

ICC-ES Evaluation Report

ESR-4874

Reissued September 2024


This report also contains:

Subject to renewal September 2026

- [City of Chicago Supplement](#)
- [City of LA Supplement](#)
- [CA Supplement](#)

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, and APA – The Engineered Wood Association, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.

Copyright © 2024 ICC Evaluation Service, LLC and APA – The Engineered Wood Association. All rights reserved.d.

<p>DIVISION: 06 00 00— WOOD, PLASTICS AND COMPOSITES</p> <p>Section: 06 18 00— Glued-Laminated Construction</p>	<p>REPORT HOLDER: NORDIC STRUCTURES</p>	<p>EVALUATION SUBJECT: NORDIC LAM</p>	
---	--	--	---

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2021, 2018, 2015, 2012 and 2009 [International Building Code® \(IBC\)](#)
- 2021, 2018, 2015, 2012 and 2009 [International Residential Code® \(IRC\)](#)

Properties evaluated:

- Structural
- Fire Resistance

1.2 Evaluation to the following green code(s) and/or standards:

- 2022 [California Green Building Standards Code \(CALGreen\)](#), Title 24, Part 11
- 2020, 2015, 2012 and 2008 ICC 700 [National Green Building Standard™](#) (ICC 700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

Attributes verified:

See Section 3.1

2.0 USES

Nordic Lam, also marketed as Nordic Lam+, is structural glued-laminated timber (glulam) for use as beams, headers, rafters, purlins, columns, studs, and decking.

3.0 DESCRIPTION

3.1 General:

Nordic Lam described in this evaluation report complies with requirements noted in Section 2303.1.3 of the 2021, 2018, and 2015 IBC, for allowable stress design (ASD) in accordance with 2021 and 2018 IBC Section 2302.1(1) (2015, 2012, and 2009 IBC Section 2301.2(1)) and load and resistance factor design (LRFD) in accordance with 2021 and 2018 IBC Section 2302.1(2) (2015, 2012, and 2009 IBC Section 2301.2(2)). Nordic Lam is manufactured with Spruce-Pine-Fir (mainly Black Spruce) lumber in accordance with layup combinations developed in accordance with the principle of ASTM D3737 in nominal widths ranging from 1-1/2 inches (38 mm) to 27 inches (686 mm), a variety of depths, and lengths up to 80 feet (24 385 mm), as shown in [Table 1](#).

The attributes of the Nordic Lam products have been verified as conforming to the provisions of (i) CALGreen Sections A4.404.3 for efficient framing techniques; (ii) ICC 700-2020 Sections 608.1(2), 11.608.1(2) and

13.104.3.1(4); (iii) 700-2015 and ICC 700-2012 Section 608.1(2), 11.608.1(2) and 12(A).608.1(b) for resource-efficient materials; and (iv) ICC 700-2008 Section 607.1(2) for resource-efficient materials. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

3.2 Adhesive:

Face and end-joint bonding adhesives comply with ASTM D2559 for exterior or wet use, and ANSI 405.

3.3 End Joints:

End joints comply with ANSI A190.1.

3.4 Lumber:

Lumber having a nominal thickness of 2 inches or less is glued-laminated into rectangular cross sections complying with industry standards for depth, width, and appearance. Sawn lumber that is mechanically graded, visually graded, or proprietary grade, complies with rules of applicable approved lumber grading agencies and the procedures set forth in the manufacturer's quality control documentation. Quality control for lumber grading and glulam fabrication is conducted under the supervision of an approved third-party inspection agency. Manufactured lumber and laminated lumber comply with the procedures set forth in the manufacturer's quality control documentation. Grade specifications are included in rules of the applicable approved lumber grading agencies and follow industry classifications and nomenclature as provided in the applicable code.

3.5 Layup:

Glulams are fabricated in accordance with ANSI A190.1 using the grade combinations noted in [Table 2](#) or single grade layups noted in [Table 3](#) of this report. Combinations are in accordance with ASTM D3737 or ASTM D7341 requirements. Manufactured lumber and laminated lumber, which consist of 2 or more pieces of sawn lumber face-bonded together, are permitted to be used.

4.0 DESIGN AND INSTALLATION

4.1 General:

Design and installation of Nordic Lam described in this evaluation report must be in accordance with this evaluation report, the applicable code provisions and the manufacturer's published design and/or installation instructions. The manufacturer's design and/or installation instructions must be available at the jobsite at all times during installation. The design requirements of Nordic Lam must comply with Section 2306 (ASD) or 2307 (LRFD) of the IBC, or Sections R502.2 and R802.2 of the IRC, as applicable.

4.2 Reference Design Values:

[Tables 2](#) and [3](#) provide, respectively, ASD reference design values for Nordic Lam beams and columns for normal duration of load. The reference design values must be adjusted in accordance with Table 5.3.1 of the 2018, 2015 or 2012 National Design Specification for Wood Construction (NDS) and the footnotes specified in each table. The design values used for the LRFD shall be obtained by multiplying the ASD design values by the factors specified in Table 5.3.1 of the NDS.

4.3 Fire Resistance:

Fire-rated assemblies shall be constructed in accordance with the recommendations provided by the manufacturer. Procedures specified in Chapter 16 of the 2018, 2015 or 2012 NDS shall be permitted for use in designing Nordic Lam exposed to fire up to 2 hours. 1,350F_b-1.6E/ES1 Nordic Lam beams with a minimum net depth of 9-1/4 inches meet the 2x10 lumber criteria specified in Exception 4 to Sections R302.13 of the 2021, 2018 and 2015 IRC and R501.3 of the 2012 IRC.

Nordic Lam has been tested in accordance with ASTM E84 and meets the Class B rating for flame spread index (26 – 75) and smoke-developed index (0 – 450).

5.0 CONDITIONS OF USE:

The specific layups for Nordic Lam described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Fabrication, design, and installation must comply with this evaluation report and the manufacturer's published design/installation instructions. In the event of a conflict between the manufacturer's published design/installation instructions and this evaluation report, the most restrictive one governs.
- 5.2 Design stresses for combinations noted in [Table 2](#) are for members with four or more laminations stressed primarily in bending due to loads applied perpendicular to the wide faces of the laminations. Design values

are included, however, for axial stresses and stresses from bending due to loads applied parallel to the wide faces of the laminations.

- 5.3 Design stresses for combinations noted in [Table 3](#) are for members with two or more laminations stressed primarily axially or in bending due to loads applied parallel to the wide faces of the laminations. Design values are included, however, for stresses from bending due to loads applied perpendicular to the wide faces of the laminations.
- 5.4 The effects of checking of the members are outside the scope of this report.
- 5.5 The dimensions of Nordic Lam beams and columns shall follow those specified in [Table 1](#).
- 5.6 Nordic Lam products are fabricated in the Nordic Structures facilities located in Chibougamau, Quebec, Canada, under a quality-control program with inspections by ICC-ES and APA—The Engineered Wood Association.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with ASTM D3737 or ASTM D7341
- 6.2 Quality system documentation

7.0 IDENTIFICATION

- 7.1 Nordic Lam products are identified with stamps or labels noting the Nordic Structures name or logo ([Figure 1](#)), plant number, product layup and designation, production date and shift, and ICC-ES evaluation report number (ESR-4874).
- 7.2 The report holder's contact information is the following:

NORDIC STRUCTURES
1100 AVENUE DES CANADIENS-DE-MONTRÉAL
SUITE 100
MONTREAL, QUÉBEC H3B 2S2
CANADA
(514) 871-8526
www.nordic.ca

TABLE 1—DIMENSIONS FOR NORDIC LAM LAYUPS

Layup	Minimum width (in.)	Maximum width (in.)	Minimum depth	Maximum depth (in.)
1,350F _b -1.6E/ES1	1-1/2	1-1/2	7-1/8 in.	15
20F-E8M1	1-1/2	7-1/2	4 lams	18
20F-ES/CPG	3-1/8 ¹	3-1/2	4 lams	18
24F-E/ES1M1	1-1/2	7-1/2	4 lams	36 ²
24F-ES/MSR	3-1/8	3-1/2	4 lams	36 ²
24F-ES/NPG	1-1/2	27	4 lams	NA ²
ES11	1-1/2	7-1/2	2 lams	15
ES11/NPG	1-1/2	7-1/2	2 lams	15
ES12	1-1/2	7-1/2	2 lams	15
ES12/NPG	1-1/2	27	2 lams	54 ²

For SI: 1 in. = 25.4 mm

¹The minimum width shall be permitted to be 1-1/2 inches when 24F-ES/NPG is trademarked as 20F-ES/CPG.

²The maximum depth shall not exceed the tabulated depth or a depth-to-width ratio of 12:1, whichever is smaller.

TABLE 2—ASD REFERENCE DESIGN VALUES FOR NORDIC LAM BEAMS FOR NORMAL DURATION OF LOAD^{1,2}

Symbol	Species Outer/ Core ³ (Bal or Unbal ⁴)	Bending About X-X Axis (Loaded Perpendicular to Wide Faces of Laminations)								Bending About Y-Y Axis (Loaded Parallel to Wide Faces of Laminations)						Axially Loaded		Fasteners	
		Extreme Fiber in Bending ⁵		Compression Perpendicular to Grain		Shear Parallel to Grain ⁶	Modulus of Elasticity ⁷			Extreme Fiber in Bending ⁸	Comp. Perpendicular to Grain	Shear Parallel to Grain ⁶	Modulus of Elasticity ⁷			Tension Parallel to Grain	Comp. Parallel to Grain	Specific Gravity for Dowel-Type Fastener Design	
		Bottom of Beam Stressed in Tension (Positive Bending)	Top of Beam Stressed in Tension (Negative Bending)	Ten. Face	Comp. Face		True	Apparent	Beam Stability				True	Apparent	Beam Stability			Top or Bottom Face	Side Face
		F _{bx} ⁺ (psi)	F _{bx} ⁻ (psi)	F _{cLx} (psi)	F _{vx} (psi)	E _{x true} (10 ⁶ psi)	E _{x app} (10 ⁶ psi)	E _{x min} (10 ⁶ psi)	F _{by} (psi)	F _{cLy} (psi)	F _{vy} (psi)	E _{y true} (10 ⁶ psi)	E _{y app} (10 ⁶ psi)	E _{y min} (10 ⁶ psi)	F _t (psi)	F _c (psi)	SG		
1,350F _b -1.6E/ES ¹⁹	ES/ES (B)	1,350 ¹⁰	1,350 ¹⁰	450	450	250	1.7	1.6	0.85	NA	NA	NA	NA	NA	NA	NA	NA	0.41	0.41
20F-E8M1	ES/ES (B)	2,000	2,000	450	450	250	1.6	1.5	0.79	1,050	315	175	1.5	1.4	0.74	800	1,000	0.41	0.41
20F-ES/CPG	ES/ES (B)	2,000	2,000	450	450	250	1.9	1.8	0.95	2,000	450	250	1.9	1.8	0.95	800	1,000	0.41	0.41
24F-E/ES1M1	ES/ES (B)	2,400	2,400	600 ¹¹	600 ¹¹	250	1.9	1.8	0.95	1,100	300	175	1.6	1.5	0.79	1,050	1,150	0.41	0.41
24F-ES/MSR	ES/ES (B)	2,400	2,400	600 ¹¹	600 ¹¹	250	1.9	1.8	0.95	1,100	300	175	1.6	1.5	0.79	1,050	1,150	0.41	0.41
24F-ES/NPG	ES/ES (B)	2,400	2,400	600 ¹¹	600 ¹¹	300	1.9	1.8	0.95	2,400	600 ¹¹	300	1.9	1.8	0.95	1,600	2,300	0.46	0.46
Wet-use factor		0.8		0.53		0.875	0.833			0.8	0.53	0.875	0.833			0.8	0.73	see NDS	

For SI: 1 psi = 6,895 Pa

¹The combinations in this table are intended primarily for members stressed in bending due to loads applied perpendicular to the wide faces of the laminations. ASD design values are tabulated, however, for loading both perpendicular and parallel to the wide faces of the laminations.

²The tabulated ASD design values are for normal duration of loading. For other durations of loading, see the NDS. The tabulated allowable design values are for dry conditions of use. For wet conditions of use, multiply the tabulated values by the wet-use factors shown at the bottom of the table. For LFRD design values, multiply the ASD design values by the factors specified in Table 5.3.1 of the NDS.

³ES = Eastern spruce.

⁴The unbalanced (U) layout is intended primarily for simple-span applications and the balanced (B) layout is intended primarily for continuous or cantilevered applications.

⁵The values of F_{bx} are based on members 5-1/8 inches in width by 12 inches in depth by 21 feet in length. For members with a larger volume, F_{bx} shall be multiplied by a volume factor, C_v = (5.125/b)^{1/10} (12/d)^{1/10} (21/L)^{1/10}, where b is the beam width (in.), d is the beam depth (in.), and L is the beam length between the points of zero moment (ft).

⁶For non-prismatic members, members subject to impact or cyclic loading, or shear design of bending members at connections (NDS 3.4.3.3), the F_{vx} and F_{vy} values shall be multiplied by a factor of 0.72.

⁷The tabulated E values include true E (also known as "shear-free E"), apparent E, and E for beam stability calculation (NDS 3.3.3.8). For calculating beam deflections, the tabulated E_{app} values shall be used unless the shear deflection is determined in addition to bending deflection based on the tabulated E_{true}. The axial modulus of elasticity, E_{axial} and E_{axial min}, shall be equal to the tabulated E_{y true} and E_{y min} values.

⁸The values of F_{by} are based on members 12 inches in depth. For depths less than 12 inches, F_{by} shall be permitted to be increased by multiplying by the flat-use factor, (12/d)^{1/10}, where d is the beam depth in inches. When d is less than 3 inches, use the flat-use factor for 3 inches.

⁹This layout is limited to 1-1/2 inches in width and 7-1/8 inches through 15 inches in depth.

¹⁰The values of F_{bx} are based on members 1-1/2 inches in width by 12 inches in depth. For members with other depths, F_{bx} shall be multiplied by an adjustment factor of (12/d)^(1/10) in lieu of the typical volume factor used for glulam, as shown in Footnote 5.

¹¹The F_{cL} value is applicable to glulam members made with manufactured lumber. Otherwise, the F_{cLx} value shall be 560 psi.

TABLE 3—ASD REFERENCE DESIGN VALUES FOR NORDIC LAM COLUMNS FOR NORMAL DURATION OF LOAD¹

Combination Symbol	Species ²	Grade	All Loading			Axially Loaded			Bending about Y-Y Axis			Bending about X-X Axis		Fasteners Specific Gravity for Dowel-Type Fastener Design		
			Modulus of Elasticity ³			Compression Perpendicular to Grain	Tension Parallel to Grain	Compression Parallel to Grain		Loaded Parallel to Wide Faces of Laminations			Loaded Perpendicular to Wide Faces of Laminations			
										Bending ⁴			Shear Parallel to Grain ^{5,6}		Bending ⁷	Shear Parallel to Grain ⁵
			$E_{x \text{ true}}, E_{y \text{ true}}$ or E_{axial} (10 ⁶ psi)	$E_{x \text{ app}}$ or $E_{y \text{ app}}$ (10 ⁶ psi)	$E_{x \text{ min}}, E_{y \text{ min}}$ or $E_{axial \text{ min}}$ (10 ⁶ psi)	$F_{c\perp}$ (psi)	F_t (psi)	F_c (psi)	F_c (psi)	F_{by} (psi)	F_{by} (psi)	F_{by} (psi)				
ES 11	ES	C4	1.6	1.5	0.79	450	975	1,550	1,350	1,750	1,600	1,400	175	1,350 ⁸	250	0.41
ES 11/NPG	ES	NPG	1.6	1.5	0.79	450	975	1,550	1,350	1,750	1,600	1,400	175	1,350	250	0.41
ES 12	ES	1.9E6	1.9	1.8	0.95	600 ⁹	1,600	2,300	1,700	2,400	2,400	2,300	175	1,950 ⁸	250	0.46
ES 12/NPG	ES	NPG	1.9	1.8	0.95	600 ⁹	1,600	2,300	1,700	2,400	2,400	2,300	300	2,400	300	0.46
Wet-use factors			0.833			0.53	0.8	0.73		0.8			0.875	0.8	0.875	see NDS

For SI: 1 psi = 6,895 Pa

¹The tabulated allowable design values are for normal duration of loading. For other durations of loading, see the NDS. The tabulated allowable design values are for dry conditions of use. For wet conditions of use, multiply the tabulated values by the factors shown at the bottom of the table. For LRFCD design values, multiply the ASD design values by the factors specified in Table 5.3.1 of the NDS.

²ES = Eastern spruce.

³The tabulated E values include axial modulus of elasticity for column stability calculation ($E_{axial \text{ min}}$, NDS 3.7.1). For calculating column deflections due to lateral loads, the tabulated $E_{x \text{ app}}$ or $E_{y \text{ app}}$ values shall be used unless the shear deflection is determined in addition to bending deflection based on the tabulated $E_{x \text{ true}}$ or $E_{y \text{ true}}$.

⁴The values of F_{by} are based on members 12 inches in depth. For depths less than 12 inches, F_{by} shall be permitted to be increased by multiplying by the size factor, $(12/d)^{1/9}$, where d is the beam depth in inches. When d is less than 3 inches, use the size adjustment factor for 3 inches.

⁵For non-prismatic members, notched members, members subject to impact or cyclic loading, or shear design of bending members at connections (NDS 3.4.3.3), the tabulated F_{vx} and F_{vy} values shall be multiplied by 0.72.

⁶The tabulated F_{vy} values are for members of 4 or more lams. The tabulated F_{vy} values shall be multiplied by a factor of 0.95 for 3 lams and 0.84 for 2 lams.

⁷The values of F_{bx} are based on members 5-1/8 inches in width by 12 inches in depth by 21 feet in length. For members with a larger volume, F_{bx} shall be multiplied by a volume factor, $C_v = (5.125/b)^{1/10} (12/d)^{1/10} (21/L)^{1/10}$, where b is the beam width (in.), d is the beam depth (in.), and L is the beam length between the points of zero moment (ft).

⁸When the member depth is greater than 15 inches, the tabulated F_{bx} values shall be multiplied by a factor of 0.88.

⁹The $F_{c\perp}$ value is applicable to glulam members made with manufactured lumber. Otherwise, the $F_{c\perp}$ value shall be 560 psi for ES 12 and ES 12/NPG.



FIGURE 1—COMPANY LOGO FOR NORDIC STRUCTURES

DISCLAIMER

APA Product Report[®] is a trademark of APA – The Engineered Wood Association, Tacoma, Washington. ICC-ES Evaluation Report is a trademark of ICC Evaluation Service, LLC (ICC-ES). The information contained herein is based on the product evaluation in accordance with the references noted in this report. Neither ICC-ES, nor APA or its members make any warranty, expressed or implied, or assume any legal liability or responsibility for the use, application of, and/or reference to opinions, findings, conclusions, or recommendations included in this report. The joint ICC-ES/APA Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. Consult the local jurisdiction or design professional to assure compliance with code, construction, and performance requirements. Because neither APA, nor ICC-ES, has any control over quality of workmanship or the conditions under which engineered wood products are used, it cannot accept responsibility for product performance or designs as actually constructed.

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 18 00—Glued-Laminated Construction

REPORT HOLDER:**NORDIC STRUCTURES****EVALUATION SUBJECT:****NORDIC LAM****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that Nordic Lam structural glued-laminated timber (glulam), described in ICC-ES evaluation report [ESR-4874](#), has also been evaluated for compliance with the Chicago Construction Codes (Title 14 of the Chicago Municipal Code) as noted below.

Applicable code edition:

2019 *Chicago Building Code* (Title 14B)

2.0 CONCLUSIONS

Nordic Lam, described in Sections 2.0 through 7.0 of the evaluation report [ESR-4874](#), complies with Title 14B, and is subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

Nordic Lam described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-4874](#).
- The design, installation, conditions of use and identification of Nordic Lam are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report [ESR-4874](#).
- The design, installation and inspection of Nordic Lam are in accordance with additional requirements of Chapters 6, 16, 17 and 23 of Title 14B, as applicable.

This supplement expires concurrently with the evaluation report ESR-4874, reissued September 2024.

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 18 00—Glued-Laminated Construction

REPORT HOLDER:

NORDIC STRUCTURES

EVALUATION SUBJECT:

NORDIC LAM

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Nordic Lam structural glued-laminated timber (glulam), described in ICC-ES evaluation report [ESR-4874](#), has also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

- 2020 *City of Los Angeles Building Code (LABC)*
- 2020 *City of Los Angeles Residential Code (LARC)*

2.0 CONCLUSIONS

Nordic Lam, described in Sections 2.0 through 7.0 of the evaluation report [ESR-4874](#), complies with the LABC Chapters 6 and 23, and the LARC, and is subjected to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

Nordic Lam, described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-4874](#).
- The design, installation, conditions of use and identification of Nordic Lam is in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report [ESR-4874](#).
- The design, installation and inspection of Nordic Lam is in accordance with additional requirements of LABC Chapters 16 and 17, as applicable.
- Under the LARC, an engineered design in accordance with LARC Section R301.1.3 must be submitted.

This supplement expires concurrently with the evaluation report [ESR-4874](#), reissued September 2024.

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 18 00—Glued-Laminated Construction

REPORT HOLDER:

NORDIC STRUCTURES

EVALUATION SUBJECT:

NORDIC LAM

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that Nordic Lam structural glued-laminated timber (glulam) described in the ICC-ES evaluation report ESR-4874, has also been evaluated for compliance with the codes noted below.

Applicable code edition(s):

- 2019 *California Building Code* (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 *California Residential Code* (CRC)

2.0 CONCLUSIONS**2.1 CBC:**

Nordic Lam, described in Sections 2.0 through 7.0 of the evaluation report ESR-4874, complies with CBC Chapters 6 and 23, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 6, 16, 17, and 23, as applicable.

2.1.1 OSHPD:

Nordic Lam described in Sections 2.0 through 7.0 of the evaluation report ESR-4874 complies with requirements of the CBC amended Chapters 16, 17 and 23 and Chapters 16A and 17A provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report ESR-4874, and the additional requirements in Sections 2.1.1.1 and 2.1.1.2 of this supplement.

2.1.1.1 Conditions of Use:

1. All loads applied to Nordic Lam shall be determined by the registered design professional and shall comply with applicable loads and load combinations from CBC Chapter 16 and amendments [OSHPD 1R, 2, 3 & 5] and Chapter 16A [OSHPD 1 & 4].
2. Seismic Design Category shall be in accordance with CBC amended Section 1613.1, Exception 6 [OSHPD 1R, 2 & 5].

2.1.1.2 Special Inspection Requirement: Special inspection of wood structural elements is required in accordance with CBC amended Section 1705A.5.3. [OSHPD 1 & 4].

2.1.2 DSA:

Nordic Lam described in Section 2.0 and 7.0 of the evaluation report ESR-4874 comply with the CBC amended Chapters 16, 17 and 23, and Chapters 16A and 17A provided the design and installation are in accordance with the 2018 *International Building Code*™ (IBC) provisions noted in the evaluation report ESR-4874, and the additional requirements in Sections 2.1.2.1 and 2.1.2.2 of this supplement.

2.1.2.1 Conditions of Use:

1. All loads applied to Nordic Lam shall be determined by the registered design professional and shall comply with applicable loads and load combinations from CBC amended sections in Chapter 16 [DSA-SS/CC] and Chapter 16A [DSA-SS].

2.1.2.2 Special Inspection Requirement: Special inspection of wood structural elements is required in accordance with CBC amended Section 1705A.5.3. [DSA-SS & DSA-SS/CC].

2.2 CRC:

Nordic Lam described in Sections 2.0 through 7.0 of the evaluation report ESR-4874, complies with CRC Chapters 5, 6 and 8, provided the design and installation are in accordance with the 2018 *International Residential Code*[®] (IRC) provisions noted in the evaluation report ESR-4874 and the additional requirements of CRC Chapter 3, as applicable.

This supplement expires concurrently with the evaluation report ESR-4874, reissued September 2024.