ICC-ES Evaluation Report

ESR-5194

Reissued March 2026

Subject to renewal March 2027

This report also contains:

- City of Chicago Supplement
- City of LA Supplement
- CA Supplement
- FL Supplement

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DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES **Section: 06 16 23 — Subflooring** **Section: 06 16 26 – Underlayment** **DIVISION 09 00 00 — FINISHES** **Section: 09 28 15 — Magnesium Oxide Backing Panels**	**REPORT HOLDER:** **NEXGEN BUILDING PRODUCTS LLC** 	**EVALUATION SUBJECT:** **MAXTERRA® MgO NON-COMBUSTIBLE SINGLE LAYER STRUCTURAL FLOOR PANELS**	

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018 and 2015 *International Building Code®* (IBC)
- 2021, 2018 and 2015 *International Residential Code®* (IRC)

Properties evaluated:

- Durability
- Structural
- Surface Burning Characteristics
- Non-combustibility

2.0 USES

MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels are 20 mm (0.787-inch) thick magnesium-oxide panels are intended for use in single floor applications, subfloor applications, or as floor underlayment. The panels may also be used as substrate sheets for tile and resilient flooring. The product has been evaluated for use in Types I-V construction under the IBC and all construction types under the IRC.

3.0 DESCRIPTION

3.1 General:

MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels are 20 mm (0.787 inch) thick magnesium oxide panels reinforced with multiple embedded fiberglass mesh sheets; the panels utilize a Magnesium Oxysulfate (MOS) chemistry for their formulation. The panels are available in nominal 4-foot (1.22 m) widths at a nominal length of 4, 8, 10 or 12 feet (1.22 mm, 2.44 m, 3.05 m, or 3.66 m). The panels have tongue and groove features on the edges along the length of the panels.

3.2 Surface Burning Characteristics:

MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels exhibit a Class A interior finish in accordance with Section 803.1.2 of the 2021 and 2018 IBC (Section 803.1.1 of the 2015 IBC).

3.3 Non-combustibility:

MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels are classified as noncombustible building materials in accordance with ASTM E136 and Section 703.3.1 of the 2021 IBC (Section 703.5.1 of the 2018 and 2015 IBC).

4.0 DESIGN AND INSTALLATION

4.1 Design:

4.1.1 Single Floor and Subfloor Applications: MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels may be used in single floor or subfloor applications when installed in accordance with Section 4.2.1 of this report. See Table 1 for allowable uniform loads.

4.1.2 Floor Diaphragm Application (Wood Framed Construction): When installed in accordance with Section 4.2.2.1 and 4.2.2.2 of this report, MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels may be used as part of an unblocked simple beam diaphragm assembly. See Table 3 for diaphragm lateral load capacities.

4.1.3 Diaphragm design must comply with the applicable requirements of IBC Chapter 16. The length to width aspect ratio must be no greater than 3:1.

4.1.4 Diaphragm lateral load capacities are applicable when the lateral load is applied parallel or perpendicular to the framing members as indicated in Table 3.

4.1.5 Diaphragm classification as flexible or rigid must be determined in accordance with Section 12.3.1 of ASCE 7.

4.1.5.1 Simple beam diaphragm deflection must be calculated as follows:

$$\Delta_{dia} = \left(\frac{5vL^3}{8EAW}\right) + \left(\frac{0.25vL}{Ga}\right)$$

Where:

Δ_{dia} = Total diaphragm deflection (in)

v = Unit shear perpendicular to the direction of the applied load (lb/ft)

L = Diaphragm length perpendicular to the direction of the applied load (ft)

W = Diaphragm width parallel to the direction of the applied load (ft)

A = 5.25 in^2 (minimum area of diaphragm chord member)

E = 1,400,000 psi (Modulus of Elasticity of diaphragm chord member)

$Ga_{\parallel}$ = 17,343 lb/in [apparent shear modulus for load parallel to joists (See Figure 1)]

$Ga_{\perp}$ = 9,080 lb/in [apparent shear modulus for load perpendicular to joists (See Figure 2)]

Note: unit conversions have been accounted for in the equation above

4.1.6 Floor Diaphragm Application (Cold-Formed Steel Framed Construction): When installed in accordance with Section 4.2.2.1 and 4.2.2.3 of this report, MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels may be used as part of an unblocked simple beam or cantilever diaphragm assembly. See Table 3 for diaphragm lateral load capacities.

4.1.7 Diaphragm design must comply with the applicable requirements of IBC Chapter 16 and Chapter 22 for cold-formed steel light framed construction. The length to width aspect ratio must be no greater than 3:1 for simple beam diaphragms and no greater than 1:1 for cantilever diaphragm assemblies.

4.1.8 Diaphragm lateral load capacities are applicable when the lateral load is applied parallel to the framing members for simple beam diaphragms (Figure 1) and parallel or perpendicular to the framing members for cantilever diaphragms (Figure 3) as indicated in Table 3.

4.1.9 Diaphragm classification as flexible or rigid must be determined in accordance with Section 12.3.1 of ASCE 7.

4.1.9.1 Simple beam diaphragm deflection must be calculated as follows:

$$\partial_{dia} = \left(\frac{0.624vL^3}{E_s A_c b}\right) + \left(\frac{0.50256vL}{Ga}\right) + 1.04986 \times 10^{-7}(v)^2$$

Where:

∂_{dia}= Total diaphragm deflection (in)

v= Unit shear perpendicular to the direction of the applied load (lb/ft)

L= Diaphragm length perpendicular to the direction of the applied load (ft)

b= Diaphragm depth parallel to the direction of the applied load (ft)

A_c= 0.3398in^2 (minimum gross cross-sectional area of diaphragm chord member)

E_s= 29,500,000 psi (Modulus of Elasticity of diaphragm chord member)

Ga= 76,809 lb/in (apparent shear modulus)

Note: unit conversions have been accounted for in the equation above

4.1.9.2 Cantilever diaphragm deflection must be calculated as follows:

$$\partial_{dia} = \left(\frac{8vL^3}{E_s A_c W}\right) + \left(\frac{vL}{Ga}\right)$$

Where:

∂_{dia}= Total diaphragm deflection (in)

v= Unit shear perpendicular to the direction of the applied load (lb/ft)

L= Diaphragm length perpendicular to the direction of the applied load (ft)

W= Diaphragm width parallel to the direction of the applied load (ft)

A_c= 0.3398in^2 (minimum gross cross-sectional area of diaphragm chord member)

E_s= 29,500,000 psi (Modulus of Elasticity of diaphragm chord member)

Ga= 25,659 lb/in (apparent shear modulus)

Note: unit conversions have been accounted for in the equation above

4.1.10 Floor Underlayment Application: MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels may be used as floor underlayment on top of a structural subfloor system constructed to meet the applicable building code requirements. Installation must be in accordance with Sections 4.2.3 of this report. MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels may be used as floor underlayment may also be used as interior substrate sheets when coverings are installed in accordance with Section 4.2.4 of this report.

4.2 Installation:

4.2.1 Single Floor and Subfloor:

4.2.1.1 General: When used in single floor or subfloor applications, the MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels must be installed on minimum nominal 2-by-4 lumber joists or cold-formed steel (CFS) framing providing a minimum bearing width of 1-1/2 inches (38.1 mm). Floor framing must be supported on a foundation that is uniform and level. Additional framing must be provided under partitions running parallel to the framing members and around all openings that interrupt one or more framing members.

Web stiffeners must be provided at reaction points and / or at locations of concentrated loads as specified in the approved plans, based on the framing manufacturer's requirements and the ICC-ES evaluation report on the framing members, if applicable. End blocking must be provided where ends of joists are not otherwise restrained from rotation.

The MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels must be installed with the smooth side up (printed side facing down). The panels must be fitted together such that the tongue and groove features are fully interlocked with one another. The joists must be spaced no greater than 24-inches (610 mm) on center. Square edges (edges without tongue and groove) must be located over framing members. MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels edges that are not supported by the tongue and groove profile must be supported by blocking or covered with one of the materials described in IBC Table 2304.8(3) footnote c and IRC Table R503.2.1.1(1) footnote j or k, as applicable.

When blocking is required at the abutting edges of the panels, it must be centered under the panel joints. All blocking or bridging for the framing must be installed prior to installation of the MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels.

The sheathing must be cut as needed to the proper length and width in accordance with the installation instructions. All cut-outs located at panel ends and edges that exceed 6 inches in any direction must be supported by framing.

4.2.1.2 Sawn Lumber Joists: Panels must be fastened to the lumber framing using 0.113-inch x 2-inch (2.9 mm x 50.8 mm) galvanized ring shank nails, 0.131-inch x 3-inch (3.3 mm x 76.2 mm) galvanized ring shank nails, or 2-inch (50.8 mm) #8 stainless steel screws. Fasteners must be spaced 6-inches (152.4 mm) on center along the perimeter and 12-inches (304.8 mm) on center in the field of the panel. A ½-inch (12.7 mm) edge distance must be maintained along the panel edges, and no fasteners may be placed within 2 inches (50.8 mm) of a panel corner.

4.2.1.3 Cold-Formed Steel (CFS) Joists: Panels must be fastened to CFS framing with Grabber Construction Products, Inc.'s #8-18 x 1-$^5/_8$" (41 mm) long CGH8158LG fasteners (ESR-4223) fasteners. Fasteners must be spaced 6-inches (152.4 mm) on center along the perimeter and 12-inches (304.8 mm) on center in the field of the panel. A ½-inch (12.7 mm) edge distance must be maintained along the panel edges, and no fasteners may be placed within 2 inches (50.8 mm) of a panel corner.

4.2.2 Floor Diaphragm Construction:

4.2.2.1 General: Diaphragm boundary elements must be provided to transfer the design tension and compression forces. Design of the boundary elements must be performed by a Registered Design Professional and is outside of the scope of this report.

Diaphragm sheathing must not be used to splice boundary elements.

MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels must be oriented with the tongue and groove edge installed perpendicular to the joists with the sheathing joints staggered 4 ft (1.22 m) as shown in Figure 1, Figure 2, and Figure 3.

4.2.2.2 Wood Framed Assemblies: Parallel chord **f**loor framing trusses must be made from nominal 2x4 SPF solid-sawn wood members. The minimum truss depth must be 18 inches and spaced a maximum of 24-inches (610 mm) on center. The chord framing member must be a minimum nominal 2-by-4 lumber with a minimum specific gravity of 0.42. Trusses must be designed by registered design professional and must be fastened to the supporting walls or structure in accordance with the approved plans.

MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels must be attached using 0.131-inch x 3-inch (3.3 mm x 76.2 mm) galvanized ring shank nails with a minimum head diameter of 0.281-inch (7.1 mm) diameter round head and a minimum bending yield strength of 100,000 psi. Fasteners must be installed 6-inches (152.4 mm) on center around the perimeter and 12-inches (304.8 mm) on center in the field. Fasteners must be installed with a minimum ½-inch (12.7 mm) edge distance, and fasteners must not be installed within 2-inches (50.8 mm) of a panel corner.

Sheathing used at the ends of diaphragm assemblies resisting lateral loads perpendicular to framing (Figure 2) must have a minimum width of 24-inches (609.6 mm)

4.2.2.3 Cold-Formed Steel Framed Assemblies: Cold-formed steel trusses must be made from truss components described in ESR-2361. The truss components must be formed from Grade 50 steel with a minimum base thickness of 43 mils [0.043 inch (1.09 mm)], a minimum depth of 3.25 inches (83 mm), and a minimum flange width of 1.625 inches (41 mm). The minimum truss depth must be 12 inches (305 mm). Trusses must be placed at a maximum spacing of 24-inches (610 mm) on center. The floor trusses must be designed by a registered design professional, and the trusses must be fastened to the supporting walls or structure in accordance with the approved plans.

Panels must be fastened to CFS framing with Grabber Construction Products, Inc.'s #8-18 x 1-$^5/_8$" (41 mm) long GCH8158LG fasteners (ESR-4223) fasteners. Fasteners must be spaced 6-inches (152.4 mm) on center along the perimeter and 12-inches (304.8 mm) on center in the field of the panel. A ½-inch (12.7 mm) edge distance must be maintained along the panel edges, and no fasteners may be placed within 2 inches (50.8 mm) of a panel corner.

4.2.3 Underlayment: When used as underlayment, MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels must be installed with the smooth side up (printed side facing down) on top of a structural subfloor system designed to limit the deflection, including live and dead loads, to L/360 of the span, in accordance with the applicable code. The panels must be fitted together such that the tongue and groove features are fully interlocked with one another. Any flatness or surface quality requirements of the structural subflooring must be addressed prior to installing the MAXTERRA™ panels.

4.2.4 Use as Interior Substrate Sheets: When used in underlayment applications, MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels may be decorated with resilient flooring, ceramic tile, natural stone or dimensional stone veneers on floors, walls and ceilings in interior dry areas.

4.2.4.1 Use with Tile, Natural Stone, or Dimensional Stone Veneers: For tile, natural stone and dimensional stone veneers, only those that are compatible with dry-set Portland cement mortars complying with ANSI A118.1, or latex modified thinset mortars complying with ANSI A118.4 may be used. Prior to setting the covering, all panel joints must be filled with the same mortar used to set the covering. While the mortar is still wet, 2-inch-wide (51 mm), high-strength, coated, alkali resistant, glass fiber reinforcing tape must be embedded into the wet mortar, leveled and allowed to thoroughly dry prior to applying the covering.

4.2.4.2 Use with Resilient Flooring: Resilient flooring installed on MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels used in single floor or underlayment applications must be installed in accordance with the flooring manufacturer's published installation instructions.

5.0 CONDITIONS OF USE:

5.1 Use of MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels must be installed in accordance with this report and the manufacturer's published installation instructions. In the event of a conflict between this report and the manufacturer's published installation instructions, this report governs.

5.2 Use of MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels in fire-resistance rated construction is outside of the scope of this report.

5.3 Use of MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels as a component of a roof assembly is outside the scope of this report.

5.4 Calculations and details demonstrating that the applied gravity loads do not exceed the applicable uniform load capacity, and that the applied diaphragm loads do not exceed the available diaphragm strengths specified in this report, must be submitted to the code official for approval. The calculations must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Structural framing must be designed to meet the strength and deflection criteria of the applicable code by a registered design professional. Design of these structural components is outside of the scope of this report.

5.5 Support framing must be designed for maximum allowable assembly deflection of L/360 under live loads for ceilings supported by floor framing.

5.6 Cold-formed steel (CFS) support framing must be corrosion resistant (minimum G60 galvanized or better).

5.7 For single floor and subfloor applications, MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panel edges that are not supported by the tongue and groove profile must be supported by blocking or covered with one of the materials described in IBC Table 2304.8(3) footnote c and IRC Table R503.2.1.1(1) footnote j or k, as applicable.

5.8 Compatibility of resilient flooring adhesives with the panels is outside of the scope of this report.

5.9 MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels are limited to use on interior surfaces as defined in 2021 and 2018 IBC Section 202 (2015 IBC Section 2502). The panels must not be used in wet areas as defined in IBC Section 2509; under the IRC, the panels must not be used in showers.

5.10 MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels are manufactured under a quality-control program with inspections by ICC-ES.

5.11 See ICC-ES ESL-1645 for acoustically rated assemblies in accordance with ASTM E90 and ASTM E492.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC-ES Acceptance Criteria for Fiber-reinforced Magnesium-oxide-based Sheets AC386 (24) 3rd Edition, published April 2025, excluding Appendix A regarding the corrosion effects in contact with common metals requirements.

6.2 Data in accordance with the applicable sections of the ICC-ES Acceptance Criteria for Reinforced Cementitious Sheathing and Floor Underlayment (AC376), dated August 2012 (editorially revised January 2021).

6.3 Data in accordance with the ICC-ES Acceptance Criteria for Fiber-Cement Interior Substrate Sheets Used in Wet and Dry Areas (AC378), dated August 2012 (editorially revised January 2021).

6.4 Data in Accordance with the ICC-ES Acceptance Criteria for Fiber-Reinforced Cement Sheet Structural Floor Sheathing (AC367), dated October 2020.

6.5 Data in accordance with the ICC-ES Acceptance Criteria for Structural Cementitious Floor and Roof Sheathing Panels (AC318), dated March 2018 (editorially revised October 2024).

6.6 Data in accordance with the ICC-ES Acceptance Criteria for Horizontal Diaphragms consisting of Structural Cementitious Sheathing Panels Attached to Cold-formed Steel Framing (AC319), dated March 2018 (editorially revised October 2024).

6.7 Data in accordance with ASTM E136.

7.0 IDENTIFICATION

7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5194) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.

7.2 The report holder's contact information is the following:

NEXGEN BUILDING PRODUCTS LLC
1904 MANTEE AVENUE WEST #300
BRADENTON, FLORIDA 34205
(727) 620-3334
www.nexgenbp.com
support@nexgenbp.com

TABLE 1 – ALLOWABLE UNIFORM TRANSVERSE LOADS[1, 2]

Deflection Limit	**Allowable Uniform Load** (supports spaced 24-inches o.c. max.)
L/360	**133 psf**
L/480	**133 psf**
L/600	**133 psf**
L/720	**111 psf**

For **SI:** 1 inch = 25.4 mm; 1 psf = 47.88 Pa

[1] Load is applicable for long edge of panel placed perpendicular to supports. Minimum of 2 spans.

[2] Load values are based on deflection limits with maximum load controlled by bending and shear capacity. Table does not consider the influence of joists on deflection.

TABLE 2 – FASTENING SCHEDULE

Framing Type	Framing Spacing	Fastener Type[1]	Fastener Spacing (inch)	
			Perimeter	Perimeter
2 x lumber	24-inches O.C. (max)	0.113-inch x 2-inch galvanized ring shank nails	6	12
2 x lumber	24-inches O.C. (max)	0.131-inch x 3-inch galvanized ring shank nails	6	12
2 x lumber	24-inches O.C. (max)	#8 x 2-inch stainless steel screws	6	12
Cold-Formed Steel	24-inches O.C. (max)	GCH8158LG (ESR-4223)	6	12

For **SI:** 1 inch = 25.4 mm

[1]Fasteners must be placed a minimum of $^1/_2$-inch from edges and 2-inches from corners.

TABLE 3 – DIAPHRAGM CAPACITIES

Framing Type	Diaphragm Configuration	Load Direction	Max Support Framing Spacing (inches)	Required Blocking	Max Fastener Spacing (inches)		Shear Strength (lb/ft)		
					Perimeter	Field	Ultimate Shear Strength (S_u)	LRFD Shear Strength (S_{LRFD})	ASD Shear Strength (S_{ASD})
Wood[1]	Simple Beam	Parallel to Framing	24	None	12	6	843	480	301
	Simple Beam	Perpendicular to Framing	24	None	12	6	732	417	261
Cold-Formed Steel[2]	Simple Beam	Parallel to Framing	24	None	12	6	1607	965	574
	Cantilever	Parallel or Perpendicular to Framing	24	None	12	6	613	368	219

For **SI:** 1 inch = 25.4 mm , 1 lb/ft= 14.6 N/m

[1]Refer to Sections 4.2.2.1 and 4.2.2.2 for specific framing and fastener requirements.
[2]Refer to Sections 4.2.2.1 and 4.2.2.3 for specific framing and fastener requirements.

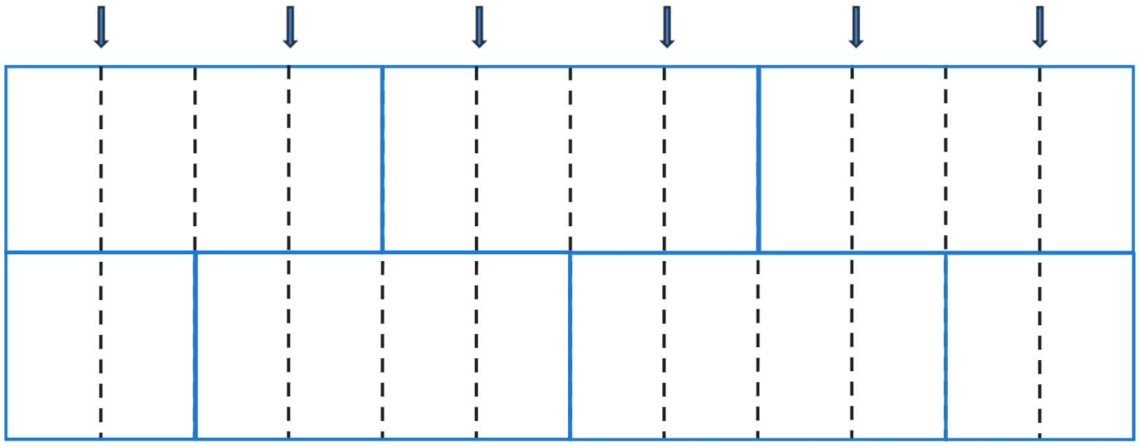

FIGURE 1 – SIMPLE BEAM DIAPHRAGM CONFIGURATION FOR LOAD APPLIED PARRALLEL TO JOISTS

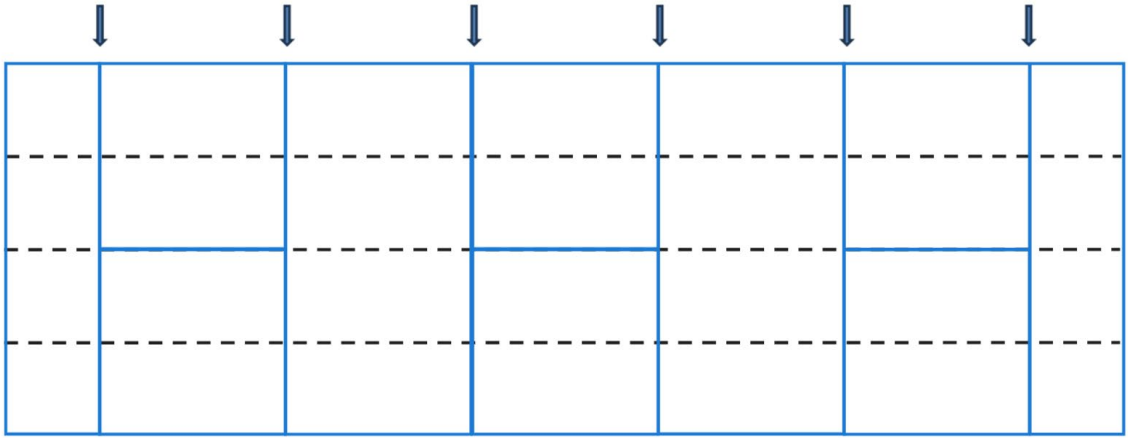

FIGURE 2 – SIMPLE BEAM DIAPHRAGM CONFIGURATION FOR LOAD APPLIED PERPENDICULAR TO JOISTS

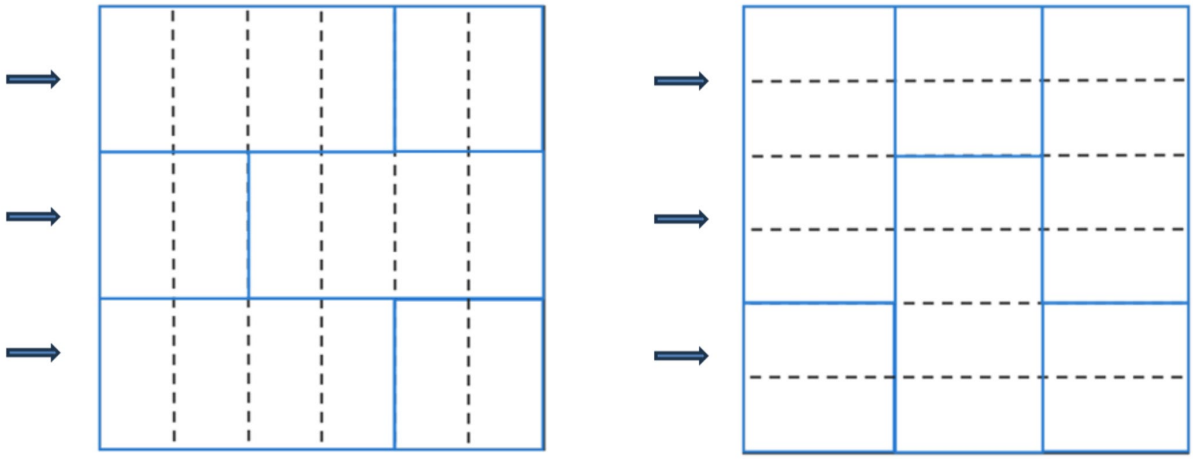

FIGURE 3 – CANTILEVER DIAPHRAGM CONFIGURATION FOR LOAD APPLIED PERPENDICULAR TO JOISTS (LEFT) AND PARRALLEL TO JOISTS (RIGHT)

DIVISION: 06 00 00— WOOD, PLASTICS AND COMPOSITES
Section: 06 16 26—Underlayment
Section: 06 16 23 — Subflooring

DIVISION 09 00 00 — FINISHES
Section: 09 28 15 — Magnesium Oxide Backing Panels

REPORT HOLDER:

NEXGEN BUILDING PRODUCTS LLC

EVALUATION SUBJECT:

MAXTERRA® MgO NON-COMBUSTIBLE SINGLE LAYER STRUCTURAL FLOOR PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that MAXTERRA™ 20 mm (0.787 inch) thick magnesium oxide panels, described in ICC-ES evaluation report ESR-5194, have also been evaluated for compliance with the Chicago Construction Codes (Title 14 of the Chicago Municipal Code) as noted below.

Applicable code editions:

- 2019 *Chicago Building Code* (Title 14B)

2.0 CONCLUSIONS

The MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-5194, comply with Title 14B, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels described in this evaluation report supplement must comply with all of the following conditions:

- The design, installation, conditions of use and identification of the panels are in accordance with the 2018 *International Building Code®* (IBC) provisions noted in the evaluation report ESR-5194.
- The design, installation and inspection are in accordance with additional requirements of Chapters 16 and 17 of Title 14B, as applicable.

This supplement expires concurrently with the evaluation report, reissued March 2026.

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DIVISION: 06 00 00— WOOD, PLASTICS AND COMPOSITES
Section: 06 16 26—Underlayment
Section: 06 16 23 — Subflooring

DIVISION 09 00 00 — FINISHES
Section: 09 28 15 — Magnesium Oxide Backing Panels

REPORT HOLDER:

NEXGEN BUILDING PRODUCTS LLC

EVALUATION SUBJECT:

MAXTERRA® MgO NON-COMBUSTIBLE SINGLE LAYER STRUCTURAL FLOOR PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels, described in ICC-ES evaluation report ESR-5194, have 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:

- 2023 *City of Los Angeles Building Code* (LABC)
- 2023 *City of Los Angeles Residential Code* (LARC)

2.0 CONCLUSIONS

The MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-5194, comply with the LABC Chapters 8 and 23, and the LARC, Chapter 5 and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report ESR-5194.
- The design, installation, conditions of use and identification of the panels are in accordance with the 2021 *International Building Code®* (IBC) or 2021 *International Residential Code®* (IRC) provisions, as applicable, noted in the evaluation report ESR-5194.
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16, 17 and 23, or LARC Chapter 5, as applicable.

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NEXGEN BUILDING PRODUCTS LLC

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MAXTERRA® MgO NON-COMBUSTIBLE SINGLE LAYER STRUCTURAL FLOOR PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels, described in ICC-ES evaluation report ESR-5194, have also been evaluated for compliance with the code*(s)* noted below.

Applicable code edition(s):

- 2022 *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 Healthcare Access and Information (HCAI) and Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2022 *California Residential Code* (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-5194, comply with CBC Chapters 8 and 23, provided the design and installation are in accordance with the 2021 *International Building Code®* (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 16, 17 and 23, as applicable.

2.1.1 OSHPD: The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

2.1.2 DSA: The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

2.2 CRC:

The MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-5194, comply with CRC Chapter 5, provided the design and installation are in accordance with the 2021 *International Residential Code®* (IRC) provisions noted in the evaluation report and the additional requirements of CRC Chapter 5, as applicable.

This supplement expires concurrently with the evaluation report, reissued March 2026.

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DIVISION: 06 00 00— WOOD, PLASTICS AND COMPOSITES
Section: 06 16 26—Underlayment
Section: 06 16 23 — Subflooring

DIVISION 09 00 00 — FINISHES
Section: 09 28 15 — Magnesium Oxide Backing Panels

REPORT HOLDER:

NEXGEN BUILDING PRODUCTS LLC

EVALUATION SUBJECT:

MAXTERRA® MgO NON-COMBUSTIBLE SINGLE LAYER STRUCTURAL FLOOR PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels, described in ICC-ES evaluation report ESR-5194, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2023 *Florida Building Code—Building*
- 2023 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-5194, comply with the *Florida Building Code—Building* or the *Florida Building Code—Residential*. The design requirements must be determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential,* as applicable. The installation requirements noted in ICC-ES evaluation report ESR-5194 for the 2021 *International Building Code®* meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential,* as applicable, with the following condition:

- MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels are classified as noncombustible building materials in accordance with ASTM E136 and Section 703.5.1 of the *Florida Building Code—Building.*

Use of the MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code-Building* or the *Florida Building Code-Residential* has not been evaluated, and is outside the scope of this supplemental report.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).Florida Rule 61G20-3 is applicable to products and/or systems which comprise the building envelope and structural frame for compliance with the structural requirements of the Florida Building Code.

This supplement expires concurrently with the evaluation report, reissued March 2026.

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