

Note to Specifiers: This specification for Perm Edge has been provided in CSI format. Contact SEK-Surebond at (800) 932-3343 for other formats you may require.

This Permeable Paver Edge Restraint section is intended to incorporate the specific elements that make up a good quality product and calls out some installation methods that help produce a good quality installation. The format should be modified to fit within the larger set of specifications used on your project. The specifications for Permeable Paver Edge Restraint are often not freestanding, but are included into the Materials, Submittal, Installation or other portions of the sections on Unit Paving.

SECTION 1 - PERMEABLE PAVER EDGE RESTRAINT

PART 1 - GENERAL

1.01 SUMMARY

- A. **Section Includes:** Furnishing of all labor, materials, services and equipment necessary for the supply and installation of versatile reinforced paver edge restraints adjacent to concrete pavers as indicated on drawings and as specified herein.
- B. **Related Sections:**
1. Section 02783 - Interlocking Concrete Unit Paving
 2. Section 02780 - Clay Unit Pavers
 3. Section 03100 - Concrete Work

1.02 REFERENCES

- A. **Applicable Standards:** The following standards are referenced herein.
1. American Society for Testing and Materials (ASTM)

1.03 SYSTEM DESCRIPTION

- A. **Permeable Paver Edge Restraint** - flexible paver edging attached to geogrid, made of 100% recycled high density polyethylene (HDPE) for permeable pavers.

1.04 SYSTEM PERFORMANCE REQUIREMENTS

- A. **Testing Requirements:** Permeable Paver Edge Restraint shall be tested in accordance with the following standards and conditions, and the testing results shall meet or exceed the performance requirements as specified herein.

- B. **Independent Laboratory:** Testing shall be performed by an independent laboratory meeting the requirements of ASTM E 329-95 and certified by the United States Bureau of Standards. Testing laboratory shall obtain all concrete samples and edge restraint samples.

1.05 SUBMITTALS

- A. **General:** Submit listed submittals in accordance with conditions of the Contract and with Division 1 Submittal Procedures Section.
- B. **Product Data:** Submit product information, including manufacturer's specifications, installation instructions, manufacture's recommendations, and manufacturer's certification or other data substantiating the product complies with requirements of these Contract Documents.
- C. **Manufacturer's Certification:** Provide certificates signed by manufacturer or manufacturer's representative certifying that the materials to be installed comply in all respects with the requirements of this specification.
- D. **Installer:** The installer shall provide a list of projects, including references with contact information, demonstrating at least 5 years of experience in the installation of paver edging or similar materials.

1.06 QUALITY ASSURANCE

- A. **Manufacturer:** The manufacturer shall have no less than 20 years experience in manufacturing paver edge restraints.
- B. **Installer:** The installer shall demonstrate to the satisfaction of the Architect/Engineer an acceptable level of experience in the installation of the permeable paver edging or similar products.
- C. **Pre-Installation Conference:** Prior to installation of permeable paver edging, conduct meeting with the installer, general contractor and Architect/Engineer, owner's representative, and permeable paver edging manufacturer's representative to verify and review the following:
1. Project requirements for materials and installation as set out in Contract Document.
 2. Manufacturer's product data including application instructions.

3. General site conditions, schedule, coordination with other activities, line and grade of the work, substrate conditions, procedures for substrate preparation and installation.

1.07 DELIVERY, STORAGE AND HANDLING

- A. **Delivery:** Deliver materials to project site undamaged on a well organized pallet.

1.08 MATERIALS

- A. The material shall be 8 foot long paver edging segments permanently attached to geogrid, capable of being used for both straight and curved edges.
- B. The material shall be 100% recycled HDPE.
- C. The product shall be manufactured as permeable paver edge restraint.
- D. The material shall comply with the criteria in 1.04 of this section.
- E. The material shall be one piece design with snip and bend for inside and outside curves.
- F. The material shall be of open base design.
- G. The material will contain an buttress reinforced sidewall.
- H. The material will have nail boss guides every 4 inches.
- I. The material will have integral connector piece to piece.
- J. The material shall have a 4'x8' piece of geo grid attached by ultrasonic weld for anchoring the edge restraint.
- K. The material shall be a spikeless system.

1.09 PROJECT CONDITIONS

- A. Excavate area the depth required to meet design criteria and extend 6" past (outside) the edge of the paving stones.
- B. Install soil separation fabric along the sides of the excavation with a minimum of 12" of additional fabric extending past the top of the excavation.
- C. Install stone base into excavated area:
 1. 1st layer - minimum of 6" thick ASTM 2 open graded stone.
 2. 2nd layer - 4" thick ASTM 57 open graded stone.
 3. Install stone setting bed on top of stone base.
 4. 1½-2" thick of ASTM 8 aggregate.

1.10 EXECUTION

- A. Fold soil separation fabric over top of the setting bed and under permeable paver edging and first paver.
- B. Install permeable paver edging by starting on one side of pavement area.
- C. Ensure that permeable paver edge restraint sits on top of the soil separation fabric flap that lies on top of the setting stone.
- D. Use $\frac{3}{8}$ foot spikes to temporarily hold permeable edging in place.
- E. Unfold grid and extend it full length into the pavement area. Be sure to lay grid evenly over setting bed stone, insuring there are no folds/wrinkles in the grid.
- F. Installing the permeable edging with a radius will require that back support of the permeable paver edging be cut as well as the grid slit in even 12-18" increments, perpendicular to the edging. Tighter radius will require shorter increments (more slits in grid).
- G. Install the paving stones in the desired pattern on top of grid along paver edging.
- H. Extend the field of pavers out from the first edge to approximately 6' away from the other desired edge. Stop laying pavers at this point.
- I. Locate 2nd edge per the module, spiking down the permeable paver edging temporarily on that side.
- J. Prepare fabric similar to the other side as detailed in step C.
- K. Once 2nd permeable edging is located and secure, continue to install paving stones towards second edge.
- L. Make any required paving stone cuts. Complete remaining paver installation.
- M. Backfill permeable edge with soil to the top of the pavement as soon as practical.
- N. Compact paving stones with appropriate plate compactor.
- O. Fill pavement voids with appropriate, open graded stone chips.
- P. Remove all temporary spikes from permeable paver edging.

END OF SECTION