PERVIOUS PAVEMENT

FOR MORE DETAILED INFORMATION REGARDING PERVIOUS PAVEMENT SEE LINKS BELOW:

- DESIGN DETAILS
- SAMPLE SPECIFICATIONS
- MAINTENANCE REQUIREMENTS
- PERVIOUS PAVING OPTIONS/ VENDORS
- PERFORMANCE DATABASE
- REGIONAL EXAMPLES
**PERVIOUS PAVEMENT**

**SITING AND DESIGN CONSIDERATIONS**

### Contributing Drainage Area
Offsite runoff onto pervious pavement should be limited to impervious surfaces. The ratio of contributing impervious area to the pervious paver surface should not exceed 3:1. If runoff is coming from adjacent pervious areas, it is important that the area be fully stabilized.

### Siting of Facility
Each site should be considered unique. Pervious pavement systems are typically used in low-traffic areas such as: parking pads in parking lots, overflow parking areas, residential driveways, residential street parking lanes, recreational trails and emergency vehicle and fire access lanes. These systems are not recommended on sites with a slope greater than 2%.

### Load Bearing Surface
An appropriate modular porous paver should be selected for the intended application. If it is a load bearing surface, then the pavers should be able to support the maximum load.

### Insitu Soils
The surface of the insitu soils should be lined with filter fabric or an 8” layer of sand. It should be graded so it is completely flat to promote infiltration across the entire surface. Insitu soils should have field-verified, minimum permeability rates of greater than 0.5 inches per hour to a depth of 3 feet below the bottom of the stone reservoir. During construction and preparation of the subgrade, special care must be taken to avoid compaction of the soils.

### Pervious Paver Infill
The pervious paver infill selection is based upon the intended application and required infiltration rate. Masonry sand (or equal) has high infiltration rates and should be used where no vegetation is desired. A sandy loam soil has a substantially lower infiltration rate, but will provide a growth medium for vegetative cover.

### Filter Layer
The layer of filter fabric is located below the pervious paver infill and the above the storage layer: 1) Pervious pavers 2) Pervious paver infill 3) Filter fabric 4) Base course/ storage layer.

### Base Course/ Storage Layer
Regulatory requirements will determine the design storage volume. The stone aggregate used should be washed, bank-run gravel, 1.5 to 2.5 inches in diameter with a void space of approximately 40%. The gravel base course must have a minimum depth of 9 inches. The system should be constructed to infiltrate the design storm within a minimum of 48 hours (24 recommended).

### Underdrains and Overflows
Underdrains are used to provide overflow drainage for low permeable subgrades and/or for storms exceeding the design storm. If the insitu soils exhibit low permeability, the underdrain may be located in the gravel bed and the pervious pavement system will operate as a biofiltration practice. Designs need some method to convey larger storms to the storm drain system. One option is to set storm drain inlets slightly above the surface elevation of the pavement. This allows for temporary ponding above the surface if the surface clogs, but bypasses larger flows that are too large to be treated by the system.

### Depth to Water Table and/ or Bedrock
Pervious pavement systems should have a minimum of 3 feet between the bottom of the practice and the seasonally high water table or bedrock. This separation is required to maintain groundwater quality and the hydraulic capacity of the practice.
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VENDORS

The design and construction of pervious pavement is simplified by the fact that there are a number of suppliers and manufacturers who have developed pervious pavement systems. Different systems are appropriate for different design situations.

Note: This information is being provided for applicants seeking a Rice Creek Watershed District (RCWD) permit. This is not intended to be an endorsement of any of these pervious pavement suppliers or manufacturers. If there are other suppliers or manufacturers located in this region that are not identified on this web-site link please contact the RCWD at nphillips@ricecreekwd.com.

Modular Porous Paver Systems

Borgert Products, Inc.
1. UNI Eco-Stone concrete pavers
8646 Ridgewood Road
St. Joseph, MN 56374
Local: 320-363-4671
Toll free: 800-622-4952
Fax: 320-363-8516
www.borgertproducts.com

Glenn Rehbein Companies
8651 Naples Street
NE Blaine, MN 55449
Tel: 763-784-0657
Fax: 763-784-60001
www.rehbein.com

Interlock Concrete Products
1. Colonial Eco pavers
2. Turfstone®
3535 Bluff Drive
Jordan, MN  55352
Tel: 952-492-3636
Fax: 952-492-3668
www.interlock-concrete.com

Contech Construction Product, Inc.
1. Armortec®
2. Armorflex®
3. Petraflex®
11155 Chaparral Avenue
Shakopee, MN  55379
Tel: 952-496-1050
Fax: 952-496-3183
www.contech-cpi.com

EP Henry Corporation
1. Eco™Pavers – Building Green 2004 Top 10 Product
2. Monoslabs
3. Turf Pavers
201 Park Avenue, PO Box 615
Woodbury, NJ 08096
1-800-44 HENRY
www.ephenry.com

Unilock – Chicago (Midwest)
1. Dura-Mat™
2. Ecoloc®
3. Turfstone™
4. Uni Eco-Stone®
301 East Sullivan Rd.
Aurora, IL 60504
Tel: 630-832-9191
Fax: 630-892-9215
www.unilock.com

Nicolock
1. SF-Rima™
2. Turfstone™
3. Hastings CheckerBlock®
640 Muncy Avenue
Lindenhurst, NY  11757
Tel: 631-669-0700
www.nicolock.com
PERVIOUS PAVEMENT

Cellular Confinement Systems

Glenn Rehbein Companies
   1. Netlon® Turf Systems, including:
      a. Netpave 25®
      b. Netpave 50®
8651 Naples Street
NE Blaine, MN 55449
Tel: 763-784-0657
Fax: 763-784-60001
www.rehbein.com

Brock White Company
   1. Invisible Structures products, including:
      a. Grasspave2®
      b. Gravelpave2®
2575 Kasota Avenue
St. Paul, MN 55108
Tel: 651-647-0950
Fax: 651-647-0403
1-800-880-3210
www.brockwhite.com

ParTek Supply, Inc.
   1. Grassy Pavers
8470 Galpin Road
Chanhassen, MN 55317
Tel: 952-470-5828
Fax: 952-470-5101

Turf Reinforcement Systems

Geo-Synthetics, Inc.
   1. Biaxial grid
W239 N428 Pewaukee Road
Waukesha, Wisconsin  53188
Phone: 1-877-950-4474
Fax: (262) 524-7961
www.geo-synthetics.com

Glenn Rehbein Companies
   1. Netlon® Turf Systems, including:
      a. Advanced Turf®
      b. TurfGuard®
8651 Naples Street
NE Blaine, MN 55449
Tel: 763-784-0657
Fax: 763-784-60001
www.rehbein.com

Presto Products Co. – Business of Alcoa
   1. Geoblock®
670 N. Perkins Street
P.O. Box 2399
Appleton, WI  54912
Tel: 1-800-548-3424
www.prestogeo.com

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