



A Design Guide for Implementers and Reviewers

# Low Impact Development Manual for Michigan





# Low Impact Development Manual for Michigan: A Design Guide for Implementors and Reviewers

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## Abstract

Low Impact Development (LID) is the cornerstone of stormwater management with the goal of mimicking a site's presettlement hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source. Because LID uses a variety of useful techniques for controlling runoff, designs can be customized according to local regulatory and resource protection requirements, as well as site constraints.

This manual provides communities, agencies, builders, developers, and the public with guidance on how to apply LID to new, existing, and redevelopment sites. The manual provides information on integrating LID from the community level down to the site level. It not only outlines technical details of best management practices, but also provides a larger scope of managing stormwater through policy decision, including ordinances, master plans, and watershed plans.

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Front cover (clockwise from top left):

1. Vegetated roof on East Hills Center, Grand Rapids, MI; Fishbeck, Thompson, Carr & Huber.
2. Cistern designed as a silo at Kresge Headquarters in Troy, MI; Conservation Design Forum, Inc.
3. Rain garden on former contaminated brownfield site in Grand Rapids, MI; Fishbeck, Thompson, Carr & Huber.
4. One of five rain gardens in the parking lot of the Macomb County Administration Building, Mt. Clemens, MI; Macomb County Planning and Economic Development.

Back cover (clockwise from top left):

1. Vegetated roof with recreational value on the parking deck for Blue Cross Blue Shield of Michigan, Detroit, MI; Turner Construction.
2. Bioretention area in planter box along Michigan Avenue, Lansing, MI; Tetra Tech.
3. One of 86 rain gardens that help manage stormwater runoff directly to the Au Sable River in Grayling, MI; Huron Pines.
4. The conversion of turf grass to native plantings in the Bennett Arboretum Wildflower Grow Zone, Edward Hines Park, MI; Wayne County Department of Environment.
5. System of bioretention areas designed to intercept parking lot runoff in Grand Rapids, MI; Fishbeck, Thompson, Carr & Huber.

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