PAVER AND PEDESTAL WATERPROOFING SYSTEM

Section 07 14 16 – Cold Fluid-Applied Waterproofing

REINFORCED WATERPROOFING SYSTEM

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. All Contract Documents, including General and Supplementary Conditions, and Division 1 General requirements, apply to this section.

1.2 SUMMARY

A. Section includes complete waterproofing system, preparation of substrate, and prefabricated drainage composite system to prevent passage of liquid water into building structure. Compatible with common construction materials such as concrete, concrete masonry units (CMUs), metal, wood (pressure-treated and fire-treated), rigid insulation.

1.3 SYSTEM DESCRIPTION

A. Waterproofing system includes:

1. Substrate preparation repair mortars, cants/fillet, crack filler and joint treatment.

2. 100%-solids-content, cold-liquid-applied elastomeric waterproofing membrane; reinforced two-coat application at 120 mils.

3. Accessory components: sealants.

4. Pre-fabricated drainage composite sheet

5. Testing and inspection.

B. Insulation (if required).

C. Profilitec Adjustable Deck Pedestals and related accessories.

D. Daltile® TREAD 2CM Thick Porcelain Pavers, group 2, color and sizes to be determined.

1.4 RELATED SECTIONS

A. Section 01 82 00 - Facility Substructure Performance Requirements

B. Section 03 15 00 – Concrete Accessories

C. Section 03 30 00 – Cast-In-Place Concrete

D. Section 04 20 00 – Unit Masonry

E. Section 07 06 00 - Schedules for Thermal and Moisture Protection

F. Section 07 76 16 – Roof Decking Pavers

G. Section 07 60 00 – Flashing and Sheet Metal

H. Section 07 92 00 – Joint Sealants

I. Section 07 95 00 – Expansion Control

J. Section 26 05 33.13 - Conduit for Electrical Systems (Penetrations)

K. Section 33 46 23 - Drainage Layers

1.5 REFERENCES

A. ASTM C578 – Specification for Preformed, Cellular Polystyrene Thermal Insulation

B. ASTM C836 – Standard Specification for High Solids Content, Cold Liquid Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course

C. ASTM D2697 – Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings

D. ASTM D2370 – Standard Test Method for Tensile Properties of Organic Coatings

E. ASTM E96 – Standard Test Methods for Water Vapor Transmission of Materials

F. ASTM C661 – Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer

G. ASTM D2240 – Standard Test Method for Rubber Property—Durometer Hardness

H. ASTM D5385 – Standard Test Method for Hydrostatic Pressure Resistance of Waterproofing Membranes

I. ASTM C794 – Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants

J. ASTM C1522 – Standard Test Method for Extensibility After Heat Aging of Cold Liquid-Applied Elastomeric Waterproofing Membranes

K. ASTM D4263 – Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method

L. ASTM D4491 – Test Methods for Water Permeability of Geotextiles by Permittivity

M. ASTM D4716 – Test Method for Constant Head Hydraulic Transmissivity (In-Place Flow) of Geotextiles and Geotextile Related Products

N. ASTM D4833 – Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products

O. ASTM D5957 – Guide for Flood Testing Horizontal Waterproofing Installations

P. ASTM E154 – Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover

1.6 ACTION SUBMITTALS

A. Product Data: Manufacturer's product data, installation instructions and details.

B. Samples: Representative samples of the following:

1. Free Film Membrane: 2" x 3" (5 x 7.5 cm)

2. Drainage Composite Sheet: 4" x 4" (10 x 10 cm)

1.7 INFORMATION SUBMITTALS

A. Waterproofing Manufacturer's Sample Warranty

B. Sustainability Submittals:

1. Provide VOC content of all components.
2. LEED Submittal: Documentation of materials, recycled content and location of manufacturer.

C. Material Certificates: Certification that waterproofing system and components, drainage and protection materials comply with specified performance characteristics and physical requirements and are supplied by single-source manufacturer.

D. Contractor Certificate: Approved Applicator status with waterproofing material Manufacturer.

E. Site Condition Reports: Indicate ambient and substrate surface temperatures, relative humidity and dew point, wind velocity and precipitation during application.

1.8 QUALITY ASSURANCE

A. Installer Qualifications to:

1. Have minimum three (3) years of experience in type of work required by this section.

2. Comply with manufacturer's warranty requirements.

3. Be approved applicator as determined by waterproofing/drainage system manufacturer.

4. Attend necessary job meetings. Provide competent and full-time supervision, experienced mechanics, all materials, tools, and equipment necessary to complete, in acceptable manner, the membrane installation.

B. Manufacturer Qualifications:

1. Capable to supply all components of complete waterproofing system.

2. Minimum of five (5) years of experience in manufacturing of waterproofing systems.

3. Capable of providing product and technical support representation during construction, approving an acceptable applicator, and suggesting appropriate installation methods.

4. ISO 9001-2000 Certified Organization.

5. ISO 14001-2004 Certified Environmental Management Organization.

C. Pre-Installation Conference:

1. Establish procedures to maintain required working conditions.

2. Coordinate this work with related and adjacent work and trades.

3. Verify plumbing floor drains are two-stage drains with 3" (7.5 cm) flange and clamping ring to receive waterproof membrane.

4. Review special project details.

5. Verify with Architect and Contractor that waterproofing and waterstop details comply with waterproofing manufacturer's current installation requirements and recommendations.

6. Attendees should include representatives for Owner, Architect, Quality Assurance, General Contractor, Waterproofing Contractor, Waterproofing Manufacturer, Concrete Contractor, Excavating/backfill Contractor and MEP contractors if MEP work penetrates waterproofing.

7. Give minimum five (5) days' notice to Owner, General Contractor and Manufacturer prior to commencing work. Immediately notify parties of changes in work schedule.

D. Mock-up:

1. Area designated by Architect will be considered Mock-up.

2. Prepare and clean a minimum 4' x 4' (1.22 x 1.22 m) area of each substrate material type and project condition.

3. Demonstrate methods, products and tools to prepare acceptable substrate meeting membrane manufacturer's installation instructions

4. Install cold-liquid-applied waterproofing, reinforcement for reinforced systems only, protection board or drainage composite and accessories.

1.9 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Delivery: Deliver materials in factory-sealed and factory-labeled packaging. Sequence material deliveries to avoid work delays and minimize on-site storage. Follow manufacturer's instructions, recommendations and material safety data sheets for material handling and storage.

B. Storage: Do not double-stack pallets during shipping or storage. Protect waterproofing materials from moisture, excessive temperatures and sources of ignition. Cover the stored material on the top and all sides while on-site, allowing for adequate ventilation. Protect material from construction operation, weather, excessive temperatures and prolonged sunlight.

C. Store and manage hazardous materials in accordance with Section 01 35 29.06 - Health and Safety Requirements and Section 01 35 43 - Environmental Procedures. Remove damaged material from site and dispose of it in accordance with applicable regulations.

1.10 PROJECT CONDITIONS

A. Substrate Condition: Proceed with work only when substrate construction and preparation work are complete and are acceptable for waterproofing application. All structural, plumbing, electrical and mechanical work to be under or penetrating through the waterproofing should be completely secured in proper position prior to waterproofing system installation. Substrate preparation should comply with waterproofing manufacturer’s guidelines.

B. Submit written report to General Contractor of substrate surface defects and work prepared by other Trades that adversely affect quality or dimensions of waterproofing work.

C. Weather Conditions: Perform work only when existing and forecasted weather conditions are within Manufacturer’s guidelines. Those guidelines include but are not limited to:

1. Do not apply waterproofing materials in areas of standing or active water; or over snow, ice or frost.

2. Timely remove standing water caused by precipitation or ground water seepage to maintain acceptable site conditions.

D. Schedule work so the membrane will not be exposed for longer than recommended by Manufacturer.

1.11 WARRANTY

A. Waterproofing System Warranty: Waterproofing Manufacturer to provide sample of twenty (20) year warranty, including waterproofing system requirements. Issuance of Manufacturer's Waterproofing Warranty requires the following:

1. Waterproofing System products and drainage composite products provided by single manufacturer.

2. Installation of waterproofing products, prefabricated drainage composite and all appropriate system accessories are installed by a Manufacturer's Approved Applicator in full accordance with manufacturer’s recommendations, installation instructions, specifications and details.

PART 2 – PRODUCTS

2.1 MANUFACTURER

A. Materials: Obtain waterproofing system including all components and accessories from single manufacturer to ensure material compatibility.

B. Acceptable Manufacturer: MAPEI Corporation, 1144 E. Newport Center Drive, Deerfield Beach, FL 33442, USA. Toll-Free Tel.: 1-888-365-0614. Fax: 954-246-8805. Email: TechServiceRequests@mapei.com. Web: www.mapei.us.

2.2 COLD-FLUID-APPLIED WATERPROOFING

A. Planiseal CR1: Primary waterproofing membrane shall be Planiseal CR1 cold-fluid-applied elastomeric membrane, manufactured by MAPEI Corporation, which is a fast-curing, 100%-solids, single-component, moisture-cure, coal-tar-free, polyether waterproofing membrane. Apply in a 120-mil-thick reinforced system (60 mils of Planiseal CR1 and 60 mils of Planiseal CR1 with reinforcing fabric embedded between layers).

2.3 COLD-FLUID-APPLIED WATERPROOFING PERFORMANCE PROPERTIES

A.	Color	Green
B.	Solids content – ASTM D2697	100%
C.	High solids content – ASTM C836	Pass
D.	VOCs (Rule #1113 of California's SCAQMD)	44 g per L*
E.	Tensile strength – ASTM D2370	130 psi (0.90 MPa)
F.	Elongation – ASTM D2370	350% minimum
G.	Water vapor transmission rate – ASTM E96, Water Method	0.76 perms
H.	Water vapor transmission rate – ASTM E96, Inverted Water Method	0.95 perms
I.	Extensibility after heat – ASTM C1522	Pass
J.	Low-temperature flexibility – ASTM C836	No cracking
K.	Low-temperature crack-bridging – ASTM C1305	No cracking
L.	Shore "A" hardness – ASTM C661	35
M.	Hydrostatic pressure resistance – ASTM D5385	231 feet (70.4 m)
N.	Minimum application temperature	40°F (4°C)
O.	Approximate curing time, at 70°F (21°C) and 50% relative humidity	2 hours for skinning over; 24 hours for initial set; 72 hours for full cure
P.	Rain-resistant, at 70°F (21°C) and 50% relative humidity	After 2 hours
Q.	Required curing time for concrete substrates	3 days

2.4 WATERPROOFING ACCESSORIES

A. Concrete Repair Mortars & Coating:

1. MAPEI Planitop X or XS for vertical repair: One-component, fast-setting, vertical and overhead repair mortar to be shrinkage-compensated, fiber-reinforced, polymer-modified and containing a corrosion inhibitor. Mix with MAPEI Planicrete AC acrylic latex admixture diluted with water.

2. MAPEI Planiseal 88 for surface preparation: One-component, polymer-modified, cementitious coating.

3. MAPEI Mapecem Quickpatch mixed with MAPEI Planicrete UA additive for horizontal repair.

B. Reinforcement Fabric: MAPEI LMR Fabric: Calendered, spunbond, nonwoven, polyester fabric weighing 1.18 oz. per sq. yd. (40 g per m^2)

C. Sealants:

1. MAPEI Mapeflex P1: One-component, elastomeric, moisture-cure, polyurethane sealant and adhesive

2. MAPEI Mapeflex P2 NS: Two-component, elastomeric, chemical-cure, polyurethane sealant and adhesive

D. Backer Rod: Closed-cell polyethylene foam rod

E. Flexible Waterproofing Tape for Movement Joints: MAPEI Mapeband TPE 170 and Mapeband TPE 325. Highly durable and flexible band tape used to waterproof expansion and other dynamic joints. Mapeband TPE 170 can be used for joints up to 2" (5 cm) wide and subject to movement of up to 7/32" (5.5 mm), and Mapeband TPE 325 can be used for joints up to 4" wide and subject to movement of up to 13/32" (10.5 mm). Anchor with MAPEI Planibond AE high-strength, two-part, non-sag, epoxy anchoring gel.

F. Exposed Waterproofing: MAPEI Planiseal 88 one-component, polymer-modified, cementitious damp-proofing coating. Mix with MAPEI Planicrete AC diluted with water.

2.5 PROTECTION AND DRAINAGE COMPOSITE SHEET – PREFABRICATED

A. MAPEI Mapedrain 35 for horizontal applications, with high compressive strength and flow rates. Has backer film to prevent potential “die cutting” of a waterproofing membrane installed behind drainage composite.

1. Woven filter fabric allows concrete to be poured directly on top of the drainage composite

2. Compressive strength per ASTM D1621: 21,000 psf (1 005 kN/m^2)

3. Flow rate per ASTM D4491: 60 $gal/min/ft^2$ (2 460 $L/min/m^2$)

4. Flow (hydraulic gradient = 1) per ASTM D4716: 23 g/min/ft (286 L/min/m)

5. Core thickness: 0.40" (10.16 mm)

PART 3 – EXECUTION

3.1 SUBSTRATE INSPECTION AND CONDITIONS

A. Examine conditions of substrates and other conditions affecting work of this section with waterproofing Installer, General Contractor and Owner's Independent Inspector present. Notify General Contractor, in writing, of defects in substrate preventing installation of waterproofing. Do not proceed with work until defects in substrate are corrected and acceptable for waterproofing installation and comply with manufacturer's recommendations.

B. Substrates to receive waterproofing must be clean and free of voids, protrusions and surface irregularities.

C. Related work: Verify that waterstop is installed in vertical and horizontal concrete construction cold-pour joints and around penetrations, structural members, and tie-rod form holes that extend through the wall.

D. Chemical additives: Verify that ready-mix additives are compatible with waterproofing.

E. Curing compounds: Concrete should be cured by the water-curing method. Curing compounds may adversely affect adhesive bond of self-adhered sheet waterproofing membrane. Verify that curing compounds of pure sodium silicate type or clear resin-based materials are without waxes, oils or pigments, and are compatible with waterproofing.

F. Form release agents must not transfer to concrete. Remove forms as soon as possible from below horizontal slabs to prevent moisture entrapment. Excess moisture could result in blistering of waterproofing.

G. Mechanically remove from the substrate any curing compounds and form release agents that adversely affect adhesion of waterproofing.

H. Prepare substrate surfaces to accept waterproofing system per requirements of membrane Manufacturer and as directed by Architect.

I. Apply waterproof membrane only in dry weather, when ambient and substrate temperatures are above 40°F (4°C).

3.2 PREPARATION

A. Remove contaminants such as dirt, debris, oil, grease, wax, cement laitance, or other foreign matter that will impair or negatively affect performance of waterproofing and drainage system.

B. Protect adjacent work areas and finish surfaces not receiving waterproofing from damage or contamination from waterproofing products spillage and overspray during installation operations.

C. New concrete should be cured for a minimum of 3 days and must be dry before waterproofing membranes are applied.

D. Protect waterproofing from direct sunlight immediately after installation.

3.3 GENERAL INSTALLATION GUIDELINES

A. Comply with contract documents and manufacturer's product data, including product application and installation instructions and details. Cold-fluid-applied waterproofing can be applied to concrete, metal, wood, insulated wall systems and masonry surfaces.

B. Maintain adequate ventilation during preparation and application of waterproofing materials.

C. Cap off all exposed fabric at the end of each day.

D. Apply protection board or drainage composite over work installed each day.

E. Inspect cold-fluid-applied waterproofing before covering with protection board or drainage composite. Repair damaged or inadequate areas as necessary.

F. Protect cold-fluid-applied waterproofing on vertical and horizontal applications with immediate application of drainage composite sheet or protection board.

3.4 DETAILING/FLASHING

A. All detailing and flashing shall be completed prior to installation of field waterproofing membrane.

B. All detailing and flashing shall be installed per manufacturer's standard details.

3.5 APPLICATION OF COLD-FLUID-APPLIED WATERPROOFING

A. Ensure deck is ready to receive cold-fluid-applied waterproofing membrane in accordance with published literature.

B. Apply first layer of cold-fluid-applied waterproofing membrane evenly to a minimum thickness of 60 mils to form a continuous monolithic coating.

C. Apply reinforcing fabric and fully embed into first layer of cold fluid applied waterproofing. Overlap reinforcing fabric approximately 1" to 2" (2.5 to 5 cm), ensuring that the cold-fluid-applied waterproofing bleeds completely through both layers.

D. Apply second layer of cold-fluid-applied waterproofing membrane over the reinforcing fabric to a minimum thickness of 60 mils, providing a total thickness of 120 mils.

3.6 PROTECTION

A. For horizontal applications, use drainage composite. Install protection as soon as possible to avoid damage from other trades, construction materials or backfill.

B. Protect completed waterproofing assembly from subsequent construction activities. Protect waterproofing materials from exposure to UV light for a period in excess of that acceptable to waterproofing manufacturer; replace overexposed materials.

3.7 OVERBURDEN

A. Install overburden as soon as possible according to project requirements. Please refer to pedestal and paver manufactures' installation instructions.

3.8 CLEANUP

A. In areas where adjacent finished surfaces or work are contaminated by waterproofing material, immediately notify General Contractor and trade responsible for area. Consult manufacturer of surfaces for cleaning advice and conform to their recommendations and instructions. Remove all tools, equipment and remaining product on-site. Dispose of debris and damaged product in accordance with applicable regulations.

B. Maintain work area in a neat and workmanlike condition. Remove empty cartons and rubbish from site daily.

C. Repair or replace defaced or disfigured finishes caused by work of this section.

END OF SECTION 07 14 16

RAISED FLOOR SHORT FORM SPECIFICATIONS FOR ALL DIVISIONS AND SECTIONS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Adjustable Deck pedestals and related accessories.

1.2 RELATED SECTIONS

A. Section 071416 Cold Fluid-Applied Waterproofing
B. Section 07700 Roof Specialties and Accessories
C. Section 07760 Roof Decking Pavers
D. Section 09300 Tile
E. Section 09600 Flooring
F. Section 04410 Stone Materials

1.3 REFERENCES

A. Modified ASTM E108, Class A specification. Standard Test Methods for Fire Tests of Roof Coverings.

1.4 QUALITY ASSURANCE

A. Single Source Requirements: To the greatest extent possible, provide pedestals and accessory products specified in this section from a single manufacturer.

1.5 DELIVERY STORAGE AND HANDLING

A. Inspect delivered materials upon arrival to ensure they are undamaged, in good condition and as specified.

B. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations and industry standards.

C. Store products indoors in manufacturer's or fabricator's original containers and packaging, with labels clearly identifying product name and manufacturer. Pedestals are delivered boxed in cardboard cartons. These cartons should be stored in dry conditions and should not come into contact with rain or damp conditions. Protect from damage.

1.6 PROJECT CONDITIONS

A. Surfaces to receive roof decking pedestals shall be broom clean, frost free, and free of dirt, oil or any rough foreign matter, which may impair the proper installation of the roof decking pedestals.

B. Confirm that substrates have positive slope and provide adequate drainage in accordance with applicable building codes.

C. Do not install roof decking pedestals over any roofing insulation without an adequate compressive resistance.

1.7 SEQUENCING AND SCHEDULING

A. Conference: Convene a pre-installation conference to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.

1.8 WARRANTY

A. Manufacturer's Warranty: Pedestal system shall remain free from manufacturing defects for a period of seven years from date of Substantial Completion.

B. Contractor's Warranty: Contractor shall warrant that their work will remain free from defects of labor and materials for a period of two years from date of Substantial Completion.

PART 2 PRODUCT

1.1 MANUFACTURER

A. Profilitec S.p.A. Via Scotte, 3 - 36033 Isola Vicentina (Vicenza) – Italia
Tel.: 0444 268311
E-mail: customerservice@profilitec.com
www.profilitec.com

B. Profilitec Corp. 472 Meeting Street, Suite C, # 301 Charleston, SC 29403 Tel.: 855 290 9591
E-mail: customerservice@profilitec.com
www.profilitec.com

C. Substitutions: Not permitted.

D. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

1.2 PERFORMANCE REQUIREMENTS

A. COMPRESSION RESISTANCE: our system withstands a concentrated load up to 1400 kg. Please consider an adequate safety coefficient defined by the project engineer and verify that the substrate has adequate resistance.

B. RECYCLED CONTENT: Pedestal system shall contain 80% post-industrial recycled content and be 100% recyclable.

1.3 ADJUSTABLE UNIVERSAL PEDESTALS FOR RAISED FLOORS (UPTEC)

A. COMPONENTS MATERAL: Standard, talc-loaded polypropylene copolymer with 80% recycled CCP material, 20% Talc, 100% recyclable; tested at temperatures -20°C, 21°C and 80°C (-4°F, 69.8°F and 176°F).

B. COMPONENTS:

1) SUPAL: Low Pedestal.
2) SUPAS: Standard Pedestal.
3) SUPAR: Modular Ring.

C. CONFIGURATIONS:

1) Configuration SUPAL-28/43:
   a. Nominal Height Range: 1-3/32 to 1-11/16 inches (28 mm to 43 mm).
   b. Top Diameter: 5-1/8 inches (130 mm).
   c. Base Diameter: 7-31/64 inches (190 mm).
   d. Load Data: with fixed head at 1-11/16 inches (43 mm) Height, 0 percent Slope, 21°C: 3503 lbF (15.58 kN).

1) Configuration SUPAS-43/58:
   a. Nominal Height Range: 1-11/16 to 2-9/32 inches (43 mm to 58 mm).
   b. Top Diameter: 5-1/8 inches (130 mm).
   c. Base Diameter: 7-31/64 inches (190 mm) .
   d. Load Data: with fixed head at 2-9/32 inches (58 mm) Height, 0 percent Slope, 21°C: 3021 lbF (13.44 kN).

2) Configuration SUPAS-58/88:
   a. Nominal Height Range: 2-9/32 to 3-15/32 inches (58 mm to 88 mm).
   b. Top Diameter: 5-1/8 inches (130 mm).
   c. Base Diameter: 7-31/64 inches (190 mm).
   d. Load Data: with fixed head at 2-7/8 inches (73 mm) Height, 0 percent Slope, 21°C: 3332 lbF (14.82 kN).

3) Configuration: SUPAS-88/118
   a. Nominal Height Range: 3-15/32 to 4-41/64 inches (88 mm to 118 mm).
   b. Top Diameter: 5-1/8 inches (130 mm).
   c. Base Diameter: 7-31/64 inches (190 mm).

4) Configuration: SUPAS-118/148
   a. Nominal Height Range: 4-41/64 to 5-53/64 inches (118 mm to 148 mm).
   b. Top Diameter: 5-1/8 inches (130 mm).
   c. Base Diameter: 7-31/64 inches (190 mm).

5) Accessories:
   a. SUPT: SUPB extension of 3/16 inches (5 mm).
   b. Spacer Tabs: to be fixed into top of pedestal, to obtain the desiderate joints:
      - SUPA2: Spacer Tabs for 3/32 inches (2 mm).
      - SUPA4: Spacer Tabs for 3/16 inches (4 mm), to be also used with aluminum joists.
      - SUPAW: Spacer to be used with wooden beams.
   c. SUPAK: Adjusting Key permits to adjust the pedestal height, to switch from fix to self-levelling head and to remove tabs.
   d. Levelling disks:
      - Width of 3/32 inches (2 mm) (SUPL2).
      - Width of 1/8 inches (3 mm) (SUPL3).
   e. SUPACLPB: Clip for vertical edge base.
   f. SUPACLPT: Clip for vertical edge head.
   g. SUPACLPP: Perimeter tile spacer.
   h. SUPAAN200: Aluminum joists.
   i. SUPG: Anti-noise rubber.
   j. SUPD: Tile Spacers 3/16 inches (4 mm).
   k. SUPCLIP: Perimeter and central clips.
   l. SUPAF59x59: Anti-fragmentation membrane; the patented system that passes the hard body impact test (UNI EN 12825:2003 Standards). The adhesive membrane, applied beneath each tile, prevents chipping and cracking upon the impact of a heavy object.
   m. BSJ: Profile for raised floor, to contour the perimeter of the floor, resolving the joint between the floor and vertical wall covering.
   n. BSR: Finishing profile for raised floor.
   o. Wind Lift Option: see attached document.

PART 3 EXECUTION

1.1 EXAMINATION AND PREPARATION

A. Verify all elevations, required pedestal heights, insulation density, and deck dimensions before commencing work.

B. Do not begin installation until substrates have been properly prepared.
   a. The substrate surface that will receive the pedestals must be well compacted (on grade) and structurally capable of carrying the dead and live loads anticipated.
   b. The substrate must be clean and free of projections and debris that could impair the performance of the pedestals or the total deck system.

C. If substrate preparation is the responsibility of another installer, notify Architect (or other appropriate party: Engineer, General Contractor, or Project Manager) of unsatisfactory preparation before proceeding.

1.2 INSTALLATION

A. Install roof decking pedestals in accordance with manufacturer's recommendations. Securely place base supports at locations shown on shop drawings.

B. Locate pedestals at the proper elevation and placed in position prior to the installation of roof decking pavers.

C. Level Installation: Establish starting point and finished elevation of the roof decking paver surface, and determine the pedestal head support elevation by subtracting the thickness of the paver. Mark around the perimeter using transit, or laser leveling device.

D. Slope Compensation: Self-leveling head to reach up to 5% slope. The head of the pedestal is composed of a functional mechanism, seamlessly shifting from a self-leveling head to a fixed head quickly and precisely.

E. Perimeter Containment: Provide field installed restraint, where roof decking is not constrained by an abutting wall. No movement shall be allowed at the perimeter of the roof decking greater than 3mm (1/8 inch).

F. Make final slight adjustments to pedestals as they are fully loaded by roof decking pavers.

G. Ensure roof decking pedestals are maintained in a straight and consistent pattern.

H. At roof deck access points for pedestrians, ensure that pavers are level and that the walking surface does not have randomly raised or uneven joints creating a tripping or safety hazard.

1.3 ADJUSTMENT AND PROTECTION

A. Adjustment: Eliminate rocking and uneven pavers; rotate pedestals for final adjustment after fully loaded.

B. Touch-up, repair or replace damaged products before Substantial Completion.

C. Protection: Protect installed products and finishes from damage during construction.

END OF SECTION 07 76 16