

Morton Arboretum Visitor's Center Parking Lot, Lisle, Illinois

When Morton Arboretum in suburban Chicago decided to build a new visitor's center, it also developed a new entrance, parking lot and bus passenger drop off area. The need for detention facilities to capture runoff from these areas was unacceptable to the arboretum. Permeable pavers were instead chosen to protect water quality, manage stormwater and provide a durable surface for vehicular traffic. The Arboretum wanted to implement as many best management practices as possible into their new parking lot design since runoff from the project is being monitored under the U.S. EPA Section 319 National Runoff Monitoring Program. The parking lot consists of 173,000 sf (16,000 m²) mechanically installed PICP as well as 32,000 sf (2,970 m²) of interlocking concrete pavement. Constructed in 2003 and 2004, the paving units used custom color blends selected by the Morton Arboretum staff.



Morton Arboretum in suburban Chicago expanded its parking facilities with 173,000 sf (16,000 m²) of PICPs without building detention ponds. The pavement absorbs rainfall from most rainstorms.

Indentations in the curbs allow runoff from heavy storms to overflow and seep into vegetated areas. Construction shows the open-graded, crushed stone base drainage layers under compaction equipment.



Drains are provided to remove excess water from the heaviest, infrequent rainstorms.

Three layers of open graded base enabled filtering and drainage while providing a stable structure during construction.



Typical cross-section:

3¹/₈ in. (80 mm) thick permeable interlocking concrete pavers
1¹/₂ in. (40 mm) Illinois DOT CA-16 (Class A) (10 to 1 mm) crushed stone bedding
6 in. (150 mm) Illinois DOT CA-7 (25 to 5 mm) crushed stone base
12 in. (300 mm) Illinois DOT CA-1 (63 to 25 mm) crushed stone subbase

Subgrade:

Clay soil

Construction Manager:

Hanscomb, Faithful, & Gould
Chicago, IL

Engineer:

Christopher B. Burke
Engineering West
St. Charles, IL

Landscape Architect:

Conservation Design Forum
Elmhurst, IL

General Contractor:

V3 Construction Group
Woodridge, IL