

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION MIAMI-DADE COUNTY PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

**NOTICE OF ACCEPTANCE (NOA)** 

Smartlam NA Enterprises US LLC P O Box 2070 Columbia Falls, MT 59912

### Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER- Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION:** "SmartLam Southern Yellow Pine Cross Laminated Timber Panels

**APPROVAL DOCUMENT:** Drawing No. GLT-23-001, titled "**Southern Yellow Pine Cross Laminated Timber Panels**", sheet 1 of 1, prepared by Britt, Peters, & Associates, Inc. consulting Engineers, dated November 15, 2023, signed and sealed by David F. Impson, P.E., on December 07, 2023, bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and the approval date by the Miami-Dade County Product Control Section.

### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each Timber Panel shall bear a permanent label with the manufacturer's name or logo and the Miami-Dade County logo.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1, evidence submitted page E-1 as well as approval document mentioned above.

The submitted documentation was reviewed by Helmy A. Makar, P.E., M.S.



Helz A. Melon 12/14/2023

NOA No. 23-1031.01 Expiration Date: 12/14/2028 Approval Date: 12/14/2023 Page 1

### Smartlam NA Enterprises US LLC

### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

### A. DRAWINGS

1. Drawing No. GLT-23-001, titled " Southern Yellow Pine Cross Laminated Timber Panels ", sheet 1 of 1, prepared by Britt, Peters, & Associates, Inc. consulting Engineers, dated November 15, 2023, signed and sealed by David F. Impson, P.E., on December 07, 2023.

### B. TESTS

1. Test report PFS-TECO Project 23-634 CSA 0112.9 Testing on Henkel Adhesive LOCTITE HB X202 PURBOND for Henkel Corporation, per ASTM D5266, prepared by PFS-TECO, Springfield Laboratory, Report No. 23-634, dated 07/19/2023, all tests were performed by Brian Thompson or other PFS TECO trained staff/technicians under the supervision of Brian Thompson, report signed and sealed by David Impson, P.E., on 10/18/2023.

### C. CALCULATIONS

1. APA Product Report PR-L319 of SmartLam Cross-Laminated Timber SmartLam, LLC, date Revised 03/20/2023, 11 pages, prepared by The Engineered Wood Association.

### D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources (RER).

### E. MATERIAL CERTIFICATION

1. Letter of approval for LOCTITE HB Xnn2 PURBOND Adhesives, signed and sealed by Borjen ("B.J") Yeh, P.E., dated March 13, 2019.

### F. OTHER

1. Letter prepared by Britt, Peters, & Associates, Inc. consulting Engineers, dated October 24, 2023, signed and sealed by David F. Impson, P.E., on December 07, 2023, certifying the Smart Lam Cross Laminated Timber Product as described in the approved drawing above is in compliance with the Florida Building Code, 2023 Edition.

Hélmy A. Makar, P.E., M.S. Product Control Section Supervisor NOA No. 23-1031.01 Expiration Date: 12/14/2028 Approval Date: 12/14/2023

# QUALIFICATIONS

REVIEW HAS BEEN PERFORMED IN COMPLIANCE WITH THE HIGH VELOCITY HURRICANE ZONE [HVHZ] REQUIREMENTS OF THE 2023 FLORIDA BUILDING CODE - BUILDING SECTION 2315.1.11 AND THIS NOA IS HEREBY GRANTED PROVIDED:

- THE EXTERIOR SURFACE OF THE CLT GRADE V3, V3.2, V3.3, V3M7, E4M4, E4M5, E4M6 PANEL IS CLADDED WITH AN 1 APPROVED WALL CLADDING SYSTEM:
- THE EXTERIOR ROOF SURFACE OF THE CLT GRADE V3, V3.2, V3.3, V3M7, E4M4, E4M5, E4M6 PANELS IS COVERED WITH 2. AN APPROVED ROOFING SYSTEM;
- THE CLT GRADE V3, V3.2, V3.3, V3M7, E4M4, E4M5, E4M6 PANELS CONSIST OF SOLID WOOD MEMBERS, WITH PANELS 3. COMPRISING OF AT LEAST THREE LAYERS OF SOLID 2X WOOD MEMBERS;
- THE CLT GRADE V3, V3.2, V3.3, V3M7, E4M4, E4M5, E4M6 PANELS ARE STAMPED BY APA AS SHOWN 4 IN THE APPROVED DRAWING.

# **EXAMPLE CLT BUILDUP**



# **EXAMPLE CLT LAYUP TABLE - REFERENCE DESIGN GUIDE AND PRODUCT REPORT**

•	Lamination Thickness (in) in CLT Layup								Total	
Layup	=		=		=		=	1	-=-	Thickness
3-alt	1 3/8	1 3/8	1 3/8							4 1/8
4-maxx	1 3/8	1 3/8 x 2	1 3/8							5 1/2
5-alt	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8					6 7%
5-maxx	1 3/8 x 2	1 3/8	1 3% x 2							6 1/8
7-alt	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8			9 %
7-maxx	1 3/8 x 2	1 3/8	1 3/8	1 3/8	1 3% x 2					9 3/8
9-alt	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8	1 3%	1 3/8	1 3/8	12 3/8
9-maxx	1 3/8 x 2	1 3/8	1 3/8	1 3/8	1 3/6	1 3%	1 3/8 x 2			12 3/8

Laminations oriented in the major strength direction NOTE: THIS IS FOR STANDARD LAYUPS, OTHER LAYUP Laminations oriented in the minor strength direction COMBINATIONS WITH DIFFERENT THICKNESSES ARE AVAILABLE

EDGEWISE BENDING IN THE MAJOR [LEFT] AND MINOR [RIGHT] CLT STRENGTH DIRECTIONS

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SOUTHERN YELLOW PINE

**CROSS LAMINATED** 

TIMBER PANELS

FLATWISE BENDING IN THE MAJOR [LEFT] AND

ana

MAXX

7 - MAXX

9 - MAXX

4 - MAXX

5 - MAXX

3-alt

# LOADING DIAGRAMS, BENDING MOMENTS, SHEARS AND DEFLECTION

SIMPLE SPAN CONDITION

**TWO SPAN CONDITION** 





COLUMBIA FALLS, MT: 10'-0" X 50'-6" [V3, V3M7] DOTHAN, AL: 11'-1" X 51'-4" [V3, V3.2, V3.3, V3M7, E4M4, E4M5, E4M6] 1-3/8", 7/8", 5/8" 12 +/= 3% AT TIME OF MANUFACTURING FINGER JOINTS AND FACE BOND: PURBOND POLYURETHANE ADHESIVE CLT PANELS ARE INTENDED FOR DRY USE ONLY R= 1.25 [h x ft<sup>2</sup> x °F / Btu]

V3, V3.2, V3.3	V3M7,	E4M4,	E4M5,	E4M6	L
				[SYP]	Т

**MAXIMUM FINISHED PANEL DIMENSIONS:** 

NOTES:

MATERIAL

LAMINATION THICKNESS:

SHRINKING AND SWELLING:

MOISTURE CONTENT:

**GLUE SPECIFICATION:** 

INTENDED USE: THERMAL RESISTANCE:

CONTACT SMARLAM FOR PLANT SPECIFIC PRESS PARAMETERS

- A. Β. SHRINKAGE OR SWELLING DUE TO CHANGES IN MOISTURE CONTENT PRESENT THEORETICAL VALUES FROM THE NDS AND APA TEHCNICAL NOTE EWS Y260. DIMENSIONAL CHANGES THROUGH THE THICKNESS ARE ASSUMED TO BE THE RESULT OF THE COMPOSITE BEHAVIOR BASED ON GRAIN ORIENTATION AND IS BASED ON THE AVERAGE OF RADIAL AND TANGENTIAL EFFECTS.
- DIMENSIONAL CHANGES IN THE LONGITUDINAL DIRECTION ARE ASSUMED TO BE 5% OF THAT IN THE TANGENTIAL DIRECTION C.
- REFER TO SMARTLAM TECHNICAL NOTE ST-1 FOR MORE INFORMATION ON THIS TOPIC. D.

# DIMENSIONAL TOLERANCES

TOLERANCES AT THE TIME OF MANUFACTURING ARE OUTLINED IN THE APA PRG-320.

PANEL THICKNESS:	+/- 1/16" OR 2% OF THE DESIGN THICKN
LENGTH:	+/- 1/4" OF THE SPECIFIED LENGTH
WIDTH:	+/- 1/8" OF THE SPECIFIED WIDTH
SQUARENESS:	FACE TOLERANCES SHALL NOT DIFFE
STRAIGHTNESS:	1/16" ALONG THE LENGTH OF THE PAN

### **CAPACITY ADJUSTMENT FACTORS AND DESIGN CONSTANTS** LOAD DURATION ADJUSTMENT FACTORS, C

1.0

LIVE LOAD: OTHER LOAD DURATION FACTORS MAY NOT BE ASSUMED

FIRE ADJUSTMENT FACTORS

BENDING STRENGTH, K.: 2.85 SHEAR STRENGTH K :

2.75

TABULATED CREEP DEFLECTION SPANS ARE BASED ON A TOTAL LOAD DEFLECTION LIMIT OF L/240 AND TIME DEPENDENT DEFORMATION FACTOR K = 2.0 NOTES:

- TABULATED CLT LAYUPS ARE THE MINIMUM GOVERNED BY BENDING STRENGTH, SHEAR STRENGTH OR DEFLECTION A. B.
  - **DEFLECTION LIMITS**
  - LIVE LOAD = L/360 TOTAL LOAD CREEP = L/240

STRUCTURAL ENGINEER:



**BRITT, PETERS, &** ASSOCIATES, INC. CONSULTING ENGINEERS (980) 999-6122 1307 W MOREHEAD ST SUITE 205 CHARLOTTE, NC. 28208

NID E. IMPS DEFLECTIK ID F. IMPS ICENSE STATE TORIDA

PROJECT INFORMATION:

MARTLAM NORTH AMERICA

> **COLUMBIA FALLS - MONTANA** DOTHAN - ALABAMA www.smartlam.com

#### NOTES:

- $\ell$  = clear span length (center of support ft)
- W, = CLT panel self weight (psf)
- $W_2$  = uniform Live Load (psf)
- El = apparent bending stiffness (including effects of shear deformation)

# LOADING AND LOAD COMBINATIONS

TABLES ACCOUNT FOR CLT SELF WEIGHT. A REDUCTION IN SELF WEIGHT HAS BEEN CONSIDERED DUE TO CHARRING - POST FIRE.

LOAD COMBINATIONS D+L

, LENGTH AND WIDTH [LONGITUDINAL]: 0.02% PER % CHANGE IN MOISTURE CONTENT THICKNESS IRADIAL AND TANGENTIALI: 0.25% PER % CHANGE IN MOISTURE CONTENT

**(NESS, WHICHEVER IS GREATER** 

Approved as complying with the Date 12/14

BY MORE THAN 1/8" NEL

SHEAR DEFORMATION CONSTANTS, K, SINGLE SPAN: 11.5 TWO SPAN: 15.6 **EFFECTIVE CHAR DEPTHS** 1.9 IN 1-HOUR: 2-HOUR: 3.8 IN ALL CLT LAYUPS ARE COMPOSED WITH 1-3/8" THICK LAMINATIONS

ON HAS NOT BEEN	CONSIDERED	FOR	FIRE	DESIGN.	

REVISIONS	DATE: 11.15.2023
	Atelier Mey www.ateliermey.net
	DRAWING NO: CLT - 23 - 001
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