

Low Impact Development

The Riverside County Flood Control and Water Conservation District employs a variety of Low Impact Development (LID) Best Management Practices (BMPs) at this facility. Instead of directing stormwater runoff from impervious surfaces (such as roofs and parking lots) to storm drains, it is directed to landscape features that collect the water and allow it to filter into the ground. BMPs help to:

- Recharge groundwater
- Reduce peak flows into the storm drain system, and by doing so, reduce erosion of local waterways
- Remove pollutants from stormwater runoff
- Reduce the cost of landscape upkeep and reduce the amount of water required for irrigation

Flows are collected and monitored for water quality improvements and stormwater volume reductions. BMP outflows will be compared to outflows from monitored control areas as well as to rainwater collected on-site. We hope to learn about the BMP performance, whether the operations and maintenance regimes specified in our LID Manuals need to be adjusted and how we can improve their design.

Throughout the facility, you will find informational signs that diagram and discuss in greater detail each BMP utilized at this facility. On the map in this brochure, the location of each sign is denoted by ✪.

Riverside County Flood Control and Water Conservation District

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M-Thurs. 7:30 am - 5:30 pm, Closed Fridays
www.rcflood.org/LIDHP.aspx

“The mission of the Riverside County Flood Control and Water Conservation District is to protect people, property and watersheds from damage or destruction from flood and storm waters and to conserve, reclaim and save such waters for beneficial use.”

Project Sponsors

Riverside County Flood Control and Water Conservation District

State Water Resources Control Board as a funding partner

Santa Ana Watershed Project Authority as a funding partner



Consultants

Civil Engineer, CValdo Corporation

Landscape Architect, RCB & Sons Corporation

Contractor, ASR

Interpretive Elements Design, Watearth

September 13, 2017

Item No. 10

Supporting Document No. 1

Low Impact Development, Water Conservation Demonstration and Testing Facility



A walking guide to this facility



Bioretention



A depressed landscape feature captures rainfall and runoff. Retained water percolates through soil to a stone reservoir. Amended soil and plant roots act as a sponge, giving plants and their root structures longer time to absorb and evapotranspire water back into the atmosphere. The soil also filters debris and pollutants from the water.

Porous Asphalt



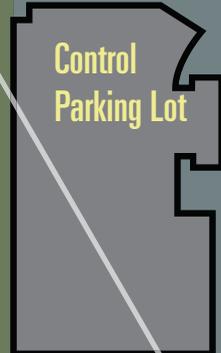
Although the parking stalls in this lot are paved in traditional asphalt, they slope toward a center strip that is surfaced with Porous Asphalt. Water passes freely through the Porous Asphalt to a stone reservoir.

Monitoring Station

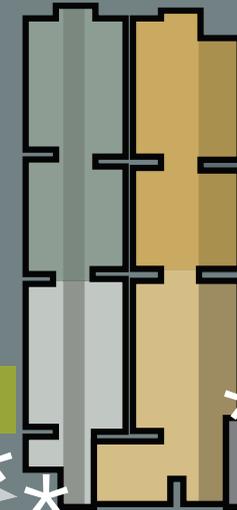


Flows from the on-site BMPs will be monitored for water quality improvements as well as stormwater volume reductions. These flows will be compared to captured rainwater and flows from monitored control areas.

★ Location of informational sign.



Control Parking Lot



Building 1a

Building 1



Control Parking Lot

Porous Concrete



The parking stalls in this lot are paved with Porous Concrete. The rest of the parking lot is made of standard asphalt that drains into the Porous Concrete parking stalls. Water passes freely through the Porous Concrete to a stone reservoir.

Planter Box



Runoff from the roofs of each building are directed into Raised Planter Boxes filled with vegetation planted in an engineered soil mix. The soil acts as a filter that captures pollutants, allowing bacterial activity in the soil to metabolize trapped pollutants.

Low Impact Development Project Overview Sign



Permeable Pavers System

Permeable Paver Systems, or modular blocks, provide a decorative hard surface suitable for walkways and parking. The blocks, which are themselves impervious, are placed in such a way that gaps, filled with porous aggregate, are created. Stormwater passes through the gaps to a stone reservoir beneath the blocks. Stormwater infiltrates into the native soil over time.

California Friendly Landscaping

Plantings in this installation make use of California friendly plants that have evolved to live easily with our soils, wildlife and climate. Approximately 210 plant markers are distributed throughout the site. They highlight approximately 100 species of plants.

