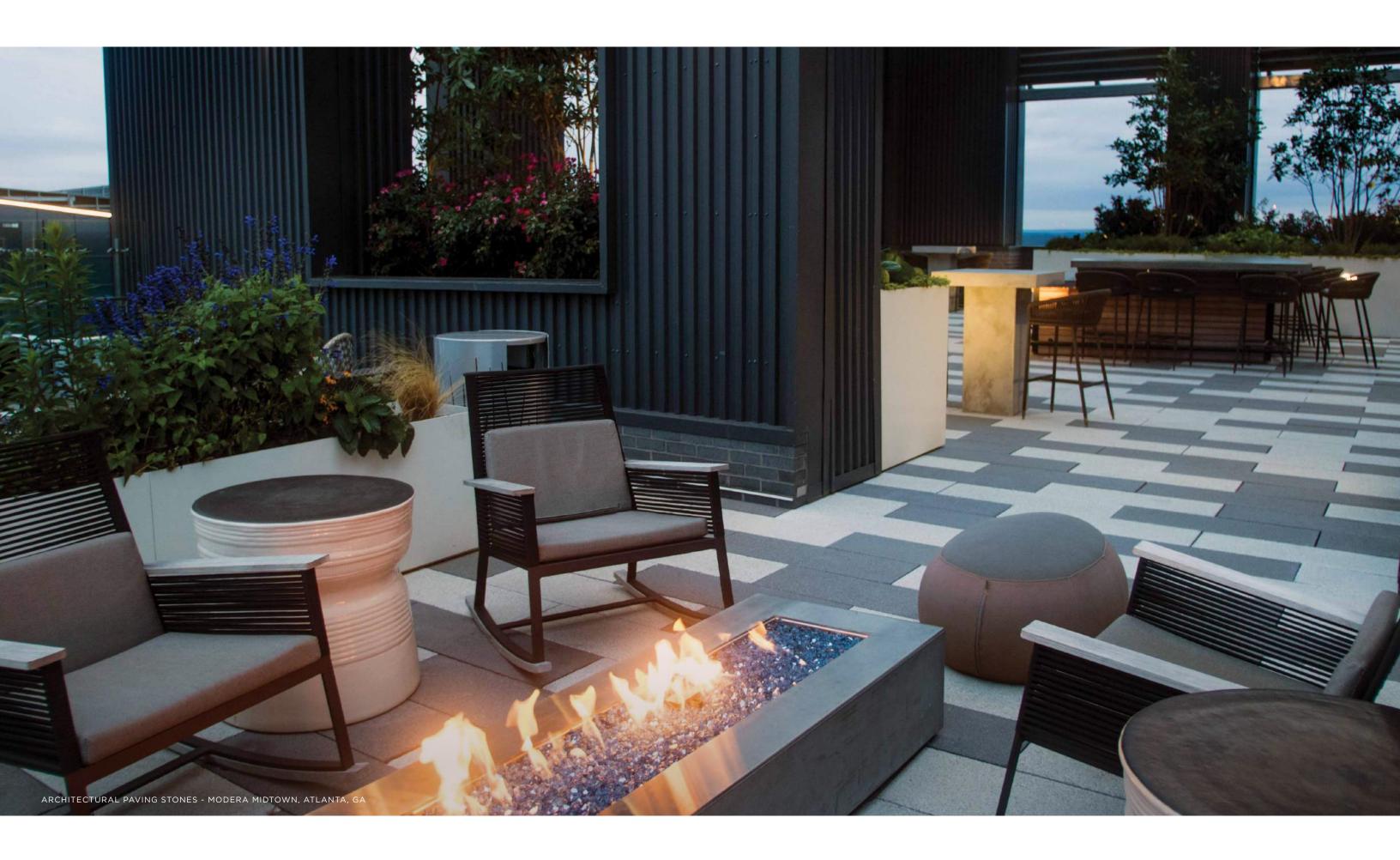
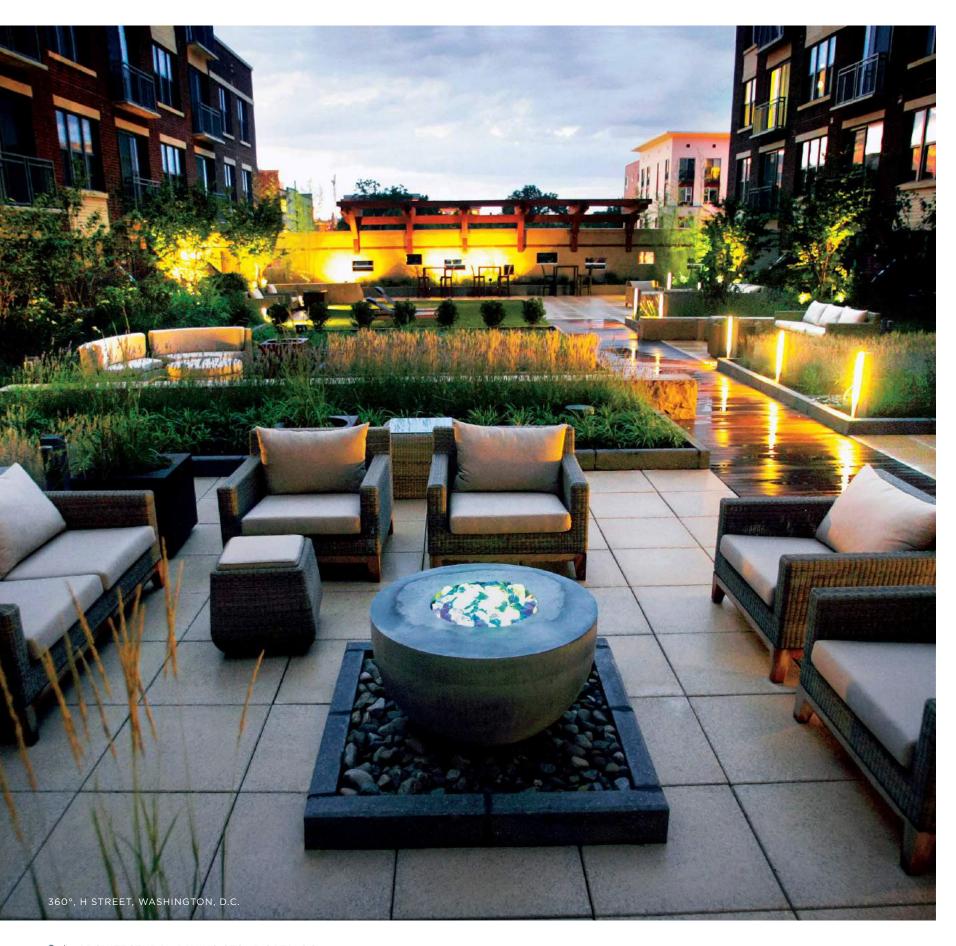


PRODUCT CATALOG







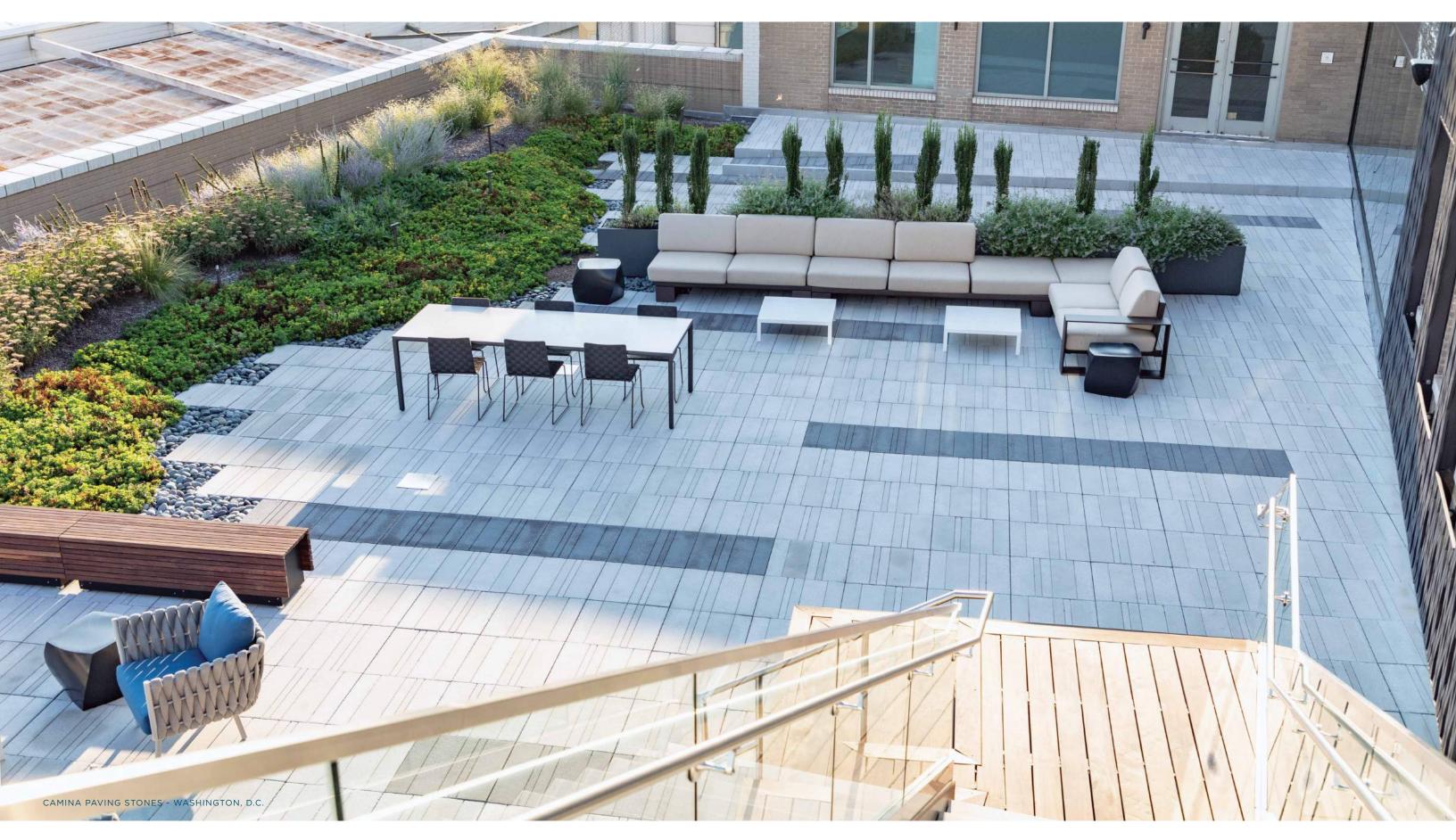
# ARCHITECTURAL PAVING STONE

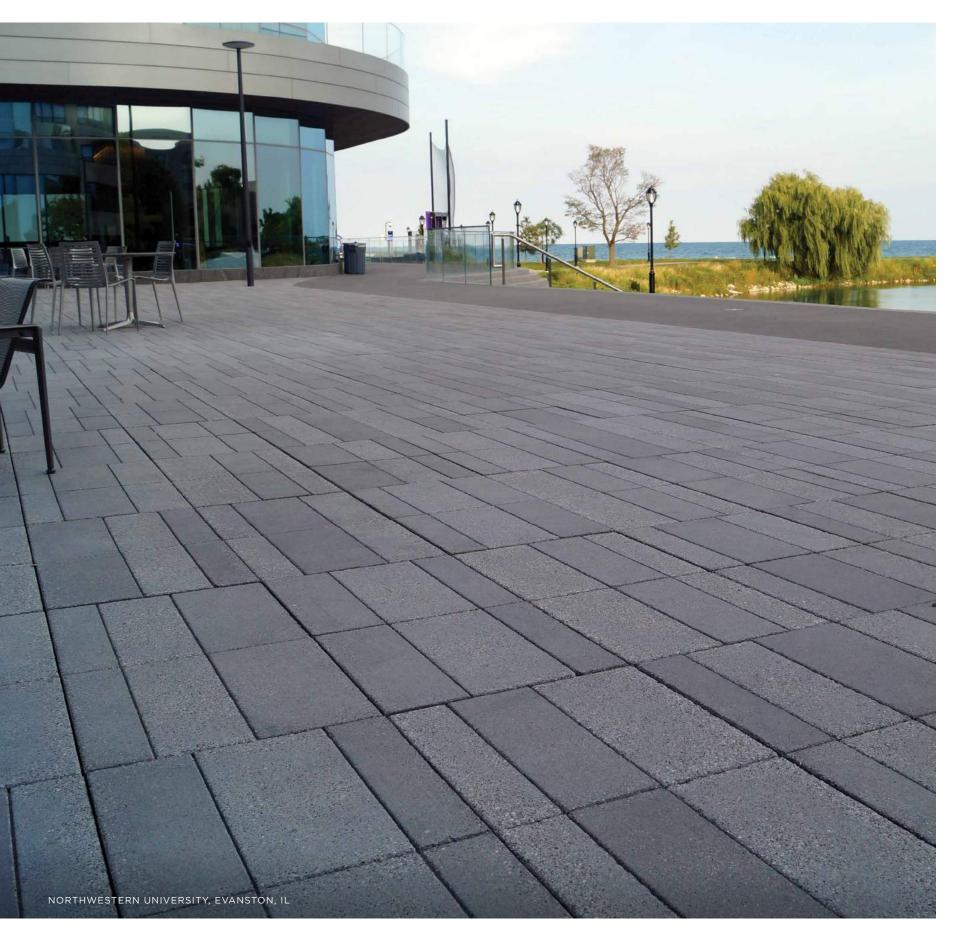
Nitterhouse's high strength Architectural Pavers combine durability with the natural beauty of aggregates showing throughout the product and finish. Our Architectural Pavers are produced to achieve an architectural uniform appearance while mimicking natural materials. We offer many color options to complement any project's aesthetic.

All sizes are 17/8" thick. Other thicknesses are available upon request. Beveled edges standard, square edges available upon request. Special sizes available upon request. Color options on Page 16.

**DIMENSIONS:** 12" x 12" 24lbs 18" x 24" 72lbs

12" x 24" 48lbs 24" x 24" 97lbs 12" x 36" 74lb 24" x 30" 123lbs 18" x 18" 54lbs 24" x 36" 145lbs





## CAMINA PAVING STONE

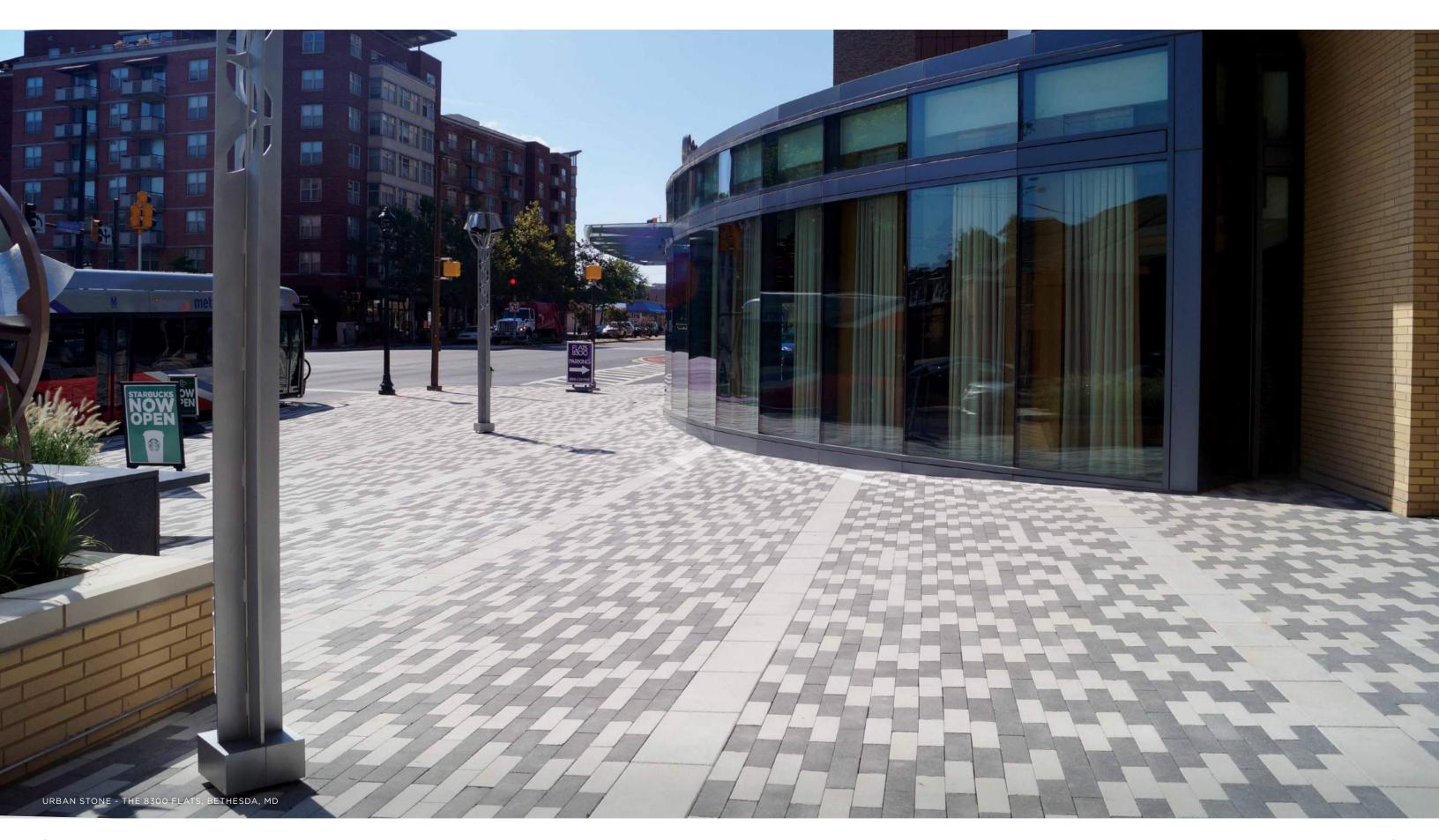
Our Camina paving stone's signature grooves offer a unique linear look. The dimensions between the grooves are completely customizable. The Camina paver can have two different finishes on the face which creates variations of color on the paving stone to add to the overall project's design. This paver is sure to set your creative imagination on fire when designing your next project whether it is outside of an apartment building or a new shopping plaza our Camina paver will be the perfect addition to any project.

All sizes are 17/8" thick. Other thicknesses are available upon request. *Color options on Page 16.* 

**DIMENSIONS:** 12" x 12" 24lbs 24" x 24" 97lbs

12"x 24" 48lbs 24"x 30" 123lbs 18"x 18" 54lbs 24"x 36" 145lbs

18"x 24" 72lbs





### URBAN STONE

With its many variations in color and size, Urban Stone is a plank style paver that is unmatched in its design versatility. Urban Stone just like our other architectural paving stones is made with superior quality concrete strength that is durable and long lasting.

More sizes and colors available please contact your Nitterhouse representative. Urban Stone square edges standard.

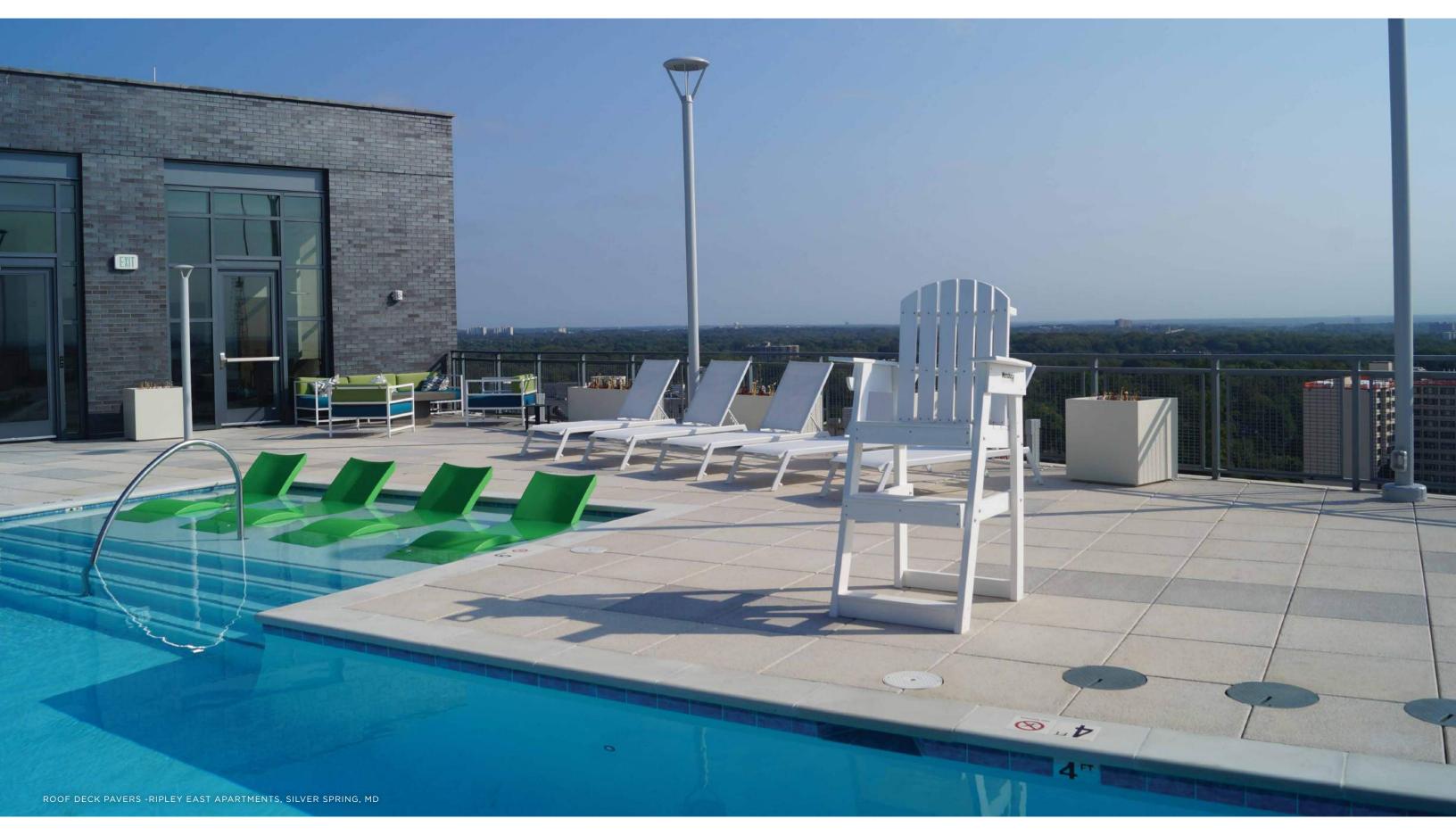
Color options on Page 16.

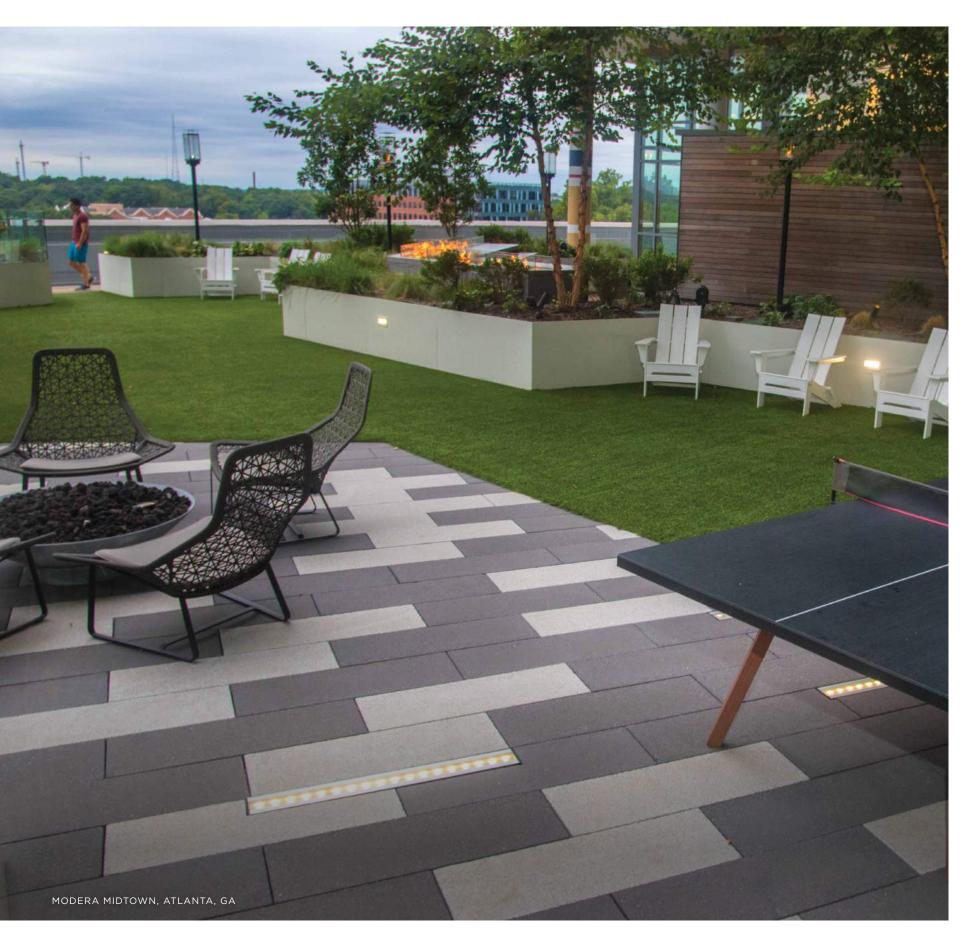
```
      DIMENSIONS:
      4"x 12"x 3 1/8"
      13lbs
      4"x 12"x 2"
      8lbs

      4"x 18"x 3 1/8"
      19.5lbs
      4"x 18"x 2"
      12lbs

      4"x 24"x 3 1/8"
      26lbs
      4"x 24"x 2"
      16lbs

      New - 6"x 12"x 3 1/8"
      17lbs
```





## PLAZA & ROOF DECK PAVERS

Extend outdoor living and commercial space with our plaza pavers manufactured with the same high strength and superior quality concrete as our architectural pavers. Nitterhouse plaza and roof deck pavers are designed to be either pedestal set or fully supported.

"12"x 24" bullnose pool coping and engraving available.
All sizes are 1 7/8" thick. Other thicknesses are available upon request.
Beveled edges standard, square edges available upon request.
Color options on Page 16.

 DIMENSIONS:
 12"x 12"
 24lbs
 24"x 24"
 97lbs

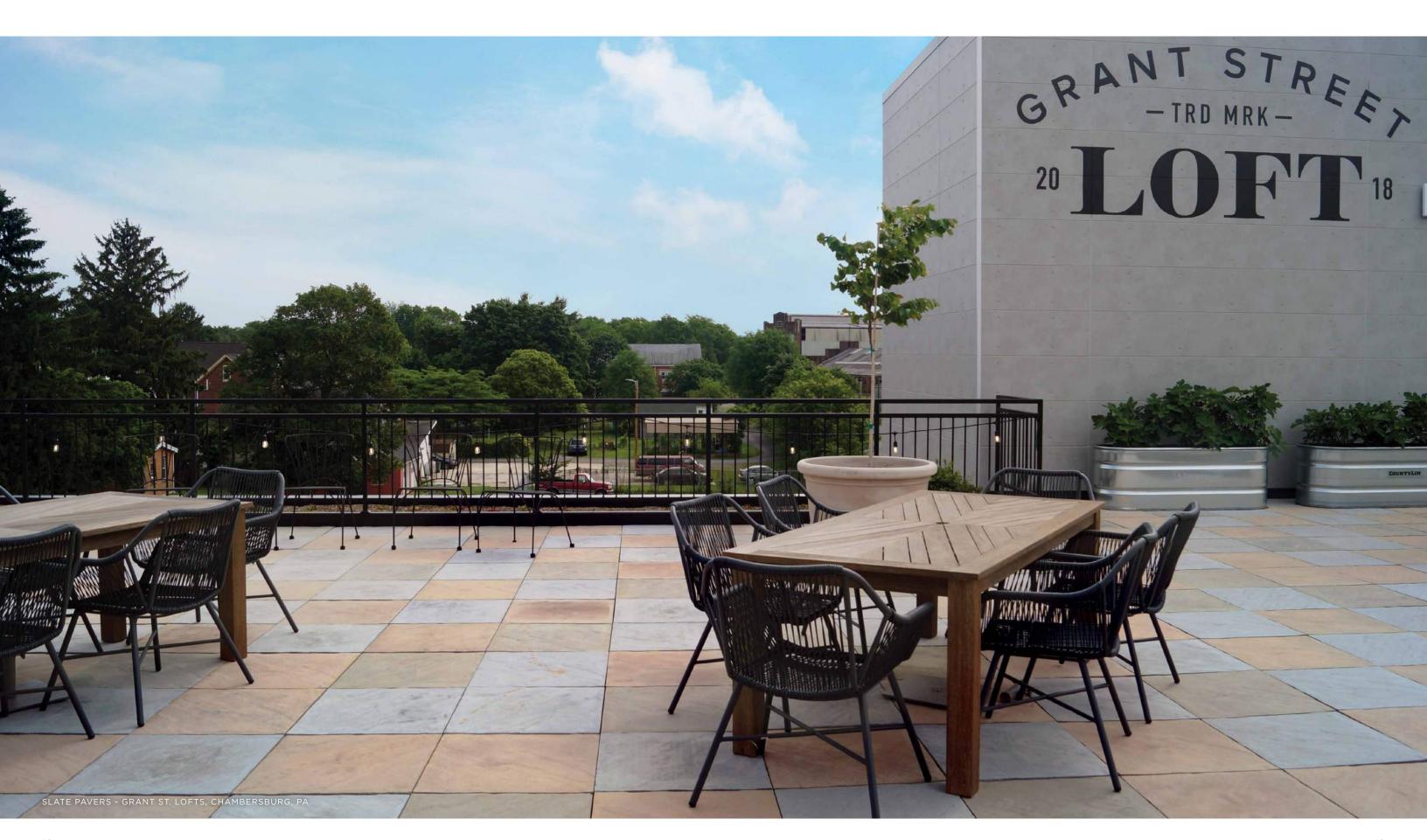
 12"x 24"
 48lbs
 24"x 30"
 123lbs

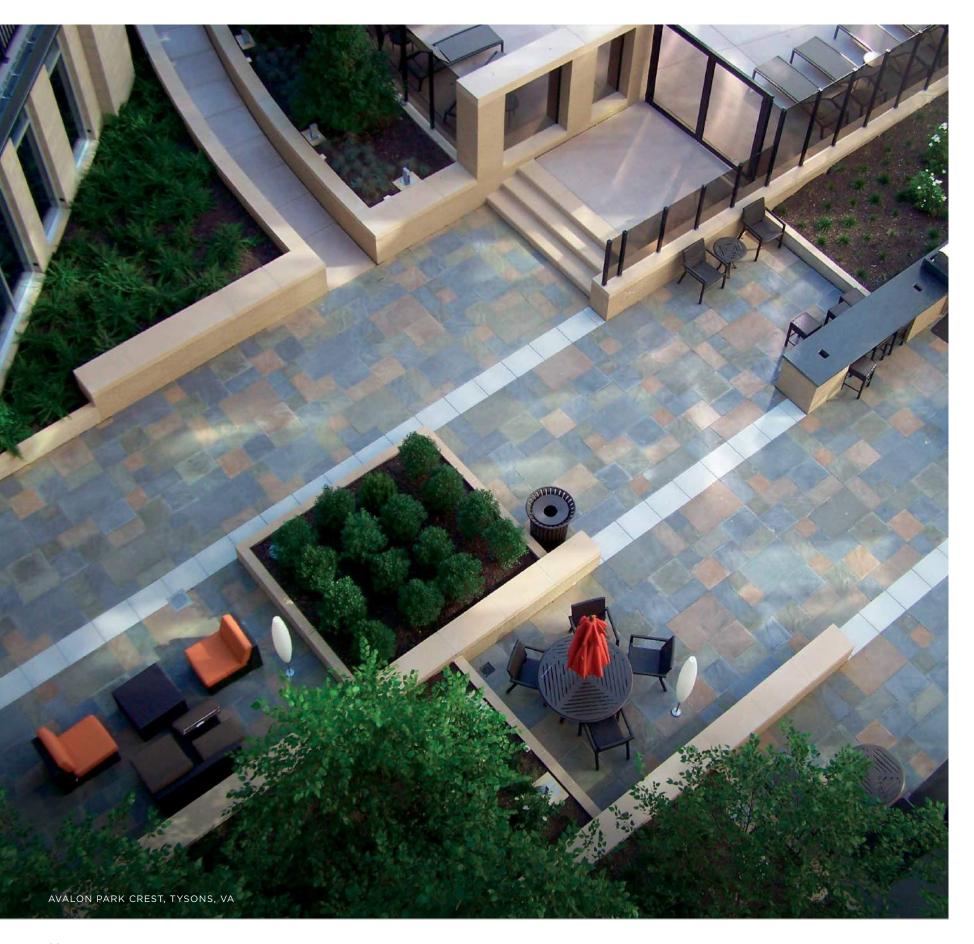
18"x 18" 54lbs 24"x 36" 145lbs

18"x 24" 72lbs



This sample is presented as a general representation of the product. Color of pieces will vary slightly from sample. Contact your Nitterhouse representative, 717-267-4500 for a physical sample.





## SLATE PAVERS

Get the look and texture of real slate along with the added strength of concrete with our machine pressed slate concrete paving stones. They are great for projects of all sizes both residential and commercial. All colors come in a natural finish. Sealing will enhance the color of the product. All sizes feature square edges, straight sides and consistent thickness.

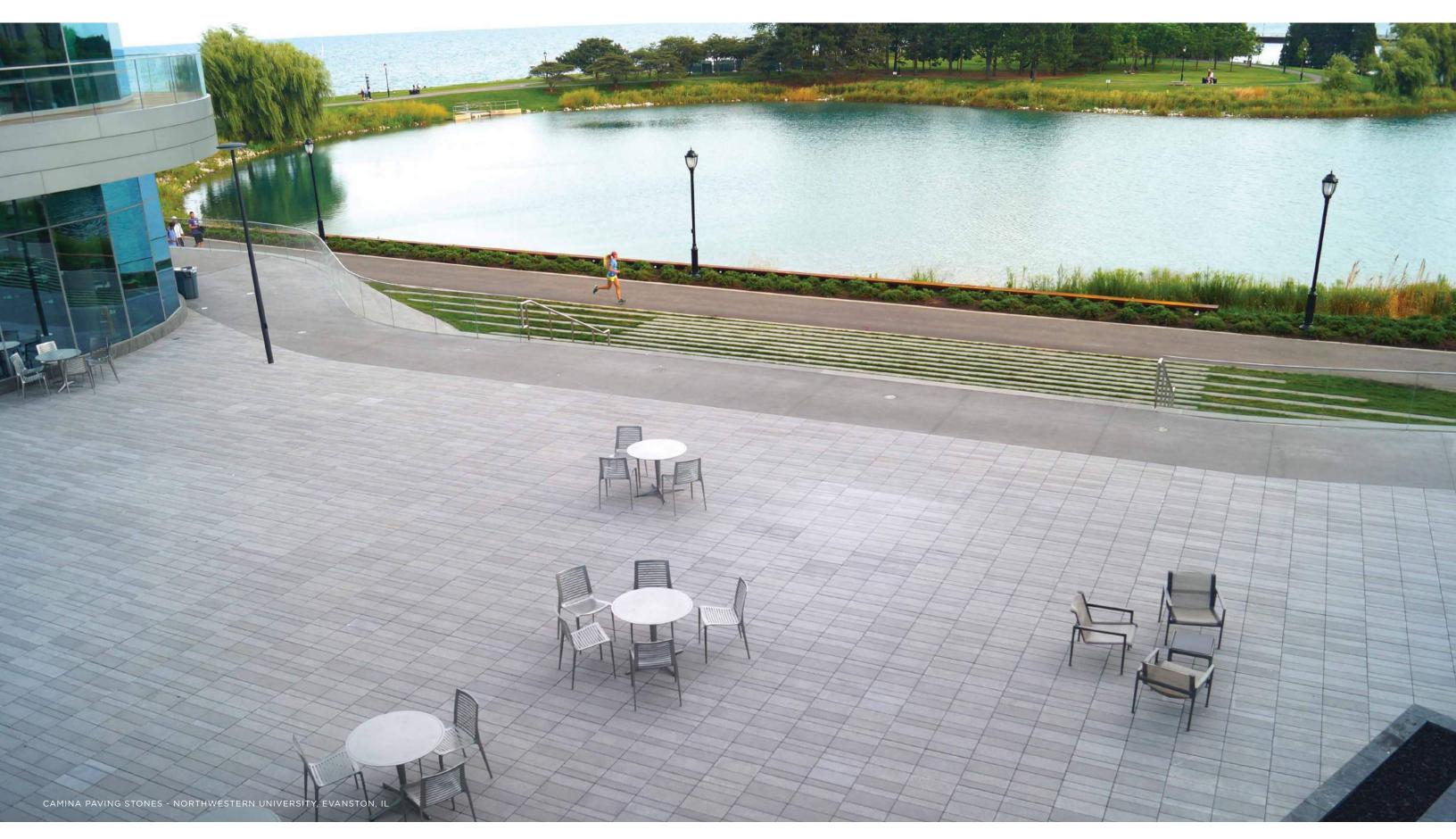
**DIMENSIONS:** 12"x 12"x 2" 24lbs 18"x 24"x 2" 72lbs

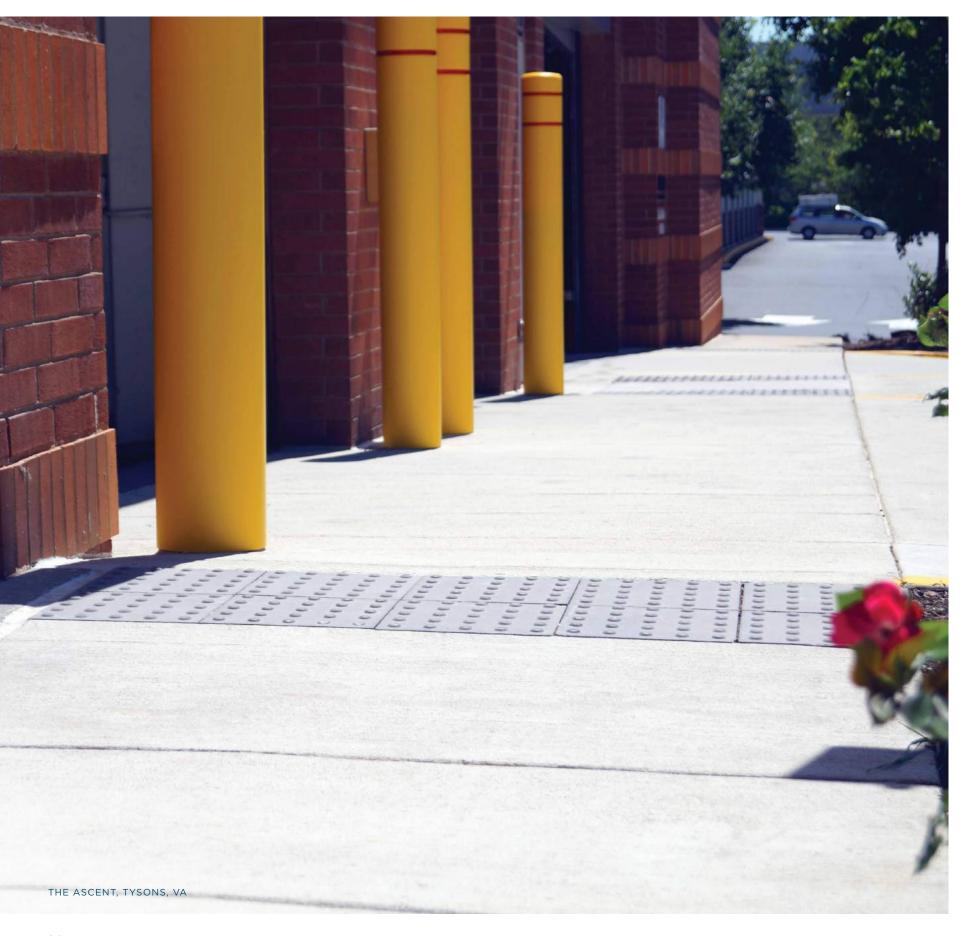
12"x 24"x 2" 48lbs 24"x 24"x 2" 96lbs 18"x 18"x 2" 54lbs 24"x 36"x 2" 145lbs











### VIP PAVERS

Our VIP Pavers for visually impaired pedestrians are compliant with the ADA Act. Nitterhouse's VIP Pavers are highly durable, functional pavers. The top surface of each VIP Paver has raised truncated domes which create a textured surface treatment. These pavers alert those with limited or impaired vision to changes in their paths of travel, such as curbs, drop-offs, and other potential hazards ahead.

**DIMENSIONS:** 12" x 12" x 2" 24lbs 24"x 24"x 2" 96lbs



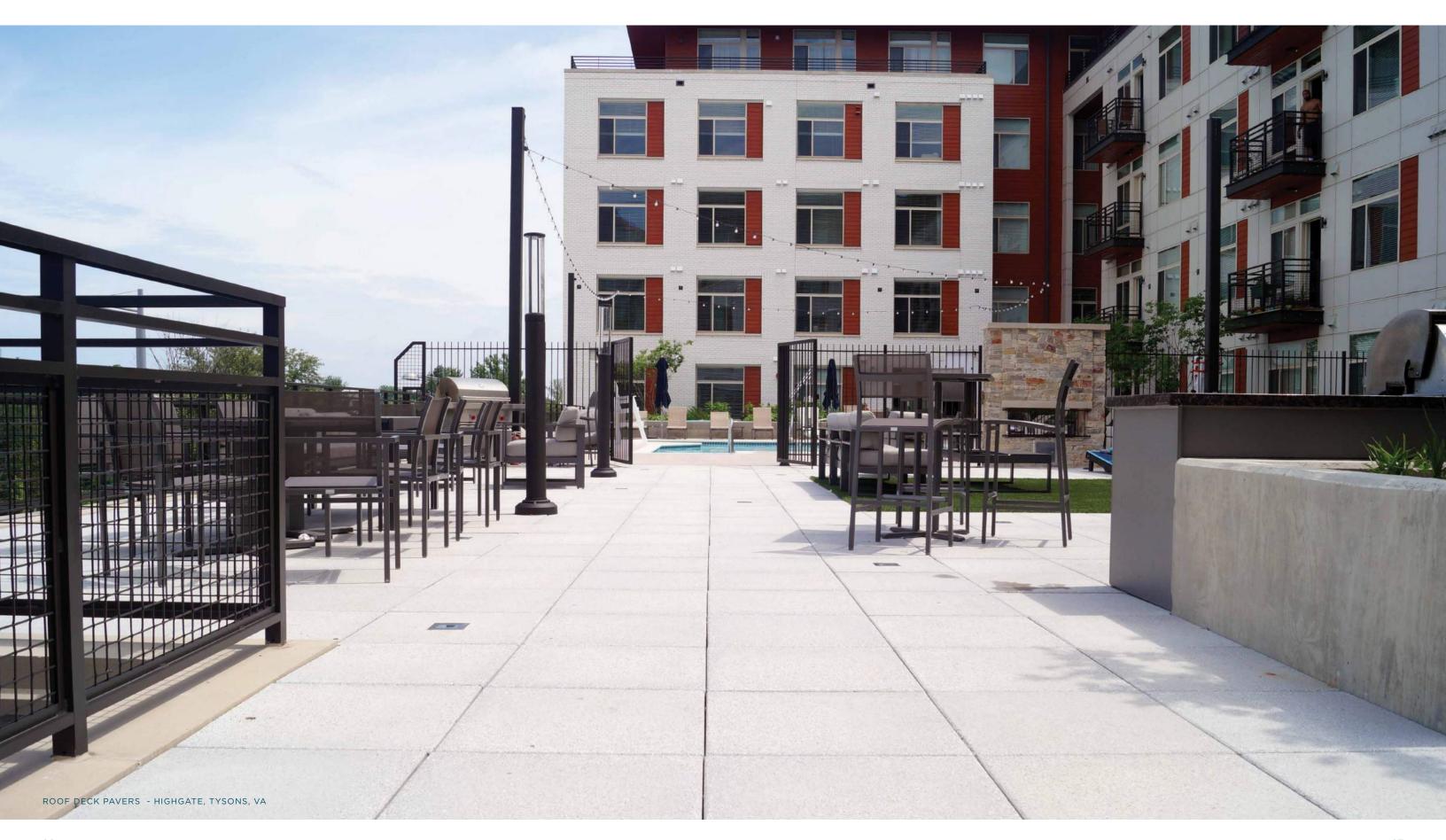












## ARCHITECTURAL PAVING STONES- SPECIFICATIONS

#### **SECTION 02780 Specifications for Unit Paving Stones**

#### **PART 1 - GENERAL**

#### 1.01 SECTION INCLUDES

- A. Concrete paver units. [Concrete paver edge units.]
- **B.** Bedding and joint sand.
- C. Edge restraints.

#### 1.02 RELATED SECTIONS

- A. Section: [ ] Curbs and Drains.
- **B.** Section: [ ] Aggregate Base.
- C. Section: [ ] Cement Treated Base.
- D. Section: [ ] Asphalt Treated Base.
- **E.** Section: [ ] Pavements, Asphalt and Concrete.
- F. Section: [ ] Roofing Materials.
- **G.** Section: [ ] Bitumen and Neoprene Setting Bed, Acrylic Fortified Mortar Setting Bed.
- H. Section: [ ] Geotextiles.

#### 1.03 REFERENCES

Note: Use the latest editions of the references.

- **A.** American Society of Testing and Materials (ASTM):
- 1. C 33, Specification for Concrete Aggregates.
- 2. C 136, Method for Sieve Analysis for Fine and Coarse Aggregate.
- 3. C 140, Sampling and Testing Concrete Masonry Units.
- 4. C 144, Standard Specification for Aggregate for Masonry Mortar.
- C 936, Specification for Solid Interlocking Concrete Paving Units.
- 6. C 979, Specification for Pigments for Integrally Colored Concrete.
- 7. D 698, Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 5.5-lb (2.49 kg) Rammer and 12 in. (305 mm) drop.
- 8. D 1557, Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 10-lb (4.54 kg) Rammer and 18 in. (457 mm) drop.

#### 1.04 QUALITY ASSURANCE

- **A.** Installation by a contractor and crew with at least one year of experience in placing concrete pavers on projects of similar nature or dollar cost.
- **B.** Contractor shall conform to all local, state/provincial, federal licensing and bonding requirements.

#### 1.05 SUBMITTALS

- A. Shop or product drawings, and product data.
- **B.** Full size samples of concrete paving units to indicate color and shape selections. Color will be selected by Architect/Engineer/Landscape Architect/Owner from manufacturer's available colors.

**C.** Indicating drawing layout, pattern, and relationship of paving joints to fixtures and project formed

#### 1.06 MOCK-UPS

- A. Install a (4 ft. x 4 ft.) paver area
- **B.** This area will be used to determine surcharge of the bedding sand layer, joint sizes, lines, laying pattern(s), color(s), and texture of the job.
- **C.** Approved buy the engineer/architect and shall be the standard from which the work will be judged.
- **D.** Approved area shall be included in the work.

#### 1.07 DELIVERY, STORAGE, AND HANDLING

- **A.** Deliver concrete pavers to site in steel banded, plastic banded, or plastic wrapped cubes on wooden pallets capable of transfer by fork lift.
- **B.** Unload pavers at job site in such a manner that no damage occurs to the product.

#### 1.08 ENVIRONMENTAL CONDITIONS

- **A.** Do not install sand or pavers during heavy rain or snowfall.
- **B.** Do not install sand and pavers over frozen base materials.
- C. Do not install frozen sand.

#### **PART 2 - PRODUCTS**

#### 2.01 CONCRETE PAVERS

Paving Stone Supplier supplier shall be:

Nitterhouse Masonry Products LLC 859 Cleveland Ave. Chambersburg, PA. 17201 Phone 717-267-4570 Fax 717-267-4527

#### **TECHNICAL DATA**

- A. Architectural Paving Stones
- **B.** Product name(s)

shape(s),

color(s),

overall dimensions of the paver(s):

Furnish pavers meeting the following requirements:

Compressive Strength: Average compressive strength of 55 MPa (8,500 psi) with no individual unit under 50 MPa.

Absorption: Average absorption of less than 5% - tested in accordance with ASTM C 140.

Flexural Strength: The paver stones have an average flexural strength of 870 PSI - tested in accordance with NCMA testing procedures min. required strength 650 psi.

Freeze-Thaw Durability: Less than 1% weight loss - ASTM C 1262

Weight: 24.5 lbs./sq. ft. based 2" on standard thickness.

Cement: Portland Cement conforming to ASTM C-150.

**Pigments:** Use pigment conforming to ASTM C 979.

#### 2.04 EDGE RESTRAINTS

Note: Edge Restraints various types.

**A.** Concrete, Plastic, Wood, Metal. Any that will restrain the pavers from moving laterally.

#### **PART 3 - EXECUTION**

#### 3.01 EXAMINATION

Note: For installation on a compacted aggregate base and soil subgrade, the specifier should be aware that the top surface of the pavers may be 3 mm (1/8") above the final elevations after installation. This difference in initial and final elevation is to compensate for possible minor settling.

**A**. Verify that subgrade preparation, compacted density and elevations conform to the specifications.

Note: Compaction of the soil subgrade to at least 95% Standard Proctor Density per ASTM D 698 is recommended. Stabilization of the subgrade and/or base material may be necessary with weak or saturated subgrade soils. The Architect/Engineer should inspect subgrade preparation, elevations, and conduct density tests for conformance to specifications.

- **B.** Verify that geotextiles, if applicable, have been place according to specifications.
- **C.** Verify that aggregate base materials, thickness, compaction, surface tolerances, and elevations conform to the specifications.

Note: Local aggregate base materials typical to those used for flexible pavements are recommended, or those conforming to ASTM D 2940. Compaction to not less than 95% Proctor Density in accordance with ASTM D 698 is recommended for pedestrian areas. The aggregate base should be spread and compacted in uniform layers not exceeding 150 mm (6 in.) thickness. Recommended base surface tolerance should be plus or minus 10 mm (3/8 in.) over a 3 m (10 ft.) straight edge.

Note: The Architect/Engineer should inspect geotextile materials and placement (if applicable), base preparation, surface tolerances, elevations, and conduct density tests for conformance to specifications prior to installation.

Note: Mechanical tampers are recommended for compaction of soil subgrade and aggregate base around lamp standards, utility structures, building edges, curbs, tree wells and other protrusions. In areas not accessible to roller compaction equipment, compact to specified density with mechanical tampers.

Note: Mechanical plate compactors are not to be used on architectural paving stones.

- **A.** Verify location, type, installation and elevations of edge restraints around the perimeter area to be paved.
- **B.** Install edge restraints per the drawings [and manufacturer's recommendations][at the indicated elevations].
- **C.** Verify that base is dry, uniform, even, and ready to support sand, pavers, and imposed loads.
- **D.** Beginning of bedding sand and paver installation means acceptance of base and edge restraints.
- **E.** Verify that base is dry, uniform, even, and ready to support sand, pavers, and imposed loads.

**F.** Beginning of bedding sand and paver installation means acceptance of base and edge restraints.

#### **3.02 INSTALLATION**

#### **SAND SET PAVERS**

- **A.** Spread the sand evenly over the base course and screed to a nominal 25 mm (1 in.) thickness, not exceeding 40 mm (1.5 in.) thickness. The screeded sand should not be disturbed. Place sufficient sand to stay ahead of the laid pavers. Do not use the bedding sand to fill depressions in the base surface.
- **B.** Ensure that pavers are free of foreign material before installation.
- **C.** Lay the pavers in the pattern(s) as shown on the drawings. Maintain straight pattern lines.
- **D.** Pavers shall be laid hand tight.
- **E.** A rubber mallet shall be used to adjust the pavers into final position.

Note: Do not use a plate or any other compactor on the pavers all adjustments are to be made by hand or a rubber mallet only.

- **F.** Fill gaps at the edges of the paved area with cut pavers.
- G. Cut pavers to be placed along the edge with a masonry saw.
- **H.** The final surface elevations shall not deviate more than 10 mm (3/8 in.) under a 3 m (10 ft.) long straightedge.
- I. The surface elevation of pavers shall be 3 to 6 mm (1/8 to 1/4 in.) above adjacent drainage inlets, concrete collars or channels.

#### PORTLAND / MORTAR SET PAVERS

- **A.** It is recommended that the pavers should have a concrete subbase of 4" minimum. The top elevation of the concrete subbase shall be no more than  $2^{1/2}$ " from final paver elevation.
- **B.** Portland and bedding sand mixed at a ratio of 3 parts sand to 1 part Portland. This shall mixed with water to form a mix typical of that which is used in laying brick.
- **C.** Place the pavers hand tight on the wet mortar and tamp into place.

Note: It may be necessary to pre-wet the back of the paver prior to installing it. Consult manufacturer for further information in installation.

#### PEDESTAL SET PAVERS

A. Pavers set on pedestals or otherwise corner / edge supported should have a minimum of 2" of support. If a paving unit has a crack present it should not be replaced. These pavers are designed to support pedestrian traffic. They are not designed to handle any type of vehicular traffic.

#### **TOLERANCES:**

These paver stones are hydraulically pressed to create a high density concrete unit and are manufactured to 1/8" tolerance in any direction.

#### **FINISH:**

Our "Antique" finish is design to give the paver stones a look and feel of natural stone for an architectural appearance. This finish exposes the stone showing the natural matrix of the paver. All paver stones have beveled edges.



