NEMO EVALUATION REPORT (NER)

Wausau Tile, Inc.
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SUBJECT:	**Wausau Pedestal/Paver Systems over Henry Waterproofing Systems**
SCOPE:	This NEMO Evaluation Report (henceforth 'NER') is issued under F.A.C. Rule 61G20-3 and the applicable rules and regulations governing Product Approval of construction materials in the State of Florida and ISO/IEC 17065 via NEMO|cert. NEMO Evaluations has evaluated the product described herein for compliance with the Code sections noted herein.
CODE:	2023 Florida Building Code, 8th Edition
JURISDICTION:	Non-HVHZ and HVHZ
NEMO CATEGORY:	Flooring
FBC CATEGORY:	Roofing
FBC SUB-CATEGORY:	Roofing Accessories that are an Integral Part of the Roofing System
CSI DIVISION:	N/A
METHOD:	Method 1, Option C – Codified Material, Evaluation by Evaluation Entity
COMPLIANCE STATEMENT:	**Wausau Pedestal/Paver Systems**, as produced by **Wausau Tile, Inc.**, have demonstrated compliance with the Code sections noted herein through testing in accordance with the referenced Standards, rational analysis and an ongoing quality assurance program. Compliance is subject to the Installation Requirements and Limitations of Use set forth herein.
QUALITY ASSURANCE:	Evidence of current quality assurance shall be listing and labeling in accordance with the requirements of NEMO|cert.
PACKAGING AND IDENTIFICATION:	Reference is made to FBC 3115.2.5
CONTINUED COMPLIANCE:	This NER is valid until such time the named product(s) change, the referenced Quality Assurance changes, or the evaluated Code provisions change. NEMO Evaluations requires, at minimum, a complete review of this NER with each 3-year Code Cycle.
BUILDING PERMIT REQUIREMENTS:	As required by the Building Official or Authority Having Jurisdiction to evaluate the installation of this product.
ADVERTISEMENT:	"NEMO Evaluated" may be displayed in advertising literature. If any portion of the NER is displayed, it shall be displayed in its entirety.
CERTIFICATION OF INDEPENDENCE:	✓ NEMO CERT, LLC does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates. ✓ NEMO CERT, LLC is not owned, operated or controlled by any company manufacturing or distributing products it evaluates. ✓ This is a building code evaluation. NEMO CERT, LLC is not, in any way, the Designer of Record for any project on which this NER, or previous versions thereof, is/was used for permitting or design guidance.

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1. CODES, PROPERTIES AND STANDARDS:

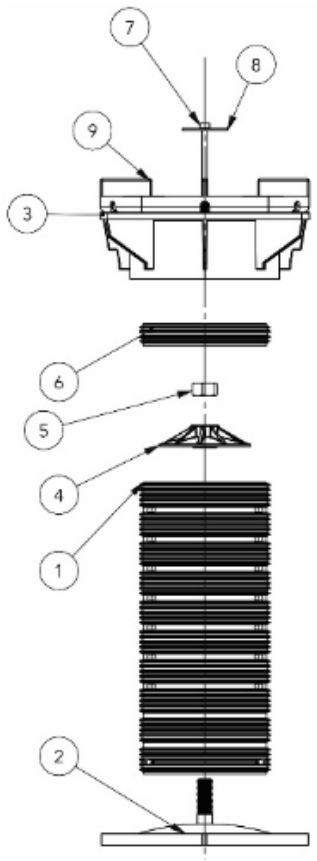
CODE	SECTION	PROPERTY	STANDARD
2023 Florida Building Code, 8th Edition	3115.1.1	Attached Exterior Elevated Flooring Systems	
	3115.2.4 / 2615.2	Tensile Properties	ASTM D638
	3115.2.4 / 2615.2	Accelerated Weathering	ASTM G155
	M-D Checklist #0445	Rate of Burning	ASTM D635
	M-D Checklist #0445	Self-Ignition Temperature	ASTM D1929
	M-D Checklist #0445	Density of Smoke	ASTM D2843
	TAS 110	Wind resistance	TAS 114, Appendix D

2. PRODUCTS:

TABLE 1: EVALUATED COMPONENTS (UNDER NEMO QA/SURVEILLANCE) [1]

WAUSAU HIDDEN LOK-DOWN SYSTEM FOR WIND UPLIFT, CONSISTING OF:

TRADE NAME	DESCRIPTION
Wausau Paver	Min. 7,000 psi concrete walking pavers designed with a kerf at corners and/or edges to receive washer from the Hidden Lok-Down Hardware, available as H-Series or V-Series.
Wausau IPE Paver	Wood walking pavers designed with a kerf at corners and/or edges to receive washer from the Hidden Lok-Down Hardware
3M™ Scotch-Weld™ Pedestal Adhesive	Adhesive for use to bond Terra Stand Pedestal base to waterproofing top surface.

1. Terra-Stand Core		
2. Terra-Stand Base		
3. Terra-Stand Top		
4. Lock Washer		
5. Anchor Nut		
6. Threaded Insert		
7. Bolt		
8. S/S Washer (2.5" diameter)		
9. Terra-Tab		

[1] *Contact contact@nemocert.com for production location(s) of non-Certified products covered by QA/Surveillance services.*

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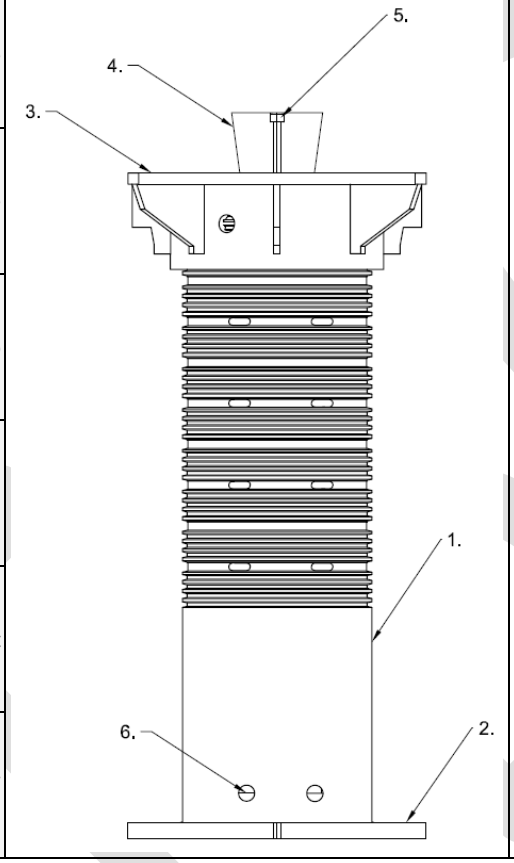
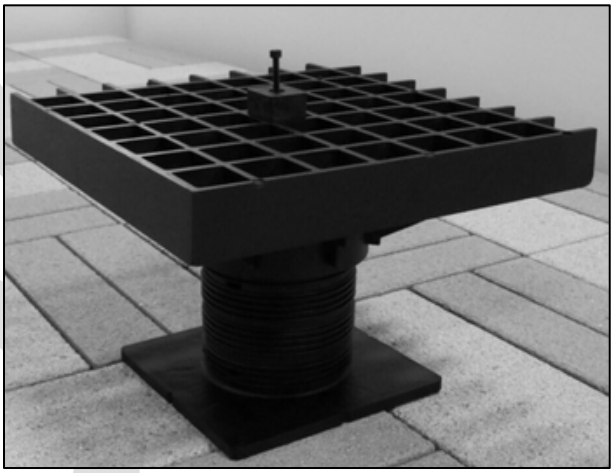
TABLE 1: EVALUATED COMPONENTS (UNDER NEMO QA/SURVEILLANCE) [1]	
WAUSAU TERRA-GRID SYSTEM, CONSISTING OF:	
TRADE NAME	**DESCRIPTION**
Wausau Paver	Min. 7,000 psi concrete walking pavers, available as H-Series, V-Series or Thin Series.
Wausau Terra-Grid	Molded fiberglass / polyester resin grate designed to be secured to the Terra-Stand with a Terra-Grid Cube and bolt
3M™ Scotch-Weld™ Pedestal Adhesive	Adhesive for use to bond Terra Stand Pedestal base to waterproofing top surface and exterior tile or paver to Terra-Grid top surface.
1. Terra-Stand Core	 
2. Terra-Stand Base	
3. Terra-Stand Top	
4. Terra-Cube with Puck Unit	
5. S/S Anchor Bolt	
6. Nut, Lock Washer & Threaded Insert	

TABLE 2: COMPONENTS BY OTHERS (4.1.3) (*Refer to NOA if listed version was superseded to ensure use of latest version*)				
TYPE	**PRODUCT**	**BY**	**FBC**	**NOA**
MEMBRANE (LIQUID-APPLIED):	Henry 790-11	Henry	FL17541	24-0603.05
	Pumadeq Flex 30SL	Henry	FL42468	22-0413.02
	Pumadeq Grip 40	Henry	FL42468	22-0413.02
	Henry CM100	Henry	FL17541	24-0606.03
MEMBRANE (ROLL FORM):	modifiedPLUS G100s/s	Henry	FL17541	24-0603.05 24-0606.03
REACTIVE AGENT:	Pumadeq Catalyst	Henry	FL42468	22-0413.02

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TABLE 2: COMPONENTS BY OTHERS (4.1.3) (*Refer to NOA if listed version was superseded to ensure use of latest version*)				
TYPE	PRODUCT	BY	FBC	NOA
PRIMER:	Henry 910-01 Asphalt Primer	Henry	FL17541	24-0603.05
	Pumadeq Primer 20	Henry	FL42468	22-0413.02
	GC Epoxy Primer	Henry	FL42468	22-0413.02

3. INSTALLATION:

3.1 **Wausau Pedestal/Paver Systems over Henry Waterproofing Systems** shall be installed in accordance with **Wausau Tile, Inc.** published installation instructions, subject to the Limitations of Use noted herein and specifics noted below.

3.1.1 Wausau As-Tested Specifics:

(a) Unless otherwise noted, the Terra-Stand base is fully adhered to the waterproofing top-surface using 3M™ Scotch-Weld™ Pedestal Adhesive DP6330NS applied at 1.35 fl. oz. per base.

(b) Unless otherwise noted, Wausau Pavers are partially adhered atop Terra-Grid using 3M™ Scotch-Weld™ Pedestal Adhesive DP6330NS ribbons applied max. 3-inch o.c. (every-other-grid-edge).

3.1.2 Waterproofing:

(a) Waterproofing shall be installed in accordance with the requirements of the waterproofing manufacturer and the associated Florida Product Approval or NOA, subject to the limitations herein.

(b) Unless otherwise noted, refer to the following for application rates.

TABLE 3: WATERPROOFING APPLICATIONS					
REFERENCE	LAYER	MATERIAL	APPLICATION		
			BASE COAT	REINFORCEMENT	TOP COAT
Henry 790-11 Hot Applied Rubberized Asphalt Waterproofing System	Waterproofing	Hot applied, rubberized asphalt membrane	Henry 790-11 at 200 – 300 ft²/gal (90-wet-mils)	Henry Polyester Fabric into wet base coat	Henry 790-11 at 200 – 300 ft²/gal (125-wet-mils)
Henry Pumadeq Waterproofing System	Waterproofing	Cold fluid-applied, PUMA membrane	Mix Pumadeq Flex 30SL and Pumadeq Catalyst, then apply at 20 ft ²/gal (80-wet-mils)	N/A	Pumadeq Grip 40 at 30 – 50 ft²/gal (40-wet-mils)
Henry CM100 Elastomeric Fluid Waterproofing System	Waterproofing	Cold fluid-applied, elastomeric membrane	Henry CM100 at 26 ft²/gal (60-wet-mils)	Henry Polyester Fabric into wet base coat	Henry CM100 at 26 ft²/gal (60-wet-mils)

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(c) Bearing capacity and drainage of the waterproofing system shall comply with FBC 3115.5.

(d) The Authority Having Jurisdiction may require integrity flood testing (ASTM D5957) or Electric Field Vector Mapping tests of all waterproofing systems prior to placement of overburden materials. Testing, if required by the Authority Having Jurisdiction, should be conducted by a qualified testing agency or professional.

4. LIMITATIONS OF USE:

4.1 General:

4.1.1 This is a building code evaluation. NEMO CERT, LLC is not, in any way, the Designer of Record for any project on which this NER, or previous versions thereof, is/was used for permitting or design guidance. NERs are not to be construed as representing any attributes not specifically listed, nor are NERs to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by NEMO CERT, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.

4.1.2 This NER pertains to paver/pedestal overburden components as an Attached Exterior Elevated Flooring System per FBC 3115.1.1.

(a) Structural members and roof decks shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.

4.1.3 All components in the assembly shall have quality assurance surveillance in accordance with **F.A.C. Rule 61G20-3**. For components listed herein that are produced by a manufacturer other than the report holder on Page 1 of this NER, refer to the Florida Product Approval or NOA of the component manufacturer.

4.2 Jurisdiction Specific:

	Non-HVHZ	HVHZ
4.2.1	This NER does not include evaluation of fire classification. Refer to **FBC 1505** and the fire classification certificate for the waterproofing manufacturer for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.	This NER does not include evaluation of fire classification. Refer to **FBC HVHZ 1516** and the fire classification certificate for the roof cover manufacturer for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
4.2.2	This NER does not include evaluation of roof edge termination. Refer to **FBC 1504.5** for requirements and limitations regarding edge securement for low-slope roofs.	This NER does not include evaluation of roof edge termination. Refer to **RAS 111** for requirements and limitations regarding edge securement for low-slope roofs.
4.2.3	Refer to **FBC 1511** for requirements and limitations regarding recover installations.	Refer to **FBC HVHZ 1521** for requirements and limitations regarding recover installations.
	(a) For adhered re-roof (tear off) installation, the existing substrate shall be examined for compatibility with the adhesive. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **ANSI/SPRI IA-1**, **FM Loss Prevention Data Sheet 1-52** or **TAS 124** shall be conducted on mock-ups of the proposed interface.	For adhered re-roof (tear off) installation, the existing substrate shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **TAS 124** shall be conducted on mock-ups of the proposed interface.
4.2.4	Wind Load Resistance:	
	(a) Refer to Section 4.3 for a tabulated summary of assembly listings and maximum allowable design pressures.	
	(b) "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 *(the 2 to 1 margin of safety per **FBC 1504.9** has already been applied)*. Refer to **FBC 1609** for determination of design wind loads.	"MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 *(the 2 to 1 margin of safety per **TAS 114** has already been applied)*. Refer to **FBC HVHZ 1620** or **RAS 128** for determination of design wind loads.
	(c) For fully-adhered installations, the maximum design pressure for the selected assembly shall meet or exceed the critical design pressure. Rational analysis is not permitted.	The maximum design pressure (MDP) limitation shall be applicable to all roof pressure zones. Rational analysis is not permitted.

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4.3 System Listings and Allowable Design Pressures: See Section 4.2.4

TABLE 4: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE F: NON-INSULATED, BONDED WATERPROOFING, ATTACHED EXTERIOR ELEVATED FLOORING SYSTEM						
System No.	**Deck (4.1.2)**	**Primer**	**Waterproofing (3.1.2)**	**Protection**	**Attached Exterior Elevated Flooring System per FBC 3115.1.1**	**MDP (psf)***
C-1.	Structural concrete	Henry 910-01 Asphalt Primer, 100 – 500 ft²/gal	Henry 790-11 Hot Applied Rubberized Asphalt Waterproofing System	modifiedPLUS G100s/s	Wausau Hidden Lok-Down, Hidden Lok-Down IPE or Terra-Grid System installed in a max. 2 x 2 ft grid pattern in accordance with Wausau Tile, Inc. requirements. Terra-Stand base is fully adhered to the waterproofing top-surface using 3M™ Scotch-Weld™ Pedestal Adhesive DP6330NS applied at 1.35 fl. oz. per base (See 3.1.1).	-162.5
C-2.	Structural concrete	Henry Pumadeq Primer 20/GC Epoxy Primer, 100 ft²/gal	Henry Pumadeq Waterproofing System	Silica sand sieve size #20-50	Wausau Hidden Lok-Down, Hidden Lok-Down IPE or Terra-Grid System installed in a max. 2 x 2 ft grid pattern in accordance with Wausau Tile, Inc. requirements. Terra-Stand base is fully adhered to the waterproofing top-surface using 3M™ Scotch-Weld™ Pedestal Adhesive DP6330NS applied at 1.35 fl. oz. per base (See 3.1.1).	-230.0
C-3.	Structural concrete	None	Henry CM100 Elastomeric Fluid Waterproofing System	modifiedPLUS G100s/s	Wausau Hidden Lok-Down, Hidden Lok-Down IPE or Terra-Grid System installed in a max. 2 x 2 ft grid pattern in accordance with Wausau Tile, Inc. requirements. Terra-Stand base is fully adhered to the waterproofing top-surface using 3M™ Scotch-Weld™ Pedestal Adhesive DP6330NS applied at 1.35 fl. oz. per base (See 3.1.1).	-125.0