkit was created in 2019, when the Greenscapes Coalition received an MS4 Municipal Assistance Grant from MassDEP. The toolkit is a collection of resources for anyone who wants to learn more about the variety of LID projects across Massachusetts. It aims to share information and spread awareness of great projects that can be models for future projects. Municipal staff, as well as boards and committees involved in permitting development projects, should reference the LID viewer along with the LID videos when pursuing similar LID in their own communities. The sharing of information in the early stages of project planning will help communities work with developers to align the needs of a project with the needs of the environment.

"Low Impact Development for Developers and Planning Boards", a presentation from the Smart Growth/Smart Energy Toolkit: OPEN HERE

“Coastal Stormwater Management through Green Infrastructure” from the EPA: OPEN HERE

“Economic Benefits of Low Impact Development” case studies compiled by the EPA: OPEN HERE

Additional Links and LID Resources, compiled by MAPC: OPEN HERE