SECTION 32 1400
COMPOSITE PAVER CONCRETE & WOOD RESURFACING

This specification is for the resurfacing of a concrete patio, walkway, or wood deck for non-vehicle use. It is provided as a courtesy on an as-is basis and is not intended to substitute for specific design services provided by an architect, engineer, roof consultant, or other design professional. It is in the property owner's interest to consult with these professionals prior to executing the specified project. The property owner will ultimately assume the entire risk as to results, quality, and performance of the system specified.

EDITOR'S NOTE: Text underlined and/or red in color must be addressed to complete a final specification document. It is the sole responsibility of the editor to exercise appropriate care and sound professional judgment in the execution of this task.

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. Aspire Composite Paver System (manually installed).
2. Edge Restraints.

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM C 67, Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile, Section 8 and 9, Freezing and Thawing.
2. ASTM C 140, Section 6 and 7, Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units.
3. ASTM C 1028 Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces

1.03 SUBMITTALS

A. In accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.

B. Aspire Paver System drawings and details: Indicate perimeter conditions, relationship to adjoining materials and assemblies, expansion and control joints, paver and grid layout, patterns, color arrangement, installation and setting details.

C. Aspire Composite Paver System:

1. A 16"x16" grid of pavers representing full-size samples of each paver size and color. Color(s) selected by [Architect] [Engineer] [Landscape Architect] [Owner] from manufacturer's available colors.
2. Accepted samples become the standard of acceptance for the work.
3. Aspire Composite Pavers' documentation of pavers meeting applicable ASTM standards.
4. Aspire Composite Pavers' catalog product data, installation instructions, and safety data sheet (SDS) for the safe handling of the specified materials and products.

D. Paver Installation Contractor:

1. Verification of receiving installation training from Aspire Composite Pavers.
2. Job references from projects of a similar size and complexity. Provide Owner/ Client/General Contractor names, postal address, phone, fax, and email address.

1.04 QUALITY ASSURANCE

A. Paver Contractor Qualifications:

1. Utilize an installer having successfully completed paver installation similar in design, material, and extent indicated on this project.
2. Utilize an installer who has received installation training from Aspire Pavers.

B. Regulatory Requirements and Approvals: [Specify applicable licensing, bonding, or other requirements of regulatory agencies].

C. Mock-Ups:
   1. Install a 4 ft x 4 ft (1.22 x 1.22 m) paver area.
   2. This area will be used as the standard by which the work will be judged.
   3. Subject to acceptance by owner, mock-up may be retained as part of finished work.

1.05 DELIVERY, STORAGE & HANDLING
A. General: Comply with Division 1 Product Requirement Section.
B. Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers packaging with identification labels intact.
   1. Coordinate delivery and paving schedule to minimize interference with normal use of buildings adjacent to paving.
   2. Deliver pavers to the site in plastic wrapped packaging capable of transfer by forklift.
   3. Unload pavers at job site in such a manner that no damage occurs to the product.
D. Storage and Protection: Store materials protected such that they are kept free from mud, dirt, and other foreign materials.

1.06 PROJECT/SITE CONDITIONS
A. Environmental Requirements:
   1. Do not install pavers during heavy rain or snowfall.
   2. Do not install pavers over frozen base materials.

1.07 MAINTENANCE
A. Extra Materials: Provide [Specify area] [Specify percentage.] additional material for use by owner for maintenance and repair.

PART 2 PRODUCTS

2.01 COMPOSITE PATIO AND WALKWAY PAVER SYSTEM
A. Manufacturer: Aspire by Brava, 915 E. Tyler Street, Washington, IA 52303
   1. Contact: (844) 290-4196, aspirepavers.com
B. Aspire Composite Paver System:
   1. Paver Type: Aspire Resurfacing Pavers (1.75" height with Grid)
      a. Material Standard: Comply with material standards set forth by Aspire Pavers
      b. Color(s): Boardwalk, Olive, Redwood, Waterwheel, Obsidian, Charcoal, Ivory, Deep Sea, Monstera, Moss, Burnt Umber, Red Rock, Beverly Hills.
      c. Paver Thickness: 1.25" (31.73 mm), with Grid is 1.75" (44.45 mm)
      d. Paver Sizes: 16" x 16" (406 mm x 406 mm), 8" x 8" (203 mm x 203 mm), 4" x 8" (60mm x 203 mm), 4" x 4" (102 mm) x 102 mm).
      e. Grid Size: 16" x 16" (406 mm x 406 mm).
      f. Assembly Size: 16" x 16" x 1.75" thick (406 mm x 406 mm x 44.45mm)..
      g. Compressive Strength (ASTM C140-09 Section 7): Peak compressive strength > 3500 psi.
      h. Flexural Modulus (ASTM C140-09): >3800 psi..
      i. Water Absorption (ASTM C67 Section 8): <5%
      j. Freeze/Thaw Resistance (ASTM C67 – Section 9): Pass - no sign of cracking or deterioration.
      k. Coefficient of Friction (ASTM C1028-07): 0.83 Dry, 0.47 Wet
      l. Coefficient of Friction (ASTM D2394-Section 33): 0.52 Dry, 0.73 Wet.
      m. Fire Classification (ASTM E108-007): Class A

2.02 PRODUCT SUBSTITUTIONS

A. No substitutions permitted.

2.03 EDGE RESTRAINTS (OPTIONAL)

A. Provide edge restraints installed around the perimeter of all composite paving unit areas as follows:

1. Manufacturer: [Specify manufacturer].
2. Material: [Plastic] [Concrete] [Aluminum] [Steel] [Pre-cast concrete] [Cut stone] [Concrete].
3. Material Standard: [Specify material standard].

PART 3 EXECUTION

3.01 ACCEPTABLE INSTALLERS

A. [Specify acceptable paver subcontractors].

B. Acceptance of Site Verification of Conditions:

1. General Contractor shall inspect, accept, and certify in writing to the paver installation subcontractor that site conditions meet specifications for the following items prior to installation of composite pavers.
   a. Verify that [concrete or wood] substrate is structurally sound and that base materials, thickness, surface tolerances, and elevations conform to specified requirements.
   b. Verify location, type, and elevations of edge restraints, [concrete collars around] utility structures, and drainage inlets.

3.02 INSTALLATION

A. Lay grids over substrate in a pattern that will allow pavers to overlap grids.

B. Lay pavers on grids in pattern(s) shown on drawings. Provide spacing between grids per the manufacturer's recommendation (Note: recommendation varies depending on installation temperature and edging / constraints). Make horizontal adjustments to placement of paver/grid assemblies with rubber hammers as required.

C. Joint (bond) lines shall not deviate more than ±1/2 in. (±15 mm) over 50 ft. (15 m) from string lines.

D. Fill gaps at the edges of the paved area with cut pavers.

E. Cut pavers to be placed along the edge with a 10" miter saw using a 24 tooth, carbide tipped, coated wood blade.

F. Adjust bond pattern at pavement edges such that cutting of edge pavers is minimized. All cut pavers shall be no smaller than one-third of a whole paver. [Cut pavers at edges as indicated on the drawings].

G. Border Pavers: Use Bullnose or Transition Pavers around the border where the side of the grids would be exposed.

H. Adhesive: Use Lexel Sealant [or Titebond ProVantage Landscape Adhesive] for adhering border pavers or cut pavers to the grid.

I. Wood Step Resurfacing: Adhere grids to wood steps using screws and pavers to the grids using adhesive. At step edge use Bullnose Pavers to hide side of grid.

3.03 FIELD QUALITY CONTROL

Note: Surface tolerances on flat slopes should be measured with a rigid straightedge. Tolerances on complex contoured slopes should be measured with a flexible straightedge capable of conforming to the complex curves on the pavement surface.

A. The final surface tolerance from grade elevations shall not deviate more than ± 3/8 in. (±10 mm) under a 10 ft (3 m) straightedge.

B. Check final surface elevations for conformance to drawings.

C. The surface elevation of pavers shall be 1/8 in. to 1/4 in. (3 to 6 mm) above adjacent

drainage inlets, concrete collars or channels.

D. Lippage: No greater than 1/8 in. (3 mm) difference in height between adjacent pavers.

3.04 PROTECTION

A. After work in this section is complete, the General Contractor shall be responsible for protecting work from damage due to subsequent construction activity on the site.

END OF SECTION