18. Permeable Pavement

18.1. Description and Purpose

18.2. Regulatory Credit
18.2.1 Runoff Reduction
18.2.2 TSS Removal
18.2.3 Nutrient Removal
18.2.4 Built-Upon Area

18.3. Siting and Feasibility

18.4. Design
18.4.1 Design Step 1: Select the Pavement Course
18.4.2 Design Step 2: Discuss Surface Type, Maintenance and Site Use with Owner
18.4.3 Design Step 3: Lay Out the Site Drainage System
18.4.4 Design Step 4: Conduct In-situ Soil Testing
18.4.5 Design Step 5: Decide On an Infiltration or Detention System
18.4.6 Design Step 6: Design Subgrade Slope
18.4.7 Design Step 7: Design the Aggregate Base for the Design Storm
18.4.8 Design Step 8: Design for Safe Conveyance of the 10-year, 24-hour Storm
18.4.9 Design Step 9: Observation Wells
18.4.10 Design Step 10: Geogrids, (Permeable) Geotextiles and (Impermeable) Geomembranes
18.4.11 Design Step 11: Edge Restraints and Intersections of Permeable and Impermeable Pavements
18.4.12 Design Step 12: Signage

18.5. Construction
18.5.1 Construction Step 1: Ensure Acceptable Conditions for Construction
18.5.2 Construction Step 2: Excavate the Pavement Area and Prepare Subgrade Surface
18.5.3 Construction Step 3: Test the Subgrade Soil Infiltration Rate (Infiltration Systems Only)
18.5.4 Construction Step 5: Place Geotextiles and Geomembrane
18.5.5 Construction Step 6: Place Catch Basins, Observation Well(s) and Underdrain System
18.5.6 Construction Step 7: Place and Compact Aggregate Base
18.5.7 Construction Step 8: Install Curb Restraints and Pavement Barriers
18.5.8 Construction Step 9: Install Bedding and Pavement Courses
18.5.9 Construction Step 10: Protect the Pavement through Project Completion
18.5.10 Construction Step 11: As-Built Inspection
18.6. Cost

18.7. Maintenance
   18.7.1 Directions for Maintenance Staff
   18.7.2 Future Construction Projects
   18.7.3 Snow and Ice Management
   18.7.4 Testing the Pavement Surface Infiltration Rate
   18.7.5 Surface Cleaning
   18.7.6 Inspecting Observation Wells
   18.7.7 Pavement Cracking
   18.7.8 Required Operation and Maintenance Provisions

18.8 Additional Resources

18.9 References