



## ICC-ES Listing Report

### ESL-1645

Issued June 2025

This listing is subject to renewal June 2026.

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

#### Product Certification System:

The ICC-ES product-certification system includes evaluating evidence in support of test data provided by the listee to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the listee's quality system.

**Product:** MAXTERRA® MGO NON-COMBUSTIBLE SINGLE LAYER STRUCTURAL FLOOR PANELS  
MAXTERRA® MGO FIRE- AND WATER-RESISTANT BACKER BOARD AND UNDERLAYMENT PANELS

**Listee:** NEXGEN BUILDING PRODUCTS, LLC

**Evaluation:** MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels, 20 mm (0.787 inch, nominal  $\frac{3}{4}$  inch) thick magnesium oxide sheathing panels and MAXTERRA® MgO Fire- and Water-Resistant Backer Board and Underlayment Panels, 12 mm (0.47 inch, nominal  $\frac{1}{2}$  inch) thick and 16 mm (0.63 inch, nominal  $\frac{5}{8}$  inch) thick magnesium oxide sheathing panels, were evaluated as a building-material component of floor/ceiling assemblies described in the Design Listings, and tested in accordance with the following standards:

- ASTM E90-09(2016) and ASTM E90-09, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
- ASTM E492-09(2016)e1 and ASTM E492-09, Standard Test Method for Laboratory Measurements of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine.

**Findings:** Evaluation of MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels and MAXTERRA® MgO Fire- and Water-Resistant Backer Board and Underlayment Panels, when used as underlayment and subfloor components of floor/ceiling assemblies, is based on testing in accordance with the applicable test methods as noted in each ICC Design No., and as referenced in the applicable sections of the following code editions:

- 2024, 2021 and 2018 *International Building Code*®  
Applicable Sections: 1206.2, 1206.3

Approval of the product's use is the sole responsibility of the local code (building) official.

#### Identification:

1. The ICC-ES mark of conformity, electronic labeling, or the listing report number (ICC-ES ESL-1645), and when applicable, the ICC-ES Listing Mark, along with the name, registered trademark, or registered logo of the listee must be included in the product label.
2. In addition, each panel must be identified by a stamp or label on the panel that includes the name of the report holder (NEXGEN Building Products, LLC), identification of the manufacturing facility, production date or lot number, and the ICC-ES evaluation report number ([ESR-5192](#) or [ESR-5194](#), as applicable).

3. The report holder's contact information is the following:

**NEXGEN BUILDING PRODUCTS, LLC**  
**1904 MANATEE AVENUE WEST #300**  
**BRADENTON, FLORIDA 34205**  
**(727) 620-3334**  
<https://www.nexgenbp.com>  
[support@nexgenbp.com](mailto:support@nexgenbp.com)

**Installation:** The MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels and MAXTERRA® MgO Fire- and Water-Resistant Backer Board and Underlayment Panels must be installed in accordance with the NEXGEN Building Products, LLC published installation instructions and applicable codes.

**Conditions of Listing:**

1. The listing addresses only conformance with the standards and code sections noted above.
2. Approval of the product's use is the sole responsibility of the local code official.
3. The listing applies only to the materials tested and as submitted for review by ICC-ES. Evaluation for fire-resistance is outside the scope of this report.
4. Where the acoustical performance of a system has been tested using the minimum panel thickness available, panels of greater thickness (more mass) shall be permitted to be used in lieu of the tested minimum thickness to achieve the same acoustical performance ratings in accordance with GA 600—2018 (22<sup>nd</sup> Ed.) General Explanatory Note 6 (Acoustical Performance of Systems).
5. NEXGEN Building Products, LLC MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels and MAXTERRA® MgO Fire- and Water-Resistant Backer Board and Underlayment Panels are manufactured under a quality control program with inspections by ICC-ES.

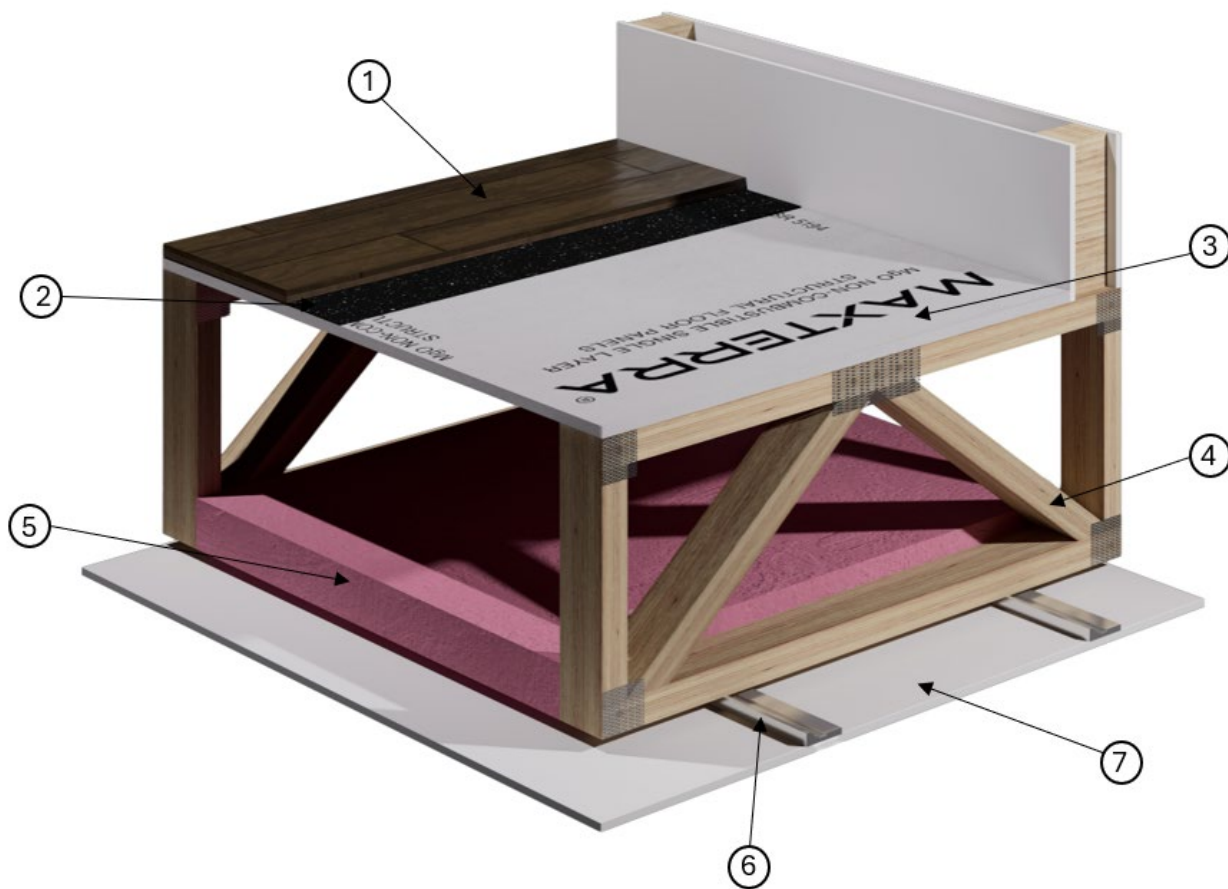
**Applicant:** NEXGEN BUILDING PRODUCTS, LLC

**Product:** MAXTERRA® MGO NON-COMBUSTIBLE SINGLE LAYER STRUCTURAL FLOOR PANELS ([ESR-5194](#))

**Standard:** ASTM E90 / ASTM E492

**Acoustical Performance Ratings:** (See MOS-1645-01 Figure 1, Table 1)

**FIGURE 1 – WOOD TRUSS FLOOR-CEILING ASSEMBLY**



**MOS-1645-01 TABLE 1 – ACOUSTICAL PERFORMANCE RATINGS FOR MAXTERRA® MGO NON-COMBUSTIBLE SINGLE LAYER STRUCTURAL FLOOR PANELS – WOOD TRUSS FLOOR-CEILING ASSEMBLY**

			STC / IIC Rating					
	Item #	Component	57/51	57/50	56/50	57/50	57/52	57/52
Floor Covering	1A	Engineered Wood	X					X
	1B	5.5 mm Click and Lock LVP		X				
	1C	5.5 mm Click and Lock LVP with 1.5 mm attached Pad			X			
	1D	5 mm Glue Down LVT				X		
	1E	Carpet Tile					X	
	2A	10 mm Sound Attenuation Mat						X
	2B	5 mm Sound Attenuation Mat	X	X				
	2C	1.4 mm Sound Attenuation Mat			X			
Subfloor & Framing Assembly	3	¾" MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels	X	X	X	X	X	X
	4	18-inch Deep Open Web Wood Truss (Spaced 24" O.C.)	X	X	X	X	X	X
Insulation	5	R-13 Fiberglass	X	X	X	X	X	X
Resilient Channel	6	12" O.C.	X	X	X	X	X	X
Ceiling Panel	7	5/8-inch Type C Gypsum Panel	X	X	X	X	X	X

**For SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pcf = 16.01 kg/m<sup>3</sup>.

Footnotes: See Components of Construction – Wood Truss Floor-Ceiling Assembly for component details.

**COMPONENTS OF CONSTRUCTION - WOOD TRUSS FLOOR-CEILING ASSEMBLY:**

1. **Floor Covering –**
  - a. 0.33 inch (8.4 mm) Engineered Wood Flooring loose laid.
  - b. 5.5 mm thick (0.217-inch) Luxury Vinyl Plank (LVP) – Click and Lock LVP loose laid.
  - c. 5.5 mm thick (0.217-inch) Luxury Vinyl Plank (LVP) – Click and Lock LVP with 1.5 mm (0.6 inch) attached Pad loose laid.
  - d. 5 mm thick (0.20-inch) Luxury Vinyl Tile (LVT) – Adhered. The LVT floor covering must be adhered to the sound attenuation mat or subfloor panel underneath using approved adhesives. Adhesives must be allowed to cure per manufacturer's specifications.
  - e. Minimum 8.2 mm thick (0.32-inch) Carpet Tile. The Carpet Tile must be adhered to the sound attenuation mat or subfloor panel sound underneath using approved adhesives. Adhesives must be allowed to cure per manufacturer's specifications.
2. **Sound Attenuation Mat –** See Table 1 for when the sound attenuation mat is required.
  - a. 10 mm thick (0.39-inch) Sound Attenuation Mat..
  - b. 5 mm thick (0.20-inch) Sound Attenuation Mat.
  - c. 1.4 mm thick (0.06-inch) Sound Attenuation Mat.
3. **Subfloor Panel –** MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels, minimum 20 mm (0.787 inch, nominal  $\frac{3}{4}$  inch) thick. The subfloor panel must be fastened with #8 cement board sheathing screws minimum  $1\frac{5}{8}$ -inch (41.3 mm) long, spaced maximum 6-inches (152 mm) on center along the perimeter of each panel, and spaced 12-inches (305 mm) on center in the field of the panel into the trusses..
4. **Floor Framing –** 18-inch (457 mm) deep open web wood truss spaced at a maximum of 24-in. (610 mm) on center.
5. **Insulation –** Minimum  $3\frac{1}{2}$ -inch (89 mm) thick, Class A, R-13 fiberglass insulation blanket installed in the cavity between framing members and draped over the resilient channels at the bottom of the cavity.
6. **Furring Type (Resilient Channel) –**  $\frac{1}{2}$ -inch (12.7 mm) Resilient Channel (ClarkDietrich RC Deluxe™). Channel must be installed perpendicular to framing members and spaced a maximum of 12-inches (305 mm) on center.
7. **Gypsum Panel –** One layer of  $\frac{5}{8}$ -inch (15.9 mm) thick National Gypsum Gold Bond Fire-Shield Type C gypsum board must be secured to the channels using 1-inch (25.4 mm) long Type S bugle head screws, spaced a maximum of 12-inches (305 mm) on center. The joints of the gypsum board must be sealed and covered with an approved pressure sensitive tape.

**Applicant:** NEXGEN BUILDING PRODUCTS, LLC

**Product:** MAXTERRA® MGO NON-COMBUSTIBLE SINGLE LAYER STRUCTURAL FLOOR PANELS ([ESR-5194](#))

**Standard:** ASTM E90 / ASTM E492

**Acoustical Performance Ratings:** (See MOS-1645-02 Figure 1, Table 1)

**FIGURE 1 – COLD FORMED STEEL TRUSS FLOOR-CEILING ASSEMBLY**



**MOS-1645-02 TABLE 1 – ACOUSTICAL PERFORMANCE RATINGS FOR FOR MAXTERRA® MGO NON-COMBUSTIBLE SINGLE LAYER STRUCTURAL FLOOR PANELS – COLD FORMED STEEL TRUSS FLOOR-CEILING ASSEMBLY**

			STC / IIC Rating					
	Item #	Component	57/53	55/51	56/51	55/53	57/52	57/56
Floor Covering	1A	Engineered Wood	X				X	X
	1B	5.5 mm Click and Lock LVP with 1.5 mm attached Pad		X				
	1C	5 mm Glue Down LVT			X			
	1D	Carpet Tile				X		
	2A	10 mm Sound Attenuation Mat						X
	2B	5 mm Sound Attenuation Mat	X					
	2C	2 mm Sound Attenuation Mat					X	
	2D	1.4 mm Sound Attenuation Mat		X				
Subfloor & Framing Assembly	3	¾" MAXTERRA® MgO Non- Combustible Single Layer Structural Floor Panels	X	X	X	X	X	X
	4	12-inch Deep Open Web Cold-Formed Steel Truss [3-5/8" x 1-5/8" members (Spaced 24" O.C)]	X	X	X	X	X	X
Insulation	5	R-13 Fiberglass	X	X	X	X	X	X
Resilient Channel	6	12" O.C.	X	X	X	X	X	X
Ceiling Panel	7	5/8-inch Type C Gypsum Panel	X	X	X	X	X	X

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pcf = 16.01 kg/m<sup>3</sup>.

Footnotes: See Components of Construction – Cold Formed Steel Truss Floor-Ceiling Assembly for component details.

**COMPONENTS OF CONSTRUCTION - COLD FORMED STEEL TRUSS FLOOR-CEILING ASSEMBLY:**

1. **Floor Covering –**
  - a. 0.33 inch (8.4 mm) Engineered Wood Flooring loose laid.
  - b. 5.5 mm thick (0.217-inch) Luxury Vinyl Plank (LVP) – Click and Lock LVP with 1.5 mm (0.6 inch) attached Pad loose laid.
  - c. 5 mm thick (0.20-inch) Luxury Vinyl Tile (LVT) – Adhered. The LVT floor covering must be adhered to the subfloor panel underneath using approved adhesives. Adhesives must be allowed to cure per manufacturer's specifications.
  - d. Minimum 8.2 mm thick (0.32-inch) Carpet Tile. The Carpet Tile must be adhered to the subfloor panel sound underneath using approved adhesives. Adhesives must be allowed to cure per manufacturer's specifications.
2. **Sound Attenuation Mat –** See Table 1 for when the sound attenuation mat is required.
  - a. 10 mm thick (0.39-inch) Sound Attenuation Mat.
  - b. 5 mm thick (0.20-inch) Sound Attenuation Mat.
  - c. 2 mm thick (0.08-inch) Sound Attenuation Mat.
  - d. 1.4 mm thick (0.06-inch) Sound Attenuation Mat.
3. **Subfloor Panel –** MAXTERRA® MgO Non-Combustible Single Layer Structural Floor Panels, minimum 20 mm (0.787 inch, nominal ¾ inch) thick. The subfloor panel must be fastened with #8 cement board sheathing screws minimum 1<sup>5</sup>/<sub>8</sub>-inch (41.3 mm) long, spaced maximum 6-inches (152 mm) on center along the perimeter of each panel, and spaced 12-inches (305 mm) on center in the field of the panel into the trusses.
4. **Floor Framing –** 12-inch (305 mm) deep open web cold formed steel truss spaced at a maximum of 24-in. (610 mm) on center.
5. **Insulation –** Minimum 3<sup>1</sup>/<sub>2</sub>-inch (89 mm) thick, Class A, R-13 fiberglass insulation blanket installed in the cavity between framing members and draped over the resilient channels at the bottom of the cavity.
6. **Furring Type (Resilient Channel) –** 1/2-inch (12.7 mm) Resilient Channel (ClarkDietrich RC Deluxe™). Channel must be installed perpendicular to framing members and spaced a maximum of 12-inches (305 mm) on center.
7. **Gypsum Panel –** One layer of 5/8-inch (15.9 mm) thick National Gypsum Gold Bond Fire-Shield Type C gypsum board must be secured to the channels using 1-inch (25.4 mm) long Type S bugle head screws, spaced a maximum of 12-inches (305 mm) on center. The joints of the gypsum board must be sealed and covered with an approved pressure sensitive tape.

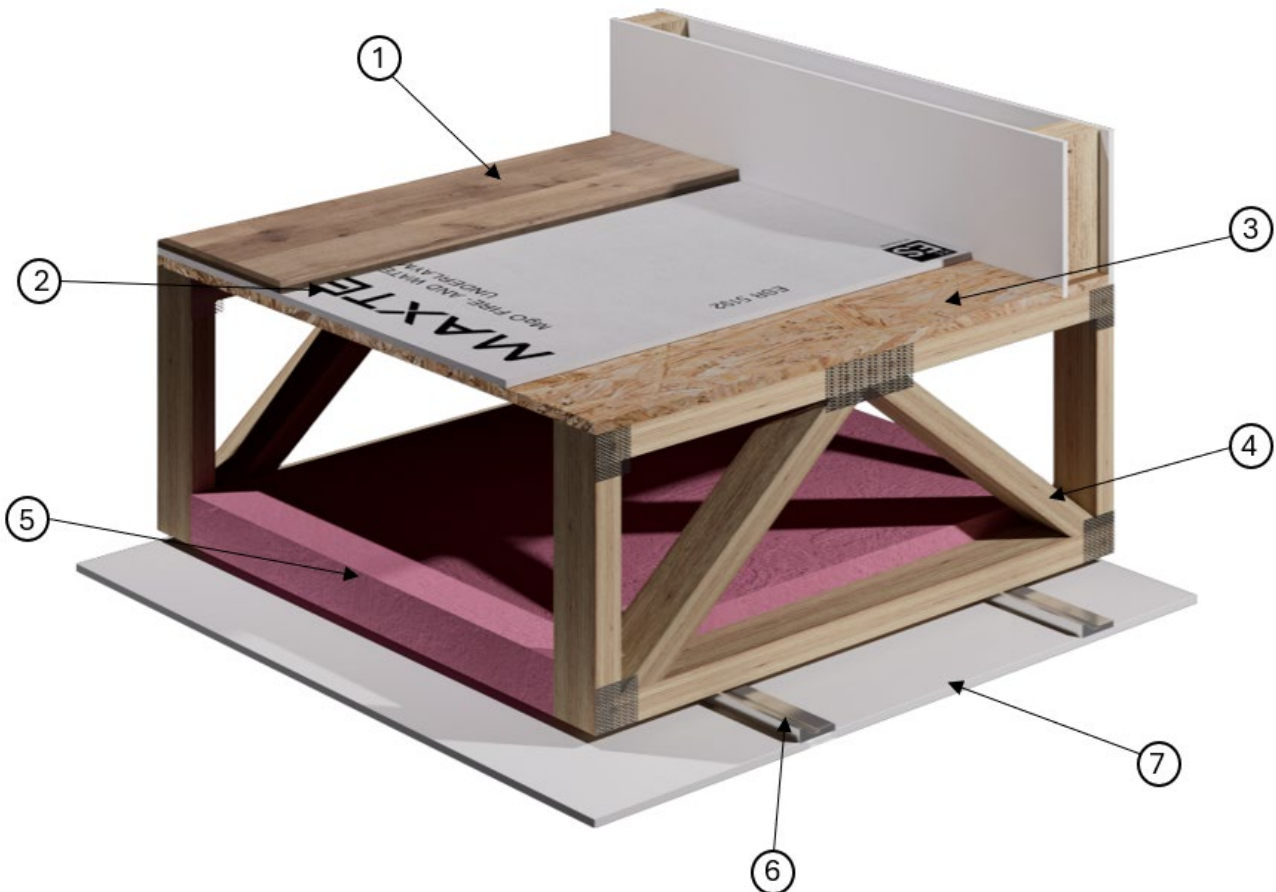
**Applicant:** NEXGEN BUILDING PRODUCTS, LLC

**Product:** MAXTERRA® MGO FIRE- AND WATER-RESISTANT BACKER BOARD AND UNDERLAYMENT PANELS  
([ESR-5192](#))

**Standard:** ASTM E90 / ASTM E492

**Acoustical  
Performance  
Ratings:** (See MOS-1645-03 Figure 1, Table 1)

FIGURE 1 – WOOD TRUSS FLOOR-CEILING ASSEMBLY



Listings 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 listing or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this listing, or as to any product covered by the listing.

**MOS-1645-03 TABLE 1 – ACOUSTICAL PERFORMANCE RATINGS FOR FOR MAXTERRA® MGO FIRE- AND WATER-RESISTANT UNDERLAYMENT PANELS – WOOD TRUSS FLOOR-CEILING ASSEMBLY**

			STC / IIC Rating						
	Item #	Component	58/51	58/53	59/56	59/55	59/57	58/56	57/58
Floor Covering	1A	None	X						
	1B	2 mm Glue Down LVT		X					
	1C	5.5 mm Click and Lock LVP			X				
	1D	5.5 mm Click and Lock LVP with 1.5 mm attached Pad				X			
	1E	Engineered Wood					X		
	1F	5 mm Glue Down LVT						X	
	1G	Carpet Tile							X
Subfloor & Framing Assembly	2	½" (min.) MAXTERRA® Fire- and Water-Resistant Underlayment	X	X	X	X	X	X	X
	3	23/32-inch Wood Structural Panel	X	X	X	X	X	X	X
	4	18-inch Deep Open Web Wood Truss (Spaced 24" O.C.)	X	X	X	X	X	X	X
Insulation	5	R-13 Fiberglass	X	X	X	X	X	X	X
Resilient Channel	6	16" O.C.	X	X	X	X	X	X	X
Ceiling Panel	7	5/8-inch Type C Gypsum Panel	X	X	X	X	X	X	X

**For SI:** 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pcf = 16.01 kg/m<sup>3</sup>.

Footnotes: See Components of Construction – Wood Floor-Ceiling Assembly for component detail

**COMPONENTS OF CONSTRUCTION - WOOD TRUSS FLOOR-CEILING ASSEMBLY:**

1. **Floor Covering –**
  - a. None
  - b. 2 mm thick (0.08-inch) Luxury Vinyl Tile (LVT) – Adhered. The LVT floor covering must be adhered to the underlayment panel underneath using approved adhesives. Adhesives must be allowed to cure per manufacturer's specifications.
  - c. 5.5 mm thick (0.217-inch) Luxury Vinyl Plank (LVP) – Click and Lock LVP loose laid.
  - d. 5.5 mm thick (0.217-inch) Luxury Vinyl Plank (LVP) – Click and Lock LVP with 1.5 mm (0.6 inch) attached Pad loose laid.
  - e. 0.33 inch (8.4 mm) Engineered Wood Flooring loose laid.
  - f. 5 mm thick (0.20-inch) Luxury Vinyl Tile (LVT) – Adhered. The LVT floor covering must be adhered to the underlayment panel underneath using approved adhesives. Adhesives must be allowed to cure per manufacturer's specifications.
  - g. Minimum 8.2 mm thick (0.32-inch) Carpet Tile. The Carpet Tile must be adhered to the underlayment panel underneath using approved adhesives. Adhesives must be allowed to cure per manufacturer's specifications.
2. **Underlayment Panel –** Minimum ½-inch (12 mm) thick MAXTERRA® Fire- and Water-Resistant Backer Board and Underlayment Panel. The underlayment panel must be fastened with #8 cement board sheathing screws minimum 1<sup>5</sup>/<sub>8</sub>-inch (41.3 mm) long, spaced maximum 6-inches (152 mm) on center along the perimeter of each panel, and spaced 12-inches (305 mm) on center in the field of the panel into the subfloor.
3. **Subfloor Panel –** 23/32-inch (18.3 mm) Wood Structural Panel. Panel must be adhered to the floor trusses and fastened with 2<sup>3</sup>/<sub>8</sub>-inch (60.3 mm) long 9D nails, spaced 8-inches (203 mm) on center along panel edges, and spaced 12-inches (305 mm) on center in the field of the panel.
3. **Floor Framing –** 18-inch (457 mm) deep open web wood truss spaced at a maximum of 24-in. (610 mm) on center.
4. **Insulation –** Minimum 3<sup>1</sup>/<sub>2</sub>-inch (89 mm) thick, Class A, R-13 fiberglass insulation blanket installed in the cavity between framing members and draped over the resilient channels at the bottom of the cavity.
5. **Furring Type (Resilient Channel) –** 1/2-inch (12.7 mm) Resilient Channel (ClarkDietrich RC Deluxe™). Channel must be installed perpendicular to framing members and spaced a maximum of 16-inches (305 mm) on center.
6. **Gypsum Panel –** One layer of 5/8-inch (15.9 mm) thick National Gypsum Gold Bond Fire-Shield Type C gypsum board must be secured to the channels using 1-inch (25.4 mm) long Type S bugle head screws, spaced a maximum of 12-inches (305 mm) on center. The joints of the gypsum board must be sealed and covered with an approved pressure sensitive tape.