

# HANOVER® GUIDELINE SPECIFICATION

## Paving and Surfacing

### Permeable Paving Units

**PRODUCT NAME:** Hanover® Permeable Paving Units

**MANUFACTURER:** Hanover® Architectural Products,  
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#### 1 PRODUCT DESIGN:

##### BASIC USE:

Most any area capable of being paved can utilize Hanover® Permeable Paving Units. These pressed concrete paving units provide a surface equally suited to municipal, residential, and urban projects. Installations will benefit from its appearance, slip resistant properties, and ability to withstand snow removal and freeze thaw conditions. Typical installations include plazas, driveways, courtyards, walkways, parking areas, pool areas, low speed roadways, and tree grid paving.

##### COMPOSITION AND MATERIALS:

Hanover® Permeable Paving Units are made from Portland cement, fine and coarse aggregates. These high density, hydraulically pressed concrete paving units, are manufactured to (+/-) 1/16" tolerances. Each paving unit is uniform in size, permitting easy installation of any paving pattern. Several styles, sizes, thicknesses, colors and finishes are available.

##### LIMITATIONS:

Hanover® EcoGrid®, Aqua-Loc®, Permeable 4" x 8", Permeable 4 1/2" x 9" (4 5/8" x 9 1/4") and Permeable 4" x 9" Scored are recommended for both pedestrian and low speed vehicular usage. The Permeable 3 1/4" x 18" and Permeable 12" x 18" is recommended for pedestrian use only.

#### 2 TECHNICAL DATA:

##### APPLICATION STANDARD:

Hanover® Permeable Paving Units meet or exceed ASTM specifications for concrete paving stones C936-82 requiring a minimum compressive strength of 8000 psi, maximum absorption of 5% or less at 50 cycles of freeze thaw testing per section ASTM C67.

##### PHYSICAL CHARACTERISTICS:

Hanover® Permeable Paving Units are resistant to oil spillage and diesel fuel. They have been designed with spacers on all four sides providing a uniform joint for water drainage.

##### Permeable Paving Unit Styles:

EcoGrid® -	Sized at 11 3/4" x 11 3/4" x 4", 37% open space per unit
Aqua-Loc® -	Sized at 4 1/2" x 9" x 3" with a score, 5.7% open space per unit
Permeable 4" x 8" -	Sized at 3 7/8" x 7 7/8" x 3", ADA Compliant, 6.4% open space per unit
Permeable 4 1/2" x 9" -	Sized at 4 5/8" x 9 1/4" x 3", ADA Compliant, 5.8% open space per unit
Permeable 4 1/2" x 9" Scored -	ADA Compliant, designed to be installed mechanically, 7% open space
Permeable 3 1/4" x 18" -	Sized at 3 1/4" x 18" x 4", ADA Compliant, pedestrian use only, 10% open space per unit
Permeable 12" x 18" -	Sized at 11 3/4" x 17 5/8" x 3", ADA Compliant, pedestrian use only, 4.88% open space per unit. Available with a non-bevel square edge option.

##### Permeable Paving Unit Textures/Finishes:

Natural -	close-knit surface, fine grain appearance
Tudor® -	lightly exposed aggregate, surface with a courser texture
Tumbled -	worn stone effect, aged appearance
Chiseled -	slightly chipped surface, rough edges

Hanover® Permeable Paving Unit thicknesses range from 3" - 4". Not all sizes are available in all thicknesses.

### **3 INSTALLATION:**

Best Management Practices (BMPs) are defined by the EPA as a "technique, measure or structural control that is used for a given set of conditions to manage the quantity and improve the quality of stormwater runoff in the most cost-effective manner." In other words, they are techniques used to manage stormwater and improve water quality. LEED credits can be earned by complying with EPA Best Management Practices. The USGBC addresses stormwater management in two separate credits, one relating to the quantity of water that runs off a building site and other dealing with the quality of the water.

Requirements and regulations are different for each municipality. Contact your municipality for specific installation instructions. An industry professional should be consulted to develop a specification for the individual project in accordance with the municipal requirements.

### **EDGE RESTRAINTS:**

Adequate edge restraints and a properly prepared base are essential to the successful performance of Hanover® Permeable Paving Units. Edge restraints can be steel, PVC, Hanover® RockCurb® or another system specifically designed to restrain concrete pavers.

### **4 AVAILABILITY AND COST**

#### **AVAILABILITY:**

Hanover® Permeable Paving Units are readily available in the continental United States. Custom colors are available when quantities permit. For further information call Hanover® Architectural Products, Inc.

#### **COST:**

Cost will vary depending upon paver sizes, finish, color and quantity ordered.

### **5 WARRANTY**

Hanover® Architectural Products, Inc. will certify specific pavers to meet or exceed internal standards as well as previously stated ASTM performance standards.

### **6 MAINTENANCE**

Hanover® Permeable Paving Units require practically no maintenance if installed properly. Degree of soiling and staining will depend on type and amount of use over time. Contact manufacturer for information regarding sealing and cleaning of paving units.

### **7 TECHNICAL SERVICES**

Complete technical information and printed literature from manufacturer.

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